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THE **POLITICAL ECONOMY** OF **COLLECTIVE SKILL FORMATION**



edited by

MARIUS R. BUSEMEYER & CHRISTINE TRAMPUSCH

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Foreword

Twenty-five years ago, the number of political scientists interested in vocational education and training—an unglamorous topic if ever there was one—could almost certainly have been counted on one hand. This was a subject that was left to “education people” and a few policy-oriented economists. In the meantime, however, skills and training have moved to the center of debates among political economists and political scientists who are concerned to understand the pasts, presents, and possible futures of distinctive “varieties of capitalism.”

This interest in skills was already widespread by the late 1990s and early 2000s, when a number of studies appeared in which scholars sought to identify the core institutional features defining different national political-economic “models” among the rich democracies. Despite many other differences in emphasis and argument, virtually all of these analyses devoted close attention to training regimes (e.g., Berger and Dore, 1996; Boyer and Hollingsworth, 1997; Hall and Soskice, 2001; Streeck and Yamamura, 2001). The literature on the politics of skills has grown broader and deeper since then. For example, we now have detailed historical investigations into the ways in which guild legacies shaped political-economic development in Europe and with enduring consequences (see, especially, the pioneering work of Crouch, 1993; also Thelen, 2004). We also have studies that link training regimes to a wide range of contemporary outcomes including divergent patterns of social and labor market stratification (e.g., Anderson and Hassel, 2008; Ansell, 2010; Iversen and Stephens, 2008), different patterns of gender politics (e.g., Estévez-Abe et al., 2001; Iversen and Rosenbluth, 2010), distinctive trajectories of welfare and social policy reform (e.g., Iversen and Soskice, 2001; Trampusch, 2010), and different electoral systems and partisan dynamics (e.g., Busemeyer, 2009*b*; Iversen and Soskice, 2009).

What has emerged from this burgeoning body of work is not settled wisdom but instead a very vibrant and fruitful debate—or better, set of debates—on the origins and consequences of different skill trajectories, on the forces that sustain or erode skill systems inherited from the past, and on the interactions and causal connections between training regimes and related “adjacent” political-economic institutions, especially but not exclusively those governing

industrial relations and social policy. Through it all, the German case has consistently figured prominently. While the “German skills machine” (Culpepper and Finegold, 1999) captured the attention of admiring policymakers, academics were drawn to the German model as a paradigmatic case of a distinctly successful and decidedly “nonliberal” training regime. One of the great virtues of the present volume is that it overcomes a certain obsession with the “German model.” However, it is also almost certainly not by chance that this book was conceived and largely implemented in Germany and specifically focuses on the kind of strong collective skill formation systems that were first “discovered” (by political scientists in any event) in the German context.

A short foreword such as this cannot resolve the debates that this growing literature has inspired, nor can it provide a comprehensive intellectual history of the study of skills in the political economy and political science literature over the past quarter century. Instead, I would like to try briefly to recount in highly stylized form (and inevitably also in a way that reflects my own, possibly somewhat idiosyncratic, reading) what I understand to have been the key intellectual “turn” that set the stage for skills and training to enter the mainstream of debates on the political economy of the advanced industrial countries.

I would take the story back to the late 1970s and early 1980s, the heyday of the literature on “democratic corporatism.” This was a period in which scholars of political economy (above all, those interested in the political economy of labor, specifically) believed themselves to have discovered a universal and timeless formula for reconciling high levels of social solidarity with impressive economic performance (e.g., Cameron, 1984; Hibbs, 1978; Schmitter, 1974). In an ideological context characterized by the ascendance of Keynesianism and in an economic context marked by the twin challenges of rampant inflation and persistently high unemployment, the literature of this period had its sights firmly fixed on organized labor’s role in incomes politics and macroeconomic management generally. The bottom line of what by the 1980s had become a vast literature on macrocorporatism was that successful regulation of wage and distributional issues could be negotiated only where labor movements were encompassing and also more or less directly incorporated into peak-level tripartite bargaining in which trade-offs could be worked out with representatives of (equally well-organized) employer associations and the state.

The focus of the corporatism literature, in short, was on macroeconomic steering and demand-side politics. Successful corporatist processes were most prominently on display in a limited group of mostly northern European countries, among which Sweden was frequently singled out for star status. There, scholars could observe how powerful, centralized interest associations that were directly incorporated into policymaking could strike deals that were

capable of delivering an enviable combination of low inflation, high employment, impressive economic growth, and strong redistribution. These “small states in world markets” (Katzenstein, 1985) seemed to have found a way not just to survive but to thrive in an increasingly turbulent international marketplace. In the broader cross-national studies, the comparisons with “noncorporatist” or “low corporatism” countries were invariably invidious.

No sooner had the formula for success been worked out than some of the most prominent poster cases for corporatist interest intermediation hit a rough patch. In 1983, Swedish employers dramatically withdrew from corporatist negotiations, declaring themselves to be fed up with overly rigid central contracts and seeking instead greater flexibility through bargaining decentralization (Pontusson and Swenson, 1996). Denmark, which in fact had performed rather abysmally through the 1970s and early 1980s, also underwent significant decentralization (Iversen, 1996). Other small states that typically ranked among the “most corporatist” democracies were similarly struggling. The Netherlands, for example, had been plunged into decline and stagnation in the 1970s and 1980s, earning itself the moniker of the “sick man of Europe.” In short, the early 1980s were tough on Europe’s most corporatist democracies, and the countries that were once celebrated as islands of consensus and havens of egalitarian capitalism came increasingly to be seen as “small states in big trouble” (Schwartz, 1994).

