Globalization, technological change, and state intervention in coordinated capitalism: The political economy of state-led vocational training policies

DISSERTATION of the University of St. Gallen, School of Management, Economics, Law, Social Sciences, International Affairs and Computer Science, to obtain the title of Doctor of Philosophy in International Affairs and Political Economy

submitted by

Daniel Franz Unterweger

from

Austria

approved on the application of

Prof. Dr. Patrick Emmenegger

and

Prof. Pepper D. Culpepper

Dissertation no. 5256

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The University of St. Gallen, School of Management, Economics, Law, Social Sciences, International Affairs and Computer Science, hereby consents to the printing of the present dissertation, without hereby expressing any opinion on the views herein expressed.

St. Gallen, May 16, 2022

The President:

Prof. Dr. Bernhard Ehrenzeller

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Daniel Franz Unterweger

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Summary

What future do coordinated, egalitarian forms of capitalism have in an increasingly globalized and digitized world? By addressing this perennial political-economic question, this dissertation provides novel insights on the increasing role that state intervention can play in coordinated models of capitalism. To explore these dynamics, I examine collective, dual vocational education and training systems, which have increasingly moved to the center of both scholarly and political attention due to their positive effects on economic efficiency as well as social inclusion. Such collective systems of skill formation based on the dual apprenticeship model are a prime example of coordinated capitalism that is particularly affected by globalization and technological change. Exploring instances of state-led vocational training policies in the skill formation systems of Austria, Denmark, and Switzerland, this cumulative dissertation consists of four individual articles that all aim to find the causal, political-economic factors that enable increasing state intervention in the face of the aforementioned structural trends. In sum, I show that none of the political-economic actors central to skill formation systems are in principle opposed to increased state intervention; rather they favor different forms of state intervention. This means that multiple pathways to a larger role of the state are possible, leading to more potential for state intervention in contemporary capitalism than often assumed. Surprisingly, many reactions to structural pressures might consequently entail a stronger role of the state. This is the case because not only unions, but also employers and/or their associations might, under certain conditions, consent to or even favor certain forms of state intervention. However, while one might assume that such increasing statism would lead to a survival of the egalitarian nature of European models of capitalism, this is determined largely by who is able to set the terms of state intervention.

Zusammenfassung

Die Frage nach der möglichen Zukunft von koordinierten, sozialpartnerschaftlich orientierten Kapitalismusformen in Zeiten der Globalisierung und des technologischen Wandels ist ein zentraler Forschungsfokus der vergleichenden politischen Ökonomie. Diese Dissertation untersucht eine potentiell stärkere Rolle des Staates als zentralen Bestandteil der Neuorientierung von koordinierten Kapitalismusformen im Angesicht der genannten Transformationsprozesse. Empirisch konzentriert sich diese Dissertation auf kollektive, duale Berufsbildungssysteme, welche als Beispiele für koordinierte Kapitalismusmodelle verwendet werden, die besonders stark von strukturellem Wandel betroffen sind. Anhand von Fällen ansteigender Staatsintervention in den kollektiven Berufsbildungssystemen Dänemarks, Österreichs und der Schweiz untersucht diese Dissertation die kausalen, politisch-ökonomischen Faktoren, welche zu einer stärkeren Rolle des Staates führen. In ihrer Gesamtheit zeigen die vier Artikel dieser kumulativen Dissertation, dass keiner der zentralen Akteure und Stakeholder innerhalb der jeweiligen Berufsbildungssysteme grundsätzlich stärkere Staatsinterventionen ablehnt, sondern diese lediglich unterschiedliche Arten von Staatsintervention bevorzugen. Daraus ergibt sich eine Vielzahl unterschiedlicher Pfade, welche eine stärkere Rolle des Staates hervorbringen können. Dies ist der Fall, da nicht nur Gewerkschaften, sondern auch Arbeitgeber und/oder ihre Verbände unter Umständen bestimmten Formen von Staatsintervention zustimmen oder diese sogar befürworten. Ob eine Ausweitung von Staatsintervention allerdings auch zu einer egalitären, sozial inklusiven Ausrichtung der jeweiligen Wirtschaftssysteme führt, bleibt offen, da es zentral ist, welche Akteure die spezifische Ausgestaltung der jeweiligen interventionistischen Politikmassnahmen bestimmen.

1. Introduction

What future do coordinated, egalitarian forms of capitalism have in an increasingly globalized and digitized world? For the last decades, this question has been at the center of political economy scholarship and political discussions alike. Structural socio-economic changes, in particular the interconnected trends of technological change and globalization, have frequently been cited as pressuring the more coordinated varieties of capitalism (Glyn, 2006; Streeck, 2009) that long provided many continental European countries not only with economic efficiency, but also social solidarity (Hall & Soskice, 2001; Streeck, 1997a). Deindustrialization and a growing service sector have often been identified to challenge employer coordination, for example visible in collective bargaining coverage or firm participation in dual training (Busemeyer & Iversen, 2012; Busemeyer & Thelen, 2012). Similarly, globalization is said to diffuse short-termist models of corporate governance or increase business' exit capacity from coordinated market economies, setting generous welfare state arrangements and models of employee co-determination under pressure (Culpepper, 2015; Höpner, 2003; Sorge & Streeck, 2018).

Institutional change in the face of these structural pressures has become the "new conventional wisdom" in comparative political economy and connected subdisciplines (Doellgast, Lillie, & Pulignano, 2018). However, how that change specifically manifests remains an open and contested question. While more pessimistic accounts identify a "common neoliberal trajectory" (Baccaro & Howell, 2011, 2017), or a dualization of coordinated market economies into core sectors with generous institutional arrangements and a growing, liberalized periphery (Palier & Thelen, 2010), literature has also identified potential for alternative pathways. After all, "structural pressures do not directly translate into policy change", enabling varying policy reactions (Emmenegger, Häusermann, Palier, & Seeleib-Kaiser, 2012, p. 10). In particular, some scholars argue that a different and even stronger role of the state can emerge as a central feature of alternatives to outright liberalization or dualization (Martin & Thelen, 2007; Obinger, Starke, & Kaasch, 2012; Thelen, 2012, 2014), compensating for decreasing (employer) coordination and its positive effects on economic efficiency and/or social solidarity (Carstensen & Ibsen, 2019). This is striking, considering the rather small role the state

has played since Varieties of Capitalism (VofC) put employers at the center of comparative political economy scholarship (Hall & Soskice, 2001).

However, the causal factors which lead to such increased state intervention have remained subject to substantial ambiguity in the literature. This dissertation consequently sheds more light on the pathways to increased state intervention that have emerged in response to the structural pressures of technological change and globalization in coordinated market economies. The main aim of this dissertation is to find the causal, political-economic factors that enable increasing state intervention, defined not only as the creation and implementation of public policies providing or facilitating the provision of collective goods and services and consequently the "substantive content of policies, which may alter [...] institutions and [...] incentive structures, but also their effects on different varieties of capitalism" (Schmidt, 2009, p. 517). In the course of this introduction to the dissertation, I will distinguish between three different forms of state intervention in order to better explore the different political-economic factors that led to their introduction. More specifically, I differentiate between replacing, constraining and enabling forms of state intervention. In "replacing" forms of state intervention, the state itself substitutes collective actors in the provision of collective goods. In contrast, in "enabling" forms of state intervention, the state supports collective actors to coordinate. In "constraining" forms, the state tries to coerce them to coordinate by punishing uncooperative collective actors. In sum, I show that none of the political-economic actors central to skill formation systems is in principle opposed to increased state intervention, rather, they favor different forms of state intervention. This means that multiple pathways to a larger role of the state are possible, leading to more potential for state intervention in contemporary capitalism than is often assumed.

In order to explore these dynamics, I focus on vocational education and training (VET), a policy field that has increasingly moved towards the center of scholarly attention in comparative political economy scholarship (Estevez-Abe, Iversen, & Soskice, 2001). In particular, I look at developments in so-called "collective skill formation systems" (Busemeyer & Trampusch, 2012) that are based on dual VET via school-based and firm-based learning (apprenticeship). These systems have been widely considered as a prime example of coordinated capitalism (Hall & Soskice, 2001; Streeck, 1992; Thelen, 2014), as they rely on employer coordination in the reform, provision and day-to-day administration of dual training. Technological change and globalization have

also been identified as severely challenging the collective provision of skills via employer coordination (for an overview, see this author's elaborations in Emmenegger & Unterweger, 2021, not part of this dissertation). For example, these trends increase firms' exit capacities from training (Lauder, Brown, & Ashton, 2008), change skill demands, and diminish economic sectors with strong training traditions (Culpepper & Thelen, 2008). Furthermore, the literature depicts the governance of dual VET as a paradigmatic example of a "private interest government" (Streeck & Schmitter, 1985). Private instead of public actors, more specifically business and its association, are often regarded as the most suitable and legitimate actor in this policy field (Bonoli & Emmenegger, 2020; Busemeyer & Thelen, 2020; Culpepper, 2011), making it an extreme case of state non-intervention. By studying the various forms and determinants of state intervention in the skill formation systems of Austria, Denmark, and Switzerland, this dissertation consequently offers strong insights into which trajectories of coordinated capitalism should be possible also in other policy fields facing increasing structural pressures.

Dual VET systems have also been of rapidly increasing interest empirically, as they are widely acknowledged to keep youth unemployment low and create smooth transitions from school to work (Busemeyer, 2015), while at the same time providing the economy with specialized but transferable skills that are close to labor market needs (Carstensen & Ibsen, 2019). This has led to an increasing relevance of VET in domestic politics and international organizations alike, with the latter increasingly aiming to implement certain elements of coordinated, dual VET systems among their member states (see for example the contributions of this author in several OECD publications that are not part of this dissertation, Unterweger, 2020a; 2020b, 2021). Consequently, studying the causal factors that make increased state intervention possible in the face of the structural pressures that collective skill formation systems currently face is also of substantial practical and political relevance.

The structure of this dissertation is as follows. First, I review how comparative political economy literature acknowledges the contemporary challenges of coordinated capitalism. I subsequently explain how this pressure plays out in the policy field at the center of this research project, namely dual VET. Second, I look at how past and current literature observes the role of the state in response to such pressures, highlight limitations of current scholarship, and subsequently distinguish between enabling, constraining, and

replacing forms of state intervention. In the following, I explain my case selection and my empirical approach based on comparative, qualitative case study methodology. This is followed by the 4 individual articles of this cumulative dissertation, all of which inquire into the political-economic drivers behind state-led VET reforms in the face of technological change and globalization, the findings of which are synthesized in the conclusion.

Technological change, globalization, and coordinated capitalism

Structural changes and employer coordination

A central characteristic of comparative political economy scholarship has long been the strong emphasis on the distinctiveness of a more coordinated, egalitarian type of capitalism that is prevalent in several Western European countries in contrast to a more liberal and "unleashed" Anglo-American type of capitalism (Albert, 1992; Streeck, 1992; Thelen, 1994). These European models of capitalism rest on (employer) coordination, as collective actors like employers and their associations, but also labor unions, cooperate in the provision of research networks, wage restraint through collective bargaining, social peace, patient capital, or specialized but transferable skills through collective vocational education and training (dual VET). The question if and how structural socioeconomic changes like technological change and globalization challenge these arrangements has shaped comparative political economy scholarship at least since the 1990s (Berger & Dore, 1996; Kitschelt, Lange, Marks, & Stephens, 1999; Strange, 1988; Streeck, 1997b). However, the famous Varieties of Capitalism (VofC) approach made the strong claim that stability and institutional distinctiveness could be expected, even in the face of external shocks (Hall & Soskice, 2001). It made a strong point emphasizing potential alignments of employer interests with more coordinated and egalitarian forms of capitalism. The specific institutional environment of coordinated market economies would not only lead to more egalitarian outcomes, but also enhance their economic efficiency by giving them a "comparative institutional advantage" in in diversified mass or quality production. According to VofC, employers themselves consequently support and stabilize such coordinated and inclusive varieties of capitalism.

However, postulating stability has become increasingly untenable in the last decade, and institutional change in the face of structural pressures has become the "new conventional wisdom" in comparative political economy and connected subdisciplines (Doellgast et al., 2018). In contrast to proponents of institutional economics like Williamson (1987) and applied by VofC, scholars like Korpi (1974) or Esping-Andersen (1990) have always suggested that the stability of coordinated, egalitarian forms of capitalism does not rest on voluntary agreement by employers that recognize it as economically beneficial, but rather on the distribution of power between capital and labor. Partially aligning with power resources theory, Streeck (1992, 1997b) emphasizes that as cost-benefit calculations of firms are always subject to substantial uncertainty, employers would favor short-term economic interests over long-term investments in the manifold economically beneficial collective goods that coordinated market economies provide. Building on classical sociology of Durkheim (1965), employer coordination in many cases consequently depends on the constraining nature of institutions resulting from a variety and interplay of factors like "cultural traditions, of a historically grown status structure, of prevailing concepts of social justice and legitimate stratification, and not least of the distribution of power in the polity and the workplace" (Streeck, 2004, p. 428 on dual VET). Coordinated models of capitalism rest on so-called "beneficial constraints" that are either "based in formal law or in a common culture" and constrain employer behavior (Streeck, 1997a, p. 217).

In the aftermath of the VofC approach, comparative political economy scholarship has increasingly returned to these approaches that picture coordinated, egalitarian forms of capitalism as an outcome of constraining factors (Benassi, Doellgast, & Sarmiento-Mirwaldt, 2016; Glyn, 2006; Korpi, 2006; Streeck, 2009). As a result, structural pressures are seen as loosening the "beneficial constraints" many coordinated market economies are based on, enabling employers to pursue more liberalized, market-based models of production, industrial relations, and welfare provision (Whitford, Baccaro, Edwards, & Doellgast, 2018). Technological change, more specifically automatization and digitization, and consequently progressing deindustrialization, a shift to the service sector, and globalization (Kollmeyer, 2009) have frequently been argued to destabilize strongholds of coordinated capitalism. Manufacturing has always been the poster child of coordinated capitalism (Hall & Soskice, 2001; Sorge & Streeck, 1988). Its decreasing significance in continental Europe is for example said to create challenges for collective bargaining and consequently high and relatively egalitarian wage levels, strong employment protection legislation, and employee co-determination (Emmenegger et al., 2012; Martin & Thelen, 2007). Key features of coordinated capitalism struggle to gain ground in the increasingly important service sector with low unionization raters, less encompassing employer associations, and Anglo-American business models based on high worker flexibility.

As technological change increases capital mobility, it is tightly intertangled with globalization, which can be defined as a process of "growth [...] of economic activity across national and regional political boundaries" (Oman, 1996, p. 5). Therefore, new technological innovations are further accelerating trends of globalization that were already powered by increased economic liberalization and the establishment of the European Common Market with its subsequent expansion to Central and Eastern Europe (Kinkel & Maloca, 2009; Sorge & Streeck, 2018; Streeck, 1997b). In manufacturing as well as in the service sector, digitization and high-speed data transfer enables new production technologies based on wide-ranging standardization, quality control and employee surveillance (Clement & Lacher, 2007; Jürgens & Krzywdzinski, 2016). This leads to an environment of high capital mobility, as it matters less where (geographically) jobs are actually performed (Brown, Lauder, & Ashton, 2011; Iten et al., 2016; Lauder et al., 2008). Technological change makes it consequently possible to offshore an increasing variety of jobs that were previously strongly connected to the industrialized and high-income countries (Herrigel, 2014, p. 144). In other words, manifold accounts suggest that employers are not "captive" anymore and can increasingly exit or threaten to exit coordinated market economies (Sorge & Streeck, 2018). This can increase the structural power of business, which captures the structurally privileged position of firms as providers of economic well-being in capitalist economies. Consequently, policymakers might refrain from implementing policies that are perceived as too costly for firms in order to prevent business exodus, consequently further putting coordinated, egalitarian capitalism under strain (Culpepper, 2015; Lindblom, 1977).

Furthermore, increased capital mobility also leads to an influx of multinational companies (MNCs) that are not anchored in the institutional environment of their new coordinated host countries (Edwards & Ferner, 2002; Edwards, Sánchez-Mangas, Jalette, Lavelle, & Minbaeva, 2016). Such MNCs might rather be shaped by Anglo-American "shareholder value" firm strategies that propagate to increase short-term profits and distribute them to shareholders - potentially incompatible with the long-term and more unclear returns of employer coordination (Almond, 2011; Höpner, 2003, p. 26; Streeck, 1997a). Similarly, international competition and the consequent worldwide expansion of

companies, including mergers and acquisitions, diffuses firm-strategies based on the shareholder value model also among European companies (Deeg, 2009; Lane, 2005), and increasingly necessitates financing on (international) stock markets that are "liberal in nature" (P. Almond, 2011).

In sum, comparative political economy literature has increasingly acknowledged the importance and potentially destabilizing effects of such structural trends on coordinated modes of capitalism. The next section emphasizes the insights comparative political economy scholarship can gain on these transformations of contemporary capitalism by focusing on the study of dual vocational training systems.

Structural changes and collective VET systems

Dual vocational education and training (VET) policies consisting of firm-based and school-based learning provide an ideal research object to investigate how structural trends affect coordinated market economies. While skill formation among coordinated market economies is far from uniform (Busemeyer, 2009a; Crouch, Finegold, & Sako, 1999; Thelen, 2007), "collective" skill formation systems that rest on dual apprenticeships are widely considered to be prime examples of coordinated capitalism (Busemeyer & Trampusch, 2012; Estevez-Abe et al., 2001). More specifically, dual VET depends on firms' collective action and consequently employer coordination. While employer associations (and to a lesser degree labor unions) usually take over functions concerning the administration, standardization and reform of dual VET, individual firms are responsible for the provision of apprenticeship places on the ground (Busemeyer & Trampusch, 2012). In other words, while the state is responsible for the provision of training in apprenticeship schools, employers provide main semi-public tasks in dual apprenticeship systems, and consequently fulfil the function of "private interest governments" (Streeck & Schmitter, 1985). Private instead of public actors, namely business and its association, are consequently regarded as the most suitable and legitimate actor (Bonoli & Emmenegger, 2020; Busemeyer & Thelen, 2020; Culpepper, 2011), making it a policy field where the state usually refrains from intervening.

Prominent in Austria, Denmark, Germany, the Netherlands, Switzerland, and partially also Norway, collective skill formation systems provide more specialized, occupational skills that are close to labor market needs and enables companies to engage in diversified mass or quality production (Sorge & Streeck, 1988), consequently increasing economic efficiency. At the same time, they are central for the egalitarian

nature of many coordinated market economies. For example, they are considered as a foundation for low youth unemployment and a smooth transition from school to work (Busemeyer, 2015). The occupational skills they provide are standardized, certified, recognized on national labor markets and therefore portable between firms, thereby increasing labor market mobility of employees and their power position vis-à-vis firms (Streeck, 1994). In addition, in some countries, the VET system increasingly acts as a route to tertiary education (higher VET or university) and consequently facilitates educational upwards mobility (Busemeyer & Trampusch, 2012). These efficiency- as well as inclusiveness-enhancing results of collective skill formation (Carstensen & Ibsen, 2019) explain why an increasing number of international organizations (OECD, EU) and national governments alike propagate to implement elements of collective training in previously non-collective systems.

Similar to coordinated and egalitarian capitalism more broadly, the structural trends of technological change and globalization also put collective skill formation under pressure. Deindustrialization decreases potentially available training places in the industrial sectors that have been strongholds of collective skill formation. The growing service sector, in particular in industries shaped by digitization and an increasing relevance of information and communication technologies, has only weak traditions in dual training (Culpepper & Thelen, 2008; Eichhorst, 2015). Technological change also fundamentally changes skill requirements of companies and consequently leads to a shift towards what is often termed the "knowledge economy", i.e. economies shaped by "production and services based on knowledge-intensive activities" (Powell & Snellman, 2004, p. 201). In the face of technological change and automatization, only routinized tasks are easily replaced by machines, but non-routine tasks dominant in high- and lowskilled jobs still need to be carried out by humans (Autor, Levy, & Murnane, 2003). Similarly, both in manufacturing and the service sector, standardization, easier possibilities for quality control, visualization and benchmarking due to digitization are argued to lead to an increasing use of lean management practices and lower skill requirements in certain job segments (Ittermann & Abel, 2015; Lauder, Brown, & Ashton, 2017). Various accounts consequently argue that due to this "polarization" of skill demands, many jobs at the higher and lower end of the skills distribution become increasingly important, while the availability of mid-level jobs decreases (CEDEFOP, 2018; Goos & Manning, 2007; Goos, Manning, & Salomons, 2009).

But even following less pessimistic accounts like Oesch and Rodríguez Menés (2011) and Helmrich et al. (2016), which are critical of the polarization thesis and find that labour markets are comprehensively "upgraded" towards higher skill levels in some economies, challenges arise for collective skill formation systems. For example, higher and general education might be better able to provide the necessary skills at the higher end of the skills distribution compared to dual apprenticeship training (Baethge & Wolter, 2015; Graf, 2018). The jobs apprenticeships have traditionally prepared for – jobs with mid-level skill requirements in the industrial sector – increasingly disappear (Anderson & Hassel, 2013; OECD, 2005; Wren, Fodor, & Theodoropoulou, 2013), and the question arises in how far collective skill formation can accommodate constantly increasing skill demands (Graf, 2017). Furthermore, it might be more and more difficult for academically weaker and socially disadvantaged groups to find training positions if collective training is adapted to constantly growing skill requirements of firms (Durazzi & Geyer, 2019). And if the polarization thesis holds true, firms might also increasingly question if newly created jobs at the lower end of the skill distribution still necessitate costly collective training (Lacher, 2007; Zeller, 2007).

As mentioned further above, technological change boosts capital mobility and consequently globalization. In fact, all of the countries with collective skill formation systems have become part of the 10 most globalized countries in the world (Gygli, Haelg, Potrafke, & Sturm, 2018), creating challenges for the stability of these systems. Following Streeck (1997a), employer coordination and consequently collective training arises mostly in the face of institutions that constrain employer behavior ("beneficial constraints"). This is the case because dual training is characterized by collective goods properties (Hart & Cowhey, 1977; Olson, 1971). First, firms cannot be forced to participate, but at the same time, cannot be excluded from its manifold benefits. Second, as payoffs from dual VET cannot be safely and permanently appropriated by an individual firm, as apprentices might be poached by other firms, cost-benefit calculations are subject to substantial uncertainty (Streeck, 1992). For dual VET, the central constraints identified are that firms are captive in a location with high wages, egalitarian wage setting and employment security (Sorge & Streeck, 2018; Streeck, 2004). This can "contribute to [economic] performance by transforming the preferences of actors [...], teaching them what they *really* want is something else", - namely training (Streeck, 1997a, p. 199). Globalization loosens these constraints as employers are not captive and are increasingly able to exit or credibly threaten to exit the respective arrangement if they no longer regard it to be in their best interest (Lauder et al., 2008; Whitford et al., 2018). A perceived or explicit threat of business exit could consequently push policy-makers away from implementing VET policies allegedly opposing business interests, as structural power accounts emphasize (Culpepper & Reinke, 2014; Fairfield, 2015; Lindblom, 1977).

However, beneficial constraints rest not only on formal institutions, but also "in a common culture" (Streeck, 1997a, p. 217). More specifically, collective skill formation is most likely to thrive in an environment where the "[c]ontinuous monitoring of one's short-term balance of economic advantage is not a social norm, encouraging long-term orientations and commitments", like investments in training (Streeck, 1997b, p. 243). Globalization however leads to a further diffusion of alleged "best-practice" models of corporate governance and human resource management that are rather oriented alongside Anglo-American practices (Lazonick & O'Sullivan, 2000). Shareholder value ideology originated in liberal market economies and stands in contrast to management models from coordinated market economies that emphasize long-term investments and are therefore more positive towards collective training strategies. The shareholder value management model propagates to increase short-term profits and distribute them to shareholders, which can be incompatible with the long-term and more unclear returns on investments in collective training (P. Almond, 2011; Höpner, 2003, p. 26; Streeck, 1997a). As mentioned in the previous section, an influx of multinational companies (MNCs) from liberal market economies that are not anchored in the institutional environment of their new coordinated host countries (Edwards & Ferner, 2002; Edwards et al., 2016), international competition, and increased financing on (international) stock markets (P. Almond, 2011) all contribute to a diffusion of such firm-strategies (Deeg, 2009; Lane, 2005) and might consequently challenge collective skill formation.

In sum, collective skill formation systems can be expected to be particularly pressured by globalization and technological change. In hardly any other policy field, the challenges of these structural trends for coordinated capitalism are visible in a comparably exacerbated way. On the one hand, globalization leads to an increase of MNCs and capital mobility, allegedly increases firms' exit capacities, and leads to a diffusion of short-termist models of corporate governance incompatible with employer coordination. On the other hand, technological progress changes skill demands and diminishes economic sectors with strong training traditions (Culpepper & Thelen, 2008). All this puts dual VET systems, and coordinated models of capitalism more generally, under severe pressure, and makes institutional change highly likely. However, as the next section will show, how specifically that change looks like is still heavily contested, in particular regarding the role the state can play in these adaption processes. As shown above, dual VET provides an ideal research focus for exploring how coordinated, egalitarian capitalism will respond as these trends progress. The next section provides an overview of the literature on such potential trajectories of change, with a special focus on the role the state.

Trajectories of change and state intervention in coordinated capitalism

Liberalization, dualization - and increasing statism?

While comparative political economy scholarship has increasingly acknowledged institutional change in coordinated market economies as a result of structural socioeconomic trends (Doellgast et al., 2018; Hall & Thelen, 2009), how specifically this change looks like remains an open and contested question. More pessimistic accounts like Glyn (2006) or Streeck (2009) argue that coordinated capitalism will be fundamentally reoriented according to the apparent needs of business, freeing capital from socially and economically beneficial constraints and leading to a deterioration of more coordinated modes of industrial relations, welfare and skills provision. Baccaro and Howell (2011, 2017) emphasize that coordinated market economies are, albeit with varying pace, pushed towards a "common neoliberal trajectory" that is shaped by far less generous and socially inclusive institutional arrangements. Dualization theories are similarly pessimistic with regard to the an egalitarian future of coordinated market economies, but do not emphasize neoliberal convergence. They highlight that in response to deindustrialization and globalization, coordinated market economies are increasingly divided between labor market insiders in core sectors of the economy that are still subject to generous welfare and labor market arrangements, and uncovered outsiders in a growing periphery (Palier & Thelen, 2010; Rueda, 2005).

For the case of dual vocational training systems, outright liberalization has not been identified by comparative political economy scholarship, most likely because creating a market for VET would require deep institutional and economic reconfiguration. Rather, the increasing refusal of employers to act collectively in the face of structural pressures is widely acknowledged to contribute to a development towards a less inclusive and dualized direction. More specifically, Emmenegger and Seitzl (2019), Trampusch (2010), Busemeyer and Thelen (2012) and Graf (2018) all identify a reorientation of the collective system of Switzerland and Germany towards increasing "segmentalism". As firm participation in dual training declines due to structural socio-economic trends, collective skill formation systems are said to increasingly cater to the demands of (large) companies to secure their training participation and thereby stop the decline of training firms (Emmenegger & Seitzl, 2019). In parallel to labor market dualization in coordinated capitalism more broadly, this ultimately leads to the division of the VET system into ever smaller segments, with an substantial proportion of individuals unable to land training places in core segments where training participation is still strong and shaped by increasing skill demands. However, as "structural pressures do not directly translate into policy change" (Emmenegger et al., 2012, p. 10), additional policy paths besides "pronounced dualization" should be in principle possible – both for dual VET as well as coordinated capitalism more generally.

In recent years, accounts that emphasize trajectories of capitalism alternative to liberalization and dualization in the face of structural pressures have become increasingly attentive again to the role of the state. Most prominently, Thelen (2012, 2014) identifies an alternative trajectory to outright liberalization or dualization for the Nordic countries which rests on increased state intervention in times of globalization and technological change. In this reform trajectory of coordinated capitalism, "social protection remains strong", with state intervention guaranteeing "social programs designed to ease the adaption of society, especially its weaker segments, to changes in the market" (Thelen, 2012, p. 147). Similarly, Martin and Thelen (2007, p. 4) emphasize that "state support is essential for maintaining coordination today in the face of new pressures", and Schmidt (2009, p. 522) argues that while adjustment to structural changes in coordinated market economies is "led by firms", it is nonetheless "jointly negotiated cooperatively between business, labor, and the state". Schmidt (2003, p. 533) also shows how Italy, Spain and France attempt to "intervene strategically to protect business and/or labor from the worst effects of the markets" and "create something akin to German non-market co-ordination" with its positive effects on economic efficiency and social inclusion (Molina & Rhodes, 2007; Thiberghien, 2007) – even though these countries were not always successful in these attempts (Schmidt, 2012). And most recently, Busemeyer, Carstensen, and Emmenegger (2020) show how German and Swiss state intervention can orchestrate employer coordination, upholding neo-corporatist arrangements by deploying material, ideational and institutional resources to intermediary associations.

Given this new focus on trajectories of coordinated capitalism accompanied by a larger role of the state, inquiry on the political-economic causes of such increasing state intervention in the face of structural pressures appears essential. The next section will consequently give an overview on the different traditions aiming to make sense of the role of the state.

Political-economic causes of state intervention

In the second half of the 20th century, the right analytical position of the state in social science analysis has been subject to a long and controversial debate, and comparative political economy scholarship subsequently often refrained from attributing a stronger analytical role to the state. On the one hand, both (neo-)marxist as well as pluralist literature mostly looked at the state and state intervention (in terms of policies) as an outcome to be explained by forces that are rooted in the wider society. In case of neo-marxist literature, these social forces were classes, with states acting often in the interests of capital (Miliband, 1969; Offe, 1974; Therborn, 1978), while pluralist theory rather emphasized a variety of competing social forces like parties and interest groups accessing and controlling the state and its policies (G. A. Almond, 1988; Truman, 1951). Both triggered heavy criticism from scholars like Skocpol, Evans, and Rueschemeyer (1985) or Krasner (1978), emphasizing that contra pluralist and marxist accounts (or "society-centred approaches"), states are often largely "autonomous" from social forces and their interests – be it the capitalist class, labor, or competing political parties and interest groups. More specifically, such "state-centered" approaches suggested to look at the "state as an actor" (Skocpol, 1985), as state administration would often pursue goals and policies independent of those articulated by abovementioned social forces, and would even be able to shape not only policies but also institutions, interest groups and their ideas. Consequently, these approaches have highlighted the role of an autonomous state-administration as an explanatory variable for the extent and makeup of state intervention itself (Skocpol et al., 1985), and have (at least partially) also found resonance in subsequent political economy scholarship (for an overview, see Jackson & Deeg, 2008).

However, in particular in the face of structural socio-economic changes like globalization and technological change, state autonomy vis-à-vis social forces (in particular business) has often been considered as shrinking (Strange, 1988). Even though in hindsight, shrinking leeway in the face of structural socio-economic trends might have been overemphasized (see in particular chapter 2 of this dissertation, as well as metagovernance literature below), the state subsequently lost its central position in the scholarly debate. While also comparative political economy scholarship once prominently featured the state in "state-capitalist" models historically prevalent in France, Spain and Italy (Katzenstein, 1978; Shonfield, 1965), liberal and coordinated market economies were ultimately seen as the more feasible models in the face of structural challenges (Hall & Soskice, 2001).

But state-centred approaches also had more far reaching pitfalls. They referred for example to state capacity in terms of organizational strength, ideologies of career officials, financial and administrative (information, expertise) resources, the existence of authorities planning agencies, and high prestige of civil service as central causal factors for explaining state intervention (Skocpol, 1985). Most prominent in recent comparative political economy scholarship, Martin and Thelen (2007, p. 17) similarly define state capacity as a public sector large enough to shore up coordination by collective actors that want to "preserve their jurisdiction against the intrusion of a large state". However, not only can we observe that this "variety of different interpretations of [state] strength (and weakness) [...] threatens coherent analysis", more importantly state-centered literature also "runs the risk of tautology to the extent that strength is defined purely in terms of outcomes" (Jessop, 2001, p. 164). Furthermore, and particularly relevant when considering the study of state intervention in coordinated capitalism, state-centred approaches often propose "clear and unambiguous boundaries between state apparatus and society, state managers and social forces, and state power and societal power", which often "rules out hybrid logics such as corporatism" and "ties between state organs and other social spheres" (Jessop, 2001, p. 155). After all, state administration is not necessarily a unitary actor, is always embedded in a broader society, and in particular the corporatist political economies of coordinated market economies are shaped by numerous interlinkages, exchanges and overlaps between strong interest groups and state administration, which makes a depiction of states as largely autonomous questionable.

Metagovernance theories (for a recent overview, see Gjaltema, Biesbroek, & Termeer, 2020) aim to solve some of these pitfalls, highlighting the state's "responsibility for the overall balance among modes of governance" (Jessop, 2016, p. 80). The state consequently choses between and stabilizes markets, statist provision of collective goods and services, or multi-stakeholder modes of governance like neocoproatism via a "deliberate attempt to facilitate, manage, and direct more or less self-regulating processes of interactive governance" (Torfing, Guy Peters, Pierre, & Sørensen, 2012, p. 122) in the face of a constant danger of collapse due to collective action problems. Metagovernance activities can include softer approaches (transforming external conditions for cooperation, stressing norms and ideologies, etc.) (Abbott, Genschel, Snidal, & Zangl, 2015; Kooiman & Jentoft, 2009) as well as harder instruments in the "shadow of hierarchy" (Scharpf, 1993), thereby overlapping with neocorporatist theory that has long emphasized that the state plays a far more active role in coordinated market economies than frequently displayed in the aftermath of the Varieties of Capitalism approach. Already Streeck and Schmitter (1985, p. 131) emphasized that cooperation between social partners arises to a significant extent due to the "presence of a state powerful enough, and willing, to establish direct control", thereby creating incentives for intermediate associations "to compromise on their substantive interests if this can save them from regulatory state interference" (see also Streeck & Kenworthy, 2005). Consequently, via "more or less explicit threats of changing the composition of the interactive arena", the state can also push collective actors to "do their best to deliver what they are supposed to deliver because they fear that the metagovernor will otherwise restrict their scope and authority" (Torfing et al., 2012, pp. 138, 143).

