Go work, integrate well, and live healthy! The politics of integrating new social regulations into the welfare state

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Abstract

In recent years, governments around the world have introduced new social regulations to govern citizens' behaviors and integrated such policies with welfare benefits. Nevertheless, existing research falls short in explaining the political drives behind such reform dynamics. In this paper, I analyze how governments have linked between regulation and welfare, in immigration, public health and unemployment policy, and seek to explain differences between countries and policy fields. I use a unique dataset to conduct a comparative empirical analysis of reform dynamics, in the three policy fields and thirteen countries over the period 1980-2014. Results of multilevel regression models show that the institutionalization of the regulatory state and social democratic parties in government explain variation in the integration of regulation and welfare.

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1. Introduction

This paper focuses on two research questions: (1) how do policy reform events link social regulation with the distribution of cash benefits? (2) Why are there (no) differences between countries regarding patterns of such reform types? These two research questions are relevant for the following reasons.

For some time, welfare state research has emphasized a turn towards new social risks (Armingeon and Bonoli 2007) against which the state needs to protect its citizens (Ansell 2019) and invest in their future (Hemerijck 2013). Therefore, policymakers have entertained reforms that integrate social regulation and welfare benefits across different policy fields. Regarding labor market policy, such measures coordinate and integrate active labor market policies with unemployment benefits and social assistance (Champion and Bonoli 2011; Clasen and Clegg 2011; Bonoli 2013). These policies remedy the social consequences of dual labor markets separating insiders with protected jobs and outsiders with little chances for established employment (Emmenegger et al. 2012). In health policy, "diseases of affluence", such as cancer and diabetes as well as new infections, have shifted the focus of health policymakers towards coordinating and integrating preventative and curative measures of health policy (Trein 2017). These are policy changes that regulate health behavior such as smoking and incentivize individuals to attend regular health checkups (Studlar 2014; Tulchinsky and Vavravikova 2014).

Scholars have already pointed out that the welfare state has a regulatory and a redistributive component (Kliemt 1993; Swenson 2004;Emmenegger 2014). Against this background, some researchers have pointed to the "regulatory state" and the "welfare state" as two different spheres of the modern state that overlap in a "regulatory welfare state" (Levi-Faur 2013, 29) where both spheres complement each other's policy effects (Levi-Faur 2014, 609). Examples of the regulatory welfare state are the regulation of private utility- (Haber 2011, 2017) and providers (Leisering 2012) for the provision of welfare.

Beyond doubt, the turn towards more regulatory measures is an important dynamic in recent developments of the welfare state (e.g., Thelen 2014; Emmenegger et al. 2012; Tulchinsky and Vavravikova 2014). The integration of social regulation into welfare programs is a central component within this larger development. Such regulatory reforms of the welfare state are also part of the strengthening of central governments, which happened in the wake of the formation of the regulatory state (Braithwaite 2008; Christensen and Lægreid 2007b; Goetz 2008; Koop and Lodge 2017). Unfortunately, we know very little about the scope of reforms integrating regulatory instruments with transfer-oriented social policies. What is more, we lack an analysis of the political dynamics driving such reforms.

With this article, I contribute to the literature in three ways. Firstly, I define how the regulatory state and the welfare state are integrated in three fields of social policy: migration, health, and unemployment policy. In using original empirical data on policy change events in the three policy fields, I demonstrate that there is a strong convergence of such reforms over time but that there are also differences between countries. Secondly, I discuss four explanations for the variance between countries concerning these reforms. The first explanation postulates that a developed regulatory state at the national level makes the integration regulation into welfare more likely, because a regulatory style of policymaking spills over into social policy. The second explanation posits that social democratic parties are more likely to pursue such reforms compared to centrist and right parties, as they want to cushion stricter social regulations with benefit adjustments. Furthermore, I propose that coalition governments tend to pursue such reforms as they need to find a consensus with different interests. The third explanation hypothesizes that a high policy problem pressure, such as high unemployment or migration rates, has a negative impact on the integration of regulation and welfare, as decisionmakers pursue more specific rather than integrated measures. A fourth explanation proposes that the policy backgrounds of Liberal and Continental European welfare states provide drive decisionmakers to integrate regulation and welfare as they are less reluctant to use measure that commodify health and welfare.

The third contribution of this article to the literature is an empirical analysis of the integration of regulation and welfare. I use an original dataset that measures reform events in policy fields nested in countries to conduct this analysis. The data covers reform activities in migration-, public health-, and unemployment policy, in Australia, Austria, Belgium, Canada, France, Germany, Italy, Netherlands, New Zealand, Sweden, Switzerland, UK and US. The empirical analysis targets reforms that integrate policy goals or coordinate public sector organizations with the goal to integrate benefits and social regulation. As a method of analysis, I use multilevel regression models.

The results of the empirical analysis show that the scope of the regulatory state at the national level impacts on reform activity to coordinate and integrate the regulatory state with the welfare state. Furthermore, the findings demonstrate that the more power social democratic parties have in government, the more likely are reforms integrating regulation and welfare. Coalition governments are also more prone to such reforms. Eventually, the more pressing a specific policy problem, the less likely policymakers are to conduct reforms integrating regulation and welfare.

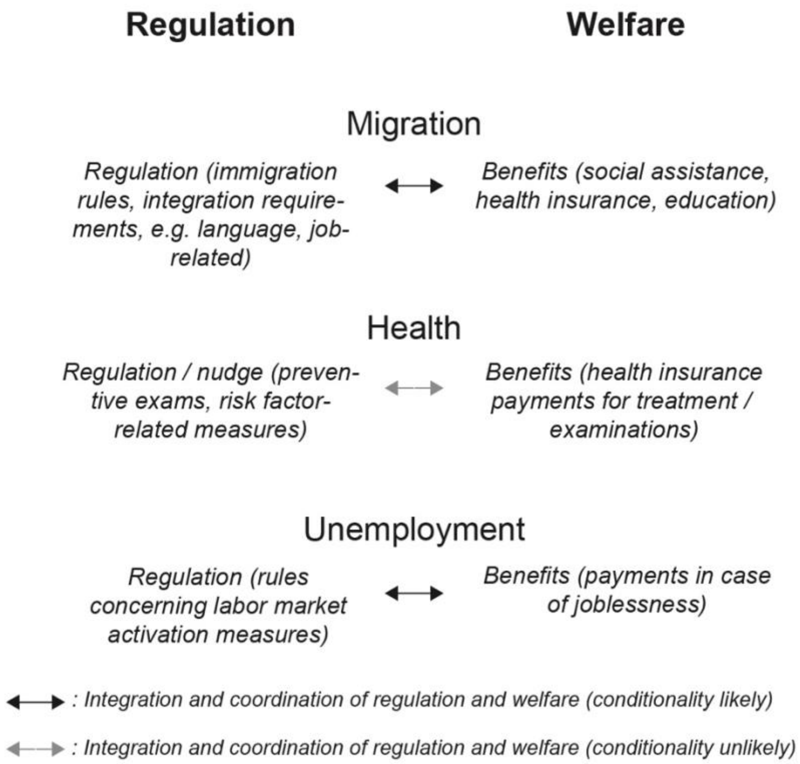
2. Integration of the Regulatory State and the Welfare State

