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From Collectivism towards Segmentalism

Institutional Change in German Vocational Training

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Abstract

This paper argues that the German system of vocational training is undergoing subtle but significant changes from a mainly collectivist system to a more segmentalist one. To make the argument, the paper first discusses the two logics of collectivism and segmentalism, and how the German system is characterized by longstanding tensions between competing collectivist and segmentalist interests. In the empirical section, recent trends in the German system are portrayed to show that the system's segmentalist dimension has been strengthened at the expense of its collectivist dimension. These trends can be seen from developments in the participation of firms in training and from the changing politics of vocational training reform. To buttress our argument, we present three case studies on the debate over the modularization and Europeanization of vocational training, on the (re)introduction of two-year apprenticeships and on the unfolding conflict on vocational exams respectively. Before we conclude, we highlight parallels in contemporary trends in vocational training and changes in other realms of the German political economy.

Zusammenfassung

Dieses Papier dokumentiert den graduellen, aber transformativen Wandel des deutschen Berufsbildungssystems von einem kollektivistischen zu einem stärker segmentalistischen Modell. Zunächst wird gezeigt, dass die beiden Logiken des Kollektivismus und des Segmentalismus in der Geschichte der beruflichen Bildung schon immer in einem Spannungsverhältnis standen. Im empirischen Teil wird gezeigt, dass die segmentalistische Dimension während der letzten drei Jahrzehnte gegenüber der kollektivistischen an Bedeutung gewonnen hat. Dies wird anhand der Entwicklung der Ausbildungsbeteiligung von Unternehmen sowie der Politik der beruflichen Bildung dokumentiert. Insbesondere werden drei Fallstudien zur Debatte über Modularisierung und Europäisierung der beruflichen Bildung, zur (Wieder-)Einführung zweijähriger Ausbildungsberufe und zum sich anbahnenden Konflikt über die Organisation von Prüfungen präsentiert. Abschließend werden Parallelen zwischen dem Wandel der beruflichen Bildung und den Arbeitsbeziehungen im Allgemeinen herausgearbeitet.

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1 Introduction

The German vocational training system has long been viewed as a key institutional support sustaining the competitive strength of German manufacturing and admired as a model solution to the knotty coordination and collective action problems that chronically plague private sector training regimes (Finegold/Soskice 1988; Streeck 1989; Hall/Soskice 2001; Cusack/Iversen/Soskice 2007). Unlike in the so-called 'liberal' market economies of the Anglo-Saxon world, the German system has traditionally supported very high levels of firm-sponsored (and firm-funded) training. At the same time, and unlike other enterprise-based training systems such as those found in Japan, the German model embodies strong collectivist elements that guarantee that this training conforms to standards, in both quality and content, which are established and enforced at the national level.

This is a popular system. While other political-institutional arrangements in Germany (such as centralized wage bargaining) have been under intense pressure in recent years, the vocational training system still seems to command the strong support of all the major actors – unions and business, and political parties of left, right and centre. The apparent consensus and continued popularity of the system, however, have not been enough to prevent a noticeable twofold drift: (1) in the direction of a less encompassing system, due especially to its overall failure to adapt to the decline of manufacturing, and (2) towards a less collectivist, more segmentalist model of skill formation – a model that was explicitly, though apparently not definitively, defeated historically at the turn of the last century (Thelen 2004). At the inception and during the early development of the German training system, the primacy of manufacturing and the institutionalization of industry-wide bargaining were both crucial to promoting a system based on skill standardization and certification. Today, the decline of manufacturing is driving an overall shrinkage in the system, at the same time as the erosion of collective bargaining and the reactivation of old cleavages – both across industries and between them, especially between large firms and small and medium-sized enterprises – has provided the context for segmentalist tendencies to re-emerge.

Because of the heterogeneity of Germany's industrial structure (featuring a number of large dominant enterprises but including as well a sizeable and vibrant small and medium-sized enterprises sector), the common characterization of Germany as an example of a 'specific skill' regime (Hall/Soskice 2001; Estevez-Abe et al. 2001) almost by definition glosses over important differences between economic sectors, firm types and

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localities. A more fine-grained and historically conscious perspective on the German training system reveals the *political foundations* on which the system rests, as well as ongoing *tensions* between the interests supporting ‘collectivist’ and ‘segmentalist’ alternatives to training – sometimes more, sometimes less intense (Thelen 2004: esp. chapter 2). This suggests that, in order to make sense of the *politics* of training in Germany, and particularly of contemporary strains and trends in the system, it will be useful to keep the distinct logics of the two types of systems in mind. Segmentalist tendencies were explicitly suppressed at the turn of the last century, but the collectivist system that prevailed was held together not through a convergence in the preferences of different kinds of firms but rather through a *political accommodation* of these differences. In the meantime, increasing strains between different types of firms and within employers’ associations have reopened long-standing fissures, and the resulting strains are manifest in emerging segmentalist tendencies within the context of a formally still collectivist framework.

We develop this argument in three steps. We begin by sketching out the contours of the two logics of training regimes, and hint at the way they are complemented and supported by different industrial relations and labour market arrangements. We then turn to observable trends – quantitative and qualitative – that signal new segmentalist ‘urges’ and demands, especially on the part of large firms. In particular, we reveal data on the declining participation rates of firms in training and on the rise of the so-called ‘transition system’ (Baethge et al. 2007) – a cobbled-together system of training measures implemented by the state to compensate for the shortfall in training places. Subsequently, we present case studies and examples from the involvement of social partners in training reform to demonstrate the increasing contentiousness of these formerly consensual political processes – a fact which we take as an indication of particularistic interests gaining predominance over collective interests. A final section suggests how the trends that we observe in vocational training are connected to developments in other areas of the German political economy.

2 The German skill regime in comparative and historical perspective

In the varieties of capitalism literature, liberal market economies are characterized by market coordination and generate switchable assets (including ‘general’ or portable skills), while coordinated market economies feature strategic coordination in the production of dedicated assets (including ‘specific’ skills, either firm-specific or industry-specific; Hall/Soskice 2001; Iversen 2005). This is a powerful distinction, but by dichotomizing between liberal market economies and coordinated market economies it downplays the significant variation in training regimes in coordinated market economies (Anderson/Hassel 2007; Estevez-Abe et al. 2001), as well as variation in institutional arrangements *within* a given economy (Culpepper 2003; Herrmann 2008; Becker 2007).

In previous work, we have shown that coordinated skill regimes can represent two quite different solutions to the collective action problems that afflict private sector training regimes – yielding in effect two very different types of coordination: what we have referred to as ‘collectivist’ versus ‘segmentalist’ solutions (Thelen 2004; Thelen/Kume 1999). The differences are important for various reasons, *inter alia*, because they are associated empirically with very different forms of union organization and associated degrees of labour strength, and therefore different distributional outcomes. Collectivist training regimes based on the production of occupational skills require much more encompassing organization and coordination on both the employer and labour sides than segmentalist systems based more on the production of company-specific skills.