Certain strands of metagovernance theories are often seen as an alternative to state-centered and society-centered approaches towards the state, as they "avoid erroneous ideas about the decline or death of the state" (Torfing et al., 2012, p. 132) and acknowledge the state's role in shaping governance arrangements (e.g. corporatism) via state intervention, but emphasize that this role is not autonomous from social forces which "can act as force multipliers or sources of recalcitrance or resistance regarding broad state projects and particular policies" (Jessop, 2016, p. 79). This is in line with a newer strand of comparative political economy literature on state intervention, which is rather hesitant to consider state-centred factors (e.g. strength or autonomy of state administration) as central explanatory variables for explaining different forms of state

intervention. These accounts rather follow a society-centered tradition and see the form and extent of state intervention in coordinated market economies as resulting from partisan politics and/or interest groups conflicts (Busemeyer, 2015; Iversen & Stephens, 2008). Many of such accounts are at least partially inspired by power resources approaches (Korpi, 2006), delegating an important explanatory role for more state-led reform trajectories to left-wing parties and/or labor unions. For example, Afonso (2011) argues that labor union mobilization and/or broad societal (e.g. media) pressure can trigger state intervention (or a threat thereof), forcing employers to compromise with labor. Durazzi and Geyer (2019) put labor union preferences at the center of explaining stronger forms of state intervention in coordinated market economies (see also Marx & Starke, 2017). Also Howell (2016, p. 576) shows an understanding of state action not as autonomous but rather as contingent and strategic relational, "heavily influenced by the relative strength, perception of self-interest and organizational form of class actors". And even newer accounts coming from a state-centred tradition like Thelen (2014) account more causal power for explaining varying degrees of state intervention to societal factors, in particular the encompassingness and sectoral composition of interest associations. In particular, weak manufacturing interests within the labor movement are here seen as central for increased state intervention.

However, despite such recently increased attention to the state in this literature, many instances of expanding state intervention still remain puzzling. Contemporary developments in coordinated market economies show that not all instances of state intervention are accompanied by labor support (Martin & Thelen, 2007) or happen in settings where traditional manufacturing interests are weak (Obinger et al., 2012). Furthermore, it remains unclear how increased state intervention is possible in a policy-fields where business is particularly strong vis-à-vis labour unions (Busemeyer, 2012). And finally, depending on the specific strand of literature, state intervention has been seen as either a vehicle for upholding high levels of equality in face of diminishing collective efforts by employers (Martin & Thelen, 2007; Thelen, 2014), or as a discretion-enhancing vehicle for employers that on average produces outcomes detrimental for social solidarity (Howell, 2016, 2019; see also Levy, 2006). The specific factors responsible for these varying outcomes of state intervention on inclusiveness however remain underobserved. In sum, while literature on comparative capitalism and skill formation has identified several "statist" answers to structural pressures, the

political-economic factors that enable increased state intervention in the face of structural pressures are still underexplored and/or subject to substantial ambiguity in the literature.

This dissertation aims at making sense of this ambiguity. I build upon this newer, society-oriented research in comparative political economy that locates the main causal factors explaining the variation and extent of state intervention as external to state administration. Consequently, in this dissertation, state intervention primarily takes the role of an outcome of interest to be explained by external, societal factors. I therefore aim to identify the *political-economic drivers behind increased state intervention in the face of technological change and globalization*. However, similar to metagovernance literature, I fully acknowledge that ultimately, such state intervention "may alter [...] institutions and [...] incentive structures" of political-economic actors, which can in turn have substantial "effects on different varieties of capitalism" (Schmidt, 2009) (see in particular chapter 4 of this dissertation).

In the next section, I argue that differentiating between different forms of state intervention central to undertake this research endavour, as political-economic actors have different preferences for different forms of state intervention, ultimately leading to more potential for state intervention in contemporary capitalism than often assumed.

Enabling, constraining, and replacing forms of state intervention

While rarely made explicit, the empirical cases discussed in the literature clearly capture distinct forms of state intervention in coordinated market economies: enabling, constraining, replacing forms of state intervention¹. Distinguishing these different forms of state intervention is central for identifying the political-economic drivers behind and leeway for increased state intervention, as it is reasonable to assume that political-economic actors have different preferences for these different forms of state intervention. As will by shown throughout this dissertation, none of the political-economic actors central to skill formation systems is in principle opposed to increased state intervention, they rather favor different forms of state intervention. Multiple pathways to increasing state intervention are consequently possible, which means the state might play a larger

¹ I solely focus on types of state intervention that facilitate trajectories of capitalism alternative to liberalization. This means I deliberately omit "market-making" forms of state intervention that facilitate liberalization, as discussed by Howell (2019).

role in future trajectories of capitalism than often assumed by current comparative political economy literature.

First of all, in state intervention of an enabling kind, the state facilitates the activities of collective actors via "softer" approaches like transforming external conditions for coordination (e.g. regulations, knowledge distribution), engaging in coalition building and agenda setting, or storytelling and stressing common norms and ideologies (Abbott et al., 2015; Kooiman & Jentoft, 2009; Torfing et al., 2012). This also aligns with VofC theory that pictures leeway for state intervention as rather limited in coordinated market economies, only being able to improve the operation of neocorporatist practices with "complementary regulations" where "norms and institutions supporting effective cooperation already exist" (Hall & Soskice, 2001, p. 46). Also Busemeyer et al. (2020) recent account on "state orchestration" focuses on such enabling forms of state intervention, but is more optimistic regarding the possible extent and success of such complementary practices. With the goal of maintaining or revitalizing employer coordination, the state can consequently use "soft and indirect" instruments to nudge collective actors towards coordination, for example via the deliberative construction of narratives that picture coordination and social partnership as a success story (Schmidt, 2009), or capacity-building activities and direct material support among associations and firms in order to enable them to fulfil their public responsibilities (Busemeyer et al., 2020). Out of the three forms of state intervention discussed in this dissertation, enabling forms of state intervention are clearly the softest and least "intrusive" concerning the extent to which they intrude into policy areas governed by collective actors. Nonetheless, substantial budgetary resources might be used as part of enabling forms state intervention. Their central defining feature is their aim to mobilize collective actors on a *voluntary* basis by providing them with resources, therefore clearly differing from more hierarchical modes of state intervention (Busemeyer et al., 2020).

In the case of dual VET, in particular these softer, *enabling* forms of state intervention that try to mobilize business on a voluntary basis are widespread in practically all dual VET systems. For example, governments use campaigns aimed at changing companies' perceptions of VET (see chapter 2) and improving information asymmetries, or voluntary certificates for training companies that simultaneously aim at keeping training quality high and enable companies to use the certificate for publicity

(Billett & Smith, 2003; Hoque, Taylor, & Bell, 2005). The state can also conduct deliberate coalition building with certain employers, support the creation of intermediary associations (Busemeyer et al., 2020; Emmenegger, Strebel, & Graf, 2021), and hand out subsidies to training firms in order to encourage participation (Michelsen, Olsen, & Høst, 2014; Tritscher-Archan, 2016, see also chapter 3). States might also subsidize training networks, which are often used to facilitate the integration of smaller or very specialized companies into dual VET by pooling their training resources (Leemann & Imdorf, 2015, see also chapter 2). Also public training measures that prepare individuals for standard dual apprenticeship training could be seen as enabling forms of state intervention ("external inclusiveness measures", see Bonoli & Wilson, 2019). For example, if weaker apprenticeship seekers attend public pre-apprenticeship programs, which increase their skills already before standard dual training, this might make an increased uptake of apprenticeship seekers by private firms more likely.

Form of state intervention	Potential effect on (employer) coordination	Logic of instruments
		collective actors
Constraining	stabilization	punishment of
		uncooperative collective
		actors (or threat thereof)
Paplacing	crowding-out	state-led provision of
Replacing	crowding-out	collective goods

Table 1: Forms of state intervention in coordinated market economies

Note: "Market-making" forms of state intervention that facilitate liberalization (Howell, 2016, 2019) are excluded from this table.

Second, state intervention can take a *constraining* form. In these cases, state intervention acts as a "beneficial constraint" (Streeck, 1997a) that stabilizes coordinated market economies in the face of structural pressures. Similar as in enabling forms, the state aims to maintain coordination among collective actors, but this time by more using

coercive instruments that "shore up coordination among social partners" (Martin & Thelen, 2007). Consequently, this form of state intervention is clearly more intrusive than enabling forms of state intervention, as it rests on the state's ability to punish – or threaten to punish – uncooperative actors. Such punishments can be constraints that make non-cooperation more costly, or threats to expand the states' regulatory reach onto social partners' turf. Neocorporatist as well as metagovernance literature highlights that in order to uphold coordination, states can "threaten direct intervention in case selfgovernment fails to meet its public responsibilities" (Streeck & Kenworthy, 2005, p. 455; Torfing et al., 2012). Although mostly unacknowledged by VofC-inspired literature, such forms of intervention based on the states hierarchical authority vis-à-vis social partners are a central building block of many coordinated market economies. After all, as emphasized by Thelen (2014, p. 22), "many of the most famous (and famously successful) corporatist bargains were shotgun weddings forged in the shadow of hierarchy". This includes for example agreements between labor and capital in collective bargaining and employer participation in active labor market policies due to threatened circumvention of social partners' authority (Martin & Thelen, 2007).

For the case of dual VET, Billett and Smith (2003) and Gasskov (2001) highlight instances where states aim to create training participation via more *constraining* policy solutions that punish firms that do not train. These include training funds under collective agreements and state-imposed compulsory financial contributions to training by employers. Such training levies or funds (national, sectoral, or regional) have been implemented in a variety of countries, including collective skill formation systems like Switzerland, Germany and Austria. They either support training activities of firms via subsidies financed by a levies, and/or try to trigger employer expenditure on training via exempting training firms from paying into the fund/levy, consequently only punishing uncooperative firms (see chapter 2). Beyond levies, also coupling the placing of public construction or supplier contracts (Evans & Bosch, 2012) or quotas for foreign labor (see chapter 2) to the training participation of firms follows a constraining logic that punishes uncooperative firms. As Geyer and Durazzi (forthcoming) highlight, already the threat of introducing such policies like training funds or levies can be used to compel employers into increasing their training participation. And ultimately, the state might even threaten to substitute collective training with statist solutions in an attempt to coerce firms to increase their training participation (Bonoli & Emmenegger, 2020, see also chapter 3).

Third and finally, the state cannot only threaten to replace social partners, but can also go all the way and assume "political responsibility in the event of governance failure in domains beyond the state" (Jessop, 2016, p. 81). In these replacing forms of state intervention, the state substitutes coordination in policy fields formerly occupied by employer association and/or labor unions. Consequently, replacing forms of state intervention are fundamentally different from enabling and constraining forms, as they do not facilitate coordination among neo-corporatist actors, but replace these actors' functions in the governance and provision of collective goods. They are consequently the most intrusive and far reaching form of state intervention discussed in this dissertation. This does not mean that a large-scale replacement of neo-corporatist practices is necessarily an intended outcome. However, as this dissertation will show, enabling as well as constraining forms of state intervention might pave the way for and creepingly turn into the more far reaching replacing form of state intervention. For example, the supply of resources to collective actors in enabling forms of state intervention in order to facilitate cooperation might also entail some replacing elements (see also chapter 2). In dual VET, also abovementioned public preparatory programs previous to standard apprenticeships can be seen as replacing certain functions originally fulfilled by employers, like the transmission of certain skills previously trained during the duration of a standard dual VET program. It is therefore also an empirical question if replacing or enabling elements of a certain statist training program are dominant, and if employer coordination is actually strengthened or weakened by these measures². Furthermore, also threats to expand the state's regulatory reach onto neocorporatist arrangements (e.g. constraining forms of state intervention mentioned above) might as a last consequence turn into replacing forms of state intervention in case collective actors cannot be compelled to cooperate (see chapter 3 and 5).

Replacing forms of state intervention are therefore often initially "emergency packages" in policy-fields where neo-corporatist coordination is increasingly unwilling, as Streeck and Kenworthy (2005, p. 455) put it, "to meet its public responsibilities". But

² For example, are certain programs of the German transition system compensating for decreasing skills of lower secondary students in the last decades and consequently a larger share of "weaker" apprenticeship seekers, or do they rather accommodate increasing skill demands of companies (Busemeyer, 2009b)? The latter scenario would imply that such preparatory measures to a certain extent replace functions previously fulfilled by employers.

after their initial, often small-scale introduction, replacing forms of state intervention can trigger a process of "layering", where such new elements added to existing institutions set "in motion dynamics through which they, over time, actively crowd out or supplant by default the old system" (Streeck & Thelen, 2005). In this sense, as will be shown later in this dissertation (see chapter 3 and 4), replacing forms of state intervention "unconstrain" firms from resource-intensive provision of collective goods, and can consequently have the opposing effect on employer coordination than enabling and constraining forms. While not explicitly identified as such, various empirical cases discussed by Thelen (2014) provide clear instances of state intervention that replaces neo-corporatist coordination, imposing industrial relations settlements through direct legislation and implementing state-run social policies. In her case study on vocational education and training, Thelen (2014) also presents instances where the Danish state increasingly replaces collective training by setting up statist training measures both for youth as well as adults, thereby increasing labor market inclusiveness and educational mobility (see also Bonoli & Wilson, 2019). Similar tendencies are also identified in the collective training system of Austria (Durazzi & Geyer, 2019; Graf, Lassnigg, & Powell, 2012).

Having established this distinction between enabling, constraining and replacing forms of state intervention both for coordinated capitalism more generally as well as dual VET, the individual articles of my dissertation tackle the specific causal factors responsible for increased state intervention, which vary according to the type of state intervention presented in the chapter. Taken together, the articles consequently show that due to these multiple pathways, potential for increased state intervention in contemporary capitalism is larger than often assumed by comparative political economy scholarship. The next section reemphasizes my research focus, case selection approach, methods, and gives an overview on the articles of my dissertation.

Overview of dissertation

Research focus, case selection, and methods

The main goal of this dissertation is to identify the *political-economic drivers behind increased state intervention in the face of technological change and globalization.* In other words, I show the causal factors that make increased state intervention in reaction to structural pressures possible. While literature on comparative capitalism and

skill formation has identified several "statist" answers to structural pressures, the political-economic factors that enable increased state intervention in the face of structural pressures are still underexplored und subject to substantial ambiguity in the literature. As already mentioned in the sections above in detail, this dissertation looks at collective skill formation systems (as present in Austria, Denmark, Germany, the Netherlands and Switzerland) as a prime example of coordinated capitalism that is particularly affected by structural pressures of globalization and technological change. Furthermore, private instead of public actors, more specifically business and its association, are often regarded as the most suitable and legitimate actor in this policy field (Bonoli & Emmenegger, 2020; Busemeyer & Thelen, 2020; Culpepper, 2011), making it an extreme case of state non-intervention. As a result, apart from certain notable exceptions (Bonoli & Wilson, 2019; Busemeyer et al., 2020; Durazzi & Geyer, 2019; Emmenegger et al., 2021; Thelen, 2014), the state has received even less attention in current research on skill formation than in broader comparative political economy scholarship. Highlighting how state intervention is possible in the policy field of dual VET should consequently also provide stronger evidence for explaining increased state intervention in coordinated capitalism more broadly. If increased state intervention is even possible in dual VET, usually shaped by state non-intervention, other policy fields might see an even stronger role of the state as structural trends of globalization and technological change progress.

By distinguishing between different forms of state intervention, this dissertation hopes to resolve some of the ambiguity on the different political-economic causes of state intervention mentioned in the previous chapter. From the group of collective skill formation systems, I chose Switzerland, Austria and Denmark for further analysis. From an empirical viewpoint, these three cases are relatively underexplored in comparative political economy literature on collective skill formation, in particular in comparison to the paradigmatic case of Germany (Culpepper, 2003; Culpepper & Finegold, 1999; Hall & Soskice, 2001). Furthermore, as will be shown below, the countries selected in this dissertation should, first, allow me to observe more and less intrusive forms of state intervention by looking at traditionally more (Austria, Denmark) and less (Switzerland) interventionist states; and second, to potentially make particular strong claims about political-economic causes of state intervention (highly globalized Switzerland as a least likely case for stronger forms of state intervention).

Austria and Denmark are primarily chosen to find more intrusive forms of state intervention. Austria (see chapter 3, 4, 5) is considered a comparatively interventionist and intrusive state among coordinated market economies, with a historically large public sector and welfare state (Hermann & Flecker, 2009). Even though substantial parts of its state-owned industries (used for economic, employment and training policy) have been privatized in the last decades (Turnheim, 2009) and neoliberal retrenchment has also been identified (Hermann & Flecker, 2009), the Austrian state nonetheless has a comparatively prominent role in the areas of welfare and skills provision. Its "statepaternalistic tradition" is therefore reflected in high public expenditures and extensive state activities in social and economic policy that can rather be associated with the Nordic countries or France than its neighbors Switzerland and Germany (Obinger, 2017). Furthermore, among coordinated market economies with collective skill formation systems, Thelen (2014) and Martin and Thelen (2007) have shown that more intrusive forms of state intervention are particularly widespread in Denmark (see chapter 5), where industrial relations settlements are imposed through direct legislation and state-run social policies and educational programs take over functions where collective actors fail to uphold their own solutions. Since second half of the 20th century, Denmark has become one of the countries with the highest public expenditures worldwide, and especially in recent years, the Danish state has proved to be comparatively intrusive vis-à-vis social partners, "also in areas where they have traditionally been very powerful (e.g. labor market and industrial policy" (Christiansen & Togeby, 2006, p. 11). Furthermore, from a Scandinavian perspective, Denmark "has not experienced the demise of a strong state model of social steering, as Norway and Sweden have" (Lindvall & Rothstein, 2006, p. 61). Finally, Denmark also adds an important contrast to the case of Austria, adding variation with regard to the strength of the manufacturing sector, which has been regarded as a central explanatory variable for state intervention by Thelen (2014).

Switzerland is chosen, first, to find less intrusive and softer (e.g. enabling) forms of state intervention. Amongst the countries with collective skill formation systems, Germany and Switzerland are argued to resort to less hierarchical forms state intervention, mobilizing collective actors on a voluntary basis (Busemeyer et al., 2020). Katzenstein (1985) presented in particular Switzerland as the most extreme case of liberal corporatism with the state refraining from intruding into neocorporatist arrangements (see also Armingeon, 1997). Correspondingly, it appears likely that Switzerland will resort to less intrusive and consequently enabling forms of state intervention, as "public interventionism has been limited in comparison with most Western European countries" (Maggetti, Afonso, & Fontana, 2011, p. 205). Second, if also stronger, more intrusive forms of state intervention are identifiable in Switzerland, it should allow me to make stronger claims regarding their potential causal factors. If for example constraining forms of state intervention are also visible in Switzerland, the most globalized country with a collective skill formation system (Gygli et al., 2018), a depiction of capital as necessarily being "unconstrained" in times of increasing globalization (Whitford et al., 2018) could be regarded as premature (see in particular chapter 2 of this dissertation).

In sum, this dissertation consists of 4 articles, all of which inquire into the *political-economic drivers behind increased state intervention in the face of technological change and globalization*. All of my articles make use of "causal case study methods" of a neopositivist to critical realist tradition, i.e. qualitative and comparative research methods that attempt for "contingent generalization" and "midrange theories that exist within a bounded population of cases" (Beach & Pedersen, 2016, p. 44). This orientation on qualitative methods is also adequate as the empirical phenomena I am interested in, namely instances of increased state intervention in collective skill formation systems, as well as the skill formation systems of the specific countries I look at, are less explored by current research. In my articles, I use process-tracing methods (Beach & Pedersen, 2013), comparative qualitative research methods based on Mill's methods (Lijphart, 1975; Przeworski & Teune, 1970; Tarrow, 2010), as well as combinations thereof (George & Bennett, 2005, pp. 80, 81).

In all my chapters, I first use interviews and literature research in order to examine the respective kinds of state intervention in response to structural socio-economic trends. In chapter 3 and 4, as outlined in Beach and Pedersen (2013), I engage in process-tracing and trace back one (or more) mechanisms from my known outcome Y to uncover a plausible explanatory factor X. As "evidence does not speak for itself", I derive certain theoretical expectations from existing research in order to "detect patterns" (Beach & Pedersen, 2013, p. 17) in the empirical material. Chapter 2 and chapter 5 apply a most similar system design. Two similar cases are compared, therefore controlling for as much candidate explanatory factors as possible, trying to isolate possible causal connections. Chapter 2 combines a most similar system design with process-tracing. A most-similarsystem comparative design allows to limit our possible theoretical expectations for process-tracing towards those associated with the small number of possible explanatory factors that are "different between the two cases" (Beach & Pedersen, 2016, p. 326), and process-tracing ultimately controls for possible explanatory factors not accounted for in the respective comparative research design that are not causally connected to the outcome of interest (George & Bennett, 2005, pp. 80, 81).

In my articles, I triangulate data via a rich selection of different data sources. This includes interviews with individuals responsible for the governance of the respective skill formation systems, including individuals from intermediary associations, labor unions, companies as well as government officials³. These process-tracing interviews are semi-structured elite interviews (Hammer & Wildavsky, 1983; Leech, 2002; Tansey, 2007) as suggested by Beach and Pedersen (2013). Additional observable implications are gathered in sources like official documents and position papers of public agencies, business associations or labor unions as well as company reports, policy evaluation reports, newspaper articles, parliamentary documents and press-releases. For the more historical case in chapter 3 (Austrian VET reform of 1998), focus shifts away from interviews towards the latter data sources. The next section provides an overview on these different articles of the dissertation.

Overview of articles

The first article of this dissertation (chapter 2) focuses on state intervention in the skill formation system of Switzerland. As rightly highlighted by Busemeyer et al. (2020), in how far constraining forms of state intervention are still possible in highly globalized environments like Switzerland where employers can allegedly exit and consequently circumvent imposed constraints remains an open question. We would consequently expect to find less intrusive, enabling forms of state intervention. In my single-authored article named "Unconstrained capital? Multinational companies, structural power, and collective goods provision in dual VET" (chapter 2, published in Socio-Economic Review, see Unterweger, 2020), I show that in highly globalized environments, state

³ Interviews used in this dissertation have been conducted by Daniel F. Unterweger (Austria, Switzerland), Lina Seitzl (Austria), Martin B. Carstensen and Christian Lyhne Ibsen (Denmark). Where direct quotes from interviews, newspaper articles or official documents are presented, they were translated into English.

intervention that constrains employers can, under certain circumstances, still be possible. Building on international business and human resource management, regional studies, and economic geography literature, this article argues that while the challenges of globalization are very real, they do not necessarily lead to lower leeway for constraining forms of state intervention, as the structural power of business depends on the type of firms attracted by local institutional comparative advantages. Comparing collective skill formation in two of the most globalized cantons of Switzerland, I show that locations that rely on low-tax policies alone indeed see their hands increasingly tied in the face of globalization, as the case of the canton of Zug shows. However, while enabling forms of state intervention can be found in both cantons, locations with more diverse comparative advantages that are able to attract knowledge-based firms, like the canton of Zürich, are still able to use constraining forms of state intervention and implement policy elements that punish uncooperative firms (e.g. training funds).

Furthermore, this article offers two additional insights next to abovementioned main theoretical focus. First, Zug's policy reaction to globalization rests to a large extent on its training network and its publicly subsidized lead organization (BildxZug). This might be regarded an enabling form of state intervention, as training networks aim to increase training participation of companies on a voluntary basis by pooling their training resources and making training participation cheaper and/or less complex for certain firms. On the other hand, Zug's training network is rather special compared to similar programs in other cantons and could also be interpreted as entailing some elements that start to replace employer coordination by state intervention, as the training network's publicly subsidized lead organization also takes over functions in training administration and provision previously fulfilled by employers. Consequently, even though such elements are rather limited, the case illustrates the argument made in the previous section that empirically, enabling and replacing forms of state intervention are often closely interrelated. It also foreshadows the argument of the latter articles that individual firms might not necessarily oppose replacing forms of state intervention if it allows them to save costs (see further below). Second, the case of Zürich provides an example of how constraining forms of state intervention are possible without union support, which the literature sees as a central explanatory variable for increased state intervention (Durazzi & Geyer, 2019). As constraining forms of state intervention secure the stability of neocorporatist coordination, they align with employer associations' "organizational interests" (Davidsson & Emmenegger, 2013) for securing their own long-term influence and institutionalized role in these policy-fields. Consequently, the case of Zürich provides an example that domestically-dominated employer associations can join the public administration in demanding constraints on foreign multinational firms in order to compel them to train within the dual VET system.

The remaining articles of this dissertation focus on state intervention in Austria, and lastly also Denmark, where in particular intrusive (e.g. constraining or replacing) forms of state intervention could be expected. My second single-authored article "Paralyzed business: Association-firm conflicts, failed self-governance, and the limits of business power in vocational training reform" (chapter 3) explores Austria's reaction to decreasing employer participation in dual training. During its last big apprenticeship crisis in the 1990s, the Austrian state initially relied on enabling as well as more constraining forms of state intervention. After the failure of subsidies (an enabling form state intervention), employers increasingly faced the threat of an expansion of statist training (a constraining form of state intervention). However, this threat of state intervention could not cajole firms into raising their training participation, and ultimately turned into an instance of a replacing form of state intervention. The article consequently explores the causal drivers that pushed the Austrian state to introduce state-led apprenticeships that replace the employers' role as a provider of practical training. The article shows that mostly employer associations themselves are threatened by the introduction of replacing forms of state intervention, as they fear a loss of their own longterm influence and institutionalized role in VET. Under certain circumstances however, member firms of business associations might actually favor an expansion of the state's function into business' turf, as it can help them to save costs (Swenson, 2018).

While dominant literature focuses on business conflicts with regard to firm size and sector (Busemeyer & Thelen, 2012; Graf, 2017; Thelen, 2014; Trampusch, 2010), I consequently emphasize the potential effect of association-firm conflicts on reform outcomes. The article shows that even in policy-fields like dual VET, where business fulfils a variety of semi-public functions and is consequently considered to be particularly strong vis-à-vis labor unions (Busemeyer & Thelen, 2020), replacing forms of state intervention are possible due to such conflicts. If conflicts between the organizational interests of associations (opposing a replacement of employer coordination) and the cost-pressures of firms (favoring a replacement) cannot be overcome, competing interest groups like labor unions can politicize business' failure to provide semi-public functions in public discussions and dominate the reform process, enabling more inclusive reforms. I consequently agree with the literature on the importance of labor unions (Durazzi & Geyer, 2019; Thelen, 2014), while at the same time acknowledging the role business conflicts can play in strengthening the power of labor for demanding replacing forms of state intervention.

My third article "Declining collectivism at the higher and lower end: The increasing role of the Austrian state in times of technological change" directly builds upon this work, but shifts the focus from the introduction of replacing forms of state intervention (e.g. statist training schemes) towards their long-term dynamics (chapter 4, co-authored with Lina Seitzl and accepted for publication in an edited volume at Oxford University Press, see Seitzl & Unterweger, forthcoming). It starts from the observation that statist training participation of firms, for example due to the rise of the knowledge economy. However, while not necessarily predicted by decision-makers during their introduction, statist training can even reinforce the decline of the number of training firms triggered by structural trends. This is the case because individual firms can benefit from increased state intervention that replaces their role as training providers. Statist training, once introduced, "unconstrains" firms, offers an attractive exit opportunity from employer coordination, and crowds out employer participation in collective training.

The article analyses these developments by looking at two reforms in the Austrian skill formation system at the higher and the lower end of the skills distribution: the expansion of full-time school-based VET to the field of ICT and the introduction of public training workshops. Both sectors can be expected to expand as technological change and consequently the growth of the knowledge economy progresses because trends towards higher skill needs do not only lead to a growth of educational options at the higher end of the skill distribution but also necessitate the integration of those unable to cope with increasing skill demands (e.g. the lower end). In both cases, employers increasingly learned to like statist VET because it allows them to save costs while the provision of a well-trained workforce is still ensured. This resulted in a further decline in collective training. Consequently, these findings suggest that the long-term stability and even expansion of such training measures can rests on the support of individual firms.

My fourth article finally compares state intervention in Austria and Denmark to conclude which effects such instances of increased state intervention have on the economic efficiency and social inclusion function of skill formation. Comparative political economy scholarship on the role of the state often assumes that increased state intervention leads to a survival of egalitarian capitalism in the face of structural trends. For example, Thelen (2014) and Martin and Thelen (2007) only allow for one result of intervention, namely increased social inclusion. This stands in contrast to recent contributions of liberalization scholarship like Howell (2016, 2019), who argues that state intervention might be used to "tame organized labor" and "gain acquiescence" to policies that have negative effects on social solidarity. Also Schmidt (2009) emphasizes that decreasing social solidarity can be associated with a strong "steering state" and more public intervention. However, these accounts do not set out a framework to explain variation in the level of inclusiveness that state intervention generates.

Observing state intervention in Austria and Denmark confirms that the inclusiveness-enhancing effects of increased state involvement cannot be taken for granted. Most surprisingly, more inclusive forms of state intervention can be identified in Austria, compared to Denmark. If anything, we should expect higher levels of inclusiveness in Denmark with its social democratic welfare model, while Austria with its conservative welfare state, lower levels of union density, and stronger reliance on manufacturing might be more prone for low levels of inclusiveness (Thelen, 2014). Building on these insights, my article "Setting the Terms of State Intervention: Employers, Unions and the Politics of Inclusiveness in Austrian and Danish Vocational Education Institutions" argues that the pivotal position of business often enables employers to set the terms of state intervention (chapter 5, co-authored with Martin B. Carstensen and Patrick Emmenegger, published in European Political Science Review). However, the extent of employer discretion in setting the parameters for state intervention depends on which actors they are able to team up with - unions or parties. If unions depend on employers for their organizational influence in a given policy field, labor will become a strong coalitional partner for employers in fending off demands for inclusiveness from the parliamentary arena. Conversely, if unions have influence independent of any coalition with employers, both unions and employers are more likely to team up with political parties with whom they share preferences, leading to more inclusive outcomes of state intervention.

In sum, and as will be highlighted in the conclusion to this dissertation, my articles support the growing scholarship that proposes an increasing rather than shrinking role of the state in the face of current structural challenges, and aims to identify the causal factors for this development. First, I augment power resources approaches by clarifying under which conditions globalization puts limits on state actors' leeway for state intervention (see chapter 2). While enabling forms of state intervention seem to be widespread in globalized locations, I show that also constraining forms of state intervention that compel employers to coordinate are possible in locations that manage to attract less mobile, knowledge-based firms. Furthermore, while in general consistent with power resource theory, my findings also highlight that more intrusive constraining or replacing forms of state intervention are not always or not exclusively the result of labor strength, as employers do not necessarily oppose them. Even if labor is initially weaker than business (for example in the policy field of dual VET), tensions might emerge between employer associations and their member firms concerning the benefits of replacing forms of state intervention (see chapter 3 and 4), opening a window of opportunity for labor unions to dominate reform processes. Replacing forms of state intervention as a reaction to structural pressures might also affect strategic options and interest of firms and in the long-term also associations, thereby reinforcing the state's expansion in coordinated capitalism (see chapter 4). Consequently, employer associations will focus on keeping state intervention as much as possible on their terms, rather than going into permanent opposition to an increase of state intervention (chapter 5). In short, I show that none of the political-economic actors central to skill formation systems is in principle opposed to increased state intervention, they rather favor different forms of state intervention. Consequently, there is more potential for an expanded role of the state than often assumed by CPE scholarship.

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2. Unconstrained capital? Multinational companies, structural power, and collective goods provision in dual VET

Collective goods provision, most prominent in coordinated market economies, depends on certain institutional conditions that constrain employer behavior and trigger cooperation. Increased capital mobility, characterized by new exit opportunities for business and an influx of multinational companies not anchored in their new homecountries' institutional environment, loosens those "beneficial constraints". I argue that these challenges do not lead to convergence between globalized locations as the structural power of business depends on the type of firms attracted by local institutional comparative advantages. Comparing collective skill formation in two heavily globalized cantons of Switzerland, I show that a region fundamentally relying on low-tax policies sees its hands increasingly tied in the face of globalization. It must accordingly reshape collective goods provision around policies favored by business. In contrast, a location with more diverse comparative advantages is able to implement more compelling policy elements that punish uncooperative firms.

