UNIVERSITÀ CATTOLICA del Sacro Cuore

Dipartimento di Economia Internazionale, delle Istituzioni e dello Sviluppo (DISEIS)

WORKING PAPER SERIES

WP 2204

June 2022

The Political Economy of Technocratic Governments

Guido Merzoni, Federico Trombetta

Prior to being published, DISEIS working papers are subject to an anonymous refereeing process by members of the editorial board or by members of the department.

DISEIS Working Papers often represent preliminary work which are circulated for discussion and comment purposes. Citation and use of such a paper should account for its provisional character. A revised version may be available directly from the author.

DISEIS WP 2204

DISEIS
Dipartimento di Economia Internazionale, delle Istituzioni e dello Sviluppo
Università Cattolica del Sacro Cuore
Via Necchi 5
20123
Milano

The Political Economy of Technocratic Governments*

Guido Merzoni†& Federico Trombetta‡

Department of International Economics, Institutions and Development,

Faculty of Political & Social Sciences, Università Cattolica del Sacro Cuore, Milano

June 24, 2022

Abstract

This paper proposes the first game theoretical model of technocratic governments, i.e. cases where a non political technocrat is put in charge by political parties. Based on the literature on post-electoral politics and agenda setting, we show conditions for the existence of a technocratic government equilibrium, where both parties agree to delegate the agenda setting power to technocrats, committed to maximize social welfare. Such an equilibrium exists only if the technocrats have a superior competence with respect to the majority party/coalition, or if the country is in a sufficiently important economic crisis. Furthermore, it is more likely to exist in countries with unstable parliament (i.e. one where the governing coalition is not always able to impose its will) and where parties care about the common value dimension, *vis-à-vis* the ideological one. Finally, we show that polarization increases the set of parameters where the technocratic government equilibrium exists, when parliament is unstable.

Keywords: Technocratic government, bargaining, economic crises, polarization
JEL Classification: C78 D72 D73 D78

*Declarations of interest: none. Funding from Università Cattolica del Sacro Cuore under the D1 research project on "Informazione, delega politica e populismo" is gratefully aknowledged.

†Professor of Economics, Department of International Economics, Institutions and Development (DISEIS), Faculty of Political and Social Sciences, Università Cattolica del Sacro Cuore, Largo Gemelli, 1 - 20123 Milan (Italy).

‡Corresponding author. Research Fellow, Department of International Economics, Institutions and Development (DISEIS), Faculty of Political and Social Sciences, Università Cattolica del Sacro Cuore, Largo Gemelli, 1 - 20123 Milan (Italy); email: federico.trombetta@unicatt.it.

1 Introduction

There is a common factor in the politics of post-2008 economic crisis in several European countries (Italy, Greece, Czech Republic and Hungary): the presence of technocratic governments. In all those countries the executive power has been controlled, for a certain amount of time, by non-elected officials, who were not belonging to any political party. In most cases almost all the most important political parties were supporting those governments, despite not being in control of the head of the cabinet and – in Italy, Hungary and the Czech Republic – not being able to directly appoint any of the ministers. Such arrangements were justified by the need to implement painful structural reforms in order to overcome the crisis.

But what precisely is a technocratic government? Following McDonnell and Valbruzzi (2014), a technocratic-led government (TG) is a form of government where:

1. the leader is a technocrat;
2. the government is not a care-taker government, i.e. it is able to change the status quo;
3. policies are not decided within parties and all major decisions are not made by elected party officials.

McDonnell and Valbruzzi (2014) finds 13 cases in the EU 27 which fit into this definition. Extending the analysis, Brunclík and Parízek (2019) finds 53 of technocratic governments in 36 European countries in the period 1989-2015. Hence, despite being an "exceptional" phenomenon, they are not completely unusual and, more importantly, they can be very consequential, being in charge of important political and economic reforms.

In this paper we consider as technocratic, irrespective of the share of non-partisan ministers, all governments led by a technocrat that takes "technocratically shaped" decisions. From an economic point of view, it is interesting to note the conditions that led to a technocratic government and the policy they implemented. Specifically, if we take 4 recent examples (Bajnai, 2009-2010, in Hungary, Fischer, 2009-2010, in the Czech Republic, Papademos, 2011-2012, in Greece, and Monti, 2011-2013, in Italy), they all appeared when their countries were facing bad economic conditions, and they all adopted some sort of "anti-crisis" measure, generally painful in the short run but supposed to improve the situation in the long term. Deficit cuts characterised also the action of Berov (1992-1994, in Bulgaria) and Dini (1995-1996, in Italy), while also Ciampi (1993-1994, in Italy) was called in times of great political and economic troubles. McDonnell and Valbruzzi (2014) finds two conditions related with the occurrence of technocratic governments: the important role of the head of the state and a party system that can be "either crumbling (such as Italy and Greece) or has not been fully rooted". On top of this, two recent contributions in political science, Brunclík and Parízek (2019) and Wratil and Pastorella (2018), stress the role of economic crises.