For our purposes, three features set collectivist systems clearly apart from more segmentalist alternatives (see also the discussion in Thelen 2005, 2007). One is the overall higher levels of firm participation in training in collectivist systems. Whereas, in a segmentalist system like Japan, training is mostly undertaken by large firms for their own recruitment and retention purposes, collectivist systems typically train ‘above need’ and rely on the participation of a wider range of firms, including small and medium-sized enterprises. Second, occupational labour markets feature more prominently in collectivist training regimes, whereas internal labour markets are more important in segmentalist systems. Third, and related to this, firm-based training in collectivist systems is subject to monitoring and oversight to ensure a degree of standardization in the content and quality of skills – something that is wholly absent from the alternative segmentalist model.

These features, in turn, are associated with somewhat different political patterns and dynamics. One facet of this has to do with the relative power of labour. Unions in segmentalist systems certainly command some power *vis-à-vis* management, based on their indispensable cooperation in production and in the context of workers’ ‘stakeholder’ position in the firm. However, union power in collectivist systems is further augmented by an overall broader skill base and especially by the exit options that skilled workers enjoy as a result of skill certification (Kume 1998; see also Streeck 1996: 144–51 for an extended discussion).¹ Different patterns of relations between labour and management and among firms flow from this. Thus, segmentalist regimes put a premium on social partnership at the company level (i.e., strong cooperation between workers and employers within the company) and require some coordination, albeit primarily among the large training firms, above all to avoid outbidding each other for entry-level workers.² Collectivist skill regimes, by contrast, rely on social partnership at industry or national level, which facilitates strong coordination across all employers drawing

1 This is not to say that collectivist systems were the product of labour strength, while segmentalist systems were the product of labour weakness (see Thelen 2004 for an extended argument to the contrary).

2 There would also be coordination between core firms and their suppliers, since their production systems would be tightly integrated.

on the same pool of occupational skills – not only wage coordination to keep poaching in check but also coordination in the definition and certification of skills. Collectivist skill regimes therefore have also always relied more heavily than segmentalist systems on some degree of *state sponsorship* – to shore up coordination, to underwrite enforcement of collectively defined standards (even if these are set by the social partners), and to support (and often subsidize) the provision of portable skills (e.g. often through a school-based component to complement firm-based training).

In previous work, we have tracked the genesis and evolution of the German training system, including the politics and the processes through which a collectivist system prevailed historically over the segmentalist alternative (which was very viable at the turn of the century, see Thelen 2004: chapter 2). This history was marked much less by conflicts between labour and capital than it was shaped by conflicting interests among employers. Large ‘autarkic’ firms sought to tailor their training to fit with the internal labour markets they were cultivating as a means to keep unions at bay.³ By contrast, skill-intensive small and medium-sized firms in the *industrieller Mittelstand* (especially the machine industry) that were not able to sustain internal labour markets sought (and actually established, on a voluntary basis) a more genuinely solidaristic system of skill formation premised on labour mobility and skill standardization across firms. The tensions between these two alternative models (segmentalist versus collectivist) were a source of ongoing tension throughout the Weimar period and were in fact quelled only when the full power of the National Socialist state was brought to bear to suppress the labour movement altogether and to impose and diffuse a model of skill standardization and certification that had been pioneered by small and medium-sized enterprises on a voluntary basis. As we will see below, these tensions have resurfaced in the contemporary period, and the ensuing struggles – both among employers and with labour – are what have been driving trends towards segmentalism.

3 Institutional change in German vocational training

The German version of a collectivist skill regime as it emerged in the decades after the Second World War has three main characteristics. First, a large share of firms participates in vocational training and, as a consequence, a large share of the youth population in a given age cohort opts for vocational training (mostly in the dual apprenticeship training regime) in preference to a general or academic education. As firms are engaged in training above and beyond their immediate needs, graduate apprentices can and do move between firms via occupational labour markets. Second, the content of in-plant apprenticeship training is strictly regulated in the form of nationally defined occupa-

3 Handicraft firms were similarly anti-union but more interested in apprenticeship training for the extra hand this provided in production than for later retention.

tional profiles (*Ausbildungsordnungen*). Although there have always been differences between small and large firms in the implementation of these occupational profiles, semi-public bodies (the chambers of industry and commerce) and works councils eagerly monitor the content and quality of training in order to ensure the comparability of vocational qualifications on the national labour market. Third, these occupational profiles are developed jointly by representatives of capital and labour in a neo-corporatist framework under the guidance of state actors. A cooperative climate prevails and the role of the state is relegated to that of a supportive arbiter.

Below, we will show that on all three fronts changes are underway that are likely to pull the German skill regime away from its collectivist heritage towards a more firm-centred and – as we call it – segmentalist variety. Of course, the fundamental pillars of the traditional collectivist system still remain intact to a significant extent. But what can be observed are processes of incremental, yet transformative change (Streeck/Thelen 2005) that strengthen the segmentalist dimension of the German skill regime. For instance, the participation of firms in vocational training has been decreasing since the early 1990s, resulting in a structural over-demand for apprenticeship places. Occupational profiles have been reformed in such a way as to allow more flexibility at the company level, resulting in less comparability above the level of the firm. Finally, the corporatist process by which skill profiles are developed has become much more contentious, forcing state actors to abandon the position of neutral arbiter to become more actively involved. To illustrate the last two points, we present three case studies.

The decreasing involvement of firms in vocational training

One defining characteristic of the collectivist training system is the broad participation of firms in vocational training. Table 1 documents changes in the participation rate of firms in apprenticeship training for the period 1993 to 2006, which are further classified according to firm size and economic sector.⁴ Several observations stand out. First, the overall share of firms participating in apprenticeship training regardless of firm size and economic sector has decreased significantly from 35 per cent in 1993 to 26 per cent in 2006. Hence, the share of firms participating in training has decreased by more than a quarter (27 per cent) over a period of 13 years.

Second, we observe well-known patterns in firm participation in training (cf. Neubäumer/Bellmann 1999): the share of firms participating increases with firm size, and

4 A note of caution in interpreting the numbers displayed in Table 1 is in order: unfortunately, the wording of the questions concerning firm participation in training in the IAB Establishment Panel changed several times during the period of observation. As a consequence, we observe conspicuous anomalies in the time series of firm participation rates. Therefore, the data in Table 1 should be interpreted cautiously as a rough measure of broader trends.

the average share of firms participating is higher in traditional manual occupations (investment and consumer goods, construction, agriculture, and mining) and traditional service occupations (secretaries, hotels and gastronomy, banking, public sector) than in new service occupations (social services, IT and media).

