Asset specificity, institutional complementarities and the variety of skill regimes in coordinated market economies


Dr. Marius R. Busemeyer
Max Planck Institute for the Study of Societies
Paulstr. 3
D-50676 Köln
busemeyer@mpifg.de
www.mpifg.de/people/bus

Abstract:
The concept of asset specificity has become very prominent in the literature on skill formation, welfare states and labour markets. Building on the varieties of capitalism (VoC) school, this paper points out three distinct shortcomings of this literature: first, the VoC approach does not fully account for the variation of skill regimes in coordinated market economies; second, the VoC approach underestimates the importance of authoritative certification in determining the real portability of vocational skills; and third, the complementarities between skill formation and social policies are different from what is expected in the VoC contributions. We argue that the variation of skill regimes in CMEs covers not one, but two separate dimensions: firms’ involvement in skill formation and the vocational specificity of the education system. On the basis of three case studies, we demonstrate the existence of three distinct skill regimes in CMEs: the segmentalist (firm-based) skill regime of Japan, the integrationist (school-based occupational) skill regime of Sweden, and the differentiated (workplace-based occupational) skill regime of Germany.

SER keywords: skills, political economy, varieties of capitalism, training, labor market institutions, welfare state

JEL classification: I20; J24; J50

Word Count: 12,400
Asset specificity, institutional complementarities and the variety of skill regimes in coordinated market economies

1. Introduction

Education policy in general and vocational training in particular have long been treated rather stepmotherly by scholars of political science and comparative political economy. This has all changed radically since the Varieties of Capitalism (VoC) school (Hall/Soskice 2001; Estevez-Abe/Iversen/Soskice 2001; Iversen/Soskice 2001; Iversen 2005) put skill formation right at the centre of the analysis of welfare states, production regimes and national innovation strategies. The contributions of the VoC school to the study of skill formation should be seen as first step into the exploration of the political foundations of skill regimes. However, as this paper argues, a more refined understanding of the variety of skill regimes, particularly in coordinated market economies (CMEs), should be developed.

More specifically, I argue that instead of the dichotomous distinction between general and specific skill systems, the variation of skill regimes covers two dimensions: the degree of firm involvement in skill formation on the one hand and the degree of authoritative certification of vocational skills through the education system on the other. By this means, we can identify three distinct models of skill regimes in CMEs: the segmentalist skill regime, the integrationist skill regime and the differentiated skill regime. Following a brief summary of the relevant VoC literature and the theoretical section, the particular logic and the associated institutional complementarities between education and training, industrial relations as well as labour market and welfare state institutions are explored in case studies of Japan, Sweden and Germany. The concluding section provides a summary of the argument as well as some proposals for future research.

2. The concept of asset specificity in the VoC literature

The concept of asset specificity and ‘specific skills’ features prominently in the ‘varieties of capitalism’ (VoC) literature. Starting with the seminal contribution of Hall and Soskice, actors in coordinated market economies (CMEs) are expected to be more willing to invest in “specific and co-specific assets (i.e. assets that cannot readily be turned to another purpose and assets whose returns depend heavily on the active cooperation of others), while those in liberal market economies should invest more extensively in switchable assets (i.e. assets whose value can be realized if diverted to other purposes)” (Hall/Soskice 2001: 17). The framework developed by Hall and Soskice discussed the relevance of different types of assets,
but the notion of ‘skill specificity’ and the related importance of vocational training became
the focal point of subsequent discussions because of the connection between firms’
production strategies and the availability of different types of skills. The availability of
different forms of non-market based coordination allowed firms in CMEs to pursue a
particular production strategy that has been called diversified quality production (Streeck
1992), based on incremental innovation, long-term relationships between companies and
finance actors as well as investments in specific skills.

The dichotomous distinction between coordinated and liberal market economies (LMEs)
implies an equally simple distinction between general and specific skill systems (i.e. Germany
and the U.S. in the Hall / Soskice article). However, various contributions to the VoC school
have tried to move beyond this dichotomy. For example, Estevez-Abe, Iversen and Soskice
(2001) distinguish between three different types of skills: First, firm-specific skills that are
least portable and usually provided through on the job training; second, industry- or
occupation-specific skills that are acquired through apprenticeship training and vocational
schools and recognized (especially when authoritatively certified) by any employer in a given
trade; and finally, general skills with a high degree of portability that carry a value that is
independent of the type of firm or industry (ibid.: 148).

Here, the underlying dimension of variation is the ‘portability’ of skills. This is mirrored in
other definitions of skill specificity to be found in the VoC literature: “Specific skills are
valuable only to a single firm or a group of firms (whether an industry or a sector), whereas
general skills are portable across all firms.” (Iversen/Soskice 2001: 876) In Cusack, Iversen
and Rehm (2006), specific skills are defined as “employable only in a particular firm,
industry, or occupation” (Cusack/Iversen/Rehm 2006: 367), bringing the distinction between
different types of specific skills back in, but blurring it at the same time. On the country level,
they distinguish between countries with an “extensive” vocational training system producing
more specific skills and countries without such a system (ibid.: 369). Finally, Cusack, Iversen
and Soskice talk about the importance of “co-specific assets”, based on cooperative
management between business and labour and joint investments in skill formation

Hall and Soskice explicitly refrain from explaining the origins of different varieties of
capitalism and take existing institutional frameworks of national political economies as a
given to be able to demonstrate that “strategy follows structure” (Hall/Soskice 2001: 15), i.e.
firms adapt their production strategies in light of available forms of coordination.

Nevertheless, one of the most innovative and provocative theses developed in the VoC school
is the notion that employers as political actors support institutions like collective wage-bargaining and welfare state policies, because they are tied to their particular production strategies (and firms, being rational actors, realize this). For example, generous social policies protect workers during economic downturns from having to accept jobs “that do not correspond to their skill qualification” (Mares 2001: 186), so that investments in co-specific assets are protected. As a consequence, firms’ skill demands (based on their production strategy) predict their willingness to support welfare state policies (ibid.: 186).

Estevez-Abe, Iversen and Soskice expand this argument (Estevez-Abe/Iversen/Soskice 2001). They identify complementarities between particular types of skills and specific kinds of social policies: High levels of employment protection (i.e. protection against easy dismissal) encourage the formation of firm-specific skills, whereas high levels of unemployment protection are associated with investments in industry-specific skills (ibid.: 154), because skilled workers can move between firms, but within a given industry based on their broader set of occupational skills.

