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Incumbency and Expectations of Fiscal Rule Compliance: Evidence from Surveys of German Policy Makers

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Abstract:

In this paper, we analyze politicians' expectations about future compliance with a fiscal rule, and in particular the dependence of the expectations on their role in parliament (opposition vs. incumbent government coalition). In addition, we explore how opposition and incumbent politicians adjust their expectations differently when new information on the fiscal environment becomes available. Answering these questions helps in understanding whether long-term policy goals like sustainable debt levels can be reached despite changes of executive power between parties. We study these questions in the context of the German debt brake, which became a constitutional provision in 2009 but is binding for the sub-national states from 2020 onwards only. We analyze compliance expectations of parliamentarians of all 16 German state parliaments based on a unique survey, conducted in 2011/2012 and 2014/16. We find a strong incumbency effect, making politicians from the governing coalition more optimistic than those from the opposition. A negative fiscal shock has little effects on the former, but a strongly negative one on the latter.

JEL Classification: H63, H74

Keywords: Fiscal rules, incumbency, fiscal policy, political economy

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1 Introduction

Key current policy strategies include commitments to act on a path to long-term goals, such as the large-scale reduction of CO₂ emissions to stabilize the earth's temperature or a reduction of a growing public debt burden to a sustainable level. Whether or not these goals are achieved depends on the credibility of the government's commitment and the persistence in its actions. The temptation of a government to deviate from its previously determined optimal policy path was recognized in the seminal work by Kydland and Prescott (1977). In democracies, however, the identity of the incumbent government may change regularly and the achievement of long-term objectives thus rests on the persistence of policies across electoral cycles, complicating matters further. Some have even argued that election cycles may be a significant obstacle to achieving long-term policy goals (Nordhaus 1975). Tabellini and Alesina (1990) show theoretically that voter disagreement about the composition of government spending translates into excessive deficits when government majorities change over time. Such a deficit bias occurs even though all voters prefer behind the veil of ignorance a balanced budget.

Typically, incumbent policy makers differ in their views from members of the opposition, and this includes differences in expectations over the likelihood of reaching a goal with certain policy actions and the credibility of the objective itself. Expectations are crucial in determining whether decision makers from various political factions stick to a common policy across time. So far, little is known about what determines these expectations – whether or not they are persistent over time, and how they are affected by exogenous factors such as the economic environment. In the present paper, we shed light on these issues using unique panel data from a survey among German state parliamentarians about the credibility of a fiscal rule, whose purpose is to stabilize the public debt level. In our analysis, we investigate whether differences in compliance expectations are either the result of the dissimilar perspectives from the government and opposition benches or simply mirror a partisan effect.

In prior research, partisanship has been shown to be an important driver of expectations about future fiscal performance (Tavares 2004; Tilley and Hobolt 2011). If partisan biases in expectations persist also after changes of government, they may lead to instable policy paths and the failure to achieve future policy goals. In addition, prior research has shown that uncertainty about fiscal policy due to partisan conflict or varying expectations has significant implications for real economic outcomes (Azzimonti 2018; Bi et al. 2013; Backus and Driffill 1985). Our interest thus lies in understanding the link between partisan perspectives, incumbency, expectations in fiscal rule compliance, and actual economic outcomes. To make progress to this end, we aim to answer the following two questions:

(1) Do politicians' expectations about future compliance with a fiscal rule depend on their role in parliament (opposition vs. incumbent government) or do these expectations rather reflect a

stable partisan pattern independent from a party's role in government or opposition?

(2) How do politicians adjust their expectations when new information on the fiscal environment becomes available?

In a nutshell, we find a strong incumbency effect that is distinct from a party effect. Members of government coalition parties are much more optimistic about the compliance of their state with the fiscal rule than members of the opposition. Past improvements in fiscal fundamentals have relatively little effect on the expectations of politicians, yet an unexpected negative fiscal shock makes opposition members more pessimistic, while not affecting members of the governing coalition. As the positive incumbency effect reverts the previously pessimistic expectations of opposition politicians once they enter office, our findings imply that long-term policy goals can be achieved despite political turnover, as long as there is some basic agreement about the desirability of the goal among politicians.

Our interest in fiscal rules is motivated by the marked increase in the number of numerical fiscal rules designed to constrain government deficits and debt levels (Lledo et al. 2017; Yared 2019). The wave of new rules peaked in the years following the economic and financial crisis of 2008-9 (Schaechter et al. 2012). Germany introduced a new fiscal rule, the so-called "debt brake" (Schuldenbremse) into its constitution in the year 2009. Similar to other fiscal rules, like the Stability and Growth Pact or the Maastricht Treaty of the European Union, the German debt brake follows a 'lagged implementation' schedule (Buchanan 1994). The debt brake was phased in over several years, and the fiscal target of a structurally balanced budget has become binding for the sub-national states (Länder) only in 2020, more than ten years later.

We analyze compliance expectations of the individual members of the German state parliaments who vote on state budget laws and thus the path to compliance with the debt brake. We benefit from a unique database, a customized survey among all 16 German state parliaments, which we conducted in two waves. The first wave took place in 2011-2012, the second about four years later in 2014-2016. In the survey, we ask members of parliaments about the likelihood of compliance with the debt brake in their own state from 2020 onwards.

The design of the survey and its panel structure with a considerable overlap of individual respondents in both waves allow us to identify the effect of government incumbency and changes in the fiscal environment.¹ In a separate probit analysis for the response probability of all parlia-

¹ In Heinemann et al. (2016) only the first wave results were used to study compliance expectations in a cross-sections. We discuss differences to this work in Section 4 in more detail.

mentarians, we find that the regression results are unlikely to be biased by selection due to conditional unit non-response. As for incumbency, we exploit eight switches in the composition of state governments between the two survey waves that changed the role of some parliamentarians from opposition to being part of the governing coalition, and for others in the opposite direction. The debt brake was not a key item in any election campaign and the change in political majorities is therefore likely to be exogenous with respect to the expectations of policymakers. In our analysis, we control for a further partisan effect by using party dummies. We thereby consider changes in the political environment, such as the entry of the newly founded right wing populist party Alternative for Germany (AfD), which like other populist movements in Europe has a particular critical view on the traditional parties and their policy performance, including a more pessimistic compliance expectation.

We use an unexpected event to study the role of fiscal fundamentals on expectations in fiscal rule compliance. In 2015, almost 1 million refugees arrived in Germany. The magnitude was largely unexpected and was at the time considered a significant negative fiscal shock with estimated additional government spending of 0.5% of GDP in the following year (Independent Advisory Board of the Stability Council 2015). We exploit the fact that during the second survey wave by chance some states were surveyed before the peak of the inflow and some after. We compare the expectations of politicians surveyed later with those earlier, and study whether differences depend on being a member of the governing coalition.

The key findings of our empirical analysis are as follows: First, the incumbency effect is strongly positive. Looking at the full sample that includes both waves, members of incumbent government parties are significantly more optimistic than members from opposition parties by at least 1.4 points (the answer scale ranges from -4 to +4). This average effect is the result of an increasing incumbency effect over time: the effect in wave 2 is about three times as large as the one in wave 1. We demonstrate this finding by comparing sets of politicians who have the same role in wave 1 (being both in government or both in opposition) but different roles in wave 2. There is no comparable effect when the two sets of politicians have a common role in wave 2, and a different one in wave 1.

A plausible explanation is that the gap to the time when the German debt brake becomes binding (2020) is much closer in the second wave than in the first one. The politicians who are part of the government supporting coalition during wave 2 have a reasonable chance of maintaining that position in 2020 and the power to affect through fiscal decisions the likelihood of compliance or non-compliance with the fiscal rule. Hence, for government politicians, compliance expectations in wave 2 already may refer to their own individual future policy performance. By contrast, in 2011/12 the showdown in 2020 was several election cycles away.

It is tempting to extrapolate this finding and expect a monotonically increasing incumbency

effect as the target year approaches. At the same time, however, the scope to make policy adjustment for reaching a target becomes smaller, and the goal may be considered unreachable at some point. For example, a state with a very high budget deficit in 2019 is unlikely to meet a balanced budget in 2020. Vice versa, with an improving budgetary situation as it was the case in 2019, compliance with the debt brake in 2020 had become highly realistic, also from the perspective of the opposition. Reality therefore is likely to constrain expectations of politicians eventually, regardless of their role in government or opposition.

Second, fiscal fundamentals - such as budgetary balance, level and change of government debt - have little relevance on average. These indicators improved considerably between the two waves due to accelerating economic growth, lower interest rates and rising tax revenues. Somewhat surprisingly, we do not observe significantly more optimism in compliance expectations over time and instead overall expectations are fairly pessimistic. Yet, there is some heterogeneity in the effect of fiscal variables on a parliamentarian's expectation with respect to his or her incumbency. For example, members of the incumbent government coalition become more optimistic when the budget balance improves, while opposition members show no similar improvement.

Third, an unexpected change in fiscal conditions matters. We find that politicians were significantly more pessimistic when surveyed after the peak of the refugee inflow in 2015, at least by close to 1 point. The effect appears to be mainly driven by members of opposition parties, not by incumbents.

Fourth, partisan effects as such are generally weak compared to the opposition-government cleavage. There might be one exception however: Representatives from the right-wing populist AfD have a particular pessimistic expectation that German states could balance their budgets – also relative to other opposition parliamentarians. Since we only have data on AfD parliamentarians from the second wave, further research is needed to establish this observation more firmly.

Taken together, our results suggests that reaching long-term policy goals is not bound to fail even though political majorities and fiscal conditions change. Members of opposition parties become more optimistic once they enter the governing coalition, increasing the credibility and perceived achievability of the long-term policy goal, which make it more likely that the new government will continue to pursue the initial policy path.

Our paper contributes to the literature on fiscal rules. Yared (2019) surveys the literature and makes the case for the role of political economy aspects in explaining rising debt levels and the widespread introduction of fiscal rules. Caselli et al. (2018) discusses practical issues in the use and design of fiscal rules. There is a large and growing literature that assesses the effectiveness of fiscal rules on fiscal outcomes. A common approach is to estimate in cross-section or panel

models the effect of fiscal rules on outcomes in jurisdictions.² Recent evidence based on long run historical constitutions by Asatryan et al. (2018) point to the positive impact of balanced budget rules on fiscal outcomes. A further strand of the literature looks into reputation effects of fiscal rules on risk spreads (Feld et al. 2017; Heinemann et al. 2014; Iara and Wolff 2014). A common feature of all these studies is the unit of observation, which is the (local, regional or national) jurisdiction. This kind of research design cannot reveal how a fiscal rule affects expectations of individual policy makers within a jurisdiction. Our approach fills this gap and demonstrates the heterogeneity of individual compliance expectations both in the cross-section and over time.