These empirical observations and developments produced a fruitful intellectual ferment and in the process drew attention to the studies of scholars whose work had always only fit uneasily—if at all—in the mainstream literature on corporatism. The key intellectual move these scholars were making was to shift attention away from the corporatism literature’s virtually exclusive focus on wage bargaining and aggregate demand management to an examination of institutional arrangements that influenced firm strategies “on the supply side, that is, in the sphere of production defined in the widest sense” (Streeck, 1992: vii). This new orientation did not displace entirely the previous focus on collective bargaining but situated it firmly within a much broader institutional context that affected the kinds of strategies firms were more and less likely to pursue in different national contexts. In this body of work, it was Germany, not Sweden, that was singled out for special attention, and the emphasis on production expanded our range of vision to include exotic features like codetermination and handicraft chambers that had previously escaped all scrutiny (Streeck, 1984, 1989b).

The shift in emphasis from the demand side to the supply/production side was associated as well with a partial retreat from corporatism’s emphasis on the macrolevel toward increased attention to the microlevel of the shop floor. Thus, at a time when most political economists were debating the most reliable way to measure macrocorporatism and assess its effects on national

economic performance, a rather small group of scholars from disparate fields (including sociology, economics and, to a much lesser extent, political science) were drawing attention to more microlevel changes transpiring on the shop floor and in the context of a significant (though not universal) shift from Fordist mass production to what came to be variously called flexible specialization or diversified quality production. In different ways and with different emphases (but often based on strikingly similar empirical reference points and almost always involving comparison with Germany), authors like Ronald Dore, Horst Kern and Michael Schumann, Michael Piore and Charles Sabel, Arndt Sorge and Malcolm Warner, Hilary Steedman and Karin Wagner, and Wolfgang Streeck were drawing attention instead to the different ways in which technological change and production reorganization were unfolding in different regional and national contexts.

On the periphery, therefore, and alongside the very macro-, national-level corporatism literature, the literature came to be sprinkled with detailed and very microlevel studies through which we came to know much more than we ever could have imagined about machine tool companies in Baden-Württemberg, about textile and apparel manufacturers in Emilia-Romagna, about pump producers in Britain and Germany, and about automobile firms in Britain and Japan. These studies introduced us to institutional arrangements and practices at the micro-/shop-floor level that had been completely overlooked in the corporatism literature but that appeared to have a major impact on the kinds of adjustment strategies firms embraced as they sought competitive advantage in the more turbulent economic markets of the 1980s and 1990s.

Skills featured prominently in these accounts, as differences in training regimes were seen as crucial to producing (or not, depending on the country) the kinds of resources on which firms could draw in a context in which production strategies based on the old formula of mass production and cost competition had become untenable with the entry into international markets of low-cost producers in “newly industrializing countries” like Brazil. Early works in this vein that would come to resonate widely include not only Streeck’s analyses of skills, technological change, and production organization (Streeck, 1983, 1985, 1987, 1989*a*; Streeck and Sorge, 1988) but also Sorge and Warner’s comparative analysis of manpower training in Britain and Germany (Sorge and Warner, 1980), as well as Ronald Dore and Mari Sako’s *How the Japanese Learn to Work* (Dore and Sako, 1989)—all of which provided pictures of positive adjustment based on broad and flexible occupational skills. Conversely, the absence of training was showing up in analyses of less successful cases. Finegold and Soskice (1988), for example, diagnosed the British disease as involving, centrally, a syndrome they characterized as a low-skill equilibrium, and the MIT project *Made in America* (Dertouzos et al., 1989) similarly identified underinvestment in human capital development as a crucial deficit

to be overcome if the United States wanted to regain its competitive edge in manufacturing. Despite other differences, all of these early analyses saw skills and training regimes as products of history and as deeply imbricated in a dense network of auxiliary institutions, including collective bargaining and industrial relations institutions and financial arrangements.

A pivotal piece around which much of the subsequent debates came to be organized was a 1989 article by Streeck called “Skills and the Limits of Neoliberalism.” While much of the shop-floor-oriented scholarship described above never quite made it back “off the shop floor” to develop the kind of portable propositions around which a full framework for comparative work could be organized, what set Streeck’s work apart in this period was that he was able to reconnect the micro with the macro through his analysis of the national-level institutional infrastructure that produced and sustained strategies that were unlikely to emerge or survive in the absence of strong social and political supports. In the 1989 article and in an even more fully elaborated subsequent 1991 version, “On the Institutional Conditions of Diversified Quality Production,” Streeck provided a more complete picture of the “rich institutional structure” that in the German case “forced, induced, and enabled management to embark on more demanding high value-added, diversified production strategies” by ruling out low-wage, low-cost strategies, while at the same time making “more difficult adjustment strategies more possible” (Streeck, 1991: 51). The core of diversified quality production lay in institutions as socially imposed constraints that required managers to impart more skills, share more information (both with their competitors and with their own workers), invest in more social peace, and give up more in terms of managerial prerogative than the market would otherwise dictate (Streeck, 1991: 41). These insights were taken up in virtually all of the broad comparative accounts of diverse models of capitalism mentioned at the outset.

If Streeck’s treatment of the German case brought skills and training out of the shadows, what has arguably kept these issues at the center of mainstream debates on the political economy of advanced capitalism since that time is the work by David Soskice and his colleagues (particularly Peter Hall and Torben Iversen, but also work with Thomas Cusack and Ben Schneider). Skills play a very central role in what has become a fully elaborated research program based on a distinction between “liberal” and “coordinated” market economies (associated, in turn, with a broad distinction between general and specific skills). Not all agree with this characterization of skills (Culpepper, 2007; Busemeyer, 2009a; Streeck in this volume), and there is certainly a debate on the centrality of skills in the historical evolution of distinctive models of capitalism (for dissenting views, see Kuo, 2009; Martin and Swank, 2011). But I think it is safe to say that it is no longer really possible to ignore the issue of skills in contemporary debates in political economy.

In that sense, the early insights of the 1980s—as the present volume amply demonstrates—continue to shape the debate in important ways. For many of us, they have become part of the received wisdom (almost achieving the status of taken-for-granted assumptions) on which our own analyses build. I would say virtually all of the essays in this book take the core arguments from that early literature as a point of departure. It is thus highly appropriate and fitting that this volume was conceived (and the conference out of which it grew was convened) at the Max Planck Institute for the Study of Societies, which has been a key source of many of the foundational insights on which the skills literature has been premised. Against the backdrop of the intellectual story (at least as I have told it), this seems a perfect venue and vantage point from which to take stock of what we know and what we still need to learn.

