

# Checks and Balances and Nation Building: The Spanish Constitutional Court and Catalonia

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## Checks and Balances and Nation Building: The Spanish Constitutional Court and Catalonia

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#### Abstract

We examine whether judicial review can affect political attitudes by studying how the ruling of the Spanish Constitutional Court on the Catalan Constitution affected Catalan support for secession, which doubled in the 2010-2012 period. Our identification strategy relies on the fact that the ruling occurred amid a public opinion survey. We find that the ruling led to a 20% increase in support for Catalan independence from Spain in 2010. The ruling exacerbated the preferences for decentralization (up to secession) and ignited a backlash against institutions (courts, democracy, etc). Additionally, the polarization of political attitudes depended on (endogenous) identification: the ruling strengthened Catalan identity and increased political polarization in that dimension between people with and without Catalan heritage. Polarization around this issue came at the expense of depolarization in the economic dimension. All of these results are consistent with the predictions of identity politics theories.

JEL Classification: D02, O12, O17, K4.

Keywords: Identity Politics, Political Polarization, Checks and Balances, Judicial Review, Supreme Court, Nation Building.

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## 1 Introduction

Although Akerlof and Kranton (2000) provided a framework for how group identities can shape economic and political choices, economists now also explore the determinants of group identities (Shayo, 2020; Bonomi, Gennaioli and Tabellini, 2021). Fortuitous events and government policies are shown to affect identity and behavior. For instance, football victories in the Africa Cup enhanced national identities at the expense of ethnic identities and reduced conflict (Depetris-Chauvin, Durante and Campante, 2020). The 2014 Russian invasion of Crimea had a similar effect, i.e., the threat of a common enemy leads to a unifying identity (Gehring, 2021). However, other factors may increase group identification around opposing cleavages, for example, language policies may increase identity with the prohibited or compulsory language (Fouka, 2020; Clots Figueras and Masella, 2013; Aspachs-Bracons et al., 2008), incendiary campaign speeches may exacerbate political ideas (Ajzenman, Cavalcanti and Da Mata, 2020) and negative economic shocks may increase nativism (Guriev and Papaioannou, 2020). Therefore, group identification may be a cohesive force – when citizens group around a unique national identity – or it may lead to polarizing views and conflict – when citizens group around opposing identities.

Regarding citizens grouping around opposing identities, in this paper we show that although democratic institutions may be designed to protect minority groups and resolve conflict, they may also have the opposite effect, i.e., they heighten identification and exacerbate political preferences, which causes polarization and – potentially– conflict. In particular, courts increasingly play an essential role in extending or suppressing civil and political rights (see Hirschl, 2008) which may have an effect on individual attitudes through racial, sexual and national identities. Thus, although the courts' power to review law and policymaking in compliance with a constitution –i.e., judicial review– is one of the critical elements of checks and balances in liberal democracies (Hamilton, Madison and Jay, 1788; Hayek, 1960; Buchanan, 1974), it may exacerbate political attitudes and generate a democratic backlash among the affected groups.

Along these lines, we study how judicial review affects political attitudes and stability through cultural and identitarian channels in Spain by exploiting a unique case of judicial review against a regional constitution: the 2010 decision of the Spanish Constitutional Court about the new Catalan Constitution. This case is particularly well suited for our analysis for two reasons. First, the ruling occurred amid the fieldwork of a survey about political attitudes and behavior in Catalonia. Hence, the identification follows from the timing of the verdict, which generates a quasi-random assignment of respondents to the treatment group.<sup>2</sup> Second, the case has a unique context: in 2006, a new Catalan

<sup>&</sup>lt;sup>1</sup>For instance, the US Supreme Court played an important role in school integration with Brown vs Board of Education, in sexual rights with Roe vs Wade, etc. As noted in Hirschl (2008) the judicialization of politics reached "existencial" issues of the democratic polity, like the boundaries of the "Jewish collective in Israel", the role of Quebec in Canada. In Europe, the French and German "Supreme Courts" had different rulings about national vs EU supremacy and established the supremacy of the EU Court of Justice, under some "conditions" (AFCO, 2021).

<sup>&</sup>lt;sup>2</sup>We rely on the fact that a computer randomly selected respondents to ensure our identification

Constitution was approved by the Spanish and Catalan parliaments and endorsed by a referendum in Catalonia. In 2010, the new text was partially ruled unconstitutional by the Court, which may have been perceived as against the Catalans, which activated a dormant identitarian conflict. After the ruling, the support for Catalan independence increased from 23% of the population to a record high of 48% in June 2012, which lead to an unprecedented constitutional crisis in Spain.

In this paper we provide new causal evidence of the effects of judicial review in shaping political behavior. We first show that the ruling increased the support for independence in Catalonia by approximately 5 percentage points from one day to the other, which within the survey, did not disappear over time. More generally, it increased the support for more autonomy. That is, although the Constitutional Court ruled against most of the articles that advocated for more decentralization, the outcome was an exacerbation of preferences. This backlash was not only on policy preferences but also on institutions more generally: we show that there was a 10% decrease in the trust in courts and satisfaction with democracy. All of these results are robust to several specification and robustness checks.<sup>3</sup>

Moreover, this exacerbation of political attitudes led to a greater degree of polarization within Catalonia. First, we show that self-identification with the "Catalan Nation" – rather than the Spanish nation– increased. This identitarian cleavage can be seen in terms of heritage or nationalistic preferences. Following this reasoning, we find that although individuals with Catalan heritage were ex-ante more pro-secession, the ruling increased their support for independence. By exploiting a different database and comparing individuals within Spain, we show that this polarization is also prominent between Catalonia and the rest of Spain.

Notice that alternative explanations could be taking place; most notably, because of concomitant economic crises, the economy is a usual suspect. We not only have evidence that suggests the opposite (i.e., the respondents were 11% less likely to say that the economy was a problem), but also show that economic attitudes are more moderate. Along the lines of endogenous identity theories (see Bonomi, Gennaioli and Tabellini, 2021), although polarization around the salient dimension is expected to increase, if anything, the opposite should occur in other dimensions. We find that the ruling made individuals increasingly identify according to their ethnic origins or heritage, but polarization in institutional preferences increased around this cleavage at the expense of the economic ones. That is, we show that both within Catalonia and between Catalonia and Spain, the economic polarization decreased.

Additionally, the ruling may have threatened the political and electoral stability within Catalonia. To begin with, the ruling resulted in a large degree of polarization between the

strategy: conditional on observable characteristics, the day on which a respondent was interviewed does not depend on their potential support for secession.

<sup>&</sup>lt;sup>3</sup>Among the different checks we perform, we show that treatment and control observations are balanced among observable characteristics and do not present differences in non-response rates. We also discuss several pieces of evidence in favour of parallel pre-trends. We show that several falsification tests, using the same wave of the survey and other waves, cannot replicate our results. We provide an extensive discussion of all the evidence in favor of the identification strategy is present in Section 4.1.2.

supporters of the Partido Popular (the party that was primarily responsible for bringing the Constitution to the Court) and the remaining ones. The supporters of Partido Popular showed a preference for more centralization by approximately 10 percentage points. Similarly, the ruling increased the willingness to vote for a Catalan nationalist party by 6 percentage points. The short span of the survey allows us to identify the immediate effect of the ruling, but it prevents us from estimating its long-term impact on tangible outcomes. To overcome this issue, we find suggestive evidence that the ruling is associated with an in increase in long-lasting electoral polarization in Catalonia.

#### 1.1 Literature review

This paper is linked to three different bodies of literature. The first and main contribution is to the literature of identity politics. Identity works as colored lenses that taint reality and may affect our actions (Akerlof and Kranton, 2000). The newer models (Shayo, 2009, 2020; Grossman and Helpman, 2021; Bonomi, Gennaioli and Tabellini, 2021) take this idea a step further and discuss how individuals can choose their colored lenses. The results follow from ex-ante classifications: individuals cannot choose any group identity that they want, they belong into groups and, depending on the circumstances, they choose with which of these groups they identify. This identification affects their choices in different ways depending on each model. Shayo (2020) summarizes the two main determinants in rational models: in-group bias and conformity. Bonomi, Gennaioli and Tabellini (2021), building on Bordalo, Gennaioli and Shleifer (2012, 2013a,b, 2020)'s behavioral theories of saliency, explain how citizens' identification may give excessive weight to the beliefs of members of their group, which results in polarization.<sup>4</sup> According to the above-mentioned authors, the (endogenous) choice of their (exogenous) groups depends on, among other things, the saliency of a dimension (racial, economic, sexual, etc).

The saliency of each dimension can sometimes be manipulated by pundits, politicians or influencers, or it could be thought as exogenous. For instance, Bandiera et al. (2018) show that compulsory education was implemented earlier in states with a greater European population, which is consistent with the idea of creating a common national identity. Clots Figueras and Masella (2013); Aspachs-Bracons et al. (2008) show that the compulsory implementation of the Basque and Catalan languages resulted in individuals being more identified with these identities. Another source of variation of ethnic identification are wars: wars act as an external threat that causes individuals to align around their common ethnic origins (Dehdari and Gehring, 2020; Dell and Querubin, 2017). Gehring (2021) shows that following the Russian invasion of Crimea in 2014, the citizens in bordering countries were more likely to identify as European and were therefore more likely to hold Russia responsible for the conflict.<sup>5</sup>

<sup>&</sup>lt;sup>4</sup>A different type of papers on identity leave less agency to individuals as identity is partly inherited. See Almagro and Andrés-Cerezo (2020) for a thorough review of those papers.

<sup>&</sup>lt;sup>5</sup>This is also true within the "treated" countries of Latvia and Estonia, with respect to citizens with non-Russian ethnic origins.

Bridging education and war, Fouka (2020) study the German language prohibition in US schools after WW1. Although the policy was implemented to homogenize the population, it strengthened previous identities (i.e. the German one) and reduced their will to volunteer for WW2. Thus, linguistic homogenization can cause a backlash when it increases the salience of the ethnic dimension and makes citizens identify more intensely with their ethnic group, which exacerbates their preferences (as in Bonomi, Gennaioli and Tabellini, 2021). A similar fortuitous event is present in Depetris-Chauvin, Durante and Campante (2020). They show that a positive shock (winning a football match) increases the idea of a common nation at the expense of "subnational" ethnicities in Africa.

We contribute to this literature by focusing on the effect on identity of one particularly important type of event, judicial review, which is a cornerstone of democratic organization. Moreover, we show that the key logical steps of the theories of identity politics are met. That is, first, judicial review affected the prominence of a dimension (i.e., the saliency) and increased the intensity with which people identify with their origins. Second, individuals changed their preferred policy according to their identification. Their exacerbation of political attitudes – the backlash– led them to the extreme of secessionism, in the relevant dimension. Third, they lashed out not only against the policy (the ruling), but also against the policy-making institution. Finally, new to the literature, we find that polarization in the main dimension (the institutional dimension) increased between the ethno-linguistic groups at the expense of polarization in other dimensions (the economic dimension).

Second and relatedly, the paper also contributes to the literature on the support for secession and its interplay with institutions. Part of the literature has focused on income distribution, public good provision, and, more generally, the economic and institutional determinants of secessionism (Acemoglu and Robinson, 2001; Collier and Hoeffler, 2006; Desmet et al., 2011; Alesina and Spolaore, 1997). Notice that the results of our paper cannot be explained by the well-known trade-off between the benefits of a larger country and the costs of heterogeneity of preferences over a public good of Alesina and Spolaore (1997) because, in our paper, we find that Catalans increased their support for secession while their economic preferences converged with the rest of the Spaniards.

Finally, our paper contributes to previous studies on the effects of courts' rulings on political attitudes. Considering political attitudes, previous studies show that judicial review legitimizes majoritarian policies and interests to shift public opinion toward the position taken by the court (Ura, 2014). Legitimacy theory is consistent with Aksoy et al. (2020) who show that when same-sex relationship policies (weddings, adoptions, etc.) obtain legal recognition – through parliamentary or judiciary decisions – the attitudes toward sexual minorities improve. Our findings go in the opposite direction: the ruling limited the gain of autonomy that the Catalan Constitution implied and Catalan citizens reacted increasing their support for autonomy and for independence, in particular. Previous studies find that the Supreme Court's legitimacy is lower for individuals who disagree ideologically with the decision taken by the Court (Bartels and Johnston, 2013; Ansolabehere and White, 2020; Nelson and Tucker, 2021). However, this effect

seems to be subject to mean-reversion (Mondak and Smithey, 1997) and composition effects Christenson and Glick, 2015. Moreover, this effect is limited to legitimacy perceptions since there is no evidence of public opinion backlash, even in experimental settings (Bishin et al., 2016).<sup>6</sup>

We contribute to this literature in three different aspects. First, we provide convincing causal evidence of the effect of a ruling on political attitudes and support for the court. When discussed, the identification strategies in this literature are generally based on lagged preferences in public opinion or first differences. This approach can be problematic in the presence of omitted variables that cause, for instance, a change in opinions or secular trends. Second, we present evidence for a case in which a ruling backlashes not only against the institution but also in terms of the content of the sentence, exacerbating the citizens' opinion. Third, we provide a novel mechanism of why this backlash might occur: the ruling changed the saliency of the ethno-linguistic cleavages and citizens change their institutional preferences when their territorial identification is stronger than other group identifications, consistent with Bonomi, Gennaioli and Tabellini (2021).

## 2 Institutional background

Form of government: According to the Spanish Constitution, Spain is divided into seventeen autonomous regions (called *Comunidades Autonomas*) and two autonomous cities. Within each Autonomous Community, there are provinces and subprovinces, which are also known as *comarcas*.<sup>7</sup> Similar to the fifty states in the U.S., each region or "Autonomous Community" in Spain has its own regional constitution or "Statute of Autonomy". Each of these statutes regulates the internal organization of the region (i.e., the regional parliament and government) and the relationship with the national state. Spain is not a federation; thus, the Autonomous Communities have less independence than American states. The extent of decentralization depends of the agreement through the national and regional institutional channels, which results in different regions having different responsibilities in the provision of public goods, tax collection and spending (which are otherwise handled by the national state).<sup>8</sup>

**Political system:** Since the return of democracy in 1978, the Spanish Government has alternated between two main national parties. Although both parties are moderate in

<sup>&</sup>lt;sup>6</sup>Additionally, this literature uniquely focused on the case of the U.S. Supreme Court. While they find that individuals with ideology not congruent with the Court's decision can backlash, overall, the support for the U.S. Supreme Court is stable over time.

