**Online supplementary material**

*Calibration*

The first step in each fs-QCA is the ‘calibration’ of sets (both the conditions and the outcome). This fundamental process, which should be as transparent as possible and discussed in detail (Schneider and Wagemann 2010, 403), can be conducted directly or indirectly (Ragin 2008, 85-105). More precisely, the direct method uses a logistic function to fit the raw data in-between the three qualitative anchors at 1 (full membership), 0.5 (point of indifference or point of maximum ambiguity), and 0 (full non-membership). The location of these qualitative anchors is established by the researcher using criteria that are external to the data at hand (in particular, previous theoretical knowledge). The ‘indirect method’, by contrast, requires the grouping of cases into set-membership scores. The researcher has to indicate which cases could be roughly classified with, for example, a 0.8 membership in the set; with 0.6; 0.4; 0.2 and so on (Schneider and Wagemann 2012, 35). In this work, we use the indirect method of calibration for the outcome as well as for all conditions except for that of ‘Big party’: in this latter case, we opted for the direct method. Table OSM1 summarises all our decisions:

Table OSM1 *Calibration of conditions and the outcome*

|  |  |  |
| --- | --- | --- |
| *Condition/**outcome* | *Membership scores* | *Cases*[[1]](#endnote-2) |
| Incumbency – outgoing leader running for re-election (crisp) | * 1
* 0
 | * 1 = Acerbo; Anguita1-2-3; Arzalluz2-3; Aznar2-3-4-5; Berlusconi2-3-4; Bertinotti2-3-4; Bisky2-3-4-6-7-8-9; Bossi1-2; Buffet2-3; Chirac; Fassino2-3; Ferrero2-3; Gabriel2-3-4; Gerhardt2-3; Gonzales1-2; Gysi; Hollande2-3-4; Hue2-3; Kipping2-3; Kohl1-2-3-4; Lafontaine2; Lambsdorff; Lara2; Laurent2-3; LePenJM1-2-3-4-5-6; LePenM2-3; Lindner2-3-4; Llamazares2-3; Martina; Merkel2-3-4-5-6-7-8-9; Ortuzar2; Rajoy2-3-4; Renzi2; Riexinger2-3; Salvini2; Sanchez2; Schroder2-3; Séguin2; Urkullu2; Veltroni2; Westerwelle2-3-4-5; Zapatero2-3
* 0 = Alliot-Marie; Almunia; Aubry; Aznar1; Beck; Berlusconi1; Bersani; Bertinotti1; Bisky1-5; Buffet1; Cambadélis; Casado-Blanco; Copé; D’Alema; Désir; Emmanuelli; Engholm; Epifani; Ernst; Fabius; Fassino1; Ferrero1; Franceschini; Gabriel1; Garzon; Gerhardt1; Giordano; Hollande1; Hue1; Imaz; Jospin; Juppé1; Juppé2; Kinkel; Kipping1; Kramp-Karrenbauer; Lafontaine1; Lafontaine3; Lara1; Laurent1; LePenM1; Lindner1; Llamazares1; Lötzsch; Maroni; Merkel1; Muntefering1; Muntefering2; Occhetto; Ortuzar1; Platzeck; Rajoy1; Renzi1; Riexinger1; Rocard; Rosler; Roussel; Rubalcaba; Salvini1; Sanchez1; Sarkozy1; Sarkozy2; Scharping; Schouble; Schroder1; Séguin1; Urkullu1; Veltroni1-3; Westerwelle1; Zapatero1; Zimmer1; Zingaretti
 |
| Broad inclusiveness | * 1
* 0.8
* 0.6
* 0.4
* 0.3
* 0.2
* 0.1
* 0
 | * 1 = Bersani; Renzi1-2; Veltroni3; Zingaretti
* 0.8 = Alliot-Marie; Aubry; Cambadélis; Copé; Désir; Fassino1; Garzon; Hollande1; Juppé2; LePenM1; Salvini1; Sanchez1; Sarkozy1-2; Scharping; Fassino2-3; Salvini2; Sanchez2; Veltroni2
* 0.6 = Casado-Blanco
* 0.4 = Hollande2-3-4; Jospin; LePenM2-3; Séguin2
* 0.3 = Anguita1-3; Franceschini; Gerhardt1-2; Kipping1; Kramp-Karrenbauer; Lafontaine1; Lara1; Lindner1; Llamazares1-3; Lötzsch; Riexinger1; Rubalcaba; Zapatero1
* 0.2 = Almunia; Anguita2; Aznar1-2-3-4-5; Beck; Bisky1-2-3-4-5-6-7-8-9; Bossi1; Bossi2; Buffet2; Engholm; Ernst; Gabriel1-2-3-4; Gerhardt3; Gonzales1-2; Gysi; Kinkel; Kipping2-3; Kohl1-2-3-4; Lafontaine2-3; Lambsdorff; Lara2; Laurent1-2-3; Lindner2-3-4; Maroni; Martina; Merkel1-2-3-4-5-6-7-8-9; Muntefering1-2; Platzeck; Rajoy1-2-3-4; Riexinger2-3; Rocard; Rosler; Roussel; Schouble; Schroder1-2-3; Westerwelle1-2-3-4-5; Zapatero2-3; Zimmer1
* 0.1 = D’Alema; Emmanuelli; Ferrero1-2; Giordano; Imaz; Veltroni1
* 0 = Acerbo; Arzalluz2-3; Berlusconi1-2-3-4; Bertinotti1-2-3-4; Buffet1-3; Chirac; Epifani; Fabius; Ferrero3; Hue1-2-3; Juppé1; LePenJM1-2-3-4-5-6; Occhetto; Ortuzar1-2; Séguin1; Urkullu1-2
 |
| Large victory (contested LR /coronation) | * 1
* 0.67
* 0.33
* 0
