

# Party Loyalty in Belgium and Germany: The Effects Of Consumer Confidence and Government Approval\*

Adriaan Luyten<sup>†</sup>      Christophe Crombez<sup>‡</sup>

October 3th, 2011  
Preliminary Version

## Abstract

This paper studies party identification in Belgium and Germany, and how they have evolved in the past thirty years. Specifically, we analyze the impact of consumer confidence and government approval on party identification. We conclude that in Germany rises in consumer confidence and government approval do indeed lead to increases in identification with the main governing party. In Belgium we find no evidence for such a relationship.

---

\*This research was conducted with funding made available by The Flemish Fund for Scientific Research (Fonds voor Wetenschappelijk Onderzoek, Project G.0.483.09.N.10)

<sup>†</sup>Adriaan Luyten is a doctoral candidate at K.U. Leuven. Address: K.U. Leuven, Faculty of Business and Economics, Naamsestraat 69, 3000 Leuven, Belgium; Email: Adriaan.Luyten@econ.kuleuven.be

<sup>‡</sup>Christophe Crombez is Professor of Political Economy at K.U. Leuven, Visiting Professor at Stanford University, and National Fellow at the Hoover Institution. Address: K.U. Leuven, Faculty of Business and Economics, Naamsestraat 69, 3000 Leuven, Belgium; Email: crombez@stanford.edu

# 1 Introduction

A general observation, in the U.S. as well as in other Western democracies, is that party identification (ID) is relatively stable. The observed stability, often explained as a result of socio-psychologic forces, brought about the concept of party ID as an unmoved mover<sup>1</sup>. In this view, Party ID is a non-political attitude that can nonetheless influence an individual's opinion about politics.

The lion's share of the literature focuses on party ID at the micro level. As individual changes in party ID are exceptional, changes in the aggregate distribution of party ID should be uncommon as well. As a result, shifts in macropartisanship -defined as the balance of party identifiers between the parties- should be limited and can only occur in a gradual fashion.

In their paper *Macropartisanship* MacKuen et al.(1989) present evidence against this view. They demonstrate that macropartisanship fluctuates in response to changes in consumer confidence and presidential approval. Their analysis was replicated by Green et al. (1998), who found considerably less evidence of partisan fluctuation. They found that short-term effects (consumer sentiment and presidential approval) have only half the effect that the earlier study suggested. Given that these fluctuations are smaller and move back and forth, they conclude that the earlier view of realignment remains persuasive: partisanship is generally stable, except for occasional significant realignments.

In this paper, we will study the macro-level relationship between party-ID and short term forces such as consumer confidence and governmental approval using Belgian and German data. The next section deals with the problems of studying this relationship in multi-party political systems. The third section analyzes the relationship between short term forces -such as consumer confidence and government approval- and macropartisanship in Germany. The

---

<sup>1</sup>Campbell et al. 1960; Miller 1990

fourth section performs this analysis with Belgian data. The fifth section concludes. We find that consumer confidence and government approval do indeed have a positive impact on identification with the main governing party in Germany. The results for Belgium are inconclusive.

## **2 The analysis of macropartisanship in a multiparty context**

Most studies of the stability of aggregate partisanship take place in the U.S. context. In these studies, macropartisanship is defined as the proportion of party identifiers who call themselves Democrats. Presidential approval is defined as the percentage of respondents who approve of the way the president is handling his job. However, the conventional operationalization of these concepts might not be appropriate once we move outside the circumstances of the American party system. Both the variable of interest, macropartisanship, and a key explanatory variable, presidential approval, have to be redefined.

In a multiparty context it is likely that a number of parties are similar to each other, and hence multiple party identification should not be surprising (Weisberg 1999). To tackle this problem, Schickler and Green (1997) as well as Garry (2006) propose some refinements in the way that partisanship is measured in multiparty systems. These refinements include party-by-party measures of party-ID and positive as well as negative party-ID. Unfortunately, these data are not available for the countries we study.

A more serious complication stems from the way in which macropartisanship is defined. In previous U.S. studies, macropartisanship is specified as the share of Democrats in all party identifiers. This specification is not suitable for countries in which the number of parties varies over time. If a party dissolves for example, the share of the remaining parties will

increase (*ceteris paribus*). Furthermore, an analysis of the relationship between aggregate party-ID and short term forces entails distinct estimations for each party. Contrary to the U.S. studies, we cannot express the party-ID share of all parties in a single number (e.g. if the democrats' share is .4, we know that the republicans' share equals .6). However, this methodology has other flaws. A complication arises if we use coalition government approval data instead of presidential approval ratings. In order to examine the effect of government approval on macropartisanship, we would have to isolate the approval ratings of the different coalition partners.

With these caveats -as well as the availability of data- in mind, we operationalize party identification and approval in the best possible manner. For Germany, the above-mentioned complications can be overcome relatively easily. Although the analysis will be less accurate than previous U.S. studies, we believe that the applied specifications do not jeopardize the validity of our results. The analysis of Belgian party-ID is more problematic. Our study was severely hampered by issues such as the frequent changes in the number of parties, the size of the coalitions and the varying importance of interregional conflict.