<sup>&</sup>lt;sup>7</sup>While provinces are political units formed of many municipalities, comarcas are a geographical aggregation of municipalities. Many comarcas form a province. In Appendix A.1 we provide further details of the Spanish form of government.

<sup>&</sup>lt;sup>8</sup>Notably, one of the biggest differences concerns fiscal autonomy. While Basque Country and Navarre have fiscal autonomy, the rest of the Autonomous Communities, including Catalonia, share fiscal authority with the national state. Education, health and social services are among the most important competences that have been assumed by the Autonomous Communities over the years.

economic and social terms, the Socialist Party (or PSOE) is center-left while the Popular Party (or PP) is center-right. In terms of preferences for regional decentralization, PP is also the more centralist party. In addition to national parties, regional parties have enjoyed a sizable presence in the Spanish Parliament, which has occasionally allowed them to shift the majority of congress towards one of the main national parties. The two main Catalanist parties at the time were Convergence and Union (CiU) and Esquerra Republicana de Catalunya (ERC). CiU was a right-wing Catalan nationalist coalition that governed the region from 1980 to 2003 whose main faction (Democratic Convergence of Catalonia, CDC) had only formally transitioned to support independence in March 2012. Among the left-wing Catalan parties, ERC was the most important and had unambiguously supported Catalan independence since 1989.

#### The Reform of the Catalan Constitution and the Spanish Constitutional Court:

The process of reform of the Catalan Statute of Autonomy traces back to the Catalan elections of 2003, where all parties but the centralist PP promised to reform the Statute of Autonomy, which dated from 1979. In September 2005, the Catalan Parliament approved a reform by 89% of the votes that included more powers and new fiscal benefits for the Catalan government. The approved proposal was sent for review to Spain's Parliament, and after several amendments, the Spanish Parliament approved the reform. On June 18, 2006, the final version of the text was approved in a referendum in Catalonia. The referendum resulted in 78.1% of voters supporting the reform, with a turnout of 48.9%. In addition to this process, as with any other Spanish law, every reform of a Statute of Autonomy is subject to the rulings of the Constitutional Court regarding its constitutionality. The PP challenged one hundred fourteen of the two hundred twenty-three articles of the approved regional Constitution and brought the case to the Constitutional Court.

The ruling of the Constitutional Court of Spain was released on June 28, 2010, that is, four years after the approval of the new Statute of Autonomy. The Court struck down fourteen articles and curtailed another twenty-seven. Among other things, the ruling interpreted that references to "Catalonia as a nation" in the preamble had no legal effect, rolled back the attempt to place the distinctive Catalan language above Spanish in the region and ruled that regional powers over courts and judges were unconstitutional. <sup>10</sup> In the rest of the text, we refer to the ruling of the Constitutional Court on the Catalan Statute of Autonomy as the Ruling. After the Ruling, all major Catalan parties, except for PP, trade unions and social organizations called for mobilization across the region and over a million people marched on July 10, 2010 led by a banner with the slogan "We are

<sup>&</sup>lt;sup>9</sup>The maximum authority of the judiciary branch is the Supreme Court, except for cases that refer to national and regional constitutions, which are handled by the Constitutional Court. Additional institutional details can be found in Appendix A.2.

<sup>&</sup>lt;sup>10</sup>Other articles affected by the ruling center on the decentralization of bank regulations, the possibility of creating new taxes at the local level, and the need to participate in the national mechanism of solidarity only between autonomous communities when every autonomous community conducts a similar fiscal effort. The full ruling can be found here: https://boe.es/boe/dias/2010/07/16/pdfs/BOE-A-2010-11409.pdf.

a nation. We decide". This demonstration was the precursor of a series of massive prosecession protests that took place every September 11 in commemoration of Catalonia's national day in the following years.

The rise of Catalan secessionism: After 8 years of being governed by a center-left coalition led by the Socialist Party of Catalonia – the Catalan branch of the Spanish Socialist Party –, Artur Mas, leader of the center-right wing Catalan nationalist coalition CiU, was elected president of Catalonia in December 2010. Since then, only Catalan nationalist parties have governed the region. This period was characterized by a severe economic recession and also by an increase in support for independence in Catalonia, especially after the Ruling. In Figure 1 we show the evolution of the support in Catalonia for different levels of decentralization between 2006 and 2012. Notice that a massive and sudden increase in support for independence occurred after the Ruling: from 23% in April 2010 – the last wave before the Ruling – to 48% in June 2012.

## [INSERT FIGURE 1]

Given the impossibility of holding a legal and binding self-determination referendum, Mas announced that the 2015 regional elections would be a *de facto* plebiscite for independence. Carles Puigdemont (from CiU) was elected president of Catalonia. In 2017, he held a referendum, which was declared illegal by the national authorities. Electoral violence ensued, independence was declared (and revoked) and many Catalan politicians were sentenced to prison.<sup>12</sup>

#### 3 Data

## 3.1 Main data

The CEO survey of June-July 2010: The main data source of this paper is a computer-assisted telephone survey run by the Catalan Public Opinion Center (the Baròmetre d'Opinió Política of the Catalan Centre d'Estudis d'Opinió, CEO), fielded between June 28 and July 10, 2010. The order of the interviews is random: a computer randomly selects a number from a database and makes the call after each interview is finished. The respondents are randomly sampled from inhabitants of Catalonia who are at least 18 years old in two stages (the first stratification is by province and the size of the municipality,

<sup>&</sup>lt;sup>11</sup>The proportion of respondents (of those who answered the question) who wanted Catalonia to become independent was 23% in April 2010, 26% in June 2010, and 48% in June 2012. The proportion of respondents (of all people interviewed) who wanted Catalonia to become independent was 22% in April 2010, 24% in June 2010, and 44% in June 2012. These statistics are based on data from the *Catalan Centre d'Estudis d'Opinió* (CEO). The Spanish *Centro de Investigaciones Sociológicas* (CIS) asks about the territorial preferences of Spanish citizens where the choice of secession is presented differently: "A state where autonomous communities could become independent states". The CIS data show similar patterns. Support for the secession option in Catalonia (of all people interviewed) increased from 22.9% in October 2010 to 41.4% in October 2012 and reached the maximum value of 46.1% in August 2015. In December 2017, the value was 36.4%.

<sup>&</sup>lt;sup>12</sup>Interested readers can find a more detailed exposition of the events related to Catalan secessionism after 2010 in Appendix A.3.

and the second is by gender and age) to keep the sample representative according to the 2009 population census (Padr'o de Poblaci'o). Additionally, each province is weighted such that the sample is representative of Catalonia.

From each of the two thousand respondents, we employ data that include the time of the interview; individual socio-demographic characteristics (age, gender, sex and marital status), socio-economic characteristics (education, income and employment status), national identity (language spoken, region of birth of the respondent and of his/her parents and national self-identification) and political attitudes (past voting behavior, intention to vote, preferred institutional relationship between Spain and Catalonia, trust in institutions, and self-assessed most important problems in Catalonia).

The main outcome variable of interest, *MoreAutonomy*, is the question regarding the preferred relationship between Catalonia and the Spanish central administration. The possible answers (in addition to "no answer" and "do not know") are coded into four categories. Ordered from less to more decentralization, the respondents can choose between Catalonia being a region with fewer competences, an Autonomous Community (the status quo), a state within a federal state or an independent country. <sup>13</sup> In the June 2010 survey, the support for independence was 26%. Moreover, to understand the impact of the Ruling on identity, we measure national self-identification with a Likert five-item scale question in which individuals are asked to rate whether they feel "Only Spanish", "More Spanish than Catalan", "As Spanish as Catalan", "More Catalan than Spanish", or "Only Catalan". The summary statistics for the independent variables and other dependent variables are discussed in Section 4.1.2 and Appendix B, respectively. <sup>14</sup>

## 3.2 Additional sources of data

Other waves of the CEO survey: For the falsification tests and to investigate the long-term effects of the Ruling of the Constitutional Court on the Catalan Statute of Autonomy, we use other waves of the same survey conducted by the CEO. In particular, we collect the 25 waves between June 2006 and October 2012. In 2010, there were four waves of the CEO survey. The main data in our paper corresponds to the third wave of 2010. The previous wave happened in April 2010, while the posterior wave occurred in October 2010.

CIS: To investigate how the Ruling differently impacted citizens from Catalonia and citizens from the rest of Spain, we rely on similar surveys from the Center for Sociological Research (CIS), a public Spanish research institute. Specifically, we collected data from

 $<sup>^{13}</sup>$ The original wording for the first option is  $regi\delta$  – which corresponds to the regional organization during the Franco regime that assigned less power to the regions than under the current system. Because we are using region to refer to Catalonia, we translated the word differently to avoid confusion.

<sup>&</sup>lt;sup>14</sup>The full summary statistics can be found in Table 1 in Section 4.1.2 and Tables A.1 and A.2 in Appendix B. These tables report the summary statistics of the controls used in our regressions, the summary statistics of the dependent variables, and the summary statistics of the preferred institutional relationship between Spain and Catalonia according to past votes, respectively.

all the monthly Barometer and the yearly Survey on Public Opinion and Fiscal Policy between 2005 and 2012. 15 We end up with a database with information that spans several years in every Autonomous Community of Spain about their preferred institutional relationship between their Autonomous Community and Spain (level of autonomy), Spanish versus regional identity and tax preferences. First, the answers to the CIS question about the preference for more autonomy are slightly different from the CEO in terms of the words used and the presence of an additional category. However, they are very comparable because they have several options ranging from lower to higher autonomy of the Autonomous Community, with the eventual possibility of independence. 16 Second, the variable about Spanish versus regional identity has the same structure as this variable in the CEO data. The respondents can choose one among the following five categories: they feel (i) only Spanish; (ii) more Spanish than from their Autonomous Community; (iii) Spanish and from their Autonomous Community alike; (iv) more from their Autonomous Community; and (v) only from their Autonomous Community. Third, the CIS database includes a question about preferences for economic policies by asking the respondents if they believe that the fiscal pressure in Spain is high, average or low.

ICPS: To study the effect of the Ruling on economic preferences and to shed more light on the long-run effects in Catalonia, we collected data from the yearly survey of the Political and Social Science Institute of Barcelona (ICPS), a research consortium between the Provincial Deputation of Barcelona and the Autonomous University of Barcelona. The yearly survey of the ICPS is the Catalan public opinion poll about political attitudes and behavior that has the longest time span. Precisely, we collected data from 2001 to 2012. This dataset includes the same question about the preferred relationship between Catalonia and Spain as the CEO and it also includes information on the attitudes toward economic redistribution. This variable about preferences for economic redistribution takes values from 1 to 5 about self-collocation regarding whether the government should act in the economy or whether markets should be free, with a value of 1 if the respondent

<sup>&</sup>lt;sup>15</sup>The questions included in the Barometer change every month, so the same variable might not be present every month. To increase frequency of the questions about the preferred relationship between each Autonomous Community and Spain and the self-identification between regional and Spanish identity we complement the previous surveys with the Autonomic Barometer (December 2005), Survey on National Identity in Spain (December 2006), Survey on Internet and Political Participation (October 2007), Survey on 2008 Postelectoral National Elections and the Parliament of Andalucía (March and April 2008), Survey on Spatial Models of Political Preferences (April 2009), Survey on Preelectoral National Elections (October 2011), Survey on 2011 Postelectoral National Elections (November 2011 and January 2012), Survey on Ideological Congruence between Voters and Political Representatives (January and February 2012).

<sup>&</sup>lt;sup>16</sup>Before 2008, CIS was providing the four answers. That is, 4 options about whether the respondent prefers its Autonomous Community to have no autonomy, have autonomy as the status quo, more autonomy than the status-quo, or have the possibility to become independent states. On the other hand, from 2009 onwards, CIS provides the following additional option to the question about the preferred relationship between an Autonomous Community and Spain: the respondent prefers Autonomous Community to have lower autonomy than status quo. We further discuss the details of the CIS question about territorial preferences in Appendix D.11.3. In that Appendix, we also conduct an exercise harmonizing the variable of the CIS Survey to be similar to the CEO variable and show robustness of our results.

prefers no intervention (markets must be allowed to operate freely) and 5 if the respondent prefers intervention (the state must intervene in the economy). Note that this question is not identical to the question in the CIS data; thus, the within-Spain and within-Catalonia evidence on economic preferences is not immediately comparable.

**Electoral results:** We also analyze the electoral consequences of the Ruling in 2015. We use data on voting patterns for each electoral list running in the elections of the Catalan Parliament in 1999, 2003, 2006, 2010, 2012, and 2015 at the municipality level from the Ministry of Interior and the Ministry of Public Administrations in Spain.

## 4 Empirical strategy

## 4.1 Baseline analysis: Short-term effect of the Ruling

### 4.1.1 Econometric strategy

We are primarily interested in estimating the effect of the Ruling on individual political attitudes  $(Y_i)$ .<sup>17</sup> With this aim, we define the variable  $Ruling_i$ , which takes a value of one for all individuals interviewed after the Ruling was released and zero for all individuals interviewed before the Ruling, which was released at 7 pm on June 28, 2010. Therefore, those interviewed before the Ruling was made public are assigned to the control group, and those interviewed after the Ruling are assigned to the treatment group. Let  $X_i$  be a vector of observable socio-demographic characteristics, <sup>18</sup> and  $GEO_i$  are dummies for the respondent's city population and geographical (comarcas) fixed effects.<sup>19</sup> We define  $\epsilon_i$  as the residuals. We define the potential outcomes as  $Y_i(0)$  and  $Y_i(1)$  for the control and treated groups, respectively, and we estimate the following Model 1:

$$Y_i = \alpha_1 + \beta_1 Ruling_i + \gamma_1 X_i + GEO_i + \epsilon_i, \tag{1}$$

Our identification assumption is that the moment at which each respondent is interviewed is independent of the time at which the Ruling occurred; that is, we treat the timing at which the respondents were interviewed as random. In particular, we assume

<sup>&</sup>lt;sup>17</sup>We use different dependent variables: preferred institutional relationship between Catalonia and Spain, support for independence, trust in political institutions, intention to vote, cultural feelings and problems that are considered to be most important.