There are currently no signs that the shift in context that drew our attention to skills in the first place (an urge to decentralize on the part of employers, the ascendance of production issues, and a drive toward flexibility in the context of rapid technological change) is going to go away any time soon. On the contrary, alongside these older and enduring issues, new developments raise new questions for the future of training and its role in the political economies of the rich democracies. To what extent are skill systems originally devised for manufacturing capable of being adapted to economies that are increasingly organized around employment in services? Can the collective systems that are at the center of attention in this volume survive the current neoliberal offensive? What are the causal connections that link training institutions to other adjacent arrangements in the political economies of the rich democracies? This volume offers answers to some of these questions, building on insights from the past at the same time that it lays out a compelling research program for the future.

Kathleen Thelen

References

- Anderson, M.D. and Hassel, A. (2008). "Pathways of Change in CMEs: Training Regimes in Germany and the Netherlands." Working Paper of the Hertie School of Governance, no. 17. Berlin: Hertie School of Governance.
- Ansell, B.W. (2010). *From the Ballot to the Blackboard: The Redistributive Political Economy of Education*. New York: Cambridge University Press.
- Berger, S. and Dore, R., eds. (1996). *National Diversity and Global Capitalism*. Ithaca, NY: Cornell University Press.
- Boyer, R. and Hollingsworth, J.R., eds. (1997). *Contemporary Capitalism: The Embeddedness of Institutions*. New York: Cambridge University Press.

- Bussemeyer, M. R. (2009a). "Asset Specificity, Institutional Complementarities, and the Variety of Skill Regimes in Coordinated Market Economies." *Socio-Economic Review* 7(3): 375–406.
- (2009b). "Social Democrats and the New Partisan Politics of Public Investment in Education." *Journal of European Public Policy* 16(1): 107–26.
- Cameron, D. (1984). "Social Democracy, Corporatism, Labour Quiescence, and the Representation of Economic Interest in Advanced Capitalist Society." In J.H. Goldthorpe, ed., *Order and Conflict in Contemporary Capitalism*. London: Oxford University Press, 143–78.
- Crouch, C. (1993). *Industrial Relations and European State Traditions*. Oxford: Clarendon Press.
- Culpepper, P.D. (2007). "Small States and Skill Specificity: Austria, Switzerland, and Interemployer Cleavages in Coordinated Capitalism." *Comparative Political Studies* 40(6): 611–37.
- Finegold, D., eds. (1999). *The German Skills Machine: Sustaining Comparative Advantage in a Global Economy*. New York: Berghahn Books.
- Dertouzos, M.L., Lester, R.K. and Solow, R.M. (1989). *Made in America: Regaining the Productive Edge*. Cambridge, MA: MIT Press.
- Dore, R. and Sako, M. (1989). *How the Japanese Learn to Work*. New York: Routledge.
- Estévez-Abe, M., Iversen, T. and Soskice, D. (2001). "Social Protection and the Formation of Skills: A Reinterpretation of the Welfare State." In P.A. Hall and D. Soskice, eds., *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage*. New York: Oxford University Press, 145–83.
- Finegold, D. and Soskice, D. (1988). "The Failure of Training in Britain: Analysis and Prescription." *Oxford Review of Economic Policy* 4(3): 21–53.
- Hall, P.A. and Soskice, D., eds. (2001). *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage*. New York: Oxford University Press.
- Hibbs, D.A. (1978). "On the Political Economy of Long-Run Trends in Strike Activity." *British Journal of Political Science* 8(2): 153–75.
- Iversen, T. (1996). "Power, Flexibility and the Breakdown of Centralized Wage Bargaining: The Cases of Denmark and Sweden in Comparative Perspective." *Comparative Politics* 28(4): 399–436.
- Rosenbluth, F. (2010). *Women, Work and Power: The Political Economy of Gender Inequality*. New Haven: Yale University Press.
- Soskice, D. (2001). "An Asset Theory of Social Policy Preferences." *American Political Science Review* 95(4): 875–93.
- — (2009). "Distribution and Redistribution: The Shadow from the Nineteenth Century." *World Politics* 61(3): 438–86.
- Stephens, J.D. (2008). "Partisan Politics, the Welfare State, and the Three Worlds of Human Capital Formation." *Comparative Political Studies* 41(4–5): 600–37.
- Katzenstein, P.J. (1985). *Small States in World Markets*. Ithaca, NY: Cornell University Press.
- Kuo, A. (2009). Political Origins of Firm Strategies. Ph.D. diss., Stanford University, Palo Alto.

