

# Economic Conditions Affect Support for Prime Minister Parties in Scandinavia

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Previous research has not been able to identify a relationship between objective economic indicators and support for governing parties in the Scandinavian countries. This is potentially problematic, as it suggests that political leaders are not held electorally accountable for the economic conditions they provide for their electorates. In this article, it is suggested that this null-finding is a result of the particularities of the Scandinavian electoral context, which makes it difficult to identify the effects of the economy on electoral support. To bolster this argument, the relationship between unemployment, economic growth and support for prime minister parties is re-examined in two datasets. The first is a dataset of Scandinavian elections, and the second is a yearly Danish vote function, which was constructed using election polls. Across both datasets, it is found that if one simply correlates support for the prime minister's party with economic conditions, there is no relationship; however, if one specifies a statistical model, which takes the Scandinavian context into account, it is possible to identify a statistically significant effect of economic conditions on electoral support. Based on this finding, the article concludes that economic conditions do shape electoral support for prime minister parties in Scandinavia.

## Introduction

When a country's economy gets into trouble, its leading politicians get into trouble. This is the simple yet empirically powerful prediction of the large and diverse literature on economic voting (for reviews, see Healy & Malhotra 2013; Lewis-Beck & Stegmaier 2013). If one were to paint our current knowledge of electoral behaviour with relatively broad strokes, it is also quite an accurate prediction. As such, the economic fortune of the electorate and the electoral fortune of governing politicians are intimately related. However, if one examines the fine print, some countries seem to be exempt from this general pattern (Whitten & Powell 1993). This is especially true of the Scandinavian countries, in which evidence for economic voting is murky at best. Researchers have often failed to identify a relationship between the fraction of the electorate who supports the

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Data and replication materials can be found online at: <https://github.com/martinvinaes/SCPSeconcond>.

parties in power and objective economic indicators such as gross domestic product (GDP) per capita and unemployment in Scandinavia (Pacek & Radcliff 1999; Martinsson 2009; Stubager et al. 2013).

It is not surprising that the Scandinavian countries do not exhibit strong signs of such economic voting. Many researchers have suggested that the extent to which politicians have control over economic conditions drive the economic vote (Whitten & Powell 1993; Anderson 2007; Duch & Stevenson 2008). Given that Scandinavian politicians generally play a smaller role in shaping economic outcomes than their colleagues in larger and less economically open countries, we should expect the economy to play only a minor role in shaping election results. However, it is surprising that there is *no* correlation between economic conditions and support for governing parties in the Scandinavian countries. Most economists would probably still argue that the policies instated by politicians in Scandinavia can affect how the economy is doing, even if the politicians' ability to affect the economy is smaller here than in other countries. If one accepts the premise that Scandinavian prime ministers can, either directly through fiscal policies or indirectly through structural reforms, influence objective economic conditions, then the absence of economic voting is a problem for electoral accountability in Scandinavia. Specifically, if voters, as previous research suggests, do not punish governing politicians for poor economic performance, they risk (re-)electing political leaders who are not able to deliver favourable economic conditions (Przeworski et al. 1999), or risk sending a signal to politicians that they do not need to exert effort to produce favourable economic conditions (Ferejohn 1986).

It is important to note that surveys of several Scandinavian countries have found a strong correlation between economic perceptions and intention to vote for the parties in government (Borre 1997; Jordahl 2006; Martinsson 2009; Bengtsson et al. 2014). Thus, when I say that there is no strong evidence for economic voting in Scandinavia, I only mean that there is no strong evidence for a relationship between objective economic conditions, such as the unemployment rate or GDP per capita, and electoral support for political leaders. One might think that the absence of evidence for an effect of objective economic conditions does not matter in light of the consistent effects found for subjective economic conditions. However, several authors have strongly criticised the use of subjective economic indicators in studies of economic voting. For instance, Van der Brug et al. (2007, 26) say that one should always avoid 'using subjective indicators of economic conditions, since these are strongly contaminated and subject to severe endogeneity problems'. While this criticism is probably too harsh (Stevenson & Duch 2013), it does motivate the goal of this study: to re-examine the relationship between electoral support for Scandinavian prime minister parties and the objective economic conditions these parties provide for their electorates.