 | * 1 = Renzi1-2; Veltroni2-3; Zingaretti; Cambadélis; Désir; Fassino2-3; Garzon; Hollande1-2; Juppé2; LePenM1-2-3; Salvini1-2; Sarkozy1-2; Séguin2; Anguita3; Franceschini; Gerhardt2; Kipping1; Lindner1; Llamazares2; Lötzsch; Aznar1-2-3-4-5; Bossi1-2; Engholm; Gonzales1; Kohl1-4; Lara2; Laurent1-2; Maroni; Merkel1-7-8; Platzeck; Rajoy1-3-4; Rosler; Westerwelle5; Zapatero2-3; Emmanuelli; Giordano; Martina; Arzalluz2-3; Berlusconi1-2-3-4; Fabius; Hue1-2-3; LePenJM1-1-2-3-4-5-6; Ortuzar1-2; Urkullu1-2
* 0.67 = Bersani; Fassino1; Hollande3; Jospin; Gerhardt1; Lafontaine1; Beck; Bisky1; Ernst; Gabriel1-2; Gysi; Kohl2-3; Lafontaine2; Lindner2-3; Merkel2-4-5-6; Muntefering1; Schouble; Zimmer1; Imaz; Buffet3; Juppé1
* 0.33 = Alliot-Marie; Sanchez1-2; Lara1; Llamazares3; Almunia; Bisky2-3-4-6-7-8-9; Gabriel3; Gerhardt3; Gonzales2; Kinkel; Lindner4; Merkel3-9; Muntefering2; Rajoy2; Rocard; Schroder1-2-3; Westerwelle1-3-4; D’Alema; Ferrero2; Veltroni1; Bertinotti1-2-3; Epifani; Anguita1
* 0 = Aubry; Copé; Scharping; Casado-Blanco; Hollande4; Kramp-Karrenbauer; Llamazares1;Rubalcaba; Zapatero1; Anguita2; Bisky5; Buffet2; Gabriel4; Kipping2-3; Lafontaine3; Lambsdorff; Laurent3; Riexinger1-2-3; Roussel; Westerwelle2; Ferrero1; Acerbo; Bertinotti4; Buffet1; Chirac; Ferrero3; Occhetto; Séguin1
 |
| Presence in government | * 1
* 0.8
* 0.6
* 0.3
* 0
 | * 1 =Renzi1; Aznar3-4-5; Gonzales1; Kohl1-4; Rajoy3-4; Zapatero2-3; Kohl2-3; Merkel4-5-6-7-8-9;Juppé1; Sanchez2; Gonzales2; Schroder1-2-3
* 0.8 = Cambadélis; Désir; Fassino3; Juppé2; Sarkozy1; Veltroni2; Fabius; Muntefering1; Veltroni1; Epifani; Kramp-Karrenbauer
* 0.6 = Zingaretti; Fassino2; Hollande1; Séguin1-2; Bossi2; Platzeck; Rosler; Westerwelle5; Emmanuelli; Giordano; Arzalluz2-3; Berlusconi1-2-3; Hue2-3; Gerhardt1; Beck; Alliot-Marie; Gabriel3-4; Kinkel; Merkel3; Muntefering2; Rocard; D’Alema; Bertinotti2-3; Lambsdorff;
* 0.3 = Veltroni3; Garzon; Salvini2; Gerhardt2; Bossi1; Ortuzar2; Lafontaine2
* 0 = Acerbo; Almunia; Anguita1-2-3; Aubry; Aznar1-2; Berlusconi4; Bersani; Bertinotti1-4; Bisky1-2-3-4-5-6-7-8-9; Buffet1-2-3; Casado-Blanco; Chirac; Copé; Engholm; Ernst; Fassino1; Ferrero1-2-3; Franceschini; Gabriel1-2; Gerhardt3; Gysi; Hollande2-3-4; Hue1; Imaz; Jospin; Kipping1-2-3; Lafontaine1-3; Lara1-2; Laurent1-2-3; LePenJM1-2-3-4-5-6; LePenM1-2-3; Lindner1-2-3-4; Llamazares1-2-3; Lötzsch; Maroni; Martina; Merkel1-2; Occhetto; Ortuzar1; Rajoy1-2; Renzi2; Riexinger1-2-3; Roussel; Rubalcaba; Salvini1; Sanchez1-2; Scharping; Schouble; Urkullu1-2; Westerwelle1-2-3-4; Zapatero1; Zimmer1
 |
| Big party | Direct method of calibration | Thresholds:* Full membership (1): 35% of electoral votes
* Point of maximum indifference (0.5): 20% of electoral votes
* Full non-membership (0): 5% of electoral votes
 |
| Outcome: Reappointment *vs*. forced resignation as a party leader | * 1
* 0.6
* 0.4
* 0.2
* 0
 | * 1 = Acerbo; Anguita1-2; Arzalluz2; Aznar1-2-3-4; Berlusconi1-2-3-4; Bertinotti1-2-3; Bisky1-2-3-5-6-7-8; Bossi1; Buffet1; Casado-Blanco; Fassino1-2; Ferrero1-2; Gabriel1-2-3; Garzon; Gerhardt1-2; Gonzales1; Hollande1-2-3; Hue1-2; Kipping1-2; Kohl1-2-3; Lafontaine1; Lara1; Laurent1-2; LePenJM1-2-3-4-5; LePenM1-2-3; Lindner1-2-3-4; Llamazares1-2; Merkel1-2-3-4-5-6-7-8; Ortuzar1-2; Rajoy1-2-3; Riexinger1-2; Roussel; Salvini1-2; Sanchez2; Schroder1-2; Séguin1; Urkullu1; Veltroni1; Westerwelle1-2-3-4; Zapatero1-2; Zimmer1; Zingaretti
* 0.6 = Alliot-Marie; Fassino3; Anguita3; Urkullu2
* 0.4 = Arzalluz3; Aubry; Aznar5; Beck; Bertinotti4; Bisky4; Bisky9; Buffet2; Buffet3; Chirac; D’Alema; Désir; Emmanuelli; Epifani; Ernst; Ferrero3; Gabriel4; Gonzales2; Gysi; Hollande4; Hue3; Jospin; Kipping3; Lafontaine2; Lafontaine3; Lambsdorff; Lara2; LePenJM6; Lötzsch; Maroni; Merkel9; Muntefering1; Platzeck; Riexinger3; Sarkozy1-2; Veltroni2
* 0.2 = Almunia; Bersani; Bossi2; Cambadélis; Copé; Engholm; Fabius; Gerhardt3; Giordano; Imaz; Juppé1; Juppé2; Kinkel; Kohl4; Kramp-Karrenbauer; Laurent3; Llamazares3; Muntefering2; Occhetto; Rajoy4; Renzi1; Renzi2; Rocard; Rosler; Rubalcaba; Sanchez1; Schouble; Schroder3; Séguin2; Veltroni3; Westerwelle5; Zapatero3
* 0 =Franceschini; Martina; Scharping
 |