Despite their importance, TGs are a relatively understudied topic in political science, and - as far as we know - completely absent in the economic literature. In this paper, we provide the first formal model of TG formation, based on the idea that parties must agree to give up power in order to have a TG in place. As pointed out informally by Wratil and Pastorella (2018), this is a bit of a puzzle. Why should parties be willing to give up power, whose pursuit is their primary interest? In a technocracy, the "ordinary" way of working of a representative democracy, where political decisions are taken by accountable politicians while technocrats support them on specific, technical issues (i.e. monetary policy, see for example Alesina and Tabellini (2007)), is somewhat suspended. While the parliament is still in charge, the executive power (and its implied agenda setting power) is granted to selected technocrats who – generally – are not accountable from an electoral point of view (Pastorella, 2016). But at the same time parliaments typically retain their ability to replace the executive.

Overall, we can summarize the main stylized facts on TGs as follows:

1. Technocrats seen as "competent" and not politically motivated;

2. Parties give up agenda setting power, but TGs have no direct parliamentary representation;

3. Usually supported by (almost) the entire parliament;

4. Often, associated with (political or economic) crises and unstable parliaments;

5. Relatively rare;

As far as we know, this paper provides the first model of technocratic government by using standard tools of political economic analysis and game theory. We study under what conditions political parties support a technocratic government that is going to implement "national interest" policies that maximize social welfare through a common value dimension, and give up their own partisan policies. In our model, based on the literature on post-election bargaining, parties play a divide the pie game, choosing the allocation between the two dimensions (common value and ideological). They can either choose the policy alone, with the majority party able to use its agenda setting power, or they can give up power to technocrats, that are not politically motivated. This, however, requires a unanimous decision. Importantly, the outcome of a parliamentary vote is stochastic, in a way that depends on the relative strength of the players. We study under what conditions parties are willing to give up power and call the technocrats.

Our model is able to capture the stylised facts pretty well. We find that a necessary condition for a TG is a high "superior competence" (or superior ability to deal with a crisis) of the technocrats. Note that, in our setting, technocrats are credibly committed to choose the socially optimal policy. In a contest of political competition, this is not enough to have them called into power: the socially optimal allocation is not chosen, unless the current economic situation is sufficiently bad so that a TG is substantially superior. Furthermore, the TG forms only when both parties agree and it is more likely to happen the deeper is the economic crisis and the most unstable is the parliament. Third, we show that calling the technocrats is never the unique equilibrium of the game, hence justifying its relative rarity in real life.

On top of that, our model provides additional insights on the formation of TGs. First, governing parties are more willing to shift from a "standard political game" to a "technocracy game" as long as the common value dimension becomes more valuable: if a deep economic crisis increases its value, e.g. because it represents more future-oriented policies, then it also increases the likelihood of a technocratic government. However, this is not the case for opposition parties: if their weight on the common value dimension increases, they are "cheaper" to be bought off by governments, hence making the government less likely to accept a transfer of power to the technocrats. Furthermore, our analysis shows that technocratic governments are more likely to exist when the parliamentary strength of political parties is quite similar, hence the parliament is unstable. Third, and somewhat counterintuitively, TGs are more likely to be an equilibrium outcome when the ideological distance between parties is large, because this makes an agreement with the opposition costlier for the government. But, on the other hand, TGs are more likely to happen the higher is the weight of the common value dimension, *vis-à-vis* the partisan one (at least for the governing party). This highlights the need to distinguish between two seemingly related measures: the intensity of the ideological dimension and the distance between the two ideologies. They have opposite implications in terms of TG formation: the intensity of the ideological dimension reduces the chances of a TG, overall, while the distance between the two ideologies makes a TG more likely.

Related literature The definition and the determinants of TGs have been studied by few scholars in political science. Most notably, McDonnell and Valbruzzi (2014) provides a taxonomy of TGs in Europe, while Brunclík and Parízek (2019) and Wratil and Pastorella (2018) study empirically the determinants of their formation, using a similar dataset of European countries. They find a correlaton between TGs and political scandal and economic crises (Wratil and Pastorella, 2018) and between TGs and distrust, dismissal of previous government and poor economic performance (Brunclík and Parízek, 2019). On a more theoretical side, Alexiadou (2018) provides an overview of definitions and policy implications of TGs, while Pastorella (2016) discusses their democratic credentials. None of those contributions provide a formal model of TG formation.

The main contribution of our paper is to provide a simple, tractable model of technocratic governments, that can be used as a "workhorse" for more complex questions. As such, we contribute to the large literature on post-election politics, bargaining and coalition building (see for example Baron and Ferejohn, 1989; Baron and Diermeier, 2001; Battaglini, 2021; Austen-Smith and Banks, 1988; Laver and Shepsle, 1996; Merlo, 1997;

Banks and Duggan, 2006). We keep the model of coalition formation black-boxed and we simplify a lot the policymaking, but we add the possibility of technocrats as a social welfare maximizing "outside option" for parties, studying under what conditions it is chosen in a multidimensional context.

Our idea of parliamentary battles can be related with obstruction techniques studied by Patty (2016), while the role of proposal power in multilateral bargaining is studied in Yildirim (2007), Romer and Rosenthal (1978) and Romer and Rosenthal (1979).