Introduction

Globalization has been one of the most controversial topics in comparative political economy (CPE), often said to contribute to the erosion or transformation of institutions providing collective goods. Collective goods provision is especially predominant in coordinated market economies (CMEs) (Hall & Soskice, 2001), where manifold private and public actors cooperate in the provision of research networks, wage restraint through collective bargaining, social peace, patient capital, or specialized but transferable skills through collective vocational education and training (dual VET) (Streeck, 1992; Thelen, 1994)⁴. Due to coordination problems and uncertainties about future long-term benefits, markets struggle to sufficiently supply such goods. Rational-choice, as well as historical institutionalism highlights that cooperation in the provision of collective goods is not self-sustaining and depends on specific institutional conditions, i.e. formal regulations and informal norms. Following Streeck (1997a), such cooperation

⁴ It has been shown that collective goods provision also exists in liberal market economies (Lange, 2009; Sorge & Rothe, 2011), but dual VET is indeed most prominent in a subset of CMEs.

in the provision of economically beneficial collective goods can be the result of institutions that constrain employer behavior ("beneficial constraints"). However, influential accounts have argued that globalization loosens these constraining institutions, making cooperation rather voluntary (Streeck, 1997b, 2009; Whitford, Baccaro, Edwards, & Doellgast, 2018). Increased capital mobility potentially leads to increased exit capacities by business (emphasized by CPE) in addition to an influx of multinational companies (MNCs)⁵ that are often not anchored in the institutional environment of their new host countries (emphasized by International Human Resource Management, IHRM).

Combining CPE and IHRM accounts, I examine how globalization affects the provision of collective goods. Collective skill formation is a prime example of collective goods provision as employers, their associations, and the state cooperate in order to provide dual VET via school-and firm-based learning (Busemeyer & Trampusch, 2012). I observe how actors in the governance of dual VET react to problems of increased globalization and loosened beneficial constraints and try to trigger training⁶ participation of MNCs. I find that reactions vary significantly between different locations and are therefore not consistent with theoretical expectations that suggest an overall movement towards non-constraining policies.

My outcome of interest is not the training participation of MNCs, but variation in the design of policies with which a variety of actors try to trigger such participation. Drawing on Billett and Smith (2003), I distinguish between "compelling" VET policies that punish MNCs that do not train (resembling beneficial constraints) and "encouraging" VET policies that aim to generate purely voluntary firm commitment. Explaining such variation, I incorporate and build upon the structural power literature. Consequently, the leeway available for tackling the challenges of MNCs depends on the structural power of business, which captures employer exit capacity from an economy. I argue that this structural power varies according to the type of firms attracted by the specific (institutional) comparative advantages of a respective location. Inspired by accounts like

⁵ I speak of MNCs as an umbrella term for all companies with at least one subsidiary outside their home country. I refer to "foreign MNCs" as companies controlled by a multinational group head residing outside the respective host-country under focus (BFS, 2017a). I do not make a more fine-grained distinction between multiple types of MNCs, ranging from "multidomestic" to "transnational" (Harzing, 2000).

⁶ I use the term "training" for training within the formal and binding regulations of dual VET, i.e. training as collective goods provision as described in detail in section four.

Hirschman (1980) and Iversen and Soskice (2019), such characteristics of globalized locations can enable public authorities to exercise power over business. Comparing two heavily globalized cantons within Switzerland, I argue that locations relying on low-tax policy as the main comparative advantage attract the most cost-sensitive and mobile firms; conversely, they find their policy options for sustaining the provision of collective skill formation significantly limited, thereby having to opt for encouraging VET policies. In contrast, in locations with more diverse comparative advantages, business exit is less likely, allowing for more compelling dual VET policies towards MNCs.

Globalization and beneficial constraints

For a long time, globalization was one of the most controversial topics in political economy. The original varieties of capitalism approach highlighted stability of collective goods provision, where supportive institutions emerge out voluntary agreement by participating parties that recognize them as economically beneficial (Hall & Soskice, 2001). In CPE, challengers like Korpi (2006) and Streeck (1997a) emphasized that employer cooperation in many cases depends on the constraining nature of institutions resulting from a variety and interplay of factors like "cultural traditions, of a historically grown status structure, of prevailing concepts of social justice and legitimate stratification, and not least of the distribution of power in the polity and the workplace" (Streeck, 2004, p. 428 on dual VET). As collective goods cannot be safely and permanently appropriated by an individual firm, cost-benefit calculations are subject to substantial uncertainty. Consequently, employers should favor short-term economic interests over long-term investments in collective goods. Cooperation arises only via "beneficial constraints", either "based in formal law or in a common culture" (Streeck, 1997a, p. 217).

For the specialized but transferable occupational skills of dual VET, the central constraints identified are that firms are captive in a location with high wages, egalitarian wage setting, employment security (Sorge & Streeck, 2018; Streeck, 2004) and an environment where the "[c]ontinuous monitoring of one's short-term balance of economic advantage is not a social norm, encouraging long-term orientations and commitments", like investments in training (Streeck, 1997b, p. 243). This can "contribute to [economic] performance by transforming the preferences of actors [...], teaching them what they *really* want is something else", – namely training (Streeck,

1997a, p. 199). According to CPE, globalization loosens these constraints as employers are not captive and are increasingly able to exit or credibly threaten to exit the respective arrangement if they no longer regard it to be in their best interest (Lauder, Brown, & Ashton, 2008; Whitford et al., 2018).

Certain approaches in IHRM also emphasize change in the face of globalization, where we can see an influx of MNCs from foreign home countries. Due to the pathdependency of firm preferences, MNCs have certain common preferences that are not consistent with their domestic counterparts. Home-country effects (Almond, 2011; Edwards, Marginson, & Ferner, 2013; Harzing & Sorge, 2003) show that the institutional environment of an MNC's home country shapes its subsidiaries' behavior - for example, through management ideology, corporate control (Zhu & Robert, 2017) and pressures for standardization across subsidiaries (Edwards & Ferner, 2002). Home-country effects are reinforced if the MNCs' country-of-origin is shaped by a "contemporarily dominant business system", like the U.S. (Edwards, Sánchez-Mangas, Jalette, Lavelle, & Minbaeva, 2016; Ferner, BéLanger, Tregaskis, Morley, & Quintanilla, 2013). Consequently, MNCs can be partially disembedded from the institutional environment of their subsidiaries new host-countries and the respective "social, cultural, political and cognitive structuration of decisions in economic contexts" (Beckert, 2003, p. 769). Cooperation in collective goods provision may be either unknown or incompatible with the cultural or managerial conventions of many MNCs' LME-type home-countries, like shareholder value approaches (Edwards, 2004; Höpner, 2003).

As of yet, it seems that institutional change and a loosening of beneficial constraints in the face of structural changes like globalization have emerged as a new conventional wisdom (Doellgast, Lillie, & Pulignano, 2018). In the face of globalization, some see a convergence of CMEs towards a "common neoliberal trajectory" (Baccaro & Howell, 2011, 2017) with increased business power, while others emphasize alternative reform paths. As highlighted by Emmenegger, Häusermann, Palier, and Seeleib-Kaiser (2012), "structural pressures do not directly translate into policy change", opening alternatives to outright liberalization. At a national level, some accounts argue that one such alternative lies in the dualization of economies, i.e. increasing divisions between labor market insiders that are still subject to generous institutional arrangements concerning welfare and labor market policies and uncovered outsiders (Palier & Thelen, 2010; Rueda, 2005). Thelen (2014) makes the dominance of manufacturing unions vis-

à-vis weak public and service sector unions responsible for a development towards dualization in continental Europe instead of a more socially inclusive "embedded flexibilization" (flexicurity) of Nordic countries, where the state replaces employer coordination in the provision of collective goods. Scholars of industrial relations view such trajectories different to outright liberalization from a sectoral perspective, identifying for example strong unions and work councils as constraining conditions leading to (at least preliminary) employer cooperation in certain sectors (Benassi, 2016; Benassi, Doellgast, & Sarmiento-Mirwaldt, 2016). Most recently, Iversen and Soskice (2019) look at these developments from a regional perspective. However, they push further back on the decisive importance of structural changes and especially globalization. In their account, liberalization consequently is only "a political choice, not a matter of the structural power of capital to exit", as capital is allegedly dependent on "largely immobile, highly educated workers" in skill clusters of advanced capitalist economies.

I argue that they go one step too far. I try to reconcile the importance of the challenges of globalization like increased capital mobility (CPE) and foreign MNCs (IHRM) with the possibility of continuing collective goods provision in CMEs via institutions constraining employers. I draw upon the modern structural power of business literature and combine it with accounts including economic geography, regional studies, international business and IHRM to explain how international and partially disembedded capital, namely foreign MNCs, can still be constrained in certain locations to provide collective goods (dual VET). In contrast to Iversen and Soskice (2019), the varying comparative advantages across locations lead to different exit capacities of business and therefore different power dynamics between MNCs and public authorities across these different regions.

Comparative advantages and the structural power of business

Structural power, as first introduced by Lindblom (1977), captures the structurally privileged position of firms as providers of economic well-being in capitalist economies, with the state and labor having to appease business in order to prevent disinvestment. I depart from the original understanding of structural power as a constant and follow CPE

accounts, such as the highly influential work of Hacker and Pierson (2002, p. 282), that allow structural power to vary⁷:

First, the structural power of business is a variable, not a constant. If influence depends on fear of disinvestment, then it will vary depending on how credible policy makers believe that threat to be. One major aspect of this credibility is the ease of moving investment to another political jurisdiction, and thus firms with highly immobile assets will be less capable of exercising structural power.

Consequently, it is true that structural power results from the "core economic activity" (Culpepper & Reinke, 2014, p. 396) of the firm in capitalist economies, which is inherent in all market economies. However, the successful exercise of structural power depends on business' exit capacity as perceived by the relevant decision-makers and thereby varies, for example between different kinds of firms with different degrees of mobility. Structural power is often said to work indirectly, automatically pushing policy-makers towards alternatives favored by business (Hacker & Pierson, 2002). Certain policies may be disregarded early as economically infeasible, they might be perceived to trigger the relocation of firms to other locations (Fairfield, 2015a). Structural power can also be mobilized directly through the articulation of a credible punishment option (Culpepper & Reinke, 2014).

Many pessimistic accounts on globalization have the same shortcomings as classical structural power literature which conceptualizes structural power as constant instead of variable (Culpepper, 2015). Instead of a race to the bottom due to a proposed inability to constrain multinational capital in a globalized world, I argue that policy-makers' leeway in creating or preserving more compelling means of collective good provision varies between regions with different institutional comparative advantages that attract MNCs with different degrees of mobility and ultimately lead to a varying structural power of business in those locations. The literature on international business and IHRM, regional studies, economic geography and, more recently, CPE highlights that firms within different industries are attracted by different (institutional) comparative advantages.

Regional studies highlight that "local institutions cause a certain form of sectoral production" and that this "embarks clusters on a search for regulation that is optimal for their sectoral needs" (Schröder & Voelzkow, 2016, pp. 11, 12). These (regional)

⁷ For an overview of this strand of literature, see Culpepper (2015).

comparative advantages can also be quite different from the overall national variety of capitalism (Crouch, Schroder, & Voelzkow, 2009). But most important, these (multinational) firm clusters that are attracted by different kinds of comparative advantages also vary with regard to their mobility. Sorge and Rothe (2011) show how specific regional comparative advantages - including knowledge-producing institutions like universities, logistical accessibility, quality of life, and a "cosmopolitan-milieu" attract highly globalized and innovative firms with "no short-term acquisition or closure of facilities" (p. 54). Iversen and Soskice (2019) make the point that the colocation of highly educated (and immobile) workforces with skills "cospecific both with each other and with company technologies" (p. 7) and reinforced by a concentration of transport systems, private services (cultural offerings, restaurants, etc.), public services and social networks in these locations leads to clusters of relatively immobile, knowledge-based MNCs of similar industries. However, they de-emphasize that certain industries might favor other comparative advantages (low costs) and/or have fundamentally greater leeway in internationally sourcing skills (Brown, Lauder, & Ashton, 2011), therefore being substantially more "footloose" and inhibiting greater structural power.

In other words, Iversen and Soskice (2019) focus on one of two opposite scenarios, namely Vogel's (1997) California scenario in environmental regulation where economic globalization does not necessarily lead to a race to the bottom: "For all but a *handful* of industries, the costs of compliance with stricter regulatory standards have not been sufficient to force relatively affluent nations or sub-national governments to choose between competitiveness and environmental protection [i.e. stricter regulation]" (p. 559, emphasis added). That argument, while not made explicit in Vogel's account, depends on the type of industries dominant in a certain location. The type of industry dominant, as shown above, is again a result of the specific comparative advantages of that location. Does the respective location only attract a "handful of industries" that can credibly threaten to exit, or is it a main destination of *most* mobile companies?

Rethinking the early work of Hirschman (1980) in terms of power relations between business and the state, I argue that a location can exercise power over business and consequently MNCs if it keeps the share of *most* mobile companies that can credibly threaten to exit its economy at a "minimum compatible with [...] [its] economic wellbeing" (p. 31). As shown in the left column of Table 1, when a location's comparative advantages mostly attract the segment of MNCs that are especially cost-sensitive and highly mobile, these firms become of overwhelming importance for the respective economy. This sole dependence on most mobile firms provides business with structural power. Even a small increase in employers' costs may then be perceived as a possible trigger of employer exit by policymakers. Low tax-policy as a main comparative advantage therefore leads to spillover effects to other policy fields, limiting the respective location's policy-alternatives to measures favored by business.

In contrast, locations that do not solely depend on tax policy as their main comparative advantage and therefore attract MNCs with lower degrees of mobility, have more leeway and can incorporate more compelling policy solutions. There, employer exit cannot be expected solely due to an (modest) increase in costs. In other words, how globalization affects the local institutional environment varies with the structural power of business in a respective location, which results from the specific comparative advantages upon which certain locations rely on and the MNCs they consequently attract. Consequently, globalization is not inextricably connected to a rise in business power, it does not necessarily lead to a change to more voluntary, non-constraining institutions.

Location with low taxation as main	yes	no
comparative advantage Dependence on most mobile segment of MNCs	high	low
Structural power of business	high	low
Power relations on the side of/power mobilizable* by	business	public authorities

Table 1: Dynamics of varying structural power in globalized economies

*With the wording "mobilizable", I follow Culpepper and Reinke (2014) who conceptualize power as being exercisable either directly (deliberately) as well as indirectly (automatically).

The case of dual VET in Switzerland

The specific collective good I examine is collective skill formation (Busemeyer, 2009; Estevez-Abe, Iversen, & Soskice, 2001; Hall & Soskice, 2001; Johansen, 2002). In collective skill formation systems, prominent in Austria, Denmark, Germany, the Netherlands and Switzerland, employers and their associations as well as the state (and partly labor unions) are collectively involved in the provision, financing, administration, standardization and reform of dual VET (Busemeyer & Trampusch, 2012). They lead to occupational skills that are standardized, certified, recognized in national labor markets and therefore portable between firms. With a significant amount of the population opting for secondary-level VET, it increasingly acts as a route to tertiary education (higher VET or university). Dual training is characterized by collective goods properties (Hart & Cowhey, 1977; Olson, 1971). First, firms cannot be forced to participate, but at the same time, cannot be excluded from its manifold benefits (*non-excludability*). Second, its payoffs cannot be safely and permanently appropriated, due to the possible poaching of former apprentices (Streeck, 1992). All this leads to an under-provision of dual VET by markets alone.

In CPE, a rich literature analyses the dynamics of collective skill formation systems (Busemeyer & Thelen, 2012; Emmenegger & Seitzl, 2019; Graf, 2017; Thelen, 2004). A focus on employer preferences as an explanatory variable for change in dual VET has biased the literature towards companies that have an active interest in shaping collective skill formation systems and already know the system. It omits the possible influence of foreign MNCs, and consequently globalization and the reaction of regional actors to those challenges altogether, such topics are usually just mentioned as a side note (Culpepper, 2007; Trampusch, 2010). Also in connected fields like IHRM or industrial relations, only isolated accounts have hinted at the influence of MNCs on traditional collective skill formation systems (Almond et al., 2014; Lauder et al., 2008). Rather, manifold studies focus on the *deliberate* transfer of practices by MNCs, for example the transfer of dual VET by MNCs from countries with established collective skill formation systems to new, often liberal host countries (for example Fortwengel & Jackson, 2016; Hancké, 2012). The inverse angle, where companies that do not know a specific institutional environment may unintentionally contribute to its decay, has not been sufficiently researched. IHRM explains MNC strategies and the challenges faced by MNCs due to these effects (Heidenreich, 2012). The literature highlights "hostcountry effects" that, for example, push MNCs to conform to local practices as well as the abovementioned "home-country effects" that work in the opposing direction (for an overview, see Heyes & Rainbird, 2010). My study tackles the underexplored issue of if and how local authorities can implement and design policies that lead to host-country effects that trigger training participation, therefore dealing with possible challenges *resulting from MNCs* 'home-country effects.

I tackle those issues within the setting of Switzerland. This allows me to compare two most-similar locations that vary with regard to their comparative advantages and the types of firms they attract, since business taxation, which can constitute an important element of a location's comparative advantage, varies substantially between Swiss cantons. I consequently compare two Swiss cantons with high exposure to globalization, Zug and Zürich. Overall, MNCs contribute 18 (Zug) and 21 (Zürich) percent to the respective cantonal GDP, generating around 14 to 16 percent of employment in both cantons, mostly in the service sector (BFS, 2017a; Naville, Wiederin, Schulze-Smidt, & Ozcan, 2012). However, their tax policy and consequently comparative advantages differ greatly, attracting different kinds of (multinational) companies, leading to different power relations between business and cantonal authorities. These comparative advantages vary between my cases, but are fixed and cannot be changed in the short to medium-term, so policy-makers have to cope with these specific comparative advantages. In the next section, I show how both cantons vary with regard to their (institutional) comparative advantages and the respective types of firms with different degrees of mobility they attract, while being similar with regard to other possible explanatory factors.

Thereafter, I show that the leeway available for VET policies depends on the structural power of business in a location and therefore MNCs' mobility and exit capacity. I apply process tracing (Beach & Pedersen, 2013) to trace the mechanism that pushed Zug towards a different policy solution to include MNCs in collective skill formation than Zürich, and control for other factors not accounted for in my comparative research design. As MNCs do not have an active interest in shaping VET policy due to home-country effects, the main mechanism traced here is the *automatic* reaction of policymakers triggered by the structural power of business, visible through observable implications like the perceptions of policymakers. These "serve as an important empirical trace of structural power", as "in most cases it [structural power] cannot

directly be observed" (Fairfield, 2015b, p. 418). In order to capture these empirical traces of my causal mechanism, 14 semi-structured expert interviews were conducted face-toface and over phone. Interviewees have (or had) main functions in the regional governance of dual VET and promote VET among firms in the respective cantons. This includes individuals in cantonal VET offices and departments responsible for labor market affairs, (cantonal) intermediary associations, and host company networks. Interview data is triangulated with newspaper articles and official documents of the abovementioned organizations.

Two kinds of globalization

While the economic profile of both cantons is shaped by MNCs, leading to common challenges of MNC integration, the mobility of these MNCs differs due to the different comparative advantages of the cantons. Zug is famous for its low tax policy. It has one of the lowest regular corporate tax rates in international comparison, ranking better (12 percent) in the BAK Taxation Index 2017 than not only Zürich (17.5 percent), but also Dublin or Singapore (BAK Economics AG, 2018). Taxation is even lower in Zug for holdings as well as "mixed companies" that predominantly yield profits outside Switzerland (Hürzeler, Rühl, Schnell, Hänggi, & Noëmi, 2014), making Zug an especially attractive location for the headquarters of MNCs (Hürzeler et al., 2014). Due to this tax profile, it is also a leading location for international trading companies worldwide, mostly in the fields of commodity or pharmaceutical trade (BFS, 2017e; Kanton Zug, 2014). In Zug, nearly 50 percent of direct federal tax income originates from the abovementioned special tax status companies (Schweizer Eidgenossenschaft, 2015). Wholesale trading companies and those with controlling and headquarter functions are among the top three branches measured in employment (BFS, 2017e). Central is that those firms are very tax sensitive and, consequently, highly mobile. Out of all Swiss cantons, Zug's companies are the most mobile, relocating on average after eight years (CBRE Switzerland, 2018).

In contrast to Zug's low tax strategy, Zürich's comparative advantages are more diverse. While corporate taxes are still low in Zürich by international comparison, they are much higher than in Zug, and special tax privileges are mostly absent (Hürzeler et al., 2014). The canton cannot directly compete with Zug on taxes alone. Instead, Zürich embodies many factors regarded in the literature as essential in attracting knowledge-based multinationals (Iversen & Soskice, 2019; Sorge & Rothe, 2011). Its attractiveness

for MNCs results from its (comparatively) better infrastructure and transport connection, an urban and cosmopolitan environment for its workforce including cultural, recreational and social activities, a more central location and proximity to ETH, a top research facility, and the possibility to locate firms in neighborhoods with direct access to Zürich airport. Concerning the importance of knowledge and technology intensive branches, Zürich is leading among Swiss cantons⁸, while Zug only scores around the Swiss average (Schnell, 2015). MNCs that choose Zürich are less tax-sensitive than their counterparts in Zug. Firm-mobility in Zürich is much lower, with companies relocating on average every 12 years, comparable to the Swiss average (CBRE Switzerland, 2018). Zürich's lower dependence on the most tax-responsive kind of MNCs is also visible in its share of direct federal tax income originating from special tax status companies, which only accounts for roughly 10 percent (Schweizer Eidgenossenschaft, 2015). Both headquarter firms and wholesale trading are of lower importance in Zürich (BFS, 2017e).

Apart from these different comparative advantages, many alternative explanatory factors are constant across these cases. All cantons in Switzerland are subject to federallevel regulations concerning vocational education and training (Gonon & Maurer, 2012), making the leeway both cantons have within the general system of VET governance identical. Zug and Zürich are most similar concerning the importance of VET in secondary level education, both being slightly above the Swiss average of 65 percent (BFS, 2017b). 94 percent of these individuals in initial VET in Zürich and 96 percent in Zug undertake an apprenticeship (BFS, 2017d). In both cantons, commercial training is by far the most popular occupation within initial VET, accounting for roughly 16 percent of all individuals in initial VET (BFS, 2017c), and informatics is ranked among the five most popular initial VET programs in both cantons.

30 percent of MNCs in Zug and Zürich originate in either the US or UK (BFS, 2017a), in addition to many other MNCs from home countries without developed (dual) VET systems, which helps to keep home-country effects constant. However, one difference between the cantons could be that MNCs in Zürich are possibly more inclined towards dual training, as Zug's comparative advantages could attract MNCs with lower preferences for dual VET ("strategic sorting", see Sorge, Noorderhaven, & Koen, 2015;

⁸ Most telling is that Google's largest location outside the US is located in Zürich (Steier, 2016).

Sorge & Rothe, 2011). Wilkinson, Gamble, Humphrey, Morris, and Anthony (2001) present a case where cost-advantages attract subsidiaries specializing in low-value added activities with low training investments. While it is certainly true that Zug and Zürich attract different kinds of firms with regard to high and low value-added activities, my outcome of interest is first and foremost not the engagement of MNCs in dual training, but the varying VET policies of cantonal authorities designed to push these firms towards dual training. It is not clear how differences in firms concerning value-creation and the specialization in international division of labor within an MNC, should determine public authority choices as to whether or not they implement compelling VET policies - except when these factors work through firm mobility and the structural power mechanism I propose. Furthermore, both Zug and Zürich are characterized by high exposure to foreign MNCs with preferences detrimental to dual training as evidenced by my interviews.

For example, issues concerning foreign managers, HR divisions, and their lack of understanding and knowledge about the Swiss VET system (e.g. the high level of skills it provides) and preference for academic education were highlighted by *all* interview partners in *both* cantons, by cantonal officials in the media and in official. Interviewees in both cantons perceived that MNCs miss the "firm culture" and social ideals necessary for dual training. MNCs' management ideologies rather seem to propagate to increase short-term profits to distribute them to shareholders: "It is a huge effort to explain the purpose, the sustainability, the long-term logic, the utility of VET to managers from overseas with their short-term, quarter-based shareholder-thinking" (CH5, also CH6). Instead, (academically educated) professionals are often imported from abroad –also connected to the low quality of VET in many MNCs' home-countries (Muehlemann & Wolter, 2013; CH1, CH2, CH3, CH4, CH6). Additionally, MNCs often conduct internal communication in English. This decreases the attractiveness of Swiss VET apprentices who often do not attend language classes (Oertli, 2016, CH5, CH6).

Consequently, my interviews confirm that in *both* Zug and Zürich, MNCs' homecountry effects concerning dual VET are present. In both cantons, this triggered a reaction from cantonal authorities which saw the potential to include these MNCs in dual VET – even in Zug where we see substantially more firms with headquarter functions. In Zug, to "pick up the new community" and sustain the system in the face of continued globalization became increasingly important during the 2000s (CH2, CH3, CH4). In Zürich, a shortage of apprenticeship places in the field of commercial training first brought MNCs onto agenda in that decade (CH6, CH7). But more recently, policymakers in both cantons have expressed concern that MNCs heavily utilize scarce skilled labor, but do not contribute to its supply, instead importing skilled labor from abroad (DeVore, 2015; Muehlemann & Wolter, 2013; CH1, CH2, CH3, CH4, CH6, CH11). With contingents for non-EU labor limited *per canton*, and anti-immigration sentiments on the rise, *both* cantons had strong incentives to convince MNCs regarding dual VET in the face of a perceived skill shortage. As my structural power argument predicts, this rather similar challenge of globalization leads to different policies in Zürich than in Zug⁹, as visible in the next section.

VET policy-making and the fear of business' exit

I argue that policy-makers in Zürich, being aware that MNCs in their canton are less tax-sensitive, have more leeway in implementing compelling policy solutions that are costly for business. In contrast, the high dependence of Zug on especially mobile, tax-sensitive MNCs provides them with structural power, which leads to an automatic reaction by policy-makers pushing them towards encouraging VET policies that are cheaper for business. Via additional VET programs built around what were perceived to be common needs of MNCs, Zug tried to create incentives for MNCs to train. In 2007, the cantonal VET office together with BildxZug, the lead organization of Zug's training network¹⁰, initiated VET programs with an increased English language component (CH3). In 2015 BildxZug and the VET office launched secondary level, Englishlanguage dual apprenticeship programs in commercial training and informatics (Berufsbildung International). Respective intermediary associations involved in VET governance remained passive and only took a supportive role (CH2, CH3, CH5, CH13). In these programs, English is the main teaching language in all three learning locations, i.e. the host company, VET school and branch-training center (Strahm, Geiger, Oertle, & Swars, 2016). Further peculiarities concern language stays, a very selective recruitment process and supplementary English lessons. Thereby, public authorities sought to tackle

⁹ Practices to promote MNC integration, such as formal and informal information campaigns including promotional events or networking, were present in both cantons.

¹⁰ Training networks are mostly used to facilitate the integration of smaller or very specialized companies into dual VET by pooling their training resources (Leemann, Da Rin, & Imdorf, 2015).

the issue that MNCs often conduct their internal communications in English, trying to adapt training content to their specific needs.

MNCs train via Zug's training network, not independently. Apprentices complete their training as "interns" in multiple member companies. Only the specifically dedicated lead organization BildxZug requires permission to train and hire apprentices, thus takes over recruiting and most legal and administrative tasks. Thereby, BildxZug reduces companies' training efforts and risks connected to apprenticeship dropout, in addition to bridging the language barrier between administrative VET bodies and MNCs (BildxZug, 2016). Shorter training periods and predictable costs via BildxZug establish compatibility between the long-term payoffs of the local VET system and short-termist MNCs. BildxZug also allows subsidiaries to bypass headcount targets, as foreign MNCs often do not register "interns" in headcount calculations (CH3, CH5). MNCs pay for these services, which is cheaper than setting up fully-fledged apprenticeship divisions for only a few apprentices (CH3, CH5). However, the cantonal government subsidizes BildxZug via annual contributions and loans, partly shifting the financial burden of training from companies to the canton (Kanton Zug, 2009; 2015; CH14).

Consequently, Zug adapts to MNC-needs concerning learning content as well as administration, training provision and financing. VET is a "constant sell from door to door" ("*Türklinken putzen*", CH2) for cantonal authorities, not a process of coercion. While all interviewed actors responsible for the program regard it as a success, its functioning remains volatile and dependent on financial support by the cantonal government (CH5, CH4). Due to cantonal cost-cutting measures and a lack of apprenticeship applicants, certain aspects of the project were cancelled for the 2018 cohort. Even in the face of such decisive challenges, due to the structural power of business in Zug, policy-makers could not incorporate compelling solutions to mitigate those financial cutbacks. Asked specifically about the possibility of putting pressure on MNCs to join dual VET, interview partners clearly negated and emphasized the importance of constant personal contact, networking and advertising (CH3, CH14). Similarly, an interviewee (CH5) laughingly replied

One can only try to explain to those people [from MNCs] what we are doing here [with VET]. And one can only try to explain to [...] the multinationals, that maybe Switzerland works a little bit different than the rest of the world. And one can try to explain to [...] the multinationals what the aspects [of dual VET] are. To create an understanding. And that works sometimes better, sometimes worse. But to take the step, to demand something - forget it!

When asked why demanding something from MNCs is not possible, the interviewee instantly responded

Then they do not come, period. That is always this tax competition within Switzerland in the last years [...]. To relocate a company, in the canton of Schaffhausen – many companies came to Schaffhausen, profited 5 years from concessionary terms, and after 5 years, when the regular taxation would have kicked in, which is already low, they were already gone. Back to Ireland. Or back to Nyon. Or back to Geneva. These are facts. But you cannot read these facts, because nobody admits it.

Another interviewee also explicitly ruled out any compelling measures of MNC inclusion, arguing, "Zug, essentially, does not work via pressure" (CH14). Consequently, making VET more attractive (and cheaper) for those companies was the only possibility: "I don't have a choice [...], as a project here, we have to find a way to cope with those circumstances [...]. Or leave it be" (CH5). For my argument, it does not matter if MNCs would really relocate if certain demands were raised. Important is that the relevant policymakers perceive it that way, and therefore do not consider more compelling policy options vis-à-vis encouraging ones. Encouraging legislation in Zug cannot simply be reduced to partisan politics, all parties in Zug were in favor of the Berufsbildung International project, even the left (CH2, CH3, CH5, CH14). In the same vein, in the more left-leaning canton of Geneva and the more right-wing Schaffhausen, both similar to Zug in terms of their globalized economy and taxation of mixed companies and holdings (Kaegi & Morlok, 2014), similar non-compelling policies to integrate MNCs (i.e. English-language dual VET programs) were introduced or under construction (CH2, CH5, Dienststelle Mittelschul- und Berufsbildung Schaffhausen, 2015; Josserand, 2017). This hints at a similar and central role of structural power in other low-tax locations. To sum up, as visible in the left column of Table 2 below, due to the intense structural power of business as a consequence of Zug's comparative advantages, decision-makers took preventive action to incorporate encouraging VET policies, adapting the respective VET system around the apparent needs of MNCs to trigger voluntary participation.

In contrast, as visible in the right column, Zürich has more diverse comparative advantages and a consequently lower share of highly mobile MNCs, shifting power relations to public authorities. Being aware that MNCs in their canton are less tax-sensitive, authorities are not constantly forced to keep business' costs low and can follow compelling options for MNC inclusion into VET. As one interview partner argued, Zürich wants to attract "creative, innovative companies that are willing to pay something

for it [the location]. [...] That is how we have argued thus far. You pay a higher price for something that is also better" (CH8).

	Zug	Zürich
Power relations on the	Business	Cantonal authorities
side of		
Mode of power	Indirectly via automatic	Directly via open threats
$mobilization^*$	reactions of policy-makers	and legislation
	to possible business exit	
Policy outcome	Encouraging, aimed at	Compelling, costly for
	voluntary participation	business

Table 2: Power mobilization in Zug and Zürich

*I do not make any claims of causality concerning the determinants of those different modes of power mobilization.

For example, Zürich introduced a cantonal VET fund in 2008 (Wettstein, 2008). All companies that do not train have to contribute 0.001 percent of their total wage bill¹¹. The fund puts dual VET on the agenda of all companies coming to Zürich (CH6, CH7). Some stakeholders regard the fund to be a relevant factor facilitating MNC inclusion in Zürich's VET system and "alleviating the situation" (CH7, Minder, 2016). But even if companies decide to refrain from training, the collected funds reduce costs for training companies and help to sustain dual VET (Wettstein, 2008; CH6, CH7, CH10). In public discussions concerning Zürich's VET fund, capital mobility and Zürich's attractiveness as a business location did not play a major role. This is visible in the coverage by the newspapers *NZZ*, *Tagesanzeiger* and *Blick*, in which the cantonal VET fund was never linked to issues like tax competition or decreasing locational advantage ¹². One interviewee argued, "that [the VET fund] is just part of this package. You are simply willing to pay a little bit more for a good location" (CH8). In contrast, in the heavily globalized, low-tax canton of Schaffhausen, a similar fund was clearly rejected in a

¹¹ Exempt from contributions are companies with a wage bill of below 250000 Swiss francs as well as those that already pay into a mandatory branch-wide VET fund (Kanton Zürich Bildungsdirektion, 2017). Such funds exist only in more domestically oriented branches (SBFI, 2018).

¹² In the respective newspaper archives, a keyword search for the term «Berufsbildungsfond» (VET fund) over a period of one year prior to the public referendum resulted in 83 articles, none containing the abovementioned arguments.

public referendum¹³ ("Umstritten ist nur der Berufsbildungsfond," 2008). In Zug, such a policy alternative did not even make it onto the agenda.