We relate to work on partisanship and expectation formation. Bisgaard (2015) finds that in the UK partisanship does not influence the assessment of the economic situation, but who is to be blamed for bad conditions. Gerber et al. (2010) show that political partisanship has a causal effect on attitudes and behavior of voters in Connecticut. Easaw (2010) concludes that negative news about the economy persists when households assess the perceived competence of the incumbent government, whereas good news does not persist. While these works are related, our focus is on the expectations of politicians rather than voters, and we are interested in incumbency rather than partisanship in form of party membership.

The remainder of the paper is organized as follows. In Section 2, we provide detailed information about the survey design and look at the descriptive evidence for compliance expectations. In Section 3, we consider the changes in the economic, fiscal and political environment. The econometric approach is described in Section 4 followed by the results Section 5. Section 0 concludes.

2 Survey details and compliance expectations

2.1 Survey description

We sent out questionnaires to all members of the 16 German state parliaments in both survey waves of 2011/12 and 2014/16. The parliament-specific timing was chosen to contact each parliamentarian approximately at mid-term of his or her state-specific election cycle (election dates vary across German states) in order to avoid possible low turn-out in times of election campaigns or the start of a newly elected parliament when parliamentary newcomers may not be familiar with the issue. As a result, parliamentarians were surveyed between March 2011 and May 2012 in the first wave and between December 2014 and April 2016 in the second wave. The first contact

² See for OECD countries Dahan and Strawczynski (2013); for European countries Debrun et al. (Debrun et al. 2008); for the Swiss cantons Krogstrup and Wälti (2008); for the U.S. states Poterba (1996). A meta-regression analysis is provided by Heinemann et al. (2018).

was by regular post, followed by electronic mail reminders and phone calls. Through this procedure, we received 1,302 responses (635 and 667 in wave 1 and 2, respectively). Response rates differ across states (see Table 1) but remain stable over time with similar overall response rates in both waves (34.1% in the first and 36.8% in the second), which are in the upper range of parliamentary survey studies (for regional parliaments see André, Bradbury, et al. 2015; for national parliaments see André, Depauw, et al. 2015).

All surveys were strictly confidential but non-anonymous in order to match the survey responses with state characteristics on the one hand and with personal characteristics of parliamentarians such as age and committee membership on the other hand, which are available from public sources. In principle, non-anonymity of responses could lead to biased answers as parliamentarians might be concerned about the perceived loyalty to their state or party. In addition, stated expectations could be the result of fiscal preferences, which could lead to a self-serving bias. However, our survey design and the empirical methodology substantially reduce the potential biases. In particular, we guarantee confidential treatment of individual responses to parliamentarians. This provides assurance to survey participants that their individual answers do not become public. In this regard, our confidential survey approach is superior to studies that exploit public parliamentary roll-call votes and thus cannot capture personal expectations. Moreover, in our econometric analysis we control for individual characteristics that might influence the incentive to hide true expectations such as membership in a budgetary committee. In addition, we undertake a unit non-response analysis to check whether politicians with a certain characteristic are more or less likely to participate in the survey (described in more detail below, see also Appendix B).

2.2 Compliance expectations: levels and changes over time

Our survey relates to compliance with the German debt brake, which entered the constitution in 2009. This set of rules contains provisions for reaching a structurally balanced budget by 2016 for the federal government and by 2020 for each of the sixteen states (Länder). Unlike the federal level, there was no collectively agreed adjustment path set for the states for reaching a balanced budget in 2020. The long gap between the entry of the constitutional provision in 2009 and the effectiveness of the provision in 2020 was part of a political compromise to get all states to agree with the tightening of fiscal rules. The gap makes our analysis interesting because it allows us to isolate expectations from effective constraints faced by politicians: Policymakers assess a fiscal rule that is not yet binding and thus does not legally constrain concurrent fiscal policy making.

Compliance expectations are covered through the following survey question:

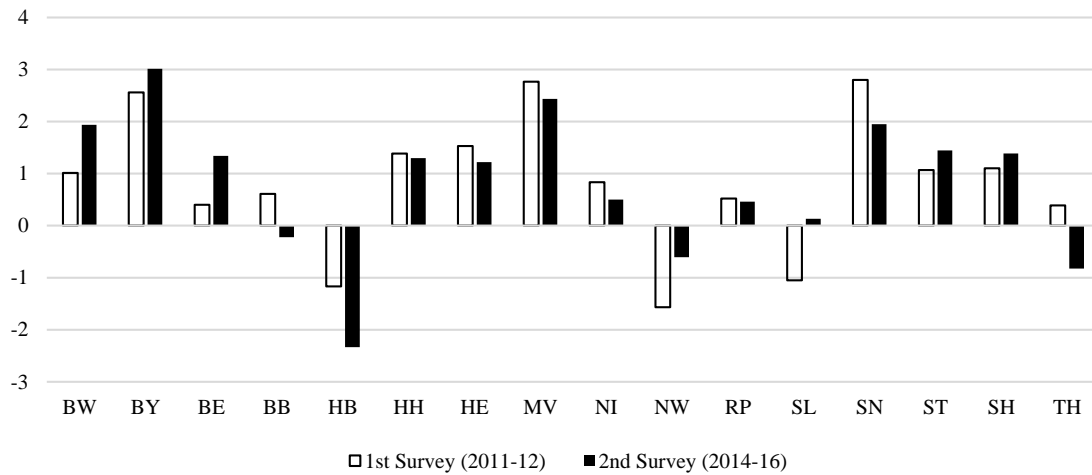
In your view, how likely is it that your state will comply with the requirements of the constitutional debt brake and have a balanced budget (cyclically adjusted) from 2020 onwards?

An answer was requested on a nine-point scale from (-4) “impossible” to (+4) “certain”.

Figure 1 summarizes average assessments in both waves. Compliance expectations are similar in both waves and overall not very optimistic. Only in three states (Bavaria, Mecklenburg-Western Pomerania, Saxony), did parliamentarians assign an average score of about two or higher to the likelihood of their state’s compliance in both waves. Over time, mean scores have declined for the majority of states (9 out of 16).

While fairly pessimistic expectations may be not too surprising for the first wave given the aftermath of the economic and financial crisis of 2008, the stability of expectations and pessimism shown in the second wave appears surprising given the substantial improvement of economic fundamentals between the two waves. We will assess the change in the fiscal and political environment that occurred between both survey waves in the next section.

Figure 1: Compliance expectations for own state



Notes: This figure depicts the average of answers to the survey question about compliance expectations („In your view, how likely is it that your state will comply with the constitutional debt brake and will present a balanced budget (cyclically adjusted) from 2020 onwards”). Scale from -4 (“impossible”) to +4 (certain). The figure uses the full sample of answers. State abbreviations are as follows - BW: Baden-Württemberg, BY: Bavaria, BE: Berlin, BB: Brandenburg, HB: Bremen, HH: Hamburg, HE: Hesse, NI: Lower Saxony, MV: Mecklenburg-Western Pomerania, NW: North Rhine-Westphalia, RP:

3 Fiscal and political environment

3.1 Political power and changes in parliamentary composition

Table 1 states the incumbent coalition parties for each survey wave. The parties in our survey are: the Christian Democrats (CDU/CSU), a center-right party, the Free Democrats (FDP), a market-liberal party, the Social Democrats (SPD), a center-left party, the Green Party (Green), a center-left party, the Left Party, a left-wing socialist party, the Alternative for Deutschland (AfD), a right-populist party, the Süd-Schleswigsche Wählerverband (SSW), a Danish minority party in Schleswig-Holstein, and the Piraten (Pirates), a liberal left-of-center party.

Table 1: Survey details

	No. of MPs / responses		Response rate, %		Survey date		Last election date		Parties in government coalition		No. of AfD responses (wave 2)
	Wave 1	Wave 2	Wave 1	Wave 2	Wave 1	Wave 2	Wave 1	Wave 2	Wave 1	Wave 2	
Baden-Württemberg	138 / 77	139 / 78	55.80	56.12	3/2012- 4/2012	12/2014- 1/2015	3/2011	3/2011	Green, SPD	Green, SPD	0
Bavaria	187 / 75	160 / 69	40.11	38.33	2011	5/2015- 6/2015	9/2008	9/2013	CSU, FDP	CSU	0
Berlin	149 / 30	149 / 38	20.13	25.33	3/2012- 4/2012	12/2014- 1/2015	9/2011	9/2011	SPD, CDU	SPD, CDU	0
Brandenburg	88 / 18	88 / 18	20.45	20.45	2011	2/2016- 4/2016	9/2009	9/2014	SPD, Left	SPD, Left	2
Bremen	83 / 18	83 / 24	21.69	28.92	3/2012- 4/2012	2/2016- 4/2016	5/2011	5/2015	SPD, Green	SPD, Green	3
Hamburg	124 / 39	121 / 27	31.45	22.31	12/2011- 1/2012	2/2016- 4/2016	2/2011	2/2015	SPD	SPD, Green	2
Hesse	114 / 49	110 / 45	42.98	40.91	12/2011- 1/2012	2/2016- 4/2016	1/2009	9/2013	CDU, FDP	CDU, Green	0
Lower Saxony	152 / 54	137 / 53	35.53	39.42	2011	12/2014- 1/2015	1/2008	1/2013	CDU, FDP	SPD, Green	0
Mecklenburg Western Pomerania	71 / 17	71 / 23	23.94	32.39	3/2012- 4/2012	12/2014- 1/2015	9/2011	9/2011	SPD, CDU	SPD, CDU	0
North Rhine- Westphalia	181 / 51	237 / 84	28.18	35.44	12/2011- 1/2012	12/2014- 1/2015	5/2010	5/2012	SPD, Green	SPD, Green	0
Rhineland- Palatinate	101 / 48	107 / 52	47.52	48.60	3/2012- 4/2012	12/2014- 1/2015	3/2011	3/2011	SPD, Green	SPD, Green	0
Saarland	51 / 20	51 / 15	39.22	29.41	2011	5/2015- 6/2015	8/2009	3/2012	CDU, FDP, Green	CDU, SPD	0
Saxony	133 / 45	126 / 39	33.83	30.95	12/2011- 1/2012	2/2016- 4/2016	8/2009	8/2014	CDU, FDP	CDU, SPD	3
Saxony-Anhalt	106 / 29	105 / 36	27.36	34.29	12/2011- 1/2012	12/2014- 1/2015	3/2011	3/2011	CDU, SPD	CDU, SPD	0
Schleswig-Holstein	95 / 29	69 / 31	30.53	44.93	2011	5/2015- 6/2015	9/2009	5/2012	CDU, FDP	SPD, Green, SSW	0
Thuringia	88 / 36	91 / 34	40.91	37.36	2011	2/2016- 4/2016	8/2009	9/2014	CDU, SPD	Left, SPD, Green	4
Overall	1,861 / 635	1,865 / 667	34.12	35.76							

Notes: Party names refer to Christian Democrats (CDU, conservative), Free Democrats (FDP, center-right liberal), Social Democratic Party (SPD, social-democratic), Green Party (Green, ecologist, centre-left), Left Party (Left, left-wing populist), South Schleswig voters union (SSW, representing the Danish minority), Alternative for Germany (AfD, right-wing populist). Number of AfD responses in survey wave 1 was zero (party did not exist).

