Revisiting Partisan Politics of Environmental Policy: Are Left-wing Governments Always Eco-friendly?

Junpei Suzuki*[1]

[1] *The University of Tokyo*

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Abstract

It has been well-documented that left-wing governments commit to more stringent environmental protection than their right-wing counterparts. This conventional wisdom is challenged by a recent increase in *outsiders* in labour markets among left-wing voters. Such voters are less likely to prefer environmental protection due to economic distress. By analysing a panel dataset covering 23 OECD member countries from 1999 to 2015, this paper explores how the size of the outsiders conditions the relationship between government partisanship and environmental policy stringency. I assess governments' environmental policies using the index proposed by Botta and Koźluk (2014) and measure the size of outsiders as the share of temporary workers. The empirical analysis does not uncover any partisan differences in environmental policies when the size of outsiders is small. The findings suggest that a larger share of temporary workers is associated with less stringent environmental policies under left-dominant governments. The findings of this paper cast doubt on the conventional wisdom of eco-friendly leftist parties.

Keywords— environmental protection, partisanship, outsiders in labour market

*Project Researcher (JSPS Research Fellow PD), Institute of Social Science, 7-3-1 Hongo, Bunkyo-ku, Tokyo 113-0033, Japan (jsuzuki@iss.u-tokyo.ac.jp). I thank Tarik Abou-Chadi, Kirk Hawkins, Takeshi Hieda, Taro Miyamoto, and the participants of the APSA Annual Meeting & Exhibition 2023 and the Japanese Association of Comparative Politics Annual Meeting 2023 for their helpful comments.

Introduction

Despite the scientific consensus on their existence, imminence, and solutions, environmental issues constitute a major political division in developed countries. A vast majority of previous empirical studies have documented that left-wing voters, politicians, parties, and governments are more proactive about environmental protection than right-wing counterparts (e.g., Dunlap 1975; Carter 2013; Wen et al. 2016; Garmann 2014), and that this partisan-driven gap has been widening (Dunlap and McCright 2008). The fluctuating attitude of the United States toward the Paris Agreement exemplifies this differentiation well: the Republican administration led by Donald Trump announced its withdrawal from the Agreement in 2016, overturned by his Democratic successor, Joe Biden, who had pledged to commit to climate change mitigation in the 2020 presidential race.

Nevertheless, the above-mentioned partisan differentiation in environmental protection is not theoretically self-evident. The conventional wisdom postulates that environmental protection is at odds with economic growth, a priority of the right-wing parties, thus resulting in their hesitancy in environmental protection (e.g., Harring and Sohlberg 2017). The incompatibility between the environment and economy, however, also matters for the left-wing parties. First, prioritizing improvement in their economic well-being, the working and lower income class, to whom left-wing parties cater, are unable to pay attention to 'lofty' issues such as the environment (cf. Kahn and Kotchen 2011). Moreover, environmental protection may directly conflict with the interests of the less privileged citizens. This possibility is illustrated by the 'Yellow Vest Movement', in which many French citizens, such as professional drivers, took to the streets to protest against a fuel tax hike proposed by President Emmanuel Macron. A participant in this movement said: 'The elites talk about the end of the world, while we talk about the end of the month' (Rérolle 2018), implying that left-wing voters do not necessarily accept the left-wing parties promoting environmental protection.

Arguably, this dilemma that the left-wing parties are facing is becoming increasingly imminent due to the rise in *outsiders* in labour markets. Outsiders are defined as people

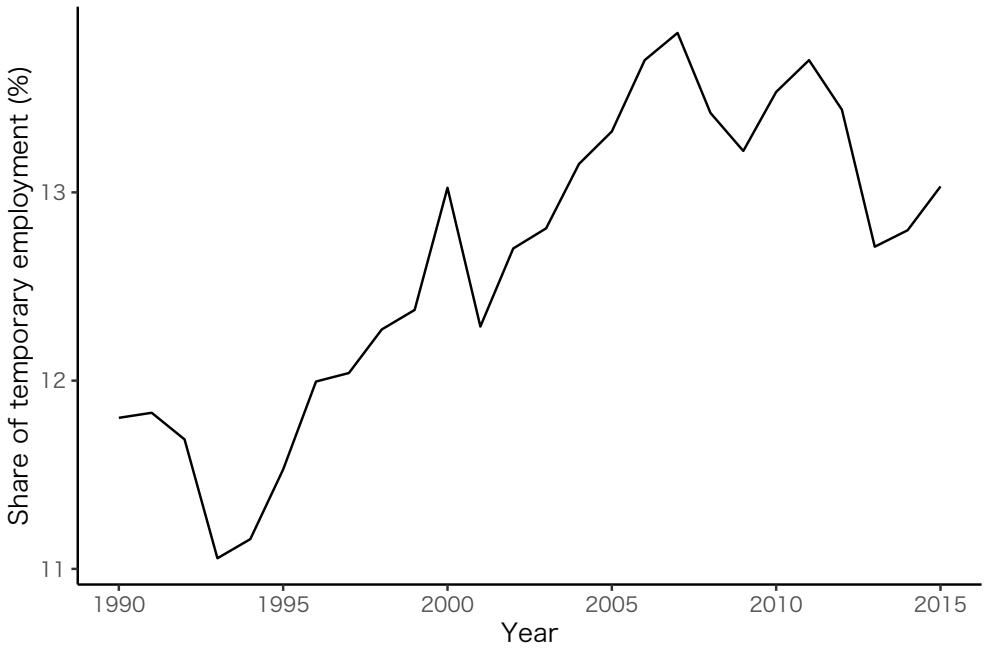


Figure 1: Trend of Average Share of Temporary Employment

who 'are either unemployed or hold jobs characterized by low salaries and low levels of protection, employment rights, benefits, and social security privileges' (Rueda 2005, 62). Figure 1 tracks the trend of the average share of temporary employment in 23 Organization for Economic Cooperation and Development (OECD) member countries between 1990 and 2015. In the early 1990s, temporary workers constituted only ca. 11% of the working class. From the mid-90s on, however, these workers started to rise, resulting in 13% as of 2013. Given that these temporary workers may serve as inhibitors of environmental protection due to their economic vulnerability, this increasing trend implies that social pressures are increasingly imminent to discourage the left-wing parties from keeping the commitment to environmental protection.

I, drawing on the background above, aims to analyse how the size of the outsiders affects the relationship between government partisanship and conducted environmental policies. In this paper, I hypothesize that the rise in the outsiders erases the partisan difference in the stringency of government environmental protection. To test this hypothesis, I analyse a panel dataset of the 23 OECD member countries between 1999 and 2015. My result

is more advanced than the hypothesis: small-scale outsiders result in muted differences in environmental protection stringency, whereas large-scale outsiders lead to *less* stringent environment protection under left-wing governments than right-wing counterparts. This finding casts doubt on the conventional wisdom of eco-friendly left-wing parties.

Literature Review

The idea that being right- or left-wing decides attitudes toward and responses to real-world politics is hardly new in the previous scholarship. Partisan or ideological differentiations have been observed centring on macroeconomic policies and performances (e.g., Hibbs 1977; Cameron 1978; Roubini and Sachs 1989; Boix 1998; Rodrik 1998; Franzese 2002). Partisanship or ideology also matters for other policy fields, such as trade policies and immigration (Milner and Judkins 2004; Givens and Luedtke 2005). More critical to this paper, however, is environmental protection. A vast majority of scholars can agree that left-wing voters, politicians, and parties tend to be more environmentalist than right-wing counterparts in attitudes, responses, and performances (e.g., Dunlap 1975; Shipan and Lowry 2001; Garmann 2014).

Still, the previous research does not agree on the reason for the left-wing eco-friendliness. The left-right political cleavage is predominantly driven by differences in the preferred balance between a market economy and government, albeit with other attitudes arranged alongside this line (Downs 1957). Seemingly unrelated to the market-government balance, environmental protection has no evident position in this left-right spectrum. Thus, the previous research has provided two strands of opinions on the left-wing eco-friendliness corresponding to the different positioning of environmental protection in the left-right spectrum.

The first camp, focusing on the economic nature of environmental issues, contends that environmental protection should be explicitly placed in the left-right spectrum (e.g., Buttel and Flinn 1976; King and Borchardt 1994). That is, by ascribing environmental issues to

negative externalities or market failure, this camp emphasizes the role of governments in solving these problems. Given their inclination toward regulated markets, the Left is more likely to reckon with these issues, championing stringent environmental protection, which usually entails market regulations. The Right, on the other hand, is loath to stringent environmental protection in fear of regulated markets jeopardizing macroeconomic performances. To conclude, this strand of discussion implies that the left-right division on environmental protection is a logical consequence of the economic nature of the division and the issues[1].