<sup>&</sup>lt;sup>18</sup>The included controls are whether Catalan was the language of the interview; whether the respondent spoke only Catalan with family, at work, and with friends; whether the respondent was born in Catalonia, the rest of Spain or outside Spain; the respondent's father was born in Catalonia, the rest of Spain or outside Spain; whether the respondent's mother was born in Catalonia, the rest of Spain or outside Spain; the respondent's sex; whether the respondent is married; dummies for the respondent's education; dummies for the respondent's age; dummies for the respondent's income; and dummies for the respondent's employment situation.

<sup>&</sup>lt;sup>19</sup>We use the smallest available geographical unit observation, that is, comarcas. Catalonia is divided into four provinces, and each province is divided into different numbers of comarcas, which include different municipalities. There are 42 comarcas in Catalonia. On average, a comarca has 179,000 inhabitants and a size of 764 squared km.

that the potential outcomes are independent of the timing of the interview. As we explain below, we address potential concerns about the structure of the fieldwork by adding controls and restricting our sample.

Although the order of the interviews is random, to avoid the possibility that people interviewed in the morning and afternoon are different, we restrict our sample to people interviewed before 7 pm.<sup>20</sup> Similarly, to control for potential imbalances in the characteristics of the people interviewed at different stages of the fieldwork, we restrict our sample to the first seven days of interviews.<sup>21</sup> This restriction leaves 227 observations in the control group and 1,050 observations in the treatment group (of the 1,773 observations interviewed after the Ruling).<sup>22</sup>

In addition, we control for  $GEO_i$  and have a battery of controls that are potentially related to how the fieldwork was organized. Therefore, for our estimations, we assume that conditional on individual and geographical characteristics, the treatment status is orthogonal to the potential outcomes,  $\{Y_i(0), Y_i(1)\} \perp Ruling_i | X_i, GEO_i$ . The inclusion of comarcas fixed effects and individual characteristics enables a comparison between different potential outcomes of people with similar characteristics inside the same geographical unit interviewed before and after the Ruling.<sup>23</sup>

Because similar unexplained factors might affect the dependent variable on a particular day, the errors  $\epsilon_i$  can be correlated. Moreover, the sampling process is clustered at the province level, and each province is weighted such that the sample is representative of Catalonia. This sampling clustering can also create correlations of the errors at the province level. To limit these inference problems, we cluster the standard errors at the province-day of the interview level.<sup>24</sup>

**Polarization effects:** Moreover, we also study the consequences of the Ruling in terms of the polarization of Catalan society. Accordingly, we examine the heterogeneous effects of the Ruling on political attitudes. With this aim, we explore the interactions of  $Ruling_i$  with two key variables. First, we look at how the effect of the Ruling differs according to people with different Catalan heritage. The theory of identity politics, as discussed in Section 5.2, has different testable predictions on the impact of a salient event on the

<sup>&</sup>lt;sup>20</sup>Figure A.12b in Appendix D.2 shows that our results are robust when using respondents interviewed after 7 pm and using the full sample.

<sup>&</sup>lt;sup>21</sup>The survey was conducted from June 28th, 2010 to July 8th, 2010. No interviews occurred on July 4th, 2010. We restrict our sample to June 28th to July 6th. Figure A.12a in Appendix D.2 shows the main results with longer windows across days, up to the full sample, and provides evidence of the robustness of our results.

<sup>&</sup>lt;sup>22</sup>In Appendix D.10 we show that the unequal sample size of our control and treated groups and the small number of observations in the control group do not drive our results.

<sup>&</sup>lt;sup>23</sup>In Appendix D.3, we show that our results are robust when controlling for fixed effects at different levels from comarcas such as province and province times size of municipality fixed effects. In the same Appendix, we also show that the results are robust to the exclusion of geographical fixed effects.

<sup>&</sup>lt;sup>24</sup>We devote Appendix D.9 to show the robustness of our results to other forms of standard errors.

<sup>&</sup>lt;sup>25</sup>Moreover, we also explore the interactions of  $Ruling_i$  with other cultural, socio-demographic, and socio-economic variables. Appendix C.2 reports separate estimations of Model 1 when each control, an element of vector X, is interacted with the variable Ruling.

polarization between groups that belong to different identity groups. Specifically, to study whether the Ruling affected polarization through the salience of the national identities (Catalan vs non-Catalan), we focus on the heterogenous effects with respect to the Catalan heritage of the respondent. With this aim, we create the variable CatalanHeritage, which takes a value of 1 when both parents of the respondent were born in Catalonia (38% of this sample had both Catalan parents). This approach to define identity based on Catalan heritage is in line with the literature that considers identity formation a dynamic process in which children inherit parents' identity (Bisin et al., 2011; Almagro and Andrés-Cerezo, 2020). The heterogenous effects with respect to Catalan heritage are reported in Section 5.2. Second, Section 6 discusses that the Ruling also had electoral implications and that it also created partisan polarization. For this, we test the heterogeneous effects of the Ruling on the voters of PP, which strongly opposed the reform of the Catalan Statute of Autonomy, and other voters.

## 4.1.2 Robustness of the identification strategy

In this section, we show that the sample is balanced, there is compliance, the anticipation and confounding events are mitigated, and the structure of the main survey does not affect our results. Moreover, we discuss additional threats to identification and some robustness exercises performed in the Appendix.

## Balancing on observables

The structure of the fieldwork can create potential imbalances between the control and treated groups. Table 1 shows the summary statistics of the observed characteristics of the people interviewed (column 1) and the summary statistics of the people in our sample (column 2). Column (3) reports a balancing test to show the difference in the observed characteristics for our treated and control groups.

#### [INSERT TABLE 1]

The people interviewed before and after the Ruling do not differ in their observable characteristics except for some small differences in one income category. Additionally, there appears to be more individuals interviewed from Barcelona (the only city with more than 1 million inhabitants). We include all of these observable characteristics as controls in all of our specifications. For our identification assumption, we require that after controlling for these variables, which were observed by both us and the interviewers, the conditions of whether a person was interviewed before or after the Ruling can be considered to be as-if random.

 $<sup>^{26}</sup>$ For doing that, we augment Model 1 by including the interaction between CatalanHeritage and Ruling, and we additionally control for CatalanHeritage, instead of the separate dummies for the birth place of the mother and father. We also make a small variation in the empirical specification with respect to the controls included in Model 1. As the Catalan origin of parents predict in a crucial way the language spoken at home, we do not include in the control variables the proxies for the language spoken by the respondents.

In Appendix D.1, we show additional balancing and falsification tests that use the same wave of the survey and other waves. In particular, we applied Oster (2019)'s methods, and found that the selection on the unobservables should be extremely large to lead our estimated effect to 0.27

#### Noncompliance

The estimated effect is downward biased in the presence of noncompliance, which might occur if people in the treatment group are unaware of the Ruling. The Ruling received extensive news coverage and was a top story for newspapers and TV news. Figure 2a reports the Google trends for searches of the word "Estatut", with two peaks in 2005 and 2006 that correspond to the approval of the Statute by the Catalan Parliament and its referendum approval, respectively. Searches increased significantly again after the Ruling. Moreover, in Section 5.2.1, we show that the Ruling caused a significant increase in the number of respondents who consider the Statute of Autonomy to be the most important problem in Catalonia.

[INSERT FIGURE 2]

## **Anticipation events**

Foreseeable events can produce potential biases if the respondents who change their behavior due to anticipation effects self-select into the treatment or control group. We argue that the exact day of the Ruling was unforeseeable. The PP appealed against the Catalan Statute of Autonomy in 2006, and the Constitutional Court published a final ruling 4 years later. Although the respondents may have known that the Constitutional Court was meeting on June 28th, the exact day when the ruling would occur was unknown. As La Vanquardia, one of the main Catalan newspapers, reported on their front page on June 28, "the Constitutional Court meets today with the objective of ruling during the week". Along the same lines, El País reported that "The Constitutional Court begins today what may be its last plenary session, summoned to vote and rule on the sentence of the Catalan Statute, although it is expected to last the next several days". 28 Therefore, the fact that a ruling arrived at the end of June 28 was largely unpredicted. Confirming the absence of anticipation effects, we show in Figure 2b that the number of news stories about the Ruling remained relatively low during the weeks before June 28, 2010, and only skyrocketed afterwards. Moreover, the two previous dates with more news about the Ruling were not related to any filtration of the content of the sentence.

Similarly, the estimated effect would also be downward biased if people in the control group guessed correctly the content of the Ruling. We cannot completely discard this bias,

<sup>&</sup>lt;sup>27</sup>In Appendix D.1, we also conducted two specific exercises. I) we show that the predicted preference for independence in Catalonia based on observables does not change for respondents interviewed after the Ruling. II) we conduct several placebos by changing the day of the Ruling, and we show that we found insignificant effects using these placebos on preference for secession.

<sup>&</sup>lt;sup>28</sup>The respective news are this and this.

but we have several reasons to believe that this is not a major concern. First, the final draft of the Ruling was not leaked before its approval. Second, six different alternative drafts were discussed unsuccessfully in previous meetings of the Constitutional Court and, a few hours before the Ruling, the article from *El País* cited above reported that "the judges arrive at the meeting with the same starting positions that have caused the previous draft sentences to fail, so it is unlikely that the draft will be approved". Third, as we discuss in Appendix D.6, partisans and opponents of the Catalan Statute of Autonomy decreased their trust in courts, which is consistent with uncertainty over the content of the Ruling.

#### Pre-trends

Our estimates could be biased in the presence of pre-trends in our dependent variables. In fact, Figure 1 shows that there was a slow increase in the support for independence in Catalonia between 2006 and 2010, which was followed by a more abrupt increase after the Ruling. We provide the first evidence against the presence of pre-trends by comparing the evolution of the preference for more autonomy in Catalonia between different waves of the survey that we exploit in this paper. We control for several observable characteristics to account for part of the time varying confounders between waves, and we regress the preference for more autonomy on survey dummies. We separate the sample in the wave in which the Ruling happened between control and treatment observations. Figure 3a presents this event study, and the estimated difference between each wave and our control observations in 2010. Several considerations emerge from the analysis of this figure. First, the absence of conditional changes in more autonomy before the Ruling suggests that pretrends are unlikely to bias our estimates. Second, it is possible to observe an increase in more autonomy from the wave of the Ruling onwards. Third, this increase in more autonomy appears to be sustained in the waves after the Ruling.<sup>29</sup>

#### [INSERT FIGURE 3]

Unfortunately, this event study compares observations over periods of months. Our identification strategy allows us to improve this estimation by comparing observations very close in time. Therefore, only a daily trend in the increase for secession could bias our estimates. This is unlikely to be the case for several reasons. First, the latent increase in support for independence shown in Figure 1 occurs over the course of several years. Second, Figure 3b uses the wave anterior to the Ruling of the same survey to show that during the days of the interviews, there was not a daily increase in the preference for more autonomy for Catalonia. Third, Figure 2 also shows that the amount of Google searches and news about the Ruling were constant in the months before the verdict. Fourth, in Appendix D.2, we show that our results are robust to considering unique observations in the day before and after the Ruling.

<sup>&</sup>lt;sup>29</sup>Appendix E.4 studies the persistence of the effects of the Ruling across sample waves in a more extensive and systematic way.

Even if our control observations are only in the first day of interviews and we cannot formally control for longer pre-trends, all the aforementioned evidence makes the presence of pre-trends unlikely in the days before the Ruling.

#### Confounding events

Although we cannot completely discard the presence of collateral events triggered by the Ruling that could affect our treatment group, we do not observe any abnormal change in the number of news stories about the Ruling during the remaining days of the fieldwork of our survey.<sup>30</sup> As we can see in Figure 2b, there was a demonstration against the ruling on July 10; however, the demonstration was after the interviews ended and cannot therefore affect our estimates. Additionally, active political propaganda was present in the years between the appeal and the final ruling. Since the previous propaganda affected both the treatment and control groups, this channel would not undermine the interpretation of the cause of the estimated effect but would emphasize the importance of the political channel.

#### Small sample size

The small sample size of our control group can affect our estimations in two main ways. First, it can affect the power of our regressions, which would worsen the inference of our estimates. In Appendix D.9 we show that our results are robust to many alternative specifications of the standard errors. Moreover, a small number of observations in the control group can raise the concerns about whether the treatment effect we find in this paper is observed by chance. A Fisherian randomization inference can provide an alternative way to obtain proper inference with a small number of observations (Fisher, 1935). In Appendix D.10 we present evidence that our main result is robust to randomization inference.<sup>31</sup>

Second, the fact that our control group is relatively smaller than the treatment group can affect the balancing of observations between the treatment and control, which introduces possible biases. In Appendix D.10 we show that the results are robust to an equal split between the treatment and control groups. Moreover, in the same appendix, we address the concern that the number of observations in the control group is not sufficiently large and show that our results are robust when using as the control: a) the respondents interviewed in the third wave of the survey in 2010 before the Ruling took place (the control group in our main specifications), and b) the respondents interviewed

<sup>&</sup>lt;sup>30</sup>The sudden increase in support for Catalan independence coincides with other important economic and political events: the financial and banking crisis that began in 2008, several corruption scandals in Spain, and the change of parties in government from PSOE to a more centralist party, PP. However, no important event occurred during the interview period. Therefore, we can interpret our estimates as the effect of the Ruling, keeping fixed economic, political and/or social events.

<sup>&</sup>lt;sup>31</sup>Moreover, in Appendix D.1 we conduct several placebos by changing the day of the Ruling, and we show that we found insignificant effects using these placebos on preference for secession.