Foreword

- Martin, C.J. and Swank, D. (2012) "The Political Construction of Corporate Interests: Cooperation and the Evolution of the Good Society." New York: Cambridge University Press.
- Pontusson, J. and Swenson, P. (1996). "Labor Markets, Production Strategies, and Wage Bargaining Institutions." *Comparative Political Studies* 29(2): 223–50.
- Schmitter, P. (1974). "Still the Century of Corporatism?" *Review of Politics* 36(1): 85–131.
- Schwartz, H. (1994). "Small States in Big Trouble." *World Politics* 46(4): 527–55.
- Sorge, A. and Warner, M. (1980). "Manpower Training, Manufacturing Organization, and Workplace Relations in Great Britain and West Germany." *British Journal of Industrial Relations* 18(3): 318–33.
- Streeck, W. (1983). "Die Reform der beruflichen Bildung in der westdeutschen Bauwirtschaft 1969–1982: Eine Fallstudie über Verbände als Träger öffentlicher Politik." *WZB Discussion Paper IIM/LMP* 83-23. Berlin: Wissenschaftszentrum Berlin für Sozialforschung.
- (1984). "Co-determination: The Fourth Decade." In B. Wilpert and A. Sorge, eds., *International Yearbook of Organizational Democracy*. London: John Wiley and Sons, 391–422.
- (1985). "Industrial Relations and Technical Change in the British, Italian and Germany Automobile Industry." *WZB Discussion Paper IIM/LMP* 85-5. Berlin: Wissenschaftszentrum Berlin für Sozialforschung.
- (1987). "The Uncertainties of Management in the Management of Uncertainty: Employers, Labor Relations and Industrial Adjustment in the 1980s." *Work, Employment & Society* 1(3): 281–308.
- (1989a). "Successful Adjustment to Turbulent Markets: The Automobile Industry." In P.J. Katzenstein, ed., *Industry and Politics in West Germany*. Ithaca, NY: Cornell University Press, 113–56.
- (1989b). "The Territorial Organization of Interests and the Logics of Associative Action: The Case of Handwerk Organization in West Germany." In W.D. Coleman and H.J. Jacek, eds., *Regionalism, Business Interests and Public Policy*. London: Sage, 59–74.
- (1991). "On the Institutional Conditions of Diversified Quality Production." In E. Matzner and W. Streeck, eds., *Beyond Keynesianism*. Aldershot: Edward Elgar, 21–61.
- (1992). *Social Institutions and Economic Performance: Studies of Industrial Relations in Advanced Capitalist Economies*. London: Sage.
- Sorge, A. (1988). "Industrial Relations and Technical Change: The Case for an Extended Perspective." In R. Hyman and W. Streeck, eds., *New Technology and Industrial Relations*. Oxford: Basil Blackwell, 19–47.
- Yamamura, K., eds. (2001). *The Origins of Nonliberal Capitalism: Germany and Japan*. Ithaca, NY: Cornell University Press.
- Thelen, K. (2004). *How Institutions Evolve: The Political Economy of Skills in Comparative-Historical Perspective*. New York: Cambridge University Press.
- Trampusch, C. (2010). "Co-evolution of Skills and Welfare in Coordinated Market Economies? A Comparative Historical Analysis of Denmark, the Netherlands, and Switzerland." *European Journal of Industrial Relations* 16(3): 197–220.

Preface

The initial idea for this book was born in March 2007 when Marius took over the office of Christine at the Max Planck Institute for the Study of Societies in Cologne, and Christine moved to Berne. Inspired by the view out of this office's window on the bucolic MPI courtyard and its surroundings, we decided to stay in contact to collaborate in research on skill formation and vocational training. We moved forward step by step. In March 2008, we founded the Network on Education and Training (NET). The idea behind NET is to bring together young as well as more experienced scholars with a background in political or other social sciences who are interested in studying the institutions, politics, and dynamics of education and training systems from an international comparative perspective. After organizing a paper stream at the ESPAnet Conference in Vienna in September 2007, a workshop at the ECPR Joint Sessions in Lisbon in April 2009, and a section at the ECPR General Conference in Potsdam 2009, we both agreed that past literature and current research leave the significant variety of collective skill formation systems in coordinated market economies unexplored. We defined our two research objectives to be the investigation of varieties of skill formation and the understanding of linkages between skill formation systems and other political-economic institutions. The book project began to take shape, initially through discussions on the topics to be covered and then on the potential contributors. With the aim of bringing together both young promising researchers and renowned experts in the field, we approached a number of different contributors, who all agreed to become involved in the project.

There are several people whose contributions were essential to the success of this collected work. The institutional and "ideational" support of the Max Planck Institute for the Study of Societies was crucial from the very beginning of this project. In particular, we would like to thank *Wolfgang Streeck*, who, as one of the two directors at the MPI, not only contributed enormous organizational and financial resources but whose ideas have inspired a lot of the research on the political economy of collective skill formation systems. Being an art aficionado, Wolfgang also found the "Drapers' Guild" by Rembrandt, which is displayed on the cover of this volume. Equally, *Kathleen Thelen* supported the project from its beginnings, directing—as an external

scientific member of the MPI—a project on recent institutional change in the German vocational training system, in which Marius started his explorations of the realm of collective skill formation systems. Kathy regularly and generously provided invaluable guidance on the book project and related research—either as a regular visitor to Cologne or as a highly welcoming and supportive host, when Marius spent a couple of months as a visiting researcher at Harvard’s Center for European Studies. In this respect, Marius would also like to thank *Cathie Jo Martin* and *Torben Iversen* for practically adopting him as part of their families while he was in Cambridge.

Of course, we would also like to thank all the contributors to the volume for meeting the tight deadlines and for the high quality of their contributions: *Cathie Jo Martin*, *Karen Anderson*, *Christian Ebner*, *Margarita Estévez-Abe*, *Philipp Gonon*, *Lukas Graf*, *Torben Iversen*, *Lorenz Lassnigg*, *Markus Maurer*, *Moirá Nelson*, *Dennie Oude Nijhuis*, *Justin Powell*, and *Rita Nikolai*. A conference was held in Cologne in May 2010, at which the contributors presented a first draft of their chapters. This provided the opportunity for some very stimulating and constructive discussion, which helped significantly to improve the content of the contributions. Special thanks go to *Anja P. Jakobi* and *Silvia Teuber* for participating at the book conference. We also would like to thank the *anonymous reviewers* at *Oxford University Press*, who helped improve the structure and coherence of the volume as a whole.

Every scholar depends on continuous critical, but ultimately supportive interaction with his or her peers. We would like to take this opportunity to thank those who have—in a more or less direct manner—shaped and influenced our thinking on the political economy of skill formation and supported the project in one way or another: *Klaus Armingeon*, *Pepper D. Culpepper*, *Werner Eichhorst*, *Patrick Emmenegger*, *Achim Goerres*, *Peter Hall*, *Carsten Jensen*, *Herbert Kitschelt*, *André Mach*, *Dick Moraal*, *Matthias Pilz*, *David Rueda*, *Heike Solga*, *David Soskice*, *Carsten Q. Schneider*, *Karl Weber*, and *Stefan Wolter*.