I begin this re-examination by arguing that both the political and economic contexts of the Scandinavian countries make it hard to identify the economic vote. Politically, multiparty systems and the prevalence of minority coalition governments pose challenges to identification. Economically, the openness of the Scandinavian economies causes problems for inference. To overcome these challenges, I estimate economic voting models that are sensitive to these contextual factors. I do this on two different datasets. The first dataset is a time-series cross-sectional model of 36 Danish, Swedish and Norwegian elections. The second dataset is a yearly Danish vote function, covering the period 1979–2011, constructed using election polls. Across both datasets, I find that if one simply correlates economic conditions with electoral support for the prime minister's party, there is no discernable relationship. However, if one estimates a model, which takes some of the special features of the Scandinavian context into account, a statistically discernable effect of economic conditions on electoral support emerges.

Accordingly, this article contributes to the extant literature by demonstrating that there is a relationship between economic conditions and support for the party of the prime minister in Scandinavia. This implies, in turn, that the economic vote is a more universal phenomenon than what was suggested in previous literature. Furthermore, the article highlights the importance of understanding the electoral context in the countries under examination when testing theories of voting behaviour.

## Challenges to Identifying the Economic Vote in Scandinavia

Most studies which investigate the effect of economic conditions on support for governing politicians follow the basic lay out of Kramer's (1971) seminal American study, where he regressed support for the presidential incumbent party at congressional elections on election year GDP growth, inflation and unemployment. While this seems like a simple and effective way to test the economic voting hypothesis, it encounters at least two problems when it is transferred to a Scandinavian context.

The first problem is premised on *the economic context of the Scandinavian countries* – in particular, the expectation that small open economies will experience a smaller effect of economic indicators on support for the incumbent (Hellwig & Samuels 2007). These smaller effects will be harder to identify in models which are sparsely specified. Sparsely specified models leads to large error terms, which make it harder to detect small effects. This is not an insurmountable problem; it simply means that we need to

specify better models that reduce some of the noise prevalent in standard economic voting models. A popular way to do this is to combine survey and country-level data (see, e.g., Erikson et al. 2002; Lewis-Beck et al. 2013), where one uses trends in party identification or demographics to reduce the error term. However, this approach often trades in one statistical power problem for another, as survey data is only available for a small portion of elections, which means sacrificing the sample size at the country level. Another way to reduce the error term is to restrict one's analysis to economic indicators that are precise and reliable, and to include other aggregate-level variables that might predict the incumbent vote share. This is the approach I use below.

The second problem stems from *the political context of the Scandinavian countries*. The presence of multiparty systems and coalition governments make electoral support for the incumbent party (or parties) highly variable over time. In contrast to a two-party system, such as the United States, where the president's party will always have about 50 percent of the vote, the prime minister's party in a multiparty system might have about 30 percent of the vote in one election, about 20 percent in another election and 40 percent in a third election. Furthermore, temporal trends in support, such as increasing electoral volatility and the cost of ruling, make Scandinavian vote functions even less stable (Bengtsson et al. 2014, 112). These factors make the key dependent variable – support for the prime minister's party – a non-stationary variable, which means that ordinary least squares (OLS) estimation will generally be inconsistent (De Boef & Keele 2008). A way to make the time-series stationary is to first-difference electoral support. However, first-differencing implies that a change in economic conditions in a given period only affects the expected value of electoral support in that same period (De Boef & Keele 2008, 187). This seems somewhat unreasonable, since one can easily imagine that a good economic situation will leave a more lasting mark on electoral support – a mark which might gradually become less important as voters get new information about the incumbent, but which affects electoral support in later periods nonetheless. First-differencing might thus solve the stationarity issue, but it puts unrealistic restrictions on how the economy can affect electoral support. A better approach is to re-specify one's model so that any stationarity is controlled away. I detail how one might do this below.

As described in the introduction, previous research has had trouble identifying an economic vote in Scandinavian countries. Given the substantial problems laid out above in using the standard methods, this is not strange. So, what happens if one uses a more careful approach that takes these problems into account? I will begin answering this question by examining a set of Scandinavian elections.