The other claim, in contrast, points out that environmental protection is not explicitly placed on the left-right spectrum (Giddens 1991, 1994; Beck 1992, 1995). This camp draws on the emergence of an alternative political spectrum concerned with non-economic issues (Inglehart 1977; Kitschelt 1994). Due to economic development and educational attainment in modern society, new socio-economic classes, e.g., knowledge-based professionals, have emerged, thus undermining the traditional class structure of labour and bourgeois. Consequently, the left-right spectrum, mainly concerned with redistribution, is giving way to the alternative political spectrum, dividing people over whether to acknowledge diverse lifestyles or not. Environmental protection, according to this camp, constitutes one of the political divisions on this emerging spectrum. More concretely, those on the libertarian extreme, in favour of diverse lifestyles, are more environmentalist than those on the other extreme[2]. Nevertheless, the two dimensions are not entirely independent of one another; instead, they are connected through a sort of complementarity. The Left is more likely to overlap with the Libertarian, whereas the Right is with the Authoritarian. To conclude, it is implied that,

[1]Benton (1997), a self-proclaimed *green Marxist,* echoes with this stance, emphasizing the adverse impacts of environmental issues on the working class. Building on an idea that environmental issues are by-products of the capitalist society, he says, 'the processes of environmental degradation almost always impact most devastatingly on the poorest and least powerful communities, both within countries and globally. The rich and powerful are often able to escape the worst effects of environmental loss, whether it is through buying houses in leafy suburbs or being able to purchase raw materials such as timber from new sources when previous supplies are depleted' (43). In conclusion, Benton, pointing out this intertwined association between environmental issues and class conflict, calls for forming a so-called 'red-green alliance' between conservationists and labour movements.

[2]With regard to this alternative dimension, Hooghe, Marks, and Wilson (2002) suggest labelling it as the 'Green-Alternative-Libertalian/Traditional-Authoritairan-Nationalist' (GAL/TAN) dimension.

for their libertarian inclination, left-wing voters and parties are more pro-environmental protection than their right-wing counterparts (cf. Gethin, Martínez-Toledano, and Piketty 2021).

Whatever the reason, it has been theoretically expected and empirically buttressed that the Left is more proactive about environmental protection than the Right. First, there is an enormous body of research on American voters, observing that liberal Democratic voters are more likely to support environmental protection than conservative Republican voters (Tognacci et al. 1972; Dunlap 1975; Dunlap, Xiao, and McCright 2001; Dunlap and McCright 2008; Krosnick, Holbrook, and Visser 2000). With regard to voters, there is a study by Harring and Sohlberg (2017), who points out that left-wing voters in Sweden are inclined toward environmental protection. At the politician level, Shipan and Lowry (2001) reports that Democrats in the United States Congress are more likely to support environmental protection than Republicans and that this gap has widened over the years; Neumayer (2004) and Carter (2013), scrutinizing party manifestoes, reveal that left-wing parties are more supportive of environmental protection than right-wing parties. Environmental economists have explored environmental quality, concluding that left-wing governments have achieved better performances in air pollution(Neumayer 2003), CO2 emission (Garmann 2014), and composite environmental indices (Wen et al. 2016). Lastly, there are some studies on conducted environmental policies, such as Gerber (2013) on municipalities in Michigan and Chang and Berdiev (2011) on energy regulations in OECD countries, both of which find that left-dominant governments are likely to introduce more stringent environmental protection.

Nevertheless, noteworthy is that an interesting finding has been published recently to contradict the eco-friendliness of the Left. Tawiah (2022) analyses the Environmental Policy Stringency (EPS) Index constructed by Botta and Koźluk (2014) in 23 OECD member countries, finding decreased values of the EPS Index–less stringent environmental protection–under left-wing governments. He ascribes this intriguing result to differentiated prefer-

ences for personal freedom: as it entails restrictions on personal behaviours, environmental protection conflicts with individual freedom that left-wing parties espouse but is compatible with the law and order that right-wing parties do. This reasoning, if not pointless, is not convincing: First, it is ad hoc in that he does not test the difference between left- and right-wing parties in attitudes toward individual freedom and its effects on environmental policy stringency. Moreover, his reasoning relies on strong assumptions in that he does not consider that right-wing parties, according to King and Borchardt (1994), may also be opposed to environmental protection on the grounds of individual freedom (particularly in terms of the market economy).

Instead, I surmise that this reversal is a product of a dilemma between the environment and economy that left-wing parties face. As said in the introduction, economic management also matters for left-wing parties, which traditionally cater to losers in the market economy. Here it is worth noting that these economically vulnerable people may prioritize economic management over environmental protection. By virtue of data from Google keyword searches and public opinion in the United States, Kahn and Kotchen (2011) uncover that the 2009 financial crisis decreased Google searches for 'global warming' but increased those for 'unemployment', and that public awareness of global warming is less pronounced in states with high unemployment rates.

Furthermore, environmental protection possibly inflicts negative consequences on these disadvantaged people. According to some environmental economists, environmental protection detrimentally affects employment as it raises the production costs of goods (Raff and Earnhart 2022)[3]. Given that their primary goal is to realize full employment (Hibbs 1977), it is reasonable to expect that even left-wing sacrifice environmental protection when economic needs are imminent[4], which might have resulted in the finding of Tawiah (2022). To sum

[3]Nevertheless, note that environmental economists do not agree on the impacts of environmental protection on employment. Some scholars conclude that the adverse effects of environmental protection are, if not absent, limited, whereas others report that it

[4]Spoon and Williams (2021) submit an insightful argument through an analysis of party manifestoes to explore why green parties have recently paid attention to economic issues, albeit their origin as single-issue parties for the environment. They conclude that they refer to economic issues when unemployment is high

up, the previous scholarship has not considered how voices from the less well-to-do affect the preferences of left-wing parties for environmental protection. In the section below, I elaborate on my theoretical framework and induce observable implications.

Theory and Hypothesis

According to the partisan theory pioneered by Hibbs (1977), left-wing parties commit to expansionary fiscal policies, redistribution, and so on due to their core constituency, such as the working class. Kitschelt (1994), however, point out that modern left-wing parties have extended their coverage to relatively educated, wealthier strata. Since these newcomers prefer quality environments as a part of diverse lifestyles, left-wing parties are incentivized to commit to environmental protection. Right-wing parties, on the other hand, cater to the more well-to-do, such as asset owners and executives, and conservative voters, who adhere to market liberalism and traditional lifestyles, resulting in their hesitancy toward environmental protection. Therefore, left- and right-wing parties differ in their preferences for environmental protection, yielding differences in the stringency of conducted environmental protection.

Some scholars, however, point out that economic globalization forms and increases a socio-economic stratum called *outsiders*, such as temporary workers, within the working class (Rueda 2005). Due to their economic vulnerability arising from insecure employment, these outsiders have more pronounced preferences for redistribution than the other part of the left-wing constituency (Walter 2010). An increase in the number of outsiders, according to some scholars, does not necessarily mean more pronounced pressure for redistribution because of their weak organizational power (e.g., Kessler-Harris 2018). Nevertheless, if their size exceeds the unignorable level enough for politicians, the increased size of the outsiders incentivizes left-wing parties to boost redistribution, resulting in more pronounced partisan differences in redistribution policies (cf. Garrett 1995, 1998; Boix 1998; Potrafke 2009; Suzuki 2019).

and far-left parties, their competitors targeting most leftist voters, are absent.

This economic vulnerability possibly determines their preferences for environmental protection. As mentioned above, due to their vulnerability, the outsiders assign a top priority to improvement in their economic condition. Regarding environmental issues, on the other hand, they are not likely to pay attention to recently salient issues, such as climate change, acid rain, and resource depletion, which need scientific knowledge to understand and long-run efforts to solve (Kahn and Kotchen 2011)[5]. Moreover, environmental protection may (or, at least, may be perceived to) impose economic costs on these outsiders through, say, depriving them of current employment or job opportunity (Raff and Earnhart 2022). For these reasons, outsiders are less incentivized to call on governments to commit to environmental protection or incentivised to call for watering down their commitment to environmental protection, which potentially conflicts with their interests.

Here, let me add a note to the preferences of outsiders for environmental protection. According to Häusermann, Kurer, and Schwander (2015), not only the less educated but also the more educated are becoming more precarious in labour markets, implying that outsiders and the highly educated group overlap to a certain extent. If one assumes that educational attainments are associated with liberal values, it is not necessarily the case that outsiders are inimical to environmental protection. The point of Häusermann, Kurer, and Schwander (2015), however, is not that the majority within the outsiders is highly educated, but only that a part of the highly educated has outsiderness. In fact, their empirical analysis reveals that educated outsiders tend to support social security more than educated insiders. Although they do not inspect preferences for other policy areas, it is at least implied that educated outsiders do not manifest their preferences for environmental protection due to their economic vulnerability.

Then, how do these outsiders affect environmental protection conducted by left-wing governments? An increase in outsiders will transform the balance of power within the left-wing

[5]Note that I do not intend to deny that environmental issues, particularly pollution, pose a survival threat to the working class (cf. Benton 1997). Likewise, issues like climate change are also existential concerns for human beings as a whole in the long run. The point, however, is that the imminence of these rising problems is less understandable to those in economic hardship than that of traditional issues like pollution.

constituency, resulting in a change in the preferences of left-wing parties for environmental protection. That is, the rise of outsiders mutes voices for environmental protection within the left-wing constituency, watering down the environmental preferences of left-wing parties. The increase in outsiders also encourages left-wing parties to withdraw environmental protection in light of resource constraints in the policy process since it means stronger voices for redistribution. If, by contrast, right-wing parties are consistently more hostile to environmental protection, then differences in preference for environmental protection between left-wing and right-wing parties are likely to be latent as the number of outsiders grows. As a result, there will be no difference in the stringency of environmental protection policies implemented whether the party in power is of the left or the Right. The hypotheses tested in this paper are, therefore, as follows:

Hypothesis: As the size of the outsiders increases, the effect of government partisanship on the stringency of environmental protection diminishes.