We are also extremely grateful to *David Musson*, *Rachel Platt* and *Emma Lambert* of OUP and *Astrid Dünkelmann*, *Thomas Pott*, and *Cynthia Lehmann* from the Editorial and Public Relations Unit of the Max Planck Institute for the Study of Societies, who assisted and motivated us throughout the entire production process. We would also like to thank *Dona Geyer* for her thorough and diligent English-language editing. Our thanks furthermore go to the *Max Planck Institute for the Study of Societies*, which provided enormous financial and administrative support for the conference, the whole project, and the language editing process, and the *Institute of Political Science* of the *University of Berne*, which has offered Christine a very quiet and comfortable place for the past four years to reflect on the dynamics of coordination by studying the communication skills of marmot families. *Anne Burian* assisted Christine in Berne.

After almost two years of hard work, the project finally comes full circle with Christine moving back to Cologne and Marius leaving Cologne to Konstanz. We hope that this volume will motivate more and more people to become interested in skill formation systems and that it brings skills into the broader analysis of comparative politics.

Berne, Cologne, Konstanz, and Trier, February 2011

Marius R. Busemeyer and Christine Trampusch

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Abbreviations

A	Austria
AER	<i>Arbejdsgivernes Elevrefusion</i> (Employers' Reimbursement Scheme)
AFL	American Federation of Labor
AHS	<i>Allgemeinbildende Höhere Schulen</i> (upper secondary schools)
AK DQR	<i>Arbeitskreis Deutscher Qualifikationsrahmen</i> (Working Group German Qualifications Framework)
AK	<i>Österreichische Arbeiterkammer</i> (Austrian Chamber of Labor)
ALMP	Active labor market policies
AMS	<i>Arbeitsmarktservice</i> (Public Employment Service)
AMU	<i>Arbejdsmarkedsuddannelserne</i> (vocational training)
ARION	Arion is an action by the European Union encouraging exchange among specialists and decision-makers in the educational field
BA	Bachelor of Arts
BBiG	<i>Berufsbildungsgesetz</i> (Vocational Training Act)
BBT	<i>Bundesamt für Berufsbildung und Technologie</i> (Federal Office for Professional Education and Technology)
BDA	<i>Bundesvereinigung der Deutschen Arbeitgeberverbände</i> (Confederation of German Employers' Associations)
BdI	<i>Bund der Industriellen</i> (League of Industrialists)
BHS	<i>Berufsbildende Höhere Schulen</i> (VET colleges)
BIBB	<i>Bundesinstitut für Berufsbildung</i> (Federal Institute for VET)
BL	<i>beroepsbegeleidende leerweg</i> (workplace-based pathway)
BMASK	<i>Bundesministerium für Arbeit, Soziales, und Konsumentenschutz</i> (Federal Ministry of Labor, Social Affairs, and Consumer Protection)
BMBF	<i>Bundesministerium für Bildung und Forschung</i> (Federal Ministry of Education and Research)
BMS	<i>Berufsbildende Mittlere Schulen</i> (VET schools)
BMUKK	<i>Bundesministerium für Unterricht, Kunst und Kultur</i> (Federal Ministry for Education, the Arts, and Culture)

Abbreviations

BMWF	<i>Bundesministerium für Wissenschaft und Forschung</i> (Federal Ministry of Science and Research)
BOL	<i>Beroepsopleidende leerweg</i> (school-based pathway)
CDI	<i>Centralverband Deutscher Industrieller</i> (Central Association of German Industrialists)
CDU	<i>Christlich Demokratische Union Deutschlands</i> (Christian Democratic Union of Germany)
CEDEFOP	European Center for the Development of Vocational Training
CH	Switzerland
CIO	Congress of Industrial Organizations
CME	Coordinated market economy
co-hep	<i>Konferenz der Rektorinnen und Rektoren der Pädagogischen Hochschulen</i> (Swiss Conference of Rectors of Universities of Teacher Education)
COMETT	Community Programme in Education and Training for Technology
CRUS	<i>Rektorenkonferenz der Schweizer Universitäten</i> (Rectors' Conferences of the Swiss Universities)
CWI	<i>Centrum voor Werk en Inkomen</i> (Center for Work and Income)
DA	<i>Dansk Arbejdsgiverforening</i> (Danish Employers' Confederation)
DG 12	Directorate-General for Research, Science & Education
DATSCH	<i>Deutscher Ausschluß für Technisches Schulwesen</i> (German Committee for Technical Education)
DECVET	<i>Deutsches</i> (German) ECVET
DGB	<i>Deutscher Gewerkschaftsbund</i> (Confederation of German Trade Unions)
DIHK	<i>Deutscher Industrie- und Handelskammertag</i> (German Chambers of Industry and Commerce)
DK	Denmark
DQR	<i>Deutscher Qualifikationsrahmen</i> (German Qualifications Framework)
EC	European Community
ECSC	European Coal and Steel Community
ECTS	European Credit Transfer System
ECVET	European Credit System for Vocational Education and Training
EEA	European Economic Area
EEC	European Economic Community
EFTA	European Free Trade Association

EGU/EFG	<i>Erhvervsfaglig Grunduddannelse</i> (basic vocational education)
EMP	Employers' organizations (interviews)
EQF	European Qualifications Framework
ER	Educational research
EU	European Union
F	Females
FPÖ	<i>Freiheitliche Partei Österreichs</i> (Freedom Party of Austria)
FR	France
GDP	Gross domestic product
GE	Germany
GEW	<i>Gewerkschaft Erziehung und Wissenschaft</i> (German Education Union)
GNVQs	General National Vocational Qualifications
HAVO	<i>Hoger algemeen voortgezet onderwijs</i> (upper general secondary education)
HBO	<i>Hoger beroepsonderwijs</i> (higher professional education)
HE	Higher education
IAB	<i>Institut für Arbeitsmarkt- und Berufsforschung</i> (Institute for Employment Research)
IG Metall	<i>Industriegewerkschaft Metall</i> (Industrial Union of Metal Workers)
ILO	International Labor Organization
IR	Ireland
ISCED	International Standard Classification of Education
ISCO	International Standard Classification of Occupations
IT	Information technology
IV	<i>Vereinigung der österreichischen Industrie</i> (Federation of Austrian Industries)
JAP	Japan
KC	<i>Kenniscentrum</i> (Knowledge Center)
KFH	<i>Konferenz der Schweizer Fachhochschulen</i> (Rectors' Conference of the Swiss Universities of Applied Sciences)
KMK	<i>Kultusministerkonferenz</i> (Standing Conference of the Ministers of Education and Cultural Affairs of the Länder)
LDV	Lagged dependent variable
LME	Liberal market economy
LO	<i>Landsorganisationen i Danmark</i> (Danish Confederation of Trade Unions)