Hence, the table above (OSM1) summarises the calibration decisions for the conditions (incumbency; broad inclusiveness; large victory; presence in government, big party); as well as the outcome (reappointment *vs*. forced resignation as a party leader). These decisions are also discussed in detail below.

**Incumbency (outgoing leader running for re-election)**: we assign ‘1’ when the outgoing party leader run for re-appointment in office, against other candidates (Renzi and Sanchez) or, more frequently, in uncontested races. Instead, ‘0’ is assigned to all LRs presenting new candidates, including people who have been already party chairs years before (Jospin, Juppé,Müntefering, Sarkozy), possibly in a different party (Occhetto was the Secretary of the Italian Communist Party before becoming the new-born PDS chairman; Veltroni was leader of the DS first and ofthe new-born PD six years later).

**Broad inclusiveness**: the most inclusive type of LR refers to (contested) open primary election (‘1’).The election of the chair by all party voters is limited to one party, the Italian Democratic Party (PD). Differently from French parties, the PD has opted for open primaries not only to select the party/coalition chief executive candidate (which are indeed “primaries” in the original meaning of the term), but also to appoint the party leader/Secretary, although a preliminary vote by the party membership intended to reduce at three the number of candidates is also provided for. Up to now the PD recurred to such a system five times.

Going down in the inclusiveness scale we find contested closed primaries, coded as ‘0.8’. The German SPD experimented closed primaries to select the party chair far in advance (1993) of most other European parties, but after that it turned back to (uncontested) appointments during party congresses. The Spanish PSOE organised closed primaries to choose the party chair for the first time in 2014, although the entire party membership was already called on to select the chief executive candidate in 1998.In 2016 also Izquierda Unida experimented closed primaries to elect its party chair. Similarly, on the opposite side of the political spectrum, in 2011, after 39 years of uncontested leadership of his father, Marine Le Pen has been appointed as new FN president by closed primaries, followed two years later by her Italian homologous Matteo Salvini. In turn, centre-left and centre-right French parties have involved the entire membership in the selection of the party chair since the 1990s, but not always in contested races. However, if we consider 0.5 as the threshold between an inclusive and a non-inclusive LR, a broad *selectorate* (party membership) called to approve a single candidate cannot be over the threshold, so we assigned a ‘0.4’ to this particular category.

Rather, a ‘0.6’ has been assigned to contested LRs entrusted to mixed *selectorates* involving both party members and less inclusive organs, as in the case of the Spanish Popular Party in 2018[[2]](#endnote-3).

Yet, the most typical system normally called to appoint the party leader, namely the party Congress, rarely involve more than few hundred delegates, and thus we assign a ‘0.2’ for coronations and a‘0.3’ when there is more than one candidate running. The leader election by Congress delegates is especially widespread in Spain and Germany. In Spain –also because of the rules of the Spanish Party Law, which establishes the (generic) requirement of intra-party democracy– all parties use to hold a Congress every three/four years. Party delegates are called on to carry out a formal vote to ratify the election of the party leader even if there is only one candidate running, as has always been the case for the PP up to 2018.Until few years ago, uncontested Congresses were widespread in the PSOE as well, with few exceptions: the contested (congress) election of Zapatero as new PSOE leader in 2000 and that of Rubalcaba in 2012. Until 2016 the radical left party Izquierda Unida formally adopts a mixed system wherein both the Congress delegates and the party executives have to vote for the party chair in two separate stages. However, the vote by party executives normally resembles the result of the first stage, when Congress delegates are called to vote for one or more candidates on the basis of different lists (while the second stage provides for a personal election). Accordingly, we decided to only consider the first (and more inclusive) stage and code IU leadership election as a normal Congress election by party delegates.

In comparison with the Spanish Party Law, the German Political Parties Act is much stricter, encouraging German parties to convene party conferences at least once every two years to elect the national party chair and the other party leaders. Over the last three decades and until 2018 –when both SPD and CDU elected their new leaders in contested Congresses– CDU delegates have never been called on to vote for more than one candidate, while the SPD had only one case long ago of a contested Congress.Contested congresses are just a little bit more common for FDP and Linke.