# Evidence from Scandinavian Elections

## *Data*

To test whether there is an effect of economic conditions on support for incumbent parties in the Scandinavian countries, I link GDP per capita growth and unemployment to electoral support for the prime minister's party at legislative elections in Denmark, Norway and Sweden. The focus of my investigation is on the prime minister's party, rather than the entire government. This is because previous studies have shown that voters primarily hold the prime minister's party accountable for the country's economic performance (Van der Brug et al. 2007; Duch & Stevenson 2008; Fisher & Hobolt 2010; see also Debus et al. 2014;). This study does not examine the effect of inflation, which was used in some early tests of the economic voting hypothesis (cf. Fair 1996). The reason for this omission is that monetary policy in Scandinavia, like that in many other regions, has been out of direct government control for the better part of the period under investigation.<sup>1</sup>

Economic data on unemployment and GDP growth is from Organisation for Economic Cooperation and Development (OECD) statistics. Electoral data is from Kayser and Peress (2012). In addition to this, I use data on time in office of the various prime minister parties, a variable which is registered in the database of political institutions (Beck et al. 2001). Combining these three data sources gives us a dataset of 36 legislative elections: 15 in Denmark (1971–2007), nine in Norway (1977–2009) and 12 in Sweden (1970–2006). Descriptive statistics on all variables can be found in Table 1, while Figure 1 displays the key dependent variable – support for the prime minister's party – across the three different countries.

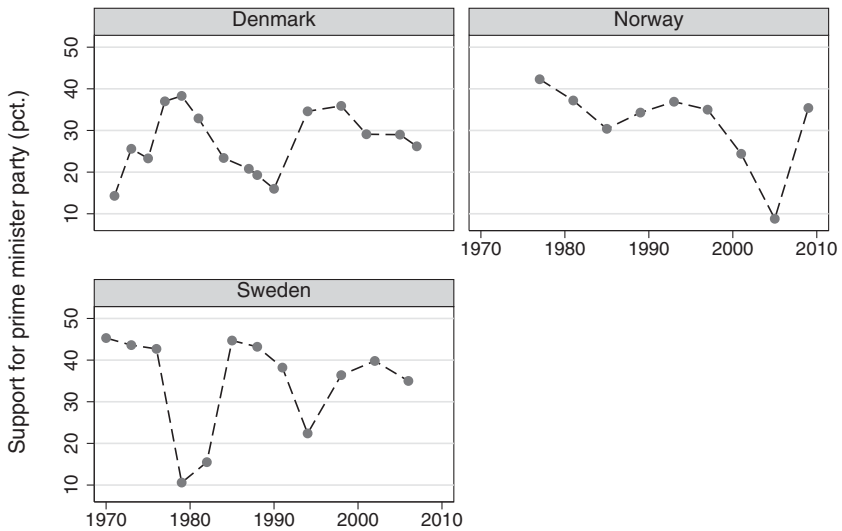
## *Model*

To identify whether there is an effect of objective economic conditions on electoral support for the prime minister, I link electoral and economic

Table 1. Descriptive Statistics, Scandinavia (n = 36)

Variable	Mean	Standard deviation	Minimum	Median	Maximum
Prime minister party vote share	30.77	10.11	8.80	34.45	45.30
Lagged prime minister party vote share	32.22	12.14	11.10	35.30	46.10
GDP per capita growth	2.44	2.02	−1.64	2.47	6.50
Unemployment	4.51	2.42	0.90	4.35	10.30
Years in office (log)	1.48	0.80	0.00	1.39	3.58
Election year	1989	11.42	1970	1988	2009

Figure 1. Support for the Prime Minister's Party in Scandinavia.



data in an AR(1) model. The dependent variable ( $pm_{it}$ ) is the fraction of the electorate in country  $i$  who voted for the prime minister's party at election  $t$ . The main independent variables are the unemployment rate ( $unemployment_{it}$ ) and the growth in economic activity measured as year over year GDP per capita growth ( $growth_{it}$ ). This gives us the following baseline model:

$$pm_{it} = \beta_0 + \alpha_1 pm_{it-1} + \gamma_1 growth_{it} + \gamma_2 unemployment_{it} + e_{it} \quad (1)$$

where  $\beta_0$  is the constant term,  $\alpha_1 pm_{it-1}$  is the autoregressive term and  $e_{it}$  is the error term. The key parameters to be estimated are  $\gamma_1$  and  $\gamma_2$ , which represent the effect of economic growth and unemployment on electoral support for the prime minister's party. Note that we use election year economic growth and unemployment rate rather than a one-period lag, since practically all of the elections we examine are held in the autumn; thus voters had plenty of time to assess the current year's economic performance when deciding whether to vote for the government.