In the field of ICT occupations, the respective employer association and the department of economic affairs in Zürich (AWA) cooperated, resulting in compelling policies that facilitated MNC integration into VET. MNCs rely on non-EU labor for these occupations, allegedly exacerbated by a skill shortage within Switzerland. Immigration of non-EU labor is subject to cantonal contingents set by the federal government, but allocated to companies by cantonal authorities. A heated discussion emerged between MNCs perceived to disproportionally demand access to non-EU labor contingents and unwilling to train, and authorities limited by tight immigration quotas of the federal government and an electorate with an increasingly anti-immigration attitude. Even in 2011, the peak-level ICT intermediary associations argued that "the foreign companies that are active in Switzerland, namely also American ones, that do not know our dual VET system, are a particular problem" (Andreas Kaelin of ICT Berufsbildung Schweiz qtd. in Zaugg, 2011). Subsequently, the association and the AWA developed a plan to couple non-EU labor contingents to certain socio-economic obligations (CH10). In late 2015, the AWA began to reject the applications of companies that were not in the "macroeconomic interest" of the canton (Tagesanzeiger, 2015). In early 2016, Rudolf Noser, president of the peak-level ICT employer association, politician from the business-friendly FDP party and member of the Swiss council of states from Zürich, further clarified (AWA Zürich, 2016, p. 10)

Foreign labor is essential in order to cope with the growth of the ICT sector. However, employers also have a responsibility towards our skilled, domestic workers. I make a plea for giving contingents for non-EU labor only to companies that contribute to vocational education and training, in other words, that train apprentices, and are able to prove a mixed age structure of their workforce. Our association is working on a corresponding certificate.

This certificate, to be awarded by the employer association ICT Switzerland, should have helped the AWA to identify companies that train, thereby gaining privileged access to non-EU labor contingents. From a legal point of view, non-EU labor contingents are distributed to companies under the premise of "ensuring macroeconomic

¹³ The low tax canton Geneva has a VET fund (Wettstein & Gonon, 2009), but firmmobility and therefore structural power of business was much lower when it was introduced in the late 1980s. Contributions tend to be lower too, as companies pay a lump-sum of below 30 CHF per employee per year (cf. EAK, 2012, p. 11).

interests" and, according to the AWA's statement, "training activities and mixed age structures in companies contribute to ensuring macroeconomic interests" (AWA Zürich, 2016, p. 11). Following this rather open threat in addition to consequent roundtable discussions and years of (also public) critique, for example Google's Swiss location started to train within the conventional Swiss VET system - more than 10 years after opening its subsidiary in Zürich (Hosp, 2017; CH9, CH11). Other big MNCs like Accenture or Cognizant also promised to (re-)enter dual VET or increase their training participation in 2016 (ICT Berufsbildung Schweiz, 2016; inside-it.ch, 2016). From ICT Switzerland's viewpoint, the announcement of the certificate already showed a significant effect and implementation was no longer necessary (CH11).

I do not suggest that MNC participation is solely the result of abovementioned measures. The main point is rather that authorities in Zürich, due to the lower structural power of business in the canton, could make such demands without fear of a business exodus. My interviewee at ICT Switzerland clearly highlighted that they did not fear any negative consequences for the location resulting from the potential certificate: "No, quite the contrary. The location is also dependent on a certain amount of political acceptance. If we accomplish participation within our [VET] system, also foreign labor will be increasingly accepted" (CH11). A similar compelling policy would not have been possible in Zug. These policy choices in Zürich cannot be explained by simple partisan politics. In the cantonal council, left-wing parties and Christian-democrats as well as (market-liberal) green-liberals approved the VET fund in 2007 (Keune, 2008). The rightwing SVP and FDP representatives dominating the cantonal government opposed their parliamentary groups and party bases and explicitly supported the fund (Tagesanzeiger, 2008). Furthermore, the initiative to couple non-EU labor contingents to training participation originated out of ICT Switzerland and the AWA, both led by the businessfriendly FDP.

Encouraging policies are weaker compared to Zug. Bilingual programs were introduced in 1999 out of a more pedagogical logic (Brohy & Gurtner, 2011; Miltschev, 2013). They only tackle the VET school component of an apprenticeship with up to three subjects taught partially (i.e. up to 75% of total class time) in English (Fleischmann, 2016; Zürich;, 2012). Zürich is also home to a number of training networks. MNCs are part of them mostly in ICT training, but according to my interviewees, none of them is specifically targeted at MNCs. In contrast, these networks mostly provide services in the

first year of the apprenticeship, which is common practice in ICT training across all types of companies (see also SDBB, 2014). According to my interviewees, those training networks are only subsidized, if at all, during their formation – often by the VET fund and consequently by companies that do not train (CH6). The tighter financial situation of Zürich cannot fully explain its choice for compelling instead of encouraging policies that are more costly. Compared to other Swiss cantons, Zürich's financial situation is quite solid (Grass, Krummenacher, Eichler, & Müller, 2012). Even Geneva, with a far worse financial situation, was nonetheless able to afford encouraging policies to include MNCs in VET (Josserand, 2017). More importantly, cantonal finances cannot explain why Zug does not implement nor even think about any additional compelling means to facilitate MNC integration. After all, the VET office in Zug experienced cost-cutting by cantonal government, making the integration of MNCs harder.

Conclusion

Globalization implies a significant challenge for coordinated capitalism in general and collective skill formation in particular. Beneficial constraints are loosened through an increasing proportion of MNCs in CMEs. As suggested by IHRM literature and supported by interviews, MNCs are particularly hard to integrate in dual VET systems. However, the influx of MNCs does not necessarily lead to deterministic changes in the provision of collective goods. Due to the structural power of business in the canton of Zug, resulting from its low-tax policy as a main comparative advantage that attracts the most "footloose", cost-sensitive and mobile firms, compelling policies to integrate MNCs are not an option. Rather, the local VET system has to be shaped around the apparent needs of those companies in order to trigger voluntary cooperation. In contrast, a location like Zürich with more diverse comparative advantages attracts less mobile MNCs, and business exit is less imminent here. Consequently, more compelling policies for collective goods provision can be implemented in the face of globalization.

What does this mean in terms of collective goods provision more generally? First, Zug had to opt for a very innovative and firm-friendly policy, but this encouraging policy also comes with drawbacks. It is more resource intensive. With the lack of any compelling policy instruments, the success of such solutions depends on a constant supply of financial resources from the cantonal government. In times of austerity, regional actors struggle to keep such non-compelling policies functioning. Furthermore, it also remains to be seen to what extent such a policy solution compromises the payoffs of the respective collective good for public actors, domestic firms or individuals. This concerns the overall uniformity of the VET system, its standardization, the portability of qualifications, but also the inclusiveness of VET, as only the most ambitious students have a perspective within Zug's international VET programs¹⁴. Second, in Zürich public authorities and the responsible employer association introduced new compelling VET policies to integrate MNCs. The involvement of the employer association could be seen as an instance of a VoC-type collective goods provision due to (domestic) employerinterest. However, it could also be seen as the implementation of new constraints by domestic employers' that are (in contrast to foreign MNCs) shaped by long-lasting constraining social norms in Switzerland that favor collective goods provision (cf. Streeck, 1997b). But, independent from which interpretation is chosen, it shows that policy-makers are not forced to rely exclusively on encouraging VET policies and can therefore integrate MNCs through more compelling means in times of globalization. Consequently, deterministic accounts that point towards in general increasing business power of highly mobile business vis-à-vis public actors have to be attenuated and cannot be generalized to all globalized economies. As the case of Zürich has shown, highly international locations still have a multitude of policy options available to cope with globalization, including policies more compelling to business. Nonetheless, we should not take the challenges of globalization lightly. A location might not be able to invest large amounts of time and resources to change its comparative advantages away from low-taxes, at least not in the medium-term. It is essential to recognize that once locations start to fundamentally rely on low-tax strategies to achieve foreign investment, they increasingly tie their hands in implementing more compelling and costly policies for collective goods provision vis-a-vis business.

Interviews

- CH1 Interviewee from peak-level Swiss Employer's Association (SAV).
- CH2 Interviewee A involved in the governance of Zug's VET system.

¹⁴ Busemeyer and Thelen (2012) coined the term "segmentalism" for such developments in VET, which can also be seen as part of larger dualization tendencies in CMEs (Palier & Thelen, 2010).

CH3 – Interviewee B involved in the governance of Zug's VET system.

CH4 – Interviewee C involved in the governance of Zug's VET system (email).

- CH5 Interviewee C involved in the governance of Zug's VET system.
- CH6 Interviewee A from the VET office Zürich.
- CH7 Interviewee B from the VET office Zürich.
- CH8 Interviewee A from the department of economic affairs Zürich.
- CH9 Interviewee B from the department of economic affairs Zürich.
- CH10 Interviewee from cantonal ICT VET intermediary association.
- CH11 Interviewee from peak-level ICT VET intermediary association (telephone).
- CH12 Interviewee C from the department of economic affairs Zürich (telephone).

CH13 – Interviewee from peak-level commercial training intermediary association (telephone).

CH14 – Interviewee D involved in the governance of Zug's VET System (telephone).

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3. Paralyzed business: Association-firm conflicts, failed self-governance, and the limits of business power in vocational training reform

In many neo-corporatist economies, business and its associations perform important quasi-public functions like welfare and skills provision. Recent literature pictures this position as a power resource, giving business disproportionate influence in policy-making that is hardly revokable. However, these accounts typically overlook that this privileged institutional position of business is dependent on business ability to act collectively, characterized by a joint execution of quasi-public functions by associations and member firms. Consequently, associations need to be able to secure the compliance of their members to the policy solutions they design. If conflicts between the organizational interests of associations and the cost-pressures of firms cannot be overcome, non-compliance is likely and self-governance fails. Consequently, competing interest groups like labor unions can politicize business failure in public discussions and dominate reform processes, with business potentially losing its privileged institutional position in policy-making. A case study on Austrian dual vocational training reform illustrates this mechanism.

Introduction

In the past decade, research investigating varying models of industrial relations, welfare systems and skills provision has increasingly highlighted a reorientation of contemporary capitalism towards less inclusive and egalitarian trajectories. In particular, this reorientation has often been identified as the result of the increasing power of business vis-à-vis labor in the face of structural trends like globalization and technological change (Baccaro & Howell, 2011; Hermann & Flecker, 2009; Streeck, 2009; Whitford, Baccaro, Edwards, & Doellgast, 2018). Recently, it has been argued that the power of business is particularly high in contexts where the institutionalized position of business and its associations grants direct influence *and* responsibilities in policy-making (Busemeyer, 2012; Coban, 2021; Culpepper, 2011), as visible in various coordinated market economies with neo-corporatist traditions. As emphasized by Busemeyer and Thelen (2020), such institutional business power goes beyond conventional accounts of structural and instrumental power, as business and its intermediary associations often fulfil the function of "private interest governments" to which the state delegates certain public tasks (Streeck & Schmitter, 1985), for example

in the area of welfare and skills provision. However, under which conditions this power of business can be overcome still remains underexplored, especially considering that in particular coordinated market economies are often shaped by more egalitarian reform trajectories than their liberal counterparts (Benassi, 2016; Doellgast, Lillie, & Pulignano, 2018; Ibsen & Tapia, 2017).

While seen as a power resource to shape policy-making by many recent contributions (Busemeyer, 2012; Culpepper, 2011), it is often overlooked that institutional business power depends on business' ability to "act collectively through an organization" (Emmenegger & Seitzl, 2019). Drawing on neo-corporatist literature, I consequently argue that business' ability to retain and exercise their institutional power crucially hinges on business associations' ability to "deliver the compliance of their members" (Streeck & Schmitter, 1985, p. 12) to the self-regulatory measures they designed. If this compliance of member firms is impeded by conflicts between shortterm interests of firms and organizational interests of associations (Swenson, 2018; Voskeritsian, Kornelakis, Kapotas, & Veliziotis, 2020), private interest governments can fail. Under such circumstances, competing interest groups opposed to business associations may politicize business failure in public discussions, overcome business' privileged position in policy-making and dominate the reform process. In other words, conflicts between associations and firms open up a window of opportunity for opposing actors, which are often labor unions, potentially leading to situations where business loses its privileged institutional position. Consequently, I agree with power resources approaches on the importance of labor unions, while at the same time acknowledging the role that conflicts within business can play in strengthening the power of labor.

I illustrate my theoretical argument at the case of dual vocational education and training (VET) reform. Theoretically, such systems of combined school-based and firmbased learning (apprenticeship) are considered a paradigmatic example of coordinated capitalism (Pernicka & Hefler, 2015) and the delegation of public functions to private interest governments (Streeck, 1992). More specifically, I look at the crisis of Austria's apprenticeship system in the late 1990s and the subsequent introduction of public workshop-based apprenticeships. This important pillar of Austrian dual VET was originally introduced in 1998 against the opposition of employer representatives - despite their strong, institutionalized position in Austria's VET system (Graf, Lassnigg, & Powell, 2012). While reform politics were initially shaped by business – as predicted by business power arguments – the association subsequently failed to deliver the compliance of their member firms to the increased number of apprenticeship places they promised. This enabled labor unions to capitalize on business failed self-governance and dominate the reform process, promoting publicly financed workshops that replace the role of employers as apprenticeship providers.

As a result, business' institutionally privileged position in the system was partially abolished, anchoring a strong inclusive component into the skill formation system that guarantees young individuals training places, regardless of employers' hiring decisions. Alongside similar policies in the Nordic countries, these public workshop-based apprenticeships acted as a model for the European Youth Guarantee, which was propagated as one of the main labor market instruments by the European Union following the economic crisis of 2008, looming youth unemployment, and the rise of the social investment paradigm (Kopf, 2013; Lewis & Heyes, 2020). In addition, such schemes can be seen as a main mechanism alleviating potentially negative effects of the Covid-19 pandemic on apprenticeship and youth labor markets. Consequently, dual VET in general, as well as public training workshops in particular, have substantial empirical as well as theoretical relevance for showing the mechanism in question.

Business power and association-firm conflicts in coordinated market economies

While Hall and Soskice's (2001) Varieties of Capitalism (VofC) framework made a strong point emphasizing potential alignments of business interests with more egalitarian forms of industrial relations, welfare systems, and skill formation, current literature is strongly shaped by earlier power resources arguments that picture egalitarian capitalism as a result of labor prevalence over business interests (Esping-Andersen, 1990; Korpi, 1974). Current reorientations of contemporary capitalism towards less inclusive trajectories are consequently often seen as a result of prevailing business interests over (divided) labor (Baccaro & Howell, 2011; Hermann & Flecker, 2009; Streeck, 2009; Whitford et al., 2018). Explaining such transitions, business power literature has repeatedly emphasized increased capital mobility, and consequent exit capacities of business (structural power), as well increasing lobbying budgets and efforts (instrumental power) (Culpepper, 2015; Unterweger, 2020).

In addition, recent literature increasingly highlights that business' institutionalized involvement in the governance of certain policy-fields often makes

them pivotal for reform outcomes (Bonoli & Emmenegger, 2020; Busemeyer, 2012; Coban, 2021; Culpepper, 2011) – in particular as various national governments and international organization increasingly promote such "stakeholder engagement" or "public-private partnerships" in policy-making (OECD, 2019; Torfing, Guy Peters, Pierrse, & Sørensen, 2012). This builds on the concept of "private interest governments" (Streeck & Schmitter, 1985) from neo-corporatist literature, where business and its associations are the main stakeholders in the provision, financing, administration, and reform of various quasi-public tasks, for example in the fields of occupational welfare (Natali & Pavolini, 2018), active labor market policy (Martin, 2005), and vocational training policy (Busemeyer & Trampusch, 2012)¹⁵. While traditional neo-corporatist literature often highlighted the social and economic benefits of such arrangements, the potential of a "decay of self-government through 'agency capture' by rent-seeking interest groups" (Streeck & Kenworthy, 2005) is increasingly gaining prominence. Similarly, also veto player literature like Tsebelis (2002) acknowledges that such institutionalized position of neo-corporatist actors gives them substantial power in these policy-areas (see also Wiß, 2012). Most recently, Busemeyer and Thelen (2020) have highlighted that these "well-known and long-standing feature of Europe's corporatist political economies" can be considered "institutional" forms of business power that result from business' execution of quasi-public tasks¹⁶.

Not only does business have direct control in the governance of certain policyfields, this power is also argued to be hardly revocable, and "once private actors are established and involved in the provision of crucial public goods and services, they're likely to remain on the scene and influence future policymaking processes" (Busemeyer

¹⁵ Also self-governance outside traditional neo-corporatist policy-fields can be shaped by similar dynamics. Culpepper (2011) presents shareholder protection legislation and executive pay as a case of "private interest governance" in France, as business self-governance was acknowledged to be more legitimate and effective for preventing undesirable business practices than state policy. Most recently, Covid-19-related business subsidies have been administrated by business associations in Austria (see for example Republik Österreich, 2021). Private interest governments are consequently all but "dead" (Wagemann, 2012), despite their often expected demise in the face of liberalization (Streeck, Grote, Schneider, & Visser, 2006).

¹⁶ Such institutional business power is said to differ from structural power, as it does not result from the "natural operation of the capitalist economy", but from "policy decisions that either invite or allow private interests to play a central role in providing crucial collective goods on which society depends" (Busemeyer & Thelen, 2020).

& Thelen, 2020). Once introduced, private interest governments create a range of beneficiaries among constituencies that profit from business' quasi-public function, and state budgets in times of austerity may become dependent on business relieving the state of expensive regulatory tasks (Streeck & Kenworthy, 2005). States would consequently "expose themselves to the threat of holdup and exit" (Busemeyer & Thelen, 2020), as state actors need to prevent business exit from private interest governments as they rely on the execution of key public functions they delegated to business (Busemeyer, 2012). Similarly, successful private interest governments will increasingly be seen as more effective by both the public as well as political stakeholders, also due to their proven expert knowledge and information (Culpepper, 2011). In neo-corporatist economies, this position is further is supported by high membership densities in a "limited number" of "noncompetitive, hierarchically ordered" associations with representational monopoly, which make associations the legitimate voice of business (Schmitter, 1979; see also Brandl and Lehr, 2019).

In sum, there are consequently strong reasons to believe that business and its associations will be regarded as the most suitable actor to resolve any crisis situations in these policy fields. Business itself is also unlikely to give up its own position in the governance of these policy fields. Theories on associations' organizational interests highlight that (business) organizations are unlikely to consent to reforms that reduce their long-term influence in policy-making and consequently their own "survival, continuation and reproduction within the wider political and economic system" (see also Carstensen & Ibsen, 2019; Voskeritsian et al., 2020).

While I acknowledge the privileged institutional position of business in such private interest governments, business is not omnipotent. After all, particularly coordinated market economies are frequently the venue of more inclusive and egalitarian reform trajectories and labor prevalence (Benassi, 2016; Doellgast et al., 2018; Ibsen & Tapia, 2017), even though institutional business power should be strongest in these contexts. Consequently, it is important to explore the conditions under which business can lose its privileged institutional position in policy-making. Past scholarship has emphasized business conflicts as central for reform outcomes. For example, such conflicts can emergence between firms of different sectors and sizes (Mares, 2003; Martin, 2006; Traxler, 2007), giving rise to the possibility of cross-class coalitions with labor (Afonso, 2011; Hall & Thelen, 2009; Thelen, 2014). Also business power literature

has increasingly inquired into the "limits" of business influence, arguing that preference homogeneity within the business community is an essential precondition for the exercise of power - which can be impeded by conflicts between firms of different sectors (James & Quaglia, 2019; Trampusch & Fastenrath, 2021).

In contrast to such conflicts based on firm size and sector, the potential effect of conflicts between associations and their member firms on reform outcomes has been only rarely emphasized in recent literature. While Swenson (2018) shows that the interests of individual firms can be "misrepresented" by business associations, he illustrates the effect of these conflicts only at the case of the liberal market economy of the United States. There, individual firms bypass associations and directly lobby politicians, as policy-makers are clearly aware that associations are "not a reliable place to go for information" about business interests. However, also earlier accounts on industrial relations, organizational studies and neo-corporatism explored the tension between intermediary associations and their members (Child, Loveridge, & Warner, 1973; Streeck & Schmitter, 1985; Weitbrecht, 1969).

Most prominently, Schmitter and Streeck (1999) emphasized that while associations also consider to secure long-term influence and control in policy reform and administration in order to deliver to their members, individual firms are "strongly conditioned by competitive market forces" (Streeck & Schmitter, 1985, p. 14), creating potential for conflict. Recent accounts on organizational interest build upon these insights and conflicts, but are less interested in the effect of such conflicts on reform outcomes, or mainly focus on labor unions as intermediary associations (Carstensen & Ibsen, 2019; Davidsson & Emmenegger, 2013; Voskeritsian et al., 2020). In the following, I show that where the state delegates quasi-public functions to business, association-firm conflicts can severely impact business' ability to exercise and retain institutional power, namely by undermining associations ability to secure their member firms compliance and consequently opening up a window of opportunity for other competing interest groups to dominate policy-making.

Failed private interest governments, association-firm conflicts, and reform politics

Building on the neo-corporatist literature, I argue that business' exercise of power in private interests governments hinges on the ability of business associations to "deliver the compliance of their members" (Streeck & Schmitter, 1985, p. 12) to the associational policies they pursue. In other words, business needs to be able to act collectively, as "the authority of private interest governments to compel, even where it is strong, is never strong enough to exempt associations completely from the need to mobilize, on a voluntary basis" (Streeck & Schmitter, 1985, pp. 26, 27)¹⁷. For example, as illustrated by Busemeyer and Thelen (2020) and Bonoli and Emmenegger (2020), business can threaten to collectively exit from the provision of quasi-public goods in order to push policy-makers towards their preferences. But as spontaneous collective action is difficult to achieve (Olson, 1971), business associations needs to be able to take over "organizing and communicating the possible collective exit of firms" (Emmenegger & Seitzl, 2019) and consequently ensuring their members' compliance in order to make the exit threat credible.

I argue that business' necessity "to act collectively through an organization" (Emmenegger & Seitzl, 2019) in order to exercise power goes beyond such exit threats. In private interest governments, collective action is characterized by a *joint* execution of quasi-public functions by associations and member firms. Associations design specific policy-measures, as they are included in the administration and reform of quasi-public policy-fields like welfare and skill provision. However, individual firms are responsible for the on-the-ground provision. In these private interest governments, business is usually seen as the most legitimate and effective actor to execute a respective function for the public good (for example due to its long-lasting expertise and expert knowledge). This privileged position in policy-making consequently hinges on associations' ability to assure continued on-the-ground provision of quasi-public services by firms in accordance with policies measures designed by the association. When business' associations cannot ensure such sufficient compliance of their members to the policy solutions they designed, business is paralyzed. Under such circumstances, the legitimacy and effectiveness of business self-governance can be questioned and attacked in public discussions, and business can lose its ability to dominate policy-making.

In other words, firms' non-compliance will open up a window of opportunity for other competing interest groups and parties opposed to business associations to capitalize

¹⁷ Only exceptional cases like collective bargaining and income policies are shaped by a "highly specific kind of devolved authorization by the state to bind members and possibly non-members" that enables "legal enforceability of collective agreements" (Traxler, 2007, pp. 29, 30).

on the failure of business' private interest governments. In a sense, competing interest groups can hold business and its associations accountable as "publicly responsible selfregulating bodies" (Streeck & Schmitter, 1985, p. 24). This is the case because business' ability to frame continued self-governance as most effective and the normatively right thing to do (Culpepper & Thelen, 2020; Keller, 2018) will be limited if associations are unable to secure the compliance of their member firms to the policy-measures they designed. Similar to Morgan and Ibsen (2021), a lack of unity within business will consequently trigger more "noisy" politics, as interests groups competing with business associations can apply strategies to emphasize business' inability to provide its quasipublic functions in public discussions and the political arena and promote their own policy solutions vis-à-vis government and the public. Furthermore, failed business selfgovernance gives competing interest groups the opportunity to frame a complex issue "in simple and Manichean terms" in the public discussion (Massoc, 2019), depicting business failed self-governance as a failure of business' "collective responsibility" (Streeck & Schmitter, 1985). As a result, competing actors can overcome business' privileged position in policy-making and dominate the reform process, leading to a transfer of responsibilities back from business towards the state¹⁸.

Central for firms' refusal to comply with associational policies, and consequently their refusal to act collectively in order to secure power in policy-making, are conflicting interests between business associations and their member firms¹⁹. Following Schmitter and Streeck (1999), associations pursue more long-term interests to secure influence and control in policy reform and administration, while firms can be expected to follow a stronger short-term logic, emphasizing short-term cost-constraints. Consequently, associations can be expected to consent only to "reforms that do not fundamentally threaten to undermine their organizational interests" (Davidsson & Emmenegger, 2013) – even if this goes against the short-term cost consideration of their member firms (Carstensen & Ibsen, 2019; Voskeritsian et al., 2020). In particular, associations will not

¹⁸ As Culpepper (2011) has highlighted, in the face of increasing public dissatisfaction with business self-governance, not only left-wing governments but even right-wing parties might reconsider their support for business self-governance.

¹⁹ Compliance of member firms with their associations might also be impeded by a lack of resources or communication failures. Given the well-resourced, experienced and longstanding business interest associations in many coordinated market economies, I focus on conflicts of interests.

necessarily follow wishes of their members to scale down their quasi-public functions, which would mean a serious reduction of their own position in the governance of these policy fields. Consequently, there is potential for a breakdown of collective action and consequently compliance of member firms with associational policies - if firms expect short-term cost-savings from such non-compliance.

While practices of firms' non-compliance with associational policies are likely to happen regularly on a smaller scale, their cumulated effect to disrupt previously stable private interest governments and impact reform outcomes depends on certain scope conditions that exacerbate such association-firm conflicts. First, tensions between members and associations are likely to increase as a result of increased cost-pressure on the side of firms, for example due to economic downturns and/or increased (international) competition (Höpner, 2003, p. 26; Streeck, 1997). Subsequently, individual firms are more likely to deny compliance to policy-solutions negotiated by the association that they deem to costly, and short-term cost considerations (e.g. about their immediate economic survival) will repress relatively uncertain, long-term payoffs of collective action. Expenses that are not part of their core economic activities, like the provision of quasi-public services in private interest governments, are more likely to be cut. This is visible in reductions of (firm-based) vocational education and training in times of economic downturns (Wolter & Ryan, 2011), or the potential "pruning" of employer-provided welfare schemes in times of structural changes (Natali & Pavolini, 2018).

Second, potential for short-term cost-savings for firms are more likely to materialize if the state is capable to take over the provision of quasi-public functions previously delegated to business. Firms themselves consent to certain forms of state intervention – not necessarily because of potentially positive inclusionary effects of state intervention, but because state intervention can shift costs from firms towards public actors (Swenson, 2018). For example, expenses that are not part of their core economic activities might be transferred to the state, including the execution of quasi-public functions. A second important precondition is consequently the presence of a state with sufficient capacity to take over these functions (Thelen, 2014) – but pressure to create these capacities is likely to grow as business' private interest governments continue to fail.

Finally, for association-firm conflicts not only to emerge, but also effect reform outcomes, the presence of political-economic actors opposed to the continued provision of quasi-public functions via business' private interest governments is another important scope condition. If such actors, in most cases labor unions and left-wing parties, indeed oppose business-led private interest governments and promote a transfer of these responsibilities to the state depends on their specific preferences, which might or might not be overlapping with business associations (Davidsson & Emmenegger, 2013). This is important, as even if interests of individual firms and associations do not align concerning the importance of continued private interest governance, it is rather unlikely that individual firms will openly oppose their respective associations, which might "backfire by emboldening left-wing reformers to push for [...] more expensive reform", and open dissent with their association can trigger side punishments from "trade associations buyers, suppliers, creditors, leaders, shareholders, and golf partners" (Swenson, 2018). However, it is not necessarily the initial strength of labor that matters for reform outcomes. Going beyond traditional power resources approaches, I argue that firms' non-compliance with associational policies can lead to a process that strengthens the power of labor unions relative to business associations and enables them to achieve more egalitarian reforms, even in policy-field that are usually in the firm hands of business. In the next sections, I illustrate my argument connected to association-firm conflicts and failed business self-governance at the case of the Austria's dual VET system, followed by a section testing potential alternative explanations.

The case of dual vocational training reform

Collective skill formation systems are paradigmatic examples of coordinated capitalism and private interest governments, as employers and their associations fulfil quasi-public functions in the provision, financing, administration, standardization, and reform of dual learning via the apprenticeship model (Busemeyer & Trampusch, 2012). While labor unions are also involved to a lesser extent, employers are clearly the main stakeholders in dual VET, not least because firms act as the provider of apprenticeship places (Bonoli & Emmenegger, 2020). Predominant in Austria, Denmark, Germany, the Netherlands, Switzerland, and partly Norway, these secondary-level training programs usually enjoy widespread support, as they offer low youth unemployment and a smooth transition from school to work (Busemeyer, 2015). The focus of literature investigating

reform politics in such skill formation systems, similar to broader scholarship focusing on current transformations of industrial relations and welfare state institutions, lies on business cleavages with regard to firm size - expecting more dualizing reform outcomes when large firms are dominant in the business camp (Busemeyer & Thelen, 2012; Graf, 2017), and more inclusive outcomes when small firms' prevail (Trampusch, 2010). In contrast, the effects of association-firm conflicts on reform outcomes have remained largely unexplored in this literature. Furthermore, the position of business as the main stakeholder in dual VET policy is widely regarded as a power resource in VET research, making it the "pivotal actor" in dual VET reform (Busemeyer, 2012). Consequently, literature on VET politics is usually not concerned with - or unable to explain - instances where actors opposing business dominate reform outcomes. While Durazzi and Geyer (2019) focus on the formation of union preferences supportive to inclusiveness enhancing reform, these are not sufficient to explain why labor unions can prevail in a policy field where business is usually considered not only the pivotal actor, but also the legitimate main stakeholder all across the political landscape.

The 1998 dual VET reform in Austria was a striking instance of such labor prevalence against the opposition of employer representatives, with business partially losing its privileged institutional position in this policy-field. The next sections will consequently show how association-firm conflicts opened a window of opportunity for Austria's labor movement to politicize on business' failure to provide a sufficient amount of apprenticeship places, overcome business' privileged position in policy-making, and ultimately dominate the reform process. I apply process-tracing to illustrate this mechanism (Beach & Pedersen, 2013). Thereby, I rely on a variety of primary and secondary sources for observable implications. This includes historical newspaper articles, press releases, policy documents of involved stakeholders, as well as semistructured expert interviews with representatives from Austria's main business association, the chamber of labor, public administration, and independent experts, that have all been either involved in the respective reform process or are experts on the respective policy measures in question.

Potential observable implications of the mechanism in question that will be considered are statements by business representatives pointing to potential associationfirm conflicts and rebellious members, or publicly encouraging firms to comply with their proposed policy solutions. Similarly, also statements by business experts and insiders might be able to give insights on the respective preferences of certain individual firms. Furthermore, firms' non-compliance with associational policies could be visible in public statements of individual businesses. Labor's strategy to politicize business failure will produce additional observable implications in public discussions. The highly politicized reform process should also be reflected in a consequent increase of issue salience²⁰ and consequently newspaper coverage on the issue. Furthermore, specific newspaper articles and press releases can capture labors' deliberate media campaigns that frame their preferred policy option as superior and/or the normatively right thing to do, emphasizing that business simply cannot get the job done.

Training workshops and association-firm conflicts in the Austrian apprenticeship system

In 1996, demographic changes, technological change, structural economic trends away from industrial production towards the service sector, and privatization²¹, triggered a severe crisis on the Austrian apprenticeship market (Hermann & Flecker, 2009; Schneeberger, 2009). With many school-leavers being unsuccessful in securing an apprenticeship position at the labor market, both social partners and government consequently agreed that adjustments to the VET system were necessary. As the crisis at the apprenticeship market coincided with rising unemployment in Europe more generally, also the European Union committed their member states to create individual "National Action Plans for Employment". Surprisingly, and much to the dissatisfaction of the main employer association WKÖ (Austrian Economic Chamber - *Wirtschaftskammer Österreich*), Austria's 1998 Action Plan for Employment included public workshopbased apprenticeships - a proposal initiated by labor (represented by the Austrian Chamber of Labor *AK* and the Austrian Trade Union Federation $\ddot{O}GB$).

Originally called "JASG" (*Jugendausbildungssicherungsgesetz*) apprenticeship and developed further under the label of "ÜBA" (*Überbetriebliche Ausbildung*) in 2008

²⁰ Issue salience is commonly defined as the importance and attention the public attributes to a specific issue (Culpepper, 2011).

²¹ The Austrian state traditionally used its state-owned industries to take up those apprenticeship seekers that could not get an apprenticeship in the private sector (Summer, 1987, AT5). Since the late 1980s, training over need either stopped due to privatization (Graf et al., 2012), or was not feasible under new firm-models that secured more independence of management from political decisions (Bayer, 1990).

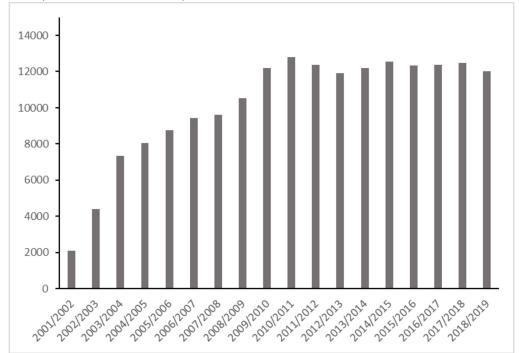
(Schlögl, Mayerl, Löffler, & Schmölz, 2020), public training workshops replace the employer's role in dual VET by providing practical training²². Workshop apprentices do only short-term internships at private firms, to which they can change if they are offered a regular apprenticeship place. But most importantly, the public training workshops increase the inclusiveness of Austrian dual VET by allowing individuals to attain full vocational qualifications if no apprenticeship place at a private firm can be found, with quite good labor market chances for graduates (Bergmann et al., 2011). Students receive apprenticeship "wages" from the public employment office, visit standard vocational schools, and receive the same vocational certificates as those in standard dual VET. Initially, the sole entry requirement for students was that the respective individual had to be registered at the public employment agency as an apprenticeship seeker²³.