For Germany, we define macropartisanship in two different ways. In our first approach, we define macropartisanship as the proportion of all party-identifiers who identify with the Christian Democrats (CDU<sup>2</sup>). In our second approach we discard all non-CDU non-SPD<sup>3</sup> identifiers, and treat the German political system as a two-party system.

If we were to study the stability of party ID as such, our first approach would obviously be the most suitable. However, problems arise when we model partisanship as a function of (consumer confidence and) government approval. The rising popularity of a FDP<sup>4</sup>-minister, for example, might translate into a rise in government approval as well as a decline in CDU-partisanship.

---

<sup>2</sup>In this paper, we treat the Christlich Demokratische Union (CDU) and the Christlich Soziale Union (CSU) as a single party. We refer to this party as CDU.

<sup>3</sup>SPD stands for Sozialdemokratische Partei Deutschlands

<sup>4</sup>FDP stands for Freie Demokratische Partei

While the second approach ignores some fundamental aspects of German politics, it has the advantage that the relation between party ID and governmental approval is not blurred by the fortunes of coalition partners. Furthermore, Figure 1 shows that the CDU and the SPD make up the lion's share of german party identifiers. In the next section we follow the second approach. We obtained similar results using the first approach.

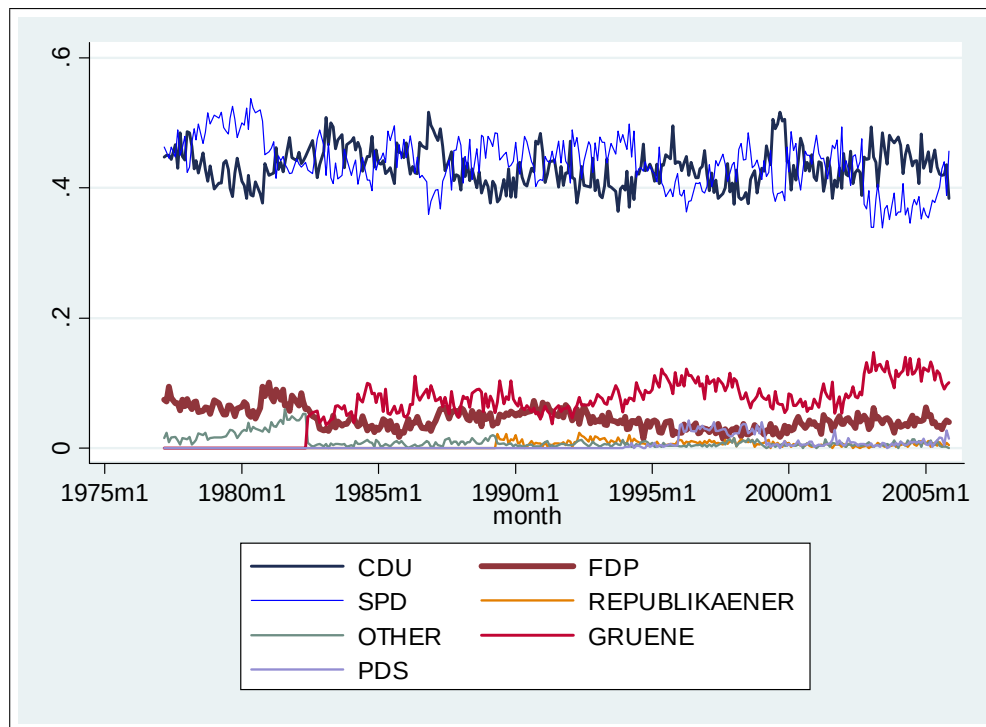


Figure 1: The evolution of party-ID in Germany.

For Belgium, we focus on Flanders and use vote intentions (footnote) as a proxy for party identification. As all major parties were part of at least one coalition government during our sample period, we cannot define macropartisanship as the balance of party-ID between two parties. Instead, we define macropartisanship as the percentage of voters that support the Liberal Democrats (Vlaamse Liberalen en Democraten). This is similar to the first approach we followed for Germany. That is, we consider the support of one of the two main parties in our sample, one of the two parties that controlled the prime ministership during the period

studied.

We will use several distinct proxies for government approval. The first one is the percentage of people who have trust in the federal government. The second one is the percentage of people who trust the prime minister. The third and final one is the percentage of people who say that 'they can image themselves voting for the prime minister'.

For Germany, we use data from monthly telephone surveys conducted by Forschungsgruppe Wahlen Mannheim<sup>5</sup> over the period 1977-2005. Until 1989, these surveys were conducted in the BRD, excluding West-Berlin. From 1990 onwards, West-Berlin and the former DDR are included in the sample. The data on seasonal adjusted consumer confidence were constructed by Thomson Datastream.