Finally, we contribute to the literature on political versus bureaucratic delegation (Alesina and Tabellini, 2007; Besley and Coate, 2003; Alesina and Tabellini, 2008; Maskin and Tirole, 2004) studying what happens when bureaucrats/technocrats replace politicians in power.

2 The model

2.1 Players and actions

The game has three players: the government, G, the opposition, O (henceforth, "politicians", with generic lable $P \in \{G, O\}$) and the technocrats, T. Both the government and the opposition can be individual parties or coalition, assumed to act as a unitary decision maker but possibly without full control of their parliamentary delegations. They represent a particular electoral constituency or ideological position and they have control of a fraction m_P of the parliament, with $m_G > \frac{1}{2} > m_O$. Whoever is in charge of the agenda setting power proposes how to divide a pie of dimension 1 between pork barrel spending (the ideological dimension) and the production of a public good beneficial for the whole country (the common value dimension). By default, the agenda setting power is given to the government (if the technocrats do not participate to the game). We define $\mathbf{x}$ with elements $x_G, x_O \in [0, 1]$ the share of the pie the agenda-setter proposes to allocate to G and O constituencies, while the rest remains to the public good. The opposition then decides whether to accept or reject the proposal. If accepted, the proposal is implemented. If rejected, there is disagreement and hence a "parliamentary battle", whose outcome is a function of the relative parliamentary strength but it can be stochastic (more below).

Technocrats are assumed to care about the general good of the country. They do not have a constituency and as a consequence, when in charge of the agenda, they always propose $x_G = x_O = 0$. They do not have any parliamentary strength. In normal times they are not in charge of the agenda and they do not intervene in the decision making process. However, it is possible that both G and O decide to delegate the agenda setting power to T.

2.2 Parliamentary battle

One important innovation of this model is the stochastic process driving the way disagreement is solved in parliament. In particular, we assume that the probability the government wins the vote is $w(m_G/m_O) \in (0.5, 1]$. This captures the idea that the government is more likely to win the parliamentary battle, but there are stochastic elements that may shift the outcome in favour of the opposition. We black box those elements (e.g. division within the governing coalitions, MPs voting in a way that does not coincide with their party's indications and so on). w is a function of the relative parliamentary strength: when the numbers are closer, it may be more difficult for the government to control Parliament. The opposition wins the vote with complementary probability. In that case, the project is stopped and the pie disappears. Hence, the payoff is 0 for everyone.

2.3 Payoffs

2.3.1 Parties

We assume parties derive utility from the allocation of the pie. Formally,

$$U_P(\mathbf{x}) = \beta(1 - x_G - x_O) + (1 - \beta)(x_P - \alpha x_{-P}) \tag{1}$$

where $\beta < \frac{1}{2}$ represents the importance of the public good. $\alpha > 0$ is our proxy for the degree of polarisation in society, i.e. how damaging it is, for party P, to see the pie allocated to the other party $-P$.

2.3.2 Technocrats

First we assume that, if T are called, they are of competence $c \geq 1$, meaning that the size of the pie becomes c. Note that c can be interpreted both as competence of the technocrats once in power or (in its opposite) as the depth of a crisis faced by a country. In this latter case, a pie equal to c would be the economic outcomes during "normal times", while a pie of 1 represents the output in "crisis time". Hence, $\frac{1}{c}$ is the depth or importance of a crisis.

Technocrats do not have a political constituency they respond to, hence they do not have preferences on the ideological dimension. We assume that they choose the policy that maximizes a social welfare function given by the sum of U_G and U_O. In other words, the objective function of the technocrats is

$$U_T(x_G, x_O) = c[U_G + U_O] = c[2\beta(1 - x_G - x_O) + (1 - \alpha)(1 - \beta)(x_G + x_O)] \quad (2)$$

Using equation (2), it is straightforward to note that, as long as $\beta > \frac{1-\alpha}{3-\alpha}$, the socially optimal policy is $x_G = x_O = 0$. In order to focus on this interesting case, we assume the following throughout the paper:

Assumption 1 $\beta > \frac{1-\alpha}{3-\alpha}$

Note that assumption 1 is fully compatible with $\beta < \frac{1}{2}$, even for $\alpha = 0$. Furthermore, its violation means that the socially optimal policy allocates the pie to the ideological dimensions, leaving out the common value one, and we do not see that case as particularly interesting.

2.4 Timing and solution concept

The timing is as follows:

1. Both parties decide whether to call the technocrats or not. Define this decision $d_P \in \{T, \emptyset\}$;

2. If both agree to call the technocrats, they delegate the agenda setting power. Otherwise, parties simultaneously propose a division of the pie;

3. Parties vote on the proposed division. If there is no agreement, the outcome is determined probabilistically according to w;

4. Payoffs are paid and the game ends.

The solution concept we use is subgame perfect Nash equilibrium.

3 Analysis

We solve the game by backward induction.