The WKÖ heavily opposed the idea of training workshops, as it meant a loss of business influence, interfering with their organizational interests. More specifically, the association feared that the workshops will create a competition to firm-based, standard dual VET, competing with employers for apprenticeship seekers, thereby reducing the supply of adequate apprenticeship candidates for firms (AT1, AT4). First, this would threaten its own long-term influence in the training system, with the state increasingly expanding its functions into business' turf (AT3). Second, the association feared that it might also be more expensive for training firms in the long-term, due to negative side-effects to standard apprenticeships. A reduced supply of apprenticeship candidates for firms potentially leads to an upward push in wages and working conditions of apprentices, as employers have to keep their dual VET option competitive to the workshop-based option (AT1). But despite this heavy opposition by the WKÖ, public workshop-based training was implemented and ultimately became an important part of the Austrian dual VET system (Figure 1). Conservative calculations show that around 9 percent of all apprenticeship starters visit these workshops (WKÖ, 2019).

²² Often also called "workshop-based apprenticeship" (Graf et al., 2012) "institutional apprenticeship" (Lassnigg, 2011), or "supra-company apprenticeship".

²³ Later on, separate "integrative" apprenticeships (integrative Berufsausbildung, IBA) were introduced for individuals without a positive school-leaving certificate or other socioeconomically, psychologically, or physically especially disadvantaged groups.

Figure 1: Number of participants in public training workshops according to AMS data, 2001-2019 (Source: AMS, 2020)



The Austrian VET reform of 1998 offers a striking example of the impact that association-firm conflicts can have, leading to the implementation of the unions' proposal, namely training workshops. Signs of clashing interests between associations and firms can best be illustrated when looking at the initial, WKÖ-led reform packages of 1996 and 1997. Arguing that the apprenticeship crisis is a result of too high training costs in Austria, the WKÖ successfully negotiated increased monetary grants (e.g. subsidies), cost reductions (e.g. reduced social insurance contributions) for training firms, and a liberalization of employment protection legislation for apprentices - in exchange for an increase of training participation of its member firms. However, an increase in training participation rested on voluntary compliance of the WKÖ's member firms, which cannot be forced to train and at that point cared mostly about short-term cost advantages.

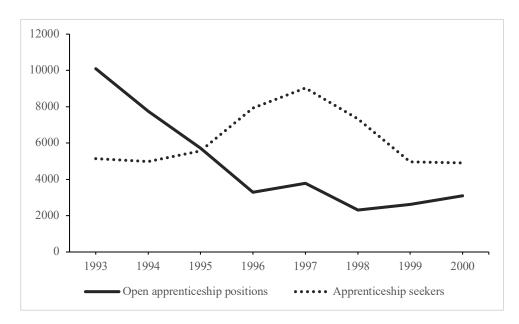
Even though abovementioned policies negotiated by the WKÖ also target the cost-side of apprenticeships, they are from a short-term perspective not necessarily cheaper for firms than training workshops. In Austria, only 33 to 40 percent of firms gain net benefits from apprenticeship training (Lassnigg, 2011). Even after subsidies, apprenticeship training on average still imposes net costs on many Austrian employers (Dornmayr, Schlögl, Mayerl, & Winkler, 2016, p. 30). In contrast, training workshops would supply employers with skilled labor without individual investments by firms (AT2,

AT6). In an interview at the peak of the apprenticeship crisis in 1997, a WKÖ representative described the problems of controlling member firms in such a situation with surprising candor, arguing that some firms themselves might even favor training workshops in the short-term: "With this project [the training workshops], companies do not want to train anymore. Everybody asks himself: Why should I train on my costs, if I can get free apprentices?" (Peter Mühlbacher qtd. in Fröhlich, 1997). Consequently, the behavior of many member firms clearly centered around short-term, cost considerations – even if this might prove to be more expensive for them in the long-term, as expected by WKÖ.

While the WKÖ continuously tried to encourage its members to raise their training participation, emphasizing that firms should "employ apprentices, despite the currently harsh circumstances and high costs!" (Sitar, 1996), these efforts appeared to be in vain. In accordance with its organizational interests, which saw training workshops as the least beneficial option for the association, the WKÖ even preferred the idea of a training levy, where companies that do not train have to pay, in order to secure the compliance of its members. However, the agreement with labor unions blew up at the last moment in summer 1996 due to open, heavy protest from the WKÖ's member firms, which again had short-term cost considerations in mind (Sitar, 1996, AT5).

Consequently, differences emerged between the WKÖ, which saw the training workshops from a more system-wide, long-term perspective, and therefore as a threat to their organizational interests, and part of its members firms, for which they were (and still are) a solution to cut training costs in the short-term (AT2, AT4, AT6). Neither could the association give up their all-out opposition to workshops, and therefore its own long-term influence in the system, nor could the association deliver the compliance of its members and push them to increase training participation – neither with subsidies nor with a proposed training fund. As visible in Figure 2, in 1996, the so-called apprentice gap accounted for 4.642 places, constantly growing up to 5000 in 1998 (Schneeberger, 2009) - despite high reform activity in the field of dual VET. This created a persisting state of emergency for a small economy like Austria.

Figure 2: Development of the Austrian apprenticeship market, 1993-2000 (Source: Schneeberger, 2009)



Failed private interest governments and labor prevalence in Austrian dual VET reform

The failure of WKÖ-led social partner compromises (i.e. increases of subsidies and decreases in social insurance contributions in exchange for increased training participation) opened a window of opportunity for labor unions and social democrats, being able to capitalize on the failure of business self-governance and pushing the momentum towards ideas of the unions, namely the training workshops. As a representative from the chamber of labor argued about the politics behind the introduction of training workshops

Back then, they [the WKÖ] said that this [training workshops] will kill the dual system. That it will be a murder [...]. *They said that the apprenticeship is their turf, that they will take care of it, and so on. But they still could not provide enough apprenticeship places*. And this is how the JASG [training workshops] came into live. And it has persisted [...]. (AT3)

Already in 1996, as soon as it became clear that firm participation would not increase as high as hoped, the chamber of labor and the Austrian Trade Union Federation heavily criticized the WKÖ and the Christian democrats for holding onto policies that showed little to no effect:

The [labor union's] institute for occupational advancement (BFI) still wants to wait and see for a short time, if the additional subsidies of the labor market services are working [...]. Else, they urge the legislator

to quickly create the possibility to train apprenticeship seekers in the BFI's and WIFI's institutions as well as additional workshops. (Sitar, 1996)

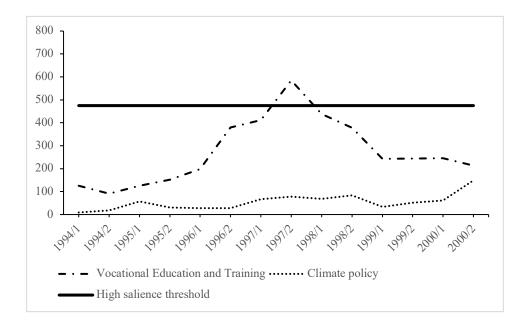
Forecasts in early 1997 again made it increasingly clear that the WKÖ itself is unable to push firms to provide sufficient apprenticeship places for the next cohort of schoolleavers, despite the increase in subsidies (Salzburger Nachrichten, 1997). In public media, labor unions heavily politicized this failure of business, urging them to keep their side of the bargain, like a statement from the chamber of labor to the daily newspaper Der Standard (1997) fittingly illustrates:

The chamber of labor voiced fierce criticism this afternoon on the behavior of business in this current apprenticeship debate. In the last apprenticeship deal [*Lehrlingspaket I*], firms would have promised to provide a sufficient amount of apprenticeship places. This promise has not been kept. This is why emergency measures have to be taken [...].

With the WKÖ being unable to resolve the crisis on the apprenticeship market, also social democrats that previously supported the business-led apprenticeship deals now increasingly joined demands from labor unions. In 1997, the social democratic chancellor Viktor Klima made the "apprenticeship question" one of his central political goals - his statement that "no school leaver will be ditched on the streets" (Viktor Klima qtd. in Kurier, 1997) became one of the central catchphrases in the debate throughout the year. As visible in Figure 3, social democrats and labor unions strategy to politicize on business' failed private interest governments was accompanied by a heavy increase in issue salience. Figure 3 shows the newspaper coverage on apprenticeship training in the mostly read Austrian newspapers, where it can be seen that newspaper coverage steadily increased as the crisis worsened²⁴.

²⁴ The high salience threshold, as applied in Culpepper (2011), is the average biannual coverage of a high salience issue, in this case "tax reform". Climate policy acts as an example of a low salience policy issue for Austria. The newspapers used are the daily newspapers mostly read in 1995, namely Krone (boulevard), Kurier (middle market), Standard (centre-left quality press), Presse (centre-right quality press). The search terms used in the archive of the Austrian Press Agency were the following: Vocational Education and Training: Lehrstellen [apprenticeship places] OR Berufsausbildung [vocational education and training]; Tax reform: Steuerreform [tax reform] OR Steuersystem [tax system]; Climate policy: Klimapolitik [climate policy] OR Klimaschutz [climate protection]

Figure 3: Bi-annual newspaper coverage on dual VET in Austria's mostly read newspapers, by number of articles, 1994-2000. Own depiction.



Initially, the Christian democratic party (ÖVP) within the ruling government coalition unsurprisingly sided with their allies in the employer association in the politics of VET reform. However, due to the heavy pressure by social democrats and labor unions that were able to capitalize on the continuous failure of the WKÖ to secure more apprenticeship places, accompanied by increasing public sentiments and media coverage, even a business-oriented party like the Christian democrats ultimately had to ignore their allies in the association. As an independent expert put it

There was this in my opinion relatively strong position for the employee's camp, labor unions but also chamber of labor, [...] that you have to invest in the youth. Even the conservative side, the right-side did not really dare to put that in question. (AT2)

In other words, the Christian democrats, usually dominated by their businessfriendly wing that has strong ties to the WKÖ, was increasingly responding to public outrage and pressure from the left. Ultimately, with the WKÖ still blocking the implementation of training workshops²⁵, even the Christian democratic education

²⁵ According to the 1969 vocational training act, the *permission* to grant recognized VET certificates had to be based on the recommendation by the (federal-state level) WKÖ (Kleine Zeitung, 1998)

minister "called on the 'common sense of all partners' to approve the NAP [national action plan on employment that includes the training workshops] until the 15th of April. The better alternative [to the WKÖ proposals] would be the tried and tested training workshops" (Die Presse, 1998). Newspapers began to cover leaks from the government that if no new agreement on training workshops would be reached in social partner bargaining, the government would simply ignore their decisions and pursue their own goals (Der Standard, 1998). Ultimately, the WKÖ had no other option than to give in to the demands from a united government in order to remain at least partially in control of the reform process.

Alternative explanations: labor strength, partisan politics, the reputation of VET, and Europeanization

In order to emphasize the effects of association-firm conflicts and failed selfgovernance on reform outcomes, this section will consider potential alternative explanations for the case of dual VET reform in Austria. For example, are reform outcomes simply due to the stronger power resources of Austrian labor unions and social democrats vis-à-vis business, compared to other countries? This explanations falls short for several reasons. First of all, similar as in other collective training systems, business is usually considered to be the most powerful actor in Austrian VET policy, due to the firms' position as providers of apprenticeship places and the WKÖ's strong, institutionalized position in the governance of the Austrian VET system (Graf et al., 2012). This has also been acknowledged by the chamber of labor, whose representative emphasized that influence of "us [the chamber of labor] is low, and also the unions' is low, business is relatively strong" (AT3). Consequently, we would rather expect reform dynamics to be shaped by the employer association. This is also clearly visible in the apprenticeship crisis of the 1990s, where early emergency measures of 1996 and the initial apprenticeship package of spring 1997 all clearly followed business preferences (Kleine Zeitung, 1997; Sitar, 1996). Only after the failure of these initial business-led reforms and non-compliance of the WKÖ's member firms, a U-turn in apprenticeship politics toward training workshops emerged.

Second, as mentioned in the theoretical section, I do not argue that labor unions do not matter at all. As these actors need to politicize failed business self-governance, unions with preferences opposing employer associations are indeed an important precondition for business losing its privileged institutional position. This is why we are unlikely to see the respective mechanism in countries where labor unions only play a minor role, for example in the collective skill formation system of Switzerland (Gonon & Maurer, 2012). Similarly, association-firm conflicts are also unlikely to have effect when unions preferences align with employer associations, leading to a situation where labor deliberately does not capitalize on business' failed private interest governments. This is for example visible in Germany, where unions, due to their organizational interests, "played a crucial role – by siding with employers – in blocking an [...] alternative to the dual system" (Durazzi & Geyer, 2019) similar to Austrian training workshops (see also Busemeyer, 2009). However, union preferences opposed to business self-governance are not the only necessary condition. Only the firm-associations split and the consequently failed private interest governments of business enabled labor unions in Austria to dominate VET reform, where business previously dominated politics due to its position as the pivotal actor in this policy field.²⁶

Third, from a partisan politics perspective, one might relate reform outcomes to the strength of social-democrats. While the social democrats that led the respective governments in the late 1990s were unsurprisingly not hostile towards the unions' plans to introduce training workshops, they initially accepted that apprenticeships are in principle business' turf. The abovementioned early reform measures of 1996 and 1997, while clearly following business preferences, were supported by the social democratic dominated government (Kleine Zeitung, 1997; Sitar, 1996). Furthermore, as shown in the empirical section, also business-friendly Christian-democrats ultimately consented to the implementation of public training workshops. Even subsequent right-wing governments did not fully abolish public workshop-based apprenticeships in the subsequent years, as initially promoted by their allies in the WKÖ. Those who could not find an apprenticeship in the private sector could always complete their apprenticeship in workshops (Lechner et al., 2004). One main reason for this is because also in the years subsequent to the introduction to the workshops, employers alone were not able provide a sufficient number of apprenticeship places (Schneeberger, 2009), giving labor sufficient discursive firepower to capitalize on failed business self-governance.

²⁶ This might also explain why labor unions in Germany were so unsuccessful in pushing for a training levy (Durazzi and Geyer, 2019), which directly attacked firms' short-term cost interests and consequently prevented association-firm conflicts from emerging.

Fourth, another potential explanation for the outcome of the Austrian VET reform is the respective reputation and value of dual VET in Austria. Employers are likely to oppose policy measures that potentially decrease the reputation of VET among individuals (Bonoli & Aerne, 2021; Carstensen & Ibsen, 2019), as this might trigger labor shortages on the apprenticeship market. However, if the reputation of VET is already low in a certain country, employers might be more willing to consent to policies like the Austrian training workshops²⁷. Indeed, dual VET has a lower reputation in Austria compared to Germany or Switzerland (Graf et al., 2012), but the Austrian dual VET system was, and still is, a significant educational pathway that attracts a substantial part of the population (Eurostat, 2020). As shown in the empirical section, the WKÖ consequently heavily opposed the idea of training workshops, as it meant a loss of business influence in a system that was still was very much alive.

Finally, the Austrian 1997 reform was implemented as part of the European Union's National Action Plans for Employment, and therefore had to be aligned with the EU's common employment guidelines that set criteria for EU funding. Europeanization literature emphasizes the potential effect of EU policy on nation states (Graziano & Vink, 2007). However, making no specific references to training workshops or similar policy solutions, the EU's employment guidelines of the late 1990s left substantial leeway in the design and implementation of policies and consequently enabled a variety of different policy response all across Europe (European Commission, 1997). Consequently the outcome of Austria's VET reform was not predetermined by it.

Conclusion

How can business lose its privileged institutional position in the private interest governments of many coordinated market economies? At the case of dual VET reform in Austria, this paper highlights that business' pivotal position hinges on associations' ability to credibly assure continued on-the-ground provision of quasi-public services by firms in accordance with policies measures promoted by the association. This can be impeded by conflicts of interests between firms (shaped by short-term cost-pressures)

²⁷ For example in Norway, the weak reputation of VET contributed to business associations' consent for more inclusive reform trajectories in the 1990s (Nyen & Tønder, 2016; Reegård, 2018).

and associations (focusing on long-term political influence), triggering member firms' non-compliance with associational policies aimed at delivering quasi-public functions. Under such circumstances, the legitimacy and effectiveness of business self-governance can be questioned and attacked in public discussions, opening up a window of opportunity for labor to dominate the reform process.

Concerning the theoretical contribution of this article, the mechanism proposed is in principle transferable to other cases of dual VET reform and business self-governance via private interest governments. Furthermore, as trends to transfer public responsibilities to private actors continue (Torfing et al., 2012), similar dynamics can be expected to gain prominence in an increasing number of policy-fields. However, this article should not be misunderstood as suggesting that business will automatically lose its quasi-public functions should they fail to deliver on them. Sufficient state capacity to replace business' provision of quasi-public services is an important scope condition for this mechanism (Thelen, 2014). In addition, external conditions might regularly mitigate association-firm conflicts and problems of non-compliance, before sufficient pressure to create state capacities can be build up. Sticking to the example of dual VET, crisis situations on apprenticeship markets can also be resolved by demographic trends and economic fluctuations, ultimately leading to a relatively volatile provision of apprenticeship places. In addition, as Durazzi and Geyer (2019) have shown, unions do not necessarily have leeway to oppose employer associations, depending on their respective preferences. If the failure of private interest governments is not politicized, business might still be able to frame continued self-governance as most effective and the normatively right thing to do (Culpepper & Thelen, 2020; Keller, 2018). Therefore, this articles rather offers a more attenuated picture concerning the position of business in neo-corporatist, coordinated market economies, acknowledging but at the same time showing the limits of business' institutional power.

Highlighting the role association-firm conflicts have played in the VET reform of 1998 also puts current Austrian VET politics in a different context. The employer association WKÖ, still today, promotes reducing the ability of training workshops to grant full vocational qualifications. This would necessitate that apprentices at some point find a training place at a private firm, consequently preventing an alleged competition for apprenticeship seekers between firms and workshops. However, given the initial unwillingness of the association's member firms to prevent training workshops and respectively such competition by increasing their training participation, the reduction of such workshop features is rather unlikely to lead to a reemergence of standard dual training, as envisioned by the employer association. Preventing weaker candidates to graduate from workshops, and consequently connected negative consequences for the inclusiveness of the overall system, might be a price too high to pay for a likely ill-fated attempt to vitalize collective training.

Interviews

- AT1 Interview with independent expert A.
- AT2 Interview with independent expert B.
- AT3 Interview with representative of Austrian Chamber of Labor.
- AT4 Interview with representative of Austrian Economic Chamber.
- AT5 Interview with independent expert C.
- AT6 Interview with representative of the Federal Ministry for Social Affairs.

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4. Declining collectivism at the higher and lower end: The increasing role of the Austrian state in times of technological change (with Lina Seitzl)

The knowledge economy challenges the premises of collective skill formation systems. The jobs apprenticeships have traditionally prepared for – mid-level jobs in the industrial sector – disappear. Against it, higher and more general skills become increasingly important, reinforcing cooperation dilemmas. Thus, the question arises how these systems react to the pressure the knowledge economy puts on them. In this chapter, we analyse employer reactions to situations in which the state replaces firms in the provision of skills. We argue that, while initially not intended, the expansion of statist training in the face of structural challenges reinforces the decline of the number of training firms because it "unconstrains" firms, offering an attractive exit opportunity from employer coordination. We analyse these trajectories by looking at two developments in the Austrian skill formation system at the higher and the lower end of the skills distribution: the expansion of VET to the field of ICT and the introduction of public training workshops. Both sectors can be expected to expand as the growth of the knowledge economy progresses because trends towards higher skill needs do not only lead to a growth of educational options at the higher end of the skill distribution but also necessitate the integration of those unable to cope with increasing skill demands (e.g. the lower end). In both cases, employers increasingly learned to like statist VET because it allows them to save costs while the provision of a well-trained workforce is still ensured. *This resulted in a further decline in collective training.*

Introduction

Collective skill formation systems are prime examples of coordinated capitalism given their high levels of coordination between public and private actors (Crouch, Finegold, & Sako, 1999; Hall & Soskice, 2001; Streeck & Yamamura, 2001; Thelen, 2014). However, the knowledge economy, characterized by "production and services based on knowledge-intensive activities that contribute to an accelerated pace of technological and scientific advance" (Powell & Snellman, 2004, p. 201), challenge the premises these systems build on. The jobs apprenticeships have traditionally prepared for – mid-level jobs in the industrial sector – disappear (Anderson & Hassel, 2013; OECD, 2005; Wren, Fodor, & Theodoropoulou, 2013). Against it, due to upskilling or skill polarization, higher and more general skills become increasingly important,

reinforcing cooperation dilemmas in collective skill formation systems (Culpepper & Thelen, 2008). Thus, the question arises how these systems react to the pressure the knowledge economy puts on them.

The literature on the comparative political economy of skill formation systems has outlined the reform trajectories of collective skill formation systems in the face of these pressures. While many countries reform dual VET around the specific needs of business in order to trigger continued employer coordination (Emmenegger & Seitzl, 2019; Graf, 2018; Thelen & Busemeyer, 2012), literature has paid less attention on the potential role of the state in responding to structural pressures (see Thelen, 2014 for a prominent exception). In this paper, we analyse employer reactions to situations in which the state replaces firms in the provision of skills. We argue that, while initially not intended, the expansion of statist training in the face of structural challenges reinforces the decline of the number of training firms because it "unconstrains" firms, offering an attractive exit opportunity from employer coordination. While we do not focus on the political determinants that lead to an expanded role of statist training, we examine the potential effects this expanded role can have on the nature of collective skill formation systems and coordinated capitalism more broadly.

We analyse such trajectories in the case of Austria, a prototypical collective skill formation system (Busemeyer & Trampusch, 2012). Specifically, we look at the higher as well as the lower end of the upper-secondary level skill distribution: the expansion of vocational training to the field of ICT (higher end) and the introduction of public training workshops (lower end). This case selection allows us to shed light on the two areas of the skill distribution particularly affected by the knowledge economy. Trends towards higher skill needs do not only lead to a growth of educational options at the higher end of the skill distribution but also necessitate the integration of those unable to cope with increasing skill demands (e.g. the lower end). Consequently, both sectors can be expected to expand as the growth of the knowledge economy progresses – albeit mediated by economic trends and political contestation.

In both of our cases, the same processes are visible. Drawing on primary and secondary literature, a series of semi-structured expert interviews and newspaper articles, we find that institutional change in Austria's skill formation system is a case of layering, where statist elements are added to collective solutions. Although employers and their associations initially opposed, they increasingly learned to like these state-led solutions

over the course of time because they allow them to save costs while the provision of a well-trained workforce is still ensured. In both cases, employers and their associations developed policy preferences supportive to a further decline of collective training, as they learned to appreciate the benefits that these statist VET schemes offer.

Statism in collective skill formation

Collective skill formation systems are characterized by a high degree of employer coordination in the provision, financing, and administration of VET (Busemeyer & Trampusch, 2012). The knowledge economy, characterized by increasing demand for higher and more general skills, challenges this high level of coordination. On the one hand, many accounts argue that jobs at the higher and lower end of the skill distribution become increasingly important, and the service sector grows (CEDEFOP, 2018; Goos & Manning, 2007; Goos, Manning, & Salomons, 2009). This increases not only the skill provision at the higher end but also raises the question if newly created jobs at the lower end still necessitate costly collective training. On the other hand, Oesch and Rodríguez Menés (2011) and Helmrich et al. (2016) are critical of the polarization thesis and find that labour markets are comprehensively "upgraded" towards higher skill levels in some economies. Still, the jobs apprenticeships have traditionally prepared for – mid-level jobs in the industrial sector – disappear, increasing the importance of integrating academically weaker and socially disadvantaged groups into the labour market. In sum, the collective nature of dual training systems is under pressure, as the declining number of training firms in collective skill formation systems shows (Culpepper & Thelen, 2008; Thelen, 2009, 2014; Thelen & Busemeyer, 2012). The question arises how collective skill formation systems react to this pressure on the higher and lower end of the skill distribution.

The comparative political economy literature has increasingly identified dualizing reform trajectories of coordinated market economies (Emmenegger, Palier, & Seeleib-Kaiser, 2012; Palier & Thelen, 2010; Rueda, 2005). Dualization is characterized by increasing divisions between labour market insiders, employed in core sectors shaped by continued employer coordination and covered by generous institutional arrangements concerning welfare and labour market policies, and uncovered outsiders at the periphery. The processes that lead to a dualization of skill formation systems have been described in the research on institutional change in the collective training systems of Germany and

Switzerland. A process of "segmentalism" is argued to be an answer to the massive decline in the number of training firms (Thelen & Busemeyer, 2012). In order to stop this decline and keep employer coordination in place, collective skill formation systems increasingly cater to the demands of (large) firms that prefer firm-specific training content over more general skills, leading to the division of the VET system in ever-smaller segments (Busemeyer, 2012; Busemeyer & Iversen, 2012; Thelen & Busemeyer, 2012). Thereby, instances of segmentalism can be found at the higher (Emmenegger & Seitzl, 2019; Graf, 2018) as well as the lower end of the skill distribution (Busemeyer, 2012; Thelen & Busemeyer, 2012; Thelen & Busemeyer, 2012).

In the face of structural pressures, also the state can play an increasing role. Already Streeck (1997a, p. 217) has shown that social institutions, "based in formal law or in a common culture", can trigger collective action by constraining employer behaviour. As the benefits of participating in dual VET cannot be safely and permanently appropriated by an individual firm, their cost-benefit calculations are subject to substantial uncertainty. Consequently, employers favour short-term economic benefits over long-term investments in training. However, the presence of constraints like high wages, egalitarian wage setting, employment security (Sorge & Streeck, 2018; Streeck, 2004), and an environment where the "[c]ontinuous monitoring of one's short-term balance of economic advantage is not a social norm" can incentivize firms to train (Streeck, 1997b, p. 243). More specifically, such institutions are "transforming the preferences of actors [...], teaching them what they really want" (Streeck, 1997a, p. 199) - namely collective skill formation. Recently, for example Martin and Thelen (2007) and Unterweger (2020) have shown how the state, responding to structural trends, can still implement new constraints on employer behaviour and cajole employers into collective action.

Acknowledging the potential key role of the state in responding to structural pressures, we are focusing on a different type of state involvement. Similar to Thelen (2014), albeit less interested in the inclusiveness dimension, we focus on instances where the state replaces employer coordination instead of fostering collective action among firms. More specifically, we aim to shed light on the potential processes of employer withdrawal when the state steps in. What happens to collective skill formation if the state takes over tasks previously fulfilled by employers?

We acknowledge that the state can respond to pressures of the knowledge economy by expanding its role at the higher and lower end of the skill distribution in order to make up for declining employer coordination. But most importantly, we argue that such expansion of the state's role may reinforce the decline of training firms. As an unintended but essential side-effect of responding to an initial decrease in employer coordination due to structural pressures, the state "unconstrains" employers by providing them with an attractive exit opportunity from employer coordination and costly collective training. Statist training elements, if they are of sufficient quality, allow firms to recruit skilled workers while circumventing the costs of collective training. Consequently, the role of the state becomes more interventionist, but in contrast to state intervention in the form of "beneficial constraints", it changes its nature from being "discretion-limiting to discretion-enhancing" (Howell, 2016, pp. 578, 580).

This does not necessarily mean that employers will actively support such an expanded role of the state. First, employer associations are not primarily driven by the short-term cost considerations of their member firms but are instead interested in securing long-term influence (Carstensen & Ibsen, 2019; Streeck & Schmitter, 1985). Collective training enables associations to exercise control because they are substantially involved in the governance of these arrangements. Therefore, they might consider increasing state involvement as a threat and respond with opposition. Second, not all individual firms might welcome statist training initially, for example due to quality concerns.

However, associations and firms might later reconsider and learn to like the respective statist schemes. As emphasized by Streeck (2004, p. 429), employers are "learning from experience and thereby redefining, if not their interests, then their preferences" in politically redefined contexts. In our case, this is visible in a process of "layering", where new elements are added to existing institutions and set "in motion dynamics through which they, over time, actively crowd out or supplant by default the old system" (Streeck & Thelen, 2005, p. 24) by "affecting the interests and strategic options available to various groups" (Thelen, 2004, p. 290). In other words, the newly available statist training schemes give business new attractive opportunities to train outside the collective system that did previously not exist, thereby over time shaping their policy-preferences in favour of statist training. This does not only hold for individual firms, but also associations. While the latter might initially oppose to an

expanded role of the state, it is unlikely that they can act against the preferences of their member firms also in the long-term.

Thus, while not necessarily intended by decision-makers during their introduction, statist elements can create new supportive preferences among employers, reinforcing the expansion of statist instruments at the cost of collective training.

Statist training in Austria's skill formation system

In order to show how employer coordination decreases when the state steps in, we look at the case of Austria. Austria is considered a prototypical collective skill formation system, characterized by a high share of vocational education and training and a strong corporatist tradition (Busemeyer & Trampusch, 2012; Katzenstein, 1984). Similar to other collective skill formation systems, the number of training firms in Austria has been shrinking continuously since the late 1990s. With only a few exemptions, there were always more apprenticeship seekers than open apprenticeship positions (Dornmayr & Nowak, 2018, p. 34ff). However, in contrast to Germany, this did not lead to an increasing influence of large firms. Instead, statist tendencies in skill formation have been increasing in Austria.

In this paper, we analyse reform trajectories at the higher and the lower end of the skill distribution, triggered by the 1998 National Action Plan for Employment (NAP).²⁸ This case selection allows us to shed light on the two areas of the skill distribution particularly affected by the knowledge economy. Trends towards higher skills do not only lead to a growth of educational options at the higher end of the skill distribution but also necessitate the integration of those unable to cope with increasing skills demands (e.g., the lower end). Both areas of the skill distribution can be expected to grow as the growth of the knowledge economy progresses – albeit mediated by economic trends and political contestation.

²⁸ The NAP was supposed to tackle a crisis in Austria's apprenticeship market, which coincided with rising unemployment in the European Union more generally. The EU member states committed themselves to create individual "National Action Plans for Employment" in accordance with common employment guidelines in exchange for access to EU funding (European Commission, 1997). These guidelines were formulated on a very broad level, leaving the member states substantial leeway for implementation.

First, at the lower end of the skill distribution, the NAP initiated the introduction of public training workshops that offer individuals unsuccessful on the apprenticeship market the opportunity to participate in VET. Originally only introduced as a preliminary emergency measure to "rescue" dual training, workshops have developed into a permanent feature of the Austrian skill formation system. Second, at the higher end of the skill distribution, the federal government expanded vocational education and training as part of the NAP to information and communication technologies (ICT), a field that is characterized by higher and more general skill needs (Eurostat, 2019; Wren et al., 2013). Therewith, Austria attempted to follow Germany and Switzerland that successfully established ICT apprenticeships in the 1990s (Borch & Weissmann, 2000; Stern, von Stokar, & Schneider, 2003). However, in Austria, the introduction of ICT training in fulltime schools crowded out employer participation in dual VET at the higher end of the skills distribution. Both ICT full-time schools and public training workshops, layered on top of the standard collective training system, unconstrained firms by providing new exit options from standard dual training that resulted in the further decrease of collectivism in the Austrian skill formation system. In both instances, employer associations initially defended the collective system, but as firms themselves learned to like statist training, the policy preferences of the business community were transformed over time.

While we do not focus on the political determinants that resulted in an expanded role of statist training, we show the potential effects such an expanded role can have on employer coordination and consequently, the nature of collective skill formation systems. We trace the processes resulting from the abovementioned statist policies since their respective introduction. Thereby, we rely on secondary literature, primary documents, newspaper articles as well as a series of semi-structured expert interviews with stakeholders in the Austrian vocational education and training system. Interview partners include representatives from the social partners, government ministries, and research institutes.

Declining collectivism at the lower end: Public training workshops

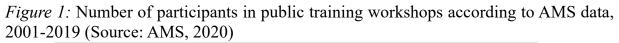
In the mid-90s, Austria's dual VET system experienced a severe crisis as a consequence of demographic changes and structural economic trends away from industrial production towards the service sector (Schneeberger, 2009). In 1996, the so-called apprentice gap already accounted for 4642 places, continually growing up to 5000 in 1998, thereby creating a persisting state of emergency for a small economy like Austria.

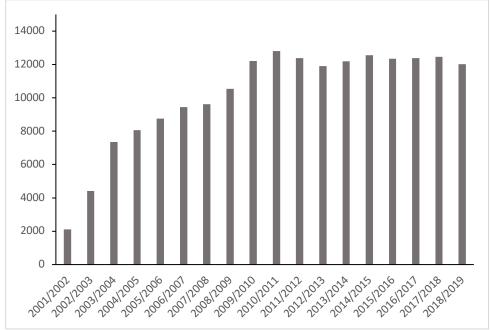
While around half of all VET graduates go to full-time VET schools in Austria, these schools could not alleviate the situation on the apprenticeship market, as they target the medium and higher end of the upper secondary level skill distribution (Graf, Lassnigg, & Powell, 2012, p. 152f). Unsuccessful apprenticeship seekers were rather unlikely "to have the option for continuing at [VET] school due to their previous [lacking] school achievement" (Lechner et al., 2004, p. 137).