Belgian data on vote intentions were provided by La Libre Belgique and RTL<sup>6</sup>. Data on trust in the government/prime minister and popularity of politicians were collected by TNS Dimarso, and published in the Flemish newspaper De Standaard<sup>7</sup>. Data on consumer confidence were obtained from the website of the Belgian central bank<sup>8</sup> (Nationale Bank van België).

---

<sup>5</sup>Available via [zacat.gesis.org](http://zacat.gesis.org)

<sup>6</sup>website: [www.llb.be](http://www.llb.be)

<sup>7</sup>website: [www.standaard.be](http://www.standaard.be)

<sup>8</sup>website: [www.nbb.be](http://www.nbb.be)

### **3 The relationship between consumer confidence, governmental approval and macropartisanship in Germany**

#### **3.1 Movements in consumer confidence, government approval and macropartisanship**

The sample period covers nine coalition governments (8th-15th Bundestag), of which four were led by the SPD and five were led by the CDU. An obvious event we should account for in our analysis is the fall of the Berlin wall and the reunification of Germany. This event might influence the partisan balance, approval ratings as well as consumer sentiment in the short run. Furthermore, we should take into account that the structural relationship between the variables of interest may have changed at the time of reunification. For these reasons, we duplicated our analysis using the subsample of former West Germany, which did not alter the results significantly. Furthermore we formally tested whether there was a structural break at the time of reunification. All so-called Chow tests rejected the hypothesis of a structural break.

Figure 2 traces the relative partisanship of the governing party (i.e. the proportion of party identifiers that support the Chancellor's party) along with consumer confidence and government approval. In order to get a clear view of the common movements, all series have been smoothed by a (three month) moving-average filter. *Prima facie*, the figure above reveals that the relation between the variables has the chronological order suggested by Mac Kuen et al. (1989). Movements in consumer confidence seem to precede changes in governmental approval, which in turn precede changes in partisanship. This relationship seems most pronounced for the Kohl governments.

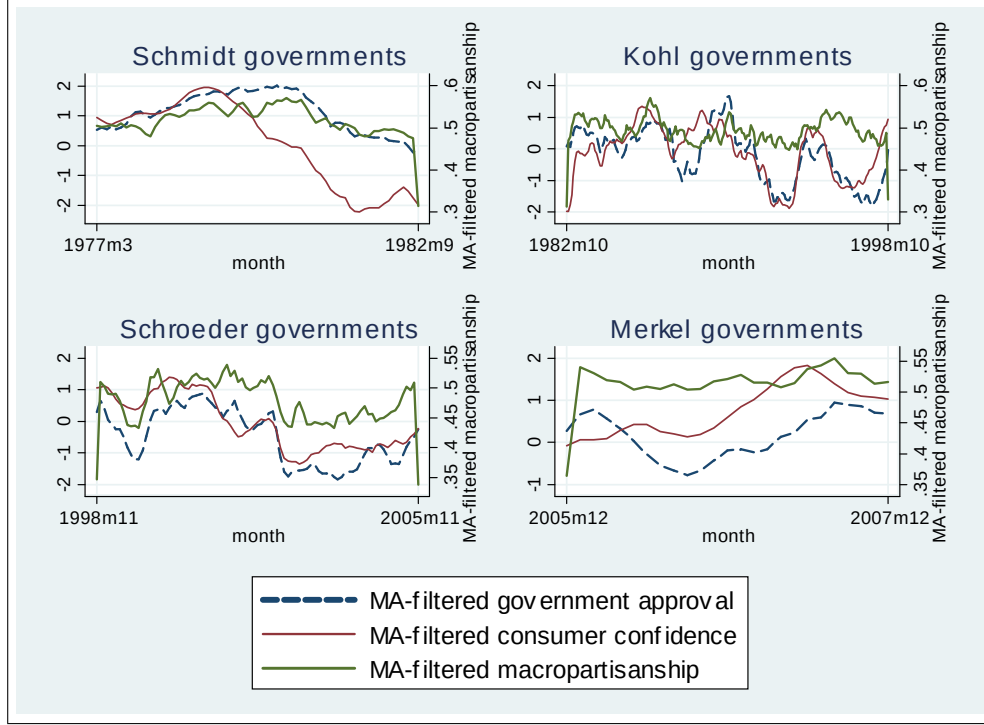


Figure 2: Movements in consumer confidence, government approval and macropartisanship in Germany.

Before we analyze this apparent relationship quantitatively, we formally test whether variations in consumer confidence and governmental approval cause (or rather 'Granger-cause') variations in macropartisanship. Granger causality tests assess the joint significance of lagged values of a variable in a regression which includes lagged values of the dependent variable. The results are displayed in Table 1. In this Table, A, M and C are abbreviations for government approval, macropartisanship and consumer confidence, respectively. The implication mark  $\Rightarrow$  means "Granger causes".