Changes in political power

Stated expectations may differ due to discrepancies in expectations between incumbent government (“insider”) and opposition (“outsiders”). Insiders may be more optimistic than outsiders because they are overconfident and have a too favorable view on their own capability to steer the budget, following the behavioral literature on over-confidence (Moore and Healy 2008).³ An alternative explanation is that insiders have better information than outsiders do.⁴ A low level of optimism in general has only a limited potential to explain the persistent pessimism despite fundamental improvement. Only to the extent that the share of opposition parliamentarians has increased due to smaller margins of governmental majorities could this induce increasing pessimism related to the insider-outsider pattern counterbalancing the fundamental improvement. However, there is an additional outsider effect beyond the level effect: Outsiders may pay less attention to improving fundamentals.

Table 1 shows that in several states the party composition of the incumbent government changed between the two surveys because of elections that took place in 13 states. There were eight changes in incumbent parties. Some were of minor nature, such as in Bavaria and Hamburg, where one party was added or dropped to the list of incumbent parties. In other cases, a coalition partner was substituted, such as in Hesse and Schleswig-Holstein (Green for FDP), Saarland (SPD for FDP and Greens), Saxony (SPD for FDP), and Thuringia (Left and Green for CDU). In Lower Saxony, the governing coalition changed completely. As a consequence of these changes of government composition between the two survey waves, some parliamentarians changed from being an opposition member to supporting the governing coalition (56 responding parliamentarians in our sample) or vice versa (60 responding parliamentarians in our sample), while others either remained in the opposition or in the government coalition throughout the survey period. We identify the effect of incumbency from these changes over time.

Entry of right-populist party into parliaments

The period between both waves saw a change in the political landscape in Germany. Traditional German parties like the center-right Christian Democrats (CDU/CSU) and the center-left Social Democrats (SPD) lost seat shares in many parliaments. At the same time, an EU-skeptical

³ An equivalent explanation is that outsiders are „underconfident“ with respect to the capabilities of the incumbent politicians and have an unrealistically bad perception of their ability to steer the budget in compliance with the rules.

⁴ The findings from Heinemann et al. (2016) rather point towards over-confidence of insiders than an information advantage.

and right-populist party, founded in 2013 (AfD, Alternative for Germany), obtained seats in several state parliaments.⁵ Its initial focal point was the euro-area debt crisis with critical positions on euro rescue policies. In 2015, with the strong increase in the number of refugees arriving in Germany, it started to shift its focus towards anti-immigration, anti-Islam and other nationalistic positions. In 2014, the party was successful to reach vote shares above the German five-per-cent-threshold and gained seats in the first three state parliaments (Saxony, Brandenburg and Thuringia).⁶ Until 2016 it secured seats in a further six state parliaments. Thus, while none of the parliaments had AfD members in our first survey wave, our second wave saw 5 out of 16 state parliaments with members of this new party (see also Table 1).

3.2 Fiscal environment

The period covered through both survey waves experienced substantial variation in the economic and fiscal environment. The first wave was conducted in the years 2011-2012 and, hence, a period that still felt the consequences of the financial crisis of 2008-2009 that had pushed Germany into its record post-war recession with a GDP decline of -5.6 per cent in 2009 (AMECO Database) and severe consequences for tax revenues and government deficits. Moreover, the survey wave was concurrent with the height of the euro area debt crisis with its severe concerns about the future of the euro area.

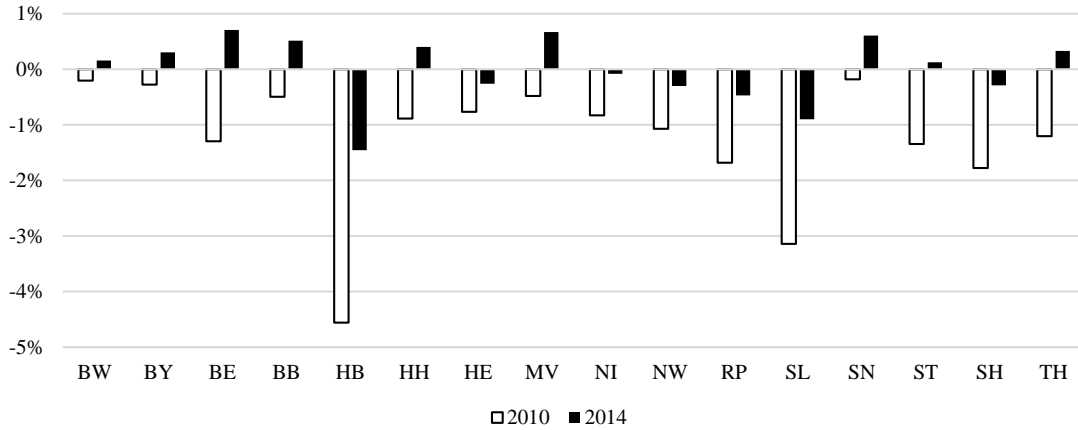
The economic and fiscal situation improved considerably in subsequent years. The German economy experienced a stable development with high growth rates (relative to its average performance in the preceding decade), a strong continuous employment growth (from a total domestic employment of 41 million in 2010 to 43 million in 2014, AMECO database) and a marked reduction of unemployment from 7 to 5 per cent between 2010 and 2014 (Eurostat definition, AMECO database). As a consequence, state finances considerably improved between both survey waves. Figure 2 demonstrates this improvement with regard to the financial balances of the German states. While in 2010 none of the 16 state budgets was in surplus, four years later nine states could present a surplus, and the remaining states moved their deficits closer to a balanced budget. Contributions to these improvements came from both the revenue side and the expenditure side. Re-

⁵ Various factors explain the rise of right-populist parties in Western democracies (for a survey see Funke and Trebesch 2017), among them backlash against globalization in general and immigration in particular. A deteriorating trust in the willingness and ability of political institutions and established parties to properly address problems is a further general explanation closely correlated with the increasing vote shares of populist parties (Dustmann et al. 2017).

⁶ The very first electoral success with a vote share above the five-per-cent-threshold was the election for the European Parliament in May 2014. The AfD entered the federal parliament, the Deutsche Bundestag, after the general election in 2017.

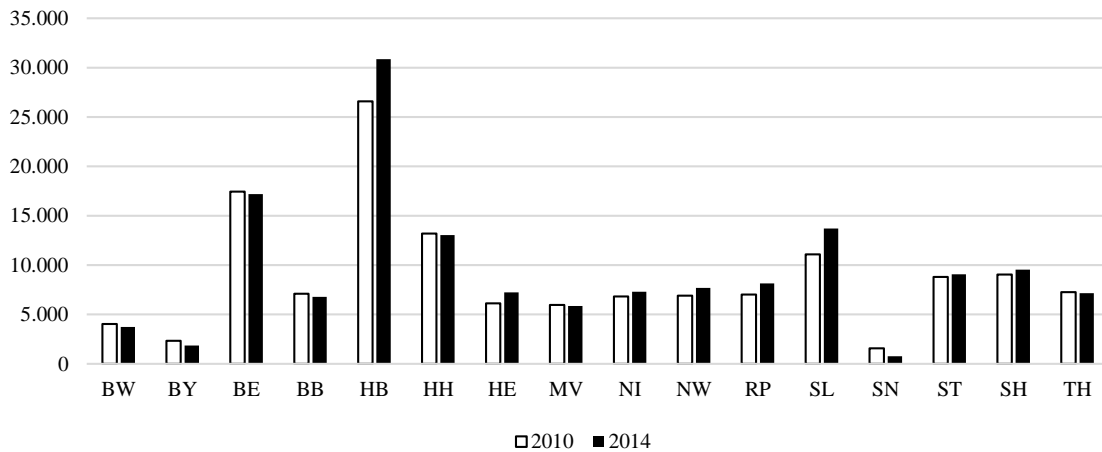
garding the former, economic growth led to substantially higher state revenues, called fiscal capacity, which increased from an average across states of EUR 2,981 (USD 3,919) per capita in 2010 to an average of EUR 3,714 (USD 4,883) in 2014. This upward trend also materialized in individual states (see Figure A.1 in appendix).

Figure 2: Financial balances of German states in % of GDP



Notes: This figure presents the financial balance of the 16 German states in 2010 and 2014 in % of GDP. State abbreviations are as follows - BW: Baden-Württemberg, BY: Bavaria, BE: Berlin, BB: Brandenburg, HB: Bremen, HH: Hamburg, HE: Hesse, NI: Lower Saxony, MV: Mecklenburg-Western Pomerania, NW: North Rhine-Westphalia, RP: Rhineland-Palatinate, SL: Saarland, SN: Saxony, ST: Saxony-Anhalt, SH: Schleswig-Holstein, TH: Thuringia.

Figure 3: State debt per capita



Notes: This figures presents public debt per capita of the 16 German states in 2010 and 2014 in million EUR. State abbreviations are as follows - BW: Baden-Württemberg, BY: Bavaria, BE: Berlin, BB: Brandenburg, HB: Bremen, HH: Hamburg, HE: Hesse, NI: Lower Saxony, MV: Mecklenburg-Western Pomerania, NW: North Rhine-Westphalia, RP: Rhineland-Palatinate, SL: Saarland, SN: Saxony, ST: Saxony-Anhalt, SH: Schleswig-Holstein, TH: Thuringia.

On the expenditure side, lower interest payments had a positive impact on financial balances (see Figure A.2 in the appendix). From 2010 to 2014, the average nominal interest rate on German government bonds decreased from 2.4 to 1.1 per cent (Deutsche Bundesbank), because of both

the euro-crisis induced capital flight into the European safe havens and the expansive monetary policy of the ECB on the other hand.⁷ The improvement in financial balance shown in Figure 2 occurred despite moderate increases in spending on public employment (see Figure A.3 in appendix), which is the major spending item at state level.