Table 1 Percentage share of firms participating in apprenticeship training, grouped by firm size and economic sector, 1993–2006

Sector	Firm size	Year						Change in % 1993–2006
		1993	1996	1999	2002	2004	2006	
Consumer and investment goods, construction, agriculture, mining (traditional manual occupations)	1–9	0.466	0.332	0.465	0.182	0.181	0.168	–64
	10–49	0.669	0.570	0.762	0.394	0.407	0.401	–40
	50–199	0.807	0.715	0.840	0.673	0.637	0.718	–7
	200–499	0.848	0.790	0.914	0.820	0.890	0.873	+3
	500 and above	0.945	0.949	0.975	0.926	0.937	0.869	–8
Secretarial work, hotels and gastronomy, public sector, banking (traditional service occupations)	1–9	0.182	0.115	0.386	0.138	0.115	0.132	–27
	10–49	0.443	0.415	0.605	0.357	0.410	0.375	–15
	50–199	0.644	0.575	0.730	0.707	0.711	0.701	+9
	200–499	0.793	0.653	0.733	0.842	0.858	0.840	+6
	500 and above	0.774	0.758	0.865	0.924	0.899	0.918	+19
New service sectors (social services, IT, media)	1–9	0.285	0.104	0.129	0.181	0.155	0.183	–36
	10–49	0.340	0.160	0.252	0.374	0.339	0.315	–7
	50–199	0.384	0.330	0.533	0.500	0.538	0.527	+37
	200–499	0.445	0.428	0.614	0.659	0.745	0.647	+45
	500 and above	0.851	0.494	0.810	0.838	0.860	0.844	–1
Total		0.353	0.254	0.461	0.262	0.258	0.258	–27

Source: IAB Establishment Panel, own calculations.

Third, and this is the point we want to highlight, the scale of decline in participation rates is related to firm size and the economic sector. The last column of Table 1 shows the percentage change in participation rates between 1993 and 2006. Here, it can be seen that, across economic sectors, the overall decrease in training participation is mainly caused by small firms dropping out, whereas the share of larger firms participating has remained constant or even increased. The decline has been strongest for small firms in those economic sectors where dual apprenticeship training in manual occupations has a strong tradition (i.e., consumer and investment goods, construction, mining). In the service-oriented sectors of the economy, the decline has been significant as well, but less steep and starting from a lower level. In the traditional sectors, the participation rate for medium and large firms has stayed more or less constant but has increased significantly in the service-oriented sectors.⁵ The outcome of these movements is that

5 These findings are in line with recent data provided in the Federal Report on Vocational Training (*Berufsbildungsbericht*, BMBF 2008: 17). The number of apprentices in service occupations has outnumbered those in manual occupations since the late 1990s despite the fact that, relative to employment, apprenticeship training is less prevalent in the service sector.

differences in participation rates between economic sectors that existed in 1993 have become smaller over time (see Hartung/Schöngen 2007 for a similar argument), and that the centre of gravity of the system in terms of participation has shifted from small to medium and large firms.

Table 2 Training intensity (measured in terms of the share of apprentices in total employment)

Firm size	Year					
	1993	1996	1999	2002	2004	2006
1–9	4.2 (14.9)	3.8 (18.9)	5.1 (21.7)	4.2 (25.5)	3.6 (22.1)	3.9 (23.5)
10–49	5.6 (10.8)	5.5 (11.5)	5.8 (12.4)	5.4 (13.3)	5.4 (13.7)	4.9 (12.3)
50–199	4.0 (5.9)	3.9 (6.0)	3.6 (5.3)	4.3 (7.1)	4.3 (7.1)	4.3 (7.0)
200–499	3.7 (4.8)	4.2 (5.5)	3.2 (4.1)	3.8 (5.0)	3.8 (4.7)	3.7 (4.7)
500 and above	3.9 (4.6)	4.6 (3.8)	3.2 (3.5)	4.1 (4.7)	4.2 (4.8)	4.0 (4.6)
Total	4.5 (12.6)	4.2 (14.4)	5.1 (16.3)	4.5 (17.2)	4.0 (15.5)	4.1 (15.7)

Figures in brackets are apprentice ratios for training firms only, 1993–2006.
Source: IAB Establishment Panel, own calculations.

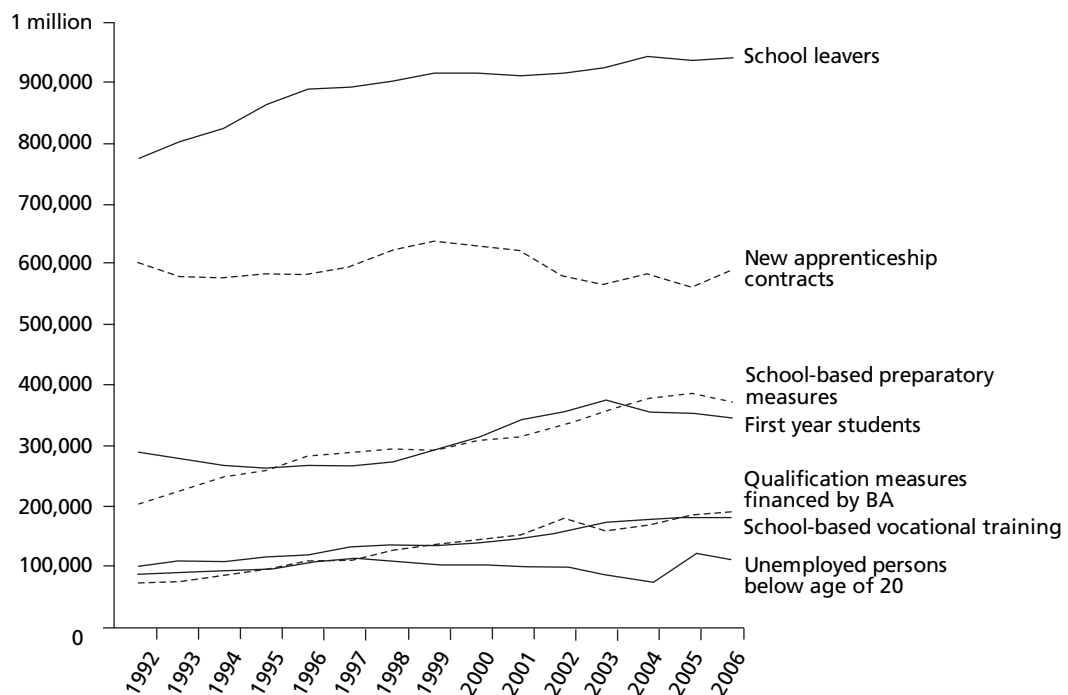
In addition to participation, the *intensity* of the training commitment is another way of gauging the involvement of firms. Table 2 shows data on training intensity, measured as the share of apprentices in total employment, categorized in turn according to firm size. The figures in brackets show apprentice ratios for firms that actually participate in training, whereas the non-bracketed figures are apprentice ratios for the training and non-training firms. Again, we see a decline in the total training intensity from 1993 to 2006 (last row of Table 2), but it is less pronounced than in the case of participation rates (minus 8 per cent). Similarly, training intensity in small firms has declined more than in medium and large firms. This finding is a consequence of a significant number of small firms deciding to stop offering apprenticeship training in general. However, if we look at training firms only (figures in brackets), we see that the apprentice ratio has *increased* significantly in smaller firms (from 14.9 per cent in 1993 to 23.5 per cent in 2006). This indicates a bifurcation in the training behaviour of small firms: some firms decide to drop out of training altogether, but those firms that continue to train and accept a significant amount of fixed costs employ relatively many apprentices. Without pursuing this issue further here, it could be suspected that the latter type of firm replaces regular workers with apprentices.