The chronological relationship between governmental approval and macropartisanship is not clear-cut. The first lags of both variables contain information about the current value of the other variable, over and above the information contained in the lagged value of this other variable. If we include an additional lag, the significance disappears in both chronological specifications. The Granger tests find no evidence for a (chronological) relationship between



|        | $A \Rightarrow M$ | $M \Rightarrow A$ | $C \Rightarrow M$ | $M \Rightarrow C$ | $C \Rightarrow A$ | $A \Rightarrow C$ |
|--------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| 1 lag  | 0.0494            | 0.051             | 0.1716            | 0.763             | 0.0057            | 0.0912            |
| 2 lags | 0.13              | 0.123             | 0.4368            | 0.549             | 0.0184            | 0.0331            |
| 3 lags | 0.3122            | 0.177             | 0.5316            | 0.3015            | 0.0269            | 0.0877            |
| 4 lags | 0.4927            | 0.2812            | 0.7221            | 0.3063            | 0.0096            | 0.2284            |

Table 1: Granger causality tests: p-values for the F-statistics of joint significance of lagged explanatory variables.

consumer confidence and macropartisanship in either direction. The direction of causality between consumer sentiment and governmental approval is less ambiguous. The Granger tests indicate that changes in consumer confidence precede changes in government approval.

We can conclude from the Granger tests that there is no evidence that contradicts the order of causality suggested above. The tests show that changes in consumer confidence do indeed precede changes in government approval. The tests are inconclusive about the direction of causality of the other variables. Before we examine whether the inclusion of control variables affects the results, we will take a look at the dynamics of our dependent variable.

### 3.2 The dynamics of macropartisanship

Before we investigate the causes of movements in macropartisanship, it is useful to find out what these movements look like. In this section, we will explore the dynamic structure of macropartisanship and assess its stability statistically.

We will use a Box-Jenkins approach to uncover the dynamic characteristics of macropartisanship. Figure 3 presents the autocorrelogram and partial autocorrelogram of our macropartisanship series.

The autocorrelogram and partial autocorrelogram displayed above indicate that macropartisanship may be characterised as an ARMA(1,1) process. The rapidly declining autocor-

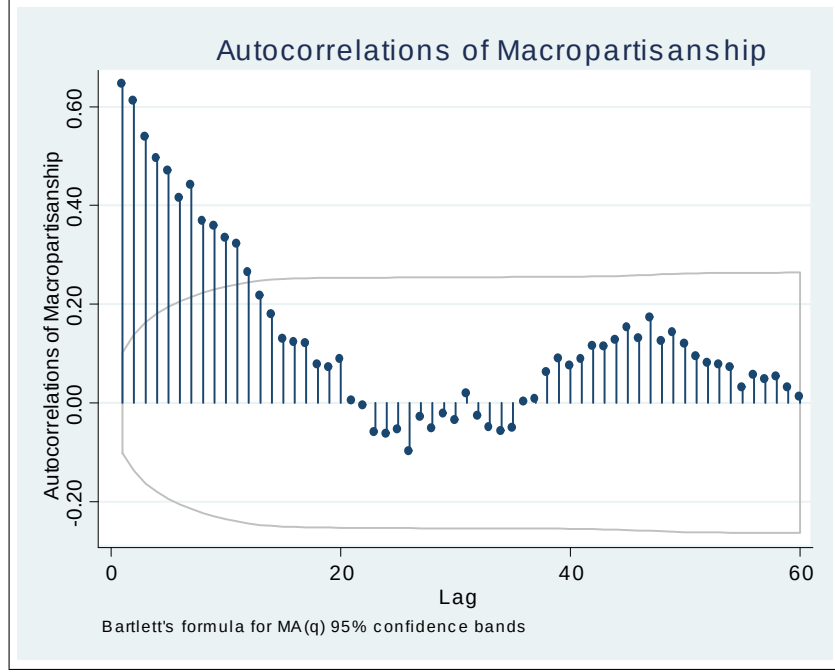


Figure 3: Autocorrelogram macropartisanship

relations suggest an autoregressive AR(1) component, whereas the significant partial autocorrelations at lags 1, 2 and 3 point to a moving average component MA(1) or MA(2). The estimation output, shown in table 3, rejects the presence of a MA(2) component.

The parameter of interest in this model is the coefficient on lagged macropartisanship<sup>9</sup>. We find this coefficient to be 0.921 (standard error: 0.027), which means that macropartisanship is mean-reverting in a gradual manner. If macropartisanship is one unit above its long term mean today, it will be  $.921^{12} = .372$  units above its long-term mean next year<sup>10</sup>. When we compare our estimates with those of U.S. macropartisanship, we see that the ARIMA structure is the same, as expected. However, the rate at which macropartisanship reverts to its mean is (a lot) higher in Germany. Green et al.(1998) estimate an AR(1) coefficient of .95, using quarterly data. This means that if macropartisanship is one unit above its mean today, it will be  $.94^4 = .81$  units above its long-term mean next year.