While the budgetary situation improved in all states between 2010 and 2014, the legacy burden was quite different across states. Figure 3 shows the debt level per capita. The situation differed both among city-states (Bremen HB, Hamburg HH, Berlin BE) and among all other states. Differences are not easily explained by differences between Western and Eastern Germany (e.g. the former GDR), as Saarland and Schleswig-Holstein in Western Germany have the highest levels per capita, as well as Sachsen-Anhalt in the East.

3.3 Unexpected event: refugee inflow 2015

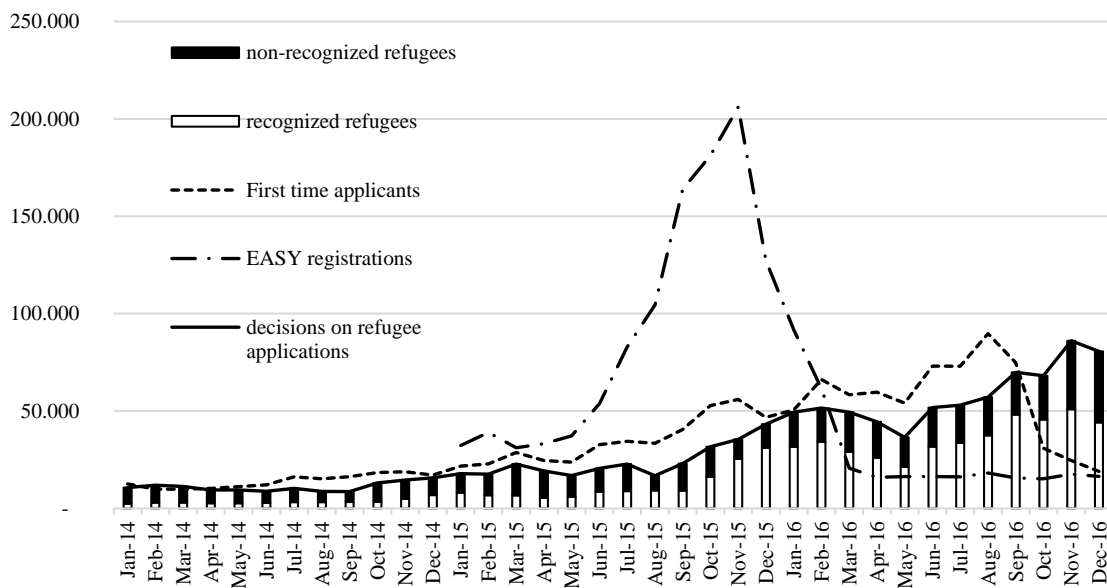
The favorable fiscal and economic developments described in the previous section provided for fundamentals that supported a more positive outlook in the second survey wave with regard to the German' states' debt brake compliance . However, the unexpected arrival of a large number of refugees in Germany in the course of 2015 constitutes an event that might plausibly have changed the medium- and long-run fiscal outlook and thus the compliance expectations of politicians. The refugee migration originating in the Middle East unfolded while the second survey wave was ongoing. Because of the staggered execution of the survey, which was unrelated to the refugee migration (see Section 2.1), some parliamentarians were randomly questioned several months after the full extent of the refugee migration became apparent through a public statement of the German government (August 31, 2020) and were thus exposed to this information shock, while others responded to the survey several months before this date and were thus not exposed to the information shock (see Table 1 for the timing of the survey waves in individual states). Table A.2 in the appendix shows which states were surveyed early and which late. This survey feature provides a unique setting to identify its effect on fiscal rule compliance expectations. We analyze the extent to which the exogenous shock to the fiscal situation caused by a substantial and unexpected increase in inward migration affects compliance expectations, and whether they relate to incumbency.

In the Summer of 2015, the number of persons seeking protection in Europe in general, and in Germany in particular, started to rise strongly (for details on the 2015 events see Kürschner Rauck

⁷ Falling interest rates affect the actual debt service only gradually with the replacement of maturing bonds. Still, there occurred a marked reduction in interest rate payments in this period.

and Kvasnicka 2018). On August 31, the German head of the federal government, Angela Merkel, publicly announced the willingness of the German government to accept a large number of refugees. Soon after, German borders were opened for refugees that had stranded in Hungary following their passage through the Balkan states. Thus, August 2015 marks the beginning of exceptionally high numbers of refugees received by German states. In this month alone more than 100,000 refugees were registered with registration numbers crossing this threshold for the first time. The peak was reached in November 2015 with more than 200,000 entries (see Figure 4).⁸ Immigration only slowed when the passage through the Balkan countries was closed in March 2016. By then, almost one million refugees reached Germany in 2015.

Figure 4: Refugee statistics Germany 2014 - 2016



Notes: This figure displays the number of asylum applications in Germany. The “EASY registrations” indicate the actual registration of refugees who enter German territory independent of when the formal asylum application procedure (“first time applicants”) actually starts or has even resulted in a decision on the refugee status (“non-recognized refugees”/“recognized refugees”). EASY registrations not available before January 2015. Source: Replication of Chart 89 in German Council of Economic Experts (2016), based on publications by the Federal Office for Migration and Refugees and the Federal Ministry of the Interior, Building and Community.

Among policy makers and public finance scholars these events led to a controversy on the possible fiscal consequences (Bahnsen et al. 2016; Bonin 2015; Sinn 2015), which ranged from strong pessimism to moderate optimism, largely depending on the authors’ assumptions on current qualifications, speed of skill and language acquisition, as well as general integration success of refugees. In late 2015, a reasonable estimate of additional fiscal spending for refugees in 2016 was about half a percentage point of GDP (Independent Advisory Board of the Stability Council

⁸ The events were of high salience with arrival numbers of refugees reaching the main train station in Munich amounting to more than 17,500 persons on single days (Kürschner Rauck and Kvasnicka 2018).

2015).

The induced fiscal burdens across states are largely exogenous from the viewpoint of individual states. While it is true that refugees initially entered Germany mostly through states in the south, the ultimate distribution is governed by a quota system (“Königsteiner Schlüssel”). Under this scheme, refugees are distributed based on states’ GDP (weight one third) and tax revenues (weight two thirds), thereby reflecting each individual state’s capacity to handle the cost of refugee integration. It should be noted that eventually the federal government took over a large part of the costs associated with refugees through vertical transfers. However, at the time of the second survey both the magnitude and the vertical distribution of the burden was not clear. We thus consider the surprising refugee inflow as an unexpected negative fiscal shock at the time of the survey.

3.4 Variables and summary statistics

We conclude with a presentation of the variables that we use in the empirical analysis. Table 2 shows the variables grouped into four categories (i) politicians’ personal characteristics (gender, age, part of governing coalition (*GOVT*) and member budget committee), (ii) party affiliation (AfD, CDU/CSU, FDP, Greens, SPD, Left, Others), (iii) fiscal variables, and (iv) dummies for time after refugee peak inflow (*POST*).

Table 2: Summary statistics

	No. of obs.	Minimum	Maximum	Mean	Standard Dev
Comply	1,302	-4	4	0.970	2.540
<i>GOVT</i>	1,302	0	1	0.530	0.500
Female	1,302	0	1	0.240	0.420
Age	1,302	26	78	55.090	10.430
Budget Committee	1,302	0	2	0.350	0.610
AfD member	1,302	0	1	0.010	0.100
CDU/CSU member	1,302	0	1	0.420	0.490
FDP member	1,302	0	1	0.060	0.230
Greens member	1,302	0	1	0.110	0.310
Left member	1,302	0	1	0.070	0.260
SPD member	1,302	0	1	0.290	0.450
Other party member	1,302	0	1	0.040	0.190
Personnel exp.	1,302	891.740	2359.700	1410.580	342.810
Balance	1,302	-2.960	0.810	-0.410	0.700
Interest payment	1,302	4.300	84.790	26.990	16.530
Change debt	1,302	-19.270	4.960	-1.870	5.610
Log debt over GDP	1,302	1.760	4.260	3.230	0.630
<i>POST</i>	1,302	0	1	0.140	0.350

This table displays the summary statistics for the variables used in the empirical estimation. Detailed descriptions for the individual variables are displayed in Table A.1.

Regarding the fiscal variables (iii), we use concurrent measures of debt over GDP (log) and the year-on-year percentage change of debt in a state. The budgetary situation is captured by the financial balance (revenues minus expenditures), as seen in Figure 2. To deal with the particularly high cyclical volatility of the financial balance we apply a moving average for this indicator. We take the weighted average of the balance (relative to GDP) for the year of survey participation and the two preceding years. We abstain from a forward-looking measure due to the high volatility

and difficult predictability of deficits.

In addition, we consider the fiscal variables interest payments (Figure A.2) and spending on public sector employment (Figure A.3). As a proxy for the interest rate burden, we multiply the debt-GDP-level with the 10-year federal government bond yield for Germany in the year after the respondent took the survey.⁹ The construction of the indicator was chosen to have a faster reaction of the indicator to changes in market rates compared to the actual interest payments. The actual debt service adjusts only slowly in line with maturing bonds and their refinancing. Our more reactive indicator is well suited for the respondents' long-term expectations since the fall of the actual interest rate is predictable if market interest rates have come down relative to the average interest coupons of the government bonds in circulation. Table 2 provides summary statistics for all variables.

4 Empirical method

We test the determinants of parliamentarians' assessment of their own-state's compliance with the fiscal rule. In particular, we run the following regression model:

$$Comply_{ist} = \alpha_1 GOVT_{it} + \alpha_2 FISC_{st} + \alpha_3 GOVT_{it} \cdot FISC_{st} + \beta X_{it} + \phi_i + \phi_t + \epsilon_{ist} \quad (1)$$

where $Comply_{ist}$ is a categorical variable that contains the response to the question in survey wave t of parliamentarian i , who has a mandate in the parliament of state s . As described in Section 2.2, the response is measured on a nine-point Likert scale from -4 ("impossible") to +4 ("certain").

A key variable of interest is the dummy variable $GOVT_{it}$, which allows us to compare responses from parliamentarians belonging to the government coalition and the opposition. The dummy is equal to one if parliamentarian i is a member of the governing coalition in survey wave t and zero otherwise. The effect is identified from those who switch in and out of the government coalition. ϕ_i and ϕ_t are parliamentarian and survey wave fixed effects. In some specifications, state-fixed effects replace one or two of the former. Depending on the set of fixed effects included in the model, the identification of key determinants stems from both cross-sectional variation among individuals (if only survey wave fixed effects are included) or variation within parliamentarians over time. $FISC_{st}$ is a vector of time-varying state-level variables that characterize the

⁹ Bond yields for bonds of German states differ only to a very small extent due to the explicit and implicit guarantees of the federal level for state debt. Hence, yields for federal bonds are a reasonable proxy for interest costs of all German jurisdictions.

sustainability of public finances in state s in survey wave t . We include the indicators relating to state government debt, financial balance of the state budget, and in further analyses consider interest payments, and expenditure on public sector employment, as described in Sections 3.2 and 3.4.