Data and Variables

Since Tawiah (2022) submits results contradicting the prevailing view at the policy level, my empirical analysis uses the same dependent variable: the Environmental Policy Stringency (EPS) Index constructed by Botta and Koźluk (2014). The construction of this EPS index is three-fold; first, each policy area ranging from market-based policies (e.g., trading schemes and taxes on greenhouse gases) to non-market-based policies (e.g., emission standards and R&D subsidies) is rated on a seven-point scale. Then these rates are aggregated into two sub-EPS indices (market-based and non-market EPS indices) with predetermined weights multiplied. Finally, these two sub-EPS indices are averaged to construct the (aggregated version of) EPS index. My analysis primarily relies on the aggregated version of the EPS index, using the two sub-EPS indices for robustness checks.

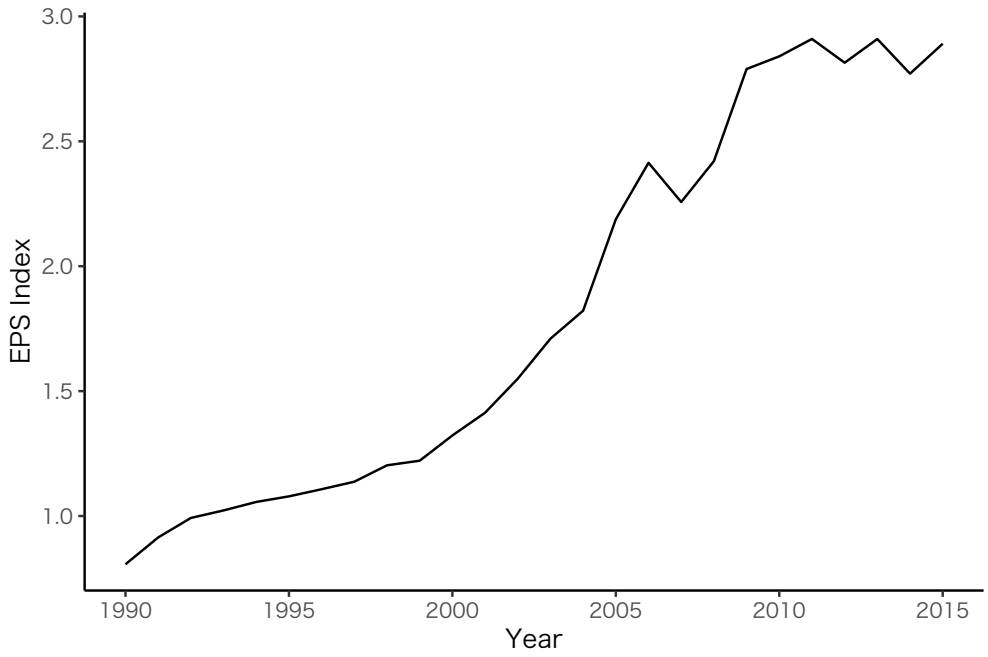


Figure 2: Trend of Average EPS Index

Before introducing the independent variables, let us see an overall trend in the EPS index. Figure 2 shows the average of the EPS index covered by the empirical analysis, demonstrating the upward trend of the index. The average EPS index, smaller than 1 as of 1990, increased to nearly 3 in 2015, implying that environmental protection in the countries covered by this paper has become increasingly stringent. This upward trend possibly represents the recently active international cooperation on environmental protection, such as the Vienna Convention and the Montreal Protocol.

With regard to the first independent variable, government partisanship, I employ three variables in my empirical analysis: Partisanship (PM), Partisanship (Government), and Partisanship (DPI). Construction of the first two follows the procedure of Suzuki (2023) to capture the partisanship of the party to which the prime minister belongs or the overall government in a given country-year, respectively. Their data source is the *Paliaments and Governments database* (the *ParlGov Database*) by Döring and Manow (2019), which assesses the left-right positions of political parties in all European Union member countries and most

OECD countries[6] in the range between 0 to 10 based on expert surveys. Given the lag in policy changes, the first variable (Partisanship [PM]) uses the values for parties to which a prime minister belongs as of 1 January. However, as coalition governments are common in European countries, many of which my dataset covers, the second variable (Partisanship [Government]) uses a weighted average of the value of all governing parties to avoid producing measurement errors. For simple interpretation, these two variables are converted into three scales, i.e., right-wing (0), centre (1), and left-wing (3), so as to divide the sample into three equal parts. For further robustness, the third variable, Partisanship (DPI), uses the *execrlc* variable from Cruz, Keefer, and Scartascini (2018), which measures the left-centre-right partisanship of chief executive's parties[7].

Another variable is the size of outsiders in labour markets. According to Rueda (2005), as above, the outsiders are defined as those without secure employment. Although there are possible groups of people who fit this definition, the analysis, following Suzuki (2019), operationalizes the size of the outsiders by the share of temporary employees. The data is taken from OECD (2017).

Covariates included in the analysis are as follows. First, I include a dummy variable identifying whether green parties participate in the government or not. Participation of green parties will motivate the government to promote environmental protection, resulting in a larger value of the EPS index. To construct this dummy variable, I rely on the *ParlGov Database* to assign 1 if parties categorized as 'Green/Ecologist' participate in the government as of 1 January and 0 otherwise. Besides, I include GDP growth and GDP per capita (its logarithm) to take into account that high-growth economies and wealthy countries are more likely to afford environmental protection. Following the suggestion that closer economic interdependence incentivizes countries to be more proactive in international cooperation on environmental protection (Neumayer 2002), I also include foreign direct investment and trade

[6]More precisely, political parties with at least one seat in the national parliament in the country are covered.
[7]As this *execrlc* variable originally assigns 0 to right-wing, 1 to centre, and 2 to left-wing, I converted the scale aligned with the variables from the *ParlGov* database.

openness as covariates. Finally, to consider that actual efforts for environmental protection are determined in accordance with environmental performances, I control for CO2 emissions, energy consumption, the share of renewable energy and resource rents. The covariates except the green party dummy are taken from World Bank (2022).

The descriptive statistics of these independent, dependent, and control variables is shown in Table A.1. Particularly, the means of the partisanship variables based on Döring and Manow (2019) are close to zero, indicating that their conversions to the three-scale variable succeeded. Likewise, the mean of the variable based on Cruz, Keefer, and Scartascini (2018) is close to zero, suggesting that right-wing, centre, and left-wing governments have roughly the same share in the sample.

Model and Methods for Estimation

The dataset is a panel data covering 28 OECD member countries[8] between 1990 and 2015 with country-years as the unit of observation. As mentioned above, the dependent variable is the EPS index, while the main independent variables are the size of outsiders, government partisanship, and their interaction term. Specifically, I estimate the following fixed effect model:

$$EPS_{it} = \alpha_1 + \alpha_{2,i} + \alpha_{3,t} + \beta_1 temporary_{it-1} + \beta_2 partisanship_{it} + \beta_3 temporary_{it-1} \times partisanship_{it} + \mathbf{x'_{it-1}}\boldsymbol{\beta} + \varepsilon$$

In the equation above, α_1 is the constant term, $\alpha_{2,i}$ the country-level fixed effect, $\alpha_{3,t}$ the year-level fixed effect and $\mathbf{x'_{it-1}}\boldsymbol{\beta}$ the control variables and their coefficeints. As I do not

[8]The covered countries are: Australia, Austria, Belgium, Canada, Czechia, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Japan, South Korea, Mexico, the Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States.

particularly predict the effects of temporary employment itself on environmental protection, the sign of the coefficient β_1 is also not given here. More critical is the partisanship and the interaction between partisanship and temporary employment. According to conventional wisdom, one would expect $\beta_2 > 0$ because left-wing governments are more likely to conduct stringent environmental protection. The hypothesis contends that the left-right difference in environmental protection will become less pronounced as the size of outsiders increases, thus expecting $\beta_3 < 0$.

Empirical Findings

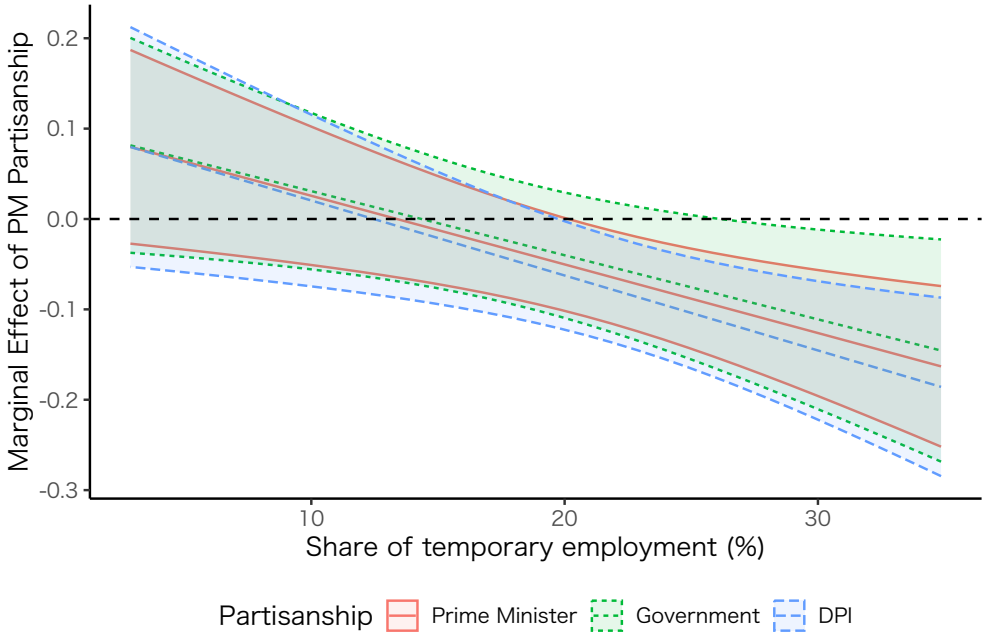
Table 1 provides the main result using the three different variables of partisanship. The first notable finding is that the share of temporary employment has significantly positive coefficients throughout the models except Model (6), implying that a rise in temporary employment leads to larger values of the EPS index: i.e., more stringent environmental protection. Although I did not make a prior prediction on temporary employment per se, this positive association, as Figure 1 and 2 show respectively, is attributable to the upward trends in both the EPS index and the share of temporary employment. Developed countries have promoted environmental protection in parallel with the year-by-year increase in the number of temporary employment driven by globalization, possibly leading to this result.