Abbreviations

LTS	<i>Lager technische school</i> (lower technical school)
M	Male
MAVO	<i>Middelbaar algemeen voortgezet onderwijs</i> (middle general secondary education)
MBO	<i>Middelbaar beroepsonderwijs</i> (upper secondary vocational education)
NAM	National Association of Manufacturers
NARIC network	National Academic Recognition Information Centres in the European Union network
NQF	National Qualifications Framework
NSPIE	National Society for the Promotion of Industrial Education
NVQs	National Vocational Qualifications
O&O	<i>Onderzoek- en Ontwikkelingsfondsen</i> (education and development funds)
OdA	<i>Organisationen der Arbeitswelt</i> (Organizations of Work)
OECD	Organization for Economic Co-operation and Development
ÖGB	<i>Österreichischer Gewerkschaftsbund</i> (Austrian Trade Union Federation)
OMC	Open method of coordination
ÖVP	<i>Österreichische Volkspartei</i> (Austrian People's Party)
PET	Professional education and training
PISA	Programme for International Student Assessment
RDI	<i>Reichsverband der Deutschen Industrie</i> (Reich Association of German Industry)
REU	<i>Rådet for de grundlæggende Erhvervsrettede Uddannelser</i> (Advisory Council for Initial Vocational Education and Training)
REVE	<i>Rådet for Voksen- og Efteruddannelse</i> (Council for Vocational Adult Education and Training)
ROA	<i>Researchcentrum voor onderwijs en arbeidsmarkt</i> (Research Center for Education and the Labor Market)
ROC	<i>Regionale Opleidingscentrum</i> (Regional Training Center)
SAV	<i>Schweizerischer Arbeitgeberverband</i> (Swiss Employers' Association)
SBHV	<i>Schweizerischer Bau- und Holzarbeiterverband</i> (Swiss Union of Construction and Woodworkers)
SBTC	Skill-biased technological change
SGB	<i>Schweizerischer Gewerkschaftsbund</i> (Swiss Federation of Trade Unions)
SGG	<i>Schweizerische Gemeinnützige Gesellschaft</i> (Swiss Charitable Society)

SGV	<i>Schweizerischer Gewerbeverband</i> (Swiss Trade Association)
SHIV	<i>Schweizerischer Handels- und Industrieverein</i> (Swiss Association of Commerce and Industry)
SME	Small and medium enterprises
SMUV	<i>Schweizerischer Metall- und Uhrenarbeiter Verband</i> (Swiss Metalworkers and Watchmakers Union)
SPD	<i>Sozialdemokratische Partei Deutschlands</i> (Social Democratic Party of Germany)
SPÖ	<i>Sozialdemokratische Partei Österreichs</i> (Social Democratic Party of Austria)
SQUF	<i>Netzwerk der Wirtschaft für Weiterbildungsfragen, Service de l'économie pour les questions de formation professionnelle</i> (Network of Business for VET Questions)
ST	State actors (interviews)
SVEB	<i>Schweizerischer Verband für Weiterbildung</i> (Swiss Association for Continuing Education)
SW	Sweden
UK	United Kingdom
U-90	<i>En samlet uddannelsesplan frem til 1990</i>
UNESCO	United Nations Educational, Scientific, and Cultural Organization
US	United States
VBO	<i>Vorbereidend beroepsonderwijs</i> (preparatory professional education)
VDI	<i>Verein Deutscher Ingenieure</i> (Association of German Engineers)
VDMA	<i>Verband Deutscher Maschinenbauanstalten</i> (Association of German Machine-Building Firms)
ver.di	<i>Vereinte Dienstleistungsgewerkschaft</i> (United Service Workers' Union)
VET	Vocational education and training
VEU	<i>Voksen- og Efteruddannelse</i> (continuing vocational training)
VMBO	<i>Vorbereidend middelbaar beroepsonderwijs</i> (preparatory vocational education)
VoC	Varieties of capitalism
VWO	<i>Vorbereidend wetenschappelijk onderwijs</i> (pre-university secondary education)
WEB	<i>Wet educatie en beroepsonderwijs</i> (Education and Vocational Training Act)
WKÖ	<i>Wirtschaftskammer Österreich</i> (Austrian Federal Economic Chamber)
WO	<i>Wetenschappelijk onderwijs</i> (university education)

Abbreviations

ZAG	<i>Zentralarbeitsgemeinschaft</i> (Central Working Association)
ZDH	<i>Zentralverband des Deutschen Handwerks</i> (German Confederation of Skilled Crafts)
ZSAO	<i>Zentralverband Schweizerischer Arbeitgeberorganisationen</i> (Central Association of Swiss Employers' Organizations)

Introduction

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1

The Comparative Political Economy of Collective Skill Formation

*Marius R. Busemeyer and Christine Trampusch*¹

It is widely acknowledged that the availability of human capital contributes to economic performance and competitiveness as well as social integration and equality. In recent years, the challenge of the globalized knowledge-based service economy prompted national governments and international organizations to pay increasing attention to skills. Policymakers regularly emphasize the need to invest in education and skill formation, but if human capital is such a desirable good, why is it so hard to create? And why do countries differ so much in how they attempt to produce it?