Estevez-Abe et al. develop their argument on the country level, but most of the subsequent literature on the relationship between social policies and skill specificity is focused on the micro level. Starting with the seminal contribution of Iversen and Soskice (2001), the central research question has been defined as how the character of human capital investments affects social policy preferences of individuals (Iversen/Soskice 2001: 875; Cusack/Iversen/Rehm 2006). Investments in specific skills carry higher labour market risks because of the reduced portability of these skills, hence workers with specific skills should have a higher demand for social policies, compensating for the greater risks. The Iversen / Soskice measure of individual skill specificity is based on the breadth of occupational groups as defined by the ISCO classification, the individual’s reported level of education as well as occupational unemployment rates to capture directly the degree of labour market risk (Cusack/Iversen/Rehm 2006: 371).

3. A constructive critique

The VoC school has gained enormous prominence during the last years. As a corollary, a significant amount of critique has been levelled at it. Numerous empirical studies have applied and tested the Iversen / Soskice argument and found mixed results (see Lee 2007 for the U.S., Tåhlin 2008 for Sweden, and Emmenegger 2008 as well as Anderson/Pontusson 2007 for OECD countries). Kitschelt (2006) claims that the statistical effect of skill specificity on social policy preferences disappears once the status of blue collar workers is controlled for
by means of a dummy variable. Kenworthy (2006), challenging the findings of Hall and Gingerich (Hall/Gingerich 2004), finds no strong relationship between institutional coherence and macro-economic performance on the country level. On the theoretical front, scholars have criticized the insensitivity of the VoC approach with regard to variation within countries (Herrmann 2008) or between economic sectors (Allen 2004), its overemphasis on ‘self-reinforcing equilibria’ and the related insensitivity towards processes of institutional change (Becker 2007; Streeck/Thelen 2005) as well as its functionalist implications about preference formation, motivation and behaviour of economic actors (Streeck 2004).

My following critique comes from a different direction. More specifically, I aim to help clear the conceptual mist surrounding the theoretical underpinnings of the VoC conceptualization of asset specificity that lingers on despite its foundations in well-established theories such as Becker’s human capital theory (Becker 1993) and Williamsonian transaction cost economics (Williamson 1975; Williamson 1993; Williamson 1981; Williamson 1990). This will be done in the form of three theses.

1. **The VoC approach does not fully account for the variety of training regimes in coordinated market economies**

   Iversen and Soskice (2001) operationalize the degree of asset specificity in labour force skills by means of an indicator of “vocational training intensity” (which is the share of young people in (post-)secondary vocational training as percentage of all those in the (post-) secondary school age cohort) (ibid.: 888-889, here replicated in figure 1), see also Cusack et al. (2006). The reasoning behind this measure is not as clearly developed as it is in the case of the micro-level measure of skill specificity. But apparently, the idea is that vocational training somehow entails the formation and certification of more specific skill sets than education in general or academic educational institutions.
Hence, one would expect the most specific skill systems to achieve the highest values on this indicator and the most general skill systems to lie on the other end of the extreme. In line with this expectation, the LMEs (Australia, the US, Canada, Ireland) are to be found on the lower end of the “vocational training intensity” scale. Besides the fact that, among LMEs, Australia is the only country with a viable apprenticeship system (Gospel 1994) and scores lowest on the indicator, CMEs are spread all over the scale. A neat, dichotomous classification into general (LMEs) and specific (CMEs) skill countries is obviously inadequate, and the variety of training regimes seems to be larger in the case of CMEs than in the case of LMEs. In more recent research, for example, Iversen and Stephens (2008) identify three worlds of human capital formation that are closely linked to Esping-Andersen worlds of welfare capitalism (Esping-Andersen 1990). Anderson and Hassel (2007) distinguish three different types of training regimes in CMEs: the firm-specific variant (i.e. Japan), school-based occupational training regimes such as the Netherlands and Sweden and workplace-based occupational training regimes such as Germany (more on this below).

A closer inspection of the position of CMEs on the vocational training intensity scale opens up new questions. Following Williamson (1975: 63) and Becker (1993[1964]), skill specificity is highest when provided on the job in a firm setting. Hence, Japan is probably the
closest empirical case to a firm-specific skill system (more on this below, but see also: Estevez-Abe et al. 2001: 154). Furthermore, vocational training with a strong component of workplace-based training, e.g. in the form of apprenticeships, entails more ‘skill specificity’ than school-based vocational training. This expectations, however, do not fit with the positions of countries on the vocational training intensity measure. Japan scores well below the other CMEs. And countries with an extensive apprenticeship system (Germany, Austria, Switzerland) score lower than countries such as Belgium, the Netherlands and Sweden, where vocational training is largely school-based.

These inconsistencies between expectations and empirical facts go beyond the question, whether the Iversen / Soskice measure of vocational training intensity is the adequate way to operationalize skill specificity. They point to underlying inconsistencies in the theoretical underpinnings, one of which is the ambiguity about the role of certification.

2. The VoC approach underestimates the importance of mechanisms for the authoritative certification of skills

As outlined above, the VoC literature defines skill specificity indirectly by looking at the portability of skills. Lower portability implies higher specificity of skills. Hence, Iversen and Soskice (2001) use a linear, one-dimensional measure of skill specificity, both on the individual as well as on the country level (see also Cusack/Iversen/Rehm 2006; Iversen 2005). Estevez-Abe et al. (2001) distinguish between firm-specific and industry-/occupation-specific skills. They also mention that the latter are often authoritatively certified. Nevertheless, the ‘portability’ of skills seems to be the most important dimension of variation, i.e. industry-specific skills occupy a middle position on the dimension of skill specificity between firm-specific and general skills.¹ The reason for the indirect measurement of skill specificity by looking at portability is that a direct assessment of firm-specific skills in line with Becker’s definition is hard to implement empirically, because it is based on hypothetical comparisons of the productivity of workers in different firms (Becker 1993[1964]: 40).

In the following, I will argue that the issues of portability of skills and their actual content must be looked at separately.² Otherwise, we run the risk of misinterpreting the nature of firm involvement in processes of skill formation and, as a consequence, of drawing inadequate conclusions about the inner workings of and complementarities in skill regimes. For instance,

¹ One telling example in this context is the way Estevez-Abe et al. (2001) first provide the reader with detailed information on the variety of training regimes in CMEs (ibid.: 170-171), but then proceed to measure skill specificity in terms of job tenure rates on a single dimension (ibid.: 173).

² A similar argument about the necessary distinction between the portability and content of skills has already been made by Sako 1991.
Japanese firms provide their workers with a broad set of occupational skills that would, in the sense of Becker (1993[1964]), lead to productivity increases in other firms as well. But the real portability of these skill is low, because in contrast to the German system, the Japanese skill regime lacks effective mechanisms for the authoritative certification of skills and labour mobility is low.