‘0.1’ is assigned to contested races when the appointment of the party leader is entrusted to the formal vote of the party top organs (or the parliamentary party group), normally made up of few hundred people. This system was used in France and by the Italian centre-left in the early nineties. In 1994, the vote of the PDS National Council even overturned the choice made by 12,000 party members. In fact, Walter Vetroni got about 6,000 votes and D’Alema got only 5,000, but as no one of the two obtained an absolute majority the decision was entrusted to the 480 members of the National Council, who preferred D’Alema as new party chairman.

Finally,‘0’ refers to uncontested races wherein the party leader is chosen (or reconfirmed) by informal negotiation within the party elite –although a formal vote of approval for the single candidate by the party top organs may also be provided(as in the case of PCF in the 1990s and early 2000s)– or he/she is self-proclaimed. This latter case refers mainly to Silvio Berlusconi in Italy, who founded his own party in 1994 and remained leader of its different incarnations (*Forza Italia*, People of Freedom, and again *Forza Italia*) up to the present. In fact, apart from occasional and failed discussions concerning the adoption of primaries, the idea of a formal appointment of the party leader was never seriously considered by the Italian centre-right in the last two-three decades (although *Lega* has actually recurred to closed primaries to select the party chair over the last few years). Even in the (sporadic) cases when *Forza Italia* or The People of Freedom held a party congress, the reappointment of the party president, Silvio Berlusconi, was not submitted to a formal vote of the delegates, but simply to audience ‘acclamation’, as in the case of Jean-Marie Le Pen during Front National’s congresses until 2007.

Large victory: unfortunately, there are no references in the literature to establish the numerical thresholds intended to discriminate between the different degrees of ‘largeness’ in the victory of a LR. Thus, we mostly based our decisions on qualitative evaluations of each empirical case, and we finally came up to assign ‘0’ to very competitive contested LRs (less than 10 percentage points between winner and second candidate) and coronations with approval rate lower than 80%; ‘0.33’ to somewhat competitive LRs (winning margin between 10 and 20%) and coronations with approval rate between 80 and 90%; ‘0.67’ to barely competitive LRs(winning margin between 20 and 30%) and coronations with approval rate between 90 and 95%; ‘1’ to not at all competitive LRs (more than 30 percentage points between a single intended winner and the second candidate) and coronations wherein the party leader is almost unanimously appointed (with an approval rate greater than 95% or by acclamation) or is automatically appointed with no formal vote. In fact, when we look at contested LRs, we range from extremely competitive contests (Zapatero won the 2000 PSOE Congress for only 9 votes, Aubry was nominated new PS chair in 2008 just after a recounting of the party member votes, as her opponent Royal did not concede defeat because the two contenders were too close after the first scrutiny) to contested closed and open primaries where the winner touched or overcame 70% of the votes.

As far as uncontested races are concerned, the 90% threshold is clearly disputable, but we can look at the empirical evidence to justify our choice. First of all, in our dataset the average percentage obtained by single candidates is 88%. But we can even provide more ‘qualitative explanations’: in Spain the historical PSOE leader (and Spanish Prime Minister) Felipe González was always reconfirmed in office over the years with percentages largely beyond 90%, but he only obtained 89% in the 1994 Congress, when the party was overwhelmed by corruption scandals and was preparing to lose the following general election after 14 years in power. In fact; González left the chairmanship (and active politics) after the 1996 electoral defeat, but rather than leaving space for a re-foundation he imposed his own candidate (Joaquìn Almunia) to the succession. The Congress delegates did not dare opposing the choice of their former leader, but still a lot of them showed their disappointment by appointing their new chairman with an incredibly low approval rate (73%). Still, if we look at the other side of the Spanish political spectrum, we see that in 2008 (after the second defeat in a row in general elections) Rajoy was reconfirmed party leader with the lowest percentage in the history of PP congresses (84%).

**Presence in government**: also in this case the literature does not offer univocal indications for our calibration, yet we assigned ‘1’when the party is in government during the leadership tenure and the party leader is also the head of government (Prime Minister or President of the French Republic). The empirical evidence demonstrates this represents the best option for party leader survival, although French parties and the Italian DS normally preferred to keep the two roles separated, which means that becoming the head of government (or simply decide to run for the office) in few circumstances implied party leader resignation (D’Alema, Jospin, Sarkozy).

We thus assign‘0.8’ when the party is the major party in government during the leadership tenure but its leader is not the head of government; ‘0.6’ when the party is half time in government and half time in opposition during tenure or is in cohabitation or in coalition as junior partner or provides an external support to the government; ‘0.3’ when the party was mostly in opposition during the leadership tenure; and‘0’when the party remains in opposition for the entire leadership tenure.