The NAP in 1998 aimed to tackle these problems through the introduction of a time-limited "emergency package" (Jugendausbildungs-Sicherungsgesetz) consisting of public training workshops. Initially, Austria's main employer association, the Austrian Economic Chamber (WKÖ), and their Christian Democratic allies strongly opposed the introduction of these workshops in Austria. The chamber feared a loss of the employers' long-term influence in the collective training system as well as a competition with firmbased VET, reducing the supply of apprenticeship seekers and putting pressure on apprentices' wages and working conditions (AT3, AT4). This would have been especially detrimental for those firms using apprentices as cheap labour. In short, the chamber always saw training workshops from a more system-wide, long-term perspective, and therefore negatively. Only due to the influence of labour unions (Durazzi & Geyer, 2020), the Social Democrats and a heavy increase in the political salience connected to the ineffectiveness of subsidies proposed by the Austrian Economic Chamber (Unterweger, 2019), public training workshops were introduced as part of the NAP for a limited period of two years. However, public training workshops were continuously prolonged and ultimately transformed into a permanent instrument called "ÜBA" (Überbetriebliche Berufsausbildung) and integrated into the Vocational Training Act of 2008 (Bergmann et al., 2011). This was implemented as part of a "youth guarantee", where every individual received the right for education and training until the age of 18 (Salzmann-Pfleger, 2016). For those who successfully completed lower-secondary school and who are registered at the public employment office (AMS) as an apprenticeship seeker, this also translates to a right for an apprenticeship place at a training workshop if no place in a private firm is available.

Workshop-based apprentices are organized in two tracks. Apprentices in the *fully* workshop-based apprenticeship track sign apprenticeship contracts with training workshops for all years of apprenticeship ($\ddot{U}BA1$), with short-term internships (mostly around one to three months per year) in private firms (Bergmann et al., 2011). The

internship in private firms plays a far more important role and is longer (mostly with a maximum of up to six months) in the *partially* workshop-based apprenticeship track $(\ddot{U}BA2)$, where apprentices sign apprenticeship contracts only for 1 year and are supposed to switch to a standard apprenticeship at their internship provider in the second year of training. While apprentices in partially workshop-based apprenticeship tracks are not supposed to stay for the whole apprenticeship, trainees that are not hired as an apprentice by their respective firms after their internship can be offered a prolongation of their training contract. Trainees in both tracks receive subsistence grants from the public employment office.





As visible in Figure 1, public workshop-based apprenticeships have increased significantly in the years after their introduction.²⁹ Already for the 2001/2002 cohort, public workshop-based training accounted for 4.7 percent of all apprenticeship starters (Biffl, Bock-Schappelwein, & Huemer, 2008). Despite periodically improving demographic and economic conditions, training workshops remained a significant

²⁹ The number of apprentices in workshops is captured by the apprenticeship survey as well as data from the public employment service (AMS). The latter is used for Figure 1, which is said to overreport the number of individuals in training workshops, while the former underreports them. Workshops were not captured by the apprenticeship survey before 2009. See Dornmayr and Nowak (2018, pp. 12, 70) for details.

feature of the Austrian skill formation system. Today, conservative calculations show that at least 9 percent of all apprenticeship starters visit these workshops (WKÖ, 2019).

The fact that public training workshops have become a permanent sector of the Austrian skill formation system points towards the changing preferences of business. Initially, the Austrian Economic Chamber, as well as the Christian Democrats, strongly opposed the introduction of public training workshops in Austria. However, interviews, also with a representative from the Economic Chamber, confirmed that on the level of individual firms, business has increasingly learned to appreciate training workshops to a certain extent. As one independent expert argued,

Publicly, nobody hung a lantern on it, but indeed there are companies that are not unhappy [with the workshops]. For example, with outsourcing the first year of apprenticeship into the partially workshopbased apprenticeship. And then you [as a firm] say, okay, I look at the applicants [scheduled to leave the partially workshop-based track] that want to apply for a standard apprenticeship at your firm. Then I have the very nice opportunity to choose. I can take the really good ones. And that is indeed true. But it was politically, from business' side, always denied that such considerations exist. (AT2)

Consequently, the internship in the partially workshop-based track allows firms to pre-select individuals that they want to take on as standard apprentices, picking out only stronger individuals from the pool of workshop apprentices.³⁰ According to Bergmann et al. (2011), "the acquisition of and becoming acquainted with potential future firm-based apprentices" is by far the primary motive for firms to offer such internships. This pool of workshop-based apprentices is already a pre-selection of apprentices that cannot find an apprenticeship, as special offers exist for the weakest of all candidates (Litschel & Löffler, 2015). Over the years, ties between individual public training workshops and firms have been fostered, with firms proactively and systematically hiring the best apprentices out of workshops after their first year of apprenticeship (AT2, AT6). In general, firms appear to be as satisfied with the quality of workshop apprentices as they are with standard apprentices (Bergmann et al., 2011; Salzmann-Pfleger, 2016).

In addition, many firms have realized that training workshops pay off financially. In Austria, 33 to 40 percent of firms gain net benefits of regular (not workshop-based)

³⁰ In other words, a Matthew effect is visible, where "the least-disadvantaged individuals among a targeted group are more able to benefit from a social policy scheme than their more disadvantaged counterparts" (Pisoni, 2018, p. 289).

apprenticeship training (Lassnigg, 2011). But on average, apprenticeship training after subsidies still imposes net costs on Austrian employers in all years of apprenticeship (Dornmayr, Schlögl, Mayerl, & Winkler, 2016, p. 30). However, Austrian firms gain higher post-training benefits through "retaining a higher share of apprentices and savings on future hiring costs" than, for example, Swiss firms (Moretti, Mayerl, Muehlemann, Schlögl, & Wolter, 2019, p. 229). Consequently, the ÜBA allows companies to avoid the net costs of the first year of apprenticeship, while still profiting from post-training benefits. Furthermore, all firms that hire apprentices out of workshops are subsidized via a lump-sum payment of 1000 euro per apprentice hired (WKÖ, 2018), which further increases the financial attractiveness of workshops from a firm-perspective further.

Firms have also learned to profit from the short-term internship students complete at partially (and in some cases also fully) workshop-based apprenticeship tracks before they potentially become standard apprentices at a private firm. Firms do not have to sign an apprenticeship contract for these interns, making this internship cheaper and less risky than taking on standard apprentices in the first year (AT4). Furthermore, training content of the internship is de facto mostly unregulated due to a lack of supervision, which allows firms to use interns as cheap, unskilled labour, for example in times of peak orders (AT3, AT6). Indeed, there have been incidents where companies solely relied on interns for such uses without signing any apprenticeship contracts (AT3).

As the shift to the knowledge economy further progresses, workshops might become more widespread. Already in the 1990s, training participation shrunk partly due to a shift away from industrial production to the service sector (see above). If the skill polarization thesis proves to be right, we should see a partial downgrading of skill requirements for some occupations. Consequently, it can be expected that firms will conclude that investments in apprenticeship training generating mid-level skills do not pay off anymore. Rather, they might chose to rely on workshop trainees that necessitate lower investments in training. On the other hand, also upgrading of skill requirements for certain occupations means that there are more apprenticeship seekers that are not seen as fit by companies to enter firm-based apprenticeship training. Workshops also seem to transport some of the new skill needs that firms find underrepresented in standard apprenticeship seekers, as most workshops provide substantial soft-skill coaching in their first year (AT6; Bergmann et al., 2011). Employers (and their association) never actively campaigned in favour of workshops. It was always the labour side, emphasizing positive inclusiveness effects, that politically pushed for strengthening the workshop-based sector. However, as shown above, the fact that public training workshops have become a permanent feature of the Austrian skill formation system is also a result of the preferences of firms, who increasingly learned to like statist training measures. Ultimately, this resulted in the WKÖ consenting to workshop-based training - at least under certain conditions. This is clearly reflected in the association's *current* position on training workshops. Their rhetoric is still not favourable towards workshop-based training, for example highlighting alleged quality and cost problems associated with workshops and articulating their clear preference for standard dual apprenticeships. However, they seem to have accepted its existence to a certain extent and currently do not demand an all-out abolishment of workshops but rather a reduction of fully workshop-based apprenticeships combined with a restructuring of workshops towards the partially workshop-based apprenticeship model (AT2, AT3, AT4).

This is not surprising, as firms profit particularly from partially workshop-based apprentices. There, trainees have longer internships at companies and have to find a standard apprenticeship after their first year in the workshop in order to graduate. This also tackles the WKÖ's fear that fully workshop-based apprenticeships would reduce the supply of standard apprenticeship seekers, pushing up wages and working conditions. Therefore, the WKÖ prefers these partially workshop-based apprenticeships over their fully workshop-based counterpart. In the same vein, in order to prevent such an alleged competition between fully workshop-based apprenticeships and private firms for apprenticeship seekers, the WKÖ favours a substantial reduction of the "subsistence grant" for workshop-based apprentices. According to the WKÖ's position, this would make standard apprenticeships (due to their higher wages) more attractive for students and hurts especially trainees in the fully workshop-based apprenticeship.

All these demands were also reflected in the business-friendly agenda of various coalition governments between the populist radical right and the Christian Democrats. For example, the first right-wing coalition government abolished the fully workshop-based apprenticeship tracks in 2001 and changed this possibility only to a measure of last resort (Lechner et al., 2004). The fully workshop-based apprenticeships were reintroduced only after a change of government in 2006. Furthermore, coming into effect

in 2020, the renewed right-wing coalition (2017-2019) abolished the possibility to sign fully workshop-based tracks for all years of apprenticeship, with the main difference between fully and partially workshop-based tracks now being the longer internship periods at companies in the partially workshop-based track (Rechnungshof Österreich, 2021). Finally, the WKÖ, supported by their allies in the right-wing government, also managed to substantially reduce the subsistence grants for workshop-based trainees (Knecht & Bodenstein, 2019).

The Chamber of Labour as well as labour unions are critical of such developments. In general, labour favours a reduction of partially workshop-based apprenticeships in favour of fully workshop-based apprenticeships. They recognize the potentially detrimental effect of the partially workshop-based apprenticeship for the training participation of firms due to the financially beneficial outsourcing of the first year of apprenticeship (Trinko, 2013). Similarly, they highlight that firms abuse the more extended internship of partially workshop-based apprenticeships without hiring their interns afterward as standard apprentices and favour shorter internships also for fully workshop-based apprentices (AT3). In other words, while the specific design of training workshops is the subject of political debates, overall, both sides of the political spectrum increasingly accept the growing role of the state in dual training. Interestingly, in particular, the track favoured by right-wing parties (e.g., the partially workshop-based apprenticeship) seems to have high potential to substitute standard dual training, due to firms' interests for outsourcing the first year of apprenticeship to workshops in the partially workshop-based track and/or for hiring cheap workshop interns³¹.

Summing up, this section has shown how employers, due to cost-considerations combined with the high quality of statist training, have learned to profit from training workshops. Consequently, public training workshops contributed at least partially to the lastingly low training participation of companies because they offer firms attractive exit opportunities from employer coordination, consequently "unconstraining" firms. While employer associations initially defended the collective system, firms themselves learned to like statist training, over time changing the policy preferences of the business

³¹While it could be argued that the partially workshop-based apprenticeship is still a collective arrangement after the first year of apprenticeship, overall the role of the state is substantially increased compared to traditional dual apprenticeships.

community. The next section addresses the same dynamics at the higher end of the secondary-level skill distribution, namely upper-secondary VET in the field of ICT.

Declining collectivism at the higher end: Training in the ICT sector

The 1998 National Action Plan for Employment (NAP) did not only implement VET emergency measures at the lower end of the skill distribution, but it also pointed out the importance of reforms at its higher end. Most importantly, it emphasized that employment in the information, communication and technology (ICT) sector should be increased and that training should play a decisive role in this: "In light of structural changes, especially because of the rise of the service sector and the massive use of information technologies, we need to tap into new training fields" (BMAGS, BMUK, & BMW, 1998, p. 8).

Therewith, the National Action Plan reflects a broader debate taking place in Austria in the 1990s, which mirrored the fear that Austria might not be able to compete economically in a digitalised and globalised world. This fear was mostly voiced by ICT firms and employer associations. In 1998, the deputy director-general of Beko, a technology service provider and one of the larger IT companies in Austria, Paul Michal, explained, "About 1000 to 1200 ICT graduates leave the universities, universities of applied sciences and VET colleges every year. In Austria, we would need, however, 5000 graduates" (Die Presse, 1998). Similarly, the Federation of Industries, an employer association representing mostly large industrial firms, criticized that Austria was one of the countries least prepared for the new century and that especially ICT experts were missing (APA, 1999a). The debate was not restricted to Austria. In the same year, the OECD warned of a global economic crisis because of the lack of skilled labour (Die Presse, 1998). As the quote by Michal shows, the discussion on the lack of ICT experts focused mostly on the role of universities, universities of applied sciences, and VET colleges in the training of these experts. However, as will be shown in the following, both full-time school-based VET and dual VET reforms were implemented in order to promote ICT training.

On the one hand, ICT became a topic for dual apprenticeships, where the social partners and the Ministry of Economic Affairs are the dominant stakeholders. Initially, the Austrian Economic Chamber came up with the idea to introduce apprenticeships in the field of ICT. Together with the Institute for Research on Qualifications and Training of the Austrian Economy (ibw), a research institute that is closely interlinked with the

Economic Chamber, they developed a draft for the respective VET ordinance (AT4) and quickly found support at the Chamber of Labour (AT3) as well as in the Ministry of Economic Affairs (APA, 1999c; Der Standard, 1999a). As a consequence, in the National Action Plan it was emphasized that ICT training should take the form of dual apprenticeships: "The development of new apprenticeship occupations [in ICT] is of high importance" (BMAGS et al., 1998, p. 8).

The VET ordinances for the new training occupations were developed consensually between the Economic Chamber and the Chamber of Labour in the Federal Advisory Board on Apprenticeships (*Bundesberufsausbildungsbeirat*, BBAG). The BBAG is an advisory body to the Ministry of Economic Affairs and is responsible for developing drafts of VET ordinances, which are then enacted by the Ministry of Economic Affairs (Emmenegger & Seitzl, 2020). In 1998, the Ministry enacted VET ordinances for various apprenticeship occupations in the ICT sector, amongst others in computer science and ICT electronics, and for IT clerks (APA, 1999b). When the new apprenticeship occupations were a reaction to business demand for highly qualified ICT experts while at the same time offering more practically talented youths the possibility to start a career in ICT (APA, 1999b).

Thus, ICT apprenticeships were established in a consensual process that involved the Economic Chamber, the Chamber of Labour, and the Ministry of Economic Affairs. They shared a similar motive when developing dual training in the field of ICT: The three institutions feared that dual training would become less attractive to employers and school graduates if such a prospering training field would only take place at VET colleges and in higher education institutions. As one interview partner puts it: "If we did not move towards new sectors, dual apprenticeships would lose automatically and only account for 20% instead of 40% of upper-secondary education" (AT4). Both chambers and especially the members of the Federal Advisory Board on Apprenticeships have a high interest in maintaining a stable and attractive apprenticeship system because they can influence it to a much higher degree than full-time school-based VET (Emmenegger & Seitzl, 2020). The same is true for the VET experts in the Ministry of Economic Affairs. In contrast, firms did not engage in the establishment of ICT apprenticeships. They were asked by the Economic Chamber for their opinion, "but we [the WKÖ] received zero feedback. [...] At that time, relatively little came from the industries" (AT4). Therefore,

similar to the introduction of the training workshops, the Economic Chamber as an intermediary association did not necessarily follow the preferences articulated by its members. Instead, its behaviour shows that they pursue the goal to keep high levels of autonomy and influence in VET policies (Emmenegger & Seitzl, 2019; Schmitter & Streeck, 1999; Traxler & Huemer, 2007).

These measures to protect dual VET and adapt it to technological change were implemented alongside similar developments in Austria's full-time school-based sector. Most importantly, VET colleges³² intensified their efforts to train ICT experts (Der Standard, 1999b). VET colleges, especially those with a focus on technology (*Höhere Technische Lehranstalten*, HTL) had taught courses on electronic data processing already since the 1980s. In the 1990s, the number of training courses was significantly increased in order to meet the economy's need for ICT experts. In addition, the Ministry of Education established the first VET college for information technology in Vienna in 1999 (AT7). In subsequent years, another ten VET colleges was promoted by the Ministry of Education but also by data scientists from the Technical University Vienna (AT7). The VET colleges are entirely under the control of the Ministry of Education. The social partners have no formal say in their administration and training content definition, although labour market actors might be consulted in the development of the curricula.

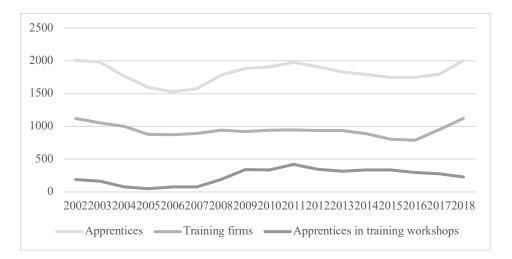
To summarize, the vocational education and training system in Austria has reacted visibly to the debate in the 1990s about the lack of ICT experts in the economy. On the one hand, new apprenticeship occupations were created in order to train computer scientists and other ICT related experts within the dual training system. The Economic Chamber collaborated with the Chamber of Labour and the Ministry of Economic Affairs to establish these apprenticeships. On the other hand, the Austrian state expanded statist training opportunities by layering ICT VET colleges and new schools with an emphasis on ICT training onto the collective training system.

³² Two types of full-time VET schools exist at the upper-secondary level: Vocational schools (Berufsbildende Mittlere Schulen, BMS) that offer intermediate-level skills and vocational colleges (Berufsbildende Höhere Schulen, BHS) that offer high levels of skills and university entrance qualifications. In general, the reputation of BHS is similar to the general education track offered in Gymnasien (Graf et al., 2012).

This introduction of full-time school-based ICT training came at the expense of apprenticeship training, as firms continuously learned to acknowledge the benefits of full-time school-based VET. While both apprenticeships and full-time schools have existed in Austria for a long time (Graf et al., 2012) with around half of all VET graduates going to full-time schools (Eurostat, 2020), ICT occupations are *predominantly* offered in such full-time schools. Figure 2 shows the number of apprentices and training firms in the ICT occupations³³ between 2002 and 2018. While the number of ICT apprentices varies over the years, on average, 1800 young people were trained in an apprenticeship during this period. The number of training organisations includes firms and public training organisations between 2002 and 2018. Overall, compared to other training occupations, the number of training organisations (Dornmayr & Nowak, 2018, p. 33) and apprentices (ibid, p. 19) is still rather low. For example, in 2017, more than 9000 apprentices were trained in the occupational field of tourism, and more than 10000 apprentices were trained in mechanical engineering (ibid, p. 19).

³³ This includes the following occupations: Information technology (2002-2006: EDV-Technik; since 2006: Informationstechnologie – Technik), computer science (2002-2006: Informatik; since 2006: Informationstechnologie – Informatik), system technology (2002-2017: EDV-Systemtechnik; since 2018: Informationstechnologie – Systemtechnik), operation technology (Informationstechnologie – Betriebstechnik, new since 2018), ICT commercial employee (EDV-Kauffrau; E-Commerce-Kauffrau, new since 2018), and app developing/coding.

Figure 2: Number of all apprentices, apprentices in public training workshops, and training organizations in the ICT occupations, 2002-2018 (Source: WKÖ, 2020³⁴)

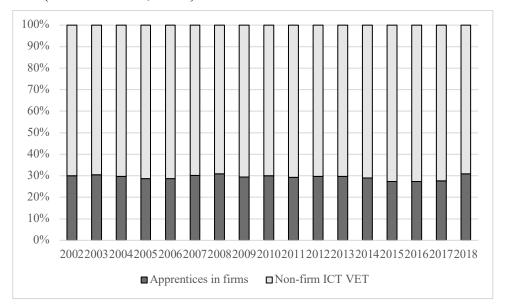


Collectively organized apprenticeship training in private firms stands in contrast to the more statist solutions of public training workshops and VET colleges. Figure 2 also displays the number of apprentices in workshops. It ranges from less than 100 between 2004 and 2007 to more than 400 in 2011. But most importantly, the comparison with ICT students at VET colleges shows that ICT apprenticeships in firms play only a minor role in the provision of ICT experts in Austria. Between 2002 and 2018, there were on average 3500 ICT students at VET colleges. Figure 3 displays the share of ICT students in VET colleges and public training workshops compared to ICT apprentices in firms. It thus contrasts the training efforts of firms compared to the statist solutions of workshops and full-time school-based VET.³⁵ During 2002 and 2018, 70 percent of ICT VET training took place in VET colleges and public training workshops and only 30 percent in apprenticeships. The share remains very stable over time.

³⁴ The WKÖ also includes mechatronics engineers (introduced in 2015) in the statistics for ICT apprenticeships. While mechatronics engineering is also available in full-time schools, the data on ICT students at VET colleges displayed here only include computer science and data technology but not mechatronics engineering. For reasons of comparison, this occupation is consequently not displayed in the statistics shown here. However, this might slightly underestimates the number of training firms in the years after 2015 because organisations that train in an ICT occupation in addition to mechatronics engineering are not taken into account.

³⁵ ICT VET at upper-secondary level is also taking place at VET schools (Berufsbildende Mittlere Schulen, BMS) but statistics on students in these schools are not available. Therefore, the share of ICT students in a non-firm environement is even underestimated here.

Figure 3: Share of firm-based and non-firm-based VET training in the ICT occupations, 2002-2018 (Source: WKÖ, 2020)



Thus, in Austria, firms prefer statist to collective VET training in the ICT occupations. The availability of an exit option relaxes the beneficial constraints of dual apprenticeships, and the firms are happy to take this opportunity. There are at least two reasons why training ICT apprentices is less attractive to firms than hiring graduates from VET colleges. On the one hand, firms believe that ICT apprentices do not meet the skill demands of firms: "They [the firms] think that more talented youths go to VET colleges and less talented youths stay as apprentices" (AT3). Accordingly, firms in the ICT sectors have difficulties in finding apprentices that can adhere to the firms' expectations: "We have found out that it does not work with the very young people that come directly from the school. Typically, our apprentices did not succeed at a VET college and are thus older and more experienced" (AT8).

On the other hand, firms have an economic argument not to train apprentices but to hire graduates from VET colleges. According to Moretti et al. (2019, p. 219), the "publicly financed school-based VET system [...] puts upward pressure on wages." Thus, the training of ICT experts in VET colleges even increases pressure on apprenticeship wages by reducing the supply of apprenticeship seekers. In sum, training an apprentice in Austria creates more costs than benefits to a firm (Moretti et al., 2019). Asked if firms in the ICT sector prefer graduates of VET schools or colleges, representatives of a federal ministry were very open: "Of course, because they [the firms] do not have to pay for it" (AT7). Costs per student in full-time school-based VET are ten times higher than in parttime schools in dual VET (Graf et al., 2012, p. 165). Compared to dual VET, this reveals the higher quality of training as well as the "substantial silent shift of VET costs" from firms to the state in full-time schools (Lassnigg, 2011, p. 429).

Thus, the increased importance of ICT has weakened the collective part of the Austrian VET system. As Lassnigg (2011, p. 433) argues, "the more dynamic sectors have turned towards full-time VET colleges and higher education as a primary source of skilled workers". As these sectors that are fuelled by digitisation grow, the trend towards decreasing collectivism and increasing statism is likely to continue. Similar to our case of public training workshops, employer associations initially defended the collective system, but firms themselves learned to like statist training, and the policy preferences of the business community were transformed over time. The newly available ICT full-time schools unconstrained firms by providing new exit options from standard dual training, ultimately resulting in a crowding out of collective apprenticeships. Since the majority of ICT experts with a VET degree come from full-time vocational schools, the question arises on how collective training can be sustained in the knowledge economy.

Conclusion

In this chapter, we showed how initially somewhat limited statist elements, layered onto the collective skill formation system, can lead to self-reinforcing dynamics that have the potential to crowd out employer participation in collective training. Therewith, we shed light on the specific processes of decreasing employer coordination when the state steps in. The VET policy initiatives entailed in the 1998 National Action Plan for Employment (NAP) capture these developments. First, the initially limited training workshops, which were part of the short-term "rescue package" of the NAP, reduced training participation of firms at the lower end of the Austrian skill formation system, thereby facilitating a long-term expansion of training workshops. With the public training workshops, the NAP introduced a new policy measure that partially crowded out the collective provision of training. Second, in the case of the ICT occupations, the school-based sector has crowded out employer participation in dual VET at the higher end of secondary-level training. Thereby, it limited the adaptability and viability of collective training in the knowledge economy. In other words, collective action in the new NAP occupations is hard to achieve due to the parallel establishment of specific ICT-dedicated VET colleges. In both cases, employers developed new preferences that

contributed to a further decline of collective training, as they learned to appreciate the benefits that these statist VET schemes offer. In both instances, employer associations initially defended the collective system, but as firms themselves learned to like statist training, the policy preferences of the business community were transformed over time. This process is taking place at the lower as well as at the higher end of the skill distribution in secondary level VET, parts of the skill distribution that are seen as essential as the shift to a knowledge economy progresses.

Assuming that the knowledge economy leads to the growth of educational options at the higher end of the skill distribution and increasingly necessitates the integration of those unable to cope with increasing skill demands (e.g. the lower end), these dynamics have the potential to facilitate a reconfiguration in the division of labour between collective actors and the state within Austria's skill formation system. Consequently, it can be expected that the role of statist training will increase in the next years in Austria – albeit mediated by economic trends and political contestation. While we do not focus on the political determinants that lead to an expanded role of the state, the potential effects of increasing statist training can be expected to apply also beyond the Austrian case. In other words, collective skill formation systems that expand statist training in order to react to a tightening of apprenticeship markets might reinforce the tendencies of declining employer coordination. For example, it might be worth to examine in how far the German transition system (Thelen & Busemeyer, 2012), itself a case of statism in collective skill formation, benefits employers, leading to an increasing reluctance on their side to take up "standard" apprenticeship seekers straight after school.

While this chapter has focused on decreasing employer coordination in skill formation, we are not claiming that such trends should be seen as something socially or economically undesirable. First, Chuan, Ibsen, and Thelen (2019) as well as Anderson and Hassel (2013) highlight that statist skill formation might be better able to cope with the challenges arising from the knowledge economy, because they transmit more general skills that enable employees to adapt to new skill demands. In contrast, in collective skill formation systems, employees might be less equipped to respond flexibly to the demands of the labour market. Second, as Thelen (2014) has shown, an increasing role of the state has the potential to increase the inclusiveness of skill formation systems. This holds for the case of training workshops, which are generally praised for the good labour market chances of their graduates and are therefore widely regarded as contributing to labour

market inclusiveness (Bergmann et al., 2011; Carstensen, Emmenegger, & Unterweger, 2021; Durazzi & Geyer, 2020). However, in the case of Austria's school-based VET, "dualization has been rather inbuilt into the system" (Pernicka & Hefler, 2015, p. 49), given the countries' high stratification between different levels of upper-secondary VET (apprenticeships, schools, and colleges) with only the highest achieving students being accepted into VET colleges. While going beyond the scope of this article, future research might therefore be well advised to dig into the determinants of socially and economically "successful" state intervention.

Interviews

- AT1 Interview with independent expert A.
- AT2 Interview with independent expert B.
- AT3 Interview with representative of Austrian Chamber of Labour.
- AT4 Interview with representative A of Austrian Economic Chamber.
- AT5 Interview with independent expert C.
- AT6 Interview with representative of the Federal Ministry for Social Affairs.
- AT7 Interview with two representative of the Federal Ministry of Education, Science and Research.
- AT8 Interview with representative B of Austrian Economic Chamber.
- AT9 Interview with representative of Federal Ministry of Economic Affairs.

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5. Setting the terms of state intervention: Employers, unions, and the politics of inclusiveness in Austrian and Danish vocational education institutions (with Martin B. Carstensen and Patrick Emmenegger)

How do coalitional dynamics matter for the capacity of states to maintain social inclusion in coordinated models of capitalism? Taking its departure in scholarship emphasizing the influence of employers on the extent of state intervention in postindustrial economies, this paper argues that employer influence depends on which actors they team up with – unions or parties. If unions depend on employers for their organizational influence in a policy field, unions become a strong coalitional partner for employers in weakening demands for inclusiveness from the parliamentary arena. Conversely, if unions have influence independent of any coalition with employers, both unions and employers are likely to team up with political parties aligned with their preferences. This makes the level of inclusion resulting from increased state intervention more fluctuating, depending on who holds government power. A comparative study of reforms of Danish and Austrian vocational education institutions corroborates the empirical purchase of the argument.

Introduction

What role does the state play in maintaining social inclusion in coordinated models of capitalism? In these economies, cooperation between the state and social partners through corporatist institutions used to function as a bulwark against the inequality witnessed in liberal market economies by enabling members of the working class to access high-quality training and well-paid, stable employment (Streeck 1992). Yet can coordinated models maintain their distinctive social pedigree in the face of common structural pressures (Baccaro & Howell, 2017; Iversen & Soskice, 2019)? While earlier interventions emphasised the equality enhancing effects of collective organization of firms enforced through encompassing employer associations (most notably Hall & Soskice, 2001), in recent years, the focus of this literature has shifted to the role of the state (Schmidt, 2009). Some authors see state intervention as a vehicle for upholding high levels of equality in face of diminishing collective efforts by employers (Thelen, 2014). In this view, high-capacity states will cajole employers into accepting egalitarian policies that enhance social inclusiveness, i.e., facilitating labour market access for socio-economically disadvantaged individuals. In contrast, recent scholarship

on liberalization emphasizes that the pivotal position of employers in capitalist economies enables them to shape the terms of state intervention, with negative effects for social inclusion (Howell, 2019).

This paper argues that scholarship on the resilience of coordinated market economies (CMEs) would benefit from more closely examining under which circumstances state intervention promotes social inclusiveness, understood as policy measures aimed at enabling broad access to quality training and employment. Focusing on the coalitional dynamics between employers, unions and political parties, we argue that the degree of social inclusiveness generated by state intervention varies with the kind of coalition partner available to employers – unions or parties. If unions depend on employers for their organizational influence in a policy field, they become strong coalitional partners for employers in fending off demands for inclusiveness originating in the parliamentary arena. However, if unions have influence independent of any coalition with employers, unions and employers are likely to team up with political parties with whom they share preferences, making the level of inclusion more fluctuating since its specific level depends on who currently holds government power.

This argument is set out in the context of collectivist vocational education and training (VET) systems. Characterized by heavy involvement of employers to provide, fund and monitor dual apprenticeship training (Busemeyer & Trampusch, 2012), such systems have long been considered the poster child of how employer coordination can produce egalitarian outcomes and increase labour market inclusiveness (Streeck, 1992; Hall & Soskice, 2001; Thelen, 2014).

However, the employer coordination that long shaped and upheld collective skill formation has come under pressure from globalization, deindustrialization processes and the rise of the knowledge economy (Martin & Knudsen, 2010; Unterweger, 2020; Busemeyer et al., 2021). Declining levels of employer coordination have opened space for the state to take on a more proactive role as training provider. Consequently, we focus on state-led apprenticeships that partially replace the employers' role in providing apprenticeships. State-provided training has important implications for social inclusion, harbouring the potential to facilitate access to high-quality training for disadvantaged students (Thelen, 2014; Bonoli & Wilson, 2019; Durazzi & Geyer, 2021), which might, however, clash with economic efficiency goals favoured by employers (Carstensen & Ibsen, 2021; Bonoli & Emmenegger, 2021). The policy field consequently provides

fertile ground for exploring under which conditions – in the context of declining employer coordination – employers and unions can shape the terms of state intervention and what consequences these processes have for maintaining equality in CMEs.

We do so by examining reform trajectories in Danish and Austrian VET. The study employs a most similar systems design, comparing two countries that are characterized by long corporatist traditions of social partnership, with a historically strong affinity between unions and Social Democrats. Instead of focusing on the well-researched collective skill formation systems of Germany and Switzerland, we compare two similar cases with high-capacity states that could be expected to push employers into line and offer inclusiveness-enhancing policies (Martin & Thelen, 2007). Consequently, these two countries are also 'least likely' cases: If social partners in these two cases, individually or together, can set the terms of state intervention, we are likely to see even stronger social partner influence in other collectivist VET systems like Switzerland or Germany, where state capacity is lower.

Despite these similarities between the two cases, we find important variation regarding the extent to which state intervention increases social inclusiveness. In Austria, a conservative welfare state, employer discretion is restricted by shifting ideological commitments of left- and right-leaning governments. In Denmark, a social democratic welfare state, employer discretion is more pronounced, as VET institutions are not politicized and instead ruled through a consensus among the social partners. Based on data from policy documents, media coverage, and interviews with key policy actors in the two countries, we demonstrate how the degree of employer discretion is a function of the coalitional partners available to employers. In Denmark, the unions' role in VET governance is almost solely dependent on employer involvement. Consequently, unions are more likely to join a coalition with employers. This softens opposition from centreleft parties and weakens the focus on inclusion. In Austria, the unions' main role in the governance of skill formation systems is not dependent on employer involvement. Consequently, employers and unions advance their interests by seeking coalition partners in the parliamentary arena. The emerging left-right coalitional pattern makes the extent of employer discretion more dependent on who holds government power.