#### Robustness and other potential threats

Although the use of sudden events in a survey to identify exogenous changes on individual attitudes has become a standard identification strategy in event studies, some concerns about the identification strategy and robustness of the results may arise, even with a random treatment.<sup>33</sup> In Appendix D, we present a list of potential additional threats and provide several pieces of evidence in favor of our identification assumption.

In particular, in Appendix D.2, we illustrate the robustness of our results to the use of other sample restrictions. Our results are also robust to controlling for fixed effects at different levels from comarcas (see Appendix D.3). We show that there is no significant difference in participation and non-response rates before and after the Ruling and provide additional robustness evidence in Appendix D.4.<sup>34</sup> We rule out that our results are driven by other confounding events in D.5. Appendix D.6 discusses the potential political influence of political parties on the Ruling and provides evidence that our results are not driven by this channel. We extensively discuss the credibility of the polling institution in Appendix D.7. In particular, the survey was conducted in the same period as similar waves in previous years. In Appendix D.8, we address the possible problems associated with econometric misspecification and present estimates by using binary and discrete choice models. Finally, in Appendix D.9, we show the robustness of the inference of the results to different levels of clustering of the standard errors.

## 4.2 Complementary analysis: Additional polarization results

The previous baseline empirical strategy and data used are particularly suited for studying the short-term effects of the Ruling. However, they are not ideal for obtaining additional insights on three important aspects, namely, the long-term effects of the Ruling outside the survey, polarization in other important dimensions different from institutional preferences (such as economic attitudes), and understanding the impact of the Ruling on all of Spain, not just within Catalonia. For this reason, in the next subsection we design new identification strategies that use different data to help us answering these questions.

<sup>&</sup>lt;sup>32</sup>In Appendix D.10 we show that the third wave of 2010 and, more specifically, the control group in our study has very similar characteristics with respect to people interviewed in the previous wave of the survey in April 2010.

<sup>&</sup>lt;sup>33</sup>A recent methodological paper (Muñoz, Falcó-Gimeno and Hernández, 2018) reviews the literature in which this strategy is used and typifies all the potential threats. Additionally, the authors highlight different practices to ensure the credibility of the estimates, addressing each of the identification issues.

<sup>&</sup>lt;sup>34</sup>The only data available about non-responses are about whether a respondent decides to participate in the survey but does not respond to specific questions. The CEO does not provide information about how many people decide not to conduct the survey. Therefore, we cannot provide evidence of the participation rate in the survey directly. We instead compute a proxy of participation rates using the waiting time between interviews, and we show that this waiting time does not change after the Ruling.

#### 4.2.1 Econometric strategy

Differences-in-differences: Polarization within Catalonia. The event study estimate of the changes in territorial preferences by each CEO wave in Figure 3a already shows that the individuals interviewed in the posterior months to the wave in which the Ruling happened maintained a similar preference for more autonomy as the respondents in our baseline treatment group. The strong identification assumption behind this result is that no other event happened after the Ruling that can explain the rise of the preference for more autonomy of Catalonia.

Following from the analysis of the immediate polarization effects of the Ruling through Catalan heritage (which is reported in Section 5.2.2), we can refine the study of the long-term polarization effects within Catalonia, by exploiting the presence of these heterogenous effects. That is, we estimate the effects of the Ruling among people with different Catalan heritage in a differences-in-differences setting. This allows us to obtain estimates that rely on weaker identification assumptions. By combining our data with previous and posterior waves of the CEO survey (from 2006 to one year after the Ruling), we can estimate the following Model 2:

$$Y_{it} = \tau_1 Catalan Heritage_i + \delta_{1t} + \chi_1 Catalan Heritage \times Ruling_{i(t)} + \lambda_1 X_i + e_{1it}, \quad (2)$$

where *i* represents each respondent, and *t* denotes the survey wave.  $\delta_{1t}$  are wave fixed effects. Ruling is a dummy variable that takes 1 for all respondents interviewed in the waves posterior to the Ruling. We divide the third wave of 2010 (where the Ruling took place) between the wave before and after the Ruling (where the wave before the ruling is the omitted category).<sup>35</sup> We also control for the same vector of individual characteristics X by using the baseline CEO analysis.<sup>36</sup> We are interested in estimating the  $\chi_1$  coefficient that tells us the differential change in MoreAutonomy ( $Y_{it}$ ) before and after the Ruling for people with different Catalan heritage. This result allows us to understand whether institutional polarization was maintained even in the year after the Ruling.

To address questions about economic polarization (which are not included in the CEO surveys), we replicate the differences-in-differences estimation of Model 2 by using ICPS data. We include as a vector of controls all ICPS variables that are also covered in the CEO surveys with a comparable definition.<sup>37</sup> We use this to study the effects of the Ruling on economic polarization within Catalonia in the immediate aftermath of the Ruling and in the posterior year.

 $<sup>^{35}</sup>$ We use the suffix i(t) to indicate that each respondent have a different value of Ruling according to the survey wave in which they have been interviewed.

 $<sup>^{36}</sup>$ As reported in Section 4.1.1, we do not include in the control variables the proxies for the language spoken by the respondents and the two separate dummies for the birth place of the mother and father. As shown in Model 2, we instead control for  $CatalanHeritage_i$ , the dummy representing whether both respondent's parents were born in Catalonia.

<sup>&</sup>lt;sup>37</sup>Unfortunately, some variables are either not present or suffer some change in their definition and therefore are not included.

Differences-in-differences: Polarization between Catalonia and Spain. The Ruling may have also activated local identities outside Catalonia. Thus, we investigate whether the effect of the Ruling on polarization through identitarian channels is taking place more broadly. To achieve these goals we use the CIS data concerning all of Spain as described in Section 3.2. With this additional data we can exploit a new source variation: comparing observations within Spain of people living in Catalonia or in the rest of Spain.<sup>38</sup> There is no CIS survey wave in which field work happened when the Ruling was announced. Therefore, we exploit an alternative identification strategy to our baseline strategy, that is, a slight modification of the previous differences-in-differences setting, that permits within-Spain comparisons, as reported in Model 3.

$$Y_{it} = \tau_2 Catalan_i + \delta_{2t} + \chi_2 Catalan \times Ruling_{i(t)} + \lambda_2 X_i + e_{2it}, \tag{3}$$

where *i* represents each respondent, and *t* denotes the survey wave.  $\delta_{2t}$  are wave fixed effects. We also control for the vector of individual characteristics X.<sup>39</sup> Catalan captures whether the individual was surveyed in Catalonia or in the rest of Spain. In order to avoid that part of the controls are also receiving a similar treatment as the people living in Catalonia, we exclude Basque Country, Navarra and Galicia due to previous secessionist movements in those regions. We are interested in estimating  $\chi_2$ , that is, we compare the observations of the interviewees in the waves before and after the Ruling who were living in Catalonia or in the rest of Spain.

We use this to study the effects of the Ruling on polarization about both institutional and economic preferences within Spain. We estimate not only the short-term effect of the Ruling but we also if the effect persists in the following year.

#### 4.2.2 Robustness of the identification strategy

The main identification assumption behind the differences-in-differences strategy is that in the absence of the Ruling, the treated and control units (people with different Catalan heritage in Model 2 or people living in Catalonia vs. the rest of Spain in Model 3) would have similar trends in their institutional and economic preferences. The first requirement in favor of this assumption is the presence of previous parallel trends. As we show in Figure 3a people interviewed in the waves before the Ruling did not exhibit any trend in the increase in preferences for more autonomy. This previous graphical evidence refers to within-Catalonia observations from the CEO. We present similar graphical evidence of parallel trends that compare observations in Catalonia vs. the rest of Spain from CIS in Appendix C.4.5. Moreover, when we present the differences-in-differences results in Section 5.2, we will show evidence for parallel trends for every estimation considered

<sup>&</sup>lt;sup>38</sup>CIS data do not ask about parents' place of birth. Hence, the variation between people with different Catalan heritage exploited in Model 2 cannot be used.

<sup>&</sup>lt;sup>39</sup>We include as vector of controls as many variables as possible as the ones used with the CEO data. Unfortunately, some variables are either not present or suffer some change in their definition and therefore are not included.

regarding the effect of the Ruling on the institutional and economic polarization estimated within Catalonia or within Spain. For this purpose, we construct placebo treatments and show that these variables reject the presence of differential trends between the treated and control groups in the pre-treatment periods.<sup>40</sup>

The second requirement to attribute the estimated differences-in-differences effect to the Ruling is that no other event influenced differentially political and economic attitudes according to Catalan heritage (Model 2) or between respondents living in Catalonia or Spain (Model 3). Although the short-span of our main CEO data and the corresponding empirical strategy are particularly attractive for assuming that the main treatment is the Ruling, this is less the case when using observations from different survey waves. Therefore, for the differences-in-differences estimates we first restrict the number of waves after the Ruling to limit the potential presence of alternative confounders. That is, we assume that the main event that may affect political and economic attitudes differently between the previous wave and the posterior wave after the Ruling is the Ruling itself.

The exact time location of these waves depends on the data and question under consideration. Related to the pre-treatment waves, Figure 3a shows that the events that happened right before the Ruling were not important in explaining changes in political attitudes. Thus, the differential time location of the pre-treatment waves is less of a concern. For the CIS data that allow the within-Spain variation the first post-treatment wave is the CIS Barometer of July 2010, whose field work happened very close to the aftermath of the Ruling. This allows us to more safely interpret the differences-in-differences estimation to the effect of the Ruling, which is not confounded by other events. For the ICPS data the first post-treatment wave was instead September 2010. Therefore, the assumption behind the interpretation of the short term effects of the Ruling on economic preferences within-Spain is that no other event between July and September 2010 can differentially affect people with different Catalan heritage.

We estimate the immediate effect of the Ruling on institutional and economic polarization but we also estimate if the effect persists in the following year. For the first estimation, we uniquely use the survey wave after the Ruling as the post-treatment period, while for the second estimation, we also include the survey waves in the year after the Ruling as post-treatment observations. For long-term evidence about the persistence of the effect of the Ruling, we cannot claim that the estimated effect is entirely due to

<sup>&</sup>lt;sup>40</sup>The placebo is defined as if the treatment took place on the last wave before the Ruling, where people were not treated yet.

<sup>&</sup>lt;sup>41</sup>CEO pre-treatment wave, used for studying within-Catalonia institutional polarization, was April 2010. Related to within-Spain data, CIS pre-treatment wave with information about the preferred relationship between Catalonia and Spain was also April 2010, while with information about economic preferences was July 2009. In Appendix C.4.4 we also look at the within-Spain changes in Spanish vs. regional identity, and for this variable has pre-treatment was April 2009. ICPS pre-treatment wave, used for within-Catalonia economic polarization, was September and October 2009.

<sup>&</sup>lt;sup>42</sup>For the CIS barometer with information about institutional preferences and national self-identification, field work was between July 8th and July 22nd, 2010. For the CIS survey with economic preferences, field work was between July 8th and July 24th, 2010.

 $<sup>^{43}</sup>$ Spanish victory of the 2010 World Cup happened in July 2010, but we shown in Appendix D.5 that this event is not biasing our results.

the Ruling, as other events could be important in explaining the heterogenous reaction of people with different Catalan heritage or people living in Catalonia vs. the rest of Spain. Thus, we estimate the effect of the Ruling and possibly other related events, such as political propaganda. Still, this suggestive evidence is useful to show that after the Ruling, within-Spain and within-Catalonia polarization maintained as in the short time span after the verdict.

## 5 Results

In Subsection 5.1, we first present and discuss the effect of the Ruling on support for decentralization and independence, i.e., the baseline results. We also show the presence of institutional backlash and democratic erosion. All results in this subsection rely on CEO data and an estimation of Equation 1. In Subsection 5.2 we frame the results in light of the framework of identity politics. That is, we show that the chain of reasoning in the literature (Shayo, 2020 and Bonomi, Gennaioli and Tabellini, 2021) is replicated in our setting. Accordingly, the Ruling causes an identity shift that explains a greater degree of polarization in the nationalistic dimension (i.e., autonomy and independence, specifically) at the expense of depolarization in other dimensions (i.e., preferences for redistribution).

#### 5.1 Baseline

In Table 2, we show that the Ruling had a causal effect on support for more autonomy and, in particular, for independence. The main outcome variable regards the preferred institutional relationship between Catalonia and Spain. As a reminder, the variable *MoreAutonomy* takes the value from 1 to 4 if the respondent prefers Catalonia to be a region (less autonomy than the status-quo), an Autonomous Community (status-quo), a federal state (more autonomy than the status-quo), or an independent state, respectively. We interpret higher values of this variable as a greater desire for more autonomy.

Column (1) shows that the unconditional effect of the Ruling on support for more autonomy in Catalonia was 0.15 points. Column (2) confirms the impact of the Ruling, which controls for individual characteristics and fixed effects at the comarca level. We estimate that the Ruling increased support for more autonomy in Catalonia by 0.13 points in this preferred specification. Column (3) shows the secession result: we use the same specification as before, but we use a dummy variable if the respondent supports the independence of Catalonia as the outcome. We find that the Ruling increased support for independence by 5.2 percentage points. Since the support for independence in the survey before the Ruling was 23%, we estimate that the Ruling increased support for independence by more than 20%.

These are large effects. For instance, between 2006 and 2010, support for secession increased only by 1.4 percentage points per year, which is approximately 25% of the

jump that we estimate.<sup>44</sup> A complementary reference point is Clots Figueras and Masella (2013). In their article, with data from 2001, they find that Catalans exposed to compulsory schooling in Catalan increased their support for Catalan independence by 1.3 percentage points.

## [INSERT TABLE 2]

Beyond the push for more autonomy, we can study how the Ruling affected the support for each form of government. In Figure 4 we show the support for each type of government for Catalonia. We report the marginal effects of the ordered probit described in column (4) of Table 2. We observe that the Ruling increased support for the forms of government that imply higher autonomy (federal state and, especially, independence) at the expense of the options with less autonomy, such as region or Autonomous Community (the status quo). These average effects show that the Ruling provoked a shift in the preferences for more autonomy.