<sup>9</sup>The moving average component is probably due to sampling variability

<sup>10</sup>Although the presence of a unit root is impossible in a bounded series, we conducted augmented Dickey-Fuller test, which rejects unit root at the 5% level.

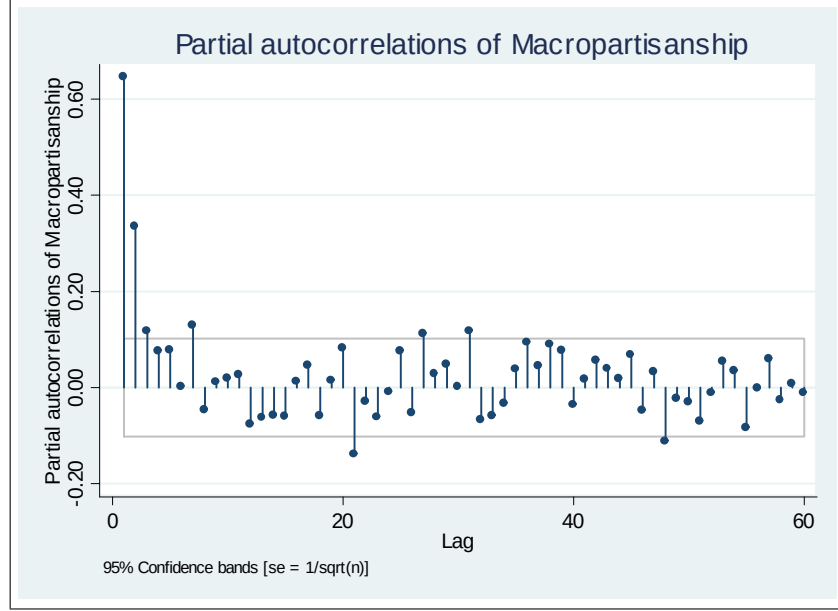


Figure 4: Partial autocorrelogram of macropartisanship

### 3.3 The effects of short-term forces on macropartisanship

We will use broadly the same approach as MacKuen et al. (1989) to quantify the effects of short-term forces on macropartisanship. The descriptive statistics of the variables of interest are presented in Table 4.

They present two time series analyses of macropartisanship as a function of consumer confidence and presidential approval. They include in their regressions an extensive set of control variables. This set includes administration dummies, inauguration dummies and event (e.g. Watergate) dummies. Green et al. (1998) criticize the inclusion of this extensive set, arguing that it 'risks overfitting the model and undercutting the apparent autoregressive character of macropartisanship'. In our analysis, we will restrict control variables to coalition dummies, inauguration dummies and reunification dummies.

Another remarkable feature of MacKuen et al.'s analysis is the way in which they operationalize presidential approval. They model presidential approval as a function of consumer confidence, historical events and administration dummies. They use these estimates

|                                                | macropartisanship |       |
|------------------------------------------------|-------------------|-------|
|                                                | b                 | p     |
| macropartisanship                              |                   |       |
| Constant                                       | 0.500***          | 0.000 |
| ARMA                                           |                   |       |
| L.ar                                           | 0.921***          | 0.000 |
| L.ma                                           | -0.543***         | 0.000 |
| sigma                                          |                   |       |
| Constant                                       | 0.025***          | 0.000 |
| Observations                                   | 370               |       |
| $R^2$                                          |                   |       |
| Adjusted $R^2$                                 |                   |       |
| * $p < 0.05$ , ** $p < 0.01$ , *** $p < 0.001$ |                   |       |

Table 2: ARMA(1,1) model

to 'purge approval of the variance attributable to consumer sentiment', i.e. they construct a new variable "political approval" that equals presidential approval minus 0.29 (the coefficient of consumer confidence in the presidential approval model) times consumer confidence. For the sake of comparability, we will use the same operationalization.

Specifically, we estimate the effect of consumer confidence on government approval as follows<sup>11</sup>:

$$Gov.App._t = \beta_0 + \beta_1 Gov.App._{t-1} + \beta_2 Con.Conf_{t-1} + \gamma X_t + \varepsilon_t,$$

where X is a vector of control dummies. The control dummies are the aforementioned coalition, inauguration and reunification dummies.

The regression output of this equation is summarized in Table 5. Lagged consumer confidence and lagged approval are both highly significant. Following MacKuen e.a., we

<sup>11</sup>Before we start our time series analysis, we have to be sure that all variables are stationary. Macropartisanship and governmental approval are specified as percentages. Therefore, as the values of these variables are bounded, these variables cannot have a unit root. Dickey-Fuller tests confirm that all variables (including consumer confidence) are stationary.

|                   | macropartisanship |       |
|-------------------|-------------------|-------|
|                   | b                 | p     |
| macropartisanship |                   |       |
| Constant          | 0.500***          | 0.000 |
| ARMA              |                   |       |
| L.ar              | 0.917***          | 0.000 |
| L.ma              | -0.545***         | 0.000 |
| L2.ma             | 0.017             | 0.745 |
| sigma             |                   |       |
| Constant          | 0.025***          | 0.000 |
| Observations      | 370               |       |
| $R^2$             |                   |       |
| Adjusted $R^2$    |                   |       |

\* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

Table 3: ARMA(1,2) model

| Table 4: Descriptive Statistics |       |       |       |      |
|---------------------------------|-------|-------|-------|------|
|                                 | mean  | sd    | min   | max  |
| macropartisanship               | 0.50  | 0.04  | 0.4   | 0.6  |
| consumer confidence             | -1.59 | 12.59 | -28.0 | 32.0 |
| government approval             | 0.06  | 0.51  | -0.8  | 0.7  |
| Observations                    | 370   |       |       |      |

generated a new variable "political approval" based on these estimates. This variable is identified as follows:

$$Pol.App._t = Gov.App._t - \beta_2 Con.Conf.$$

We model macropartisanship in three different ways. The results of these models can be found in table 6. Our first model of macropartisanship regresses macropartisanship on its lagged value, lagged consumer confidence, lagged political approval and control variables. Contrary to the U.S. studies, lagged consumer confidence has no significant effect on macropartisanship. Political approval has a small but significant effect.

Table 5: Government Approval

|                       | government approval |       |
|-----------------------|---------------------|-------|
|                       | b                   | p     |
| L.government approval | 0.824***            | 0.000 |
| L.consumer confidence | 0.002***            | 0.000 |
| (mean) Merkel         | -0.026*             | 0.022 |
| (mean) Kohl           | -0.025**            | 0.001 |
| (mean) Schroeder      | -0.034***           | 0.000 |
| Merkel1               | 0.095*              | 0.034 |
| Kohl1                 | 0.170***            | 0.000 |
| Schroeder1            | 0.163***            | 0.000 |
| Schmidt1              | 0.000               | .     |
| Constant              | 0.120***            | 0.000 |
| Observations          | 369                 |       |
| $R^2$                 | 0.887               |       |
| Adjusted $R^2$        | 0.885               |       |

\* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

Table 6: Macropartisanship: OLS-models

|                       | macropartisanship |       | macropartisanship |       | macropartisanship |       |
|-----------------------|-------------------|-------|-------------------|-------|-------------------|-------|
|                       | b                 | p     | b                 | p     | b                 | p     |
| L.consumer confidence | 0.000             | 0.104 | 0.000             | 0.372 | 0.001***          | 0.000 |
| L.macropartisanship   | 0.439***          | 0.000 | 0.437***          | 0.000 | 0.534***          | 0.000 |
| L.polapp              | 0.069***          | 0.000 |                   |       |                   |       |
| (mean) Merkel         | 0.009             | 0.150 | 0.009             | 0.157 | 0.013*            | 0.039 |
| (mean) Kohl           | 0.000             | 0.952 | -0.000            | 0.989 | 0.007             | 0.064 |
| (mean) Schroeder      | 0.007             | 0.156 | 0.007             | 0.175 | 0.017***          | 0.000 |
| Merkel1               | 0.055*            | 0.037 | 0.054*            | 0.037 | 0.065*            | 0.014 |
| Kohl1                 | -0.052*           | 0.041 | -0.052*           | 0.041 | -0.058*           | 0.026 |
| Schroeder1            | -0.033            | 0.204 | -0.032            | 0.213 | -0.042            | 0.103 |
| Schmidt1              | 0.000             | .     | 0.000             | .     | 0.000             | .     |
| L.government approval |                   |       | 0.071***          | 0.000 |                   |       |
| Constant              | 0.279***          | 0.000 | 0.281***          | 0.000 | 0.225***          | 0.000 |
| Observations          | 368               |       | 369               |       | 369               |       |
| $R^2$                 | 0.498             |       | 0.498             |       | 0.478             |       |
| Adjusted $R^2$        | 0.485             |       | 0.486             |       | 0.466             |       |

\* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

The second model replaces lagged political approval by lagged governmental approval. The latter has a significant effect on macropartisanship, which is of similar magnitude as the effect of political approval in our first model. This should not be surprising, given the small estimated impact of consumer confidence on government approval and the way in which the political approval series was constructed.

The third model drops both approval regressors. In this model, consumer confidence has a small but significant effect on macropartisanship. This indicates that consumer confidence affects macropartisanship via government approval, as this effect disappears once we include government approval itself.

In general, we can conclude that the German data reject the thesis of MacKuen e.a. that macropartisanship is partially determined by short term forces such as consumer confidence and governmental approval. The magnitude of the effects of both explanatory variables is quite different however.

## **4 The relationship between consumer confidence, governmental approval and macropartisanship in Belgium**

In this section, we replicate the above analysis using Belgian data. Figure 4 traces the Flemish parties' shares of vote intentions over the sample period.

As we can see in Figure 5, the relationship between the variables of interest seems far less pronounced in Belgium.