Government partisanship and its interaction with temporary employment are more critical to this paper. Table 1 consistently demonstrates positive coefficients of government partisanship, and their significance levels reach 10 % for Partisanship (PM) and Partisanship (Government). That is, more stringent environmental protection is more likely to be in effect under left-wing or centrist governments than under right-wing governments, buttressing the conventional wisdom in contrast to Tawiah (2022). Next, the interaction between partisanship and temporary employment has significantly negative coefficients at the 1 % level throughout the models. This result, compatible with the hypothesis, demonstrates

	Prime Minister		Government		DPI	
	(1)	(2)	(3)	(4)	(5)	(6)
Temporary employment	0.02***	0.03***	0.02**	0.03***	0.02**	0.02
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Partisanship (PM)	0.13*	0.10*				
	(0.07)	(0.06)				
Temporary employment*Partisanship (PM)	−0.01***	−0.01***				
	(0.00)	(0.00)				
Partisanship (Government)			0.13*	0.10		
			(0.07)	(0.07)		
Temporary employment*Partisanship (Government)			−0.01***	−0.01**		
			(0.00)	(0.00)		
Partisanship (DPI)					0.12	0.10
					(0.07)	(0.07)
Temporary employment*Partisanship (DPI)					−0.01**	−0.01***
					(0.00)	(0.00)
Green party government		0.05		0.04		0.04
		(0.09)		(0.10)		(0.11)
GDP growth		0.02		0.02		0.02**
		(0.01)		(0.01)		(0.01)
GDP per capita		0.29**		0.30**		0.21*
		(0.13)		(0.13)		(0.12)
Trade Openness		−0.00		−0.00		−0.00
		(0.00)		(0.00)		(0.00)
Foreign direct investment		0.00*		0.00*		0.00*
		(0.00)		(0.00)		(0.00)
CO2 emisson		−0.03		−0.03		−0.05*
		(0.03)		(0.03)		(0.03)
Energy consumption		−0.34		−0.32		−0.03
		(0.41)		(0.42)		(0.38)
Renewable energy		−0.01		−0.01		−0.01**
		(0.00)		(0.00)		(0.00)
Resource rent		0.05**		0.05**		0.06**
		(0.02)		(0.02)		(0.02)
Country FE	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES
R^2	0.03	0.09	0.03	0.09	0.03	0.10
Adj. R^2	−0.09	−0.04	−0.08	−0.04	−0.10	−0.04
Num. obs.	473	471	473	471	469	441

Note: Cluster robust standard erros in parenthis *** p < 0.01; ** p < 0.05; * p < 0.1

Table 1: Main Results



Note: Based on Models (2), (4), and (6) in Table 1, respectively.

Figure 3: Marginal Effects of the Three Partisanship Variables on the EPS

that the rise in temporary employment mutes the positive effects of left-wing governments on environmental protection stringency.

Figure 3 visualizes the marginal effects of the three partisanship variables conditional on the share of temporary employment. Overall, it is shown that the marginal effects decrease as temporary employment increases. The three partisanship variables have positive impacts on the EPS index when the share of temporary employment is less than 10 %. These positive impacts, however, are insignificant in that the 95% confidence interval represented by the shaded area overlaps the zero horizontal line. Thus, government partisanship has no effect on the EPS index when the share of temporary employment is small. Then, their marginal effects turn negative when the share of temporary employment exceeds ca. 13 %. Here again, it is insignificant as the confidence interval still crosses the zero horizontal line. Finally, this negative effect of partisanship (PM and DPI) turns significant when the share of temporary employment exceeds 20%, demonstrating that having left-wing governments decreases the EPS index where the share of temporary employment is sufficiently large. While

consistent with the hypothesis, this result provides further interesting wisdom: there is little difference in environmental protection between left- and right-wing governments where the size of outsiders is small, while left-wing governments are more likely to relax environmental protection than their right-wing counterparts when the size is large, the opposite of what is commonly assumed to be the case.

To visualize the effects of partisanship more substantially, Figure 4 predicts the values of the EPS index with different patterns of the share of temporary employment and Partisanship (PM). First, it is observed that either right-wing, centrist, or left-wing governments increase the predicted value of the EPS Index in response to an increase in temporary employment. This result is a product of a spurious correlation between the EPS index and temporary employment, both of which have upward trends as Figures 1 and 2 demonstrate. More importantly, however, the government partisanship makes a difference. The EPS index under left-wing governments is much less sensitive to an increase in temporary employment than under right-wing governments: 1 SD increase in temporary employment (6.4) leads to 0.17 and 0.07 SD increases in the EPS index for right-wing and left-wing governments, respectively. Figure 4 also demonstrates that larger values of temporary employment (15% and more) result in smaller values of the EPS index under left-wing governments than under right-wing and centrist governments, implying the opposite relationship to the conventional expectation. To put it together, the results imply that left-wing governments are resisting the trend of tightened environmental protection, casting doubt on the conventional view that left-wing governments are likely to pursue environmental protection.

Results from additional analyses for robustness checks are shown in the Online Appendix. Appendix B demonstrates the results from a series of detailed analyses to replicate the main analysis in Table 1 with different covariate specifications. In these estimations, partisanship has, if not significant, positive coefficients, echoing the prevailing view that stringent environmental protection tends to be implemented under left-wing governments. Moreover, the interaction between partisanship and temporary employment consistently has significantly

Note: Based on Model (2) in Table 1. Values of the variables except temporary employment, Partisanship (PM) and their interaction are set to their average.

Figure 4: Prediction of EPS based on Partisanship (PM) and Temporary Employment

negative effects on the dependent variable, which is compatible with the main result. To sum up, the result of the main analysis is robust to the choices of control variables.

For another robustness check, I conducted a series of analyses with the dependent variable as the market EPS index or the non-market EPS index instead of the aggregated version of the index. The results are provided in Appendices C and D, respectively. On the one hand, when the dependent variable is the market EPS, I obtained similar results to the main analysis for the variables based on prime minister parties (Table C.1) and governing parties (Table C.2), not for the DPI variable (Table C.3). On the other hand, however, the opposite is the case for the non-market EPS: The main result was replicated for the DPI variable (Table D.3), not for the variables based on prime minister parties (Table D.1) and governing parties (Table D.2). In sum, the main result is not robust to different dependent variables and is particularly true for market-based policies, among others.

The third robustness check was to estimate the model with the lagged dependent variable included. Although it possibly underestimates the coefficients of other independent variables

(Achen 2000), including a lagged dependent variable will provide strong evidence for the hypothesis if I obtain a similar result. The results in E.1 to E.3 are for the prime minister partisanship, the governing party partisanship, and the DPI partisanship, respectively. First, the lagged dependent variable has positive significant coefficients throughout the models. Besides, the partisanship variables roughly have positive impacts on the dependent variable, demonstrating that left-wing governments tend to conduct stringent environmental protection. Finally, the interaction between partisanship and temporary employment consistently has negative coefficients, again similar to the main result. Its substantial effects, however, are suppressed given the smaller absolute value of the coefficients.

Finally, I replicated the main analysis excluding Spain from my dataset, the results of which are shown in Appendix F. Because of its large share of temporary employment (31% on average) and long history of left-wing governments, the country might have distorted the estimates to yield the main results shown in Table 1. Unfortunately, the failed replication of the main results, as Tables F.1 and F.2 show, makes this concern convincing. Models (5) and (6) in Table F.3, nevertheless, have significantly negative coefficients of the interaction in question, buttressing the hypothesis to some extent. In sum, it is wise to be cautious about the influence of the Spanish case in the model estimation.

Conclusion

In this paper, I have explored how government partisanship affects the stringency of environmental protection. The previous research states that left-wing governments, supported by those who prefer environmental protection as a part of diverse lifestyles, are more likely to introduce stringent environmental protection than right-wing governments. However, the constituency of left-wing parties also covers the less well-to-do and the much vulnerable among them, i.e., outsiders in labour markets, has recently increased. Given their apathy and possible conflicts with their economic well-being, these outsiders may call on left-wing

governments to withdraw their commitment to environmental protection. Specifically, I hypothesized that a rise in the size of the outsiders subdues partisan differences in the stringency of conducted environmental protection. My empirical analysis presents findings that go one step further from this hypothesis: government partisanship does not differentiate environmental protection stringency where the size of the outsiders is small. In contrast, large-scale outsiders lead to less stringent environmental protection under left-wing governments than their right-wing counterparts.

The finding above challenges the extant view in that it reveals that left-wing governments do not necessarily commit to environmental protection. While the previous research assumes that those with environmental preferences are seizing the initiative of the left-wing supporters, this paper casts doubt on this assumption, instead suggesting that the situation will change in the future. Currently, as the German government led by Chancellor Olaf Sholtz, forming 'Red-Green coalitions' between left-wing parties and environmental movements is commonplace in the political landscape in the developed world. The traditional and ultimate goal of left-wing parties, however, is to provide economic compensation to the less well-to-do, and if the economic hardship of the left-wing voters, as shown in Figure 1, is becoming more and more imminent, left-wing parties are expected to water down their efforts to protect the environment. If right-wing governments continue to be less apathetic to environmental protection, this left-wing withdrawal will hamper the ongoing efforts of environmental protection. In order to avert future setbacks in environmental protection, it is necessary to take preemptive measures to avoid creating economic hardship.