Employers, unions, and the state in coordinated capitalism

How are coordinated models of capitalism responding to structural pressures variably associated with globalization and the rise of the knowledge economy? More specifically, are they able to remain inclusive in face of disembedding forces? Positions range from Baccaro and Howell (2017) who observe a common neoliberal trajectory that is universally undermining what is left of coordinated models of capitalism, to Iversen and Soskice (2019) who highlight their continued resilience to structural pressures. While these two positions long enjoyed equal standing in the literature, the argument that structural pressures do not threaten coordinated capitalism has lost ground (e.g., Hall & Thelen, 2009; Emmenegger et al., 2012).

In recent years, attention has increasingly shifted to the role of the state in these developments (Schmidt, 2009; Marx & Starke, 2017; Rathgeb, 2018; Iversen & Soskice, 2019; Hassel & Palier, 2021). In a particularly influential contribution, Thelen (2014) observes that a straightforward neoliberal shift is all but impossible to build a coalition around CMEs. Instead, she points to the mediating effect of state capacity on structural pressures, producing different reform trajectories. Using skill formation policies as a key example, Thelen (2014) identifies two main trajectories. First, dualization, where a privileged manufacturing core still receives high quality training and enjoys a relatively high level of income and rights, over and beyond what workers in other parts of the economy receive; and second, socially embedded flexibilization, where solidaristic outcomes are maintained through increased state intervention and public policies.

These trajectories are based on a perceived trade-off between upholding employer collective action and maintaining solidaristic outcomes ³⁶. That is, either strategic employer coordination is upheld for a privileged core leading to dualization, or declining employer coordination is compensated with state-promoted social programmes designed to ease the adaptation of weaker segments of society to changes in the labour market (e.g., state-provided vocational training). In this view, the choice between the two routes in large part hinges on the state's capacity to follow an embedding strategy and cajole private sector actors into agreement. Here, state capacity resides in a large and well-

³⁶ Recent contributions have questioned this trade-off, pointing to state interventions that might further employer coordination (cf. Busemeyer et al., 2021; Graf et al., 2021).

organized public sector, which is well placed to shore up macro-corporatist institutions to pursue what Martin and Thelen (2007) consider a key interest among state actors, namely high levels of social inclusiveness.

We are broadly sympathetic with the argument that decreasing employer coordination may be associated with more state intervention. However, we are less comfortable with the expectation that strong states push for more inclusion. Here we take our cue from Howell (2016, 2019) and Rathgeb (2018) who argue that the state has been instrumental for the universal liberalizing tendency of industrial relations in the last decades. This argument is based on an understanding of state action not as autonomous but rather as contingent and strategic relational, "heavily influenced by the relative strength, perception of self-interest and organizational form of class actors" (Howell, 2016, p. 576).

This perspective broadly aligns with distinct but complementary literatures on critical pluralism and power resources theory, which have long established that employers are structurally privileged and thus able to shape the terms of state intervention (Lindblom, 1977; Korpi, 1983). Due to this privileged position, the level of solidarity resulting from state intervention is dependent on political coalitions involving employers (Howell, 2016, 2019; Rathgeb, 2018). This literature thus takes due notice of the privileged position of business and provides a useful corrective to scholars who consider high-capacity states largely autonomous from business interests. In the following, we employ both approaches to leverage their respective strengths to increase their explanatory potential.

State intervention and employers in vocational education and training

Most of the literature on the reform of coordinated capitalism has so far focused on welfare state reform and labour market policy. Instead, we develop our argument in the context of vocational education and training (VET) institutions, which have long been recognized as a key sphere of strategic interaction between employers in CMEs (Streeck, 1992; Hall & Soskice, 2001). With main stakeholders in these systems pursuing not only economic efficiency but also social inclusiveness (Carstensen & Ibsen, 2021), they provide a useful setting for investigating under which circumstances interactions between employers, unions and political parties lead to inclusive outcomes through state intervention. In case of CMEs, the literature typically distinguishes between collective skill formation systems, where firms and unions are deeply involved in the provision, monitoring and financing of education, and statist systems where the state has full responsibility for VET.

In recent years, coordinated models of capitalism, and in particular collectivist VET institutions, have been confronted with a process of de-collectivization, as firms increasingly refuse to act collectively in the financing, provision and administration of training (Busemeyer et al., 2021). The likely consequence of de-collectivization is not that the market instead provides training, since creating a market for VET would require deep institutional and economic commitment on part of the state. Instead, the state is more likely to intervene in the provision of training (Bonoli & Wilson, 2019; Busemeyer et al., 2021; Durazzi & Geyer, 2021; Unterweger, 2020). A prominent example are stateled apprenticeships, which are measures to compensate for decreasing training participation of firms in dual VET systems (Durazzi & Geyer, 2020). State-led apprenticeships are an example of de-collectivization as the state takes over the employers' role in providing apprenticeships. While still counted as dual in many official statistics, state-led apprenticeships are not part of the collective training system anymore because they are not based on employers' collective action and firm-based training.

The structurally privileged position of employers is well known in collectivist VET where a significant part of training takes place in companies through apprenticeships. Here it is the employer's possibility to 'exit' from offering training contracts that makes them the pivotal actor (Busemeyer, 2012). Yet the privileged position of business goes beyond their role as providers of training contracts. As the main providers of employment, employers – and their representatives in employer associations – have also disproportionate discursive power in defining common knowledge (Culpepper, 2008) on what constitutes necessary skills for future gainful employment and thus the overall adequacy of training systems (Carstensen & Ibsen, 2021). This power is backed up by legitimacy (as the providers of employment, they should know) as well as exit options (as the providers of employment, they can refuse to hire). While this power is not absolute, business is in a strong position to get what it wants.

What does this imply for inclusiveness in the context of VET institutions? We may note that the main line of conflict concerns the tension between efficiency – specifically the provision of relevant skills for employers – and inclusion, understood as access to high-quality skill formation for academically weaker students. We should expect employers to resist inclusiveness measures imposed by the state, not because they

always know what is best for them and therefore always push for 'efficient' policies, but rather because they in some cases will *perceive* the respective interventions to have negative consequences for economic efficiency (Carstensen & Ibsen, 2021)³⁷. More concretely, employers and their collective representation consent to an extended role of the state only as long as they do not fear shortages of labour supply on the apprenticeship market due to an increasing take-up rate of statist training measures. For instance, an increased take-up of better qualified apprenticeship seekers in state-provided training could increase labour costs by pushing up wages and working conditions for standard firm-based apprentices. Similarly, increased take-up of weaker candidates in stateprovided training could lead to negative reputational effects for VET as a whole and consequently lead to a reduction of better qualified apprenticeship seekers, who will increasingly opt for education outside VET. However, exactly these elements may be associated with more inclusiveness. Consequently, employers may try to shape at least some of the state-sponsored inclusiveness-enhancing measures.³⁸ Ultimately, this may produce increasingly statist systems that are not more inclusive than the collectivist solutions they seek to replace.

Explaining the varying outcomes of state intervention

Recognizing the potential of state intervention to increase inclusiveness, while also acknowledging that the privileged position of employers may work against the realization of increased social solidarity, opens the way for state intervention to produce varying outcomes in terms of inclusiveness. This in turn raises the question of how we can explain when employers prevail. To this end, we argue that the degree of employer discretion is a function of the coalition partners available to them. Echoing coalitional approaches in comparative political economy (Hall & Thelen, 2009), if employers face a united front consisting of most political parties and the unions, they are unlikely to prevail because too many actors will challenge their discursive and material power to

³⁷ Research has also highlighted the importance of firm-size cleavages (e.g., Culpepper, 2007). However, in our analysis of state-led apprenticeships, we did not detect firm-size cleavages, possibly because in both countries, the VET sector is strongly dominated by small firms.

³⁸ Put differently, employers do not mind state intervention or inclusiveness per se. However, they have a keen interest in shaping such measures to ensure that they do not undermine their interests (Bonoli & Emmenegger, 2021).

define the necessary skills for future gainful employment and thus the overall adequacy of training systems. What, then, determines the availability of coalition partners, and how do these coalition partners influence the strategies employers pursue to defend their core interests?³⁹

We believe unions hold the key to answer these questions. Generally, unions can be assumed to favour inclusiveness-enhancing state intervention (Rathgeb, 2018; Carstensen & Ibsen, 2021; Durazzi & Geyer, 2020). However, unions often privilege organizational interests that secure their long-term positions in governance structures over the pursuit of short-term substantive policy gains for their constituencies (Trampusch, 2010; Davidsson & Emmenegger, 2013). Most notably, unions are strongly interested in maintaining a central role in VET governance, not least because it provides an important avenue for recruitment. Yet the role of unions differs across countries. In some countries, the unions' role is almost entirely a function of employers' involvement, while in other countries, their role is to some extent independent of employers. We argue that this difference has important implications for union strategies. This is not to say that unions will always prioritize organizational interests. However, in periods of dwindling mobilization capacity, such governance roles become increasingly important for unions' long-term positions of power and might have a decisive effect on unions' strategic considerations (Davidsson & Emmenegger, 2013).

This argument aligns with a rich literature in institutionalist scholarship that emphasizes both the stickiness as well as the power implications of institutions (Mahoney & Thelen, 2010). In addition, it builds on recent contributions to the literature on the reform of VET systems. Most notably, Durazzi and Geyer (2020, p. 110) highlight the role of "institutional resources," which refer to the unions' "degree of control of training outside of the dual [collective] system comparable to the control they enjoy on the dual [collective] system." They argue that Austrian unions – unlike their German peers – supported an inclusive pathway of reform of the training system. They did so because their role in VET governance is not solely dependent on the employers' involvement in the dual apprenticeship system but at least to some extent independent

³⁹ Thelen (2014, pp. 22-25) presents a coalitional argument to explain the choice for a reform trajectory leading to more state intervention. However, we are concerned with variation in the kind of state intervention.

because of their institutionalized role in the governance of state-sponsored inclusiveness measures and in the Austrian public employment services that finance these measures.⁴⁰

Based on these reflections, we argue that if the unions' role in VET governance is strongly dependent on employer involvement in the dual apprenticeship system, they are likely to join a coalition with employers, which will combat state intervention if the state crosses the employers' red lines. In this case, unions lend their support to the employers' cause, since this places them in the best position to defend their organizational interests of remaining central to VET governance in face of increasing state encroachment on social partner autonomy. The main dividing line structuring the conflict on state intervention and its degree of inclusiveness is between the social partners and the parliamentary arena.

In contrast, if the unions' main role in the governance of skill formation systems is not dependent on employer involvement in the dual apprenticeship system, employers and unions are likely to advance their interests by instead seeking coalition partners in the parliamentary arena. The reason is that unions' independent, institutionalized role in state-sponsored training measures makes them less dependent on employers as coalition partners for gaining the benefits of being involved in the skill formation system. Instead, employers will find political partners among the business-friendly parties, while unions will find partners among the more left-leaning parties, which share their preference for social inclusion (Busemeyer, 2015; Iversen & Soskice, 2019). In this case, the main political cleavage is between left-leaning and right-leaning political blocs, with those interests prevailing that currently hold government office, potentially limiting employer influence.

Research design

Below we investigate the state's ability to maintain egalitarian capitalism through a comparative study of institutional change and reform processes in VET. The dependent

⁴⁰ Rathgeb (2018) offers a union-centred argument to explain variation in state intervention. He argues that politically weak governments may rely on union support for extraparliamentary consensus mobilization. In return, unions push governments to pursue more inclusive labour market policies. However, in his case, the focus is on governments unilaterally pursuing a liberalization agenda. There is less emphasis on employers. But we focus on a case shaped by employer coordination, as in dual VET employers are the "pivotal" actors (Busemeyer, 2012), which explains why we emphasize their central in role in coalition building.

variable is the degree to which state intervention increases social inclusion, understood as access to high-quality skill formation for socio-economically disadvantaged and academically weaker students. We focus on state-led apprenticeships, which are measures to compensate for decreasing employer coordination in dual VET systems by providing alternative forms of training to unsuccessful apprenticeship seekers (Durazzi & Geyer, 2021). We examine their introduction in the mid-1990s and subsequent reforms until the late 2010s.

We employ a most similar systems design by looking at reform trajectories in Austria and Denmark. Both countries are characterized by long corporatist traditions of social partnership, with a historically strong affinity between unions and Social Democrats. Furthermore, both countries have collective VET systems and feature high levels of state capacity and degrees of employer organization (Thelen, 2014), which should facilitate inclusiveness-enhancing state intervention (Martin & Thelen, 2007). Consequently, the cases also have 'least likely' qualities: If social partners in these two cases can set the terms of state intervention, we should observe even stronger social partner influence in other collectivist VET systems like Switzerland or Germany, where state capacity is lower.

Despite these similarities, we observe counterintuitive variation between the two cases in the dynamics of change they exhibit. If anything, we should expect higher levels of inclusiveness in Denmark with its social democratic welfare model as well as its strong public sector and service sector unions, while Austria with its conservative welfare state, lower levels of union density and stronger reliance on manufacturing might be more prone for low levels of inclusiveness (Thelen, 2014). While we find that state intervention in both Denmark and Austria considered employers' preferences, Austrian employers prevailed mostly in times of right-wing governments. In contrast, Danish VET is less politicized and primarily governed by the social partners, making employer discretion more pronounced regardless of who is currently in government. Compared to Denmark, employer discretion in Austria is more restricted by shifting ideological commitments of left- and right-leaning governments. We argue that this variation in the level of social inclusion resulting from state intervention depends on employers' coalition partners: unions or parties.

The analysis is based on policy documents, press releases, media coverage and existing research. Thirteen background interviews with state agencies, parties, social partners, independent experts and vocational schools active in the respective reform processes provided additional opportunities for data triangulation and first-hand insights into the respective reform processes.

State intervention to lighten the burden of apprenticeship provision

In the 1990s, both Denmark and Austria started compensating insufficient training participation of employers with more state intervention. New policies allowed students unable to secure apprenticeship contracts to complete their vocational education through state-led apprenticeships that replace the employers' role in dual VET by providing practical training. In Denmark, these "school-based apprenticeships" (skolepraktik) were accepted as a temporary measure to reach the politically highly prioritized target that 95% of a youth cohort complete upper secondary education. However, in 2013, they ended up as a permanent feature of the new training centres (praktikcentre) (Retsinformation, 2012; see also Jørgensen, 2018). Similarly, Austria responded to decreasing employer participation in training by introducing "public training workshops" in the 1998 JASG law (Jugendausbildungs-Sicherungsgesetz), which were relabelled to ÜBA (Überbetriebliche Berufssausbildung) in 2008.⁴¹ In both countries, the take-up of students in state-led apprenticeships hovers between 5-10% of all apprentices (Ministry of Education, 2019; Dornmayr & Nowak, 2018). As we will show in the following, despite this expanding role of the state, employers' interests in both countries were considered as they retained their privileged position of influence in the VET system as well as access to skilled labour.

Keeping Danish school-based apprenticeships on employers' terms

In Denmark, to avoid unions and employers considering school-based apprenticeships a threat by becoming a school-based alternative to the dual route to a certificate, the system was deliberately set up to work against that happening (Dobbins & Busemeyer, 2015). Thus, there are significant disincentives for students to seek out the school-based option instead of a firm-based apprenticeship (see Ministry of Education, 2018a). The salary for school-based apprenticeships is significantly lower

⁴¹ Austria's full-time VET schools could not alleviate a tightening of the apprenticeship market, as they target the medium and higher end of the upper secondary level skill distribution (Lechner et al., 2004).

than the salary received in a regular apprenticeship. Moreover, students that take up school-based apprenticeships are obliged to continue to apply for firm-based apprenticeships and have to show regional mobility in the apprenticeship offers they consider. The result is that even though students may start out in school-based apprenticeships, most end up in some form of firm-based training during their education (Jørgensen, 2017). Overall, efforts to prevent competition between school-based and standard apprenticeships have worked, since among students the school-based choice is generally considered less prestigious. This is seen for example in that around half of the students, who qualify for enrolment in school-based training, do not accept this option (Jørgensen, 2017), and students from school-based apprenticeships have lower employment rates than students from firm-based apprenticeships (Danish Evaluation Institute, 2012).

Furthermore, while this institution was employed in a context where VET increasingly worked as an inclusionary measure for a residual group of weak learners, the risk of it becoming a tool of social policy was mitigated by limiting access to the school-based option. In the 2000s, with support from the bourgeois government and the social democratic led opposition, the take-up of students in school-based apprenticeships was increasingly capped. The reason could either be a too strong demand for in-firm training in these programmes or because unemployment levels in certain sectors were too high (Jørgensen & Juul, 2010) – in both cases signifying too weak a demand from employers. In other words, the school track was only allowed to grow in the areas where employers were not able or willing to provide the necessary apprenticeship positions and where school-based apprenticeships would not crowd out firm-apprenticeships.

Beginning in the 2000s, Danish unions and employer associations also increasingly pushed for VET to be relieved of its inclusionary role (e.g. the Confederation of Danish Employers in Svansø, 2006) and started floating ideas about setting up admission requirements to increase the quality of Danish VET (e.g, Confederation of Danish Industry, 2008). This frustration among unions and employers was a key background factor for the 2015 reform of Danish VET (Interview with union and employer representatives), which was supported by all parties in parliament except the far left-wing Unity List. Grade requirements for admittance to VET were implemented, with the only other options for admittance being a signed apprenticeship contract or the passing of an admission test (Carstensen & Ibsen, 2021).

The aim was to address the problem of declining numbers of young people seeking admittance to VET directly from primary education. Beforehand, the system witnessed a severe decline from about 30% in 2005 to just under 20% since 2012, signalling a weakening reputation of VET among young people and therefore threatening employers' provision of skilled labour. In an interview, a representative of the Social Democratic Party argued that this worked as a burning platform for pushing through the ideologically very sensitive policy of grade requirements. The 2015 reform was thus a clear break with the use of VET for social policy purposes, making it impossible for the weakest students to access the system, and consequently also school-based apprenticeships. The message was that students that are not qualified to be in VET should find something else to get ready for further education, in most cases the 'transition system' where it is possible to obtain the necessary grade level (Di Maio et al., 2020). It also clearly signalled that looking out for these students was the responsibility of the state and municipalities, not employers. Once again, policymakers changed the schoolbased part of vocational education, leaving employer discretion in the apprenticeship system untouched (Nyen & Tønder, 2020).

In 2016, the transition system was reformed to deal more effectively with residual groups struggling to progress into further education or employment (Den Forberedende Grunduddannelse). As part of a reform of the transition system, the guiding goal of Danish education policy for more than two decades – that 95% of a youth cohort should at least gain secondary education – was given up and replaced instead with a 90%-goal, and an explicit recognition that for some unskilled labour was the right option rather than education (Government, 2017). In exchange, in 2016, the employers committed to increased apprenticeship provision in an agreement with unions and the state (Ministry of Education, 2016). Hence, the refusal on part of employers that VET continues to be used as social policy does not mean an all-out rejection of equality-enhancing measures. However, it indicates a growing vigilance where policies threaten to undermine employers' privileged position in accessing skilled labour.

In sum, the Danish VET system is set up in a way that employers are relieved of some of the pressure of providing apprenticeships while at the same time not losing any of the benefits of the apprenticeship system. Notably, employers are not being forced to take on apprentices and they retain the privileged access to future skilled labour if they do. This chimes with a strong tradition in Danish VET policy that the state avoids intervention in apprenticeship training, focusing instead on regulating the school-based aspect of vocational training (Nyen & Tønder, 2020).

Employers, right-wing coalitions, and the Austrian workshop-based apprenticeships

Also in Austria, the expansion of statist training happened on employers' terms – at least up to a certain extent. For the Austrian state, it was always essential that individuals in public workshop-based apprenticeships find adequate employment opportunities later, necessitating that public workshop-based training is to a certain extent compatible with employers' interests. Employers have only consented to an increased role of the state where they did not fear a potential competition to standard, firm-based dual VET. Austria's main employer association, the Austrian Economic Chamber (Wirtschaftskammer Österreich WKÖ), campaigned against all measures they perceived to make workshop-based training more attractive for individual apprenticeship seekers than a standard apprenticeship, fearing shortages of labour supply on the apprenticeship market due to an increasing take-up rate of statist training measures. Such a shortage could potentially lead to increased wages and better working conditions for apprentices - in other words, increased labour costs. Employers consequently focused on shaping statist measures in ways that create incentives for individuals to join standard apprenticeship training. As an interviewed representative of the employer association argued, "the goal can never be to simply put apprenticeship seekers into the workshops, but to facilitate their placement into a firm-based apprenticeship".

These preferences are reflected in the specific public workshop track that Austrian employers favour. As confirmed by several of our interview partners, employers prefer the partially workshop-based track (ÜBA2), where trainees only sign training contracts for the first year of apprenticeship and are subsequently supposed to find a standard apprenticeship place at an employer (see also WKÖ, 2019) – similar to Denmark's school-based apprenticeship. These tracks also feature extended internship periods at private companies, which workshop candidates have to secure before starting workshop-based tracks (ÜBA1) as low as possible, where individuals receive a training contract for all years of apprenticeship, and without securing internship places at private firms. This is not surprising, as the partially workshop-based track pushes workshop trainees back into the standard apprenticeship market, preventing alleged shortages of

labour supply. Employers also profit financially from this model (Seitzl & Unterweger, 2020). As argued by several of our interview partners, firms benefit by outsourcing the first year of apprenticeship to workshops and hiring the most promising candidates out of these training workshops as firm-based apprentices. This allows companies to avoid the net costs of the first year of apprenticeship, while still profiting from post-training benefits, i.e., by "retaining a higher share of apprentices and savings on future hiring costs" (Moretti et al., 2019, p. 229). Training quality in workshops is quite high (Bergmann et al., 2011; Salzmann-Pfleger, 2016), making them an attractive option for Austrian employers. While employers could not prevent the introduction of fully workshop-based tracks in 1998, the JASG law established more training places in the partially workshop-based variant. Since then, these partially workshop-based tracks have been firmly institutionalized, and not even left-leaning governments tried to abolish them.

However, the specific makeup of workshop-based training does vary with which parties are in government power. Especially in times of Austria's right-wing governments, employers' preferences have prevailed in shaping statist training measures. Already in 2000, a coalition government between the populist radical right (FPÖ) and the Christian Democrats (ÖVP) passed a law that downgraded the fully workshop-based track to an option of "last resort" in case trainees are, despite intense efforts, unable to find a standard apprenticeship at an employer (Republik Österreich, 2000). At the same time, only apprenticeship seekers with positive school-leaving certificates were subsequently allowed to join the training workshops, resulting in training workshops only admitting a pre-selection of better qualified unsuccessful apprenticeship seekers, reducing potentially negative reputational effects of workshops for dual VET as a whole. In parallel to the transition system in Denmark, separate shortened or prolonged workshop tracks were created for those without a positive school-leaving certificate and other socio-economically, psychologically or physically disadvantaged groups (formerly Vorlehre). Originally, these tracks did not even allow students to achieve a standard VET degree at a workshop. Only after pressure from the labour camp, this possibility was implemented (see the chamber of labor's statement AK, 2000). While integrative apprenticeships (Integrative Berufsausbildung) improved labour market inclusion for individuals with physical or psychological handicaps, this reform also prevented all those with negative or no school leaving certificates, regardless of their individual prospects of success, from visiting standard public training workshops (Heckl et al., 2008).

The fully workshop-based apprenticeship was reintroduced as a standard workshop track in 2008 by a social democratic led coalition government, but as announced already in the coalition agreement of the new right-wing government (ÖVP & FPÖ, 2017), this option was subsequently transformed back to a measure of "last resort". Since 2020, public training workshops consequently only sign contracts with trainees for the first year of apprenticeship (Rechnungshof Österreich, 2021). Similar to the Danish school-based apprenticeship, all trainees in Austrian public-training workshops consequently need to apply for standard apprenticeship positions in firms after their first year of apprenticeship, although trainees that cannot land an apprenticeship place are still offered a prolongation of their training contract in order to receive full VET qualifications at the workshop. Like Denmark, employers are also keen on keeping wages of trainees at workshops as low as possible to create incentives for individuals to join a standard apprenticeship with a full apprenticeship wage. The 2017-2019 right-wing government therefore cut the wages for workshop trainees, originally as high as standard apprenticeship wages, roughly by half, thereby allegedly making it more attractive for individuals to join standard apprenticeships (Knecht & Bodenstein, 2019).

In sum, employers managed to keep state-led apprenticeships in both countries – to a certain extent – on their terms. They did not challenge the increased role of the state per se, as they benefit from the system themselves, but only the characteristics of the workshop-based system that they perceived to compete with standard firm-based apprenticeships. However, Austrian employers prevailed mostly in times of right-wing governments, while in Denmark employer discretion is more pronounced regardless of who is currently in government. The next section shows that this surprising variation in the level of inclusiveness resulting from state intervention depends on the coalition partner available to employers: unions or parties.

Coalition partners and variation in state intervention

In the following, we argue that Austrian unions were able to pursue more inclusive policies together with left-wing parties, partially limiting the employer discretion mentioned above when left-wing parties held government office. We show that this alliance emerged because unions have institutional resources outside the governance of the collective VET system. In contrast, the Danish case displays surprising stability of social partner coalitions, because the unions' role in VET governance is almost solely dependent on employer involvement in the dual apprenticeship system. This firmly keeps VET on employers' terms.

Stable employer-union coalitions in Denmark

Although it is not rare for Danish unions to complain about the lack of employer commitment in providing enough apprenticeship positions (see trade union publication Skou, 2017, also Juel, 2021), real conflict has not been openly voiced since the late 1980s (Dobbins & Busemeyer, 2015). Unions' stable coalition with employers in the reform of VET is connected to the diminishing political power of Danish unions. In recent decades, unions have moved from being primary agenda setters in the corporatist arena and have increasingly found themselves outside the influence afforded by inclusion in the policymaking process (Andersen et al., 2014; Jørgensen & Schulze, 2011).

One place where unions have maintained their place at the table is in VET governance, but the recent side-lining of the corporatist arena in labour market and welfare policy indicates that government parties – including the Social Democrats – give influence to the unions only as long as they maintain peace with employers in the VET system. The primary importance of keeping unions represented is a broader bolstering of the 'flexicurity' model that has historically played a crucial role in strengthening the economy's competitiveness (Madsen, 2004). To effect change on the system, then, unions need the support of employers. This cooperative dynamic also plays out at the level of VET schools and consequently school-based apprenticeships. Here both employers and unions are placed in the board of VET schools – and thus play an important role in providing input, particularly about the skill needs of local businesses but the authority to implement the law is placed at the management level of the individual schools, and, ultimately, with the Minister of Education. In this system, the influence of the social partners is dependent on their involvement in governance bodies responsible for the dual VET system as a whole and therefore on their joint efforts to keep collective training alive. As a result, throughout the reform period under scrutiny here, we witness great stability in the coalition between employers and unions struggling to maintain their influence on the system.

In Denmark, both social partners have remained vigilant that the school-based apprenticeship model does not compete with the regular firm-based apprenticeships, which would threaten employers' privileged position in the apprenticeship system. In contrast to Austria, both social partners jointly limited the inclusionary approach of consecutive left- and right-wing governments of the 1990s and 2000s with a cap on the take-up rate of students in school-based apprenticeship. Consequently, social partners' joint influence on which VET programmes feature school-based apprenticeships secured employers' privileged position in apprenticeship markets, fearing a potential crowding out of firm-based apprenticeships by statist training measures.

Similarly, in 2014, both social partners jointly put their foot down against the use of VET as social policy (Carstensen & Ibsen, 2021). Although VET was placed centrally in the government's reform program, it had no plans to implement a grade requirement (Government, 2011). As a response, social partners broke off the work in the respective tripartite commission and instead agreed on a joint statement in favour of grade requirements (LO & DA, 2013), which made the government and opposition parties consent (Interview with union representatives and social democratic party). From a party political standpoint, the major challenge was to get one of the government partners – the Social Liberal Party – to accept a grade requirement that went fundamentally against the ideology of the party's education policy. However, in the words of an interviewed representative of the Social Democratic Party, the key to making the reform was the acceptance of the demand of the social partners for a grade requirement. From the perspective of both social partners, the collateral damage of implementing a grade requirement was worth sending a clear signal that VET is not a social policy measure but instead set up to provide relevant skills (Carstensen & Ibsen, 2021). 7% of the students who applied to a VET programme in 2018 were called for an admission test of which just over 40% passed (Ministry of Education, 2018b). But research conducted prior to the reform showed that about 50% of students that did not have the necessary pass grades would successfully complete a VET programme upon being admitted (Hvidtfeldt & Tranæs, 2013), and the reasons for dropout in this group of students were rather connected to immaturity or lack of apprenticeship positions (Hetmar, 2013). Again, to ensure the viability and reputation of the overall VET system, unions deliberately consented to a reform that could be expected to have negative inclusiveness effects, building an alliance with employers to secure their influence in the apprenticeship system.

When the 95%-goal was ultimately given up and instead replaced with a 90%goal, it was accepted that the last part of the residual group, that had until then been the task of VET to include in the labour market, could instead legitimately remain unskilled labour. What had been considered a 'creed' of Danish education policy since the early 1990s (Expert Group on Youth Education, 2017) was given up without struggle from the left wing, including unions that had initiated it three decades earlier. The introduction of grade requirements for accessing VET and the abolishment of the 95%-goal was a significant break with the egalitarian ideological stance of the centre-left government and the unions. More generally, Danish left-wing parties and unions have long pushed for furthering access of working-class youth to vocational and higher education and to increase social mobility (Nelson, 2012; Dobbins & Busemeyer, 2015). Thus, the Danish unions' adamant support for the 2015 reform is a significant break with their policy of the last almost seven decades directed at increasing access for the working-class youth. But considering unions' dependence on employer involvement in the dual apprenticeship system, it is far less surprising that in this case the dog (i.e., the unions) did not bark.

Unions, left-wing parties, and VET reform in Austria

Coalitional dynamics differ strongly in Austria. Compared to Denmark, the power of employers has more often been limited in VET politics, in all cases with heavy support from the unions. The Chamber of Labour and the trade union federation as the main representatives of labour regularly sided with left-wing parties and opposed business interests in order to pursue more inclusive reforms, while Danish unions defended business interests in the VET system. This led to a clear left-right divide in Austria and shifted the centre of debate to the parliamentary arena, where employers prevailed when right-wing governments were in office, and more inclusive policies were implemented by coalition governments with participation of left-wing parties. We argue that the Chamber of Labour and unions could side with the Social Democrats (SPÖ) in Austria because their role in public training workshops is to some extent independent of employers' commitment to collective training (Durazzi & Geyer, 2020). Similar to Denmark, social partners, via the Federal Advisory Board on Apprenticeships (Emmenegger & Seitzl, 2020), are responsible for workshops as well as standard apprenticeships. However, the social partners' role is not, like in Denmark, limited to such governance bodies responsible for the administration of dual VET as a whole and thereby only a function of employers' commitment to collective training. Rather, the social partners' role is also institutionalized in bodies that either have been newly set-up for the workshop-based system or are located outside the traditional apprenticeship system and are embedded in Austria's broader system of social partnership.

First, social partners were strongly involved in the initial set-up of training workshops in the late 1990s via newly created federal-state level 'project boards' solely dedicated to the workshop-based system and independent from collective VET governance structures (Lechner et al., 2004). Second, as the public training workshops were never considered to be 'schools' but active labour market policy, they are financed not via the budget of the Ministry of Education but through Austria's public employment service (Arbeitsmarktservice AMS). The Chamber of Labour and the Economic Chamber have substantial decision-making powers in the AMS (Weishaupt, 2011) independent of their role in the respective governance bodies of the collective VET system. Even as the responsibilities of the abovementioned 'project boards' were transferred to the AMS in 2002 (Lechner et al., 2004), social partner influence was consequently secured. Via the AMS's administrative board - and not via bodies dedicated for collective VET governance like in Denmark – the social partners are involved in the implementation and control of the workshop-based system, e.g., by setting quality standards and guidelines (Durazzi & Geyer, 2020). They also have strong influence in sub-national boards of the AMS, which allows them to influence the types and quantities of occupations trained in workshop-based learning (Bergman et al., 2011). Third, the social partners themselves run roughly half of the workshops financed by the AMS, operatively involving unions in the implementation of the workshops on the ground (Frick et al., 2015).

In other words, the Austrian Chamber of Labour and unions could secure a strong long-term influence in the workshop-based system outside of governance bodies responsible for collective VET. Even if employers further withdraw from their role as apprenticeship providers, and therefore the importance of collective VET governance bodies potentially diminishes, unions would still be involved in the governance of the workshop-based system. Moreover, although social partners are jointly included in the governance of the workshop-based system, unions are more influential compared to standard dual VET (Durazzi & Geyer, 2020), where employers' control over firm-based training is much higher. All this helps to explain why unions see no necessity to consent to employers' demands to restrict the role of public training workshops and instead side with left-wing parties to push for more inclusive policies in VET reforms.