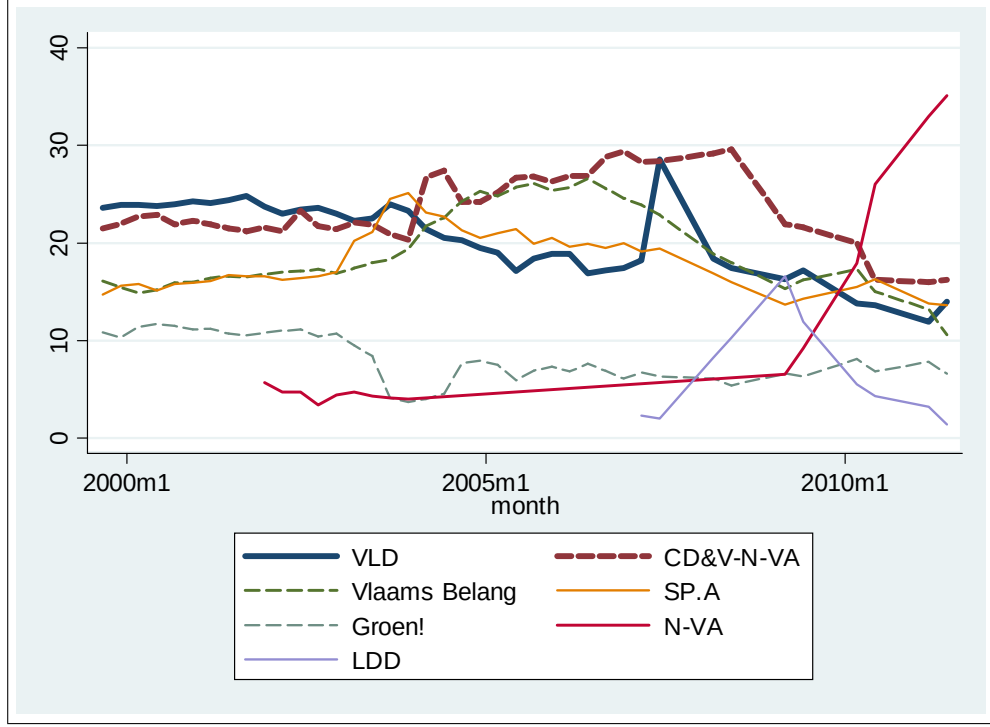


Figure 5: The evolution of vote intentions in Belgium.

|        | $A \Rightarrow M$ | $M \Rightarrow A$ | $C \Rightarrow M$ | $M \Rightarrow C$ | $C \Rightarrow A$ | $A \Rightarrow C$ |
|--------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| 1 lag  | 0.1683            | 0.1213            | 0.3108            | 0.9071            | 0.4869            | 0.2964            |
| 2 lags | 0.7938            | 0.2302            | 0.4810            | 0.9728            | 0.6610            | 0.0424            |
| 3 lags | 0.8755            | 0.3244            | 0.7553            | 0.5692            | 0.6293            | 0.0211            |
| 4 lags | 0.2748            | 0.4561            | 0.4101            | 0.7460            | 0.7501            | 0.0146            |

Table 7: Granger causality tests: Belgium

We start by conducting Granger causality tests, to check if the causal structure between consumer sentiment, government approval and macropartisanship remains the same. The data in table (x) are joint significance levels that are robust to serial correlation in the error terms. In this table, A, M and C are abbreviations for government approval, macropartisanship and consumer confidence, respectively. The implication mark  $\Rightarrow$  means "Granger causes".

The results from our causality tests are not very satisfactory. The only causal relationship that is supported by the data is one from government approval to consumer confidence. However, it is difficult to find a theoretical ground for this relationship.