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Appendix:

Revisiting Partisan Politics of Environmental Policy:

Are Left-wing Governments Always Eco-friendly?

A Descriptive Statistics

Variables	N	Mean	SD	Note
EPS	657	1.76	0.93	*EPS* from Botta and Koźluk (2014)
Market EPS	657	1.19	0.83	*EPS_MKT* from Botta and Koźluk (2014)
Non-market EPS	677	2.30	1.25	*EPS_NMKT* from Botta and Koźluk (2014)
Temporary employment	531	12.77	6.37	'share of temporary employment (dependent employment)' (OECD 2017)
Partisanship (PM)	568	0.99	0.80	Author's coding based on Döring and Manow (2019)
Partisanship (Government)	568	1.00	0.82	Ditto.
Partisanship (DPI)	603	0.97	0.94	*execrlc* from Cruz, Keefer, and Scartascini (2018)
Green party government	572	0.07	0.26	Author's coding based on Döring and Manow (2019)
GDP growth	656	2.45	2.97	'GDP growth (annual %)' (World Bank 2022)
GDP per capita	662	10.17	0.67	'GDP per capita (constant 2015 US$)' (World Bank 2022)
Trade openness	666	73.49	35.58	'Trade (% of GDP)' (World Bank 2022)
Foreign direct investment	665	3.94	7.13	'Foreign direct investment, net inflows (% of GDP)' (World Bank 2022)
CO2 emissions	677	9.00	3.77	'CO2 emissions (metric tons per capita)' (World Bank 2022)
Energy consumption	677	8.20	0.44	'Energy use (kg of oil equivalent per capita)' (World Bank 2022)
Renewable energy	677	13.15	12.66	'Renewable energy consumption (% of total final energy consumption)' (World Bank 2022)
Resource rent	671	1.02	1.91	'Total natural resources rents (% of GDP)' (World Bank 2022)