Summing up, we find evidence for a gradual decline of the involvement of firms in vocational training, both in terms of participation and in terms of training intensity. However, we find important differences in firm behaviour according to firm size and economic sector. Small firms in those sectors of the economy where apprenticeship training has traditionally been strong have dropped out disproportionately, but medi-

um and large firms remain committed. Firms in the service-oriented sectors are engaging in apprenticeship training slowly, but on a smaller scale than firms in the traditional sectors.

What are the consequences of the changing training behaviour of firms? First, the decline in the participation rate of firms has resulted in a structural excess demand for apprenticeship places on the part of young people. In former times, the German system was revered for the ease with which it facilitated the transition from school to training to employment (Allmendinger 1989; Soskice 1994). The excess demand for training places, however, has led to the rise of the so-called ‘transition system’ (Baethge et al. 2007) – a patchwork system of training, education and labour market measures that is supposed to ease the transition between school and vocational training for those who are initially unsuccessful in finding an apprenticeship place.

Figure 1 Number of participants in various education alternatives, 1992–2006



Source: Various issues of the Federal Report on Vocational Training (Berufsbildungsbericht).

To illustrate this point, Figure 1 shows data on the number of young people entering various routes of training, education and (un)employment. First of all, the continuous increase in the number of school-leavers from less than 800,000 in 1992 to about 950,000 in 2006 is striking. A significant part of this increasing demographic pressure has been channelled to the universities, as can be seen by the increasing number of first year students in Figure 1. This is an important difference to the period of the early 1980s: this period witnessed a similar increase in the number of young school-leavers,

but, at this time, vocational training, not the universities, absorbed most of the excess demand. Most of the academic observers of vocational training in the early 1980s attribute this to the successful implementation of a quasi-corporatist deal between the federal government and the employers' associations: the government would refrain from imposing too much regulation on firm-based training in exchange for the firms' commitment to expanding training places (Baethge 1999; Casey 1991). In the second half of the 1990s, however, the onset of a similar demand crisis did not trigger a similar expansion of training places, hinting at important shifts in the underlying logic of the system. In fact, Figure 1 shows that the number of new apprenticeship contracts hovers around 600,000 for the whole period from 1992 to 2006, i.e., the number of training places offered is independent of changes on the demand side indicated by the increasing number of school-leavers.

Where did young people unable to secure an apprenticeship end up? Fortunately, the number of unemployed persons below the age of 20 seems to have stayed constant since the early 1990s (see Figure 1). Some people have opted for school-based vocational training instead of firm-based apprenticeship training (plus 85 per cent from 1992 to 2006). This need not be a bad alternative, given that some of the occupations traditionally being taught in vocational schools (i.e., social services) are increasingly demanded on the labour market. However, those types of school-based vocational training that do *not* lead to full vocational qualifications and are therefore a genuine part of the transition system are much more prevalent in terms of participants and have increased similarly to fully qualifying school-based training: from about 200,000 in 1992 to 378,000 in 2006 (plus 86 per cent). Furthermore, training and qualification measures financed by the Federal Employment Agency (BA), so-called *berufsvorbereitende Bildungsmaßnahmen* (BvB), have increased by a staggering 174 per cent from 70,000 in 1992 to 192,000 in 2006. Again, these measures do not directly lead to vocational degrees, or other certifications with labour market relevance.

In addition to increasing problems in the transition from school to training, the transition from training to employment is becoming less smooth. As we have argued above, occupational labour markets are an important defining characteristic of collectivist training regimes. Firms (mostly smaller ones) relying on these external labour markets for skilled workers have a common interest in standardized occupational profiles. Occupational labour markets also ensure that apprentices who are not retained by their training firms can find qualified employment in another firm. In Germany in the past, craft firms committed to apprenticeship traditions often trained 'above need' and played an important stabilizing role in times of economic downturn. In the so-called 'dual sector model' (Neubäumer 1999; Neubäumer/Bellmann 1999; Soskice 1994), graduate apprentices from the crafts sector would then often move on to semi-skilled employment in the industrial or service sector. In recent years, there are strong indications that this dual sector model is not working as smoothly as before, because the skill demands of industrial firms are becoming more specific and semi-skilled positions for which craft-trained apprentices usually qualified have been outsourced or rationalized (Jaudas et

al. 2004). This change in the training behaviour of firms has also had significant consequences for the politics of reforming occupational profiles.

The changing politics of vocational training reform

So far, we have approached the issue of institutional change in German vocational training from the perspective of individual economic actors (firms and [prospective] apprentices respectively). However, associations, i.e., employers' associations and unions, play an important role as well (Greinert 1998; Streeck et al. 1987; Hilbert et al. 1990) because they represent the collective dimension of vocational training. At the company level, representatives of business and labour (chambers and works councils) are in charge of monitoring the implementation of occupational profiles. At the industrial and macro level, associations are involved in the process of both devising new and reforming old occupational profiles (*Ausbildungsordnungen*). In addition, they lobby for or against modifications in the general institutional framework as defined, inter alia, by the Vocational Education and Training Act (*BBiG*). Below, we will focus on the continuous process of revising and updating occupational profiles, because this is where we can best observe processes of incremental institutional change that are most relevant to associations.

The process of (re)defining particular occupational skills generally plays out between two different poles: on the one hand, unions (sometimes in coalition with craft firms) lobby for broad skill profiles with 'labour market relevance'. Unions also tend to favour unitary skill profiles, where the training period is the same for every apprentice in a given occupation as is the type of qualification awarded at the end of the training period. From a union perspective, common standards prevent a differentiation of occupational profiles that would increase conflict between workers over wage levels, which would in turn interfere with the smooth functioning of the collective wage bargaining system. On the other hand, employers, and especially large employers who expect to retain most of their apprentices, aim to develop more specific skill profiles in order to address their own specific skill needs. They also have a preference for a higher degree of differentiation within and between occupational profiles because they can concentrate costly training measures on more able apprentices, while saving on the training of the less talented. In addition, the introduction of several levels of vocational training allows for more differentiated wage arrangements, reflecting differences in productivity more accurately and weakening the collective voice of employees in wage bargaining.

