Zgaga, T. and E. Thomann. 2025. Understanding literal compliance in the European Union's multilevel fiscal governance. Regulation & Governance, DOI: 10.1111/rego.70025.

Online appendix

The R replication files are available here: https://doi.org/10.7910/DVN/EJMOHG

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1 Measurement and calibration of literal compliance and customized compliance

Table A1: Types of customization

Type	Customized Restrictiveness	Customized Density
1	unchanged	unchanged
2	unchanged	removed
3	unchanged	added
4	removed	unchanged
5	added	unchanged
6	removed	removed
7	removed	added
8	added	removed
9	added	added

1.1 Measurement rules for customized restrictiveness

For rules 1-5, we code qualitatively whether restrictiveness is removed, unchanged, or added compared to the TSCG. In the case of the correction mechanism (rule 4) and the independent monitoring institutions (rule 5), we also compare the national rule with the Commission's Communication of 20.6.2012 on 'Common principles on national fiscal correction mechanisms' (in the following, Commission's principles), see here. These principles also regulate the establishment of independent monitoring institutions and the TSCG explicitly refers to it.

Rule 6, on the legal tool, requires that 'rules…shall take effect in the national law…through provisions of binding force and permanent character, preferably constitutional, or otherwise guaranteed to be fully respected and adhered to throughout the national budgetary process' (Art. 3.2 of the TSCG). This rule recommends the transposition within the constitution, but conceives also other ways, provided they are binding and permanent. To code customized restrictiveness for rule 6, we thus consider the bindingness of the legal form into which the treaty rules were transposed. The more difficult it is to change a rule, the more binding it is. With respect to the TSCG requirement on the legal tool for transposition, restrictiveness, in terms of bindingness, is:

- Added, if transposition happens via the constitution or a constitutional reform. The constitutions of the member states considered are rigid, i.e., they require specific majorities and procedures to be amended.
- Unchanged, if the rules of the EU treaty are transposed into a 'strengthened law' with binding force and permanent character, i.e., a law which a) has a lower legal status than the constitution but a higher legal status than an ordinary law; and 2) needs a larger majority (usually 2/3 majority) than an ordinary law to be adopted.
- Removed, if the treaty is transposed into ordinary law adopted through simple majority.

For each of the rules 1-5, we consider the legal form of the highest legal tool present among the transposing measures. For example, if a rule was transposed in the constitution but also in a

strengthened law, for the overall bindingness of the rule we consider the highest legal tool in which it figures (here, the constitution), whose bindingness is added. To measure customized restrictiveness for rule 6, we build an added index (from 0-5) indicating for rules 1-5 if bindingness was changed, i.e., added or removed (1) in the transposing legal tool or not, i.e., unchanged (0).
0-1: unchanged restrictiveness
>1: changed restrictiveness

If a TSCG customizable rule does not appear at all in a national transposition act, we code it as removed customized restrictiveness. If a customizable rule appears in more than one national transposition act, we first assess customized restrictiveness of each act separately, and then identify the overall customization of the rule. In most cases, the overall customization is equal to the customization of all rules. For instance, if a rule (e.g., on the balanced budget) appears with added restrictiveness in three transposition acts, the overall customization of the rule is added restrictiveness. In some other cases, for the overall customization we need to consider the transposition act that matters more. For instance, if a rule (e.g., on the MTO) appears with removed restrictiveness in one transposition act because the MTO is not mentioned at all, and appears with unchanged restrictiveness in another transposition act, the overall customization of the rule will be unchanged restrictiveness. This means that if one transposition act contains elements that relate to the European rule and the other transposition acts do not include anything, the former will prevail over the latter: in other words, the transposition rule that provides more details prevails when it comes to the overall degree of customization.

1.1.1 France

Legislation:

- Conseil constitutionnel. (n.d.). *Texte intégral de la Constitution du 4 octobre 1958 en vigueur*. https://www.conseil-constitutionnel.fr/le-bloc-de-constitutionnalite/texte-integral-de-la-constitution-du-4-octobre-1958-en-vigueur (last access: 25 August 2022).
- Légifrance. (n.d.). *Loi organique n° 2001-692 du 1er août 2001 relative aux lois de finances.* https://www.legifrance.gouv.fr/jorf/id/JORFTEXT000000394028 (last access: 25 August 2022).
- Légifrance. (n.d.). *Loi organique n° 2012-1403 du 17 décembre 2012 relative à la programmation et à la gouvernance des finances publiques*. https://www.legifrance.gouv.fr/loda/id/JORFTEXT000026785259/ (last access: 25 August 2022).
- Légifrance. (n.d.). *Loi n° 2014-1653 du 29 décembre 2014 de programmation des finances publiques pour les années 2014 à 2019.* https://www.legifrance.gouv.fr/loda/id/JORFTEXT000029988689/ (last access: 25 August 2022).
- Conseil constitutionnel. (n.d.). *Décision n° 2012-653 DC du 9 août 2012.* https://www.conseil-constitutionnel.fr/decision/2012/2012653DC.htm (last access: 25 August 2022).
- Conseil constitutionnel. (n.d.). *Décision n° 2012-658 DC du 13 décembre 2012.* https://www.conseil-constitutionnel.fr/decision/2012/2012658DC.htm (last access: 25 August 2022).