3.1 No technocrats

First, suppose that the technocrats have not been called into power. In this case, the unique SPNE is as follows:

Lemma 1 *For any x, O accepts the proposal iff $\beta(1-x_G-x_O)+(1-\beta)(x_O-\alpha x_G) \geq 0$. There exists a level of victory probability $\bar{w}$ such that for $w \leq \bar{w}$ G offers $x_G = \bar{x} > 0, x_O = 0$ and it is accepted in equilibrium; for $w \geq \bar{w}$ G offers $x_G = 1, x_O = 0$ and there is a parliamentary fight.*

Intuitively, G can try to reach an agreement with O. The best one that can be achieved is $x_O = 0$, $x_G = \bar{x} = \frac{\beta}{\beta+(1-\beta)\alpha}$. This guarantees G a payoff of $\beta+(1-2\beta)\bar{x}$. Alternatively, G can go for a fight (and in that case he would try to get as much as possible out of it). In this case, his expected payoff is $w(1-\beta)$. The comparison between the two pins down $\bar{w} = \frac{\beta(\alpha+1)}{\beta+(1-\beta)\alpha}$.

3.2 Technocratic choice

In the first stage of the game, O and G choose whether to call the technocrats. Note that the opposition is always in favour, as T guarantees a strictly positive payoff, while his payoff in the other subgame is weakly below zero. In order to convince G, it is necessary for the technocrats to be sufficiently competent, i.e. to increase the size of the pie (a TG guarantees a payoff of $c\beta$ for both parties). Otherwise, there is no point in giving up the agenda setting power, and the bargaining power that it brings.

Proposition 1 *There exists a threshold $\bar{c} > 1$ such that an equilibrium where $d_G = d_O = T$ exists iff $c \geq \bar{c}$.*

Obviously, $\bar{c}$ depends on the equilibrium in the other subgame. Hence, $\bar{c} = \frac{w(1-\beta)}{\beta}$ if $w \geq \bar{w}$ and $\bar{c} = \frac{(1-\beta)(\alpha+1)}{\beta+(1-\beta)\alpha}$ if $w < \bar{w}$.

Note, however, that $d_G = d_O = T$ is never the unique equilibrium: both parties choosing not to call the technocrats is always (trivially) a NE of this game, as a TG government requires a supermajority. Hence, technocrats may not be called even when it would be efficient to do so.

Corollary 1 *There always exists a SPNE where $d_G = d_O = \emptyset$.*

Obviously, when the TG equilibrium exists, it dominates the equilibrum of corollary 1, but it is interesting to point out that, even when a TG equilibirum exists, it is never unique.

3.3 Comparative statics

Proposition 2 *$\bar{c}$ is nonincreasing in α and β and nondecreasing in w.*

The effect of α is perhaps counterintuitive, given that a technocratic government requires both parties to agree. However, note that this agreement is a very particular one, because it implies giving control of the agenda setting power to someone else. In fact, an increase in polarization makes an agreement between parties and without the technocrats more difficult: $\bar{x}$ decreases, meaning that G has to make bigger concessions in order to appease O and avoid conflicts. This, however, reduces the payoff of G (in case of no conflict), making him willing to accept the technocrats for a lower "competence premium". The effect of w is more direct: if the government is in control of parliament, the competence premium required to give up on the agenda setting power must be very high. Note, however, that this matters only when $w \geq \bar{w}$. For small w, marginal changes in government strength do not affect the outcome, as an agreement is found without a parliamentary fight. Finally, a large β increases the desirability of a TG *vis-à-vis* a fight, hence reducing $\bar{c}$ when $w \geq \bar{w}$. This is also true when $w < \bar{w}$, overall. However, note that in this case an increase in β also makes the agreement with O cheaper for G, as it can be found through the common interest dimension. This second effect is dominated, but it suggests the opportunity to analyze the case of heterogeneous weights on the common value dimension, as we do in section 4.

3.4 Discussion

The results presented so far do pretty well in matching the stylised facts on technocratic governments presented in the introduction. First, they need to be sufficiently competent in order to be called into power. Second, they do not need to control directly a fraction of parliament. Third, they need broad support in order to be in power, and this is more likely to happen when the parliament is more unstable or the economic conditions are bad. Finally, they are rare. In fact, they are never the unique equilibrium of the game. On top of this, the paper suggests that highly polarized political environments are actually more inclined to accept a technocratic government, especially when the government does not exert a strong control over parliament. More broadly, it suggests the importance of distinguishing between the weight of the ideological dimension (vis-a-vis the common value one) and the distance between parties' preferences along the ideological dimension: they have opposite effects on the likelihood of a TG. Second, we stress the fact that having the option to implement the socially optimal policy is not enough to obtain it in equilibrium. TGs require a sufficiently big "competence premium", or a sufficiently credible ability to solve a crisis.

4 Extension: Heterogeneous weights on the common value dimension

In this extension we consider the possibility of different β between the government and the opposition. More formally, assume now $\beta_G \neq \beta_O$, but both are strictly below $\frac{1}{2}$. Furthermore, we adapt assumption 1 to this extension assuming the following: $min[\beta_G, \beta_O] \geq \frac{1}{3}$.