To analyze the link between regulation and welfare in social policy reforms, I start from the literature on policy integration (e.g., Tosun and Lang 2017; Peters 2015; Trein et al. 2019a). I analyze the wave of social regulation in welfare state reform as a case of policy integration and coordination, i.e., the insertion of new or different types of policy instruments in existing policies. Examples for integrating social regulation with welfare benefits are the following:

1. In ***migration policy***, the integration of regulatory instruments with welfare benefits exists in policy reforms integrating and coordinating cash benefits or paid services with social regulation, such as demands to learn the language and to search for work. One example of this reform is the German immigration law in 2007, which aims to standardize the immigration and integration process. It entails a "rights and responsibilities" approach. "The government engages more actively in the area of integration, but also demands more active efforts from immigrants than in the past" (Liebig 2007, 27). Noncompliance with social regulations, such as language learning requirements results in a reduction of welfare benefits, for example social assistance contributions (Joppke 2007, 13).
2. Regarding ***unemployment policy***, reforms aim at integrating and coordinating benefits from social assistance or unemployment insurances with labor market activation measures. One example for this type of reform is the DUDE (dossier unique du demandeur d'emploi) reform in France. This reform aimed at simplifying communication between unemployment benefit agencies and the organizations responsible for supporting claimants to find a job (Berthet and Bourgeois 2011, 13). Another example is the reform of the guidelines by the National Social Assistance Conference (SKOS) for cantonal and municipal policy goals, in Switzerland. The revised guidelines recommended to make the receipt of the full benefit rate contingent on the participation in activation measures (Champion and Bonoli 2011). The implementation of these guidelines was in the hands of the cantons and municipalities and there were differences across Switzerland (Bonoli and Häusermann 2011).

3. The third policy example is **health policy**. In this case, integration and coordination link preventative and curative aspects of health policy (Trein 2018). For example, the national cancer plan by the British Government published in 2000, specifies targets and standards for prevention (soft regulation, information), medical care and palliative medicine (Busse et al. 2010, 31).

Figure 1: Integration of the Regulatory State and the Welfare State in three Policy Fields

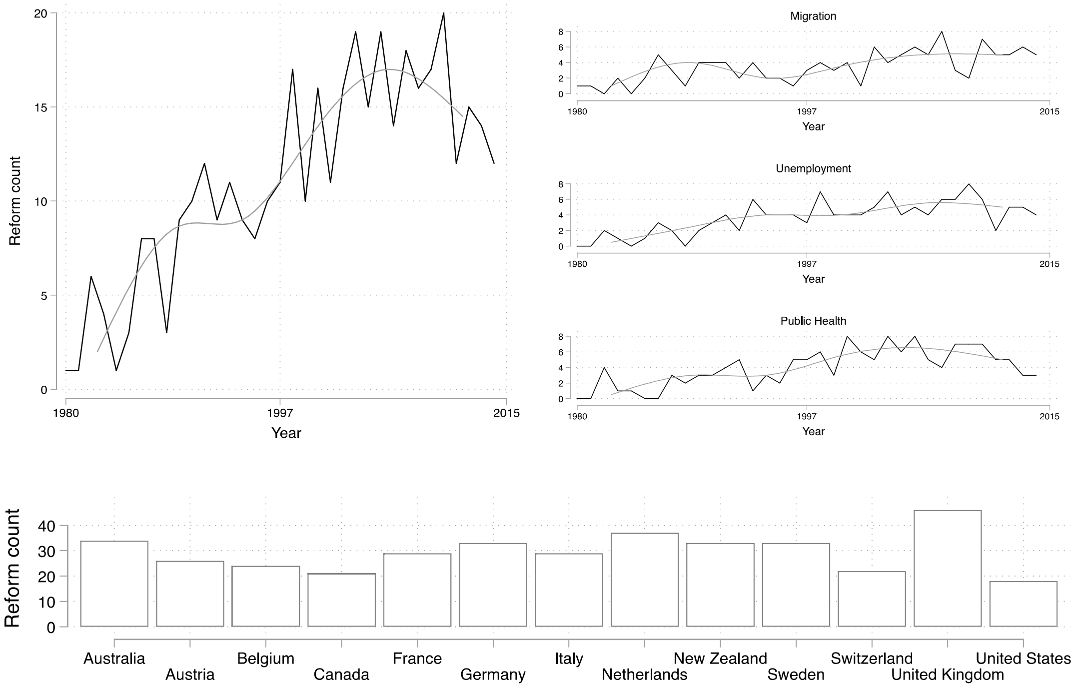


Although these examples for reforms in social policy appear to be different at a first glance, they all share one important characteristic, which is that they integrate social regulation with welfare benefits (Figure 1). The goal of such reforms might well be to protect citizens from social risks (Ansell 2019) but also to get them off social services' balance sheets (Schiller 2016). In integrating new social regulations with benefits governments aim at providing welfare through regulation with focus on individual social regulation, rather than regulating private companies for welfare provision (Levi-Faur 2014; Benish et al. 2017). On the side of *social regulations* these reforms are immigration rules and integration requirements, such as language and working requirements, regulations that require individuals to participate in labor market activation measures and job-placement services, and soft regulation measures that incentivize individuals to take preventative exams or aim at reducing unhealthy behavior. On the side of *welfare transfers*, the reforms entail measures such as the payment of benefits, notably social assistance payments but also measures that grant access to education and health insurance in the case of migration policy. Regarding unemployment policy, such instances are unemployment benefits and social assistance payments. In health policy, the welfare side entails health insurance benefits and payments for medical treatments (Figure 1).

There are important differences between migration and unemployment on the one hand, and health policy on the other regarding the integration of the social regulation and welfare. Concerning health policy, the policy instruments that I mention under the label of the regulatory state are rather information and incentives to nudge (Alemanno and Sibony 2015; John 2018) individuals towards behavior change. Social regulations, such as smoking tobacco policies (Vannoni 2019) are rather decoupled from the welfare state side because making the receipt of welfare benefits conditional on healthy behavior is morally and ethically more difficult to justify than, for example, to regulate that immigrants have to learn a language and work to obtain residential permits (Trein 2019).

To illustrate the dynamic of such reforms empirically, I use an original dataset that measures the intensity of reforms (frequencies) integrating the regulatory state and the welfare state in migration, public health and unemployment policy. The dataset codes reform events integrating and coordinating regulation- and welfare-related policy changes (Figure 1) at the levels of policy instruments and public sector organizations (Howlett 2005; Braun 2008; Jochim and May 2010), in the three policy fields. Precisely, it measures dynamics in policy strategies, framework legislation, or changes in public sector organization coordination at the levels of country, policy field and year. More information on the operationalization can be found in the methods section in the and supplementary materials to the paper.