As alternative fiscal variable, we analyze the plausibly exogenous fiscal shock induced by the refugee crisis in 2015. We replace the variable $FISC_{st}$ with a dummy variable $POST$ that is equal to one if the respondent took the second survey after August 2015, that is, after the surge in refugee migration became apparent. For a list of states (and the number of answers obtained) who fall into the category, see Table A.2 in the appendix. As described in Section 3.3, the sudden increase in refugee migration was largely unexpected. It can thus be viewed as an event that exogenously shifted parliamentarians' expectations. We consider the interaction between $POST$ and $GOVT_{it}$ to see whether members of governing parties respond differently to the refugee inflow.

X_{it} is a vector of fixed and time-varying parliamentary characteristics comprising the gender of the parliamentarian (a dummy variable equal to one if the parliamentarian is female and zero otherwise), the age of the parliamentarian, and a dummy variable that is equal to one if the parliamentarian is a member of the budget committee in her or his state parliament.

Potential concerns about proper identification arise from sample selection, as responding to the survey was voluntary and not all parliamentarians responded. To assess whether this introduces a bias to our estimates, we run a unit non-response analysis using the full sample of all state parliamentarians in both survey waves. Details of this analysis are presented in appendix B. We regress a dummy variable that is equal to one if a parliamentarian responded to the survey on several parliamentary characteristics in a probit model. While we find that some of these significantly affect the response probability, we also observe that these effects are constant over time and, importantly, not conditional on parliamentarians' expectations with regard to the compliance of their state with the debt brake. Hence, our results are unlikely to be driven by selection bias: we can account for selection based on parliamentary characteristics by controlling for time-varying parliamentary attributes and including parliamentary fixed effects.

During the survey period 2011-2016 there were 13 parliamentary elections on the state level of which eight resulted in a change of the composition of the governing coalition. Changes in government participation can arguably be considered as exogenous events from the parliamentarian's perspective in the sense that an individual parliamentarian's future expectations of fiscal rule compliance are unlikely to affect the probability of his party being part of a governing coalition. There are several reasons for this. First, both election of the individual parliamentarian and the election outcome as well as government formation as a whole are relatively uncertain and not easily influenced by an individual parliamentarian's opinion. Second, the timing of the survey ensured that parliamentarians received the survey in the middle of their term when re-election

considerations are not very relevant. Finally, fiscal rule compliance did not play a major role in any of the state-level election campaigns.

When we consider ideological biases, we augment regression model (1) by dummy variables that indicate the party affiliation of the respondent. We chose the market-liberal FDP as reference case whose voters are particularly supportive for the debt brake (Hayo and Neumeier, 2016).

We run linear models throughout the main analysis because of their simplicity and transparency and because the estimated coefficients are easier to interpret (Angrist and Pischke 2008). In robustness checks, we also run ordered logit regressions for model (1).

We like to note that the first wave of our parliamentary survey was used by Heinemann et al. (2016) to analyze the cross-section of compliance expectations. Using two survey waves in the present study to examine parliamentarians' expectations in a panel structure has several important advantages. First, we identify incumbency effects from within-parliamentarian variation driven by exogenous changes in the coalition of incumbent government parties. This allows us to account for parliamentary specific factors via fixed effects. Second, variation in fiscal fundamentals are exploited across both states and time. Finally, the second wave used in the present paper comprises an exogenous information shock with respect to the fiscal environment to which some parliamentarians were randomly exposed.

5 Empirical results

We begin with a general examination of the incumbency effect. Taking the full sample that includes both waves, column (1) of Table 3 presents the outcome when individual characteristics are considered, as well as survey and state fixed effects, but time-varying fiscal variables are left out. We observe a strong and highly significant effect for incumbents, as measured by the dummy *GOVT*. Members of governing parties are more optimistic regarding compliance, by close to 1.4 points on the scale that ranges from -4 to +4. If we use respondent fixed effects (column 2), the incumbency effect becomes even larger by about 0.5.

Returning to column (1), females are more pessimistic, but membership in the budget committee does not seem to matter in a systematic way. Regarding political ideology, members of the populist AfD are substantially more pessimistic (almost two points) relative to the benchmark of the market liberal Free Democrats. This effect comes on top of the opposition effect (so far the AfD has never been part of a government coalition) since we control for the different perspective of government and opposition parliamentarians.

Next, we analyze in more detail the incumbency effect. As a first step, we split the sample along the two waves and observe a strong difference in the incumbency effect over time. In wave 1 (column 3), the incumbency effect is positive (0.715) and highly significant, but in the order of one third of the size in wave 2 (column 4), and about half of what we observed in the full sample.

This finding suggests that the incumbency effect has become stronger over time.

Table 3: Regression results, incumbency bias

	Full sample		Wave 1	Wave 2	Comparison groups (see Table 4)			
	(1)	(2)	(3)	(4)	(i) Govt. in both waves vs. switch to opp. in wave 2	(ii) Opp. in both waves vs. switch to govt. in wave 2	(iii) Opp. in both waves vs. switch to opp. in wave 2	(iv) Govt. in both waves vs. switch to govt. in wave 2
<i>GOVT</i>	1.390*** (0.140)	1.878*** (0.477)	0.715*** (0.204)	2.121*** (0.182)	2.864*** (0.687)	2.433*** (0.765)	1.346* (0.701)	0.935 (0.763)
Female	-0.384** (0.151)		-0.434** (0.220)	-0.377* (0.198)				
AFD member	-1.923*** (0.435)			-1.362** (0.530)				
CDU/CSU member	0.111 (0.281)		-0.096 (0.383)	0.110 (0.392)				
Greens member	0.495 (0.327)		0.138 (0.460)	0.199 (0.453)				
Left member	0.709* (0.376)		0.983** (0.490)	0.197 (0.544)				
SPD member	0.626 (0.412)		0.416 (0.406)	0.504 (0.405)				
Other party member	0.741** (0.294)		0.551 (0.661)	0.401 (0.544)				
Age	0.006 (0.006)	0.068 (0.102)	0.012 (0.009)	-0.002 (0.007)	0.357* (0.184)	0.002 (0.054)	0.381** (0.175)	0.005 (0.054)
Budget Committee	-0.072 (0.097)	0.046 (0.194)	-0.049 (0.214)	-0.158 (0.111)	-0.127 (0.199)	0.318 (0.338)	0.049 (0.317)	0.107 (0.222)
State FE	Y	N	Y	Y	N	N	N	N
Respondent FE	N	Y	N	N	Y	Y	Y	Y
Survey wave FE	Y	Y	N	N	Y	Y	Y	Y
Observations	1,302	1,302	635	667	484	385	402	467
Adjusted R^2	0.321	0.438	0.236	0.446	0.285	0.535	0.440	0.354

This table presents the regression results of an OLS model using specification (1). The dependent variable is the respondent's expectation about the compliance of his or her state. A detailed variable description is displayed in Table A.1. Regressions (1) and (2) include the full sample. Regression (3) and (4) include only responses in survey wave 1 and 2, respectively. Regression (5) compares parliamentarians that retain power to those that lose it. Regression (6) compares parliamentarians that gain power to those that never had power. Regression (7) compares parliamentarians that lose power to those that never had it. Regression (8) compares parliamentarians that retain power to those that gain it. Regression (1), (3) and (4) includes state fixed effects while regressions (2) and (5) to (8) include respondent fixed effects. All regressions with the exception of (3) and (4) include survey wave fixed effects. Standard errors (adjusted for clustering at respondent level) are presented in parentheses. Stars behind coefficients indicate the significance level, * 10%, ** 5%, *** 1%.

We elaborate on this claim by further disentangling the treatment and control groups in our sample. Effectively, there are four sets of comparisons from which we identify the incumbency effect in our analysis, summarized in Table 4: (i) among parliamentarians that were part of the government coalition in wave 1, compare those whose party lost power before wave 2 to those who retained it; (ii) among parliamentarians that were in the opposition in wave 1, compare those that joined the government coalition in wave 2 to those that did not; (iii) among parliamentarians that were in the opposition in wave 2, compare those that were part of the government coalition in wave 1 to those that were not; (iv) among parliamentarians that were in the government coalition in wave 2, compare those that were part of the government coalition in wave 1 to those that were not. Columns (1) and (2) of Table 3 present specifications that estimate the average incumbency

effect across these four groups, while columns (5)-(8) present the estimated effect for each subgroup.

Table 4: Comparisons in empirical analysis

	Comparison (i)		Comparison (ii)		Comparison (iii)		Comparison (iv)	
	1 st group	2 nd group	1 st group	2 nd group	1 st group	2 nd group	1 st group	2 nd group
Wave 1	Government	Government	Opposition	Opposition	Government	Opposition	Government	Opposition
Wave 2	Government	Opposition	Government	Opposition	Opposition	Opposition	Government	Government

This table displays the comparison groups used in the empirical analysis.

In columns (5) and (6) the two groups share the same position in wave 1 (both in opposition or both in government), but differ in wave 2, while in columns (7) and (8) the common position is in wave 2, but not in wave 1. Finding differences in results across these two groups of regressions speaks therefore to the incumbency effect over time.

In column (5), we compare politicians who stayed in power over the two survey dates with those that were incumbents in the first wave, but not any more in the second. The former are much more optimistic than the latter by more than 2.8 points. Similarly, column (6) indicates that politicians that gained power are much more optimistic than those who never held power. By contrast, column (7) shows that losing power has a strong negative effect, because those who were not in power in either wave are more pessimistic by about 1.3 points, but the effect is only marginally significant. The difference between those who stay in power to those who gain power (column 8) is insignificant.

The results of Table 3 point to a strong incumbency effect that has risen over time. A plausible explanation is that the time to the date when the German debt brake becomes binding (2020) is much closer in the second wave than in the first one. The politicians who are in power during wave 2 have a reasonable chance of being in power in 2020 and to shape the fiscal decisions to compliance or non-compliance with the fiscal rule. By contrast, in 2011/12 the showdown in 2020 was several election cycles away. The political blame game between government and opposition can be expected to be more forceful in the second wave.

It is tempting to extrapolate this finding and expect a monotonically increasing incumbency effect in time. This could be the case for the reason we just provided. At the same time, however, the scope to make policy adjustment to reach a target becomes smaller, and the goal may be considered unreachable at some point. For example, a state with a very high budget deficit in 2019 is unlikely to meet a balanced budget in 2020. Reality therefore is likely to constrain expectations of politicians eventually, regardless of their role in government or opposition.