An important consequence of the stricter separation between portability and content of skills is that the variety of skill regimes in CMEs cannot be grouped along one dimension of skill specificity anymore, but must be conceptualized in a two-dimensional space, namely the level of firm involvement in the formation and provision of transferable, occupational or polyvalent skills on the one hand and the existence of mechanisms for authoritative certification of vocational skills on the other. This argument will be developed in two steps.

The first step is to look at the two distinctly different ‘sources of specificity’ (Blossfeld 1992) at the level of skill systems. Above, we already talked about the importance of firm involvement in and the “workplace-relatedness” (ibid.: 172) of training. Skill systems differ significantly with regard to the intensity with which firms are involved in skill formation, either in initial or in continuous vocational training (Aventur/Campo/Möbus 1999). The higher the engagement of firms in skill formation, the higher the level of asset specificity. This is because a more intense involvement of firms allows for the provision for truly firm-specific skills in the Beckerian sense, i.e. skills that are only applicable in the training firm.

In the real world, however, it is hard to imagine concrete examples for skills which would be completely useless for non-training firms. Hence, most skills relevant to firms and workers are at least partly transferable (Stevens 1994; Stevens 1996; Stevens 1999). In the Williamsonian world of transaction cost economics, firms and workers invest in ‘co-specific assets’ and end up in a situation of “bilateral dependency” (Williamson 1993: 128). However, this bilateral dependency can only arise when the skills provided by the firm can, in theory, be used in other contexts as well, or in other words: if the skills are less narrow and specific, but broad and “polyvalent” in nature (Streeck 1996: 141). Bilateral dependency arises for the firm, because the worker could abscond and try to sell her skills to another employer. The worker, on the other hand, depends on the firms’ willingness to value her investments in specific skills through higher wages. The crucial difference between the two is that ‘more specific skills’ means two very different things: in the Beckerian world, it means ‘narrower and fewer skills’; in the Williamsonian world, it means ‘more bilateral dependency’ as a

---

3 The VoC literature is not entirely clear on whether they follow a Beckerian or a Williamsonian conception of asset specificity, although I tend to think that it is more the latter than the former.
consequence of the provision of more transferable skill in addition and beyond very narrow, firm-specific qualifications.

While firm involvement in the formation is transferable skills is the first source of specificity, the nature of the education system as such is the second one. In some countries, vocational qualifications are standardized across the whole economy, entail detailed regulations on the content of training and lead to widely recognized occupations (Blossfeld 1992: 174). In other cases, educational degrees mostly serve as general certificates of learning aptitude without providing detailed information on actual vocational or practical skills. Hence, the first kind of system exhibits a higher degree of ‘vocational specificity’ than the latter kind. The Iversen / Soskice measure of vocational training intensity partly captures the vocational specificity of the education system, but only insofar as one could argue that the share of students in vocational training and thus the attractiveness of vocational training vis-à-vis other forms of (post-)secondary education are related to the institutional vocational specificity of the system.

The second step in the overarching argument is that the authoritative certification of vocational skills impacts on the real portability of these skills across firms. The completion of a formalized apprenticeship scheme leading to a recognized occupation allows for a greater mobility of graduate apprentices across firms than informal, non-certified on-the-job-training (Streeck 1996; Thelen/Kume 1999: 34-35). The higher the vocational specificity of the education system, i.e. the stronger the mechanisms of standardized, authoritative skill certification, the higher the real portability of vocational skills. Obviously, this is at odds with the conception that higher levels of specificity must be associated with lower levels of portability of skills. Compared to a general skills system, an education system with a higher degree of vocational specificity actually goes along with a higher portability of vocational skills across firms, because in the former, workers can only rely on their work experience as an imperfect indication of their obtained skills.

So far, I have argued that skill regimes differ with regard to firm involvement in training and the vocational specificity of the education system. A crucial question is whether the two dimensions are related or whether they are independent from each other. I claim that the decision of firms to get involved in skill formation is at best loosely related to the vocational specificity of the education system. Instead, it is strongly shaped by labour market institutions and industrial relations. A number of economists (Acemoglu/Pischke 1998; Acemoglu/Pischke 1999; Euwals/Winkelmann 2001) have shown how labour market ‘imperfections’ impact on firms’ commitment to training. When labour mobility is low, firms are more willing to invest in skill formation, because they face a lesser risk of workers
absconding. When the majority of other firms engages in training, so that only the less talented are available on external labour markets, firms have an incentive to set up training schemes as well. When strong collective bargaining systems oblige firms to pay the less skilled worker the same wage as the skilled worker, firms are pressed to raise the productivity of the low-skilled by means of skill formation (Streeck 1989; Streeck 1992; Streeck 1994).

Labour mobility is clearly an important factor influencing firms’ willingness to invest in training. But labour mobility is by itself shaped by labour market institutions and labour relations on the one hand and the availability of skill certificates on the other. For example, labour mobility can be fuelled by workers’ eagerness to move between firms, and educational certificates increase the portability of their skills. In contrast, high levels of labour mobility can also be the result of firms poaching employees from each other. Poaching is one of the fundamental coordination problems associated with training (Lynch 1994). One effective remedy against it is coordination among employers, so that they refrain from hiring away each other’s skilled workers in an act of collective self-restraint. The availability of non-market based forms of coordination among employers is the crucial difference between countries like the U.S. and Japan. In a general skills system like the U.S., labour mobility is high, because of workers’ unwillingness to be bound to one employer and firms’ incapacity to coordinate effectively. Nevertheless, firms do and need to engage in firm-specific training, if only because the skills provided in the general education system do not suffice. However, this firm-specific training is going to be as narrow and specific as possible. In the Japanese context in contrast, the training provided by and taking place in firms is not narrow, but broad in nature, although, of course, it entails a firm-specific component (Streeck 1996). In both countries, the vocational specificity of the education system is low, i.e. the real portability of vocational skills is very limited. But, as can be seen from these short examples, it would premature to conclude that firms in the U.S. and Japan are involved in skill formation to the same extent and equally willing to invest in the human capital of their employees.