Proposition 3 *If $\beta_G \neq \beta_O$, there is a unique SPNE in the game without technocrats. It is either $x_O = 0$, $x_G = \bar{x} = \frac{\beta_O}{\beta_O+(1-\beta_O)\alpha}$ and no fight if $w < \bar{w}_{\neq}$ or $x_O = 0$, $x_G = 1$ and fight otherwise. $\bar{w}_{\neq}$ is now defined as $\bar{w}_{\neq} = \frac{\beta_O(1-2\beta_G)+\beta_G(1-\beta_O)\alpha}{(\beta_O+(1-\beta_O)\alpha)(1-\beta_G)}$.*

The basic structure of this equilibrium is the same as before. However, now different β play a different role. A direct consequence is on the threshold in c that allows for a TG equilibrium.

Corollary 2 *A technocratic government equilibrium exists iff $c \geq \bar{c}_{\neq}$, where $\bar{c}_{\neq} = \frac{w(1-\beta_G)}{\beta_G}$ if $w \geq \bar{w}_{\neq}$ and $\bar{c}_{\neq} = 1 + \frac{\beta_O}{\beta_G}\frac{(1-2\beta_G)}{\beta_O+(1-\beta_O)\alpha}$ if $w < \bar{w}_{\neq}$.*

Corollary 2 highlights the role of different β in allowing for a TG equilibrium. When the game without technocrats ends up in a parliamentary fight (i.e. when w is sufficiently big), then only β_G matters, as the opposition is ignored and can only hope to stop the proposed policy. When parliament is unstable, instead, β_O matters as well, because it determines the outcome of the negotiated final policy, to be compared with the possibility of having technocrats.

The comparative statics is similar as before, with few new insights.

Corollary 3 *$\bar{c}_{\neq}$ is decreasing in β_G and nondecreasing in β_O.*

The first part is clear: the more publicly motivated the government is, the more he is willing to accept efficient technocrats, whose policy put full weight on the common value dimension. However, a very publicly motivated opposition implies that it is easier, for the government, to appease it (i.e. $\bar{x}$ can be higher), hence the usefulness of technocrats decreases. Moreover, it is now clearer the different role of β in affecting $\bar{c}_{\neq}$ when w is small. In particular, note that in this case

$$\bar{c}_{\neq} = 1 + \frac{1-2\beta_G}{\beta_G}\bar{x} = 1 + \frac{1-2\beta_G}{\beta_G}\frac{\beta_O}{\beta_O + (1-\beta_O)\alpha} \tag{3}$$

As α increases, $\bar{x}$ decreases and hence $\bar{c}$ decreases, making a TG more likely. However, this effect is stronger the smaller is β_O (i.e. $\frac{\partial^2 \bar{x}}{\partial\alpha\partial\beta_O} < 0$), as a small β_O means that the opposition cares a lot about the partisan dimension, hence an increase in polarization has a stronger effect on how much must be given away to maintain the indifference condition. Similarly, the effect is stronger the smaller is β_G: a large β_G reduces the weight of $\bar{x}$ in the calculation, hence the effet of an increase in α that reduces $\bar{x}$ is less important.

5 Conclusion

This paper provides the first formal model of technocratic government, highlighting conditions under which technocrats may be called in action. Consistently with the empirical literature, we find that bad economic conditions are unambiguously necessary. Furthermore, we show that polarization can have a role in helping TG formation when parliaments are sufficiently unstable, and that stable parliaments reduce the chances of TG formation.

We see this model as the first step in a larger research agenda, whose aim is to shred some light on TGs, their policies and their occurrence. On this respect, several further lines of research can be based on this article. First, it would be interesting to study how different institutional arrangements, such as electoral rules or balance of power between executive and legislative roles, make TGs more or less likely. Second, the behaviour of technocrats can be further endogenized as well. They may not always been motivated to choose the socially optimal policies; they may be subject to capture by special interest groups. Third, there is an informational loss implied by TGs that should be carefully studied: the suspension of "ordinary" parliamentary politics implies that voters loose some opportunities to learn about politicians.

References

Alesina, A. and G. Tabellini (2007). Bureaucrats or politicians? part i: a single policy task. *American Economic Review 97*(1), 169–179.

Alesina, A. and G. Tabellini (2008). Bureaucrats or politicians? part ii: Multiple policy tasks. *Journal of Public Economics 92*(3-4), 426–447.

Alexiadou, D. (2018). Technocratic government and economic policy. *Oxford Research Encyclopedia of Politics*.

Austen-Smith, D. and J. Banks (1988). Elections, coalitions, and legislative outcomes. *American Political Science Review 82*(2), 405–422.

Banks, J. S. and J. Duggan (2006). A general bargaining model of legislative policy-making. *Quarterly Journal of Political Science 1*(1), 49–85.

Baron, D. P. and D. Diermeier (2001). Elections, governments, and parliaments in proportional representation systems. *The Quarterly Journal of Economics 116*(3), 933–967.

Baron, D. P. and J. A. Ferejohn (1989). Bargaining in legislatures. *American political science review 83*(4), 1181–1206.

Battaglini, M. (2021). Coalition formation in legislative bargaining. *Journal of Political Economy 129*(11), 3206–3258.