**Big party**: we established the 35% threshold for identifying ‘full membership’, the 20% threshold as the ‘point of maximum indifference’ and the 5% threshold for identifying ‘full non-membership’. All parties getting more than 35% of electoral votes are undoubtedly ‘big parties’: they enjoy the consent of more than a third of the electorate and, depending on the characteristics of the electoral system, are often able to reach the absolute majority of parliamentary seats. On the contrary, all parties which cannot reach at least 5% of electoral votes are undoubtedly ‘small parties’: in Germany, for example, they are excluded from the distribution of parliamentary seats. Yet, the most important choice in calibrating conditions – when the direct method of calibration is concerned – relates to the point of maximum indifference. On this, the most recent literature (Schneider and Wagemann 2012) suggests to utilise one of the following criteria: *i)* theoretical reasoning; *ii)* previous literature; *iii)* potential clear insights from the data at hand. We do believe it is theoretically impossible to distinguish between parties which are more in than out and parties which are more out than in, in this case: any choice might be considered as arbitrary. Similarly, to the best of our knowledge we do not have any previous literature that clearly identifies the threshold beyond which one can no longer speak of a small party, but must define it as a large party. As a result, we are forced to build on the data we have and we saw a big ‘jump’ between three cases quite close to the 20% threshold: D’Alema and Juppé1 (20.5%), on the one hand, and Chirac (19.2%), on the other. The other potential threshold we originally took into account (15%) is not characterised by a similar difference between cases: we have two cases – Jean-Marie Le Pen 3 and 4 – at 14.9% of electoral votes, which would have been too close to the threshold. As such, we chose the 20% threshold as our point of maximum indifference.

**Outcome – leadership survival**: we assigned ‘1’ to party leaders who are reappointed in office at the end of the tenure[[3]](#endnote-4). As we have already said in the main text, reappointment in office is considered as ‘qualitatively’ different from all the other options that, for different reasons, result in the end of the leadership term. It explains why we decided to discriminate between leader survival and leader departure with a ‘jump’ in our calibration. Accordingly, we assign ‘0.6’ to party leaders who leave their office because of force majeure, which is assumed as the conceptual threshold between a positive and a negative outcome.In our sample we only have few empirical cases of leader departure because of this reason. Two of them were due to party disappearance: Michèle Alliot-Marie, the first (and last, to date) woman president of the main centre-right French party, who was the last RPR leader before it merged to form the UMP in 2002; and the Italian Piero Fassino, who was re-confirmed as chairman of the Democrats of the Left (DS) for the third time during the last DS Congress in April 2007 with the specific mandate to dissolve his own party in view of the forthcoming foundation of the Democratic Party. Instead, Urkullu had to left the PNV chairmanship in January 2013 after he was elected President of the Basque Government, as party rules establishes incompatibility between the two roles.

Voluntary resignations and post-election resignations/resignations under pressure, namely the most common reasons why party leaders come to an end according to our dataset, are respectively coded with ‘0.4’ and ‘0.2’. Formal removals, which are conceived as just the opposite of reappointment in office, have been coded with ‘0’. In our sample there are only three empirical cases of an incumbent chair defeated in an open race: the SPD chairman Rudolf Scharping, who was unexpectedly challenged and defeated by Oskar Lafontaine in the SPD 1995 Congress; and Franceschini and Martina who lost 2009 PD open primaries after their short period as party chair.

*Analysis of the necessary conditions for not being forced to resign as a party leader*

Once the sets were calibrated, the second step of each QCA involves analysing the necessary relations and should always be conducted before analysing the sufficiency conditions (Schneider and Wagemann 2010, 404). See Table OSM2 on this topic:

Table OSM2 *Analysis of necessary conditions. Outcome: forced resignation as a party leader*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | *Outcome* |  | *~Outcome* |  |
| *Condition* | *Consistency* | *Coverage* | *Consistency* | *Coverage* |
| Outgoing leader | 0.62 | 0.76 | 0.46 | 0.24 |
| ~Outgoing leader | 0.38 | 0.62 | 0.54 | 0.38 |
| Broad inclusiveness | 0.31 | 0.79 | 0.41 | 0.46 |
| ~Broad inclusiveness | 0.79 | 0.76 | 0.82 | 0.34 |
| Large victory | 0.67 | 0.74 | 0.66 | 0.32 |
| ~Large victory | 0.39 | 0.73 | 0.47 | 0.38 |
| Presence in government | 0.32 | 0.70 | 0.47 | 0.44 |
| ~Presence in government | 0.74 | 0.77 | 0.68 | 0.30 |
| Big party | 0.45 | 0.69 | 0.64 | 0.43 |
| ~Big party | 0.63 | 0.80 | 0.54 | 0.30 |

Coefficients indicating a necessity relation (>0.9) would be shown in bold (but they are not present).

Logical No (~) refers to the absence of a condition.

Table OSM2 demonstrates that no condition (and its non-occurrence, which is indicated with a tilde [~]) is necessary for either being reappointed (as well as resigning due to ‘force majeure’) or forced to resign as a party leader.

*Analysis of the sufficient conditions for not being forced to resign as a party leader*

Subsequent to the analysis of necessity, an empirical test of sufficiency set-relations between combinations of conditions and the outcome is conducted with a “truth table”. Specifically, the process proceeds as follows. *i)* We convert the data matrix into the abovementioned truth table. *ii)* Single truth table rows are assessed for their consistency scores regarding whether they count as sufficient conditions for the result. Finally, *iii)* if they count as sufficient conditions, they are included in the “Boolean minimisation process”; otherwise, they are not.