Table A2: Assessment of customized restrictiveness in France

Name of rule	**TSCG**	**Constitution du 4 octobre 1958 en vigueur (revised 23 July 2008)**	**Degree of customization**	**Loi organique n° 2001-692**	**Degree of customization**	**Loi organique n° 2012-1403**	**Degree of customization**
Balanced budget rule	Art. 3.1(a)(b)	Art 34: 'The multiannual orientations of public finances are defined by programming laws. They are in line with the objective of balancing the public administrations accounts.'	REMOVED	Rule not mentioned	REMOVED	Art 1: 'In compliance with the objective of balancing the public administration accounts' & 'in accordance with the stipulations of the above-mentioned treaty, mentioned in Art. 3 TSCG'	UNCHANGED
Medium term objective	Art. 3.1(b)	Rule not mentioned	REMOVED	Rule not mentioned	REMOVED	Art. 1: 'In compliance with the objective of balancing public finances […], the public finance programming law shall set medium-term objectives.'	UNCHANGED
Circumstances for non-respect	Artt. 3.1(c) and 3.3(b)	Rule not mentioned	REMOVED	Rule not mentioned	REMOVED	Art. 2.5: 'Conditions for taking into account the exceptional circumstances defined in Art. 3 of the above-mentioned Treaty' & Art. 23(II): 'Take into account'. We move from 'cannot deviate from the objective	REMOVED

Name of rule	TSCG	Constitution du 4 octobre 1958 en vigueur (revised 23 July 2008)	Degree of customization	Loi organique n° 2001-692	Degree of customization	Loi organique n° 2012-1403	Degree of customization
						except if exceptional circumstances' to 'take into account'.	
Correction mechanism	Artt. 3.1(e) and 3.2	Rule not mentioned	REMOVED	Art. 48: 'The government presents a report on the evolution of the national economy and the orientations of public finances.' The report does not contain any precise correction measure.	REMOVED	Art. 23 I 'presents the corrective measures envisaged in the report mentioned in art 48 LOLF 2001' & Art. 23 III & Art. 23: 'Deviations from target of more than 0.5 % GDP in one year or 0.25 % in two consecutive years'. The correction mechanism complies with the criteria set out by the Commission, expect it does not actually plan any correction measure.	REMOVED
Independent monitoring institutions	Art. 3.2	Rule not mentioned	REMOVED	Rule not mentioned	REMOVED	Artt. 11-19; 22; 23: All criteria set out by the Commission are satisfied but the 'comply or explain mechanism' is only valid for the correction mechanism.	REMOVED
Legal tool	Art. 3.2	Constitution	ADDED	Strengthened law	UNCHANGED	Strengthened law	UNCHANGED

The above table continues below here:

Name of rule	TSCG	Loi n° 2014-1653	Degree of customization	Conseil constitutionnel 2012-653 DC and 2012-658 DC	Degree of customization	OVERALL CUSTOMIZATION
Balanced budget rule	Art. 3.1(a)b)	Art. 2: 'The general government MTO target referred to in Article 3(1)(b) of the TSCG in EMU, signed in Brussels on 2 March 2012, is set at -0.4% of potential GDP.'	UNCHANGED	§14: 'The legislator can always amend or replace a programming law during the period' + 'Art. 3 does not undermine the power of the government to conduct and determine the policy of the nation.'	REMOVED	**UNCHANGED**
Medium term objective	Art. 3.1(b)	Art. 2: 'The general government MTO target referred to in Article 3(1)(b) of the TSCG in EMU, signed in Brussels on 2 March 2012, is set at -0.4 % of potential GDP.'	UNCHANGED	§14: 'The legislator can always amend or replace a programming law during the period' + 'Art. 3 does not undermine the power of the government to conduct and determine the policy of the nation.'	REMOVED	**UNCHANGED**
Circumstances for non-respect	Artt. 3.1(c) and 3.3(b)	Art. 6(II): 'The obligations provided for in 2° of this Article shall not apply in the event of exceptional circumstances of such a nature as to justify the discrepancies established, as	REMOVED	Rule not mentioned	REMOVED	**REMOVED**

Name of rule	TSCG	Loi n° 2014-1653	Degree of customization	Conseil constitutionnel 2012-653 DC and 2012-658 DC	Degree of customization	OVERALL CUSTOMIZATION
		defined in Article 3(b) of the Treaty referred to in Article 2.'				
Correction mechanism	Artt. 3.1(e) and 3.2	Art. 6(II): 'The obligations provided for in 2° of this Article shall not apply in the event of exceptional circumstances of such a nature as to justify the discrepancies established, as defined in Article 3(b) of the Treaty referred to in Article 2.'	REMOVED	Rule not mentioned	REMOVED	**REMOVED**
Independent monitoring institutions	Art. 3.2	Rule not mentioned	REMOVED	Rule not mentioned	REMOVED	**REMOVED**
Legal tool	Art. 3.2	Ordinary law	REMOVED	Court decisions	REMOVED	**UNCHANGED***

* The restrictiveness of the legal tool is unchanged because bindingness was changed for rule 1 and is unchanged for rules 2,3,4,5. Therefore, the overall index is equal to 1 and, thus, customized restrictiveness (bindingness) of the legal tool is unchanged (for the details on how the index is constructed, see above).