Table A.1: Descriptive Statistics

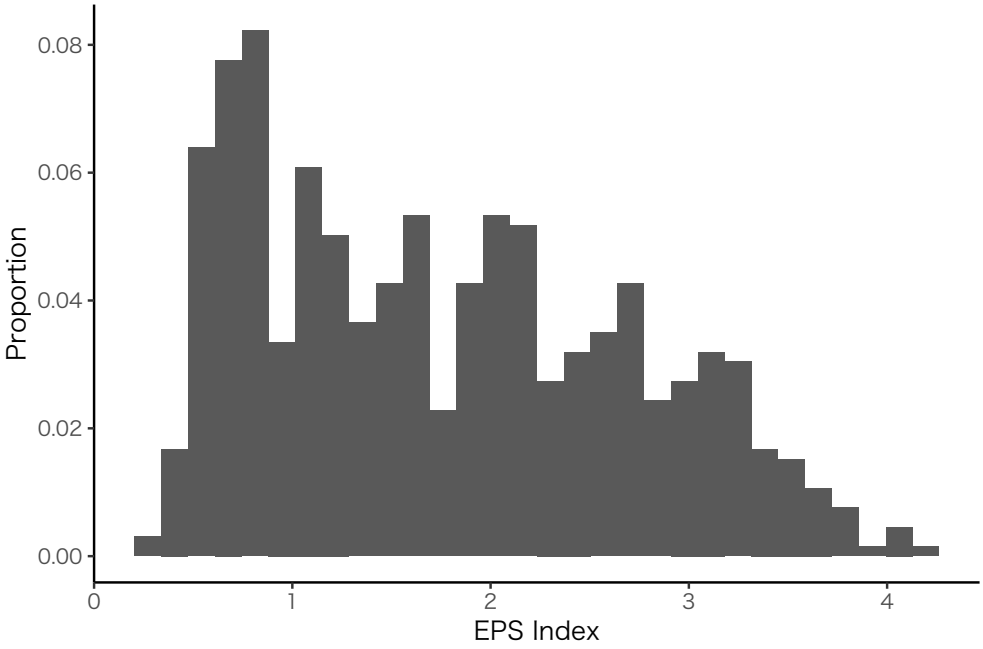

Figure A.1: Distribution of the EPS index

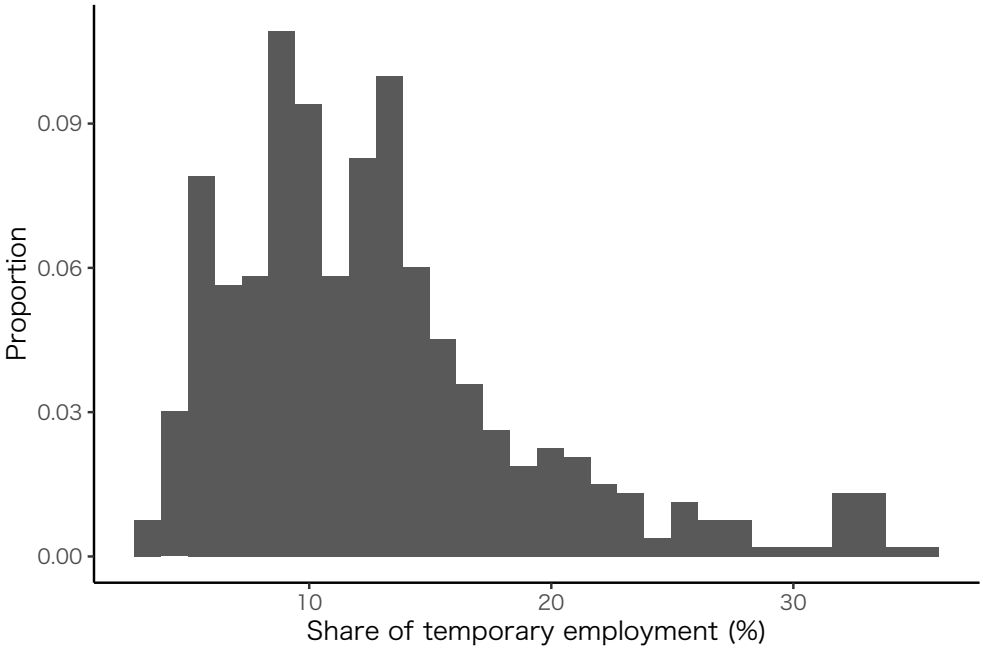

Figure A.2: Distribution of Share of Temporary Employment

Appendix-2

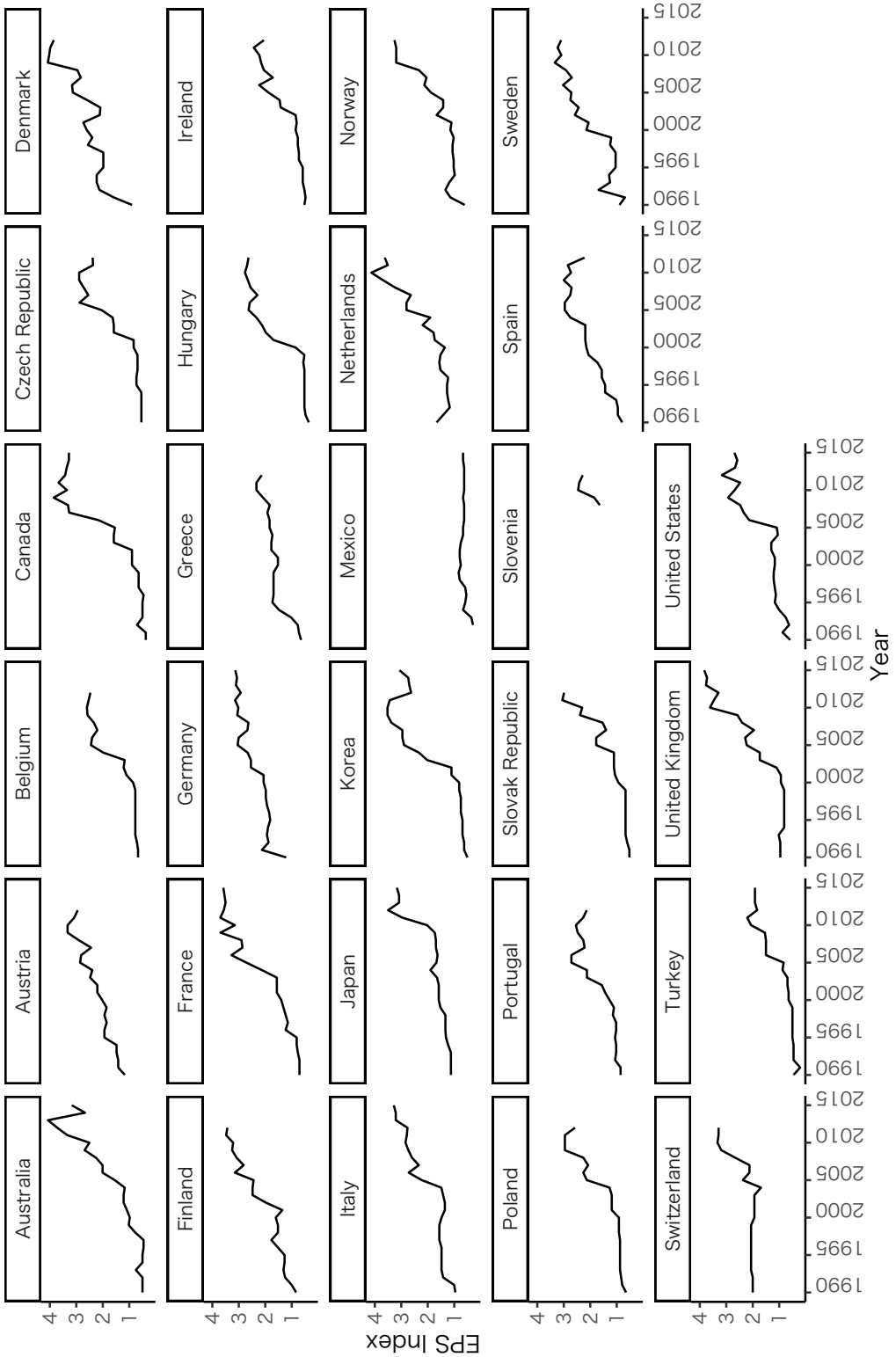

Figure A.3: By-country Trend of Share of Temporary Employment

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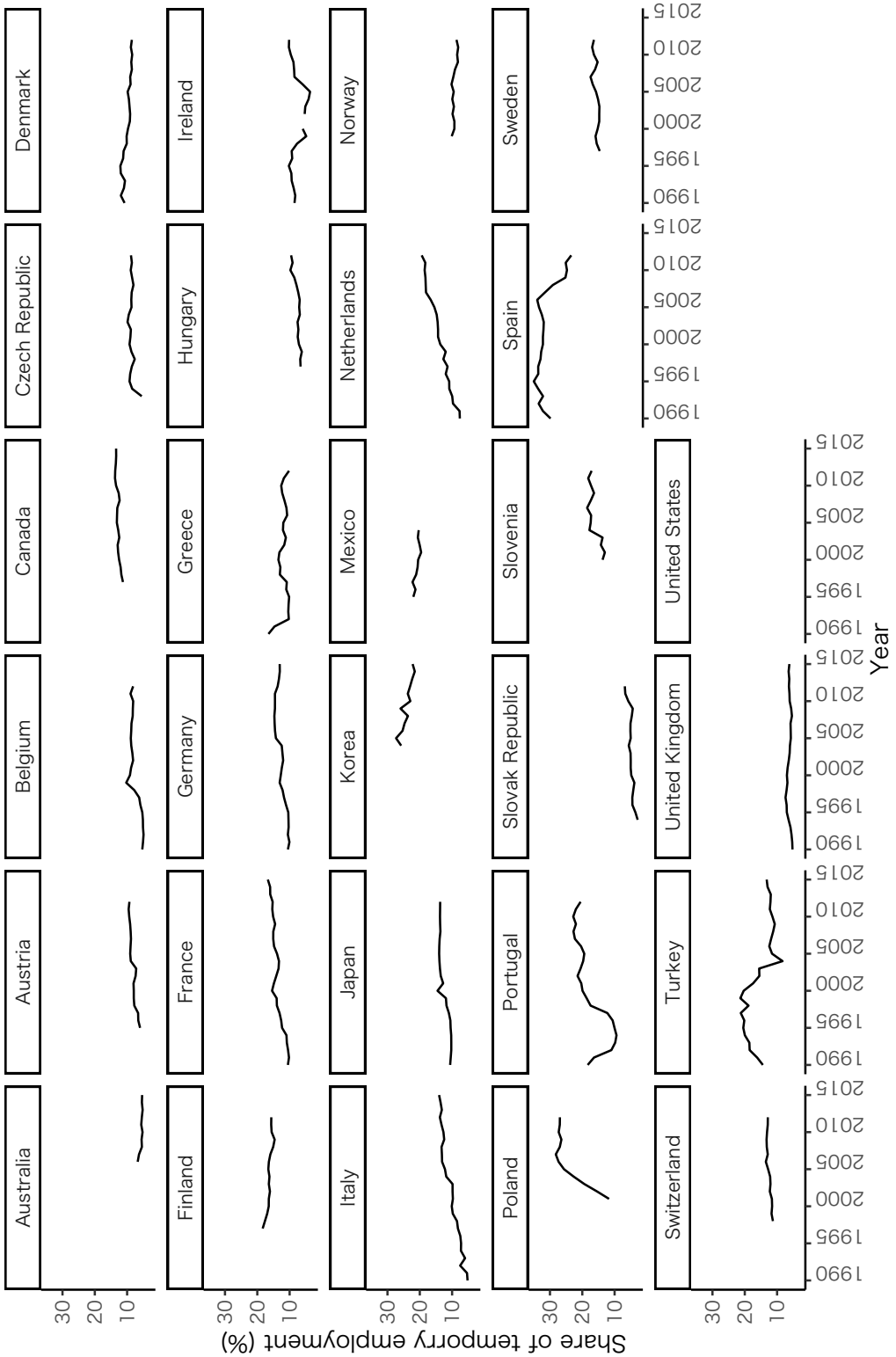

Figure A.4: By-country Trend of Temporary Employment

https://doi.org/10.33774/apsa-2024-9cfm3 **ORCID:** https://orcid.org/0000-0003-2701-742X Content not peer-reviewed by APSA. **License:** CC BY 4.0

B Main Analyses (Detailed)

	(1)	(2)	(3)	(4)	(5)
Temporary employment	0.02***	0.02***	0.03***	0.03**	0.03***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Partisanship (PM)	0.13*	0.13*	0.11*	0.12*	0.10*
	(0.07)	(0.07)	(0.06)	(0.06)	(0.06)
Temporary employment*Partisanship (PM)	−0.01***	−0.01***	−0.01***	−0.01***	−0.01***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Green party government		0.04			0.05
		(0.09)			(0.09)
GDP growth			0.01		0.02
			(0.01)		(0.01)
GDP per capita			0.23***		0.29**
			(0.09)		(0.13)
Trade Openness			−0.00		−0.00
			(0.00)		(0.00)
Foreign direct investment			0.00		0.00*
			(0.00)		(0.00)
CO2 emisson				−0.04	−0.03
				(0.03)	(0.03)
Energy consumption				0.12	−0.34
				(0.29)	(0.41)
Renewable energy				−0.01	−0.01
				(0.00)	(0.00)
Resource rent				0.06***	0.05**
				(0.02)	(0.02)
Country FE	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES
R^2	0.03	0.03	0.07	0.05	0.09
Adj. R^2	−0.09	−0.09	−0.06	−0.07	−0.04
Num. obs.	473	472	472	473	471

Note: Cluster robust standard erros in parenthis. *** p < 0.01; ** p < 0.05; * p < 0.1

Table B.1: Main Result (PM Partisanship)

	(1)	(2)	(3)	(4)	(5)
Temporary employment	0.02**	0.03***	0.03***	0.03**	0.03***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Partisanship (Government)	0.13*	0.13*	0.11	0.12*	0.10
	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)
Temporary employment*Partisanship (Government)	−0.01***	−0.01***	−0.01**	−0.01**	−0.01**
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Green party government		0.03			0.04
		(0.09)			(0.10)
GDP growth			0.01		0.02
			(0.01)		(0.01)
GDP per capita			0.24***		0.30**
			(0.09)		(0.13)
Trade openness			−0.00		−0.00
			(0.00)		(0.00)
Foreign direct investment			0.00		0.00*
			(0.00)		(0.00)
CO2 emisson				−0.04	−0.03
				(0.03)	(0.03)
Energy consumption				0.15	−0.32
				(0.31)	(0.42)
Renewable energy				−0.01	−0.01
				(0.00)	(0.00)
Resource rent				0.06***	0.05**
				(0.02)	(0.02)
Country FE	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES
R^2	0.03	0.03	0.07	0.05	0.09
Adj. R^2	−0.08	−0.08	−0.05	−0.07	−0.04
Num. obs.	473	472	472	473	471

Note: Cluster robust standard erros in parenthis. *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

Table B.2: Main Result (Government Partisanship)

	(1)	(2)	(3)	(4)	(5)
Temporary employment	0.02**	0.02**	0.02*	0.02*	0.02
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Partisanship (DPI)	0.12	0.14*	0.10	0.11	0.10
	(0.07)	(0.07)	(0.08)	(0.07)	(0.07)
Temporary employment*Partisanship (DPI)	−0.01**	−0.01***	−0.01**	−0.01**	−0.01***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Green party government		0.01			0.04
		(0.10)			(0.11)
GDP growth			0.02**		0.02**
			(0.01)		(0.01)
GDP per capita			0.17*		0.21*
			(0.09)		(0.12)
Trade openness			−0.00		−0.00
			(0.00)		(0.00)
Foreign direct investment			0.00*		0.00*
			(0.00)		(0.00)
CO2 emisson				−0.05*	−0.05*
				(0.03)	(0.03)
Energy consumption				0.20	−0.03
				(0.33)	(0.38)
Renewable energy				−0.01*	−0.01**
				(0.01)	(0.00)
Resource rent				0.06***	0.06**
				(0.02)	(0.02)
Country FE	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES
R^2	0.03	0.04	0.06	0.05	0.10
Adj. R^2	−0.10	−0.09	−0.07	−0.08	−0.04
Num. obs.	469	442	468	469	441

Note: Cluster robust standard erros in parenthis. *** p < 0.01; ** p < 0.05; * p < 0.1

Table B.3: Main Result (DPI Partisanship)