In order to consistently estimate these effects, electoral support for the prime minister's party needs to be a stationary process. As mentioned above, this is not necessarily the case in Scandinavian countries. This is further corroborated by looking at Figure 1, which plots the dependent

variable. The expected value of the dependent variable seems to vary quite a lot across the years examined. To augment this non-stationarity, I extend the model to include various controls. Specifically, I augment the baseline model in four ways to minimise concerns regarding non-stationarity. First, I include a logged time in office variable, which measures the log of the number of years since the prime minister's party took office. This should remove the time-trend caused by the cost of ruling. Second, I introduce country fixed effects to take cross-country differences into account. Third, I include prime minister party fixed effects to remove the level-shifts in the dependent variable that occur when a prime minister from a new party takes office.<sup>2</sup> And finally, I introduce a linear control for election year to take any common linear trends in the economic and electoral variables into account. In addition to making the stationarity more plausible, these controls also reduce the error term in the regression, which make the standard errors of the estimates smaller and, accordingly, make it easier to detect an effect of the economic variables.

Before moving on it is important to note that a key variable is missing from the model described above: the popularity of the prime minister (for the importance of popularity for shaping executives time in office, see, e.g., Mueller 1970). Unfortunately, no consistent measure of prime minister's popularity in Scandinavia is available for the entire period surveyed, so this variable cannot be included. Furthermore, while it would be interesting to study the inter-relationship between support for the party, popularity of the prime minister and the economy, I would be concerned with 'over-controlling' if it was simply included as a control. The effect of economic conditions on electoral support is likely to go through voters' evaluation of the political leader, making it a so-called 'bad control' (Pischke & Angrist 2009, 64–8).

## *Results*

Table 2 presents estimates of the baseline model (1) along with models which, in turn, amend the baseline model using the four different extensions detailed above. The models are estimated using OLS regression, clustering the standard errors at the prime minister party level. The first model shows no evidence of economic voting; the effects of both growth and unemployment are statistically insignificant, and the estimates are in the opposite direction of what we would expect. However, as we add more controls to sieve out any non-stationarity, the sign attached to the estimates reverses, the effect of unemployment becomes negative and the effect of growth becomes positive. In the final specification, the effect of GDP growth is positive and statistically significant ( $p < 0.05$ ). The model suggests that if GDP growth increases by one percentage point, support

Table 2. OLS Regression of Prime Minister Party Vote Share.

	(1)	(2)	(3)	(4)	(5)
Lag of vote share	0.74* (0.07)	0.75* (0.07)	0.77* (0.08)	0.82* (0.19)	0.83* (0.20)
GDP growth	-0.15 (0.32)	-0.15 (0.33)	-0.11 (0.34)	0.55* (0.27)	0.56* (0.24)
Unemployment	0.27 (0.43)	0.27 (0.44)	0.17 (0.47)	-0.35 (0.27)	-0.35 (0.29)
Years in office (log)		-0.29 (1.27)	-0.22 (1.21)	-1.01 (1.58)	-0.64 (1.79)
Election year					-0.08 (0.50)
Country fixed effects			X	X	X
Prime minister party fixed effects				X	X
Wald test of growth and unemployment (p-value)	0.77	0.79	0.92	0.06	0.03
R <sup>2</sup>	0.75	0.75	0.76	0.96	0.96
N	36	36	36	36	36

Notes: Prime Minister party clustered standard errors in parentheses. \* $p < 0.05$ , one-sided.



for the incumbent will increase about half a percentage point. The effect of unemployment is statistically insignificant, but negative as one would expect. Therefore, there is some evidence that the prime minister's party is punished for providing lower levels of unemployment.

The crucial statistical test of economic voting is a set of Wald tests, which compares the models presented in Table 2 with models in which the effect of unemployment and GDP growth is restricted to zero. For each model, the p-value associated with such a Wald test is displayed at the bottom of Table 2. In the baseline model, the economic variables do not help explain the prime minister party's vote share. However, in the more carefully specified models, the economic variables contribute statistically significantly ( $p \approx 0.05$ ).

We only find signs of economic voting in the models that include prime minister party fixed effects. Given our discussion of the issues related to identifying the economic vote in Scandinavia, this is not entirely surprising. A prominent challenge to identification was non-stationarity, resulting from the fact that different prime minister parties have different long-run equilibriums with respect to electoral support. This is exactly what we take into account in the final two specifications, where we identify an effect of economic conditions.