## [INSERT FIGURE 4]

Backlash against democratic institutions: The rapid exacerbation of political attitudes for decentralization came along with an increased distrust in institutions and, more generally, dissatisfaction with democracy. Table 3 shows the effect of the Ruling on the trust in national and regional democratic institutions. Trust is measured with an index that takes a value of 10 when there is maximum trust (0 for no trust). Columns (1) to (3) show that the Ruling caused distrust in the courts and in the Spanish Parliament, which were the active players in charge of the checks and balances. Trust in the courts and in the Spanish Parliament decreased because of the Ruling by 0.33 and 0.15 points, respectively. Notably, the executive branch was not affected. Moreover, columns (4) and (5) show that Catalan institutions were also not affected, which confirms that the institutional accountability across branches of government may be a relevant channel. 46

## [INSERT TABLE 3]

Similarly, it can be argued that satisfaction with democracy, as a whole, is affected. The coefficients in the table go in the same direction (diminished trust). Columns (6) and (7) show that the Ruling led to a decrease of 0.25 points (out of 10) in trust in political parties and increased the proportion of people unsatisfied with democracy by 7 percentage points (that is, by more than 10%).

The results of this section show that many Catalans might have seen the Ruling as unfavorable, which exacerbate the attitudes for more autonomy toward the independence

 $<sup>^{44}</sup>$ Support for independence in July 2006 was 16%.

<sup>&</sup>lt;sup>45</sup>This finding is consistent with the previous literature. For instance, Ura and Wohlfarth (2010) show that voter support for checks and balances (and the separation of powers more generally) is reflected by simultaneous movement of trust in the legislative and judiciary branches. These results are independent of the alignment of preferences between these branches but, more generally, depend on trust in these institutions.

<sup>&</sup>lt;sup>46</sup>By contrast, the Ruling does not appear to have affected support for secession by limiting greater economic decentralization. In Table 4, we show that there is no increase in the number of people reporting the Catalan financing system as the most important problem of Catalonia.

extreme. These results also show that the functioning of democracy as a whole may have been put under scrutiny, despite the fact that the reform of the Catalan Constitution was democratically approved by large majorities in the Spanish and Catalan Parliaments and by a referendum, <sup>47</sup> and, then, followed all procedural rules of the Spanish democratic organization.

## 5.2 Identity, Catalan heritage and polarization

Since Akerlof and Kranton (2000), economists have discussed the effects of identity on economic and political choices. Among these effects, the willingness to secede from a country could saliently be shaped by identitarian channels. 48 In light of more recent theories of identity politics, citizens align with the group that gives them a greater utility and they act accordingly. The line of reasoning is as follows. When some issues become more prominent, individuals are more likely to identify more strongly according to the new cleavages. Then, individuals' preferred policies change according to the chosen identity. More precisely, in models such as Shayo (2020), individuals derive utility from the group's status and/or the distance to the group (stereo) typical member. Therefore, the preferred policies change such that they increase the status and/or decrease the distance (conformity). In Bonomi, Gennaioli and Tabellini (2021), the mechanism involves beliefs. All the members of the group update their beliefs by giving a distorted large weight to the (proto) typical member of the group, who is defined as the most distinctive member with respect to the other group. Thus, this distorted belief updating leads to polarization of preferred policies along the salient dimension. Under relatively mild conditions, the emphasis on the salient dimensions results in depolarization in the non-salient dimension.<sup>49</sup> Either through actions that maximize their group's status, conformity, or distorted belief updating, preferred policies change due to the identity choice.

Following Bonomi, Gennaioli and Tabellini (2021), polarization should increase in the institutional issue at the expense of the other issue. This section is structured along the logical chain of reasoning that the Ruling increases the salience of the tension between Catalonia and Spain and the intensity of identification with Catalonia. The attitudes toward more autonomy become polarized at the expense of depolarization in the economic dimension, which was the most important alternative issue at the time.

#### 5.2.1 National identity

As briefly anticipated in Section 4.1.2, the Catalan Constitution (the *Estatut*) and particularly, the Ruling, became prominent after the Constitutional Court's verdict on June 28, 2010. Its importance in the media is noticeable (Panel a in Figure 2 shows Google

<sup>&</sup>lt;sup>47</sup>The reform of the Statute of Autonomy had the approval of 80% of Catalan voters in the 2006 referendum.

<sup>&</sup>lt;sup>48</sup>For instance, Sorens (2005) studies a cross-section of established democracies with secessionist parties and finds that "identity" variables are the most determinant of vote share.

<sup>&</sup>lt;sup>49</sup>The conditions in Bonomi, Gennaioli and Tabellini (2021) relate to size of the groups and the correlation between the two dimensions.

searches of *Estatut* and Panel b shows mentions of the word *Estatut* or *Tribunal Constitucional* in newspapers). More evidence of the salience of the Ruling is the open question in the CEO survey about the "current problems of Catalonia". CEO coded the issues reported by the respondents into the following categories, among others: the relationship between Spain and Catalonia and more specifically, there is a subcategory that refers to people mentioning the "Estatut". Columns (1) and (2) of Table 4 show that these two are the problems with the greatest change: the percentage of people reporting the relationship between Catalonia and Spain as the main problem increased by 8 percentage points (column 1). Between the specific institutional problems, the Statute was declared the biggest problem of Catalonia by 6 percentage points more after the Ruling (column 2).<sup>50</sup>

## [INSERT TABLE 4]

Along the lines of Shayo (2020); Bonomi, Gennaioli and Tabellini (2021) and others, the Ruling shifted the focus toward the national issue and prompted a more intense self-identification in this dimension. Self-identification is asked as a juxtaposition of the Spanish identity and the regional identity from the Autonomous Community (Catalonia in the CEO survey). In the CEO survey, the respondents can choose one among the following categories: they feel (i) only Spanish; (ii) more Spanish than Catalan; (iii) Spanish and Catalan alike; (iv) more Catalan; and (v) only Catalan. Figure 5 shows the predicted values for the marginal effects of the Ruling for each possible respondent's national selfidentification, which are estimated with an ordered probit regression.<sup>51</sup> Notably, the effect of the Ruling is an increase in identification with Catalonia, i.e., categories (i) to (iii) decrease in favor of (iv) and especially (v). Self-identification as "only Catalan" increases by 2 percentage points and "more Catalan than Spanish" increases by 0.8 percentage points. In contrast, the Ruling decreases self-identification as "only Spanish", "more Spanish than Catalan", and "as Spanish as Catalan" by between 0.4 and 1 percentage points. Still, all the marginal effects are weakly statistically significant, and the effects on "Feel only Spanish" and "Feel more Catalan than Spanish" are statistically significant at a 5% level of significance, while the other effects are significant at 10% level.<sup>52</sup> The same question is asked in the CIS national surveys and the main results are confirmed: because of the Ruling, the respondents in Catalonia become more attached to their Catalan identity compared to those in other places in Spain (see Appendix C.4.4).

## [INSERT FIGURE 5]

<sup>&</sup>lt;sup>50</sup>Table A.9 in Appendix C.5 confirms this result considering whether the respondent mentioned one of those issues as a problem of Catalonia instead of whether it is the biggest problem.

<sup>&</sup>lt;sup>51</sup>Since the reported self-identification is partly caused by the Ruling, it is an endogenous variable. Therefore, it should not be used as an explanatory variable for support of independence. This comment is simply a clarifying (and cautionary) note.

<sup>&</sup>lt;sup>52</sup>In Appendix C.4 we present additional results of the effect of the Ruling on self-identification. In Appendix C.4.1 we show the OLS and ordered probit estimation of the effect of the Ruling on Catalan identity. In Appendix C.4.3 we also include heterogeneous effects by Catalan heritage to show that people with previous Catalan heritage are the one increasing the most their identification with the Catalan identity.

#### 5.2.2 Identity and institutional polarization

After showing that the Ruling increased group identification in a consistent way with identity politics theory, we now study the effect of the Ruling in terms of economic and institutional polarization. We measure the attitudes toward the institutional issue with the responses to the "territorial organization" question, i.e., the variable about the autonomic degree between Spain and Catalonia. These attitudes should polarize after the Ruling between people who identify more as Catalans and people who identify more as Spanish.<sup>53</sup>

We provide two tests that rely on two different surveys. To test this argument within Catalonia (CEO data), we study whether the Ruling polarized the attitudes for the preferred relationship between Catalonia and Spain in individuals with different Catalan heritage. This is due to the fact that Catalan heritage is an exogenous variable that can be used to properly test heterogeneity effects, as it strongly predicts group identification,<sup>54</sup> and it is in line with the literature that assumes that identity formation is a dynamic process in which parents pass their identity to their children (Bisin et al., 2011; Almagro and Andrés-Cerezo, 2020).

To test this reasoning between Catalonia and the rest of Spain (CIS data), we rely on a differences-in-differences specification and we test whether the Ruling polarized the attitudes for the preferred relationship between an Autonomous Community and Spain in individuals from Catalonia and from the rest of Spain.<sup>55</sup> Appendix C.4.5 extensively discusses the relevant counterfactual in this differences-in-differences exercise. We need to interpret that the treatment potentially affects both the treatment and control groups but in different ways.<sup>56</sup>

Within Catalonia: The results within Catalonia can be found in Panel A of Table 5. In column (1) we estimate the heterogeneous effect of the Ruling according to Catalan heritage. People with both Catalan parents tend to have higher support for more autonomy of Catalonia. This support increased even further for these people after the Ruling. On the contrary, after the Ruling people without Catalan heritage did not increase their support for more autonomy. This means that the polarization in the preferred relationship between Catalonia and Spain among people with different Catalan heritage

<sup>&</sup>lt;sup>53</sup>One caveat for the testability of this prediction is that we cannot conduct exactly this heterogeneity test, as the mediating factor (group identification) is endogenous. Hence, we instead test whether the Ruling polarize preferences for more autonomy for people with different exogenous categories.

<sup>&</sup>lt;sup>54</sup>We report these results in Appendix C.4.2.

<sup>&</sup>lt;sup>55</sup>CIS data do not ask about parents' place of birth.

<sup>&</sup>lt;sup>56</sup>While we know that the causal effect of the Ruling in Catalonia led to an increase in preferences for more autonomy, unfortunately, the CIS survey field works did not happened amidst the Ruling, and then we do not know what is the causal effect of the Ruling in the rest of Spain. The time-series evolution reported in Appendix C.4.5 shows a decrease in the preference for more autonomy in the rest of Spain after the Ruling. The estimated differences-in-differences estimate is then the sum of the potential increase in more autonomy from Catalans and the potential decrease from the rest of Spain. Still, given the within-Catalonia evidence, we cannot rule out that the potential increase in more autonomy from Catalans is not present.

increased after the Ruling. Column (2) shows the results of the differences-in-differences model (Equation 2) with a longer time-horizon. When using this specification, we find evidence of a long-lasting effect: polarization increases one year after the Ruling. Column (3) shows evidence of parallel pre-trends. Appendix D.11 indicates that this effect is robust to the time-period considered but also to the whole dataset used.

[INSERT TABLE 5]

Within Spain: Similarly, the within-Spain results are in Panel B of Table 5 and CIS data were used to estimate the differences-in-differences coefficients in Equation 3. To estimate the immediate effects, in Column (1) we use only the CIS wave after the Ruling as the post-treatment period. We find a positive and significant difference in the change in preference for more autonomy between Catalans and the rest of Spain after the Ruling. This difference maintains and the point estimate also increases in the year after the Ruling (column 2). As the respondents in Catalonia already had a higher preference for more autonomy before the Ruling, these results confirm that the Ruling increased polarization about institutional preferences also within Spain. Column (3) shows evidence of parallel trends by using a placebo treatment in the pre-treatment period.<sup>57</sup>

#### 5.2.3 Identity and economic depolarization

Pundits and scholars alike argue that the Spanish economic crisis is one of the main culprits of the secessionist movement in Catalonia (Rico and Liñeira, 2014 and references therein). The Spanish crisis, which was initially caused by the Great Recession and a local real estate bubble, peaked in early 2010 with the "Indignados" movement. With an average unemployment of 25% and a recession, it is claimed that Catalonia (among the richest regions in Spain) desired fiscal independence because of the crises. This idea is consistent with Acemoglu and Robinson (2001)'s theory of institutional transitions, which argues that revolts that prompt institutional change are likely to occur during recessions. Nonetheless, this economic channel does not go hand-in-hand with the identitarian channel by which economic polarization should decrease between those with Catalan heritage and those without.

We find evidence that economic problems do not mediate the effect on the support for more autonomy. The CEO asks panelists about the "current problems of Catalonia". In addition to the issues reported in Section 5.2.1, the CEO coded two economic issues reported by the respondents: the Catalan financing system <sup>58</sup> and the economy. <sup>59</sup> Table

<sup>&</sup>lt;sup>57</sup>These results are robust to the changes in the answers provided as options for the preference for more autonomy between different CIS waves. Robustness is shown in Appendix D.11.3.

<sup>&</sup>lt;sup>58</sup>The survey administrators code references to centralized taxes into this category. The results corresponding to this subcategory must be interpreted carefully as there are only sixty-six individuals who reported this issue as a problem. Figure A.9 in Appendix C.5 shows that the financing system was not a salient issue in 2010.

 $<sup>^{59}</sup>$ Economic problems include unemployment and low-quality employment, low wages, and the functioning of the economy.

4 shows that the economy is unlikely to be the cause of the change in support for independence, as its importance decreases after the Ruling. The Ruling reduced the probability of reporting the economy as the main problem of Catalonia by 12 percentage points (column 3). Similarly, the likelihood of reporting fiscal federalism as the most important problem does not change (column 4).<sup>60</sup>

Similar to our results on institutional polarization, we show that – in alignment with the identity politics predictions– there is economic depolarization. First, within Catalonia, the attitudes toward economic issues of those with Catalon heritage and those without are more similar after the Ruling. Second, between Catalonia and the rest of Spain, this economic depolarization is also present and persistent.