Figure 2: Reforms linking the Regulatory State and the Welfare State



The aggregated measures of reform events in the three policy fields and thirteen countries show that reform dynamics integrating regulation and welfare happen across developed democracies and in different fields of social policy (Figure 2). The count data of reform events in the three policy fields and the thirteen countries suggests that policymakers have conducted reforms integrating regulation and welfare since the early 1980s. Although this reform trend is constant across policy fields, there are also differences between the policy areas. Notably, in the field of migration policy, such reforms seem to follow economic business cycles, peaking in the mid-1980s, and after 2000 but with a reduction in the mid-1990s when many developed countries went through an economic crisis. On the other hand, regarding public health and unemployment policy, the reform development declines less than in the other policy fields during the mid-1990s (Figure 2).

3. Theoretical priors

The reform dynamics integrating and coordinating of new social regulations with welfare state transfers vary between countries, policy fields and over time (Figure 1). How can we explain these differences, notably those between countries and policy fields? In the following, I discuss different hypotheses that postulate explanations for the integration of social regulation and welfare based on scholarship regarding regulatory governance, comparative politics, public policy, and the welfare state.

3.1 Institutionalization of regulatory governance

A first possible explanation is that the use of regulatory governance instruments has spilled over from economic policy into the field of social policy. The rise of regulatory capitalism (Braithwaite 2008; Koop and Lodge 2017) came along with the establishment of regulatory agencies (Gilardi 2005, 2008) in many different policy fields, amongst them work safety, food safety and pensions as well as competition and electricity (Jordana et al. 2011; Levi-Faur 2011). Independent regulatory agencies are the backbone and main indication for the presence of the regulatory state (Braithwaite 2008; Gilardi 2008). The presence of such agencies has resulted in these agencies influencing governmental policymaking (Thatcher 2005; Christensen and Lægreid 2007a; Maggetti 2009; Yesilkagit and Van Thiel 2012) and has made governments more prone to using regulation as a policy tool (Lascoumes and Le Galès 2007; Hood 2007). According to this logic, the renewed integration of regulatory measure in the welfare state is a spillover effect of regulatory ways of policymaking into the sphere of social policy, as policymakers mimic (DiMaggio and Powell 1983) the use of regulatory instruments from other policy spheres in welfare state reforms.

Furthermore, the creation of regulatory agencies (Braun and Gilardi 2006) contributed to the unravelling (Hooghe and Marks 2003) and fragmentating of the central government (Bouckaert et al. 2010). Therefore, integrating regulatory instruments into existing welfare policies is a response to the general fragmentation of the policy landscape by joining-up different policy approaches (Peters 2015; Trein et al. 2019a; Christensen and Lægreid 2007b; Jochim and May 2010; Pollitt and Bouckaert 2017).

Hypothesis 1: A larger number of national regulatory agencies increases reforms integrating regulation and welfare.

3.2 Social democratic parties and coalition governments

The second possible explanation harkens back to the literatures on party politics and coalition governments. A well-known insight from comparative politics research posits that different parties pursue different types of policies as they care for different electorates (e.g. Schmidt 1996; Huber and Stephens 2001; Häusermann et al. 2013). Against this background, I expect that social democratic parties are likely to pursue reforms integrating regulation and welfare for two reasons, compared to centrist and right parties. On the one hand, the electoral base of social democratic parties shifted from working class voters with preferences for redistributive policies towards a more middle-class voter base, which comprises of individuals with safe jobs. Rather than simple redistribution, these groups prefer a social investment approach to social policy (Häusermann et al. 2013, 228), which entails the integration of regulation and welfare. For example, in unemployment policy, social investment combines regulation through labor market activation with spending-oriented welfare policies (Hemerijck 2013). Similarly, in health policy, governments have aimed at reducing health inequalities (Marmot 2005) through reforms integrating regulation and welfare (Trein 2018).

Another reason why it is plausible to expect that social democratic parties pursue policies integrating regulation and welfare is related to welfare state retrenchment. Research has shown that social democratic parties pursue fiscal retrenchment policies if they lead governments with large majorities (Armingeon et al. 2016, 640). Furthermore, scholars have demonstrated that left parties pursue reforms that integrate cuts of social benefits with training measures to compensate losers especially under coalition governments (Häusermann et al. 2013; Knotz and Lindvall 2015). Against this background, I formulate two related hypotheses:

Hypothesis 2a: Social democratic parties tend to pursue more reforms integrating regulation and welfare.

Hypothesis 2b: Social democratic parties in coalition governments tend to pursue more reforms integrating regulation and welfare.

The presence of coalition governments itself is another explanation for the presence of many reforms integrating regulation and welfare. According to the literature, coalition governments have to negotiate reforms amongst the various parties in government (Martin 2004; Martin and Vanberg 2004; Zohlnhöfer 2009). In such an environment, it is likely that they will also integrate different types of policy instruments in their reform packages, which combine regulation and welfare together. Consequently, I formulate the following hypothesis:

Hypothesis 2c: Coalition governments tend to pursue more reforms integrating regulation and welfare.

3.3 Differences between policy problems

A third possible explanation for the variety in reform dynamics integrating regulation and welfare is linked to differences between policy problems. Scholars of public policy have demonstrated that policy change depends on different qualities of policies, amongst them the salience of the issue as well as actor constellations (Hoppe 2011; Peters 2017; Thomann et al. 2019). Therefore, it is plausible that the differences between the policy fields under investigation in this paper impact on the frequency of reforms integrating and coordinating of welfare and regulation.

Notably, specific policy problem pressure might require immediate reaction by policymakers in order to deal with an urgent problem (Starke 2006; Holzinger et al. 2008). For example, high unemployment or immigration rates induce pressure on governments to engage in reforms that solve the problem (Trein et al. 2019b). The stronger a specific problem pressure, the more likely governments are to engage in reforms that focus dealing with the specific problem rather than pursuing a broader and more integrative policy agenda. For example, in the case of migration, governments will first deal with the immigration challenge and focus on broader programs of immigrant integration after that. Therefore, it is plausible to expect that under a context of a pressing policy problem, reforms integrating regulatory and transfer-oriented measures are less likely. Furthermore, such integrated reforms take longer to pass the political process as they require coordination amongst many different actors (Peters 2015). Therefore, I put forward the following hypothesis:

Hypothesis 3: A higher degree of specific policy problem pressure makes reforms that integrate regulation and welfare less likely.

3.4 Different welfare state regimes

The fourth explanation is based on the literature dealing with different welfare state types (e.g., Esping-Andersen 1990; Emmenegger et al. 2015). According to Levi-Faur, various welfare state models – Liberal, Social Democratic, or Neoliberal – come along with different commodification and de-commodification effects of the state's social regulations and the state's social spending (Levi-Faur 2014, 609-10). Research on electricity regulation in Israel, Sweden and the UK suggests that in Israel and the UK, the regulatory state and the welfare state are much more closely intertwined than in Sweden, where the two dimensions are more separate from one another (Haber 2011, 133). Furthermore, Liberal and Continental European countries, have a larger share of labor market dualization with less complementary benefits compared to social democratic welfare states (Häusermann and Schwander 2012). In addition, there is a difference between countries regarding the degree to which they replace income through welfare benefits (Scruggs 2013). Liberal and Continental European welfare states tend to have lower replacement rates of income through social benefits compared to Social Democratic welfare states, although this relationship is by no means perfect (Scruggs and Allan 2006). Against this background, it is plausible to expect that Liberal and Continental European welfare states, respectively countries with lower replacement rates, tend to pursue more reforms integrating and coordinating regulation as they tend to balance welfare policies with budgetary restraint (Iversen and Wren 1998). Consequently, I put forward two further hypotheses:

Hypothesis 4a: In the background of Continental European and Liberal welfare states reforms integrating regulation and welfare are more likely than in Social Democratic Welfare States.