Summing up, the core argument of this section is that skill systems cannot be grouped along one single dimension of skill specificity. Instead, there are (at least) two dimensions necessary to map the variety of training regimes in coordinated market economies. One relates to the way vocational skills are authoritatively certified within and through educational institutions, the other captures the degree of involvement of firms in skill formation and the workplace-relatedness of vocational training.
3. The VoC approach leaves empirical ambiguities about the relationship between skill formation and welfare state policies unresolved

As was mentioned above, the VoC argument about the relationship between skill formation and social policies has been developed both on the micro level of individual preferences as well as on the country level. The thought-provoking claim that emerges out of this literature is that employers (in CMEs) support the establishment and maintenance of the welfare state out of rational economic interest (Iversen 2005; Mares 2001; Mares 2003; Swenson 2002). The subsequent discussions in the literature concentrate on re-asserting the explanatory power of partisan and power resources theory (Korpi 2006; Kitschelt 2006; Stephens 2006) or whether unemployment insurance should be treated separately from other social policies because of its closer connection to skill formation (Iversen 2006; Korpi 2006; Swenson 2002). Again, this article would like to add to the debate from a slightly different perspective. Building on the previous discussion, the question to be addressed is how social policies impact on the mobility of workers and the portability of their skills.

Coming back to figure 1, Iversen and Soskice (2001: 888) demonstrate a strong positive correlation between their measure of vocational training intensity and government transfers as percentage of GDP. Thus, it seems, countries with a strong welfare state are also countries with a specific skill system. However, Japan is clearly a (firm-) specific skill system (Estevez-Abe et al. 2001: 154), but it is also a country with one of the lowest levels of government transfer spending in the OECD world. Obviously, this is at odds with the original theoretical expectations.

From the two-dimensional perspective on skill regimes, the meagreness of the Japanese welfare state is not an inexplicable oddity, but a corollary to the firm-based skill regime (Streeck 2001). As was argued above, the nature of firms’ involvement in skill formation in firm-based skill regimes such as Japan is ‘Williamsonian’, not ‘Beckerian’, i.e. firms engage in the formation of broad occupational skills and try to reduce labour market mobility at the same time. One instrument to bind workers to the firm is to offer employees participation in a “collective governance structure” (Williamson 1981: 567), e.g. through enterprise unions and collective bargaining at the firm level. Another effective instrument is the use of private social policies, such as company-operated pension and health benefit schemes, housing subsidies or support for childrearing. These private, company-based social policies can only be an effective instrument against unwanted labour mobility, if there is no generous public welfare state that crowds out such private policies. When benefit levels in public systems are meagre,
workers have a strong incentive to stay with their employer, who, in turn, is more willing to invest in the skills of her workforce.

This argument does not square well with Iversen’s (2005, 2006) interpretation of the role of welfare state policies: for Iversen, a generous welfare state enhances the worker’s willingness to invest in more specific skills, because social policies mitigate the labour market risks associated with investments in specific skills. But when labour market risks are reduced, it is also easier, i.e. less risky for workers to change jobs, because the expected loss in income will be lower. However, higher levels of labour mobility lower the firms’ willingness to invest in training. Hence, the relationship between welfare state policies and the formation of specific skills is not as clear-cut as previously assumed: residualist welfare state policies can actually enhance the formation of specific skills, whereas generous social policies can deter firms from engaging in skill formation if they increase labour mobility.

Turning to the other CME cases, it is striking to see that countries with an extended school-based vocational education and training system (i.e. Belgium and the Netherlands, but also Sweden, Italy and Norway) score highest in terms of vocational training activity and government transfers (see right hand upper corner in figure 1). But, as was said above, it is reasonable to argue that training systems with a stronger involvement of firms in training (dual system countries) should be regarded as ‘more specific’ than countries with a school-based VET system. However, countries like Germany, Austria and Switzerland with strong apprenticeship systems belong to the group of conservative welfare states with significantly lower levels of decommodification and welfare state generosity (Esping-Andersen 1990) than Scandinavian countries. In the latter, the public involvement in VET and the education system in general is much stronger and firm involvement much more limited than in continental European CMEs (Busemeyer 2007; Iversen/Stephens 2008). Hence, it is not the case that the most generous welfare states are associated with the most specific skill systems.

Nevertheless, there are important complementarities between the vocational training system and the welfare state in conservative welfare states such as Germany, because educational certificates play an important role in determining access to unemployment benefits (Estevez-Abe/Iversen/Soskice 2001: 152). However, in contrast to what is implied in Estevez-Abe et al. (2001: 152), the recognition of vocational certificates in public unemployment insurance schemes does not protect investments in specific occupational skills. In pre-Hartz Germany, workers had the right to refuse jobs below their skill level, but they were increasingly required to accept jobs on the same skill level, but in a different occupation. Studies on Germany have repeatedly shown that about 45 percent of workers with a vocational qualification work in a
different occupation than the one they were trained in (Fitzenberger/Spitz 2004; Lauder 2001: 170-171). Hence, the superficial complementarity between unemployment insurance and vocational training need not be a result of underlying functional complementarities, but could be a consequence of the importance of the occupational principle during formative periods of the welfare state.

4. Case studies: The variety of skill regimes in CMEs
Summing up the previous section, I have argued that the question of the real portability of vocational skills should be separated from the actual content of processes of skill formation. The portability of skills depends primarily on the availability of mechanisms for authoritative certification, i.e. the ‘vocational specificity’ of the education system, as well as labour market institutions. In addition, skill systems do not only differ with regard to mechanisms for the certification of vocational skills, but also in regard to how deeply firms are involved in processes of skill formation. Deep involvement of firms entails the provision of transferable, polyvalent skills, which are applicable beyond the immediate firm context.

Table 1: Skill regimes in industrialized democracies.

<table>
<thead>
<tr>
<th></th>
<th>Firm involvement in skill formation processes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Superficial</td>
</tr>
<tr>
<td>Vocational Specificity of Education System</td>
<td>Low General Skills System (USA)</td>
</tr>
<tr>
<td></td>
<td>High School-based Occupational Skill System (Sweden)</td>
</tr>
</tbody>
</table>

These two dimensions of variation lead to four distinct skill regimes (see table 1), instead of the dichotomous distinction between general and specific skill systems known from the VoC literature. This classification of countries, in particular the differentiation of skill systems within the group of CMEs, is in line with various proposals to be found in the comparative education and, increasingly, in the comparative political economy literature (Aventur/Campo/Möbus 1999; Anderson/Hassel 2007; Blossfeld 1992; Crouch/Finegold/Sako 1999; Green 2001; Greinert 1995; Iversen/Stephens 2008; Werner/Flüter-Hoffmann/Zedler 2003). They form the basis of the following country case studies, in which the inner workings and complementarities of these systems will be explored in greater detail to show that these are indeed distinct models of skill formation, and not
merely superficial variations. Due to space constraints, the focus will be on skill regimes in CMEs with occasional references to the U.S. as a shadow case for LMEs.