C Analyses for Market EPS Index

	(1)	(2)	(3)	(4)	(5)
Temporary employment	0.03*	0.03*	0.03*	0.03	0.03*
	(0.01)	(0.01)	(0.01)	(0.02)	(0.01)
Partisanship (PM)	0.13	0.12	0.11	0.12	0.12
	(0.09)	(0.09)	(0.09)	(0.09)	(0.09)
Temporary employment*Partisanship (PM)	−0.01***	−0.01***	−0.01***	−0.01***	−0.01**
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Green party government		0.07			0.08
		(0.18)			(0.17)
GDP growth			0.01		0.01
			(0.01)		(0.01)
GDP per capita			0.17		0.38
			(0.14)		(0.26)
Trade Openness			−0.01*		−0.01*
			(0.00)		(0.00)
Foreign direct investment			0.00		0.00
			(0.01)		(0.00)
CO2 emisson				−0.06	−0.06
				(0.04)	(0.05)
Energy consumption				−0.05	−0.54
				(0.42)	(0.65)
Renewable energy				−0.01*	−0.01**
				(0.01)	(0.01)
Resource rent				0.06**	0.03
				(0.03)	(0.04)
Country FE	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES
R^2	0.03	0.03	0.06	0.05	0.10
Adj. R^2	−0.09	−0.09	−0.07	−0.07	−0.03
Num. obs.	473	472	472	473	471

Note: Cluster robust standard erros in parenthis. *** p < 0.01; ** p < 0.05; * p < 0.1

Table C.1: Result for Maket EPS (PM Partisanship)

	(1)	(2)	(3)	(4)	(5)
Temporary employment	0.03*	0.03*	0.03*	0.03	0.03
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Partisanship (Government)	0.14	0.14	0.12	0.14	0.13
	(0.09)	(0.09)	(0.10)	(0.10)	(0.11)
Temporary employment*Partisanship (Government)	−0.01**	−0.01**	−0.01**	−0.01**	−0.01**
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Green party government		0.06			0.07
		(0.18)			(0.17)
GDP growth			0.01		0.02
			(0.01)		(0.01)
GDP per capita			0.18		0.40
			(0.14)		(0.26)
Trade Openness			−0.01*		−0.01*
			(0.00)		(0.00)
Foreign direct investment			0.00		0.00
			(0.00)		(0.00)
CO2 emisson				−0.06	−0.06
				(0.04)	(0.05)
Energy consumption				−0.02	−0.53
				(0.43)	(0.67)
Renewable energy				−0.01*	−0.01**
				(0.01)	(0.01)
Resource rent				0.06*	0.03
				(0.03)	(0.04)
Country FE	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES
R^2	0.03	0.03	0.05	0.05	0.09
Adj. R^2	−0.09	−0.09	−0.07	−0.08	−0.04
Num. obs.	473	472	472	473	471

Note: Cluster robust standard erros in parenthis. *** p < 0.01; ** p < 0.05; * p < 0.1

Table C.2: Result for Maket EPS (Government Partisanship)

	(1)	(2)	(3)	(4)	(5)
Temporary employment	0.02	0.02	0.02	0.02	0.01
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Partisanship (DPI)	0.06	0.09	0.03	0.06	0.05
	(0.11)	(0.10)	(0.11)	(0.11)	(0.11)
Temporary employment*Partisanship (DPI)	−0.01	−0.01**	−0.01	−0.01	−0.01*
	(0.01)	(0.00)	(0.01)	(0.01)	(0.01)
Green party government		0.04			0.08
		(0.21)			(0.19)
GDP growth			0.02		0.02*
			(0.01)		(0.01)
GDP per capita			0.09		0.24
			(0.15)		(0.22)
Trade Openness			−0.01**		−0.01*
			(0.00)		(0.00)
Foreign direct investment			0.01		0.01
			(0.00)		(0.00)
CO2 emisson				−0.07	−0.09*
				(0.04)	(0.05)
Energy consumption				0.03	−0.06
				(0.47)	(0.60)
Renewable energy				−0.02**	−0.02***
				(0.01)	(0.01)
Resource rent				0.07**	0.05
				(0.03)	(0.03)
Country FE	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES
R^2	0.03	0.04	0.06	0.06	0.12
Adj. R^2	−0.10	−0.10	−0.07	−0.08	−0.03
Num. obs.	469	442	468	469	441

Note: Cluster robust standard erros in parenthis. *** p < 0.01; ** p < 0.05; * p < 0.1

Table C.3: Result for Maket EPS (DPI Partisanship)

D Analyses for non-Market EPS Index

	(1)	(2)	(3)	(4)	(5)
Temporary employment	0.02*	0.02*	0.03**	0.03**	0.03**
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Partisanship (PM)	0.13	0.13	0.11	0.11	0.09
	(0.10)	(0.10)	(0.10)	(0.09)	(0.09)
Temporary employment*Partisanship (PM)	−0.01	−0.01	−0.00	−0.00	−0.00
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Green party government		0.02			0.02
		(0.10)			(0.11)
GDP growth			0.02		0.02
			(0.01)		(0.01)
GDP per capita			0.29***		0.20
			(0.08)		(0.19)
Trade Openness			−0.00		0.00
			(0.00)		(0.00)
Foreign direct investment			0.00		0.00
			(0.00)		(0.00)
CO2 emisson				−0.01	0.00
				(0.05)	(0.04)
Energy consumption				0.28	−0.15
				(0.33)	(0.47)
Renewable energy				0.00	0.00
				(0.01)	(0.01)
Resource rent				0.07*	0.07**
				(0.03)	(0.03)
Country FE	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES
R^2	0.02	0.02	0.04	0.04	0.05
Adj. R^2	−0.10	−0.10	−0.08	−0.08	−0.08
Num. obs.	480	479	479	480	478

Note: Cluster robust standard erros in parenthis. *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

Table D.1: Result for Non-maket EPS (PM Partisanship)

	(1)	(2)	(3)	(4)	(5)
Temporary employment	0.02**	0.02**	0.03**	0.03**	0.03**
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Partisanship (Government)	0.12	0.11	0.10	0.10	0.08
	(0.08)	(0.08)	(0.08)	(0.07)	(0.07)
Temporary employment*Partisanship (Government)	−0.00	−0.00	−0.00	−0.00	−0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Green party government		0.01			0.01
		(0.10)			(0.11)
GDP growth			0.02		0.02
			(0.01)		(0.01)
GDP per capita			0.30***		0.20
			(0.08)		(0.19)
Trade Openness			−0.00		0.00
			(0.00)		(0.00)
Foreign direct investment			0.00		0.00
			(0.00)		(0.00)
CO2 emisson				−0.02	0.00
				(0.05)	(0.04)
Energy consumption				0.31	−0.12
				(0.34)	(0.49)
Renewable energy				0.00	0.00
				(0.01)	(0.01)
Resource rent				0.06*	0.07**
				(0.03)	(0.03)
Country FE	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES
R^2	0.02	0.02	0.05	0.04	0.05
Adj. R^2	−0.10	−0.10	−0.08	−0.08	−0.08
Num. obs.	480	479	479	480	478

Note: Cluster robust standard erros in parenthis. *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

Table D.2: Result for Non-maket EPS (Government Partisanship)

	(1)	(2)	(3)	(4)	(5)
Temporary employment	0.02*	0.02*	0.02**	0.02*	0.02*
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Partisanship (DPI)	0.18***	0.19**	0.16**	0.16**	0.15**
	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)
Temporary employment*Partisanship (DPI)	−0.01*	−0.01**	−0.01*	−0.01*	−0.01*
	(0.00)	(0.01)	(0.00)	(0.00)	(0.00)
Green party government		−0.01			0.00
		(0.11)			(0.12)
GDP growth			0.02*		0.02
			(0.01)		(0.01)
GDP per capita			0.24***		0.18
			(0.08)		(0.20)
Trade Openness			0.00		0.00
			(0.00)		(0.00)
Foreign direct investment			0.00		0.00
			(0.00)		(0.00)
CO2 emisson				−0.03	−0.01
				(0.04)	(0.04)
Energy consumption				0.37	−0.01
				(0.29)	(0.49)
Renewable energy				−0.00	−0.00
				(0.01)	(0.01)
Resource rent				0.05*	0.07**
				(0.03)	(0.03)
Country FE	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES
R^2	0.03	0.03	0.05	0.04	0.06
Adj. R^2	−0.10	−0.10	−0.08	−0.09	−0.09
Num. obs.	477	449	476	477	448

Note: Cluster robust standard erros in parenthis. *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

Table D.3: Result for Non-maket EPS (DPI Partisanship)

E Analyses for Lagged Dependent Variable

	(1)	(2)	(3)	(4)	(5)
Lagged DV	0.64***	0.64***	0.65***	0.64***	0.66***
	(0.04)	(0.04)	(0.05)	(0.05)	(0.04)
Temporary employment	0.01***	0.01***	0.01*	0.01**	0.01*
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Partisanship (PM)	0.07*	0.07*	0.07*	0.06*	0.05*
	(0.04)	(0.04)	(0.04)	(0.03)	(0.03)
Temporary employment*Partisanship (PM)	−0.00**	−0.00**	−0.00**	−0.00**	−0.00*
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Green party government		−0.04			−0.04
		(0.05)			(0.05)
GDP growth			0.01		0.01
			(0.01)		(0.01)
GDP per capita			−0.13*		−0.16
			(0.08)		(0.10)
Trade Openness			−0.00		0.00
			(0.00)		(0.00)
Foreign direct investment			0.00		0.00*
			(0.00)		(0.00)
CO2 emisson				0.02	0.02
				(0.02)	(0.02)
Energy consumption				−0.36	−0.36
				(0.25)	(0.31)
Renewable energy				−0.00	−0.00
				(0.00)	(0.00)
Resource rent				0.06***	0.07***
				(0.02)	(0.02)
Country FE	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES
R^2	0.47	0.47	0.48	0.49	0.49
Adj. R^2	0.40	0.40	0.40	0.42	0.42
Num. obs.	472	471	471	472	470