Next, we analyze the incumbency effect and its interaction with fiscal variables, which are considered by deviations from the mean. In Table 5 we include fiscal variables individually and in interaction with *GOVT*. We first note the positive and highly significant incumbency effect that

is found in all specifications, which in terms of size is comparable to the estimates for the full sample or wave 2 sample in Table 3. Turning to the fiscal variables, we find that they individually rarely matter on average as can be seen from the non-significant coefficient estimates for the fiscal variables in column (1) of Table 5.

Table 5: Regression results, interaction with fiscal fundamentals

	(1)	(2)	(3)	(4)	(5)	(6)
GOVT	1.919*** (0.503)	2.074*** (0.488)	2.206*** (0.514)	1.797*** (0.469)	2.326*** (0.499)	1.888*** (0.501)
GOVT × Balance (demeaned)		1.005*** (0.344)				
Balance (demeaned)	0.391 (0.384)	-0.425 (0.340)				
GOVT × Change debt			-0.116** (0.057)			
Change Debt (demeaned)	-0.072 (0.090)		0.013 (0.048)			
GOVT × Log debt over GDP (demeaned)				0.360 (1.001)		
Log debt over GDP (demeaned)	0.832 (1.298)			1.059 (1.451)		
GOVT × Personnel exp. (demeaned)					0.005*** (0.002)	
Personnel exp. (demeaned)	-0.003 (0.004)				-0.008*** (0.003)	
GOVT × Interest payment (demeaned)						-0.073* (0.042)
Interest payment (demeaned)	-0.004 (0.059)					0.051 (0.038)
Controls	Y	Y	Y	Y	Y	Y
Respondent FE	Y	Y	Y	Y	Y	Y
Survey wave FE	Y	Y	Y	Y	Y	Y
Observations	1,302	1,302	1,302	1,302	1,302	1,302
Adjusted R^2	0.436	0.451	0.444	0.437	0.452	0.441

This table presents the regression results of an OLS model using specification (1). The dependent variable is the respondent's expectation about the compliance of his or her state. A detailed variable description is displayed in Table A.1. All regressions include controls for the respondent's age and membership in the parliamentary budget committee. Standard errors (adjusted for clustering at respondent level) are presented in parentheses. Stars behind coefficients indicate the significance level, * 10%, ** 5%, *** 1%.

There is, however, substantial heterogeneity in the effect of fiscal variables with respect to incumbency. When interacted with the *GOVT* variable, some fiscal variables are significant, such as a better budgetary situation leads to a more optimistic view by incumbent politicians (column 2) and higher percentage increases in debt have a negative effect (column 3). Furthermore, the expectations of members of governing parties are not negatively affected by higher capita expenditures on state employment, as can be seen from the non-significant sum of the coefficient for this fiscal variable and the coefficient for its interaction with the government dummy (column 5). A one percentage point increase in per capita expenditures leads to 0.005 increase on the answer scale, a relatively small effect. The interaction with interest payments is negative and only marginally significant (column 6). Opposition parliamentarians appear to be largely indifferent to fiscal variables, except with regard to per capita expenditures on state employment (personnel) above the mean, which lead to significantly lower compliance expectations (column 5) among

opposition members. Budget balance (column 1), change in debt (column 2), debt over GDP (column 3), and interest payments (column 5) show no significant effect on expectations of opposition parliamentarians.

Table 6: Regression results, information shock through refugee migration

	(1)	(2)	(3)
POST	-0.925*** (0.260)	-1.493*** (0.429)	-2.169*** (0.540)
GOVT × POST			1.453* (0.788)
GOVT	1.376*** (0.140)	1.787*** (0.488)	1.606*** (0.514)
Female	-0.398*** (0.151)		
AFD member	-1.511*** (0.446)		
CDU/CSU member	0.180 (0.281)		
Greens member	0.540* (0.327)		
Left member	0.809** (0.372)		
SPD member	0.814*** (0.294)		
Other party member	0.654 (0.412)		
Age	0.004 (0.006)	0.090 (0.134)	0.114 (0.145)
Budget Committee	-0.086 (0.097)	0.005 (0.192)	0.006 (0.191)
State FE	Y	N	N
Respondent FE	N	Y	Y
Survey wave FE	Y	Y	Y
Observations	1,302	1,302	1,302
Adjusted R^2	0.327	0.462	0.466

This table presents the regression results of an OLS model using specification (1). The dependent variable is the respondent's expectation about the compliance of his or her state. A detailed variable description is displayed in Table A.1. Standard errors (adjusted for clustering at respondent level) are presented in parentheses. Stars behind coefficients indicate the significance level. * 10%, ** 5%, *** 1%.

We now turn to a largely exogenous event that influenced fiscal balances of states negatively, namely the inflow of refugees into Germany in 2015. In Table 6 we consider the full specification of regression (1), which includes now the dummy *POST* (for *FISC*) to reflect the influence of the refugee inflow. Column (1) confirms the findings on *GOVT* from Table 5 (column 1): The incumbency effect is of same significance and very similar magnitude (almost 1.4 points). In the absence of interaction between the two dummies, the estimated coefficient of *POST* is negative. Hence, the sudden increase in inward migration appears to be a negative shock on the compliance expectations in German states. Parliamentarians that were aware of this shock (i.e. questioned after August 2015, indicated by *POST* = 1) were substantially more pessimistic with regard to the future debt brake compliance of their state. These two results are robust to including respondent fixed effects in column (2), and become rather bigger in absolute size, which is confirming what we

found in Table 3. Column (3), however, indicates that the negative effect of *POST* is concentrated among opposition parliamentarians and thus again largely driven by incumbency. Incumbents are more optimistic to contain possibly adverse consequences of refugee immigration on fiscal sustainability. The effect is only marginally significant though.

We check the robustness of our main findings to the specification choice by replicating the main results of our analysis in an ordered logit estimation that accounts for the categorical nature of the dependent variable. Results are presented in the appendix (see Table A.3 and Table A.4) and are qualitatively similar. In these specifications, the dummy *GOVT* is always highly significant and positive, female politicians are somewhat and AfD politicians are strongly more pessimistic. The impact of fiscal fundamentals and the sudden increase in refugee migration is again heterogeneous with respect to incumbency of the respondent. The interaction between *GOVT* and *POST* is now even significant at the 5% level.

6 Discussion and Conclusions

Our analysis has identified a strong incumbency effect: Members of the governing coalition are much more optimistic than opposition politicians in their expectations regarding compliance with a fiscal rule that becomes binding in the medium future. The incumbency effect comes on top of any partisan effect relating to party or ideology.

A second result of our analysis is that the size of the incumbency effect increases over the two waves of our survey. This dynamic is particularly interesting. The closer distance to the debt brake's full effectiveness should reduce uncertainty for parliamentarians on both the government and the opposition benches. This in itself should lead to a convergence of expectations eventually. The contrary effect must therefore result from the political blame game. Close to full effectiveness, compliance expectations include a judgment on the capabilities and performance of politicians currently in power. A strong asymmetric view on the latter is a usual pattern of any political competition. We show that this 'blame game' effect outweighs the effect of falling economic and fiscal uncertainty.

In answer to the question raised in the introduction, we conclude that the stable optimism displayed by incumbents - independent from the partisan imprint - is conducive to pursuing a long-term goal. Changes of government power between different parties do not cause turbulence in achieving a long-term goal such as compliance with the German debt brake.

While our analysis does not allow us to directly test whether the incumbent politicians are too optimistic, or the opposition members are too pessimistic, we can use the benefit of hindsight to observe that by end of 2019 (that is shortly before the Corona crisis hit) all states in Germany were well on target for complying with the debt brake in the following year (15 out of 16 states had positive financial balances in 2019). In hindsight, the expectations of opposition members in

our surveys thus appear to be too pessimistic, rather than incumbents being too optimistic.

In addition, we have examined the role of the fiscal environment and shocks to it in particular. We observe and thereby confirm another variant of the incumbent effect: A negative information shock with regard to the fiscal environment – as it is well identified with the unexpected entry of refugees in 2015 – leads to more pessimistic expectations. The effect appears to be driven by members of the opposition but not by members of the incumbent government.

In our study, independent partisan effects that are orthogonal to the opposition-government pattern do only play a minor role. The notable exception, with insights that go beyond the German case, concerns the specific perception of politicians from new anti-establishment parties, in our case the German AfD. From the emerging literature on the determinants of populist votes, it is known that these movements benefit from their voters' particularly gloomy assessment of a country's current and future socio-economic developments in the age of globalization (Becker et al. 2017; Funke et al. 2016; Rodrik 2018). Results from our second survey wave reveal that this pessimism and distrust translates into a low reputation of fiscal institutions as populist parliamentarians are particularly pessimistic about rule compliance, even compared to other opposition politicians (for regional parliaments see André, Bradbury, et al. 2015; for national parliaments see André, Depauw, et al. 2015)

We like to point out the contribution of our results in the context of the debate on fiscal rules. Our analysis sheds light on the possibility that expectation effects of one specific fiscal rule can strongly differ between (groups of) individual policy makers. There is a large and growing literature that assesses the effectiveness of fiscal rules on fiscal outcomes. A common approach is to estimate in cross-section or panel models the effect of fiscal rules on outcomes in jurisdictions (local, regional or national). This kind of research design cannot reveal how a fiscal rule affects expectations of individual policy makers within a jurisdiction. Our approach fills this gap and explains the heterogeneity of individual compliance expectations both in the cross-section and over time.