The use of the concept of a skill *regime* instead of merely talking about a skill or training system is supposed to capture the existence of institutional complementarities. Hence, skill regimes are conceptualized as an interconnected set of institutions in vocational education and training, industrial relations as well as labour market and welfare state policies that shapes the incentives of workers and firms to invest in different kinds of skill formation and thus, impacts on the overall skill profile of a given economy. There is a complex relationship between the way these institutions influence firms’ skill decisions and production strategies and the way the interests of economic actors, based on these production strategies, feed back into the political system to adapt the existing institutional framework. I refrain from simple statement of unidimensional causality and instead emphasize the causal interplay of markets and politics and the co-evolutionary processes, by which skill regimes develop and change. Nonetheless, I would like to stress the point that political actors such as government parties shape the institutional frameworks of industrial relations, education systems and labour markets, so that other actors such as employers and unions have to adapt their preferences accordingly in the short term. In the words of Streeck: “Ex post accommodation of the outcomes of open and unrelated decisions on sectoral institution building seems to have been at least as important for system building as a priori calculations of the advantages of compatibility and complementarity under conditions of interdependence – calculation of which would be excessively demanding on the farsightedness and discipline of sectoral actors.” (Streeck 2001: 31)

The distinction between collectivism/solidarism on the one hand and segmentalism on the other is well-established in the literature (Streeck 2001; Swenson 2002; Thelen 2001; Thelen 2004). The present studies builds on these approaches and tries to improve our understanding of the varieties of collectivist skill regimes by pointing out the differences between an integrationist skill regime such as Sweden and a differentiated skill regime such as Germany. The main difference is that in Sweden, vocational training is fully integrated into the general education system and the welfare state, whereas in Germany, a clear differentiation between academic and vocational education is maintained. At the same time, skill regimes in CMEs are inherently different from the general skills systems of LMEs, because vocational education and training is more prominent in general. In this superficial way, the dichotomous distinction of the VoC literature is adequate.
The following case studies do not present entirely new empirical material, although the case of Swedish VET as well as the general question about the political foundations of skill regimes have not been studied at greater detail yet. The case studies are supposed to achieve two goals: first, to show that there are three distinct models of skill regimes in CMEs: the segmentalist (firm-based) skill regime (Japan), the integrationist (school-based occupational) skill regime (Sweden), and the differentiated (workplace-based occupational) skill regime (Germany). Second, to hint at the importance of the political foundations of this skill regimes, although a full treatment of this issue clearly lies beyond the scope of this paper.

4.1 Japan: The segmentalist skill regime

As is well-known, the provision of firm-specific skills plays an important role in the Japanese skill system (Estevez-Abe/Iversen/Soskice 2001). However, the actual content of skills provided in firm-based training is quite broad (Aoki 1994; Dore/Bounine-Cabalé/Tapiola 1989; Dore/Sako 1998; Koike 1983; Koike 1994; Lauder 2001; Streeck 1996), contributing to the perceived competitiveness of Japanese manufacturing in the 1980s (Haake 2002). Young people generally enter the firm directly after graduating from high school or university. At first, they pass through a series of formalized on-the-job training measures that are supposed to introduce them to the firm and do not last longer than a few months. The real investment in the skill formation of their employees starts after a period of years (Leclercq 1989: 190), so that firms can be reasonably sure that employees will stay with the firm after the completion of training. Furthermore, training investments take different forms and are only partly formalized. The firms themselves are very flexible in designing the content and organization of training (ibid.: 193). Job rotation schemes are important instruments for human resource development, as are so-called quality circles and off-the-job training courses in in-house training centres and vocational schools. Firms pay for skill formation indirectly, by linking it to advancement in internal labour markets (Koike 1983). Workers’ pay increases are linked to their willingness to acquire new skills and their demonstrated ability to teach young recruits (Koike 1994).

The general education system is quite similar to the U.S. system, also because the US occupational powers implemented respective educational reforms in the 1950s (Gospel/Okayama 1991). Compulsory comprehensive education lasts until the age of 15, and because of the intense competition in access to prestigious high schools and universities, nearly all pupils proceed to upper secondary education. On this level, there is a separation between general and vocational high schools, the latter being attended by roughly a quarter of
an age cohort (Dore/Sako 1998; Leclercq 1989: 188). In the curricula of vocational high schools, general skills such as Japanese, mathematics and science as well as discipline and morale are emphasized (Dore/Sako 1998: 46; Leclercq 1989: 186-187). Because of this, firms do not differentiate much between graduates of general or vocational high schools in their hiring practices.

In sum, the Japanese skill system is characterized by a deep involvement of firms in the process of skill formation, but a low level of vocational specificity of the education system (see table 1). These education and training institutions are complemented by a peculiar set of industrial relations, labour market and welfare state institutions, which make Japan a special case compared to other advanced industrial democracies.

Japanese industrial relations are characterized by strong enterprise unions, but weak industrial and national unions. The weakening of industrial unions to the benefit of enterprise unions was based on deliberate political decisions in the post-WWII era. The conservative government feared the rise of radical leftist unions and supported management in the establishment of enterprise unions (“second unions”), which were thought to be more pliable (Yong Jeong/Aguilera 2008). This also facilitated the pursuance of segmentalist, firm-based training strategies. In other countries such as Germany, “worker-initiated job mobility” was a major source of employee power in the hands of strong industrial unions (Streeck 1996: 150; Thelen/Kume 1999). In Japan, in contrast, workers agreed to let themselves be bound to a firm in exchange for lifetime employment and company benefits. Japanese enterprise unionism deliberately blurred the boundaries between workers and white collar employees, but reinforced the distinction between regular employers in the core workforce and irregular employers, who were not unionized (Aoki 1994: 29; Araki 2005: 274).

More importantly, strong coordination between employers prevented poaching for skilled workers and thus contributed significantly to the long-term sustainability of the segmentalist skill strategy (Thelen/Kume 2006: 28). For example, firms hire new recruits directly after graduation from school or university and explicitly refrain from attracting the more talented with higher wages (Dore/Bounine-Cabalé/Tapiola 1989: 67-68). Mid-career external labour markets for skilled workers are weakly developed (Aoki 1994: 16). The situation is very different in the U.S., despite the similarities in the institutional set-up of the education system. Here, too, large firms pursue segmentalist skill strategies and try to build up strong internal

---

4 Despite the general lack of authoritative skill certificates at the level of initial vocational education and training, the Ministry of Labour runs a nationwide system of certification for vocational skills for older workers. The central government administers exams for very specific skills sets that are, however, not seen as an instrument to enhance labour market mobility, but as a matter of personal satisfaction and pride (Dore / Sako 1998: 134). Moreover, they do not have any consequences in terms of wage rates.
labour markets. But because of a lack of coordination among employers and, as a corollary, higher levels of labour mobility, poaching cannot be prevented as effectively as in Japan. Therefore, the willingness of firms to engage in skill formation is less pronounced and firms have to rely more on workers’ general skills and external labour markets. Because of the missing socio-political and cultural ecosystem, these U.S. firms remain isolated “islands of excellence” (Streeck 1989: 94) at best.