Within Catalonia: Since our main CEO database does not include any variable on preferences for economic policies we resort to the ICPS survey that includes only Catalan respondents. The main variable is built with a question about the preference for economic intervention. It takes values from 1 to 5 that increase from no intervention ("markets must be allowed to operate freely") to government intervention ("the state must intervene in the economy"). Since this database is annual we replicate the differences-in-differences estimation of Model 2 within Catalonia.

We estimate the differences-in-differences coefficients in Panel A of Table 6. First, individuals with Catalan heritage tend to be less in favor of economic intervention. Second, when looking at the immediate short-term of the Ruling, this difference does not change (column 1). However, we see some evidence of depolarization in the economic conflict when we consider the effect one year after the Ruling (column 2). Respondents with both Catalan parents preferred lower economic intervention before the Ruling and, after the ruling, their preferences for economic intervention increased more than those of individuals without Catalan heritage, reducing the difference in preferences between these two groups. In column (3), we provide evidence for parallel pre-trends.

Within Spain: Similarly, to show economic depolarization as a result of the Ruling, we use variations within Spain and the CIS data. In this data, the main economic variable concerns fiscal pressure. The variable takes a value of 1 if the respondents' assessment is that fiscal pressure is high, 2 if it is average, and 3 if it is low.

We report the results of estimating Model 3, the within-Spain differences-in-differences, in Panel B of Table 6. We find milder evidence with respect to the within-Catalonia results, namely, that Catalans thought that fiscal pressure is too high in Spain before the Ruling. However, Catalans increasingly report more that fiscal pressure is low after the Ruling than people from the rest of Spain. This evidence is confirmed by using the survey immediately after the Ruling and one year later (columns 1 and 2, respectively). The magnitude between the two effects is not statistically different, although the one-year

<sup>&</sup>lt;sup>60</sup>Table A.9 in Appendix C.5 confirms this result considering whether the respondent mentioned one of those issues as a problem of Catalonia instead of whether it is the biggest problem.

effect seems to be somewhat lower. We confirm evidence for parallel trends in column (3).

[INSERT TABLE 6]

## 6 Electoral implications

The exacerbation and polarization of attitudes toward the political division of Spain (within Catalonia and, more generally, in Spain) can be understood in terms of institutional instability due not only to the higher threat of secession of Catalonia but also to a shock to the solidity of the established party system. In this section we show that the Ruling changed the party system in two relevant aspects. First, the Ruling modified the differences in political attitudes between the partisans of different parties. Second, the Ruling also changed the intention to vote for various parties. With this aim, we estimate the main model (Equation 1) with the CEO data.

Partisan polarization: The partisan divide around the preferred form of organization was exacerbated due to the Ruling. Before the Ruling, the voters of the PP in Catalonia had already considerable lower support for decentralization than the voters of the other Catalan parties. This should not come as a surprise if we recall that the Statute of Autonomy was brought to the Constitutional Court by the PP legislators. Figure 6 shows the heterogeneous effects of our baseline result by past vote. Non-PP voters' attitudes clearly shifted towards more decentralization (federal state and independence) while PP voters leaned toward even more centralization. This implies that the Ruling polarized the institutional preferences between the voters of the PP and the remaining Catalans. Catalans.

#### [INSERT FIGURE 6]

Interestingly, we do not observe this cleavage in the backlash against institutions. Following the Ruling, the voters of the PP decreased their trust in courts similarly to other Catalans. A plausible explanation is that voters of the PP were disappointed with the Ruling for the opposite reasons of the rest of Catalans. Since the Ruling of the Constitutional Court struck down only 12% of the one hundred fourteen articles challenged by the PP, PP supporters might have perceived the Ruling to be too soft while the rest of Catalans could perceive it to be too onerous.

 $<sup>^{61}</sup>$ If we regress support for region on having voted for the Popular Party in the last Catalan election in the previous wave of the survey, we obtain a coefficient of 0.18 (0.015 s.e.), which means that Popular Party voters were 18% more likely than the rest of voters to support the region choice. Summary statistics of the preferred institutional relationship between Spain and Catalonia by past vote are presented in Table A.2 in Appendix B.

<sup>&</sup>lt;sup>62</sup>And the Catalan Popular Party (PPC) voted against the reform of the Catalan Statute of Autonomy precisely because it implied further decentralization.

 $<sup>^{63}</sup>$ A discussion of the heterogeneous effect of the Ruling on voters of the remaining parties can be found in Appendix C.3.

<sup>&</sup>lt;sup>64</sup>We report this results in in Table A.18 in Appendix D.6.

**Voting outcomes:** The Ruling not only increased the polarization around a previous partisan cleavage but also re-aligned voting intentions accordingly. In column (1) of Table 7, we examine the effect of the Ruling on the intention to vote for the two main Catalan nationalist parties, ERC and CiU. We find that the Ruling increased the likelihood of expressing the intention to vote for them by 6 percentage points.<sup>65</sup>

#### [INSERT TABLE 7]

Notice that the implications of the previous results are different if the change in the intention to vote was driven by a sudden opportunistic change in the strategies of political parties (supply-driven). Nonetheless, we find evidence against this channel. For instance, if parties had suddenly changed their behavior, then when we estimate the effect of the Ruling in later days, we should observe a larger effect due to greater exposure to the new strategies. The results in Figure 7 rule out this hypothesis, as the estimate of the effect of the Ruling is similar when estimated on the first day of the interviews or on the following days. In addition, it is unlikely that political parties could credibly and homogeneously change and communicate their strategy from one day to the next. Indeed, none of the non-secessionist parties formally embraced the independence cause until 2012. Finally, if the primary public television channel (TV3) – which is funded by the Catalan Government– was in charge of their communication strategy (given its alleged support for the Catalan secessionist movement (Durán, 2018)), we should also observe an effect there. Nonetheless, we show in Appendix C.7 that Catalans who report being informed by TV3 do not react to the Ruling differently than the rest of Catalans.

#### [INSERT FIGURE 7]

Accordingly, the Ruling not only was a shock to formal institutions but also affected the partisan reality in Catalonia. Whether the long-lasting effects that we found in Section 5.2.2 are also present in voting attitudes is an open question. As mentioned, there is evidence that hints toward this direction. In the Catalan elections of November 2010, Catalan Nationalist parties increased notably their representation in the Catalan Parliament. In 2012, CiU formally converted into a pro-independence party. In 2015, the Catalan elections were framed as a plebiscite for independence. CiU (center-right) and ERC (center-left) presented a common list. More formally, in Appendix E.1 we show that the support for this secessionist coalition in the 2015 elections may be associated with

<sup>&</sup>lt;sup>65</sup>In Appendix C.6, we break down the partisan results by individual party, and we show that PSC, the Catalan section of the Spanish Socialist Party governing Spain at the time, is the main party losing intention to vote after the Ruling. We do not find a statistically significant change in intention to turnout. To further confirm that our results are not driven by sample unbalancedness, in column (2) of Table 7, we show that there are no significant differences in past votes for nationalist parties before and after the Ruling.

<sup>&</sup>lt;sup>66</sup>As the number of observations interviewed in each day is different, we use as probability the weight of the number of people interviewed on that specific day. Day 5 of the interviews is the day with the minor number of respondents in the sample as only 56 people were interviewed. In Appendix E.4, we provide evidence that the effect of the Ruling is persistent, even in posterior waves of the political survey. In Appendix D.2, we show additional evidence that the estimated coefficient of the Ruling does not increase as time passes after the survey. In fact, we show that when we have longer windows around the Ruling (by increasing the observations in the sample), we do not observe a larger effect of the Ruling.

 $<sup>^{67}</sup>$ As reviewed in Appendix A.3, CiU formally transitioned towards independentism in 2012.

the Ruling. In the municipalities where secessionist parties were historically stronger, a larger immediate effect of the ruling in 2010 is associated with an increase of 0.32 percentage points for this pro-independence coalition in 2015. Then, this suggestive evidence indicates that the Ruling might have also generated electoral polarization across the municipalities inside Catalonia. Moreover, the coalition won, elected Puigdemont as president of Catalonia and in 2017, he declared (and suspended) Catalon independence.

## 7 Concluding remarks

We study the 2010 ruling of the Spanish Constitutional Court concerning the new Catalan Constitution to understand how judicial review affects political attitudes and stability. Consistently with recent advances in identity theory (Bonomi, Gennaioli and Tabellini, 2021; Shayo, 2020), we show that the decision of the Constitutional Court to strike down and curtail some of the articles in the Catalan Constitution, increased the saliency of the nationalistic dimension, Catalan self-identification was strengthened, and although conflict moderated over the economic dimension, preferences became more polarized in the decentralization dimension. This polarization undermined nation building at the Spanish level and subsequently increased political instability in Catalan independence from Spain.

Our evidence does not question the relationship between sound institutions and the preservation of economic and political freedoms, growth and stability, but it does show that even strongly institutionalized countries may face a difficult path to building commoninterest solutions to policy-making. When counter-majoritarian decision-making – e.g., the Constitutional Court – results in outcomes that are considered harmful by a large portion of the population, these people can gather around a defined identity, and collective action around the issue ruled on may be detrimental to the construction of a shared national identity.

The scope of our paper may be broader than our application to the Spanish case. In recent years, courts have played an essential role in addressing divisive issues such as same-sex marriage, abortion, limits on campaign financing or affirmative action, to name just a few examples – a phenomenon that has been identified as the "judicialization of politics" (Hirschl, 2008). Moreover, during these years, we have observed that political cleavages have shifted from the classic economic dimension toward other dimensions based on identifying factors such as gender, religion, or nation (documented in Besley and Persson, 2021). In this paper, we show that these two phenomena can be interrelated.

Even more generally, our setting emphasizes the tension between judicial review and democracy. On the one hand, the separation of powers isolates the judicial branch from majoritarian tides. On the other hand, as counter-majoritarian institutions, courts may not be equipped to make certain transformative policy-making or political decisions.

Our results complement the existing theoretical literature and help organize future

policy discussions and research. For instance, in terms of the U.S. Supreme Court decision to overturn Roe v. Wade, one could investigate whether certain patterns emerge. For example, will men and women identify less with the traditional gender identities? Will the Court's legitimacy decrease (i.e., institutional backlash)? Will attitudes toward female rights be more extreme (i.e. exacerbation)? Will these attitudes be more polarized in the liberal/conservative continuum?

## 7.1 Figures and Tables

## 7.1.1 Figures

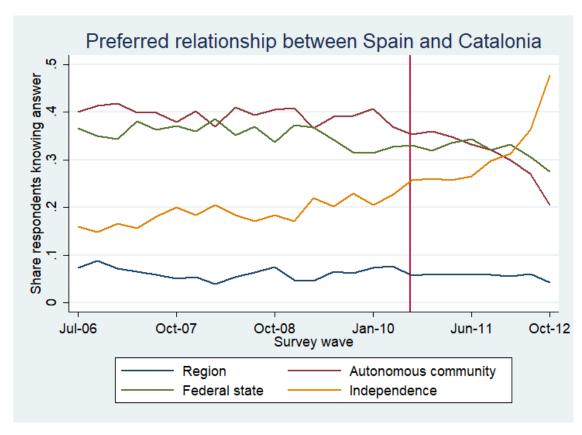


Figure 1: Time series of the support for independence in Catalonia

Share of respondents (omitting people who either did not know the answer or did not give a answer) preferring one particular situation about the relationship between Catalonia and Spain. The possible answers are i) Catalonia to be a region inside Spain (Region), and then having less autonomy then the status quo, ii) Catalonia to be an Autonomous Community inside Spain (Autonomous community), then having the same autonomy as the status quo, iii) Catalonia to be a federal state inside Spain (Federal state), then having more autonomy than the status quo, iv) Catalonia to become an independent state (Independence). Red vertical line indicates June 2010, the time of the Ruling. Data source: Baròmetre d'Opinió Política of the Catalan Centre d'Estudis d'Opinió.

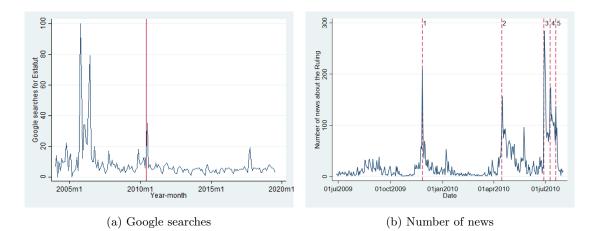


Figure 2: Time series of Google searches and news related to the Ruling

Panel 2a. Source: Google Trends for searches for the word "Estatut". Searches in Catalonia only. Red line: June 2010. Maximum

Panel 2a. Source: Google Trends for searches for the word "Estatut". Searches in Catalonia only. Red line: June 2010. Maximum value normalized to 100.

Panel 2b. Source: Factiva. We collected all the news containing the words "Estatut" and "Tribunal Constitucional" between June 28th, 2009, and July 22nd, 2010, in Spain. The vertical lines correspond to the following dates and events, Event 1, November 27th, 2009: joint editorial of 12 Catalan newspapers about a possible ruling of the Constitutional Court. Event 2, April 15th, 2010: meeting of the Constitutional Court to discuss about the Ruling. Event 3, June 28th, 2010: Ruling. Event 4, July 9th, 2010: demonstration against the Ruling. Event 5, July 19th, 2010: release of the complete Ruling with all the individual votes and comments of the judges of the Constitutional Court.

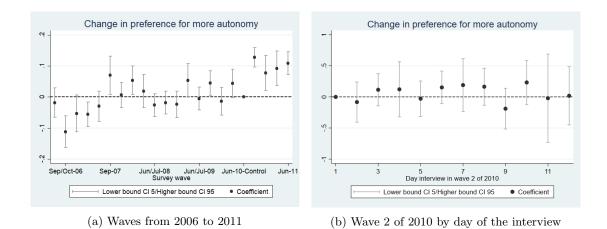


Figure 3: Pre-trends analysis

Panel 3a reports the estimated coefficient of the effect of the survey wave on More autonomy using waves from 2006 to 2011. Coefficients obtained regressing More autonomy on dummies for the survey wave, the interaction between Ruling and the day of the interview, individual controls and comarcas fixed effects. The omitted category is the observations from interviews in the third wave of 2010 before June 28th at 19:00. Standard errors clustered at province-survey wave level.