Table OSM3 *Truth Table*

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *Outgoing leader* | *Broad inclusiven.* | *Large victory* | *Presence in gov.* | *Big party* | *Number* | *Forced resignation* | *Raw consist.* | *PRI consist.* | *SYM consist.* |
| **1** | **0** | **0** | **0** | **0** | **25 (14%)** | **1** | **0.82** | **0.76** | **0.82** |
| **1** | **0** | **1** | **0** | **0** | **21 (26%)** | **1** | **0.89** | **0.86** | **0.91** |
| **1** | **0** | **1** | **1** | **1** | **19 (37%)** | **1** | **0.87** | **0.84** | **0.85** |
| **0** | **0** | **1** | **0** | **0** | **13 (45%)** | **1** | **0.86** | **0.81** | **0.84** |
| **0** | **0** | **0** | **0** | **0** | **11 (51%)** | **1** | **0.90** | **0.86** | **0.88** |
| **0** | **0** | **1** | **0** | **1** | **8 (56%)** | **1** | **0.84** | **0.72** | **0.72** |
| **1** | **0** | **1** | **1** | **0** | **7 (60%)** | **1** | **0.82** | **0.77** | **0.77** |
| **1** | **0** | **1** | **0** | **1** | **7 (64%)** | **1** | **0.96** | **0.95** | **0.96** |
| **1** | **0** | **0** | **1** | **1** | **7 (68%)** | **1** | **0.83** | **0.76** | **0.78** |
| 0 | 1 | 1 | 1 | 1 | 6 (72%) | 0 | 0.65 | 0.37 | 0.41 |
| 0 | 0 | 1 | 1 | 1 | 6 (75%) | 0 | 0.76 | 0.47 | 0.48 |
| 0 | 0 | 0 | 1 | 1 | 6 (79%) | 0 | 0.72 | 0.50 | 0.51 |
| 0 | 1 | 0 | 0 | 1 | 5 (82%) | 0 | 0.72 | 0.50 | 0.51 |
| **0** | **1** | **1** | **0** | **0** | **4 (84%)** | **1** | **0.99** | **0.99** | **0.99** |
| 0 | 0 | 1 | 1 | 0 | 4 (86%) | 0 | 0.75 | 0.54 | 0.54 |
| **1** | **1** | **1** | **1** | **1** | **3 (88%)** | **1** | **0.87** | **0.80** | **0.83** |
| **1** | **0** | **0** | **1** | **0** | **3 (90%)** | **1** | **0.94** | **0.92** | **0.92** |
| **1** | **0** | **0** | **0** | **1** | **3 (91%)** | **1** | **0.94** | **0.91** | **0.91** |
| **0** | **1** | **1** | **0** | **1** | **3 (93%)** | **1** | **0.82** | **0.64** | **0.66** |
| 0 | 0 | 0 | 1 | 0 | 3 (95%) | 0 | 0.75 | 0.58 | 0.58 |
| **0** | **0** | **0** | **0** | **1** | **3 (97%)** | **1** | **0.80** | **0.64** | **0.64** |
| **1** | **1** | **1** | **1** | **0** | **1 (97%)** | **1** | **0.95** | **0.92** | **0.92** |
| **1** | **1** | **1** | **0** | **0** | **1 (98%)** | **1** | **0.97** | **0.96** | **0.96** |
| **1** | **1** | **0** | **1** | **1** | **1 (98%)** | **1** | **1.00** | **1.00** | **1.00** |
| **0** | **1** | **1** | **1** | **0** | **1 (99%)** | **1** | **1.00** | **1.00** | **1.00** |
| **0** | **1** | **0** | **1** | **0** | **1 (100%)** | **1** | **1.00** | **1.00** | **1.00** |
| 1 | 1 | 1 | 0 | 1 | 0 (100%) | - | - | - | - |
| 1 | 1 | 0 | 1 | 0 | 0 (100%) | - | - | - | - |
| 1 | 1 | 0 | 0 | 1 | 0 (100%) | - | - | - | - |
| 1 | 1 | 0 | 0 | 0 | 0 (100%) | - | - | - | - |
| 0 | 1 | 0 | 1 | 1 | 0 (100%) | - | - | - | - |
| 0 | 1 | 0 | 0 | 0 | 0 (100%) | - | - | - | - |

PRI: Proportional reduction in consistency

SYM: Symmetrical consistency

Theoretical assumptions (directional expectations) for intermediate solution:

* Outgoing leader running for re-election (incumbency) should contribute to the outcome when it is present;
* No theoretical assumptions (directional expectations) for broad inclusiveness;
* Large victory should contribute to the outcome when it is present;
* No theoretical assumptions (directional expectations) for presence in government;
* No theoretical assumptions (directional expectations) for big party.

In **bold** all single truth table rows included in the “Boolean minimisation process”.

Notably, six logical reminders exist. Thus, six combinations of conditions are not characterised by any empirical case, and problems of limited diversity are present in our data. Consequently, the solution formulas – complex, parsimonious and intermediate – are not interchangeable. In QCA, solution formulas differ on the basis of assumptions on logical remainders. The complex solution does not include remainder rows when minimising the consistent rows with cases. The parsimonious solution treats remainders as ‘don’t care’, stimulating outcome values to obtain parsimony. Conversely, the intermediate solution evaluates the plausibility of remainders in accordance with the researcher’s simplifying assumptions based on theoretical or substantive empirical knowledge. In these cases – even though the most advanced methodological literature does not reach consensus on this issue (Thiem 2016; Thiem*et al*. 2015) – it is generally suggested that one should consider the intermediate solution to reduce the risk of drawing incorrect inferences about the automatic counterfactuals used in the parsimonious and complex solution (Ragin 2008, 175; Jano 2016, 15).

*Analysis of the sufficient conditions for being forced to resign as a party leader (negative outcome)*

To provide further empirical demonstration that our theoretical expectations are properly analysed through configurational methods, it is interesting to verify whether the conditions we hypothesised as relevant for the analysis of the outcome (i.e. ‘not being forced to resign as a party leader’) are also useful in analysing the negative outcome, namely the case when party leaders are forced to resign as a party leader. If they are, we can claim that between conditions and the (positive and negative) outcome there is a sort of symmetrical relationship (*if* more, *then* more; *if* less, *then* less) and, accordingly, regression models would be more useful to empirically test such relationship. On the contrary, if they are not, we have a clear empirical confirmation that the relationship between our theoretical conditions and the outcome is asymmetrical. Thus, given that one of the main characteristics of the idea of causality underpinning QCA is precisely ‘asymmetry’, our decision to use QCA would be perfectly understandable. See, on this, both Table OSM4 (Truth table) and Table OSM5 (Intermediate solution) below on the determinants of party leader departure.