Hypothesis 4b: Higher welfare replacement rates make reforms integrating regulation and welfare less likely.

4. Empirical Analysis

4.1 Research Design

The empirical analysis in this paper is based on an original dataset that assembles information on policy reform events in the three policy fields and thirteen countries. I focus on thirteen countries – Australia, Austria, Belgium, Canada, Germany, France, Italy, Netherlands, New Zealand, Sweden, Switzerland, UK, and the U.S. – that vary along the theoretical dimensions discussed in the previous sections. Notably, these countries differ regarding the participation of social democratic parties in government, they represent different welfare state types (Continental European, Liberal, and Social Democratic), and they vary concerning the scope of the diffusion of independent regulatory agencies. Furthermore, health-, migration- and unemployment policy are three very different fields of social policy (cf. Section 2).

4.2 Data and Operationalization

To operationalize reforms integrating regulation and welfare, I use data that measures reform events, i.e., instances of policy change that integrate policy instruments or public sector organizations in each of the policy fields. More precisely, the data measures changes in framework laws, policy, and strategies, as well as in the relationship between administrative units, such as ministerial portfolios. A detailed discussion of the reforms that we operationalized can be found in the supplementary materials section of the paper.

To collect the data, we followed a four-step procedure: 1. Survey of secondary literature, edited books, policy reports (international organizations, governments). 2. Creation of a time series of reforms for each country and policy field. 3. Validation of data sheets by experts. 4. Exclusion of reforms considered too irrelevant by experts or reforms that are unclear in their relevance for my analytical focus. The analytical focus is specific for each policy field. It covers immigrant integration regulation and immigration benefits in migration policy, preventative regulation and curative services in health policy, and cash benefits as well as labor market activation regulations in the case of unemployment policy (cf. Author 2020 and Supplementary Materials).

We coded two versions of the *dependent variable*. The first coding is binary (0/1). It measures reform events that point to the coordination or integration of the regulatory state and the welfare state. This measurement resembles data in conflict (Prorok and Huth 2015) or policy diffusion (Gilardi et al. 2009) research. The second coding of the variable is a count of reform events per year. The advantage of the second coding is that it includes additional information about reforms in the dependent variable and it allows to estimate a different type of regression model. These two versions of the dependent variable create a dynamic measurement of policy change towards coordination and integration of the regulatory state and the welfare state. My measurement approach assesses above all the intensity of policy activity integrating regulation and welfare. Again, it is important to point out that this approach essentially entails a survey of reform activity and does neither allow to consider the full scope of these reforms in terms of the specific calibration of the policy instrument, for example the substantive restrictiveness of job-training regulations, nor the political process that led to the specific reform (Cairney et al. 2012, 79).

Table 1: Operationalization of Independent Variables

Explanation	**Variables and measurement**	**Variance**
Regulatory governance	Number of domestic agencies in 15 sectors (count variable) (Jordana et al. 2011)	Country, year
Social democratic parties and coalition governments	Social democratic party more than 50 percent of seats (binary variable) (Armingeon et al. 2018)	Country, year
	Social democratic party in coalition government (binary variable) (Armingeon et al. 2018)	Country, year
	Coalition government in power (binary variable) (Armingeon et al. 2018)	Country, year
Policy problems	Sectoral measure for external problem pressure (migrant influx, unemployment rate, childhood mortality per year) (standardized) (Armingeon, 2018; OECD Data)	Country, year, policy field
Welfare state and replacement rate	Liberal welfare state (Dummy variable)	Country
	Continental European welfare state (Dummy variable)	Country
	Wage replacement rate (unemployment, sickness and pensions) (Scruggs et al. 2014)	Country, year, policy field
Controls	Institutional constraints indicator (Henisz 2000)	Country, year
	National Debt (percent of GDP) (Armingeon et al. 2018)	Country, year
Time	Three continuos variables: (1) t starting in 1980, (2) (t*t)/10, (3) (t*t*t)/100	Country, year

The *explanatory variables* that I use to operationalize the hypotheses vary at the country level as well as at the level of the policy field. To operationalize *regulatory governance*, I use the number of regulatory agencies at the national level *(Hypothesis 1)*. I count the number of independent regulatory agencies exist based on the dataset by Jordana et al., which surveys the establishment of regulatory agencies in 15 sectors around the globe (2011) (Table 1). The establishment of regulatory agencies institutionalizes the regulatory state (Maggetti 2012); this process emerged in the early 20th century, mostly in the U.S. (Vantaggiato 2019), but it was only during the 1980s that governments in many countries increasingly established regulatory agencies (Gilardi 2005).

To operationalize the *social democratic party in government* as well as *coalition governments*, I create three variables (Armingeon et al. 2018). As a measurement for *Hypothesis 2a*, I use a dummy variable indicating whether a social democratic party has more than 49 percent of the seats in government (Table 1).[2] Concerning *Hypothesis 2b*, I use a binary variable recording the participation of social democratic parties in a coalition government.[3] To operationalize *Hypothesis 2c*, I created another binary variable that measures the presence of a coalition government (Table 1).[4]

The measurement for differences between *policy problems* is continuous *(Hypothesis 3).* I approximate the policy problem pressure through one specific measure for each policy field. I use the unemployment rate for unemployment policy, inflow of migrants for migration policy, and childhood mortality (infant mortality rate in per cent) for public health policy. I am aware that external problem pressure might be more complex, especially in health policy. Nevertheless, I decided to focus on one prominent indicator to have a specific and relevant measure across the three policy fields, which captures the core of the argument, i.e., high problem results in less integrated reforms. To make sure that the measurements for external problem pressure are comparable for each of the three policy fields, I standardized the variable around its mean.

To operationalize the type of *welfare state* and the *wage replacement rate*, I created three variables. Two binary variables measure whether a country belongs to the group of Liberal welfare states (Australia, Canada, New Zealand, UK, and the US) and the group of Continental European welfare states (Austria, Belgium, France, Germany, Netherlands, and Switzerland). The Social Democratic (Sweden) and Southern European (Italy) welfare models are the baseline category (*Hypothesis 4a*). Furthermore, I built a continuous variable that uses the wage replacement rates from social policies for a single person (Scruggs et al. 2014). Precisely, I used replacement rates from unemployment insurance for unemployment policy, sickness funds for health policy and the average from unemployment, pension, and sickness

[2] based on variable gov_left3 in (Armingeon et al. 2018).
[3] based on variables gov_left3 and gov_type in (Armingeon et al. 2018).
[4] based on variable gov_type in (Armingeon et al. 2018).

for migration policy to have an approximate as there is no corresponding measure for income replacement in the policy field of migration (*Hypothesis 4c*).