Labour market institutions such as employment protection shape skill strategies of Japanese firms as well. The case-based Japanese labour law has developed a stringent set of restrictions on “dismissals without just cause” (Araki 2005: 267-268). Employers are allowed to resort to dismissals only as very last resort. They face stiff penalties (i.e. they have continue to pay wages for the dismissed workers) in case they do not comply (ibid.: 269). In line with Estevez-Abe et al. (2001) as well as Streeck (1992), it could be argued that high levels of employment protection further encourage firms to invest in the skills of their workforce.

Besides employment protection, other types of social policies complement the skill formation strategies of Japanese firms, but in a different way as expected in the VoC literature. In line with the argument developed in Iversen and Soskice (2001), workers are compensated for their investments in specific skills by means of generous social policies, but these policies are not publicly provided. Instead, firms themselves “spend considerable sums to create, if not cradle-to-grave socialism, at least its hiring-to-retirement equivalent” (Shinkawa/Pempel 1996: 281). Of course, large firms at the top of the hierarchy are much better able to provide generous occupational pensions, health benefits, housing allowances and family support than smaller firms. This leads to strong segmentalism and dualism in the labour market and welfare state, although without the usual negative side-effects of high income inequality, because inequalities within households are more pronounced than inequalities between them (ibid.: 313). Nevertheless, the predominance of company-based welfare policies has prevented the emergence of a generous public welfare state, also because enterprise unions were quite satisfied with this arrangement and not willing to increase spending on the still residualist public programs, because it did not benefit their membership directly (ibid.: 318).

At this point, a comment on recent changes in the Japanese political economy is in order. The model of the segmentalist skill strategy based on lifetime employment and enterprise unionism was at its peak in the 1980s and early 1990s. Since then, the Japanese economy has undergone significant changes, the most important ones being a liberalization of financial markets as well as an associated change in corporate governance, the deregulation of labour law and the flexibilization of wage coordination policies with potentially strong repercussions.
for strategies of human resource development (Abe/Hoshi 2007; Araki 2005; Jackson 2007; Thelen/Kume 2003; Sako 2007). The gist of these studies is that despite the recent changes, practices of lifetime employment and associated personnel development strategies are still wide-spread, particularly in comparison to other countries.

Summing up and building on the work of Kathleen Thelen (Thelen 2004; Thelen/Busemeyer 2008), Peter Swenson (Swenson 2002) and Wolfgang Streeck (Streeck 2001), Japan can be conceptualized as a segmentalist skill regime. It combines a firm-based training regime with dualist industrial relations, a minimalist welfare state, but strong company-based social policies.

4.2 Sweden: The integrationist skill regime

In many ways, the Swedish case is the opposite of the Japanese one. Whereas Japanese politics was dominated by the conservative LDP, the social democrats ruled for extended periods of time in Sweden. As a corollary, organized labour on the national and industry level is exceptionally strong in Sweden; it is weak in Japan. And in contrast to Japan, where training is almost completely firm-based, vocational education and training largely takes place in schools in Sweden.

The establishment of the comprehensive secondary school was a long-term project that started in the 1950s, but continued until at least the last reform of upper secondary education in 1992. The first reforms of the 1950s and 1960s transformed the formerly elitist and differentiated Swedish school system into more egalitarian one (Oftedal Telhaug/Asbjørn Mediås/Aasen 2006). The 1971 reform of upper secondary education integrated vocational education and training into the comprehensive school system. Both unions and employers supported this reform: unions, because they wanted to abolish class divisions in the education system, and employers, because they were concerned about the attractiveness of vocational training vis-à-vis academic education (Lundahl 1997: 95). Nevertheless, the political driving force behind the reform was the social democratic government, whereas the conservative party wanted to maintain a clear separation between vocational and academic education (Antikainen 2006; Lundahl 1990).

The Swedish education system between 1971 and 1992 exhibited a high level of ‘vocational specificity’. Young people could choose between more than 90 study programmes, divided into 2-year vocational programmes and 2-4-year academic programmes (Opper 1989: 140). Only the longer academic programs were “vestiges of the traditional university entrance
studies formerly provided by the gymnasium” (ibid.: 140). For almost half of each age cohort, vocational qualifications were the major gateway to the labour market.

The 1991 reform of upper secondary education, again supported by both employers and unions (Lundahl 1997: 97), further promoted the blurring of the distinction between academic and vocational education. The number of national study programmes at the upper secondary level was consolidated to 16 (now: 17), only two of which do not contain vocational subjects. All of these programmes provide access to higher education and contain a common core of general subjects. In reaction to previous critique, the reform tried to expand the share of workplace-based training within vocational programmes to at least 15 percent (CEDEFOP 1999; Lundahl 1997). In addition, a new and reformed apprenticeship programme was set up in 1992, but school-based vocational education remained dominant throughout the 1990s. Hence, while the vocational specificity in terms of the number of vocational programs and qualifications offered decreased, the specificity in terms of workplace-relatedness increased.

Despite its strong emphasis on school-based vocational education, the social partners have been strongly involved in vocational training politics. The large export-oriented firms have been the driving force behind the development of vocational education, and they have been lobbying for a stronger cooperation between schools and industry (Lundahl 1997: 100). But in contrast to the cases of Japan and Germany, where the segmentalist ‘urges’ of large firms contributed to the emergence of segmentalist and differentiated skill regimes, Swedish employers became convinced that a combination of general vocational training provided in vocational schools and later firm-based training on the job served their needs best (ibid.: 100). Moreover, the integrationist approach to VET found the support of trade unions, who valued the permeability of the education system towards higher education (ibid.: 100). In addition, the Swedish VET system grants the local level a large leeway in implementing national policies, thus promoting decentralized cooperation between firms and schools (Nilsson 1998).