Besley, T. and S. Coate (2003). Elected versus appointed regulators: Theory and evidence. *Journal of the European Economic Association 1*(5), 1176–1206.

Brunclík, M. and M. Parízek (2019). When are technocratic cabinets formed? *Comparative European Politics 17*(5), 759–777.

Laver, M. and K. A. Shepsle (1996). *Making and breaking governments: Cabinets and legislatures in parliamentary democracies*. Cambridge Univ Pr.

Maskin, E. and J. Tirole (2004). The politician and the judge: Accountability in government. *American Economic Review 94*(4), 1034–1054.

McDonnell, D. and M. Valbruzzi (2014). Defining and classifying technocrat-led and technocratic governments. *European Journal of Political Research 53*(4), 654–671.

Merlo, A. (1997). Bargaining over governments in a stochastic environment. *Journal of Political Economy 105*(1), 101–131.

Pastorella, G. (2016). Technocratic governments in europe: getting the critique right. *Political Studies 64*(4), 948–965.

Patty, J. W. (2016). Signaling through obstruction. *American Journal of Political Science 60*(1), 175–189.

Romer, T. and H. Rosenthal (1978). Political resource allocation, controlled agendas, and the status quo. *Public choice*, 27–43.

Romer, T. and H. Rosenthal (1979). Bureaucrats versus voters: On the political economy of resource allocation by direct democracy. *The Quarterly Journal of Economics 93*(4), 563–587.

Wratil, C. and G. Pastorella (2018). Dodging the bullet: How crises trigger technocrat-led governments. *European Journal of Political Research 57*(2), 450–472.

Yildirim, H. (2007). Proposal power and majority rule in multilateral bargaining with costly recognition. *Journal of Economic Theory 136*(1), 167–196.

A Proofs

Proof of Lemma 1. For any given offer x_G, x_O, O expects to get $w[\beta(1 - x_G - x_O) + (1 - \beta)(x_O - \alpha x_G)] + (1 - w) * 0$ from fighting and $\beta(1 - x_G - x_O) + (1 - \beta)(x_O - \alpha x_G)$ from accepting the proposal. Hence, she will accept any proposal such that

$$\beta(1 - x_G - x_O) + (1 - \beta)(x_O - \alpha x_G) \geq 0$$

$$x_0 \geq max\left[\frac{\beta + (1 - \beta)\alpha}{1 - 2\beta}x_G - \frac{\beta}{1 - 2\beta}, 0\right] \tag{A.1}$$

and will fight otherwise. Anticipating this, G can either accommodate the opposition, choosing the platform that maximizes his welfare subject to acceptance, or he can choose to fight. The platform that maximizes G's utility subject to acceptance is the solution of

$$max_{x_O,x_G}\beta(1-x_G-x_O)+(1-\beta)(x_G-\alpha x_O) \tag{A.2}$$

subject to $x_0 \geq max\left[\frac{\beta+(1-\beta)\alpha}{1-2\beta}x_G-\frac{\beta}{1-2\beta},0\right]$ and the non-negativity constraints. As the objective function is strictly decreasing in x_O, we use the constraint with equality. Moving to the maximization, we note that the indifference curves, for a generic utility level u, of G, have the generic form

$$\begin{aligned}u &= \beta(1-x_G-x_O)+(1-\beta)(x_G-\alpha x_O) \\ x_O &= \frac{1-2\beta}{\beta+(1-\beta)\alpha}x_G+\frac{\beta-u}{\beta+(1-\beta)\alpha}\end{aligned} \tag{A.3}$$

Representing them in the x_G, x_O space, it is clear that they have positive slope and the utility level increases by moving south-east. Furthermore, their slope is lower than the nonzero part of (A.1). To see this, note that

$$\begin{aligned}&\frac{\beta+(1-\beta)\alpha}{1-2\beta} > \frac{1-2\beta}{\beta+(1-\beta)\alpha} \\ &(\beta+(1-\beta)\alpha)^2 > (1-2\beta)^2 \\ &\beta > \frac{1-\alpha}{3-\alpha}\end{aligned}$$

that is always verified because of assumption 1.

As a consequence, the optimal offer accepted in equilibrium is the one with the highest possible x_G conditional on x_O being zero and (A.1) being respected with equality. Hence, such that $\frac{\beta+(1-\beta)\alpha}{1-2\beta}x_G-\frac{\beta}{1-2\beta}=0$. Solving, we find $x_G=\frac{\beta}{\beta+(1-\beta)\alpha}:=\bar{x}$.

Alternatively, G can choose to go for a fight and hence offering his best possible platform in that case, meaning $x_G=1, x_O=0$. As a consequence, G will prefer a fight when

$$w(1-\beta) \geq \beta(1-\bar{x})+(1-\beta)\bar{x} \tag{A.4}$$

where the LHS of (A.4) is the expected payoff for G from a fight when he offers $x_G = 1, x_O = 0$ and the RHS is the expected payoff from the best acceptable offer, i.e. $x_G = \bar{x}, x_O = 0$. Simplifying (A.4), we find that G chooses to fight when

$$w \geq \frac{\beta(\alpha+1)}{\beta+(1-\beta)\alpha} := \bar{w}$$

■

Proof of Proposition 1. A TG guarantees a payoff of βc to both parties. Obviously, C is always willing to accept a TG, as her highest possible payoff without technocrats is 0. G, on the other hand, compares his expected payoff in the two subgames.