Panel 3b reports the estimated coefficient of the effect of the day of the interview on More autonomy using the second waves of 2010. The omitted category is the first day of interview. Robust standard errors.

More autonomy: variable that takes values from 1 to 4 if the respondent prefers Catalonia to be a region (less autonomy than status-quo), Autonomous Community (status-quo), federal state (more autonomy than the status-quo), or independent state, respectively. Controls: dummy reflecting whether Catalan was the language of interview; the respondent spoke only Catalan with family, at work, with friends; the respondent was born in Catalonia, the rest of Spain or outside Spain; the respondent's mother was born in Catalonia, the rest of Spain or was born in Catalonia, the rest of Spain or outside Spain; the respondent's mother was born in Catalonia, the rest of Spain or outside Spain; respondent's mother was born in Catalonia, the rest of Spain or outside Spain; respondent's sex; the respondent is married; dummies for respondent's education; dummies for respondent's age; dummies for respondent's income; dummies for respondent's enployment situation; dummies for respondent's city population. All unanswered or unknown answers coded as missing values. Lower-Upper Bound CI 95: lower and upper bounds of 95% confidence interval.

33

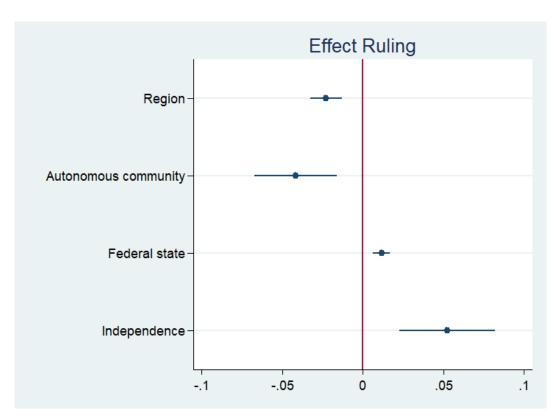


Figure 4: Marginal effects of the Ruling on each preferred relationship between Spain and Catalonia

This figure plots the marginal effect of Ruling on the four options for the preferred relationship between Spain and Catalonia,
estimated in column (4) of Table 2. Each point refers to the estimated coefficient of the effect of Ruling on one specific value of
the variable More autonomy and each line refers to the 95% confidence interval. The marginal effects are estimated after
regressing, by Ordered Probit, More autonomy on Ruling, all the controls and comarca fixed effects. More autonomy: variable
that takes values from 1 to 4 if the respondent prefers Catalonia to be a region (less autonomy than status-quo), Autonomous
Community (status-quo), federal state (more autonomy than the status-quo), or independent state, respectively. Ruling: dummy
taking 1 for all observations interviewed after June 28th, 2010, at 19:00, and 0 otherwise. Controls: dummy reflecting whether
Catalan was the language of interview; the respondent spoke only Catalan with family, at work, with friends; the respondent was
born in Catalonia, the rest of Spain or outside Spain; the respondent's father was born in Catalonia, the rest of Spain or outside
Spain; the respondent's mother was born in Catalonia, the rest of Spain or outside Spain; respondent's sex; the respondent is
married; dummies for respondent's education (educ.); dummies for respondent's age; dummies for respondent's income; dummies
for respondent's employment situation; dummies for respondent's city population. All unanswered or unknown answers coded as
missing values. Probability weights used. Sample of people interviewed before 19:00 and in the first seven days of interviews.

Standard errors are clustered at the province-day of the interview level.

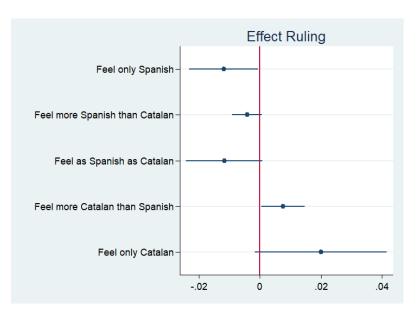


Figure 5: Effect of the Ruling on national identity

This figure plots the marginal effect of Ruling on the five options for national identification in column (2) of Table A.6 in Appendix C.4. Each point refers to the estimated coefficient of the effect of Ruling on one specific value of the variable Feeling Catalan and each line refers to the 95% confidence interval. The marginal effects are estimated after regressing, by Ordered Probit, Feeling Catalan on Ruling, all the controls and comarca fixed effects. Feeling Catalan: variable taking 5 values according to which national group the interview feel to belong. The variable takes value 1 if the interviewed feels only Spanish, 2 if the interviewed feels more Spanish than Catalan, 3 if the interviewed feels as Spanish as Catalan, 4 if the interviewed feels more Catalan than Spanish, and 5 if the interviewed feels only Catalan. Ruling: dummy taking 1 for all observations interviewed after June 28th, 2010, at 19:00, and 0 otherwise. Controls: dummy reflecting whether Catalan was the language of interview; the respondent spoke only Catalan with family, at work, with friends; the respondent was born in Catalonia, the rest of Spain or outside Spain; the respondent's mother was born in Catalonia, the rest of Spain or outside Spain; the respondent's mother was born in Catalonia, the rest of Spain or outside Spain; respondent's sex; the respondent is married; dummies for respondent's education (educ.); dummies for respondent's age; dummies for respondent's employment situation; dummies for respondent's city population. All unanswered or unknown answers coded as missing values. Probability weights used. Sample of people interviewed before 19:00 and in the first seven days of interviews. Standard errors are clustered at the province-day of the interview level.

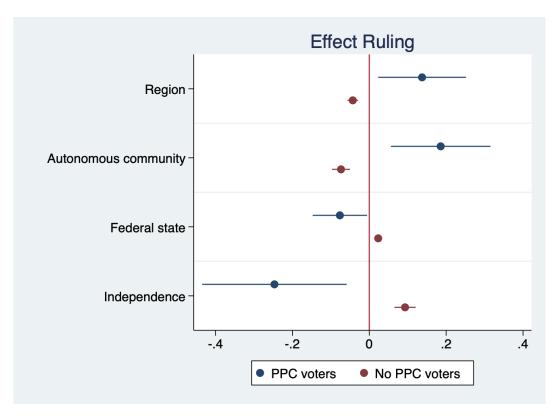


Figure 6: Heterogeneities of the effect of the Ruling on each preferred relationship between Spain and Catalonia according to past vote

This figure plots the marginal effects of Ruling on the four options for the preferred relationship between Spain and Catalonia, estimated in column (2) of Table A.5 in Appendix C.3. Each point refers to the estimated coefficient of the effect of Ruling on one specific value of the variable More autonomy and each line refers to the 95% confidence interval. Blue points and lines refers to respondents who votes for Partido Popular Catalán (PPC voters) at the Catalan Parliament elections of 2006, and red points and lines for the other voters ( $No\ PPC\ voters$ ). The marginal effects are estimated after regressing, by Ordered Probit, Moreautonomy on Ruling, Past vote PPC, the interaction between Ruling and Past vote PPC, all the controls and comarca fixed effects. The marginal effect for PPC voters is computed as the sum of the marginal effect of Ruling and the marginal effect of Ruling x Past vote PPC. More autonomy: variable that takes values from 1 to 4 if the respondent prefers Catalonia to be a region (less autonomy than status-quo), Autonomous Community (status-quo), federal state (more autonomy than the status-quo), or independent state, respectively. Ruling: dummy taking 1 for all observations interviewed after June 28th, 2010, at 19:00, and 0 otherwise. Past Vote PPC: dummy taking 1 if the interviewed voted for Partido Popular Catalán (PPC) at the Catalan Parliament elections of 2006, and taking 0 if the interviewed voted for Convergència i Unió (CiU), Esquerra Republicana de Catalunya (ERC), Partido de los Socialistas de Cataluña (PSC), or Iniciativa per Catalunya Verds-Esquerra Unida i Alternativa (ICV-EUiA) (if the interviewed cannot vote, did not vote, conducted a blank or null vote, or voted another party this variable is coded as missing.). Controls: dummy reflecting whether Catalan was the language of interview; the respondent spoke only Catalan with family, at work, with friends; the respondent was born in Catalonia, the rest of Spain or outside Spain; the respondent's father was born in Catalonia, the rest of Spain or outside Spain; the respondent's mother was born in Catalonia, the rest of Spain or outside Spain; respondent's sex; the respondent is married; dummies for respondent's education (educ.); dummies for respondent's age; dummies for respondent's income; dummies for respondent's employment situation; dummies for respondent's city population. All unanswered or unknown answers coded as missing values. Probability weights used. Sample of people interviewed before 19:00 and in the first seven days of interviews. Standard errors are clustered at the province-day of the interview level.

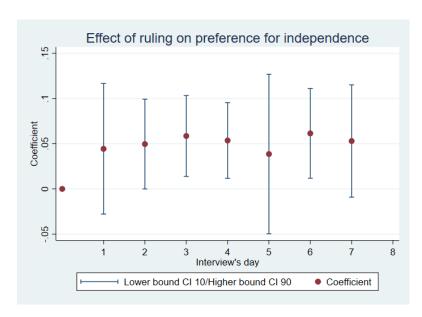


Figure 7: Heterogeneity of the effect of Ruling on support for independence by day

The graphs report the estimated coefficient of the effect of the Ruling interacted by the day of the interview. Coefficients obtained regressing dummy reflecting the respondent's preference for Catalonia to become an independent state on Ruling, the interaction between Ruling and the day of the interview, individual controls and comarcas fixed effects. The coefficient equals 0 in the day before the ruling took place. Ruling: dummy taking 1 for all observations interviewed after June 28th, 2010, at 19:00, and 0 otherwise. Controls: dummy reflecting whether Catalan was the language of interview; the respondent spoke only Catalan with family, at work, with friends; the respondent was born in Catalonia, the rest of Spain or outside Spain; the respondent's father was born in Catalonia, the rest of Spain or outside Spain; respondent's sex; the respondent is married; dummies for respondent's education; dummies for respondent's age; dummies for respondent's income; dummies for respondent's employment situation; dummies for respondent's city population. All unanswered or unknown answers coded as missing values. Lower-Upper Bound CI 90: lower and upper bounds of 90% confidence interval. Given that the number of interviewed people varies by day, each observation is weighted by the number of observations interviewed in that particular day. Sample of people interviewed before 19:00 in the first seven days of interviews.

Standard errors clustered at province-day of the interview level.

## **7.1.2** Tables

Table 1: Main summary statistics and mean difference before and after the Ruling

Variable	Mean	Mean sample	Pre-post
Interview in catalan	0.71	0.69	-0.06
Speak catalan at home	0.48	0.47	-0.05
Speak catalan at work	0.27	0.25	-0.02
Speak catalan with friends	0.41	0.40	0.00
Born in Catalonia	0.75	0.72	-0.02
Born in rest of Spain	0.22	0.26	0.02
Foreign born	0.03	0.02	0.00
Father born in Catalonia	0.47	0.44	-0.04
Father born in rest of Spain	0.51	0.54	0.05
Father foreign born	0.02	0.02	-0.01
Mother born in Catalonia	0.46	0.45	-0.02
Mother born in rest of Spain	0.51	0.53	0.02
Mother foreign born	0.03	0.02	0.00
Female	0.52	0.57	-0.04
Married	0.60	0.62	-0.06
Educ. lower ESO	0.09	0.09	-0.01
Educ. ESO	0.29	0.34	-0.06
Educ. bachillerato	0.31	0.29	0.06
Educ. university	0.31	0.28	0.02
Income lower 1k	0.14	0.15	0.02
Income 1k-2k	0.37	0.39	-0.06
Income 2k-3k	0.28	0.27	$0.07^{\star}$
Income 3k or more	0.21	0.19	-0.03
Self-employed	0.09	0.08	0.00
Employed	0.41	0.38	-0.04
Unemployed	0.50	0.54	0.04
Age	48.31	50.59	-0.24
Age squared	2633.16	2838.02	31.77
City pop. 0-2000	0.05	0.05	0.00
City pop. 2001-10000	0.14	0.14	-0.01
City pop. 10001-50000	0.26	0.26	-0.02
City pop. 50001-150000	0.20	0.22	0.03
City pop. 1500001-1000000	0.12	0.12	-0.08**
City pop. 1000000 or more	0.22	0.21	0.08**
F-stat joint significance			1.03

Mean: mean of the reported variable. Mean sample: mean of the reported variable in the sample of people interviewed before 19:00 and in the first seven days of interview. Pre-post: t-test of the difference in reported variable for respondents in the sample considered interviewed before and after the ruling of the Constitutional Court, obtained regressing the reported variable on the variable Ruling on the sample considered using probability weights. Ruling: dummy taking 1 for all observations interviewed after June 28th, 2010, at 19:00, and 0 otherwise. F-stat joint significance: F-statistics obtained after regressing Ruling on all the variables under consideration on the sample considered using probability weights. \*\*\* p<0.01, \*\*\* p<0.05, \* p<0.1

Table 2: Effect of the Ruling on the preferred relationship between Spain and Catalonia

	(1)	(2)	(3)	(4)
VARIABLES	More autonomy	More autonomy	Independence	More autonomy
Ruling	0.153**	0.133***	0.0518**	0.211***
	(0.0577)	(0.0431)	(0.0207)	(0.0723)
Observations	1,199	960	960	960
R-squared	0.004	0.339	0.241	
Comarca FE	NO	YES	YES	YES
Controls	NO	YES	YES	YES
Estimation	OLS	OLS	OLS	O-Probit
Average y	2.79	2.79	0.26	2.79

More autonomy: variable that takes values from 1 to 4 if the respondent prefers Catalonia to be a region (less autonomy than status-quo), Autonomous Community (status-quo), federal state (more autonomy than the status-quo), or independent state, respectively. Independence: dummy reflecting the respondent's preference for Catalonia to become an independent state. Ruling: dummy taking 1 for all observations interviewed after June 28th, 2010, at 19:00, and 0 otherwise. Comarca FE: comarca fixed effects. Controls: dummy reflecting whether Catalan was the language of interview; the respondent spoke only Catalan with family, at work, with friends; the respondent was born in Catalonia, the rest of Spain or outside Spain; the respondent's father was born in Catalonia, the rest of Spain or outside Spain; respondent's sex; the respondent is married; dummies for respondent's education; dummies for respondent's age; dummies for respondent's income; dummies for respondent's employment situation; dummies for respondent's city population.