For instance, during the introduction of the training workshops in the late 1990s under a social democratic led coalition government (Republik Österreich, 1998) and

heavily promoted by labor unions and the Chamber of Labor (see for example their statements in AK, 1997 and confirmed by our interviews), employers were not able to prevent fully workshop-based apprenticeship tracks that encroached on their control over apprenticeship supply. Exactly these fully workshop-based tracks make the system inclusive, as they give individuals who are unable to get an apprenticeship place at an employer the possibility to gain a full, standard VET certificate at the workshop. In combination with the high quality of training, workshops are acknowledged by employers to be roughly equivalent to standard apprenticeship training at a firm, thereby leading to relatively good labour market chances for workshop graduates (Bergmann et al., 2011; Salzmann-Pfleger, 2016). Due to pressure by the Chamber of Labour, unions and Social Democrats, employers were never able to permanently abolish this possibility to complete an apprenticeship programme at a training workshop but only managed to reduce it to a measure of 'last resort' (Lechner et al., 2004; on the position of the Chamber of Labor AK, 2000).

The Chamber of Labour, unions and the Social Democrats have also criticized the (from firms' perspective) financially beneficial outsourcing of the first year of apprenticeship to workshops, as they fear a reduction in training participation of firms in the first apprenticeship year in general and a shift of costs from private firms to the state (see the article by the labor unionist Trinko, 2013, published by the Chamber of Labor). Consequently, as also highlighted by an interviewed representative of the chamber of labor, they want to limit such possibilities for firms by offering apprentices the opportunity to fully complete their apprenticeship at the workshop by institutionalizing this option as a regular, 'standard' workshop track. In 2008, a social democratic led government implemented a 'youth guarantee', where every individual received the right for education and training until the age of 18 (Salzmann-Pfleger, 2016). As long demanded by the labor unions and promoted by social democrats (see their press statements like ÖGB, 2002; SPÖ, 2002), the reform reinstated these fully workshopbased tracks as a regular option, without the obligation to search for an apprenticeship place at a private firm – even though this was ultimately reversed again by the 2017-2019 right-wing coalition. Furthermore, even though they could ultimately not prevent it, the Chamber of Labour, unions and Social Democrats heavily opposed the 2017-2019 coalition government's reduction of wages for workshop trainees, originally as high as standard apprenticeship wages, fearing increased training discontinuations due to the,

from an individual's perspective, increase in the costs of gaining a VET degree (visible in a recent statement by the Chamber of Labor, AK Oberösterreich, 2018).

In short, Austrian employers' power to set the term of state intervention is restricted by heavy opposition from unions that side with left-wing parties, ultimately making the workshop-based apprenticeship system, in contrast to the Danish system, comparatively inclusive, albeit with fluctuations over time.

Conclusion

Structural pressures have led to a reconfiguration rather than demise of coordinated models of capitalism. Their new face now often involves a more prominent role for the state. A case in point are collective skill formation systems that in recent years have seen the share of state-provided training grow. This paper counters the assertion that high-capacity states are able to maintain high levels of inclusiveness in the face of structural pressures. We argue that variation in the level of inclusiveness generated by state intervention depends on coalitional dynamics between employers, unions and parties. By examining the introduction and reform of state-led apprenticeships in Austria and Denmark, we show that if unions depend on employers for their organizational influence, they become strong coalitional partners for employers in fending off demands originating in the parliamentary arena. In contrast, if unions have influence independent of any coalition with employers, unions and employers are likely to team up with political parties that they share preferences with, making the level of inclusion dependent on who currently holds government power.

In this way, our paper shows under what circumstances the parliamentary arena and partisan politics become central in VET politics, which have often been considered "the wrong places to look for the politics of institutional change in skills systems" (Culpepper, 2007, p. 612). Recent contributions in comparative political economy have tended to emphasize either partisan politics or producer groups. However, it is more plausible to assume that both the parliamentary and the corporatist arenas matter. In our paper, we connect the two arenas. More specifically, we argue that political conflicts are structured either along ideological lines or between arenas -dependent on the extent to which unions rely on employers for influence. These coalitional dynamics can lead to – at first sight – surprising outcomes. For instance, we find that in Austria, employer discretion is more limited by shifting ideological commitments of left- and right-leaning

governments than in Denmark. Moreover, available evidence suggests that developments in Germany, the best-known collective skill formation system, are more in line with the coalitional dynamics in Denmark (cf. Busemeyer, 2012; Durazzi & Geyer, 2020), which runs counter to the most common typologies in the literature (e.g. Hassel & Palier, 2021).

Do our arguments travel beyond collective skill formation systems? Clearly, our arguments focus on processes of de-collectivization, where the state is asked to fill the void previously occupied by employer collective action, which is different from areas where governments pursue unilateral liberalization agendas (cf. Rathgeb, 2018). In addition, we emphasize the importance of unions' dependence on employers for exercising their organizational influence. These conditions are likely to be met in many policy fields in CMEs, especially in economic and social matters governed by neo-corporatist institutions. One pertinent example would be the provision of social inclusionary measures through labour market policy, where employers historically have accepted varying degrees of state intervention (Martin, 2009). Importantly, there is no necessity for unions to enter a coalition with employers. Rather, the more important organizational interests are for unions' long-term positions of influence and the lower/unclear the costs of non-inclusive policies are for unions and their constituencies, the more likely they are going to enter a coalition with employers.

Outside the boundary conditions surrounding the main argument of the paper, and thus leaving it for future research to assess, one could plausibly conjecture that the mechanism analysed also applies in the setting of increased state intervention outside coordinated capitalism. Although the institutional consequences of the economic crises in the 2010s and 2020s have yet to fully materialize, they currently seem likely to deal a serious blow to the neoliberalism of the last four decades and instead bring much greater room for state intervention in the economy. If so, it will be interesting to follow to what extent employers will be able to make such interventions work on their terms, which is likely to depend on the coalition partners available to them and thus differ between policy fields. In sum, then, we believe that our more nuanced and political account of state intervention is likely to apply to a large set of political processes.

Interviews

Denmark:

Representative of the Social Democratic Party

Representative of Danish Vocational Schools and Gymnasiums Representative of Danish Trade Union Confederation Representative A of Confederation of Danish Industry Representative B of Confederation of Danish Industry Representative of Danish Agency for Labour Market and Recruitment Representative of Confederation of Danish Employers

Austria:

Independent expert and policy evaluator A Independent expert and policy evaluator B Representative of Austrian Chamber of Labor Representative of Austrian Economic Chamber Representative of Ministry of Social Affairs

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6. Conclusion

Increasing statism in coordinated capitalism

Throughout this dissertation, I sought to explain the increasing role the state plays in current transformations of capitalism, thereby inquiring into the future that coordinated forms of capitalism have in an increasingly globalized and digitized world. More specifically, I explored the (multiple) political-economic factors that can lead to increasing state intervention in the face of structural challenges. Globalization and technological change, such as automatization, digitization, a shift from industrial production to the service sector, increasing capital mobility, and the diffusion of shareholder value ideology, all exert fundamental pressure on coordinated capitalism. In the past decade, institutional change in the face of structural pressures like technological change and globalization has consequently become the "new conventional wisdom" in comparative political economy and connected subdisciplines (Doellgast, Lillie, & Pulignano, 2018). How that change in the face of structural pressures looks like has long remained an open and contested question in the literature, with positions ranging from a "common neoliberal trajectory" (Baccaro & Howell, 2011, 2017), a dualization of coordinated market economies into core sectors with generous institutional arrangements and a growing, liberalized periphery (Palier & Thelen, 2010), or a socially more inclusive "embedded flexibilization" (Thelen, 2014). This dissertation provided additional leverage to the argument that liberalization or dualization are not inevitable trajectories for the coordinated market economies predominant in Western Europe, as "structural pressures do not directly translate into policy change" (Emmenegger, Häusermann, Palier, & Seeleib-Kaiser, 2012). In particular, I built upon scholarship emphasizing the potential role state intervention can play in response to these pressures (Thelen, 2014), as the articles of this dissertation explored cases of increasing state intervention that trigger or replace decreasing (employer) coordination, consequently facilitating economic efficiency and/or social solidarity.

However, while broader comparative political economy scholarship has become more attentive to this different and stronger role of the state in transition processes (Martin & Thelen, 2007; Thelen, 2012, 2014), the political-economic determinants of increasing state intervention have remained subject to substantial ambiguity, as did their potential effects on social solidarity. Going beyond the confines of current comparative political economy scholarship, this dissertation shed more light on the pathways to and consequent political-economic factors responsible for such increased state intervention that emerges as a response to the structural pressures of technological change and globalization in coordinated market economies. Previous literature for example included state-centred explanations emphasizing state capacity (residing in a large and wellorganized public sector) (Martin & Thelen, 2007), as well as society-oriented research emphasizing the strength and varying preferences of the labor movement (Afonso, 2011; Durazzi & Geyer, 2019; Marx & Starke, 2017) or the varying importance of the manufacturing sector within organized interest groups (Thelen, 2014) as causal factors for increased state intervention. However, while state-centred research has remained relatively vague concerning its specific definition of state capacity, and allowed only for inclusiveness-enhancing outcomes of state intervention, society-oriented research has been contradictory concerning the specific societal factors responsible for increased state intervention. For example, increased state intervention does not necessarily happen in settings where traditional manufacturing interests are weak (Obinger, Starke, & Kaasch, 2012), nor is it always accompanied by labor support (Martin & Thelen, 2007), and some instances even happen in policy-fields where business is particularly strong vis-àvis labor (Durazzi & Geyer, 2019). And depending on the specific strand of literature, state intervention has been seen as either as a vehicle for upholding high levels of equality in face of diminishing collective efforts by employers (Martin & Thelen, 2007; Thelen, 2014), or as a discretion-enhancing vehicle for employers that rather produces outcomes detrimental for social solidarity (Howell, 2016, 2019). The specific factors responsible for these varying outcomes of state intervention have however remained underobserved.

Taken together, the articles of my dissertation help to make sense of this at first sight contradictory state of the literature. As highlighted in the introduction to this dissertation, distinguishing between enabling, constraining, as well as replacing forms of state intervention is central for more clearly identifying the political-economic drivers behind and scope for increased state intervention. In enabling forms of state intervention, the state supports collective actors to coordinate in the provision of collective goods. In constraining forms of state intervention, the state coerces them to coordinate and punishes uncooperative collective actors. In replacing forms of state intervention, the state substitutes collective actors in the provision of collective goods. Together, my articles suggested that political-economic actors have different preferences for these different forms of state intervention. None of the political-economic actors central to skill formation systems is in principle opposed to increased state intervention, they rather favor different forms of state intervention. This means that multiple pathways to a larger role of the state are possible, leading to more potential for state intervention in contemporary capitalism than often assumed by comparative political economy literature.

First of all, if locations manage to attract in particular knowledge-intensive, less mobile companies, they can still resort not only to enabling (Busemeyer, Carstensen, & Emmenegger, 2020), but also constraining forms of state intervention in the face of globalization (chapter 2). Furthermore, both enabling and constraining forms of state intervention are also possible without support from the left or unions – even considering that the latter punish uncooperative firms. This is the case because constraining state intervention can secure the stability of neo-corporatist coordination, therefore aligning with employer associations' "organizational interests" (Davidsson & Emmenegger, 2013) for securing their own long-term influence and institutionalized role in these policy-fields – even though firms themselves might be opposed. More specifically, chapter 2 provided an example of how a domestically-dominated employer associations can join the public administration in demanding constraints on foreign multinational firms in order to cajole them to train within the dual VET system.

Second, concerning replacing forms of state intervention, my findings are broadly consistent with power resource theory and consequently highlight the role unions and social democrats play in reform processes of replacing forms of state intervention (see chapter 3 and 5). However, I showed that even when business is particularly strong visà-vis labor (like in the policy field of dual VET), replacing forms of state intervention are possible due to conflicts between business associations and their member firms. More specifically, such conflicts arise because individual firms might actually favor an expansion of the state's function into business' turf, as it can help them to save costs (Swenson, 2018), while associations however fear losing their own long-term influence and institutionalized role in these policy-fields. These conflicts are what enables labor unions and social democrats to dominate policy-fields where business is usually considered to be the strongest actor. Furthermore, business itself can contribute to the long-term growth of such replacing forms of state intervention (chapter 4 and 5), something rather unacknowledged in the literature. As mentioned above, individual firms can benefit from increased state intervention due to cost-savings. Consequently, replacing forms of state intervention, even if they are only introduced as emergency measures in the face of structural challenges, can offer firms attractive exit opportunities from employer coordination, and crowd out employer participation in collective goods provision in the long-term (chapter 4).

Third, the insight that replacing forms of state intervention can also be on employers' terms has important consequences for the study of social inclusiveness of increased state intervention. If both labor as well as firms consent to an increased role of the state, and increased state intervention leads to social solidarity (Thelen, 2014), shouldn't we expect a widespread survival of egalitarian capitalism in the face of structural pressures? Drawing on liberalization theory (Howell, 2016, 2019), chapter 5 showed that increased state intervention and increased social solidarity do not necessarily go hand in hand. If unions depend on employers for their organizational influence in a policy field, business can often set the terms of state involvement, therefore prioritizing its effects on economic efficiency over social solidarity. However, business is not omnipotent. If unions have influence independent of any coalition with employers, unions and employers are likely to team up with political parties with whom they share preferences, making the level of inclusion more fluctuating since its specific level depends on who currently holds government power, opening up possibilities for more inclusive outcomes.

Finally, taken together, the articles of my dissertation suggested that enabling and constraining forms of state intervention can pave the way for and creepingly turn into the more far reaching replacing forms of state intervention. For example, even in the traditionally less intrusive state Switzerland, enabling forms of state intervention that supply collective actors with resources to incentivize their training participation can also entail certain replacing elements, as shown in chapter 2. Furthermore, replacing forms of state intervention might be introduced as an "emergency measure" after enabling as well as constraining forms of state intervention prove to be ineffective (see the case of Austria and Denmark). Consequently, a large-scale replacement of neo-corporatist practices is rarely the intended outcome of replacing kinds of state intervention, as they usually are introduced in a more gradual manner. However, such small replacing elements added to existing institutions might set "in motion dynamics through which they, over time, actively crowd out or supplant by default the old system" (Streeck &

Thelen, 2005), and might subsequently expand by "unconstraining" firms from the need to organize collectively (see chapter 4).

With respect to the introductory remarks to this dissertation, namely the question what future coordinated, egalitarian forms of capitalism have in an increasingly globalized and digitized world, this dissertation consequently agrees with the growing literature that proposes an increasing role of the state in the face of current structural challenges. More specifically, potential for state intervention seems to be higher than assumed by past comparative political economy scholarship. I showed that politicaleconomic actors have different preferences according to the specific form of state intervention: enabling, constraining, and replacing forms of state intervention. As a result of this, multiple different independent variables all have the potential to trigger increased state intervention (in one of its different forms). Due to this "multiple causation" (Ragin, 1989, p. 39), multiple pathways to increasing state intervention are possible. Consequently, the state might play a larger role in future trajectories of capitalism than acknowledged by current literature, either in the form of enabling, constraining, and/or replacing state intervention. This is the case because not only unions, but also employers and/or their associations might, under certain conditions, consent or even favor certain forms of state intervention (see also Swenson, 2018). Consequently, none of the politicaleconomic actors central to skill formation systems is in principle opposed to increased state intervention, they rather favor different forms of state intervention. However, if such increasing statism also leads to a survival of the *egalitarian* nature of European models of capitalism is not predetermined, as this depends on who is able to set the terms of state intervention.

Increasing statism in skill formation

Throughout the dissertation, I used vocational education and training (VET) as a particularly fruitful policy field for examining the role of the state in current transformations of coordinated capitalism. Not only did this focus on dual VET allow me to push the boundaries of scientific knowledge in a policy field that has increasingly moved to the center of attention in domestic politics and international organizations alike, thereby providing such stakeholders with new insights relevant for policy-making and strengthening exchange between foundational knowledge and practice-oriented policy advice (see for example the contributions of this author that are not part of this

dissertation, Unterweger, 2020a; 2020b, 2021). It also enabled me to analyze a prime example of coordinated capitalism (Hall & Soskice, 2001; Streeck, 1992; Thelen, 2014) that is particularly affected by technological change and globalization and consequently increasing exit capacities of firms, changing skill demands, diminishing economic sectors with strong training traditions and changing management paradigms (Culpepper & Thelen, 2008; Edwards, Sánchez-Mangas, Jalette, Lavelle, & Minbaeva, 2016; Lauder, Brown, & Ashton, 2008). VET thereby offers broader insights into which trajectories of coordinated capitalism are possible in the face of increasing structural pressures.

Furthermore, previous comparative political economy research on VET, similar to broader research on comparative capitalism, has increasingly highlighted a transformation of collective models of skill formation in the face of structural pressures, in particular towards a segmentalist direction that is shaped by the demands of (large) firms in order to secure their continued training participation. However, compared to broader comparative political economy literature, attention to increasing state intervention in the face of structural pressures has remained even more limited. This is connected to central explanatory role the literature attributes to firms and their preferences in VET reform (Busemeyer & Thelen, 2012; Emmenegger & Seitzl, 2019; Graf, 2018; Trampusch, 2010), as well as the connected depiction of business as the "pivotal" (Busemeyer, 2012) and most powerful actor in dual VET policy. Private instead of public actors, more specifically business and its association, are often regarded as the most suitable and legitimate actor in this policy field (Bonoli & Emmenegger, 2020; Busemeyer & Thelen, 2020; Culpepper, 2011), and business' exit capacity from training would create an additional incentives that keeps the state from intervening too far (Bonoli & Emmenegger, 2020). Highlighting how state intervention is possible in the policy field of dual VET, where the state is usually considered to refrain from intervening, should consequently also provide stronger evidence for explaining increased state intervention in coordinated capitalism more broadly. In the course of my articles, I addressed this research lacuna, arguing that literature has underestimated potential for state intervention in skill formation and inquiring into the political-economy reasons that enable state-led VET reforms in the face of technological change and globalization. Thereby, my dissertation also provides deeper insights for scholarship on skill formation systems more specifically, which will be outlined in the remainder of this section.

First of all, I showed potential for state intervention in dual VET in the face of a challenge that has so far only rarely been addressed in VET research, namely globalization and the rise of multinational companies. In comparative political economy literature on skill formation, these topics are usually just mentioned as a side note (Culpepper, 2007; Trampusch, 2010), and also connected fields like human resource management or industrial relations have only hinted at the influence of MNCs on traditional collective skill formation systems (Almond et al., 2014; Lauder et al., 2008). By combining multiple (sub-)disciplines, including comparative political economy, economic geography, regional studies, international business and human resource management, I showed under which circumstances local authorities can still implement and design policies that trigger training participation among multinational companies that are often not anchored in the institutional environment of their new host countries and therefore least likely to train. I demonstrated that if highly globalized locations manage to attract knowledge-based and consequently less-mobile firms, the state is still able to compel and constrain business into training. This suggests that in the face of globalization, segmentalist trajectories are not necessarily inevitable in collective skill formation systems. In contrast, globalized locations that attract firms mainly via costadvantages will indeed see their hands increasingly tied. However, such locations might still resort to state-led measures that enable (or even replace) companies' training activities.

Chapter 3 supported these findings. I showed that even VET reforms that replace employers' as training providers are possible in the face of structural pressures, partially stripping them of their privileged position in the governance of this policy field. This is the case because business' institutional power in VET (Busemeyer & Thelen, 2020) depends on its ability to "act collectively through an organization" (Emmenegger & Seitzl, 2019). Preferences of business associations and their member firms for VET reform however are not necessarily overlapping, thereby impeding business' ability to act collectively – something only rarely highlighted by current literature on skill formation that is usually focused on business conflicts regarding firm size or sector (Busemeyer & Thelen, 2012; Graf, 2017; Trampusch, 2010). Such conflicts of interests and collective action failures can enable labor unions and social-democrats to dominate dual VET policy, where usually business is regarded to be the most powerful actor, consequently propagating a transfer of responsibilities for training from business to the state. Furthermore, and so far underacknowledged by comparative political economy literature on skill formation, both chapter 3 and 4 showed that firms themselves might actually prefer such statist training, if these schemes are seen as delivering sufficient training quality and allow firms to save costs on the short term (see also Lassnigg, 2011). This stands in contrast to their associations' long-term term goals, first and foremost their interests for remaining influential in the overall governance of the VET system (Carstensen & Ibsen, 2019). In addition, it suggests that employer associations' policy positions opposing statist training are not necessarily (or at least not exclusively) grounded in worries about the quality of statist straining, like often suggested in public discussions, but rather in their own organizational interests.

Chapter 4 also demonstrated that the initial introduction of such statist training schemes, even if just regarded to be a short-term emergency measure in the face of structural challenges, can lead to a long-term expansion of state-led training at the cost of the collective system. The chapter showed that statist training, layered on top of the standard collective system, can provide individual firms with new exit options from costly dual training, over time crowding out the apprenticeship provision of firms. While employer associations initially defended the collective system due to abovementioned organizational interests, more and more firms themselves learned to like the benefits of statist training, and the policy preferences of the business community were transformed over time. This process is taking place at the lower as well as at the higher end of the skill distribution in secondary level VET, parts of the skill distribution that are seen as essential as the shift to a knowledge economy progresses (CEDEFOP, 2018; Goos & Manning, 2007; Goos, Manning, & Salomons, 2009). Assuming that the knowledge economy leads to the growth of educational options at the higher end of the skill distribution and increasingly necessitates the integration of those unable to cope with increasing skill demands (e.g. the lower end), these dynamics have the potential to facilitate a reconfiguration of the division of labour between collective actors and the state in skill formation. In sum, chapter 4 suggested that collective skill formation systems that expand statist training in order to react to a tightening of apprenticeship markets might reinforce the tendencies of declining employer coordination.

While chapter 3 and 4 focused on decreasing employer coordination in skill formation, they did not observe under what political-economic conditions trends of increasing statism lead to increased social inclusiveness. Usually, collective skill

formation systems are regarded as leading to low youth unemployment and quick transitions from school to work (Busemeyer, 2015), and attempts to transfer collective training to previously non-collective systems are therefore widely propagated by international organisations and national governments alike. Consequently, an increase of statist training might be regarded as counterproductive to the egalitarian nature of these systems. However, collective skill formation systems have also been criticized for inclusiveness problems, as firms act as gatekeepers and exclude weaker apprenticeship candidates, an issue which state-led training measures can resolve (Bonoli & Wilson, 2019; Thelen, 2014). Chapter 5 showed under which conditions such state-led training, making up for decollectivization of skill formation (in the sense of decreasing employer coordination), indeed leads to enhanced social inclusion for weaker apprenticeship seekers.

To answer this question, chapter 5 built upon insights of chapter 3 and 4 that also replacing forms of state intervention can benefit employers. Employers will consequently try to set the terms of state intervention and shape statist training in way that it privileges economic efficiency considerations over social inclusiveness, for example by leaving employers abovementioned gatekeeper function intact ⁴² and restricting access to statist training for weakest candidates. Ultimately, this may produce increasingly statist systems that are not more inclusive than the collectivist solutions they replace. Chapter 5 combined this argument with current research on the "institutional resources" of labor unions in VET reform, which refer to the union's "degree of control of training outside of the dual [collective] system" (Durazzi & Geyer, 2019). Consequently, the chapter showed that only if unions have an independent, institutionalized role in state-sponsored training measures, they have leeway to oppose employers' demands and side up with left-wing parties in the parliamentary arena, ultimately making state-led training measures inclusive when these parties are in government. Thereby, chapter 5 also showed under which circumstances the parliamentary arena and partisan politics become central in VET politics (Busemeyer, 2015; Iversen & Stephens, 2008), which have often been considered to be "the wrong

⁴² This in particular includes measures that aim to push individuals in statist training back into the standard apprenticeship market for their last years of apprenticeship.

places to look for the politics of institutional change in skills systems" (Culpepper, 2007, p. 612).

In sum, the articles of this dissertation showed that even in the policy field of dual VET, increasing attention to the role of the state is warranted, and potential for state intervention should not be underestimated in the face of structural pressures like globalization and technological change. This call for an increased focus on the state should however not be understood as suggesting a reduced analytical focus on employers and their preferences, which can in fact align with certain characteristics of statist training. This means that an increased role of the state is not restricted to enhance the social inclusion function of vocational education and training, but can also privilege economic efficiency goals. Consequently, an increasing decollectivization of collective skill formation systems and expansion of statist training might offer an opportunity to increase the inclusiveness of skill formation systems, but can alternatively also accompany dualizing and segmentalizing tendencies, with their negative effects on social inclusiveness.

Limitations and scope for further research

While this dissertation provides comparative political economy research with a more detailed picture on the (multiple) political-economic factors that can lead to increasing state intervention in the face of structural challenges, it is self-evidently not without limitations. In the following, I discuss such potential boundaries of my findings and mention certain promising avenues for further research.

First of all, in the course of this dissertation, I relied solely on the case of collective skill formation as an instance of coordinated capitalism. This choice enables me to look at a policy field that has been widely depicted as a prime example of coordinated capitalism that is particularly affected by the structural pressures of globalization and technological change. Furthermore, private instead of public actors, more specifically business and its association, are often regarded as the most suitable and legitimate actor in this policy field, making it an extreme case of state non-intervention. If increased state intervention is even possible in dual VET, usually shaped by state non-intervention, other policy fields might see an even stronger role of the state as structural trends of globalization and technological change progress. Nonetheless, to provide more robust insights on the potential future of coordinated capitalism as a whole, also research

outside the confines of skill formation systems is necessary. Fruitful research avenues might consequently explore a potentially new role of the state for example in collective bargaining and minimum wage policies (Marx & Starke, 2017), corporate governance and company finance (Culpepper, 2011), labor market and employment policy (Kasy & Lehner, 2021; Martin, 2005), and occupational welfare and pension policy (Blank, Logeay, Türk, Wöss, & Zwiener, 2016; Hassel, Naczyk, & Wiß, 2019).

Second, specifically concerning skill formation systems, the articles of my dissertation to a large extent focused on initial instead of continuing vocational education and training, and consequently skill formation for the youth instead of adults. This might be problematic, as technological change and the rise of the knowledge economy are often argued to lead to an increased demand for higher skill levels, increasing needs for retraining and consequently also higher and continuing education throughout the life course (Culpepper & Thelen, 2008; Di Maio & Trampusch, forthcoming). Further research should therefore lay more emphasis on the specific kinds of state intervention prominent in continuing vocational training (Trampusch & Eichenberger, 2011), as well increasing statism in skill formation systems as a whole, therefore also including the adult learning system (Desjardins, 2017; Rees, 2013). However, this dissertation reemphasized that initial vocational training systems should not be neglected in the face of these pressures. As firms' training participation decreases and they become more and more selective in taking up apprenticeship seekers, integrating academically weaker and socially disadvantaged youth into the labor market becomes more and more central to uphold the egalitarian nature of strong vocational training systems.

Third, even though this dissertation is part of a growing body of literature that emphasizes the increasing role of the state, mainstream comparative political economy scholarship and specialized scholarship on collective skill formation both still tend to downplay potential for state intervention. However, my dissertation only focused on explaining certain *instances* of increased state intervention in different skill formation systems (e.g. VET reforms, trajectories of certain policy programs, or pilot projects). There are undoubtedly still cases of increasing state intervention that have remained disregarded by the literature, and future research is necessary to provide a fuller picture on state intervention in coordinated capitalism as well as collective skill formation. For example, this dissertation indicated that regardless of if systems of skill formation (or capitalism) move in a direction of decreasing or increasing social inclusiveness, the state might play a more prominent role. Consequently, it might be worth to examine in how far the German skill formation system that is often considered to be an example of dualization or segmentalisation (and consequently decreasing social inclusiveness) is shaped by an increasing role of the state, as for example the transition system (Thelen and Busemeyer 2012) is itself a case of statism in collective skill formation that either enables or even replaces certain tasks of employers. Current contributions like Busemeyer et al. (2020) that observe the increasing role of the state in German and Swiss collective skill formation consequently also provide a useful avenue for further research.

Interconnectedly, as my dissertation focused on instances of increased state intervention in different skill formation systems, it did not primarily depict the development and cross-national variation of skill formation systems or even models of capitalism as a whole. Future research could however potentially aim to make an assessment of how the skill formation systems of the "collective" family (Busemeyer & Trampusch, 2012) move towards new trajectories as a whole. Such research might also aim to support and complement the findings of this dissertation with additional research methods. My articles used "causal case study methods" (Beach & Pedersen, 2016, p. 44), which is in particular adequate to look at comparatively underexplored phenomena, like instances of increased state intervention in collective skill formation systems as well as the skill formation systems of the specific countries that this dissertation focused on. Nonetheless, future research could built upon findings of this dissertation that relied on intertemporal variation and process-tracing within a single case (e.g. chapter 3 and 4), complementing them with internationally comparative qualitative research. Furthermore, insights of my articles that relied on qualitative comparative methods (chapter 2 and 5) could be supported by medium- or large-N research methods, potentially also in policyfields where data is more readily available.

Fourth, this dissertation also suggested that enabling and constraining forms of state intervention might pave the way for more far reaching, replacing forms of state intervention. For example, I observed such developments at the case of Austrian, where the failure of enabling and constraining forms of state intervention ultimately paved the way for the introduction of replacing forms (chapter 3), which then gradually expanded over time (chapter 4). Furthermore, while not the main theoretical focus of chapter 2, it showed that in Switzerland, enabling forms of state intervention like training networks might also be considered to entail some replacing elements - even if still rather limited

in scale. For example, in the Swiss canton of Zug, the training network's publicly subsidized lead organization also takes over functions in training administration and provision. Further exploring the long-term dynamics of such enabling or constraining policies would provide a fruitful avenue for further analyzing the future role of the state in coordinated capitalism. This could include for example the past development of Norwegian training networks/agencies, which have a substantial scale in international comparison (Høst et al., 2018).

Finally, this dissertation only focused on explaining instances increased of statism within coordinated capitalism. In other words, the findings of this dissertation only suggest a likely stronger role of the state within systems that are predominantly still be shaped by neocorporatist arrangements and employer coordination. However, to which extent these trends continue until a tipping point is reached where they trigger a fundamental transformation of coordinated capitalism still remains hard to predict, and will to a large extent also depend on future economic trends and political contestation. It is consequently upon future comparative political economy scholarship to determine if this strengthened role of the state will lead to a resurgence of the (long declared dead) "state-capitalist" model (Katzenstein, 1978; Schmidt, 2003; Shonfield, 1965), or should rather be seen as a new form of partnership between collective actors and the state within the coordinated model of capitalism. In parallel, future scholarship on skill formation might want to address the question if increasing statism within collective skill formation is part of a convergence towards the statist model of VET provision, or can rather be seen as the emergence of a new "hybrid" model of skill formation that combines elements of both collectivist and statist systems (Markowitsch, 2021), thereby potentially reconciling the economic efficiency function of VET with social inclusion. Additionally, beyond the boundary conditions of this dissertation, future research might also want to analyze if my argument on increasing state intervention in times of structural pressures also holds outside coordinated capitalism. In particular the current economic crisis connected to the Covid-19 pandemic, but also the long-term institutional consequences of the earlier economic crises in the 2010s, might ultimately compromise the neoliberalism of the last four decades and instead bring much greater room for state intervention in the economy.

Final remarks

It is undeniable that coordinated, egalitarian forms of capitalism are severely under stress in an increasingly globalized and digitized world. This also holds for collective, dual vocational education and training systems, a prime example of coordinated capitalism that has increasingly moved to the center of both scholarly and political attention due to its positive effects on economic efficiency as well as social inclusion. Globalization and technological change diminish economic sectors with strong training traditions and transform firms' skill demands (Culpepper & Thelen, 2008), change firms' management paradigms and training models (Edwards & Ferner, 2002; Edwards et al., 2016), and ultimately decrease their reliance on dual training (Lauder et al., 2008). Surprisingly, however, reactions to these pressure on the level of coordinated capitalism as a whole and skill formation in particular might in fact entail a stronger role of the state, something that has long been ruled out by the neoliberal political mainstream and remained only at the periphery of scholarly attention in recent comparative political economy research. This dissertation showed that there is striking potential for increased state intervention, as manifold different political-economic actors, including not only labor but also employers, have preferences not necessarily opposed to increased state intervention in one of its many forms. Whether such increasing statism leads to a survival of the egalitarian nature of European models of capitalism, however, remains an open question, as this depends on who is able to set the terms of state intervention.

The case of collective skill formation systems helped to illustrate these arguments empirically. As such dual vocational training systems are particularly affected by structural pressures such as technological change, they are usually depicted as a convenient tool to get a glimpse at the potential future of coordinated capitalism should these challenges progress. However, during the research process undertaken for this dissertation, the Covid-19 pandemic has emerged as an additional, if not even more disruptive external shock on the political-economic systems of coordinated as well as liberal market economies. In times of such severe disruptions, a wide-ranging resurgence of the role of the state within capitalism is not only more likely, but could also happen sooner than anticipated.

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2014	Bachelor of Arts in Development Studies	
2010	Bundesrealgymnasium Lienz (AT)	
	A-levels	
Work experience		
2022-	3s Research & Consulting, Vienna (AT)	
	Researcher & Consultant	
2021-	3s Research & Consulting, Vienna (AT)	
2022	Freelance Researcher & Consultant	
2017-	Chair for Political Economy, University of St. Gallen (CH)	
2022	Junior Researcher	

2019-	Organisation for Economic Co-operation and Development (OECD)
2021	External Researcher & Consultant
2015	Chamber of Labor, Vienna (AT) Intern at the Department for Social Policy
2015	University of Linz (AT) Student Assistant for Social Policy

Selected publications

Seitzl, L. & Unterweger, D. (2022). Declining collectivism at the higher and lower end.The increasing role of the Austrian state in secondary-level VET. In P. Emmenegger, P.& G. Bonoli (Eds.), Collective Skill Formation Systems in the Knowledge Economy.Oxford University Press.

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