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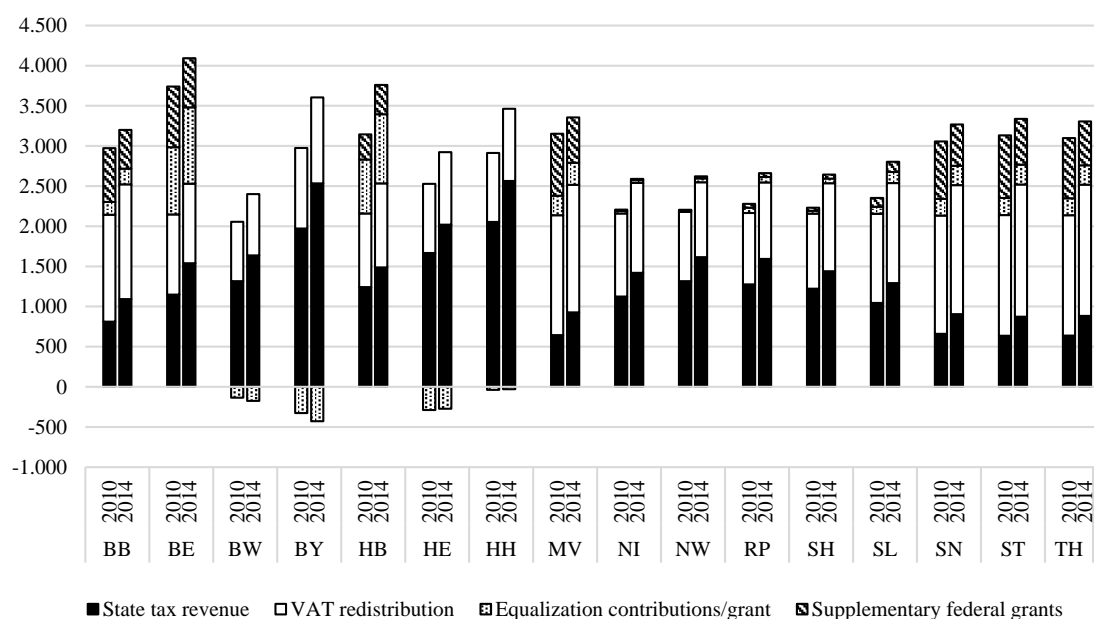
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Appendix A: Additional tables and figures

Table A.1: Variable description

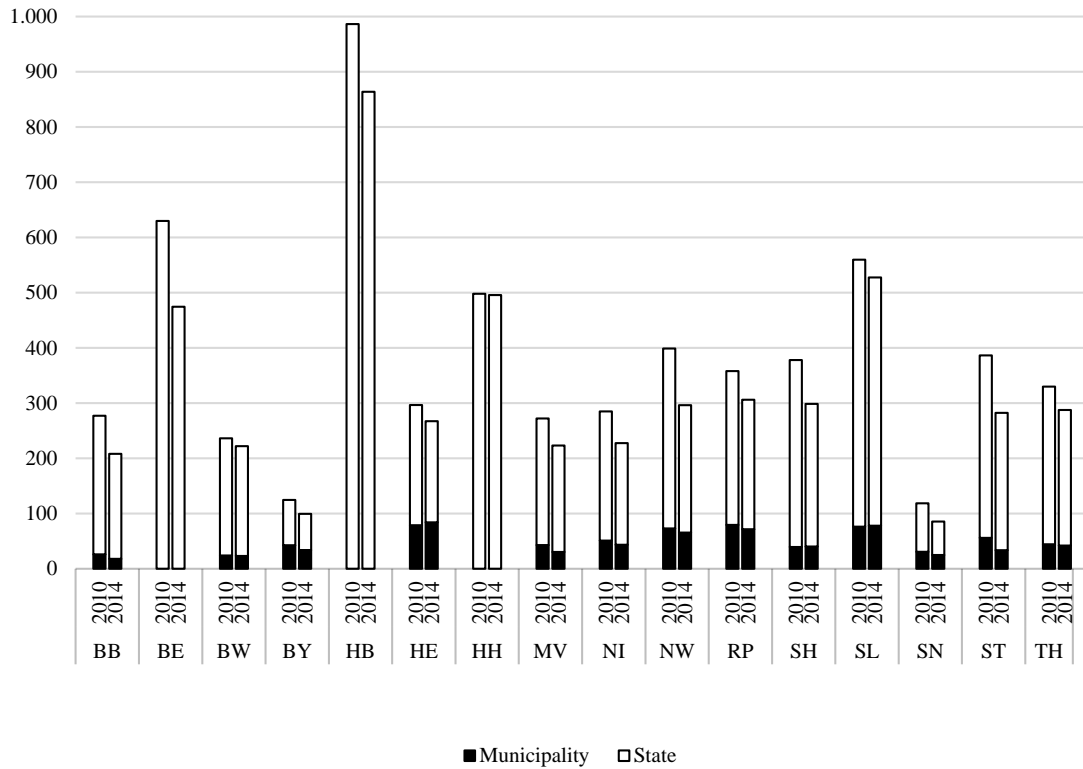
Variable	Description
Comply	Answer to survey question
GOVT	Dummy equal to one if respondent is member of a party in the governing coalition
Female	Dummy equal to one if the respondent is female
Age	Age of the respondent
Budget Committee	Dummy equal to one if the respondent is member of the parliamentary budget committee
AfD member	Dummy equal to one if the respondent is member of the AfD
CDU/CSU member	Dummy equal to one if the respondent is member of the CDU or CSU
FDP member	Dummy equal to one if the respondent is member of the FDP
Greens member	Dummy equal to one if the respondent is member of the Greens
Left member	Dummy equal to one if the respondent is member of the left party
SPD member	Dummy equal to one if the respondent is member of the SPD
Other party member	Dummy equal to one if the respondent is member of another party (except AfD, CDU, FDP, Greens, left party, SPD)
Personnel exp.	Per capita expenditure for public employees in the current year
Balance	Weighted avg. fiscal balance in the respondent's state in the last three years (weights: t-1 50%, t-2 30%, t-3 20%)
Interest payment	Interest payments to non-public sector divided by population in the respondent's state in the current year
Change debt	% change in the debt level in the respondent's state from last year to current year
Log debt over GDP	Logarithm of public debt per GDP in the respondent's state in the current year
POST	Dummy equal to one if questionnaire was returned in 2016

Figure A.1: Individual state fiscal capacity, 2010-2014 (per capita EUR, 2010 constant prices)



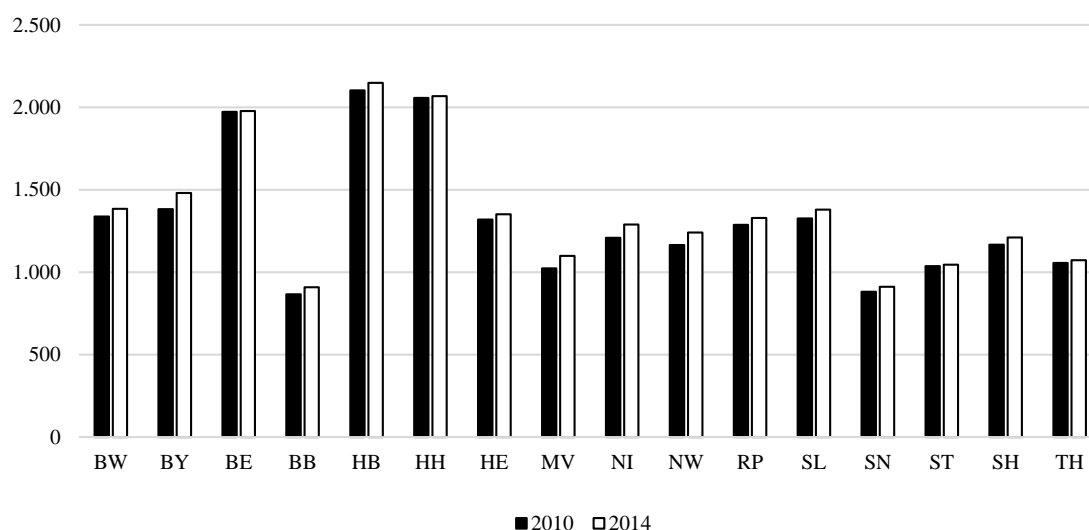
This figure displays the individual components of government revenue for each of the 16 German states in euros per capita for 2010 and 2014 (EUR, in constant 2010 prices). State tax revenue is the sum of a state's shares of income and corporation tax revenue as well as revenue from state taxes. VAT redistribution is the state's share of VAT revenue. Supplementary federal grants are grants from the federal government. Equalization contributions and grants are transfer payments between the states. Source: German Ministry of Finance. State abbreviations are as follows - BW: Baden-Württemberg, BY: Bavaria, BE: Berlin, BB: Brandenburg, HB: Bremen, HH: Hamburg, HE: Hesse, NI: Lower Saxony, MV: Mecklenburg-Western Pomerania, NW: North Rhine-Westphalia, RP: Rhineland-Palatinate, SL: Saarland, SN: Saxony, ST: Saxony-Anhalt, SH: Schleswig-Holstein, TH: Thuringia.

Figure A.2: Interest payments, 2010-2014 (per capita EUR, 2010 constant prices)



Notes: This figures presents the interest payments for the 16 German states and their municipalities in 2010 and 2014 to the non-public sector per capita (EUR, in 2010 constant prices). The nominal amounts have been inflation adjusted (values in constant 2010 prices). Source: German Statistical Office (Destatis). State abbreviations are as follows - BW: Baden-Württemberg, BY: Bavaria, BE: Berlin, BB: Brandenburg, HB: Bremen, HH: Hamburg, HE: Hesse, NI: Lower Saxony, MV: Mecklenburg-Western Pomerania, NW: North Rhine-Westphalia, RP: Rhineland-Palatinate, SL: Saarland, SN: Saxony, ST: Saxony-Anhalt, SH: Schleswig-Holstein, TH: Thuringia.

Figure A.3: State expenditure on public sector employment, 2010-2014 (per capita EUR, 2010 constant prices)



Notes: This figures presents the per capita expenditure (EUR, in 2010 constant prices) for state personel of the 16 German states in 2010 and 2014. Source: German Statistical Office (Destatis). State abbreviations are as follows - BW: Baden-Württemberg, BY: Bavaria, BE: Berlin, BB: Brandenburg, HB: Bremen, HH: Hamburg, HE: Hesse, NI: Lower Saxony, MV: Mecklenburg-Western Pomerania, NW: North Rhine-Westphalia, RP: Rhineland-Palatinate, SL: Saarland, SN: Saxony, ST: Saxony-Anhalt, SH: Schleswig-Holstein, TH: Thuringia.

Table A.2: Number of responses before and after the substantial increase in migration to Germany in August 2015

State	First survey wave	Second survey wave	
	(POST = 0)	Before August 31, 2020 (POST = 0)	After August 31, 2020 (POST = 1)
Baden-Württemberg	77	78	-
Bavaria	75	69	-
Berlin	30	38	-
Brandenburg	18	-	18
Bremen	18	-	24
Hamburg	39	-	27
Hesse	49	-	45
Mecklenburg Western Pomerania	17	23	-
Lower Saxony	54	54	-
North Rhine- Westphalia	51	84	-
Rhineland- Palatinate	48	52	-
Saarland	20	15	-
Saxony	45	-	39
Saxony-Anhalt	29	36	-
Schleswig-Holstein	29	31	-
Thuringia	36	-	34
Total	635	480	187

This table reports the number of respondents before and after the extent of the refugee migration into Germany became apparent through a public statement of the German government in August 2015.