Interestingly, the time-sensitive variables *years in office* and *election year* are not statistically significant individually. A Wald test which restricts both to be zero in model 5 reveals that they are not collectively statistically significant either ( $p > 0.1$ ). This is not problematic in itself, but it might be if this means that the effect of the time-sensitive variables are mis-specified and therefore not properly controlled for. In the online appendix, I look into this by trying out different functional forms. The effect of the economy remains statistically significant at the 10 percent level in three out of the four alternative specifications I use. However, the analyses reveal that the estimates for the effect of growth and the unemployment rate are sensitive to the assumptions made about the time-sensitive variables; they increase or decrease substantially depending on the specification. The sensitivity of the results to these different specifications makes the replication presented below most welcome.

In sum, while there is no apparent correlation between the economic situation and electoral support, it is possible to identify an effect of the economy on support for Scandinavian prime minister's party if one estimates a more carefully specified statistical model.

## Evidence from a Danish Vote Function

Having identified an effect of economic conditions in a sample of Scandinavian elections, I now turn to examining the effect of economic

conditions on support for governing politicians within a single Scandinavian country: Denmark. As in the other Scandinavian countries, there have been several previous studies of economic voting in Denmark. However, most of them have found no effect of economic conditions on support for the prime minister's party (for an early exception, see Paldam & Schneider 1980; Lewis-Beck & Stegmaier 2000, 207; Nannestad & Paldam 2000; Stubager et al. 2013).

I will proceed as I did with the cross-country data to establish that one cannot identify an effect of the economy by simply correlating economic indicators with support for the prime minister's party, and then I will show that if one specifies a more careful statistical model, there is an effect of economic conditions on the vote – in effect, replicating the findings from the cross-country data. Specifically, I examine a Danish vote-function spanning 33 years. I use election polls to measure support for the Danish prime minister's party in each of the years included in the analysis.

Why is it necessary to replicate the findings from the cross-country data? Results in the comparative economic voting literature are known to be quite unstable (Paldam 1991; Duch & Stevenson 2008). Therefore, it makes sense to replicate the findings above on a new dataset to ensure that they are not a feature of the data used to produce them. This is especially important since the number of elections examined above is relatively small.

### *Data*

To test whether there is an effect of aggregate economic indicators on the persuasions of the Danish electorate, I link electoral support for the prime minister party and the two economic indicators used in the cross-country study – namely, GDP per capita growth and the unemployment rate. The period under investigation is 1979–2011. The time-series begins in 1979, the first year in which Statistics Denmark started to measure the unemployment rate based on the actual number of beneficiaries of unemployment assistance. Before 1979, unemployment was registered using surveys. Thus, data on the Danish unemployment rate from before 1979 is not well suited for comparison with this later statistic. Economic data was taken from Statistics Denmark.

I measure electoral support for the prime minister's party in each year by using Gallup's political index. Since 1958, Gallup has conducted more than ten annual polls with at least a 1,000 respondents who are (demographically) representative of the Danish electorate. In each of these polls voters were asked what party they would vote for if a parliamentary election was held tomorrow. To measure support for the prime minister's

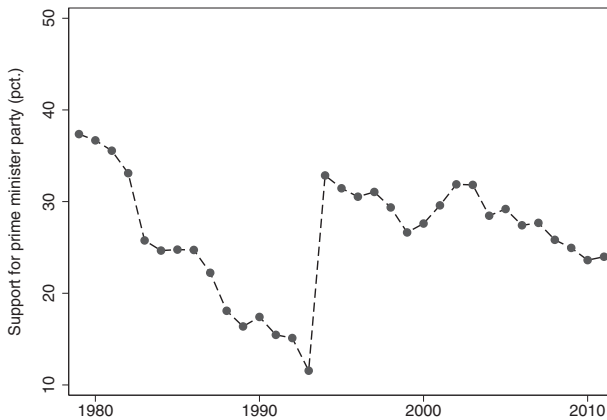
Table 3. Descriptive Statistics, Denmark (n = 33)