There are several neuralgic points during the process of training reform where these conflicts of interest materialize: decisions about the general scope and breadth of the occupational profile in question, the actual content to be included in the legally binding description of the profile and, related to this, the degree of 'concreteness' with which this content is described, as well as the way the final exams are organized. In the 1970s

and 1980s, occupational profiles usually were monolithic (*Monoberufe*) in the sense that they offered little room for firms or apprentices to choose different specializations. In addition, the system was undifferentiated to the extent that almost all vocational qualifications awarded the same status of skilled worker. Standardization of exams was achieved by relying on standardized test material developed by organizations such as the PAL (*Prüfungsaufgaben- und Lehrmittelentwicklungsstelle*) and the close involvement of chambers of industry and commerce in administering the exams.

As we will argue below, the system has changed considerably since then. The trend that we call segmentalism manifests itself in the growing importance of firm-level interests to the detriment of collective interests. In the present case, this has two major components: first, the structure of occupational profiles is reformed in such a way as to allow for more flexibility in the implementation of occupational profiles at the level of the firm; second, the politics of designing and reforming occupational profiles is becoming more contentious, with actors defining and asserting their interests in a more particularistic, less cooperative way.

This argument will be fleshed out in greater detail by looking at three case studies of aspects of the current reform debates: first, the dispute over modularization, flexibilization and Europeanization of vocational training; second, the (re)introduction of two-year apprenticeships; and, third, the unfolding conflict over vocational exams. We will try to avoid repetition, although the chosen examples are obviously particular facets of a more comprehensive debate. In addition to primary and secondary sources, we draw from a pool of more than 20 interviews with representatives of unions, employers' associations and state actors conducted during the years 2006 to 2008.

Modularization, flexibilization and Europeanization of vocational training

One way to achieve more flexibility in the implementation of training ordinances (*Ausbildungsverordnungen*) is to increase the options for specialization within a given occupational profile. Large firms benefit overproportionally from this because they have more need for specialized workers within the same occupation, and they have the necessary training capacities to be able to offer these specialized profiles. Small firms will not be able to offer the same range of specializations as large firms, although they might benefit if they have special skill needs. But when they are dependent on occupational labour markets or workers with broader skills (as is often the case for firms in the crafts sector), they benefit less. Too much specialization might also hurt workers' interests in labour market relevance and transferability of vocational skills. The concept of modularization captures the idea of content-wise flexibilization: instead of monolithic occupational profiles, vocational training is broken down into smaller building blocks ('modules'), from which firms and/or apprentices can 'pick and choose'.

The debate on modularization had already flared up in the mid 1990s (Kloas 1997). As could be expected, unions were opposed to the idea of modularization because they feared a subordination of training needs to the economic needs of firms (Bundesregierung 1997: 22). The Christian democratic federal government in principle recognized the firms' call for more flexibility and differentiation, but refrained from intervening more actively in the realm of vocational training reform, respecting the autonomy of the social partners by merely prompting them to speed up the whole process (Bundesregierung 1996: 2). The social partners remained committed to the consensus principle, and therefore the emerging compromise between the needs of firms for more specialization and the concerns of unions for skills with labour market relevance led to the creation of demanding occupational profiles that combined the provision of broad or core skills during the first years of apprenticeship with limited options for specialization later on (Baethge 2003: 577). This flexibilization proceeded without a master plan on a case-by-case basis, resulting in numerous types of specialization within occupational profiles (for an overview of which, see KWB 2006), although the reform of occupations in the metal and electrical industries and the enactment of new profiles in the IT sector in the late 1990s served as role models (Baethge 2003: 577–578). In particular, the recent reform of metal and electrical occupations set new standards by systematically incorporating vocational training into real-life work processes within the firm ('process orientation'), instead of sticking to standards handed down without any close connection to actual working life in the firm context (Gesamtmetall 2005; Interview ST-3)⁶.

These kinds of compromise staved off calls for further modularization for some time. But in recent times there have been clear indications of change. In 2005, the Federal Vocational Training Act (BBiG) was reformed, expanding opportunities for differentiation by allowing firms to provide additional qualifications (*Zusatzqualifikationen*) (i.e., above and beyond the minimum requirements for apprentices within the general framework). At the same time, the debate on modularization has gained further momentum from the 'Europeanization' of vocational education and training (VET) policy. Europeanization has opened up a window of opportunity for the reform of the national training regime (Trampusch 2006; Martens/Wolf 2006), with employers and the federal government mostly keen on exploiting this opportunity for significant reform and unions largely on the defensive.

The linking element between Europeanization and the modularization of training is the question of how to render educational qualifications comparable across national systems. In order to be able to make the qualifications obtained comparable across countries, a common framework – the European Qualifications Framework (EQF) and the European Credit System for Vocational Education and Training (ECVET) – needs to be developed, and credit units in national training regulations have to be defined in such

6 At the request of our interview partners, references to individual interviews have been anonymized. The denotation "UN" indicates an interviewee from trade unions, "EMP" stands for employers, and "ST" for state actors.

a way that it is clear how much credit an apprentice must be given for the parts of his or her training obtained in another country. By breaking integrated occupations down into their component skill modules, modularization facilitates such comparisons.

For unions, the crucial question is whether modularization refers to the process of skill *acquisition* (which would be consistent with the survival of a model based on occupational skills) or to a deconstruction of the skill *profile* itself (which would not). For this reason, unions are divided on the issue. A very critical union study (Drexel 2005) feared the wholesale elimination of the dual system in its current form, while the mainstream position in unions is guarded – one of critical support or supportive criticism, as they put it (Kuda/Strauß 2006; Ehrke 2006).

Employers and especially the federal government are more supportive (Küssner/Seng 2006; Brunner et al. 2006). Despite some disagreement over detail, German companies welcome and support the process of Europeanization of VET, though employers are also careful to reiterate their commitment to the ‘occupational principle’ (*Berufsprinzip*) (Brunner et al. 2006: 15–16) – a symbolic codeword for the commitment to training based on integrated occupational profiles and national recognition, instead of ‘atomistic’ on-the-job training.

Perhaps more important for our argument is to note differences in the positions adopted by different employer associations, each associated with different segments of capital. The most radical proposals come from the *Bundesvereinigung der deutschen Arbeitgeberverbände* (BDA), which is skewed towards the interests of large industrial firms, and call for a full-scale deconstruction or reformulation of current training regulations in the form of modules (*Ausbildungsbausteine*) (BDA 2006). The BDA also proposes a new structure for occupational profiles, where two-year apprenticeships focusing on basic qualifications become the default and further qualifications can be added through continuous training or the continuation of training in a three-year apprenticeship (‘2 plus x’) (BDA 2007: II). Furthermore, the BDA proposals advocate the institutionalization of firm-level ‘pacts for vocational training’, mirroring the creation of firm-level ‘pacts for employment’ (BDA 2006: 5). These pacts for vocational training are aimed at lowering apprenticeship wages, which are usually set by collective wage bargaining, even for firms that are not covered by collective wage agreements, on a firm-by-firm basis.