Table 2: Descriptive statistics

Variable	**Obs.**	**Mean**	**Std. Dev.**	**Min**	**Max**
Reforms integrating regulation and welfare					
Reform events binary	1,365	0.2820513	0.4501631	0	1
Reform events count	1,365	.3604396	.6524619	0	5
Regulatory governance (Hypothesis 1)					
Nr. of agencies in 15 Sectors	1,365	8.248352	3.662524	1	14
Change to > 8 agencies	1,365	.4769231	.4996502	0	1
Countries with change to > agencies	1,365	.7692308	.4214795	0	1
Social democratic parties and coalition governments (Hypotheses 2a, 2b, and 2c)					
Social democratic party majority government	1,365	.1318681	.3384714	0	1
Social democratic party in coalition government	1,365	.4747253	.4995438	0	1
Coalition government	1,365	.6153846	.4866826	0	1
Policy problem pressure (Hypothesis 3)					
External problem pressure	1,294	0.136101	1.076557	-0.554567	10.18228
Welfare state type and replacement rates (Hypotheses 4a, 4b)					
Liberal welfare state	1,365	0.307692	0.461708	0	1
Continental European welfare state	1,365	.4615385	.4987012	0	1
Welfare replacement rate	1,214	.5527902	.2408913	0	1
Controls					
Political constraints	1,365	0.809335	0.063783	0.3408506	0.894073
National debt	1,269	69.79285	30.21475	19.51117	159.1395
Time	1,365	17	10.10321	0	34
$Time^2/10$	1,365	39.1	35.53974	0	115.6
$Time^3/100$	1,365	101.15	116.1396	0	393.04

In addition, I add control variables to the model, which could account for policy change activity regarding integration of regulation and welfare. These are the number of institutional constraints, as it is plausible to expect that more institutional constraints lead to less reforms cutting across the regulatory state and the welfare state (Henisz 2000). Furthermore, I control for national debt as percentage of GDP. Moreover, I insert variables to control for the time as my dataset spans the period from 1980 to 2014 and since the description of the data suggests that the reform events are time dependent (Figure 1, Table 2). I add three continuous time variables: t, which starts in 1980, t2/10, and t3/100 – which provide an accurate control for time. This measure considers potential diffusion effects (Shipan and Volden 2006; Gilardi 2010). This procedure is typical for political science analyses of event data (e.g. Gilardi 2010; de Francesco 2012) (Table 2). Nevertheless, contrary to much of the diffusion literature, I do not control for a spatial lag (Gilardi and Wasserfallen 2016) as this would render the models too complex and it is of no theoretical interest at this point.

As a method of analysis, I apply multivariate regression analysis to estimate the combined effects of the variables for the four scenarios and to analyze the different hypotheses. Therefore, I use a probit estimator (logit models yield similar findings). To account for the hierarchical data structure, I specify multilevel models (Steenbergen and Jones 2002; Angrist and Pischke 2008), specifically the multilevel mixed-effects probit regression estimator in Stata (Rabe-Hesketh and Skrondal 2012; Stegmueller 2013). I collapse the multilevel structure into 39 country/policy fields. To correctly interpret the results, I cluster the standard errors at the country level.

To check for robustness, I also estimate three-level models of reforms nested in policy fields, nested in countries, which do not yield different results. Furthermore, I estimate a multilevel poisson regression that uses the count version of the dependent variable as well as a parametric survival model that accounts for the three-level data structure. This estimator accounts for the time until a reform occurs (Box-Steffensmeier and Jones 2004). To account for the relatively small number of countries in the sample, I conduct further robustness tests. Firstly, I estimate my models as linear probability models and apply the Satterthwaite's sample correction strategy (Elff et al. 2019). In addition, I re-run the models and "jackknife" the countries to determine whether single countries particularly drive the results (Van der Meer et al. 2010). My findings are largely robust to these checks. The additional models can be found in the Supplementary Materials.

4.2 Results

I will now turn to the results of the regression models. I show two models (Table 3); one with the variable measuring the presences for a social democratic coalition government and a second one that operationalizes whether the social democratic party actually has a majority in government. The models use probit estimators as they fit the data best, i.e., they have the lowest AIC (Akaike-Information-Criterion) and BIC (Bayesian Information Criterium) values compared to logit and cloglog models.

Table 3: Multilevel probit regression analysis (Standard errors clustered by country)

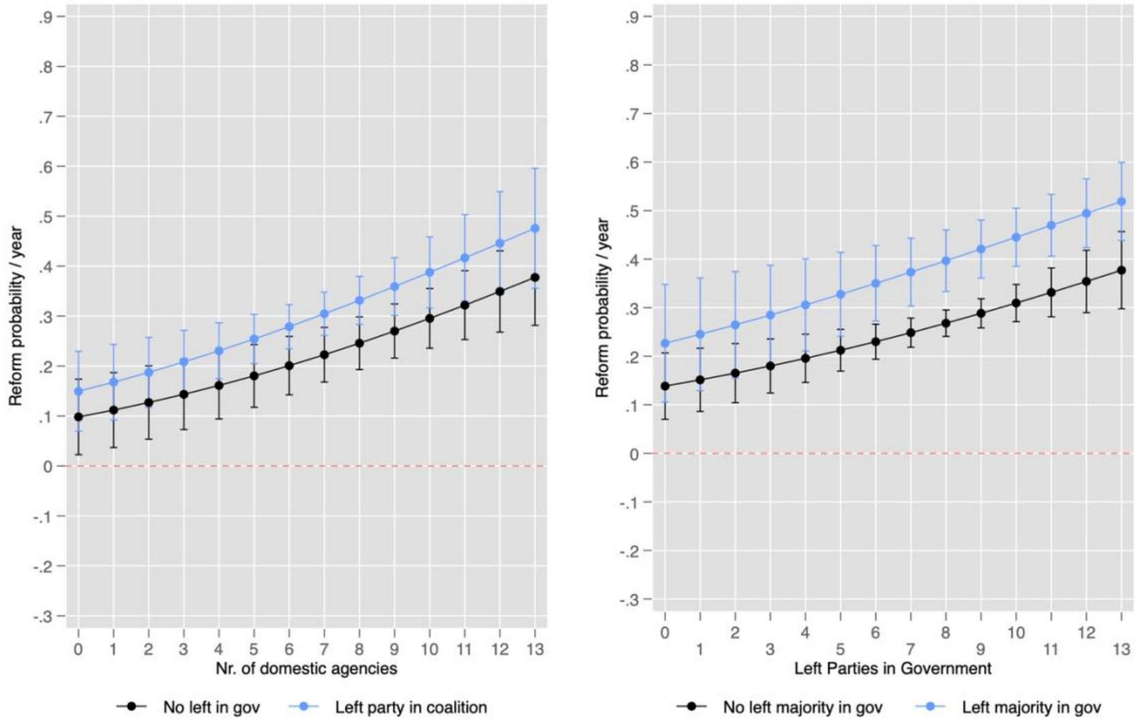
	Model 1		Model 2	
Nr. of independent regulatory agencies	0.0792***	(0.0240)	0.108***	(0.0350)
Social democratic party in coalition	0.265**	(0.134)		
Coalition government	0.0767	(0.157)	0.442**	(0.206)
Social democratic party majority government			0.626***	(0.160)
Policy problem pressure	-0.153***	(0.0427)	-0.298***	(0.0829)
Liberal welfare state	-0.135	(0.154)	-0.262	(0.235)
Continental European welfare state	0.105	(0.161)	0.0795	(0.226)
Replacement rate	-0.593*	(0.323)	-0.877*	(0.491)
Political constraints (Veto points)	-1.230	(1.179)	-1.521	(1.955)
Debt	-0.000866	(0.00164)	-0.000237	(0.00188)
Time	0.124*	(0.0657)	0.244**	(0.100)
$Time^2$	-0.0559	(0.0444)	-0.112*	(0.0639)
$Time^3$	0.00855	(0.00863)	0.0174	(0.0122)
Constant	-0.840	(1.141)	-2.034	(1.865)
Constant, policy field / country	0.0322	(0.0200)	0.0545	(0.0402)
Observations	1080		1080	
AIC	1241		1238	
BIC	1301		1298	