Table OSM4 *Negative outcome: Truth Table*

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *Outgoing leader* | *Broad inclusiven.* | *Large victory* | *Presence in gov.* | *Big party* | *Number* | *Forced resignation* | *Raw consist.* | *PRI consist.* | *SYM consist.* |
| 1 | 0 | 0 | 0 | 0 | 25 (14%) | 0 | 0.36 | 0.17 | 0.18 |
| 1 | 0 | 1 | 0 | 0 | 21 (26%) | 0 | 0.28 | 0.09 | 0.09 |
| 1 | 0 | 1 | 1 | 1 | 19 (37%) | 0 | 0.29 | 0.15 | 0.15 |
| 0 | 0 | 1 | 0 | 0 | 13 (45%) | 0 | 0.39 | 0.16 | 0.16 |
| 0 | 0 | 0 | 0 | 0 | 11 (51%) | 0 | 0.35 | 0.12 | 0.12 |
| 0 | 0 | 1 | 0 | 1 | 8 (56%) | 0 | 0.58 | 0.28 | 0.28 |
| 1 | 0 | 1 | 1 | 0 | 7 (60%) | 0 | 0.41 | 0.23 | 0.23 |
| 1 | 0 | 1 | 0 | 1 | 7 (64%) | 0 | 0.24 | 0.04 | 0.04 |
| 1 | 0 | 0 | 1 | 1 | 7 (68%) | 0 | 0.42 | 0.21 | 0.22 |
| 0 | 1 | 1 | 1 | 1 | 6 (72%) | 0 | 0.74 | 0.52 | 0.59 |
| **0** | **0** | **1** | **1** | **1** | **6 (75%)** | **1** | **0.78** | **0.51** | **0.52** |
| 0 | 0 | 0 | 1 | 1 | 6 (79%) | 0 | 0.71 | 0.48 | 0.49 |
| 0 | 1 | 0 | 0 | 1 | 5 (82%) | 0 | 0.71 | 0.48 | 0.49 |
| 0 | 1 | 1 | 0 | 0 | 4 (84%) | 0 | 0.37 | 0.01 | 0.01 |
| 0 | 0 | 1 | 1 | 0 | 4 (86%) | 0 | 0.70 | 0.46 | 0.46 |
| 1 | 0 | 0 | 1 | 0 | 3 (88%) | 0 | 0.29 | 0.08 | 0.08 |
| 1 | 0 | 0 | 0 | 1 | 3 (90%) | 0 | 0.44 | 0.09 | 0.09 |
| 0 | 1 | 1 | 0 | 1 | 3 (91%) | 0 | 0.67 | 0.32 | 0.34 |
| 0 | 0 | 0 | 1 | 0 | 3 (93%) | 0 | 0.66 | 0.42 | 0.42 |
| 0 | 0 | 0 | 0 | 1 | 3 (95%) | 0 | 0.65 | 0.36 | 0.36 |
| 1 | 1 | 1 | 1 | 1 | 2 (96%) | 0 | 0.41 | 0.05 | 0.06 |
| 1 | 1 | 1 | 1 | 0 | 1 (97%) | 0 | 0.35 | 0.08 | 0.08 |
| 1 | 1 | 1 | 0 | 1 | 1 (97%) | 0 | 0.38 | 0.14 | 0.15 |
| 1 | 1 | 1 | 0 | 0 | 1 (98%) | 0 | 0.31 | 0.04 | 0.04 |
| 1 | 1 | 0 | 1 | 1 | 1 (98%) | 0 | 0.34 | 0.00 | 0.00 |
| 0 | 1 | 1 | 1 | 0 | 1 (99%) | 0 | 0.56 | 0.00 | 0.00 |
| 0 | 1 | 0 | 1 | 0 | 1 (100%) | 0 | 0.67 | 0.00 | 0.00 |
| 1 | 1 | 0 | 1 | 0 | 0 (100%) | - | - | - | - |
| 1 | 1 | 0 | 0 | 1 | 0 (100%) | - | - | - | - |
| 1 | 1 | 0 | 0 | 0 | 0 (100%) | - | - | - | - |
| 0 | 1 | 0 | 1 | 1 | 0 (100%) | - | - | - | - |
| 0 | 1 | 0 | 0 | 0 | 0 (100%) | - | - | - | - |

PRI: Proportional reduction in consistency

SYM: Symmetrical consistency

Theoretical assumptions (directional expectations) for intermediate solution:

* Outgoing leader running for re-election (incumbency) should contribute to the outcome when it is absent;
* No theoretical assumptions (directional expectations) for broad inclusiveness;
* Large victory should contribute to the outcome when it is absent;
* No theoretical assumptions (directional expectations) for presence in government;
* No theoretical assumptions (directional expectations) for big party.

In **bold** all single truth table rows included in the “Boolean minimisation process”.