Average y: mean of dependent variable. O-probit: ordered probit estimation. The table reports the coefficient estimates of the ordered probit regression, while the marginal effects are shown in Figure 4. All unanswered or unknown answers coded as missing values. Probability weights used. Sample of people interviewed before 19:00 and in the first seven days of interviews. Standard errors clustered at province-day of the interview level. All the reported estimates are also presented in Table A.3 in Appendix C.1.

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

Table 3: Effect of the Ruling on the trust to democratic institutions

	(1)	(2)	(3)	(4)	(2)	(9)	(2)
VARIABLES	VARIABLES Trust: Courts Trust: C	Trust: Gvt Esp	Trust: Parl Esp	Trust: Gvt Cat	Trust: Parl Cat	Trust: Parties	Insatisfaction democracy
Ruling	-0.327**	-0.218	-0.154**	0.0168	-0.00471	-0.248**	0.0658**
	(0.139)	(0.129)	(0.0610)	(0.0920)	(0.0838)	(0.118)	(0.0298)
Observations	961	991	973	966	971	286	686
R-squared	0.088	0.096	0.090	0.080	0.084	0.067	0.091
Comarca FE	YES	YES	YES	m YES	m YES	m XES	YES
Controls	YES	m YES	m YES	m YES	m YES	m AES	YES
Estimation	OLS	OLS	STO	OLS	OLS	OLS	OLS
Average y	3.96	3.60	4.05	4.62	4.90	3.57	09.0

respondent is married; dummies for respondent's education (educ.); dummies for respondent's age; dummies for respondent's income; dummies for respondent's education; dummies for respondent's Trust: X: variable reporting how much the interviewed trusts the following institutions from 1 to 10: courts (Courts), Spanish Government (Gvt Esp), Spanish Parliament (Parl Esp), Catalan Government (Gvt Cat), Catalan Parliament (Part Cat), and political parties (Parties). Insatisfaction democracy: dummy taking 1 if the interviewed has small or no satisfaction with the functioning of the democracy. Controls: dummy reflecting whether Catalan was the language of interview; the respondent spoke only Catalan with family, at work, with friends; the respondent was born in Catalonia, the rest of Spain or city population. Average y: mean of dependent variable. All unanswered or unknown answers coded as missing values. Probability weights used. Sample of people interviewed before 19:00 and in the first and taking 0 if the interviewed is enough or very satisfied. Ruling: dummy taking 1 for all observations interviewed after June 28th, 2010, at 19:00, and 0 otherwise. Comarca FE: comarca fixed effects. outside Spain; the respondent's father was born in Catalonia, the rest of Spain or outside Spain; the respondent's mother was born in Catalonia, the respondent spain; respondent's sex; the seven days of interviews. Standard errors clustered at province-day of the interview level. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 4: Effect of the Ruling on perceived problems

	(1)	(2)	(3)	(4)
VARIABLES	Probl (Most): Cat-Esp	Probl (Most): estatut	Probl (Most): eco-lab	Probl (Most): financing
Ruling	0.0814*** (0.0198)	0.0660*** (0.0170)	-0.122** (0.0476)	0.00962 (0.00708)
Observations	970	970	970	970
R-squared	0.113	0.127	0.101	0.098
Comarca FE	YES	YES	YES	YES
Controls	YES	YES	YES	YES
Estimation	OLS	OLS	OLS	OLS
Average y	0.08	0.06	0.64	0.01

Probl (Most): Cat-Esp: dummy taking 1 if the interviewed mentions the relationship between Spain and Catalonia as the most important problem of Catalonia. Probl (Most): estatut: dummy taking 1 if the interviewed mentions the Catalan Statute of Autonomy (estatut) as the most important problem of Catalonia. Probl (Most): eco-lab: dummy taking 1 if the interviewed mentions the unemployment, job insecurity, the functioning of the economy, or the low level of wages as the most important problem of Catalonia. Probl (Most): financing: dummy taking 1 if the interviewed mentions the Catalan financing system as the most important problem of Catalonia. Ruling: dummy taking 1 for all observations interviewed after June 28th, 2010, at 19:00, and 0 otherwise. Comarca FE: comarca fixed effects. Controls: dummy reflecting whether Catalan was the language of interview; the respondent spoke only Catalan with family, at work, with friends; the respondent was born in Catalonia, the rest of Spain or outside Spain; the respondent's mother was born in Catalonia, the rest of Spain or outside Spain; the respondent's mother was born in Catalonia, the rest of Spain or outside Spain; respondent's sex; the respondent is married; dummies for respondent's education (educ.); dummies for respondent's age; dummies for respondent's income; dummies for respondent's employment situation; dummies for respondent's city population. Average y: mean of dependent variable. All unanswered or unknown answers coded as missing values. Probability weights used. Sample of people interviewed before 19:00 and in the first seven days of interviews. Standard errors clustered at province-day of the interview level. \*\*\* p<0.01, \*\* p<0.05, \*

Table 5: Effect of the Ruling on the preferred relationship between Spain and Catalonia: Polarization within Catalonia and Spain according to Catalan heritage

	(1)	(2)	(3)		
Panel A: Preference for more autonomy (within-Catalonia)					
Both Catalan parents	0.499***	0.362***	0.381***		
T. C.	(0.0371)	(0.0136)	(0.0133)		
Ruling	0.0556 $(0.0370)$				
Ruling x Both Catalan parents	0.245*** (0.0383)	0.0875*** (0.0287)			
Placebo Post x Both Catalan parents			0.0373 $(0.0437)$		
Observations	1196	33125	26218		
Comarca FE	YES	YES	YES		
Province FE	NO	NO	NO		
Survey FE	NO	YES	YES		
Controls	YES	YES	YES		
Years	Jun 10-Jul 10	Jun 06-Jun 11	Jun 06-Jun 10		
Data	CEO	CEO	CEO		
Estimation	OLS	OLS	OLS		
Average y	2.75	2.69	2.67		
Panel B: Preference f	or more autonom	y (within-Spain)			
Catalonia	0.702***	0.823***	0.673***		
Catalonia	(0.167)	(0.111)	(0.192)		
Ruling x Catalonia	0.135***	0.166***			
Truining A Catalonia	(0.0504)	(0.0417)			
Placebo Post x Catalonia			-0.0468 (0.0603)		
Observations	7979	16532	6011		
Comarca FE	NO	NO	NO		
Province FE	YES	YES	YES		
Survey FE	YES	YES	YES		
Controls	YES	YES	YES		
Years	Apr 09-Jul 10	Apr 09-Nov 11	Apr 09-Apr 10		
Data	CIS	CIS	CIS		
Estimation	OLS	OLS	OLS		
Average y	2.90	2.83	2.91		

Preference for more autonomy (within-Catalonia): variable that takes values from 1 to 4 if the respondent prefers Catalonia to be a region (less autonomy than status-quo), Autonomous Community (status-quo), federal state (more autonomy than the status-quo), or independent state, respectively. Preference for more autonomy (within-Spain): variable that takes values from 1 to 5 if the respondent prefers regions to have no autonomy, have lower autonomy than status quo, have autonomy as the status quo, more autonomy than the status-quo, or have the possibility to become independent states, respectively. Ruling: quotaking 1 if the respondent is interviewed after June 28th, 2010, at 19:00 or in a survey wave posterior to the Ruling, and 0 otherwise. Both Catalan parents: dummy taking 1 if the respondent's parents were both born in Catalonia, and 0 otherwise. Catalonia: dummy taking 1 if the respondent live in Catalonia and 0 if the respondent live in the rest of Spain (but not in the Basque Country, Navarra or Galicia). Placebo Post in Panel A: placebo dummy taking 1 if the respondent is interviewed in the third CEO survey wave before the Ruling took place (before 19). Placebo Post in Panel B: placebo dummy taking 1 if the respondent is interviewed in the last survey wave before the Ruling. Comarca FE: comarca fixed effects. Province FE: province fixed effects. Survey FE: survey wave fixed effects. Controls in Panel A: dummy reflecting whether the respondent was born in Catalonia, the rest of Spain or outside Spain; respondent's sex; the respondent is married; dummies for respondent's education (educ.); dummies for respondent's age; dummies for respondent's income; dummies for respondent's employment situation; dummies for respondent's city population. Controls in Panel B: age, sex, dummies for the size of city, dummies for educational attainments, and dummies for employment status. Years: beginding and end of survey waves used. Panel A column (1) uses the sample of people interviewed before 19:00 and in the first seven days of interviews. Data: data source used. Average y: mean of dependent variable. Probability weights used. Standard errors clustered at province-day of the interview level in Panel A column

Table 6: Effect of the Ruling on economic preferences: Polarization within Catalonia and Spain according to Catalan heritage

	(1)	(2)	(3)
Panel A: Preference for more econom	nic interventi	on (within-C	Catalonia)
Both Catalan parents	-0.170***	-0.178***	-0.165***
-	(0.0257)	(0.0253)	(0.0309)
Ruling x Both Catalan parents	0.0278	0.0880*	
2	(0.0450)	(0.0481)	
Placebo Post x Both Catalan parents			-0.0471
•			(0.0559)
Observations	10921	12461	9381
Comarca FE	NO	NO	NO
Province FE	YES	YES	YES
Survey FE	YES	YES	YES
Controls	YES	YES	YES
Years	01-10	01-11	01-09
Data	ICPS	ICPS	ICPS
Estimation	OLS	OLS	OLS
Average y	3.23	3.22	3.21
Panel B: Think that fiscal pre	essure is low	(within-Spai	n)
Catalonia	-0.0676	-0.0781	-0.0968*
	(0.0580)	(0.0486)	(0.0557)
Ruling x Catalonia	0.0735***	0.0572**	
	(0.0269)	(0.0240)	
Placebo Post x Catalonia			-0.0337
			(0.0337)
Observations	12067	14102	10048
Comarca FE	NO	NO	NO

Province FE YES YES YES Survey FE YES YES YES Controls YES YES YES Years 05-1005 - 1105 - 09CIS CIS CIS Data Estimation OLS OLS OLS 1.43 1.44 1.43 Average y

Preference for more economic intervention (within-Catalonia): variable that takes values from 1 to 5 about self-collocation about whether the government should act in the economy or markets should be free, with value 1 if the respondent prefers no intervention (markets must be allowed to operate freely) and 5 if the respondent prefers intervention (the state must intervene in the economy). Think that fiscal pressure is low (within-Spain): variable that takes values from 1 to 3 if the respondent prefers considers that Spanish citizens pay high, average (regular), or low taxes, respectively. Ruling: dummy taking 1 if the respondent is interviewed after June 28th, 2010, at 19:00 or in a survey wave posterior to the Ruling, and 0 otherwise. Both Catalan parents: dummy taking 1 if the respondent's parents were both born in Catalonia, and 0 otherwise. Catalonia: dummy taking 1 if the respondent live in Catalonia and 0 if the respondent live in the rest of Spain (but not in the Basque Country, Navarra or Galicia). Placebo Post placebo dummy taking 1 if the respondent is interviewed in the last survey wave before the Ruling. Comarca FE: comarca fixed effects. Province FE: province fixed effects. Survey FE: survey wave fixed effects. Controls in Panel A: dummy reflecting whether the respondent was born in Catalonia, the rest of Spain or outside Spain; respondent's sex; dummies for respondent's education (educ.); dummies for respondent's age; dummies for respondent's city population. Controls in Panel B: age, sex, dummies for the size of city, dummies for educational attainments, and dummies for employment status. Years: beginning and end of survey waves used. Panel A considers annual observations from 2001 onwards, with the exception of 2003 and 2004 that are not present. Panel B considers annual observations. Data: data source used. Average y: mean of dependent variable. Probability weights used. Standard errors clustered at province-survey level in parentheses in all specifications. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 7: Effect of the Ruling on intention to vote for Catalan nationalist parties

	(1)	(2)
VARIABLES	Vote	Past vote
D. P.	0.0000***	0.0400
Ruling	0.0608***	0.0428
	(0.0166)	(0.0392)
Observations	595	672
R-squared	0.280	0.212
Comarca FE	YES	YES
Controls	YES	YES
Estimation	OLS	OLS
Average y	0.54	0.47

Vote: dummy taking 1 if the interviewed has the intention to vote for Convergencia i Unió (CiU) or Esquerra Republicana de Catalunya (ERC) at the next elections for the Catalan Parliament, and taking 0 if the interviewed intends to vote for another party (if the interviewed cannot vote, intends not to vote, or to conduct a blank or null vote this variable is coded as missing.).

Past vote: dummy taking 1 if the interviewed voted for Convergencia i Unió (CiU) or Esquerra Republicana de Catalunya (ERC) at the Catalan Parliament elections of 2006, and taking 0 if the interviewed voted for another party (if the interviewed cannot vote, did not vote, or conducted a blank or null vote this variable is coded as missing.). Ruling: dummy taking 1 for all observations interviewed after June 28th, 2010, at 19:00, and 0 otherwise. Comarca FE: comarca fixed effects. Controls: dummy reflecting whether Catalan was the language of interview; the respondent spoke only Catalan with family, at work, with friends; the respondent was born in Catalonia, the rest of Spain or outside Spain; the respondent's mother was born in Catalonia, the rest of Spain or outside Spain; respondent's sex; the respondent is married; dummies for respondent's education (educ.); dummies for respondent's age; dummies for respondent's income; dummies for respondent's employment situation; dummies for respondent's city population. Average y: mean of dependent variable. All unanswered or unknown answers coded as missing values. Probability weights used. Sample of people interviewed before 19:00 and in the first seven days of interviews. Standard errors clustered at province-day of the interview level.

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

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