As a corollary, active labour market policies (ALMP) for the purpose of the redeployment of workers from unproductive to productive sectors have been central components of Swedish welfare state policies (Esping-Andersen 1990: 168). Lifelong learning and continuous vocational training are emphasized and preferred to passive income maintenance schemes. Young persons are a specific focus group of ALMP after youth unemployment increased disproportionately during the crises of the 1990s (Drøpping/Hvinden/Vik 1999). In sum, Swedish generous welfare state policies do not primarily serve the purpose of creating or maintaining less portable, specific skills. To the contrary, they aim at improving workers’ mobility within and across industries.
The history of Swedish VET demonstrates the path dependency of skill systems and the importance of power resources during critical junctures. Immediately after WWII, the number of apprentices (10,000) was equal to the number of students in state-subsidised vocational schools (Lundahl 1997: 93). Twenty years later, the number of apprentices had declined to 2,000, while the number of students in vocational schools had risen to 75,000 (ibid.: 93). The efforts of the social democratic governments in the post-war era to create a “Nordic model of education” based on the idea of a comprehensive school (Antikainen 2006; Arnesen/Lundahl 2006; Hickox/Lyon 1998; Oftedal Telhaug/Asbjørn Mediås/Aasen 2006; Oftedal Telhaug/Asbjørn Mediså/Aasen 2004) shifted the focal point in VET from firms to schools. Firms adjusted their personnel and recruitment strategies accordingly. As a consequence, subsequent attempts to revive firm-based forms of VET such as apprenticeship training and the expansion of workplace-based training within school-based programs have remained partial and unsatisfactory (Crouch/Finegold/Sako 1999: 121-123; Arnesen/Lundahl 2006: 98).

During the reform debate of the early 1990s, the Swedish employers’ association SAF became less enthusiastic about the revival of apprenticeship than the ideologically motivated conservative party, because “few companies are able to provide a training broad enough to correspond to modern occupational demands or teach vocational theory” (Lundahl/Sander 1998: 46).

In sum, Sweden is a prime example for an integrationist skill regime. The school-based occupational training regime is integrated into the comprehensive upper secondary school with the aim of abolishing the distinction between academic and vocational training. Despite the emphasis on school-based VET, Sweden is not a general skills system, because school-based VET programs are supposed to instil occupational and vocational skills into young people to a greater extent than vocational high schools in Japan. Furthermore, the integrationist approach also entails policy-makers reaching out to employers by trying to increase the workplace-based shares in VET, by promoting cooperation in flexible, local arrangements, by involving the social partners in curriculum reform on the national level and by strengthening links between education and the welfare state, primarily through active labour market policies.

4.3 Germany: The differentiated skill regime

The German system of vocational education and training has long been regarded as a successful role model for other countries to follow (Crouch/Finegold/Sako 1999; Culpepper 1999; Finegold/Soskice 1988; Green 2001; Soskice 1994). In particular, the dual
The apprenticeship system is thought to provide a propitious combination of theoretical training in vocational schools and practical training in a firm setting. The social partners are deeply involved in the corporatist process of devising and reforming curricula for nationally recognized training profiles in more than 300 occupations (Busemeyer 2009; Streeck, et al. 1987). Hence, the vocational specificity of the system is high.

At the same time, firms are strongly involved in the process of skill formation. In line with the characterization of Estevez-Abe et al. (2001) of Germany as a mixed system, proving both firm-specific and industry-specific skills, studies have shown that firms participate in apprenticeship training for different reasons: Large firms rely on apprenticeship training to recruit later members of the core workforce and are willing to incur significant net costs (Beicht/Walden 2004; Neubäumer 1999). Smaller firms are most cost-sensitive and value the occupational skills of graduate apprentices moving on external, occupational labour markets (Sengenberger 1987). The interests of different firms are coordinated under the leadership of local Chambers of Commerce – semi-public bodies with obligatory membership for all companies within a local district that are also responsible for monitoring the implementation of national training decrees.

Most importantly, the German system of education and training is based on the principle of differentiation and separation between academic and vocational training. Together with Austria and Switzerland, the German education system is unique in its early sorting of pupils into different streams in secondary education. In the other cases studied here (Sweden and Japan), streaming was abolished in the 1950s and 1960s, either as a consequence of political pressure of occupying US forces or of a conscious political decision. Although various efforts have been made in the last years, the real permeability between vocational and academic education on the upper secondary and post-secondary level remains low (Werner/Flüter-Hoffmann/Zedler 2003: 368).

Again, the German case demonstrates the importance of political forces during critical junctures. In the 1970s, when Sweden implemented its ambitious reform of upper secondary education, similar proposals were put forward by the social democratic government in Germany (Baethge 1983). The proposals comprised the integration of vocational education into comprehensive secondary schools, the strengthening of school-based VET to the detriment of firm-based training and the introduction of a training levy to encourage participation of non-training firms and to finance out-of-firm training centres. The ambitious reform eventually failed because of a number of reasons: employers and their associations were adamantly opposed to the reform (in contrast to Sweden) and associated with the
Christian democratic party, who exercised pressure on the government via the second parliamentary chamber (Bundesrat). The federal government finally backed down because of internal conflicts between the social democrats and the liberal party, but also because it feared a full-scale retreat of firms from apprenticeship training (Baethge 1983; Busemeyer 2009: chapter 3.1).

The decision against the integration of firm-based training into upper secondary education set the German skill regime on a path different from Sweden. In the 1970s, the unions had been strongly in favour of the integrationist model. Over time, however, they became increasingly supportive of firm-based training, because they started to value the advantages of the firm-based apprenticeship model, such as smooth transitions from training to employment and the early socialization of young workers into the firm (Streeck 1994). Nowadays, (most) unions and employers are strong supporters of the dual training system and resist attempts of policy-makers to strengthen school-based VET, as the example of the latest (2005) reform of the Vocational Education and Training Law shows (Busemeyer 2009: Chapter 3.4).

The differentiated training system is complemented by a dual system of industrial relations. The power of organized labour on the national and industry level is stronger than in the case of Japan, but union density is lower than in Sweden. On the firm level, the participation of labour in larger firms is guaranteed through mandatory works councils that were initially set up by conservative policy-makers in the 1950s (Müller-Jentsch 1995) to weaken the power of industrial unions – a striking similarity to the Japanese case. In the history of German training and labour market policies, there has been a tension between segmentalist solutions and collectivist approaches (Thelen 2004; Thelen/Kume 1999). However, industrial unionism prevailed and segmentalist urges were staved off because of the “continued existence of an external market for skilled labor based on portable certificates, which gave workers the possibility to opt against a skill formation regime that threatened to deprive them of their independence as it took away their freedom to quit” (Streeck 2001: 23).