Table OSM5 *Negative outcome: intermediate solution: solution terms. consistency. coverage and cases covered*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *Solution terms* | *Raw**coverage* | *Unique**Coverage* | *Consi-**stency* | *Cases covered* |
| BigParty\*Gov\*Victory\*~Inclusiv\*~Incumbent | 0.12 | 0.12 | 0.78 | Fabius (0.8,0.8); Muntefering1 (0.67,0.6); Beck (0.6, 0.6); Platzeck (0.6, 0.6); **Berlusconi1 (0.55, 0)**; Juppé1 (0.52,0.8) |

* Intermediate solution coverage (proportion of membership explained by all paths identiﬁed): **0.120577**
* Intermediate solution consistency (‘how closely a perfect subset relation is approximated’) (Ragin 2008, 44): **0.781796**
* Raw coverage: proportion of memberships in the outcome explained by a single path
* Unique coverage: ‘proportion of memberships in the outcome explained solely by each individual solution term’ (Ragin 2008, 86)
* Empirically contradictory cases are shown **in bold**
* Parsimonious solution: Broad inclusiveness\*~Large victory\*~Government\*~Big Party + Incumbency\*Broad inclusiveness\*~Large victory\*~Big Party + Incumbency\*Broad inclusiveness\*Big Party\*~Government + Broad inclusiveness\*~Incumbency\*Government\*Big Party\*~Large victory + Large victory\*Government\*Big Party\*~Incumbency\*~Broad inclusiveness (consistency 0.52; coverage 0.25)
* Complex solution: Big Party\*Government\*Large victory\*~Broad inclusiveness\*~Incumbency (consistency 0.78; coverage 0.12)

The empirical analysis of the negative outcome does not yield good parameters of fit. The consistency value (0.78) is actually higher than the 0.75 threshold, which is commonly assumed as decently satisfactory, but a very big problem concerns coverage, which is extremely low (0.12). This means that an overwhelming majority of the cases under analysis – when the *negative* outcome is concerned – is not explained by the combination of conditions that explained the *positive* outcome. In other words, conditions hypothesised as relevant in explaining leadership re-appointment– i.e. the fact that the party leader runs for re-election (incumbency), broad inclusiveness of the selectorate, large victory in the LR/coronation, presence in government and the fact that the party is big or small in size – are *not* useful to explain why leaders do *not* survive. This represents a robust empirical confirmation of our methodological choices: between our conditions and the outcome does not exist a linear relationship, which also means that configurational methods are particularly useful for our empirical analysis.

*Qualitative assessment of empirically contradictory cases*

**First solution term**: as already mentioned in the main text, the majority of deviant cases for this solution term is linked to a problem of ‘deterioration’, with 22 party leaders (out of 33) who resigned after at least three terms and many years in office. As for the other deviant cases, Veltroni decided to leave the DS Secretary after his election as Rome Mayor, although there was not a specific incompatibility between the two roles. In this sense, he probably preferred to leave because under his leadership the PDS had its all-time low at the 2001 general election. The (German) PDS leader Bisky resigned in 2000 over a defeat for the executive committee on support for United Nations military intervention, but he was re-elected chairman in 2003 after this ‘left turn’ had cost the party its seats in the [Bundestag](https://en.wikipedia.org/wiki/Bundestag) in 2002. In this regard it was not a ‘real’ resignation, as he clearly maintained the control of the party even in the following years. Similarly, Hue resigned as PCF Secretary in 2001 after he created and assumed the title of President of the Party, which means that he formally left the leadership but still maintaining a position of power within the party.

**Second solution term**: the PNV leader Imaz was basically an entrepreneur brought into politics. When he resigned as party chair after less than four years he also announced his retirement from active politics. The case of the German PDS leader Gysi is also quite peculiar. He resigned as party chair in 1998, although he became deputy party chairman which suggests he still maintained an important position within the party. However, the fact that in the same period he was alleged to be an ‘unofficial collaborator’ or informant of the Stasi may also have had an influence on his decision. As for the PRC leader Ferrero, it is interesting to notice that he actually resigned already in 2013, after the dramatic defeat in the general election in which the left coalition ‘Civil Revolution’ was not able to overcome the threshold to enter the Parliament. However, his resignation was not accepted by the party executive and he remained in office until 2017, as most probably there were no other people willing to lead a party in disarray. In this regard we could suppose that his role during that period was mainly to keep the party united in such a delicate moment in order to have the time to rearrange in view of a new (and younger) leadership, as it actually happened in 2017. The explanation for Jean Marie Le Pen resignation is much easier: he left the presidency of the party he founded in 1972 after 39 years, which clearly suggest a problem of ‘deterioration’.

**Third solution term**: Maroni resigned as chair of Northern League after being elected as President of the Lombardy Region, while Sarkozy left the Presidency of the UMP in order to run in the presidential primaries. In this regard we are not dealing with formal incompatibilities but in both cases the resignations can be explained on the basis of the party customs. With regard to Martina and Franceschini, we refer on what is written in the main document. However, leadership departure may also be affected by personal reasons and external (non-political) events, as in the case of Lötzsch, who resigned from the Linke dual leadership (in tandem with Ernst)in 2012 because of her husband's illness.

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1. It is just for simplicity that we refer to each LR reporting the name of the winner and whether it was his/her first, second or N appointment in office. We remind that our unit of analysis are just the LRs and not the party leaders. [↑](#endnote-ref-2)
2. In June 2018 Mariano Rajoy resigned from the party leadership just after the parliamentary vote of no confidence that brought the Socialist Pedro Sanchez to take his place as Prime Minister. As a consequence, for the first time in its history the PP recurred to a contested LR entrusted to a mixed *selectorate*: at first, the party membership was called to choose among six candidates, successively the two most voted candidates were submitted to the vote of party delegates in the Congress. [↑](#endnote-ref-3)
3. The dataset also includes five cases of party leaders who are still in office at the time of writing that have been coded as 1, which in this case does not mean ‘reappointment’ but it is simply the opposite of departure from office. [↑](#endnote-ref-4)