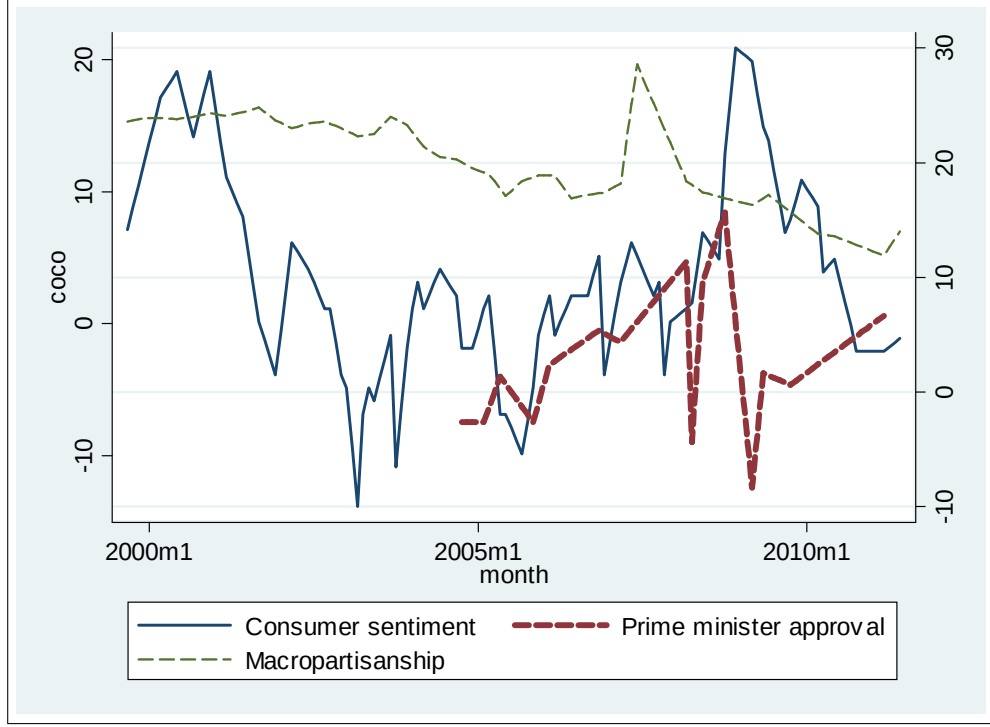


Figure 6: Movements in macropartisanship, consumer sentiment and government approval in Belgium

In the Tables below, we present the regression output of the OLS models for the Belgian data. Apart from the lagged dependent variables, none of the explanatory variables seem significant. As a result, it is impossible to draw any conclusions from this.

Table 8: Government Approval

|                      | approval |       |
|----------------------|----------|-------|
|                      | b        | p     |
| L.approval           | 1.030*** | 0.000 |
| L.Consumer sentiment | -0.066   | 0.471 |
| Verhofstadt          | -1.019   | 0.359 |
| Constant             | 1.407    | 0.212 |
| Observations         | 23       |       |
| $R^2$                | 0.836    |       |
| Adjusted $R^2$       | 0.810    |       |

Table 9: Macropartisanship: OLS-models

|                      | Macropartisanship |       | Macropartisanship |       | Macropartisanship |       |
|----------------------|-------------------|-------|-------------------|-------|-------------------|-------|
|                      | b                 | p     | b                 | p     | b                 | p     |
| L.Consumer sentiment | 0.037             | 0.507 | 0.036             | 0.526 | 0.029             | 0.354 |
| L.Macropartisanship  | 1.088***          | 0.000 | 1.087***          | 0.000 | 1.030***          | 0.000 |
| L.polapp             | -0.021            | 0.750 |                   |       |                   |       |
| Verhofstadt          | 0.125             | 0.895 | 0.134             | 0.886 | 0.056             | 0.931 |
| L.approval           |                   |       | -0.019            | 0.774 |                   |       |
| Constant             | -1.663            | 0.328 | -1.655            | 0.330 | -0.669            | 0.562 |
| Observations         | 23                |       | 23                |       | 34                |       |
| $R^2$                | 0.924             |       | 0.924             |       | 0.940             |       |
| Adjusted $R^2$       | 0.907             |       | 0.907             |       | 0.934             |       |

|

## 5 Conclusions

In this paper, we studied party identification in Belgium and Germany, and how they have evolved in the past thirty years. Specifically, we analyzed the impact of consumer confidence and government approval on party identification. We conclude that in Germany rises in consumer confidence and government approval do indeed lead to increases in identification with the main governing party. In Belgium we find no evidence for such a relationship. This may be due to the large number of parties in Belgium and the important roles that other variables such as interregional conflict play in Belgian politics.

# References

- Box, G. and Jenkins, G.. 1976. "Time Series Analysis: Forecasting and Control". San Fransisco, CA: Holden-Day
- Box-Steffensmeier, J. and Smith, R. 1996. "The Dynamics of Aggregate Partisanship." American Political Science Review 90(September):567-80.
- Campbell, A., Converse, P. , Miller, W. and Stokes, D.. 1960. The American Voter. New York: Wiley.
- Erikson, R., MacKuen, M. and Stimson, J.. 1998. "What Moves Macropartisanship? A Response to Green, Palmquist, and Schickler." American Political Science Review 92 (December): 901-12.
- Garry, John. 2007. "Making 'party identification' more versatile:Operationalising the concept for the multiparty setting". Electoral Studies. 26. no.2.: 346-358
- Green, D., Palmquist, B. and Schickler, E. 1998. "Macropartisanship: A Replication and Critique." American Political Science Review 93(December):883-99.
- MacKuen, M., Erikson,R. and Stimson, J. 1989. "Macropartisanship." American Political Science Review 83(December):1125-42.
- MacKuen, M. Erikson, R. and Stimson, J. 1992. "Question-Wording and Macropartisanship" American Political Science Review 86(June): 475-81
- Schickler, E. and Green, D. 1997. "The Stability of Party Identification in Western Democracies: Results From Eight Panel Surveys". Comparative Political Studies, Vol. 30 No. 4 (August): 450-483
- Weisberg, H. "A multidimensional conceptualization of party identification", Political Behavior, 2, 33-60