If $w \geq \bar{w}$, then there is a fight without technocrats. Hence, G prefers the technocrats when

$$\beta c \geq w(1-\beta)$$

i.e. when $c \geq \frac{w(1-\beta)}{\beta}$.

If $w < \bar{w}$ G prefers the technocrats when

$$\beta c \geq \beta(1-\bar{x}) + (1-\beta)\bar{x}$$

i.e. when $c \geq \frac{(1-\beta)(\alpha+1)}{\alpha-\beta(\alpha-1)}$

Finally, we need to prove that $\bar{c}$ is always greater than 1. First, note that

$$\frac{(1-\beta)(\alpha+1)}{\alpha-\beta(\alpha-1)} \geq 1$$
$$(1-\beta)(\alpha+1) \geq \beta+(1-\beta)\alpha$$
$$1-\beta \geq \beta$$

that always holds as $\beta < \frac{1}{2}$. Second, note that

$$w(1-\beta) \geq \frac{\beta(\alpha+1)}{\beta+(1-\beta)\alpha}(1-\beta)$$
$$\frac{\beta(\alpha+1)}{\beta+(1-\beta)\alpha}(1-\beta) > \beta$$

where the first inequality follows from the definition of $\bar{w}$ and the second one from the fact that $(\alpha+1)(1-\beta) > \beta + (1-\beta)\alpha$, as $\beta < \frac{1}{2}$. ■

Proof of Proposition 2. Recall that $\bar{c} = \frac{w(1-\beta)}{\beta}$ when $w \geq \bar{w}$ and $\bar{c} = \frac{(1-\beta)(\alpha+1)}{\alpha-\beta(\alpha-1)}$ when $w < \bar{w}$. Note that of course $\bar{w}$ is a function of parameters as well, but for this comparative statics we focus on changes that do not switch sides around $\bar{w}$.

Differentiationg with respect to α, we find

$$\frac{\partial}{\partial \alpha}\left(\frac{w(1-\beta)}{\beta}\right) = 0$$
$$\frac{\partial}{\partial \alpha}\left(\frac{(1-\beta)(\alpha+1)}{\alpha-\beta(\alpha-1)}\right) = \frac{(1-\beta)(\beta+(1-\beta)\alpha)-(1-\beta)^2(\alpha+1)}{(\beta+(1-\beta)\alpha)^2} < 0$$

To see the second result, note that the numerator is negative when $\beta + (1-\beta)\alpha < (1-\beta)(\alpha+1)$, which is always true, as $\beta < \frac{1}{2}$.

Differentiating with respect to w, we find

$$\frac{\partial}{\partial w}\left(\frac{w(1-\beta)}{\beta}\right) > 0$$
$$\frac{\partial}{\partial w}\left(\frac{(1-\beta)(\alpha-1)}{\alpha-\beta(\alpha-1)}\right) = 0$$

Differentiating with respect to β, we find

$$\frac{\partial}{\partial \beta}\left(\frac{w(1-\beta)}{\beta}\right) = \frac{-w}{\beta^2} < 0$$
$$\frac{\partial}{\partial \beta}\left(\frac{(1-\beta)(\alpha+1)}{\alpha-\beta(\alpha-1)}\right) = \frac{-(\alpha+1)(\alpha-\beta(\alpha-1))+(\alpha-1)(\alpha+1)(1-\beta)}{(\alpha-\beta(\alpha-1))^2} < 0$$

To see the second result, note that the numerator is positive when $(\alpha-1)(1-\beta) > \alpha - \beta(\alpha-1)$, which is never true. ■

Proof of Proposition 3. For any given offer x_G, x_O, O expects to get $w[\beta_O(1-x_G-x_O)+(1-\beta_O)(x_O-\alpha x_G)]+(1-w)*0$ from fighting and $\beta_O(1-x_G-x_O)+(1-\beta_O)(x_O-\alpha x_G)$ from accepting the proposal. Hence, she will accept any proposal such that

$$\beta_O(1-x_G-x_O)+(1-\beta_O)(x_O-\alpha x_G) \geq 0$$

$$x_0 \geq max\left[\frac{\beta_O + (1-\beta_O)\alpha}{1-2\beta_O}x_G - \frac{\beta_O}{1-2\beta_O}, 0\right] \tag{A.5}$$

and will fight otherwise. Anticipating this, G can either accommodate the opposition, choosing the platform that maximizes his welfare subject to acceptance, or he can choose to fight. The platform that maximizes G's utility subject to acceptance is the solution of

$$max_{x_O,x_G}\beta_G(1-x_G-x_O)+(1-\beta_G)(x_G-\alpha x_O) \tag{A.6}$$

subject to $x_0 \geq max\left[\frac{\beta_O+(1-\beta_O)\alpha}{1-2\beta_O}x_G - \frac{\beta_O}{1-2\beta_O}, 0\right]$ and the non-negativity constraints. As the objective function is strictly decreasing in x_O, we use the constraint with equality. Moving to the maximization, we note that the indifference curves, for a generic utility level u, of G, have the generic form

$$\begin{aligned} u &= \beta_G(1-x_G-x_O)+(1-\beta_G)(x_G-\alpha x_O) \\ x_O &= \frac{1-2\beta_G}{\beta_G+(1-\beta_G)\alpha}x_G + \frac{\beta_G - u}{\beta_G+(1-\beta_G)\alpha} \end{aligned} \tag{A.7}$$