One of the most interesting conclusions of scholarly work in recent years is the insight that the development and availability of skills is not a matter of unconstrained, rational choices but is strongly conditioned by and reflected in the institutional context of political economies, both historically and in the contemporary period (Finegold and Soskice, 1988; Streeck, 1992*a*, 1996; Ashton and Green, 1996; Culpepper and Finegold, 1999; Hall and Soskice, 2001; Thelen, 2004, 2008; Cusack et al., 2007; Iversen and Stephens, 2008; Martin and Swank, 2008; Busemeyer, 2009*a*; Bosch and Charest, 2010; Trampusch, 2010*a*, 2010*b*). This literature also points out that “human capital” is not a homogenous good, but comes in different varieties and flavors, and that countries differ largely with regard to the availability of different kinds of human capital, which has important consequences for patterns of economic competitiveness and social integration.

Hence, the domain of skill formation must not be regarded in isolation from other domains of the political economy. The study of the politics and institutions of skill formation tells a lot about the development of political economies in general. Changes in the domain of skill formation

have consequences for the development of adjacent spheres of the political economy, such as industrial relations, collective wage bargaining, the welfare state, and labor markets and vice versa. Instead of following a static approach and taking the existence of self-reinforcing equilibria for granted, this book emphasizes the dynamic, partly contingent, and fundamentally political nature of skill formation processes. Instead of viewing institutional arrangements of skill formation as the outcomes of rational and functional decisions of firms interested in minimizing transaction costs, the various contributions reveal skill systems to be institutions that are “fraught with tensions” (Mahoney and Thelen, 2010: 10) and always temporary and contested solutions to ongoing conflicts about the distribution of power.

More specifically, this volume is devoted to the study of *collective skill formation systems*, to be found in a number of countries usually depicted as “coordinated market economies.” These systems have been admired by international observers and academic scholars alike, because they combine low levels of youth unemployment with high-quality occupational skills and thereby bolster the competitiveness of economies (e.g., Finegold and Soskice, 1988; Hall and Soskice, 2001). Following the inductive typical-case selection strategy (Gerring, 2007: 91), we selected Germany, Austria, Switzerland, the Netherlands, and Denmark as cases because they are representative of collective skill formation systems. As typical cases “serve an exploratory role” (Gerring, 2007: 91), the volume’s main objective is to explore the historical and political origins of collective skill formation systems and how contemporary challenges condition their change.

The main characteristic of the vocational training systems of these countries is that they are *collectively organized*, because firms, intermediary associations, and the state cooperate in the process of skill formation in initial vocational training. In particular, this means that, first, firms are strongly involved in financing and administering workplace-based training; second, intermediary associations play an important role in the administration and reform of these systems; third, the systems provide portable, certified occupational skills; and fourth, training takes place not only in schools but also in companies, usually in the form of dual apprenticeship training.

There are three main insights linking the various chapters. The first insight is that collective skill formation systems are not self-sustaining institutional “equilibria.” On the contrary, they are vulnerable and, in part, even fragile institutional arrangements that need the continuous political support of relevant stakeholders. The historical chapters in this volume provide the reader with a sense of the amount of contingency involved in the continual redesign of institutional arrangements and, in this sense, constitute a warning against attempts of *ex post* rationalizations. Confronted with contemporary challenges such as deindustrialization, Europeanization, and structural changes in the economy, collective training systems need to be adapted in order to

survive, but these processes of reform always entail the danger of transforming the defining character of the system (see Thelen and Busemeyer on Germany or Powell and Trampusch on international challenges, both in this volume). The second insight the book provides is that the variety of skill formation systems is largely conditioned by the decisions made on the division of labor between firms, associations, and the state in providing and financing skills. The third insight is that, in collective skill formation systems, these decisions are particularly contentious because the historical and contemporary development of collective skill formation systems is affected by political struggles during critical junctures with regard to four neuralgic points of conflict: the division of labor between the state, employers, their associations, and individuals on the provision (who provides?) and financing (who pays?) of vocational education and training (VET), the relationship between firm autonomy and public oversight in the provision of training (who controls?), and the linkages between VET and the general education system. The decisive causal factors that shaped political struggles over these points of conflict are, on the one hand, characteristics of firms and cleavages within the business camp ("logic of membership") and, on the other hand, characteristics of the state, unions, and the balance of power between business and labor ("logic of influence") (Schmitter and Streeck, 1999; Streeck and Schmitter, 1985).

The volume is divided into two sections. The first section—country studies—contains case studies on Germany (Kathleen Thelen, Marius R. Busemeyer), the Netherlands (Karen Anderson, Dennie Oude Nijhuis), Switzerland (Philipp Gonon, Markus Maurer), Austria (Lukas Graf, Lorenz Lassnigg, Justin Powell), and Denmark (Moiria Nelson) and explores the historical origins and contemporary changes in collective skill formation systems. Preceding the country chapters, the chapter by Cathie Jo Martin revisits the crucial period of the formative phase of vocational training. On the basis of an in-depth study on Denmark, the United States, and Germany, Martin shows that partisan competition and the political features of state structures influence the organization of employers' associations and also their strategies in training policy. The second section—crosscutting topics and contemporary challenges—is directed more specifically at overarching topics currently discussed in the comparative political economy literature. It aims at discussing the interaction between deindustrialization, vocational training, and collective wage bargaining in determining stratification effects of training systems (Marius R. Busemeyer, Torben Iversen), the embeddedness of vocational training in educational systems (Rita Nikolai, Christian Ebner), the association between gender-related labor market stratification and vocational training (Margarita Estévez-Abe), and the impact of the Europeanization processes (Justin Powell, Christine Trampusch). In the foreword, Kathleen Thelen argues that capitalism cannot be discussed without addressing the topic of skills and critically reviews the studies conducted on

this topic both inside and outside the Max Planck Institute for the Study of Societies. Wolfgang Streeck provides a concluding essay on the debate over general versus specific skills.

This introductory chapter is divided into five sections. In the first, we discuss the peculiarities of collective skill formation systems from the perspective of labor market economics and institutional political economy. On the basis of a typology of skill formation systems in advanced political economies, we highlight in the second section the central characteristics of collective training systems. The third section explores the variation within the group of collective skill formation systems, and the fourth discusses the political economy of collective skill formation, that is, the causal factors that shape the historical and current development. In the fifth section, we describe crosscutting topics and contemporary challenges, while again pointing to specific chapters of the book.