* p<0.1, ** p<0.05, *** p<0.01

Substantially, the results support the argument of *Hypothesis 1*, which postulates that a larger scope and institutionalization of the regulatory state results in more reform activity integrating regulation and welfare. My findings also extend support to explanations that consider differences between political parties and majority government. Precisely, the results indicate that the more influence social democratic parties have within government, the more likely they are to pass reforms integrating new social regulations into the welfare state *(Hypothesis 2a)*. Furthermore, the results confirm *Hypothesis 2b*, which suggests that social democratic parties in coalition governments are more likely to pass such reforms. Finally, there is some support (Model 2, Table 3) for the hypothesis that coalition governments are more likely to pass reforms integrating regulation and welfare.

The results also support the third explanation, which considers differences between policy fields. Notably the models also support *Hypothesis 3*, according to which higher problem pressure results in less reforms integrating welfare and integration (Table 3). Eventually, the findings extend some – but not very strong – support to the fourth explanation for the presence of reforms integrating regulation and welfare. Notably, a higher replacement rate for social contributions makes integration of regulation and welfare less likely *(Hypothesis 4a)* and Continental European welfare states tend to have more such reforms *(Hypothesis 4b)*. The control variables indicate that more veto points and higher national debt make such reforms less likely but the coefficients are not statistically significant. Finally, the time variable confirms the descriptive findings from Figure 2 that suggests that the more time passed since 1980, the more likely governments are to pass reforms integrating regulation and welfare.

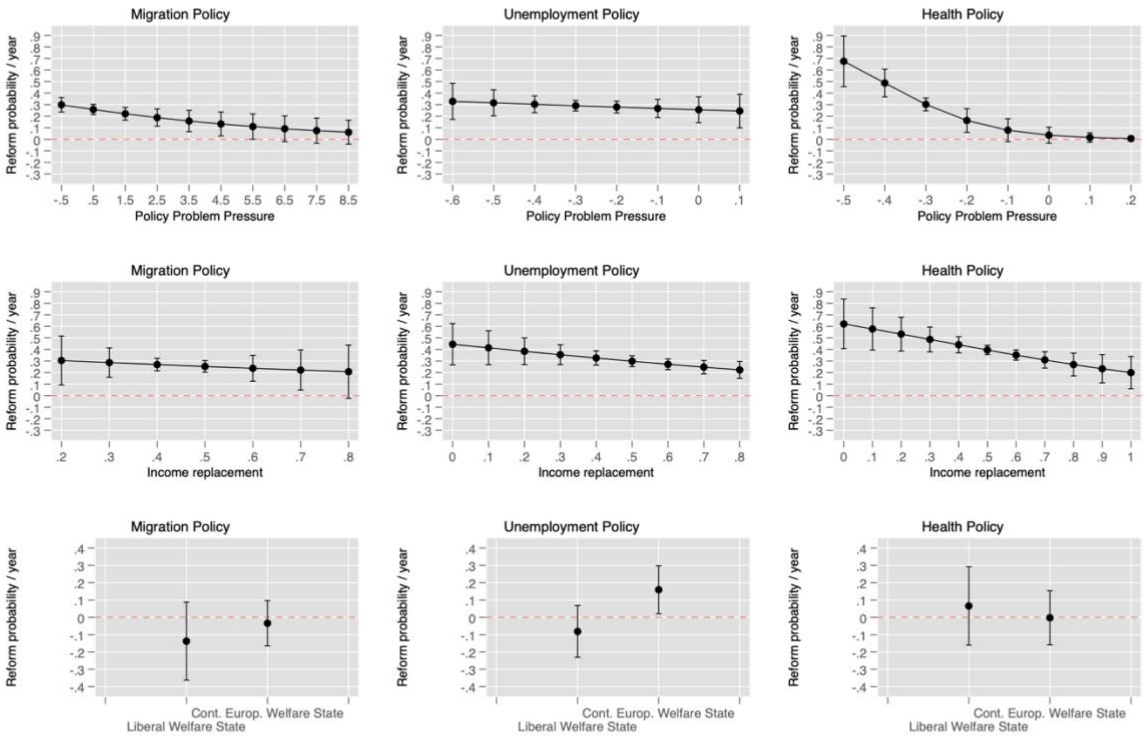
Figure 3: Predictive margins for number of regulatory agencies and the strength of social democratic parties in government (Hypotheses 1 & 2)



To provide a more accurate analysis of the findings, I will now turn to a graphical presentation of the results (Figure 3), notably the marginal effects along the continuous variables. The graphical representations demonstrate precisely how the change from few to many regulatory agencies at the national level increases the likelihood for reforms. Furthermore, the presence of a social democratic party augments the probability of such reforms (Figure 3). These findings support the theoretical mechanisms underlying *Hypotheses 1, 2a*, and *2b*. Precisely, the results indicate that policymakers react to the presences of many regulatory agencies (Gilardi 2005; Jordana et al. 2011) with reforms integrating social regulation and welfare, as the regulatory style of governance spills over from the economic sphere into social policy. The regression analysis demonstrates also that social democratic parties are more likely to pass such reforms as integrated as their voters are interested in a social investment agenda (Häusermann et al.

2013). Furthermore, social democratic parties are more likely to purse reforms integrating welfare and regulation as they do not need to compensate losers (Knotz and Lindvall 2015) of potential welfare retrenchment measures.