The association representing artisanal firms, the *Zentralverband des deutschen Handwerks* (ZDH), by contrast, is more critical of full-scale modularization (Interview EMP-2). The ZDH is also in favour of flexibilizing the system of occupational profiles, but this should be done, it believes, within the confines of regular training reforms, and the holistic ‘identity’ of occupations must be preserved. Furthermore, the partial provision of vocational qualifications must be avoided, and the comparability of vocational degrees above the firm level (*Überbetrieblichkeit*) should be maintained (Interview EMP-14).

Finally, the *Deutscher Industrie- und Handelskammertag (DIHK)*, the national organization of the chambers for industry and commerce, occupies a middle position by proposing to flexibilize the dual training system without abandoning the ‘occupational principle’ and committing to full-scale modularization (DIHK 2007). Because of its broad organizational base, and especially because of the central role it plays in the administration of the dual system, the DIHK is deeply committed to maintaining the relevance and integrity of the current system of training. Since vocational education and training is the ‘most important pillar’ in the foundation of local chambers (Interview EMP-3), it is therefore an important source of power for the chambers.

Representatives of the federal government have expressed the most enthusiasm, and some of them appear to view Europeanization as a window of opportunity to push for a more general reform of the system (Trampusch 2006). In addition, German policy-makers now seem to have decided to lead the pack on vocational training reform at the EU level instead of obstructing it (as was the case before due to the idiosyncratic nature of the German system in a Europe dominated by systems based on school-based vocational training) (Interview ST-1). Hence, the federal government fully supports modularization and flexibilization (Schavan 2006: 3). The current federal education minister, Annette Schavan (CDU), set up an ‘innovation circle’ on vocational education and training, composed of union and employer representatives, together with ‘independent’ scientists, thus attenuating the voting and opinion power of potentially ‘obstructionist’ parties. The basis for discussions was a policy paper commissioned by the ministry that emphasized the need for modularization and in effect proposed only two alternatives of more or less radical modularization (Euler/Severing 2006).

In the end, the ‘innovation circle’ did not go so far as to propose a full-scale modularization, but it recommended the development of training modules for 10 to 12 of the most common occupations in order to help young people who failed before to get access to training (Innovationskreis 2007: 6). These proposals are a continuation of previous developments in which the issue of modularization and flexibilization is touted as a means to solve the problem of structural excess demand for training places. Before the 2005 reform, a smaller reform of the BBiG in conjunction with the Hartz reforms of labour market policies introduced the concept of qualification modules (*Qualifizierungsbausteine*). These earlier modules, however, are not full-grown modules because they are only loosely related to the content of occupational profiles. The new type of modularization as proposed by the ‘innovation circle’ goes one step further because occupational profiles themselves are broken down into modules. Furthermore, modules can be provided in various places of learning (firms, training centres, etc.) and, most importantly, firms can opt to provide only parts of vocational training (i.e., individual modules). This is clearly the fact that fuels union opposition to modularization because it would open up opportunities for firms to train according to short-term needs instead of having to subscribe to three or more years of apprenticeship training (IG Metall 2007). However, opposition to modularization is hard to maintain when this

has been successfully linked to debates on Europeanization and solving the plight of unsuccessful training applicants.

Two-year apprenticeships

Besides the content of occupational profiles, the prescribed length of apprenticeship training is another starting point for reform discussions. Traditionally, most training occupations in Germany last for three or three and a half years, leading to the full vocational qualification of a skilled worker or craftsman (*Facharbeiter* in industry and *Ge-selle* in the crafts sector). In the 1970s, business and labour decided to introduce ‘staged’ or step-by-step training (*Stufenausbildung*) in the metal and electrical occupations (IG Metall 1991[1977]). Here, a number of less demanding two-year apprenticeships were put alongside more demanding, longer apprenticeships. An apprentice could complete the first stage after two years of apprenticeship, but would achieve the full credentials for a skilled worker’s qualification only after the second stage and at least another year of training was completed. Initially, unions believed a staged apprenticeship would strengthen the provision of broad, basic skills in the first stage of the apprenticeship and ensure that apprentices who failed in the more demanding occupations could leave training with at least some type of vocational certificate. However, IG Metall and other unions soon realized that, in practice, this concept increased the power of employers, because progressing to the second stage of training did not depend so much on the apprentices’ choice but on the training firms’ willingness to offer suitable training places (Hilbert et al. 1990: 85–86; Streeck et al. 1987: 78; IG Metall 1991[1977]: 418–419).

As a consequence of this development, unions pushed successfully for the abolition of staged apprenticeships during the reforms of the metal and electrical occupations in the 1980s. Firms’ options were thus limited to the choice between training somebody for three and a half years, awarding them the status of ‘skilled worker’ and paying them accordingly, on the one hand, or not training them at all, on the other. At the same time, a number of two-year occupational profiles ‘survived’, but – probably because of the strength of labour at the firm level – the number of apprentices in these remaining two-year apprenticeships declined continuously (Zedler 1995; Stooß 1997). In the construction sector and partly in the service sector (e.g. regarding the occupation of ‘shop clerk’), two-year apprenticeships have remained common across the whole period without causing too much friction.

Parallel to its attempts to flexibilize vocational training content-wise, the Christian democratic government repeatedly advocated the idea of ‘differentiating’ the apprenticeship system by reintroducing different types of apprenticeships, based on different lengths of training, during the 1980s and 1990s (see, for example, Bundesregierung 1985: 16). However, after the negative experiences of unions with staged apprenticeships and the continued commitment of the social partners to the consensus principle, the unions’ veto against two-year apprenticeships was effective and prevented differentiation until

2003, when the federal government decided to break with the consensus principle and intervene directly in the process of training reform.

The prelude to this dramatic climax was a serious deterioration on the apprenticeship market after the burst of the new economy bubble. The red–green government was keen on reducing youth unemployment and solving the demand crises on the training market, having already enacted a large, but short-term oriented programme to bring young people into employment and training in 1998 (called *JUMP*). Encouraged by pertinent research findings (Vogler-Ludwig et al. 2003), the government hoped that the (re)introduction of two-year apprenticeships would help solve the demand crisis.

At the same time, business became more assertive in stating its need for more differentiation in the vocational training system. Trammelled by intensifying cost pressures, business was keen to increase the flexibility of the hitherto undifferentiated and often unyielding training system (KWB 1999, 2006; BDA 2006, 2007). Changes in the organization of production and technical upgrading also contributed to a redefinition of skill demands. One often cited example is the work at assembly lines in large automobile firms (Lacher 2007; Zeller 2007). In the 1980s, large firms would recruit graduate apprentices from the crafts sector for this kind of semi-skilled or unskilled work (Neubäumer 1999; Neubäumer/Bellmann 1999; Soskice 1994). But, increasingly, skill demands for semi-skilled labour have increased and become more specialized, so that firms prefer to train their own people for these kinds of jobs (but for shorter periods of time) instead of relying on external occupational labour markets and then having to engage in retraining (which is also the finding of a survey of 1400 firms conducted by Bellaire et al. 2006; Interview EMP-1, EMP-2, EMP-4).