Variable	Mean	Standard deviation	Minimum	Median	Maximum
Prime minister party voteshare	25.67	7.77	11.35	27.03	37.36
Lagged prime minister party vote share	25.72	7.89	11.55	27.42	37.36
GDP per capita growth	1.99	2.43	-5.79	2.43	6.77
Unemployment	7.22	2.78	1.90	7.40	12.40
Years in office (log)	1.36	0.76	0.00	1.50	2.40
Election year	1995	9.96	1978	1995	2011

party in a given year, I average the percentage of the respondents across the different polls who said they would vote for the party that held the office of the prime minister at the beginning of the year. Using polls introduces a certain degree of random measurement error into the dependent variable due to sampling variability. However, this will not be a major obstacle in identifying the effect of economic conditions. Since the measurement error is primarily in the dependent variable, it will only decrease efficiency and not introduce any systematic bias into the measurement of the effects of the economic conditions (King et al. 1994, 151–7). Furthermore, the degree of measurement error is very small. If one assumes that the Gallup poll approximates simple random sampling, the standard deviation of the measurement error should only be about 0.5 percentage points, which is only a very small fraction of the total standard deviation of the electoral variable (cf. Table 3). Almost all of the variation in the dependent variable is due to changes in electoral support rather than measurement error. Finally, this approach, linking averaged polls to economic conditions, has been widely used to examine the economic vote (e.g., Lewis-Beck & Stegmaier 2013), which suggests that it is a viable method.

The unit of analysis is years. The reason for this is not straightforward. Statistics Denmark also publishes economic indicators on a quarterly basis, and since I have several annual polls, these could be broken into quarters. In spite of this, I opt for using years rather than quarters for three reasons. First, as noted above, the large number of polls used to get at the yearly estimate means that the measurement error is quite small. Using quarters would mean cutting the number of polls per time-period severely, leading this measurement error to increase substantially. Second, quarterly economic data can only be obtained for about half the period, which means that the number of cases would not quadruple as one might expect. Finally, using years as a unit of analysis increases comparability with the cross-country study of Scandinavian elections presented above.

Figure 2. Support for the Danish Prime Minister's Party in Years included in the Analyses.



Descriptive statistics on all variables can be found in Table 3. Figure 2 displays the 33 realisations of the dependent variable *support for the prime minister's party*.

### *The Model*

To identify the effect of economic conditions on support for the prime minister party in Denmark, I estimate a model similar to the baseline used when examining the cross-country data – that is, an AR(1) model with electoral support for the prime minister's party as the dependent variable, and unemployment rate and GDP per capita as the main independent variables. I amend this baseline model slightly, including all economic variables as one-period lags, to ensure that voters are actually using *past* performance to assess the competence of their political leaders. There are two reasons why this is necessary when examining the present data, but was not necessary when dealing with the cross-country election data. First, using averaged polling data means that a large fraction of the respondents had to evaluate the prime minister's party with only little information about this year's economy (i.e., those polled early in the year). Second, causal ordering of economic outcomes and election results becomes more important to sort out when we have data on electoral support for each year rather than a data point every few years (i.e., when there is an election).

Similar to what I did for the cross-country data above, I then amend this baseline model by including controls that reduce the error term of the model and make the stationarity assumption more plausible. In order to

Table 4. OLS Regression of the Danish Prime Minister's Party Vote Share

	(1)	(2)	(3)	(4)
Lagged executive party vote share	0.37* (0.15)	0.17 (0.11)	0.06 (0.04)	-0.02 (0.04)
GDP growth	0.00 (0.46)	-0.04 (0.32)	0.30* (0.13)	0.20* (0.11)
Unemployment	0.23 (0.45)	-0.65* (0.35)	-0.44* (0.21)	-0.45* (0.17)
Years in office (log)		-6.60* (1.17)	-4.51* (0.50)	-0.49 (1.22)
Election year				-1.10* (0.31)
Prime minister fixed effects			X	X
Wald test of growth and unemployment (p-value)	0.87	0.18	0.02	0.02
R <sup>2</sup>	0.17	0.61	0.95	0.97
N	33	33	33	33

Notes: Standard errors in parentheses. \* $p < 0.05$ , one-sided.

make the results from the two different datasets comparable, these controls are similar to the ones used above: time in office, election year and prime minister party fixed effects. Note that the country fixed effects are omitted since I only examine a single country in this analysis.

### Results

Table 4 presents estimates of the baseline model for the Danish data. It also presents models with the three extensions presented above. All models were estimated using OLS regression.<sup>3</sup> The results are similar to those obtained using the cross-country data: when estimating the baseline model there is no discernable effect of either unemployment or GDP growth. However, as we amend the baseline model, the effect of the economic variables becomes jointly statistically significant. This can be seen from the joint Wald test of unemployment and growth. This test reveals that while the effect of these two variables is not statistically significantly different from zero in the models estimated in columns one and two, they are statistically significantly different from zero in columns two and three ( $p < 0.05$ ).