Figure 4: Predictive margins for differences between policy fields and welfare states (Hypotheses 3 & 4)



The graphical presentation regarding explanations three and four *(Hypotheses 3, 4a, 4b)* reveals interesting results (Figure 4). Notably, the data shows that health and migration policy drive the negative effect of policy problem pressure on reforms that cut across policy sectors. Increasing immigration numbers and higher rates of childhood mortality seem to reduce reforms coordinating and integrating regulation and welfare, however, increasing unemployment rates have less of an effect on such reforms. What is more, the findings indicate that higher income replacement rates from sickness funds and unemployment insurance contributions decrease the probability of reforms integrating regulation and welfare.

Concerning different welfare state types, the paper reveals one interesting finding. In Continental European welfare states, reforms coordinating and integrating welfare and regulation are more likely. This is probably due to the shift towards a dualized labor market, which came along with tougher labor market regulation and less benefits (Häusermann and Schwander 2012).

5. Conclusions

This paper analyzes the coordination and integration of the regulatory state and the welfare state from a comparative empirical perspective. I pose two questions: (1) how do policy reform events link new social regulations with the welfare state, more precisely with cash benefits? (2) Why are there (no) differences between countries and policy fields regarding patterns of such reform types?

To assess these two research questions, I firstly discuss how regulation and welfare are coordinated and integrated and I illustrate differences between policy fields with examples from migration, health, and unemployment policy. In using an original dataset that measures policy change events, I showed that reforms integrating regulation and welfare increase over time (between 1980 and 2014) but also that there are differences between countries and policy fields; for example, migration policy shows less reform activity compared to health and unemployment policy. Secondly, to explain differences between countries, I test four explanations using multilevel regression analysis. The results show especially that the institutionalization of the regulatory state and social democratic parties in government make reforms integrating and coordinating new social regulation and welfare more likely. On the other hand, single-party majority governments reduce the probability of such reforms. Furthermore, there are differences between policy fields. In migration and health policy, higher problem pressure reduces the probability of formal policy changes integrating regulation and welfare.

The broader contribution of this paper is to show that along with the rise of the regulatory state and regulatory policymaking in the 1980s, governments began to also integrate new social regulations into welfare policies. The term regulatory state denotes the policy efforts aiming at correcting market failures through rule-making. Important actors of regulatory policymaking are independent agencies and commissions as well as tribunals. My findings show that this turn to regulatory governance did not only extend to collective economic and political actors but also into the lives of individuals who face new social regulations about work requirements, integration into society as well as incentives (and regulations) to live a healthy life. I demonstrate that above all the development of independent regulatory institutions as well as party and governmental politics drive these results. Further research needs to explore the link between regulation and welfare, for example, scholars should explore the consequences of these policies for individual behavior and well-being.

I readily concede that my approach to empirically analyze the link between the regulatory state and the welfare state is imperfect. The focus of my research is on social regulation targeting individual behavior through public policy but it does not analyze the integration of the regulatory state and the welfare state at the level of firms. My empirical approach does neither focus on the entire policy mix but only considers the main dynamics in goals and mechanisms of reforms (Howlett and Cashore 2009, 39) linking regulation and welfare; other dimensions of the policy process, such as policy implementation, are not part of the analysis. Nevertheless, this research is innovative as it provides a broad and empirically founded assessment of the overlap between the regulatory state and the welfare state and uses the concept of policy integration (Briassoulis 2004) to demonstrate the link between regulation and welfare.

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7. Supplementary Material

Table S1: Operationalization of the integration and coordination of the regulatory state and the welfare state (dependent variable)

Policy field	Policy-related elements	Administration-related elements
Migration	- Integration or coordination of laws referring to temporary and permanent residence - National action plans or strategies for immigration and immigrant integration - Integration policy action plan - Strategy to harmonize immigration and integration policies between sectors and levels of government - Labor market integration and education reforms that make further immigration benefits conditional on employment and education efforts of the applicant	- Organization to integrate or coordinate different ministries and levels of government that are related to immigration and immigrant integration - Accumulating immigration and integration portfolios in one ministry - Creation of interdepartmental working groups - Councils to coordinate different ministries in the field - Commissioner for foreigners - Conditionality of immigration benefits for integration efforts - Organizations that bring together policymakers from different sectors and different levels of government at same time
Public health	- Reforms that include preventive measures into health the services paid by the general health insurance, such as screening programs - Health promotion and legislation with a focus on the coordination and integration of prevention and cure – either in general or with a focus on specific diseases - General and specific national health strategies (e.g., cancer, diabetes, HIV, tobacco, nutrition, etc.) - Strategies that focus on health inequalities - Public health funds that allow organizations and levels of government to operate policy programs that	- Network amongst hospitals with a particular focus on health promotion and prevention - National public health agency and ministry that includes sections for disease prevention and others that are responsible for curative aspects of health policy - Public organizations that coordinate the prevention and treatment of specific diseases and/or the policy advocacy for it - Establishment of institutions of health information - Inter-ministerial conferences and councils that coordinate preventative and curative aspects concerning certain

	coordinate or even integrate preventive and curative measures	diseases and/or risk factors, such as drugs, tobacco, cancer etc.
Unemployment	- National strategies, action plans or reform packages that integrate active and passive labour market policies (e.g. “welfare to work” principle) - Employment policy reforms that introduce or enhance activation measures in employment policy - Reforms that integrate formerly separated social assistance and/or unemployment benefits, e.g. by creating an integrates system of income and employment benefits - Adoption of reforms that apply an activation approach to pension, family or invalidity policy	- Creation of transversal bodies for employment policy at the level of the central government - Creation of intergovernmental agreements or units (in federal systems) for nation-wide harmonization and/or coordination of employment policy - Reorganizations of the central government that lead to integration of employment portfolio by merging the ministries responsible for various sectors such as employment, social affairs, health, etc. - Reorganization of implementation administrations that lead to integration of active and passive employment policy and/or services for employment and social assistance: - Creation of one-stop shop service centers that offer comprehensive services related to social assistance, unemployment benefits, and job placement - Introduction of an individualized approach to employment assistance - Integration of administrative procedures for both unemployment and social security administrations such as unified electronic declarations or social identification cards - Procedures that enhance or institutionalize inter-agency collaboration between unemployment and social security administrations