Unions continued to be adamantly opposed to the reintroduction of two-year apprenticeships (DGB 2003, 2006; IG Metall 2007) because they suspected a motivation of strategic downgrading of skills with negative feedback effects on collective wage bargaining. The shock was therefore great when the Minister for Economic Affairs, Wolfgang Clement, a member of the sympathetic social democratic party, sided with employers in 2003 and decided against the will of the unions to reintroduce two-year apprenticeships. With this act, the tradition of the consensus principle was broken, leading to bitter conflicts between unions and employers over the issue of two-year apprenticeships. Since then, IG Metall and ver.di have refused to participate in the process of reforming occupational profiles as far as two-year apprenticeships are concerned (Interview EMP-8). However, more and more two-year apprenticeships have been introduced since 2003. Employers are pushing a model where less demanding, two-year apprenticeships are developed alongside more demanding, longer apprenticeships, and qualifications gained in the shorter apprenticeship are fully taken into account when continuing into a longer apprenticeship. Hence, firms can hire apprentices in the shorter apprenticeship first and then decide later on whether they want to offer the apprentice the longer, more demanding type of training (KWB 2006; BDA 2007).

In sum, the example of two-year apprenticeships shows that the political process of reforming occupational profiles has become more contentious. Again, the cleavage between business and labour is just one cleavage line that is opening up. Although the heterogeneity of interests has always been significant, additional conflicts are materializing *within* the employers' camp. First, representatives of the craft sector with a traditionally strong attachment to apprenticeship training (Streeck 1992: 108ff.) are sceptical about two-year apprenticeships because they could endanger the important social integration of the apprentice into the firm. Additionally, the apprentices' contribution to the ongoing production process is more important for small crafts firms that in turn depend on the more productive, but still inexpensive contribution of the apprentice in the third year of training. Second, industrial firms, in particular large ones, have a growing need for their own, more specific training occupations for semi-skilled positions. Also, they are increasingly reluctant and/or unwilling to 'overinvest' in training (i.e., train skilled workers that are supposed to fill semi-skilled positions later on) due to increasing cost pressures and the continued power of works councils to make firms retain apprentices after training (Interview EMP-9, EMP-13).

Examinations

Besides the reintroduction of two-year apprenticeships and the increased leeway for firm-specific training by flexibilizing the regulations of training ordinances, some business interests are lobbying for a reconsideration of the way exams are organized. In the classical collectivist training regime of Germany, the organization of exams was an important mechanism to bring the different interests together. For each occupation, there is a special examination committee within the local chamber, consisting of representatives of business and labour (as well as, with minor involvement, teachers of local vocational schools). Most importantly, participation on the committees is voluntary and non-paid. The underlying collectivist dimension in this arrangement is that, for obvious practical reasons, large firms can send more of their employees as 'volunteers' than small firms. Often, these persons are specialists in vocational training (e.g. trainers or human resource personnel), ensuring that the quality of exams is high. Large firms also have an interest in maintaining the quality of apprenticeship training in their region if they are reliant on occupational labour markets to fill semi-skilled and unskilled positions.

Nowadays, this collectivist arrangement is increasingly being challenged on a number of fronts. First, large firms are more and more reluctant to second their (paid) employees to act as (unpaid) 'volunteers' on examination committees (Interview EMP-9). Second, and probably more importantly, some firms are becoming unsatisfied with the way exams are organized and what subject matter is examined. As discussed above in the case of metal and electrical occupations, firms and business associations are striving for a closer match between the organization and content of vocational training and real work processes within the firm. Instead of having their apprentices perform tasks that

are only loosely related to the firms' activities – just because they are required by the training ordinance – firms would rather have their apprentices learn to participate and think in terms of the real processes at work *within that specific firm* ('process orientation') (Interview ST-3, EMP-4). Consequently, they believe that exams should test the ability of apprentices to cope with real world problems ('process competence'), which can be best achieved by shifting the prime responsibility for exams from the chamber-based examination committees to the firms themselves (Interview EMP-9). Related to this, the firm-level administration of exams is also part of the more far-reaching proposals for modularization (Euler/Severing 2006).

Thus, the issue of exams has opened up rifts in the employers' camp. Industrial firms, particularly medium to large ones with the necessary capacities to organize firm-based exams and more specific skill demands, are increasingly challenging the monopoly of chambers in organizing exams (Interview EMP-9, EMP-3). It is recognized that holding exams at the firm level instead of chambers would probably reduce the comparability of vocational qualifications, as training becomes less standardized and more tailored towards firm-specific needs. But this is not seen as a huge problem because work experience and the benefits of more flexible training outweigh the disadvantages (Interview ST-3, EMP-10).

The chambers, in contrast, are defending the traditional system, since vocational training, and the organization of exams and awarding of certificates in particular, is a significant part of their *raison d'être* (Interview EMP-3). The crafts sector is also a defender of the traditional system, partly because the crafts chambers are in a similar situation as the chambers of commerce,⁷ but also because the average firm size in the crafts sector is much smaller and firms depend on the participation of larger firms on the examination committees. Furthermore, as a consequence of their smaller size, craft firms rely on occupational labour markets to a greater extent than large industrial firms and therefore have a greater need for more standardized vocational degrees. Noting a change in the associational climate, representatives of the crafts sector link the continued viability of the collectivist, chamber-based arrangement to notions of 'solidarity' (Interview EMP-14).

Tentative conclusions

Summing up, the three examples of modularization, two-year apprenticeships and exam reorganization have shown that the German vocational training system is under-

7 Interest representation in the crafts sector is somewhat bifurcated: on the one hand, crafts chambers (*Handwerkskammern*) are public law bodies with extensive responsibilities in the realm of vocational training, in particular in organizing the exams and awarding certificates. On the other hand, *Innungen* are voluntary associations representing the interests of a specific trade. At the federal level, however, there is a *de facto* personal union in interest representation between the two (Streck 1992: 108ff.).

going a period of significant change. Disputes between business and labour are increasing, blemishing cherished consensual traditions, although cooperation between the social partners in training reform is still common practice in a lot of cases. What is more, conflicts within the employers' camp are increasing as well, being associated with and resulting in a weakening of the collectivist dimension of the traditional system to the benefit of more particularistic interests. In addition, the role of the government in the politics of training reform has considerably changed from that of 'neutral broker and facilitator' between business and labour (Hilbert et al. 1990) to that of a more actively involved initiator and reformer. This may be related to a broader trend of reform-minded assertiveness on the part of government, but we claim it is also a consequence of the deterioration of collectivism in favour of segmentalism: formerly successful arrangements of private interest government (Streeck/Schmitter 1985) are increasingly being challenged by *endogenous forces*, and the state has to step in to mediate and resolve disputes (about which, see Streeck 2009 for a related argument). To buttress our argument, we will discuss in the next section how institutional change in vocational training is related to parallel processes of change unfolding in other domains of the German political economy.