Note: Cluster robust standard erros in parenthis. *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

Table E.1: Result for Lagged DV (PM Partisanship)

	(1)	(2)	(3)	(4)	(5)
Lagged DV	0.63***	0.64***	0.64***	0.64***	0.65***
	(0.04)	(0.04)	(0.05)	(0.05)	(0.04)
Temporary employment	0.01***	0.01***	0.01*	0.01**	0.01
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Partisanship (Government)	0.06*	0.06*	0.06	0.04	0.04
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Temporary employment*Partisanship (Government)	−0.00*	−0.00*	−0.00*	−0.00*	−0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Green party government		−0.04			−0.04
		(0.05)			(0.05)
GDP growth			0.01		0.01
			(0.01)		(0.01)
GDP per capita			−0.12		−0.16
			(0.08)		(0.11)
Trade Openness			−0.00		0.00
			(0.00)		(0.00)
Foreign direct investment			0.00		0.00**
			(0.00)		(0.00)
CO2 emisson				0.01	0.02
				(0.02)	(0.02)
Energy consumption				−0.35	−0.36
				(0.26)	(0.32)
Renewable energy				−0.00	−0.00
				(0.00)	(0.00)
Resource rent				0.06***	0.07***
				(0.02)	(0.02)
Country FE	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES
R^2	0.47	0.46	0.47	0.49	0.49
Adj. R^2	0.40	0.40	0.40	0.42	0.42
Num. obs.	472	471	471	472	470

Note: Cluster robust standard erros in parenthis. *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

Table E.2: Result for Lagged DV (Government Partisanship)

	(1)	(2)	(3)	(4)	(5)
Lagged DV	0.64***	0.65***	0.64***	0.65***	0.66***
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)
Temporary employment	0.02***	0.02***	0.01	0.01**	0.01**
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Partisanship (DPI)	0.08**	0.09***	0.07**	0.07**	0.07**
	(0.04)	(0.04)	(0.04)	(0.03)	(0.03)
Temporary employment*Partisanship (DPI)	−0.01***	−0.01***	−0.00**	−0.00***	−0.00***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Green party government		−0.04			−0.04
		(0.05)			(0.05)
GDP growth			0.01		0.00
			(0.01)		(0.01)
GDP per capita			−0.11		−0.14
			(0.08)		(0.11)
Trade Openness			−0.00		0.00
			(0.00)		(0.00)
Foreign direct investment			0.00		0.00*
			(0.00)		(0.00)
CO2 emisson				0.03	0.02
				(0.02)	(0.02)
Energy consumption				−0.40	−0.42
				(0.27)	(0.35)
Renewable energy				−0.00	−0.00
				(0.00)	(0.00)
Resource rent				0.05***	0.07***
				(0.02)	(0.02)
Country FE	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES
R^2	0.48	0.47	0.48	0.49	0.50
Adj. R^2	0.41	0.40	0.41	0.42	0.42
Num. obs.	468	441	467	468	440

Note: Cluster robust standard erros in parenthis. *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

Table E.3: Result for Lagged DV (DPI Partisanship)

F Analyses excluding Spain

	Prime Minister		Government		DPI	
	(1)	(2)	(3)	(4)	(5)	(6)
Temporary employment	0.02*	0.02*	0.02	0.02	0.01	0.01
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Partisanship (PM)	0.12	0.07				
	(0.10)	(0.09)				
Temporary employment*Partisanship (PM)	−0.01	−0.00				
	(0.01)	(0.01)				
Partisanship (Government)			0.10	0.06		
			(0.09)	(0.09)		
Temporary employment*Partisanship (Government)			−0.01	−0.00		
			(0.01)	(0.01)		
Partisanship (DPI)					0.11	0.11
					(0.09)	(0.10)
Temporary employment*Partisanship (DPI)					−0.01	−0.01
					(0.01)	(0.01)
Green party government		0.05		0.04		0.04
		(0.10)		(0.10)		(0.11)
GDP growth		0.02		0.02		0.02*
		(0.01)		(0.01)		(0.01)
GDP per capita		0.35**		0.35**		0.22*
		(0.14)		(0.14)		(0.13)
Trade Openness		−0.00		−0.00		−0.00
		(0.00)		(0.00)		(0.00)
Foreign direct investment		0.01**		0.01**		0.01**
		(0.00)		(0.00)		(0.00)
CO2 emisson		−0.03		−0.04		−0.06**
		(0.03)		(0.03)		(0.03)
Energy consumption		−0.43		−0.41		−0.10
		(0.41)		(0.43)		(0.39)
Renewable energy		−0.01		−0.01		−0.01**
		(0.00)		(0.00)		(0.01)
Resource rent		0.05*		0.05*		0.05**
		(0.03)		(0.03)		(0.03)
Country FE	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES
R^2	0.01	0.08	0.02	0.09	0.01	0.09
Adj. R^2	−0.11	−0.06	−0.11	−0.05	−0.12	−0.06
Num. obs.	450	448	450	448	446	418

Note: Cluster robust standard erros in parenthis *** p < 0.01; ** p < 0.05; * p < 0.1

Table F.1: Results without Spain for EPS

	Prime Minister		Government		DPI	
	(1)	(2)	(3)	(4)	(5)	(6)
Temporary employment	0.01	0.01	0.01	0.01	0.01	−0.00
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Partisanship (PM)	0.03	−0.01				
	(0.12)	(0.13)				
Temporary employment*Partisanship (PM)	−0.00	0.00				
	(0.01)	(0.01)				
Partisanship (Government)			0.04	−0.01		
			(0.11)	(0.13)		
Temporary employment*Partisanship (Government)			−0.00	0.00		
			(0.01)	(0.01)		
Partisanship (DPI)					−0.03	−0.04
					(0.13)	(0.13)
Temporary employment*Partisanship (DPI)					0.00	−0.00
					(0.01)	(0.01)
Green party government		0.08		0.07		0.08
		(0.17)		(0.17)		(0.19)
GDP growth		0.01		0.01		0.02*
		(0.01)		(0.01)		(0.01)
GDP per capita		0.45*		0.45*		0.25
		(0.27)		(0.27)		(0.22)
Trade Openness		−0.01**		−0.01**		−0.01**
		(0.00)		(0.00)		(0.00)
Foreign direct investment		0.01		0.01		0.01*
		(0.00)		(0.00)		(0.00)
CO2 emisson		−0.07		−0.07		−0.10**
		(0.04)		(0.04)		(0.04)
Energy consumption		−0.66		−0.64		−0.18
		(0.66)		(0.67)		(0.60)
Renewable energy		−0.02**		−0.02**		−0.02***
		(0.01)		(0.01)		(0.01)
Resource rent		0.03		0.03		0.05
		(0.04)		(0.04)		(0.04)
Country FE	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES
R^2	0.00	0.09	0.00	0.09	0.00	0.11
Adj. R^2	−0.12	−0.05	−0.12	−0.05	−0.13	−0.04
Num. obs.	450	448	450	448	446	418

Note: Cluster robust standard erros in parenthis *** p < 0.01; ** p < 0.05; * p < 0.1

Table F.2: Results without Spain for Market EPS

	Prime Minister		Government		DPI	
	(1)	(2)	(3)	(4)	(5)	(6)
Temporary employment	0.03*	0.03**	0.03*	0.03**	0.02	0.03*
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)
Partisanship (PM)	0.24	0.18				
	(0.15)	(0.15)				
Temporary employment*Partisanship (PM)	−0.02	−0.01				
	(0.01)	(0.01)				
Partisanship (Government)			0.18	0.15		
			(0.12)	(0.11)		
Temporary employment*Partisanship (Government)			−0.01	−0.01		
			(0.01)	(0.01)		
Partisanship (DPI)					0.26***	0.25***
					(0.08)	(0.09)
Temporary employment*Partisanship (DPI)					−0.02***	−0.02***
					(0.01)	(0.01)
Green party government		0.03		0.02		0.01
		(0.11)		(0.11)		(0.12)
GDP growth		0.02		0.02		0.02
		(0.02)		(0.02)		(0.01)
GDP per capita		0.23		0.24		0.19
		(0.19)		(0.20)		(0.21)
Trade Openness		−0.00		−0.00		0.00
		(0.00)		(0.00)		(0.00)
Foreign direct investment		0.00		0.00		0.00
		(0.00)		(0.00)		(0.00)
CO2 emisson		0.00		−0.00		−0.01
		(0.04)		(0.05)		(0.04)
Energy consumption		−0.20		−0.17		−0.03
		(0.47)		(0.49)		(0.50)
Renewable energy		0.00		0.00		−0.00
		(0.01)		(0.01)		(0.01)
Resource rent		0.07*		0.06*		0.06*
		(0.03)		(0.03)		(0.03)
Country FE	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES
R^2	0.02	0.05	0.02	0.05	0.04	0.07
Adj. R^2	−0.10	−0.09	−0.10	−0.09	−0.09	−0.09
Num. obs.	457	455	457	455	454	425

Note: Cluster robust standard erros in parenthis *** p < 0.01; ** p < 0.05; * p < 0.1

Table F.3: Results without Spain for Non-market EPS