Table A.3: Regression results, interaction with fiscal fundamentals (Ordered logit)

	Full sample		Wave 1	Wave 2	Full sample				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
GOVT	1.181*** (0.123)	4.186*** (1.212)	0.484*** (0.162)	2.170*** (0.199)	4.964*** (1.339)	5.990*** (1.506)	4.124*** (1.389)	5.436*** (1.350)	4.364*** (1.509)
GOVT × Balance (demeaned)					2.737*** (0.906)			0.013** (0.005)	
Balance (demeaned)					-1.772** (0.885)			-0.025*** (0.009)	
GOVT × Change debt						-0.506*** (0.193)			
Change Debt (demeaned)						-0.023 (0.129)			
GOVT × Log debt over GDP (demeaned)							0.179 (3.564)		
Log debt over GDP (demeaned)							3.003 (6.088)		
GOVT × Personnel exp. (demeaned)								0.013** (0.005)	
Personnel exp. (demeaned)								-0.025*** (0.009)	
GOVT × Interest payment (demeaned)									-0.177 (0.125)
Interest payment (demeaned)									0.197* (0.101)
Female	-0.303** (0.127)		-0.407** (0.178)	-0.288 (0.195)					
AFD member	-1.935*** (0.423)			-1.584*** (0.540)					
CDU/CSU member	0.125 (0.233)		-0.050 (0.320)	0.124 (0.359)					
Greens member	0.302 (0.270)		0.107 (0.367)	-0.171 (0.423)					
Left member	0.526* (0.317)		0.548 (0.413)	0.141 (0.523)					
SPD member	0.481* (0.248)		0.267 (0.339)	0.195 (0.384)					
Other party member	0.519 (0.373)		0.739 (0.698)	0.286 (0.536)					
Age	0.005 (0.005)		0.009 (0.007)	-0.001 (0.007)	0.918** (0.363)	0.980** (0.385)	0.781** (0.369)	0.499 (0.350)	0.852** (0.350)
Budget Committee	-0.090 (0.083)	0.051 (0.492)	-0.031 (0.178)	-0.207* (0.110)	0.084 (0.526)	-0.457 (0.555)	0.048 (0.487)	-0.095 (0.483)	-0.148 (0.518)
State FE	Y	N	Y	Y	N	N	N	N	N
Respondent FE	N	Y	N	N	Y	Y	Y	Y	Y
Survey wave FE	Y	Y	N	N	Y	Y	Y	Y	Y
Observations	1,302	1,302	635	667	1,302	1,302	1,302	1,302	1,302

This table presents the regression results of an Ordered logit model using specification (1). The dependent variable is the respondent's expectation about the compliance of his or her state. A detailed variable description is displayed in Table A.1. Standard errors (adjusted for clustering at respondent level) are presented in parentheses. Stars behind coefficients indicate the significance level, * 10%, ** 5%, *** 1%.

Table A.4: Regression results, information shock through refugee migration (Ordered logit)

	(1)	(2)	(3)
POST	-0.786*** (0.228)	-3.987*** (1.355)	-6.112*** (1.572)
GOVT × POST			5.676** (2.649)
GOVT	1.171*** (0.122)	3.990*** (1.362)	3.197** (1.413)
Female	-0.325** (0.127)		
AFD member	-1.602*** (0.434)		
CDU/CSU member	0.181 (0.237)		
Greens member	0.338 (0.271)		
Left member	0.574* (0.320)		
SPD member	0.550** (0.252)		
Other party member	0.534 (0.380)		
Age	0.003 (0.005)	1.099*** (0.399)	1.290*** (0.388)
Budget Committee	-0.107 (0.083)	-0.053 (0.493)	-0.055 (0.479)
State FE	Y	N	N
Respondent FE	N	Y	Y
Survey wave FE	Y	Y	Y
Observations	1,302	1,302	1,302

This table presents the regression results of an Ordered logit model using specification (1). The dependent variable is the respondent's expectation about the compliance of his or her state. A detailed variable description is displayed in Table A.1. Standard errors (adjusted for clustering at respondent level) are presented in parentheses. Stars behind coefficients indicate the significance level, * 10%, ** 5%, *** 1%.

Appendix B: Unit non-response analysis

In order to assess whether the selection of certain types of parliamentarians into the sample of survey respondents affects our results, we conduct a unit non-response analysis in which we use the full sample of state parliamentarians in Germany during both survey waves. In a probit regression model, we relate a dummy variable that is equal to one if a parliamentarian has responded to several parliamentary characteristics. The results of this analysis are presented in Table B.1. Columns (1) and (2) present the results for waves 1 and 2, respectively. In both waves, members of the government coalition were less likely to respond while older parliamentarians and those who were members of the budget committee were more likely to respond. This implies that it is important to control for these variables as we do in the main regression analysis. Importantly, the effect of these time-varying parliamentary characteristics on the response probability does not significantly change from wave 1 to wave 2. Hence, the incumbency effect, which is identified from changes within individual parliamentarians, is unlikely to be biased due to selection on these characteristics. In addition to time-varying characteristics, parliamentarian-fixed characteristics such as party membership, gender and economics education also affect the response probability. These characteristics are fully captured by the parliamentarian fixed effects in our main regression model.

A remaining concern is that parliamentarians' response probability changes over time when they (through decisions on the party level) switch between opposition and supporting the government coalition. In particular, such changes in the probability might be conditional on the stated compliance expectation of the parliamentarian in the first survey wave. For example, if parliamentarians that switch from opposition to government between the two waves are less likely to respond in wave 2 if they were more pessimistic in wave 1, we would overestimate the incumbency effect, as identified from comparing parliamentarians that switch from opposition to government to those that stay in opposition, because the potentially pessimistic government coalition members in wave 2 would have been endogenously selected out of the sample.

In columns (3) to (6), we assess this potential bias by rerunning the probit model on the sample of parliamentarians that have responded in wave 1, such that we know their compliance expectation, and stayed in parliament throughout wave 1 and 2. The dependent variable then is a dummy that indicates whether parliamentarians responded in wave 1 and 2 (or responded in wave 2, conditional on having responded in wave 1). The explanatory variables now include dummy variables that indicate whether a parliamentarian stayed in the government coalition or opposition or switched between these groups. These dummy variables are also interacted with the parliamentarian's stated compliance expectation in wave 1 to estimate possible unit non-response with respect to incumbency conditional on the compliance expectation in wave 1. In each of the columns

(3)-(6), we exclude one of the four possible parliamentary groups (staying in government, staying in opposition, switching from opposition to government, switching from government to opposition) which serves as a baseline in the regression to compare the other groups to. We find that parliamentarians which are government coalition (opposition) members in both waves are significantly less (more) likely to respond, which is consistent with our results on the individual survey waves. Similarly, parliamentarians that switch to opposition are more likely to respond in wave 2. However, we estimate no significant coefficient for any of the interaction terms between the incumbency changes and the compliance expectation in wave 1. Hence, the bias described above is unlikely to drive our results.

To conclude, the unit non-response analysis shows that the response probability is significantly affected by parliamentary characteristics. However, these effects are constant over time and not conditional on parliamentarians' expectations with regard to the compliance of their state with the debt brake. Hence, we can account for this selection by controlling for time-varying parliamentary characteristics and including parliamentary fixed effects.

Table B.1: Unit non-response analysis

	(1)	(2)	(3)	(4)	(5)	(6)
	All MPs in office during survey		All MPs in office during survey wave 1 & 2 and responding in wave 1			
	wave 1	wave 2				
GOVT	-0.222*** (0.067)	-0.141* (0.074)				
Age	0.005 (0.003)	0.005* (0.003)				
Budget Committee	0.331*** (0.082)	0.222*** (0.044)				
Compliance exp. (wave 1)			0.113 (0.079)	0.023 (0.075)	-0.019 (0.057)	0.138* (0.071)
GOVT_TO_OPP				0.204 (0.402)	0.031 (0.298)	0.575* (0.320)
GOVT_TO_OPP × Comply (wave 1)				0.090 (0.109)	0.132 (0.098)	-0.024 (0.107)
OPP_TO_GOVT			-0.204 (0.402)		-0.173 (0.321)	0.371 (0.323)
OPP_TO_GOVT × Comply (wave 1)			-0.090 (0.109)		0.042 (0.093)	-0.114 (0.103)
STAY_IN_OPP			-0.031 (0.298)	0.173 (0.321)		0.544** (0.251)
STAY_IN_OPP × Comply (wave 1)			-0.132 (0.098)	-0.042 (0.093)		-0.156 (0.095)
STAY_IN_GOVT			-0.575* (0.320)	-0.371 (0.323)	-0.544** (0.251)	
STAY_IN_GOVT × Comply (wave 1)			0.024 (0.107)	0.114 (0.103)	0.156 (0.095)	
Female	-0.275*** (0.069)	-0.351*** (0.069)	-0.478** (0.213)	-0.478** (0.213)	-0.478** (0.213)	-0.478** (0.213)
Economics education	0.173** (0.087)	0.151* (0.082)	0.011 (0.212)	0.011 (0.212)	0.011 (0.212)	0.011 (0.212)
AFD member		-0.414 (0.256)				
CDU/CSU member	0.236* (0.128)	-0.151 (0.166)	-0.037 (0.432)	-0.037 (0.432)	-0.037 (0.432)	-0.037 (0.432)
Greens member	0.007 (0.148)	-0.319* (0.184)	-0.381 (0.626)	-0.381 (0.626)	-0.381 (0.626)	-0.381 (0.626)
Left member	-0.297* (0.159)	-0.320* (0.187)	0.110 (0.580)	0.110 (0.580)	0.110 (0.580)	0.110 (0.580)
SPD member	0.008 (0.132)	-0.143 (0.175)	-0.068 (0.501)	-0.068 (0.501)	-0.068 (0.501)	-0.068 (0.501)
Other party member	-0.115 (0.217)	-0.234 (0.214)	-0.068 (0.657)	-0.068 (0.657)	-0.068 (0.657)	-0.068 (0.657)
Observations	1,861	1,861	232	232	232	232

This table presents the regression results of a probit model using specification. The dependent variable a dummy variable that is equal to one if the parliamentarian answered the survey in wave 1 and wave 2 in columns (1) and (2), respectively, and a dummy equal to 1 if the parliamentarian answered the survey in wave 2 in columns (3)-(6). GOVT_TO_OPP (OPP_TO_GOVT) is a dummy variable that is equal to one if the parliamentarian changed from the government coalition (opposition) to the opposition (government coalition) from wave 1 to wave 2. STAY_IN_OPP (STAY_IN_GOVT) is a dummy variable that is equal to one if the parliamentarian was in the opposition (government coalition) in both wave 1 and 2. Economics education is a dummy that is equal to one if the parliamentarian as a business or economics degree from a tertiary education institution. Definitions for the other explanatory variables can be found in Table A.1. Standard errors (adjusted for clustering at respondent level) are presented in parentheses. Stars behind coefficients indicate the significance level, * 10%, ** 5%, *** 1%.



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