4 Conclusions

In sum, developments over the past two decades point to a subtle but significant shift in the German vocational training system, towards enhanced segmentalism and dualism. These changes have come about not so much through noisy clashes between opposing parties over diametrically opposed reform concepts, but rather through more incremental changes and ongoing political manoeuvring in which all of the relevant actors have tried to sell their preferred models as a way of *shoring up* (not dismantling) the traditional model, by 'reforming' outdated training ordinances and adapting them to a new market context. In this sense, recent developments in German vocational training provide a vivid illustration of the kind of processes – incremental but with the potential to be cumulatively transformative – that are characteristic of contemporary political economic reforms generally (Streeck/Thelen 2005).

Our main objective in this article has been to draw attention to the two very different logics of skill formation that are subsumed (and often obscured) within the broad category of 'coordinated market economy', to document the historically rooted tension between the two and to chronicle the recent reassertion in Germany of new (or, from a more historical perspective, renewed) segmentalist tendencies. While a full explication of the political dynamics behind this shift lies beyond the scope of this article, we see these developments as congruent with (and causally connected to) broader trends in the German political economy.

For example, the trend towards segmentalism in training that we have documented here parallels very closely developments in industrial relations and labour market policies. In the German case, there is now a considerable literature that documents transformational shifts in collective wage bargaining, labour relations, the welfare state and labour market institutions that have happened over the last years (for an overview, see Streeck 2009; Kitschelt/Streeck 2004). Tracing the process of how institutional complementarities between industrial relations, labour market institutions and vocational training unfold over time is an important issue for future research. For the present purpose, we merely would like to point out three intriguing parallel developments in industrial relations and vocational training.

First, the declining membership base of intermediary associations is mirrored in the retreat of segments of business from participating in vocational training. We have seen that there are significant differences related to firm size and economic sector in regard to the decline in training intensity and participation rates. Medium and large firms in the 'core' of the export-oriented German economy remain committed to vocational training (see also Walden/Herget 2002). These types of firms also value the benefits of collective wage bargaining (Hassel/Rehder 2001; Thelen/Van Wijnbergen 2003), i.e., social peace and a cooperative stance on the part of workers. However, as Silvia and Schroeder (2007) have argued, large firms relay cost pressures from global export markets to their small-firm suppliers. These in turn are increasingly unable or unwilling to accept the high levels of wages set by large-firm dominated employers' associations (Thelen/Van Wijnbergen 2003) and relinquish their membership.

In vocational training, a similar process might be at work. Large-firm dominated industrial and employers' associations are the *de facto* representatives of business during the process of training reform. For the most part, they still value the consensus principle (with the exception of two-year apprenticeships) because a successful implementation of training ordinances requires the cooperation of labour. With employers striving for specialization and unions for broad and high-skill occupational profiles, the eventual cumulative outcomes are ever more demanding training profiles, which overcharge the training capacities of small firms, enticing them to drop out of training altogether.

Additionally, the declining membership base of intermediary associations simply means that it will be harder to acquire additional apprenticeship places. During the 'golden age of vocational training' in the early 1980s, the prospect of helping out 'their' (conservative) government might have been a strong enough normative and moral incentive. At least, there was a detectable upwards spike in the supply of training places. Similar efforts on the part of chambers, *Länder* governments, associations and other civil society organizations (e.g. churches) for an increase in training places during the recent demand crisis have not been equally successful (Interview EMP-7). Without reading too much into scant evidence, it seems that collective or normative obligations as motivations to train 'above need' are being replaced by more firm-centred or segmentalist motivations to train when there is a concrete need.

Second, the erosion and decentralization of collective wage bargaining is related to the strengthening of firm-specific components in vocational training. In the 1980s, strong collective wage bargaining stabilized the collectivist and undifferentiated training regime: almost all apprenticeships led to a similar kind of vocational qualification (*Facharbeiterbrief* or *Gesellenbrief*) that was directly related to wage categories in collective wage agreements. As a consequence, the options for employers were more limited. They were forced by legal obligations, powerful unions and works councils to pay equally high wages to workers with similar vocational degrees, there was only one major type of degree, and works councils successfully fought the hiring of apprentices in less demanding occupations (see above). These 'beneficial constraints' (Streeck 1991, 1992, 2004) forced employers to invest in skills and training.

The flexibilization of collective wage bargaining, together with the liberalization of labour markets, expanded the range of options for employers and loosened the link between vocational training and collective wage bargaining. First of all, the loosening occurred because of the simple fact that the coverage of collective wage agreements has been shrinking. Furthermore, the link between vocational degrees and collective wage agreements was loosened *deliberately*. In 2003, a new framework for collective wage agreements was agreed upon in the metal and electrical industry (*Entgelttarifvertrag*). According to this framework, workers are not remunerated on the basis of their vocational qualifications anymore, but on the basis of their actual work. Unlike before, employers can pay less to someone with a regular vocational degree working in a semi-skilled position, allaying the incentive to invest in the 'upskilling' of this person. Since the new framework was decided in consensus with the IG Metall union, representatives of employers' associations are puzzled about the strong resistance to the introduction of two-year apprenticeships (Interview EMP-8). Unions claim they want to prevent employers from using less demanding apprenticeships as a means to lower wage costs (Interview UN-1, UN-3), but, according to the new wage bargaining framework, the link between training and actual job content has been loosened anyway.

Third, fragmentation, disorganization and pluralization of interest representation have fuelled the increased contentiousness in training reform. The dissolution of 'Germany Inc.' (Höpner/Krempel 2004) is a symptom of the underlying growing heterogeneity of interests on the side of business. On the labour side, the emergence of new economic sectors has triggered new competition for members. Overall, we observe a tendency of particularistic interests becoming more important than collective interests, leading to the kind of contentious decision-making we have seen in the cases of two-year apprenticeships and the conflict over examinations.

Finally, recent labour market reforms should exacerbate the problems of dualism that have accompanied declining firm-sponsored training. Just as the Hartz reforms have intensified the divide between workers in secure employment and the growing numbers in 'atypical' or 'irregular' work relationships (Martin/Thelen 2007; Iversen 2005), it is becoming clear that for a significant number of young people, the cobbled-together

'transition system' implemented by the state to 'fill in' for shortfalls in the supply of training places does not segue into stable employment (Beicht et al. 2007; Fuchs 2008). To the extent that large firms hunker down to train only for their own needs, we can anticipate that those who do not succeed in securing a high-prestige apprenticeship early on may also be at a higher risk of slipping into the growing underclass of irregular or atypical workers.

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