Figure S1: Distribution of external pressure across policy fields

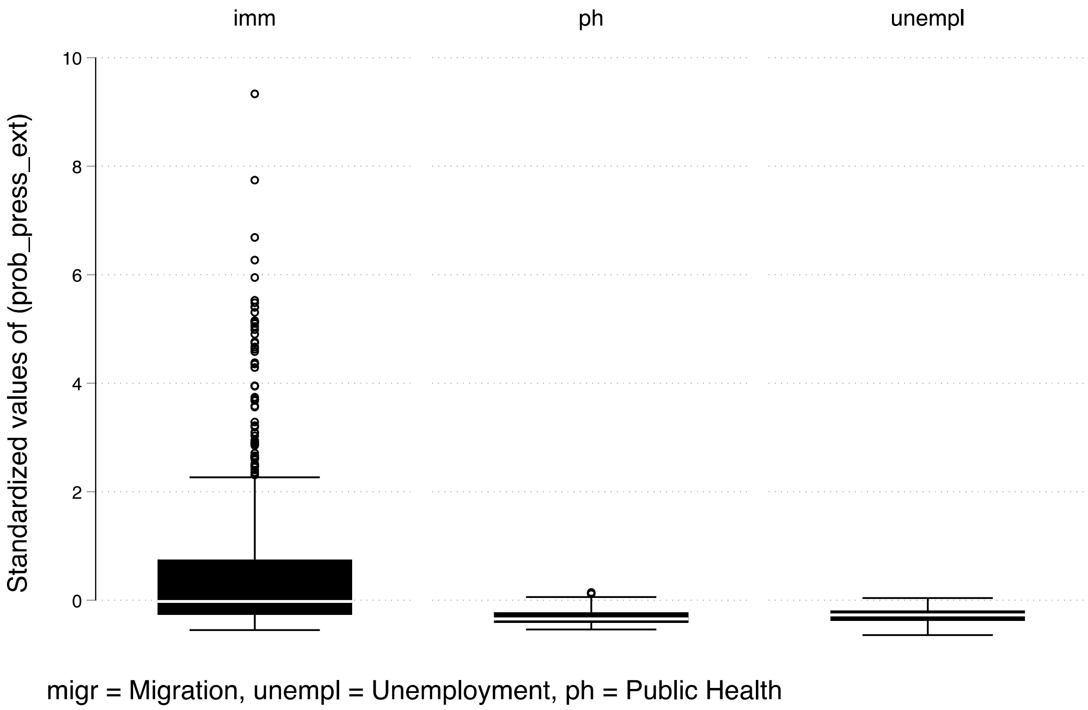

Table S2: Robustness tests

	Probit	Probit	Poisson	Possion	Survival	Survival
	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
Nr. ind. reg. agencies	0.079***	0.065***	0.104***	0.083***	0.114***	0.115***
	(0.024)	(0.021)	(0.030)	(0.027)	(0.018)	(0.018)
Social democratic in coalition	0.265**		0.392**		-0.022	
	(0.134)		(0.182)		(0.053)	
Coalition government	0.077	0.261**	0.055	0.342**	0.028	0.015
	(0.157)	(0.127)	(0.212)	(0.137)	(0.072)	(0.069)
Social democratic majority government		0.380***		0.489***		-0.011
		(0.096)		(0.109)		(0.035)
Policy problem pressure	-0.153***	-0.160***	-0.173***	-0.186***	0.035***	0.035***
	(0.043)	(0.048)	(0.062)	(0.056)	(0.010)	(0.011)
Liberal welfare state	-0.135	-0.142	-0.353	-0.358*	-0.241	-0.242
	(0.154)	(0.139)	(0.220)	(0.199)	(0.168)	(0.167)
Cont. European welfare state	0.105	0.052	0.128	0.080	0.103	0.099
	(0.161)	(0.139)	(0.183)	(0.133)	(0.155)	(0.150)
Replacement rate	-0.593*	-0.493*	-1.022***	-0.885***	-0.033	-0.031
	(0.323)	(0.297)	(0.391)	(0.319)	(0.099)	(0.100)

Political constraints	-1.230	-1.033	-0.691	-0.379	-0.017	-0.050
	(1.178)	(1.184)	(1.156)	(1.072)	(0.250)	(0.275)
Debt	-0.001	-0.000	-0.001	0.000	0.001	0.001
	(0.002)	(0.001)	(0.002)	(0.001)	(0.002)	(0.002)
Time	0.124*	0.138***	0.142	0.164**		
	(0.066)	(0.053)	(0.088)	(0.071)		
$Time^2$	-0.056	-0.064*	-0.041	-0.055		
	(0.044)	(0.035)	(0.059)	(0.046)		
$Time^3$	0.009	0.010	0.003	0.006		
	(0.009)	(0.007)	(0.011)	(0.009)		
Constant	-0.840	-1.090	-2.176*	-2.558**	2.183***	2.205***
	(1.141)	(1.100)	(1.271)	(1.154)	(0.391)	(0.399)
Variance countries	0.000	0.000	0.005	0.000	0.046**	0.045**
	(0.000)	(0.000)	(0.031)	(0.000)	(0.021)	(0.020)
Variance countries / policy fields	0.032	0.019	0.031	0.014	0.000	0.000
	(0.020)	(0.014)	(0.039)	(0.028)	(0.000)	(0.000)
ln_p					1.647***	1.647***
					(0.129)	(0.130)
Observations	1080.00	1080.00	1080.00	1080.00	1062.00	1062.00
AIC	1243	1238	1692	1691	2625	2625
BIC	1308	1298	1752	1756	2685	2685

Table S3: Robustness tests

	Lin. Prob.	Lin. Prob.	Jackknife	Jackknife
	Model 11	Model 12	Model 13	Model 14
Nr. independent regulatory agencies	0.027***	0.023***	0.079**	0.065*
	(0.008)	(0.008)	(0.036)	(0.031)
Social democratic in coalition	0.092**		0.265	
	(0.039)		(0.159)	
Single party majority government	0.020	0.092**	0.077	0.261
	(0.049)	(0.044)	(0.221)	(0.181)
Social democratic majority government		0.125***		0.380**
		(0.046)		(0.137)
Policy problem pressure	-0.040**	-0.046***	-0.153**	-0.160**
	(0.018)	(0.017)	(0.054)	(0.065)
Liberal welfare state	-0.010	-0.036	-0.135	-0.142
	(0.089)	(0.074)	(0.268)	(0.238)
Continental European welfare state	0.036	0.014	0.105	0.052
	(0.075)	(0.062)	(0.230)	(0.208)

Replacement rate	-0.177	-0.168	-0.593	-0.493
	(0.120)	(0.116)	(0.415)	(0.380)
Political constraints	-0.144	-0.182	-1.230	-1.033
	(0.319)	(0.280)	(2.096)	(1.986)
Debt	0.001	0.000	-0.001	-0.000
	(0.001)	(0.001)	(0.003)	(0.002)
Time	0.015	0.022	0.124	0.138**
	(0.016)	(0.016)	(0.076)	(0.060)
Time2	-0.004	-0.008	-0.056	-0.064
	(0.012)	(0.012)	(0.051)	(0.039)
Time3	0.000	0.001	0.009	0.010
	(0.002)	(0.002)	(0.010)	(0.008)
Constant	0.056	0.085	-0.840	-1.090
	(0.278)	(0.248)	(1.912)	(1.752)
lns1_1_1	-2.675***	-3.374**		
Constant	(0.568)	(1.498)		
lns2_1_1	-2.684***	-2.693***		
Constant	(0.361)	(0.364)		
lnsig_e	-0.833***	-0.832***		
Constant	(0.022)	(0.022)		
Variance countries			0.000	0.000
			(0.013)	(0.000)
Variance countries / policy fields			0.032	0.019
			(0.031)	(0.019)
Observations	1080.00	1080.00	1080.00	1080.00
AIC	1398	1396	1241	1238
BIC	1478	1476	1301	1298