In the heyday of the German model in the 1970s and 1980s, there was a strong complementarity between collective wage bargaining and vocational training. Vocational certificates were directly connected to the tariff classification of groups of workers. Hence, workers had a strong incentive to engage in vocational training instead of working as an unskilled employee. At the same time, the system of occupational qualifications did not distinguish between different levels of training, going back to the historically and culturally important “occupational principle” (Berufskonzept, see Baethge/Baethge-Kinsky 1998). As a consequence, employers could not use occupational qualifications as a means to implement
wage differences between employees. This in conjunction with strong collective wage bargaining was a strong incentive for employers to invest in the skill formation of their less talented workers, because they had to pay them the same wage rates as the more productive ones (Streeck 1989).

The skill investment strategies of firms were also shaped by labour market and welfare state policies. Germany combines strong employment protection with relatively generous unemployment protection (Estevez-Abe/Iversen/Soskice 2001: 154) and has been regarded as a prototypical conservative welfare state (Esping-Andersen 1990). High levels of employment protection have supported segmentalist personnel strategies in large firms. These firms are willing to pay higher wages than stipulated in collective agreements and to incur high net costs in training to build up the future core workforce. The formerly quite generous unemployment insurance granted skilled workers significant leeway in refusing job offers that do not fit their skill qualifications (Estevez-Abe/Iversen/Soskice 2001) and provided income support during periods of unemployment. What is more, there is a close connection between one’s position on the labour market and within the social security system (Germany being the prototypical conservative welfare state). Educational certificates like vocational degrees play an important role in identifying ‘suitable’ jobs for the unemployed. However, job suitability is not defined according to specific occupations, but mostly with regard to the skill level, i.e. unemployed people could refuse jobs that were more than one level below their current skill level. However, because of the significant amount of general skills entailed in German vocational training, almost half of the people with vocational qualifications worked in a different occupation than the one they were trained in (Fitzenberger/Spitz 2004; Lauder 2001: 170-171).

Since the 1980s, the German political economy has changed considerably (Streeck 2009) – probably to a greater extent than the other countries studied here. The decentralization of collective bargaining, the declining association density of unions and employers’ associations and welfare state reforms, of which the 2004 Hartz reform of unemployment insurance is a very prominent example, have partly transformed the character of the system. Pressure on the dual training system has increased, since more and more firms retreat from offering training places and transitions between school, training and employment become less smooth than before (Busemeyer 2009; Thelen/Busemeyer 2008). The decentralization and flexibilization of collective wage bargaining has weakened the complementarity between vocational training and wage policies. The Hartz reform of unemployment insurance has significantly increased pressure for unemployed persons to accept any job offer, independent of whether it fits the
person’s skill profile or not, and promoted tendencies of labour market dualization. Some scholars have summarized these tendencies as a trend from a collectivist to a more segmentalist skill regime (Thelen/Busemeyer 2008), because a sizable share of firms – in particular, larger, export-oriented firms – remain committed to vocational training, while a growing share of young people does not get access to protected internal labour markets. For the present purpose, however, it is adequate to point out the remaining differences between the German skill regime and the other cases studied in this paper. In contrast to the Swedish system, a clear differentiation is maintained between vocational and academic education – on all levels of the education system. Different from the Japanese case, a sizable share of firms remains committed to the dual training model, combining in-firm training with education in vocational schools. However, employers jealously guard the principle of firm autonomy in organizing the firm-based training component and adamantly oppose further attempts of integrating vocational training into comprehensive secondary schools. Here, again, a clear differentiation between (general) education and training is maintained.

5. Conclusions

This article has started with a critique of the currently prominent VoC approach to the study of skill formation. The main points of critique were the underestimation of the variation of skill regimes in coordinated market economics and the remaining ambiguities about institutional complementarities between training, industrial relations and labour market and welfare state institutions. To improve our understanding of the varieties of skill regimes in CMEs, three case studies were performed to demonstrate that the variety of skill regimes is more complex than the dichotomous distinction between LMEs and CMEs implies. Instead of grouping countries along a single dimension ranging from general to specific skills, I argued in favour of using two dimensions of variation: the degree of firm involvement and investment in training, on the one hand, and the degree of vocational specificity of the education system as an indication for the availability of authoritative mechanisms for skill certification on the other.

This exercise has led to the identification of three distinct skill regimes in CMEs, each with its own particular set of institutional complementarities. The segmentalist skill regime of Japan is founded on the firm-based provision of vocational skills. The real portability of these skills is severely constrained by labour market institutions, although they are broad in nature and could, in theory, be applied in other firm contexts as well. The integrationist skill regime of Sweden, in contrast, emphasizes school-based forms of vocational training and the integration
of vocational education into a comprehensive upper secondary school model. In the differentiated skill regime of Germany, the differentiation between academic and vocational education is maintained at all levels of education, and firms guard their autonomy and oppose further encroachment from public authorities. However, vocational skills are certified in nationally recognized occupational profiles, contributing to a greater mobility of workers between firms than in the Japanese case.

The common element of skill regimes in CMEs is that vocational education and training in general is more important than in general skills systems such as the U.S. To the extent that a large share of young people opt for VET instead of college education, skill systems in CMEs are indeed different from systems in LMEs. However, given the demonstrated variation of skill regimes in CMEs, this is a superficial and unduly simplifying distinction. Moreover, in countries such as the UK and Australia, firm-based forms of VET are still very much on the radar of policy-makers (Finegold/Soskice 1988; Gospel 1994), although the associated thorny coordination problems are harder to solve in LMEs as Hall and Soskice (2001) have famously argued.

Future research should concentrate on carving out details on the political foundations of the identified skill regimes. For obvious reasons, the present paper could only briefly touch these issues, but broad tendencies are easily identifiable: The segmentalist skill regime is clearly associated with the strong position of employers, weakly organized labour on the level above the firm and the long reign of the conservative LDP party. In contrast, the integrationist model of Sweden is based on the exceptional strength of organized labour and social democratic hegemony, especially in the important formative period after WWII. Finally, the differentiated skill regime of Germany is better understood if the peculiar position of Christian democrats on education policy is factored in. Christian democratic education policies emphasize the need to offer each young person the type of education that is ‘most adequate’ in terms of the person’s talents and her later position in society. However, in contrast to secular conservatism, Christian democrats also recognize the obligations of employers to contribute to the collective enterprise of skill formation – hence the emphasis on “private interest government” (Streeck/Schmitter 1985) through associations.
References:


![](http://www.europeansources.com/)


Neubäumer, Renate, 1999: Der Ausbildungsstellenmarkt der Bundesrepublik Deutschland: Eine theoretische und empirische Analyse. Berlin: Duncker & Humblot.