Unlike what we found in the cross-country data, the unemployment rate is individually statistically significant in the final model. Even so, the estimated size of the effect of unemployment is very similar to that found above. Another difference is that the estimated effect of GDP growth is smaller than what was found with the cross-country data. However, if one takes the substantial sampling variability in the difference between the two estimated effects into account, one can quickly determine that the differences are not statistically meaningful.<sup>4</sup>

Taken together, the evidence presented in Table 4 seems to echo the findings from the cross-country study of the Scandinavian elections. We can therefore conclude that if one estimates a model which takes potential problems related to inefficiency and non-stationarity into account, it is possible to identify an effect of aggregate economic conditions on support for the prime minister's party.

Before concluding, it seems appropriate to shortly discuss the size of the effects. While they are statistically different from zero, they might seem small. If one compares the effects of unemployment rate and GDP per capita estimated in the right-most models of Tables 2 and 4 to those found, for instance, in American elections this is certainly true (cf. Fair 1996). However, if one compares the Scandinavian results with a wider cross section of countries, the effects are not particularly small. In a recent examination of economic voting, Kayser and Peress (2012) find comparable effect-sizes for unemployment and GDP per capita growth in the OECD countries. Furthermore, it would be surprising if the effect of economic conditions on vote choice in Scandinavia was very large. As mentioned in the introduction, countries with small open economies, such as those in Scandinavia, should not experience as much economic voting as countries in larger, less open economies (Duch & Stevenson 2008).

## Conclusion

In this article I have documented that objective economic conditions – particularly unemployment and GDP growth – play a role in shaping the electoral fortunes of governing politicians in Scandinavia. This runs contrary to extant research that has generally not found such a relationship in the Scandinavian countries.

Using a dataset of Scandinavian elections and a Danish vote function, I have demonstrated, that even though it is not possible to identify a relationship between economic conditions and support for the prime minister's party by simply correlating election returns and economic indicators, one can identify such a relationship if one estimates a model which takes key features of the *political* (i.e., minority coalition governments) and *economic* (i.e., openness to trade) context of Scandinavia into account. A *caveat* that deserves to be mentioned here is that the results found for the Scandinavian elections were sensitive to the how these contextual factors were statistically specified (cf. the online appendix). However, the fact that I find the same basic results in both datasets makes this less of an issue.

On an empirical level, this study shows that Scandinavian prime ministers are in fact punished and rewarded for the economic conditions they provide. Arguably, this is good news for electoral accountability as it

means that Scandinavian prime ministers have an electoral incentive to foster desirable economic outcomes. The primary theoretical implication of this article is that economic voting is more universal than hitherto asserted. More broadly, it reassures us that even though political behaviour might vary between Scandinavian countries and other democracies, the same basic mechanisms govern this behaviour. It suggests that even though some mechanisms might be less pronounced in some places than in others, we can, at least to some extent, understand the act of voting as being governed by laws which transcend geographical borders. And one of these laws is economic voting.

## NOTES

1. Although inflation might still be politically contentious in some of the Scandinavian countries. In Norway, for instance, the government's use of the money generated by the oil reserve is generally thought to drive up prices and interest rates. However, we should not expect to find effects across the Scandinavian countries. I am grateful to one of the anonymous reviewers for pointing this out.
2. These fixed effects are included by constructing a set of dummies for each of the different prime minister parties, save one which is the reference prime minister. If the same party controls the office of the prime minister a few years, is out of office a few years and then controls the office again, this will give the same party two prime minister party dummies; one for the first span of years in office, and one for the second span of years in office. If a prime minister resigns, and then a new prime minister from the same party takes over, this will only count as one prime minister party dummy.
3. See the online appendix for sensitivity tests of the models akin to those produced for the cross-country data.
4. Assuming that the sampling variability of the two effects are independent of each other, the standard error of the difference is the square root of the sum of the standard errors attached to each estimate. This is roughly 0.27. Since the actual difference in the estimated effect sizes is only 0.36, one cannot reject a hypothesis of similar effect sizes at any credible level of significance.

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## Supporting Information

Additional Supporting Information may be found in the online version of this article at the publisher's web-site:

### Online Appendix

**Table S1:** OLS-regression of Prime Minister party vote share.

**Table S2:** OLS-regression of the Danish Prime Minister party vote share.