Institutions and the economics of skill formation

Labor market economists have struggled to explain the functioning of collective training systems (Harhoff and Kane, 1997; Acemoglu and Pischke, 1998, 1999; Wolter et al., 2006). From the perspective of standard human capital theory (Becker, 1993[1964]), the existence of collective skill systems poses several puzzles: why are firms willing to take over a significant share of the costs of initial VET despite the fact that apprentices are free to leave the firm after they complete their training? Why does a significant share of a typical youth cohort decide to pursue vocational training instead of academic higher education, a development that results in significantly lower student enrollment rates in countries with collective training systems compared with other nations (see Nikolai and Ebner in this volume)?

A partial answer to these questions lies in the role of institutions. Authors in the tradition of *neo-institutional labor economics* (Acemoglu and Pischke, 1998, 1999) explain the “irrational” willingness of firms to invest in skills as a result of “labor market imperfections.” Because of low levels of labor turnover in countries such as Germany, so the argument goes, firms are more willing to invest in training, because there is a higher probability that apprentices will decide to stay with the training firm than in countries with flexible and fluid labor markets. Also, firms can use apprenticeship training as a gate-keeping device to internal labor markets, allowing them to identify candidates with “high potential” and to sort out the “lemons.”

However, this kind of *ex post rationalization* of observed firm strategies in skill formation can, at best, provide partial answers only and, at worst, detract from the deeper lying causes of the diversity of skill regimes in advanced industrial democracies. For instance, Acemoglu and Pischke (1999) treat the

existence of “labor market imperfections” as a given exogenous factor. They cannot (or do not aim to) explain the variation of labor market imperfections across country contexts. Therefore, their explanation for the continuing survival of collective training systems is partial at best, because it remains unclear whether firms themselves would be willing or able to create these imperfections as part of their skill formation strategies or whether they are caused by something exogenous to the economic process of human capital formation, that is, politics and society.

In contrast, scholarship in the tradition of *institutional political economy* (Streeck, 1992a, 1992b, 2009; Hall and Soskice, 2001; Thelen, 2004) pays close attention to the embeddedness of training institutions in a dense network of political and socioeconomic institutions, such as collective wage bargaining, corporate governance and financing, labor market and welfare state policies, as well as industrial relations. These accounts provide a clear answer as to the determinants of firm strategies in skill formation: the dense network of institutional constraints imposes “beneficial constraints” (Streeck, 1992a, 1994) on firms, encouraging them to invest in skills. Most importantly, the creation of “beneficial constraints” always entails an element of conflict between the different stakeholders, namely firms, workers, their associational representatives, and the state. The establishment of a collective institutional framework is not the result of a rationalistic process of deliberation among firms searching for the optimal skill formation strategy. Instead, training institutions have deep roots in the history of politics and society, which, in the case of apprenticeships, often go back to the Middle Ages (Thelen, 2004, 2007, 2008). In short, this strand of literature argues that the preferences of actors in training are socially constructed and that it is the historical record which helps us to understand these preferences.

In line with these approaches, the contributions to this volume largely follow a *historical-institutionalist perspective*. The development of skill formation systems is regarded as a dynamic political process that unfolds according to empirically observable regularities; hence, it is possible to develop generalized propositions about these processes. At the same time, the development paths of skill formation systems are not predetermined, that is, there remains a significant amount of contingency, which is usually expressed in political struggles about institutional design and transformations. Thus, although training systems have deep historical roots, institutional arrangements different from the dominant pattern always remain latent options. Also, there is no inherent mechanism that guarantees the stability of these arrangements. Instead, institutions need the continual political support of important political stakeholders in order to survive in the long term (Thelen and Kume, 2006; Hall and Thelen, 2009). That said, the different chapters of this volume acknowledge the importance of *critical junctures*—tipping points in the historical

development of political economies that open up contingencies that may (or may not) lead to the renegotiation of the institutional and political settlements of the past, while at the same time setting in motion a process of transforming the political arena for the next round of renegotiations in the future.

In the development of skill formation systems, we look at *three critical junctures* that set countries on specific trajectories and where fundamental decisions on the design of skill formation systems are renegotiated. Following Collier and Collier (1991: 29), we define a critical juncture “as a period of significant change, which typically occurs in distinct ways in different countries [...] and which is hypothesized to produce distinct legacies.” In skill formation, the first critical juncture is located in the *period of intensified industrialization and democratization at the end of the nineteenth and the beginning of the twentieth centuries*, when the relative timing and sequence of the processes of state formation and industrial development decidedly shaped the industrial and political integration of business and labor as well as the formation of national labor markets. The second critical juncture lies in the *1960s and 1970s*, when the postwar growth period came to an end. This period is associated with the rise of the neo-corporatist paradigm and the onset of the economic globalization. Finally, the *current period of intensified economic and political globalization* and the rise of the service and knowledge economy can be thought of as a third critical juncture, in which not only the deregulation of labor markets and the decentralization of industrial relations but also shifts in skill demands signal that a crucial transformation of contemporary political economies is underway.

Varieties of skill formation systems

Typologies necessarily imply a simplified picture of social reality. Nevertheless, they are useful tools for bringing order to complexity and for understanding processes of institutional change, in particular if they are designed in the Weberian sense of identifying ideal types that can help us make sense of the direction of change while showing us the alternatives that social actors have at their disposal. In the comparative literature on training, we find various typologies to distinguish national training systems, recognizing that the real guises of training systems also embody various elements of the different types (Finegold and Soskice, 1988; Blossfeld, 1992; Greinert, 1993; Lynch, 1994; Ryan, 2000; Crouch et al. (2004[1999])). This literature identifies several crucial dimensions of variation in the institutional design of training, such as the dominant venue of training, the degree of standardization and certification of skills, the degree of stratification and differentiation in the system of occupational degrees, the role of the state, and the linkages between skill formation and other