Representing them in the x_G, x_O space, it is clear that they have positive slope and the utility level increases by moving south-east. Furthermore, their slope is lower than the nonzero part of (A.5). To see this, note that

$$\frac{\beta_O+(1-\beta_O)\alpha}{1-2\beta_O} > \frac{1-2\beta_G}{\beta_G+(1-\beta_G)\alpha}$$
$$(\beta_O+(1-\beta_O)\alpha)(\beta_G+(1-\beta_G)\alpha) > (1-2\beta_O)(1-2\beta_G)$$

As long as both $\beta_G \geq \frac{1-\alpha}{3-\alpha}$ and $\beta_O \geq \frac{1-\alpha}{3-\alpha}$, as assumed, this condition is satisfied.

As a consequence, the optimal offer accepted in equilibrium is the one with the highest possible x_G conditional on x_O being zero and (A.1) being respected with equality. Hence, such that $\frac{\beta_O+(1-\beta_O)\alpha}{1-2\beta_O}x_G - \frac{\beta_O}{1-2\beta_O} = 0$. Solving, we find $x_G = \frac{\beta_O}{\beta_O+(1-\beta_O)\alpha} := \bar{x}$.

Alternatively, G can choose to go for a fight and hence offering his best possible platform in that case, meaning $x_G = 1, x_O = 0$. As a consequence, G will prefer a fight when

$$w(1-\beta_G) \geq \beta_G(1-\bar{x}) + (1-\beta_G)\bar{x} \tag{A.8}$$

where the LHS of (A.8) is the expected payoff for G from a fight when he offers $x_G = 1, x_O = 0$ and the RHS is the expected payoff from the best acceptable offer, i.e. $x_G = \bar{x}, x_O = 0$. Simplifying (A.8), we find that G chooses to fight when

$$w \geq \frac{\beta_O(1-2\beta_G) + \beta_G(1-\beta_O)\alpha}{(\beta_O + (1-\beta_O)\alpha)(1-\beta_G)} := \bar{w}_{\neq}$$

■

Proof of Corollary 2. A TG guarantees a payoff of $\beta_O c$ to O and $\beta_G c$ to G. Obviously, C is always willing to accept a TG, as her highest possible payoff without technocrats is 0. G, on the other hand, compares his expected payoff in the two subgames.

If $w \geq \bar{w}_{\neq}$, then there is a fight without technocrats. Hence, G prefers the technocrats when

$$\beta_G c \geq w(1-\beta_G)$$

i.e. when $c \geq \frac{w(1-\beta_G)}{\beta_G}$.

If $w < \bar{w}_{\neq}$ G prefers the technocrats when

$$\beta_G c \geq \beta_G(1-\bar{x}) + (1-\beta_G)\bar{x}$$

i.e. when $c \geq 1 + \frac{1-2\beta_G}{\beta_G}\bar{x} = 1 + \frac{1-2\beta_G}{\beta_G}\frac{\beta_O}{\beta_O+(1-\beta_O)\alpha}$. ■

Proof of Corollary 3. Recall that $\bar{c}_{\neq} = \frac{w(1-\beta_G)}{\beta_G}$ when $w \geq \bar{w}_{\neq}$ and $\bar{c}_{\neq} = 1 + \frac{1-2\beta_G}{\beta_G}\frac{\beta_O}{\beta_O+(1-\beta_O)\alpha}$ when $w < \bar{w}_{\neq}$. Note that of course $\bar{w}_{\neq}$ is a function of parameters as well, but for this comparative statics we focus on changes that do not switch sides around $\bar{w}_{\neq}$. Differentiating with respect to β_G, we find

$$\frac{\partial}{\partial \beta_G}\left(\frac{w(1-\beta_G)}{\beta_G}\right) = \frac{-w}{\beta_G^2} < 0$$
$$\frac{\partial}{\partial \beta_G}\left(1 + \frac{1-2\beta_G}{\beta_G}\bar{x}\right) = \frac{-1}{\beta_G^2}\bar{x} < 0$$

Differentiating with respect to β_O, we find

$$\begin{aligned}
&\frac{\partial}{\partial \beta_O}\left(\frac{w(1-\beta_G)}{\beta_G}\right) = 0 \\
&\frac{\partial}{\partial \beta_O}\left(1 + \frac{1-2\beta_G}{\beta_G}\bar{x}\right) \propto \frac{\partial \bar{x}}{\partial \beta_O} = \frac{\alpha}{(\beta_O + (1-\beta_O)\alpha)^2} > 0
\end{aligned}$$

■