1.1.2 Germany

Legislation:

- Federal Office of Justice. (n.d.). *Basic Law for the Federal Republic of Germany*. https://www.gesetze-im-internet.de/englisch_gg/ (last access: 25 August 2022).
- Federal Office of Justice. (n.d.). *Act on the Implementation of Art. 115 of the Basic Law.* https://www.gesetze-im-internet.de/g_115/BJNR270400009.html (last access: 25 August 2022).
- German Bundestag. (n.d.). *Fiscal Compact Implementation Act.* https://dip.bundestag.de/vorgang/.../47635 (last access: 25 August 2022).

Table A3: Assessment of customized restrictiveness in Germany

Name of rule	**TSCG**	**Basic Law**	**Degree of customization**	**Act on the Implementation of Article 115 of the Basic Law**	**Degree of customization**	**Fiscal Compact Implementation Act**	**Degree of customization**	**OVERALL CUSTOMIZATION**
Balanced budget rule	Art. 3.1(a)b)	Art. 109.1 does not foresee the requirement of 'budgetary surplus' as the TSCG does.	REMOVED	§ 2 does not foresee the requirement of 'budgetary surplus' as the TSCG does; the structural deficit can change (i.e., also increase) following exceptional economic circumstances.	REMOVED	Rule not mentioned	REMOVED	**REMOVED**
Medium term objective	Art. 3.1(b)	Rule not mentioned	REMOVED	§ 2 sets 0.35 as a stricter limit compared to the TSCG, but 0.35 is valid for the Federation only. The value of the TSCG (0.5) refers to the general government as a whole. No German provision on the general government introduces an MTO stricter than 0.5.	UNCHANGED	Art. 1.2 makes explicit reference to Art. 3 of the TSCG (= to the MTO equal to 0.5.) The aim of Art. 1.2 is to implement the 1st sentence of Art. 3.2 of the TSGC and to ensure compliance with the MTO on a sustained basis.	UNCHANGED	**UNCHANGED**

Name of rule	TSCG	Basic Law	Degree of customization	Act on the Implementation of Article 115 of the Basic Law	Degree of customization	Fiscal Compact Implementation Act	Degree of customization	OVERALL CUSTOMIZATION
Circumstances for non-respect	Artt. 3.1(c) and 3.3(b)	Art. 109.3: 'Natural catastrophes or specific emergencies beyond the control of the government with significant negative impact on public finances.' It adds what can be done in circumstances for non-respect: borrowing limit can be exceeded on the basis of a decision by a majority of the Bundestag's members + an amortization plan is needed.	ADDED	§ 6: 'Natural catastrophes or specific emergencies beyond the control of the government with significant negative impact on public finances.' It adds what can be done in circumstances for non-respect: borrowing limit can be exceeded on the basis of a decision by a majority of the Bundestag's members + an amortization plan is needed.	ADDED	Art. 1.2 makes explicit reference to Art. 3 of the TSCG (= to the exceptional circumstances).	UNCHANGED	**ADDED**
Correction mechanism	Artt. 3.1(e) and 3.2	Art. 109.3 sets no detailed procedure for the correction mechanism (amortization plan only); Art. 115.2 mentions an amortization plan with control account; debits exceeding 1.5 must be reduced in accordance with the economic cycle, but the system does not	REMOVED	§ 6 states that an amortization plan is to be adopted within an 'appropriate period of time' instead of a correction mechanism over a 'defined period of time' (as in the TSCG).	REMOVED	Art. 1.2 makes explicit reference to Art. 3 of the TSCG (= to the correction mechanism).	UNCHANGED	**UNCHANGED**

Name of rule	TSCG	Basic Law	Degree of customization	Act on the Implementation of Article 115 of the Basic Law	Degree of customization	Fiscal Compact Implementation Act	Degree of customization	OVERALL CUSTOMIZATION
		address the general government sector as a whole; details are to be found in federal law; repayment must take place within an appropriate (not 'defined', as the TSCG states) period of time. Reference to the MTO is missing. The mechanism is not automatic.		Reference to the MTO is missing. The mechanism is not automatic.				
Independent monitoring institutions	Art. 3.2	Rule not mentioned	REMOVED	Rule not mentioned	REMOVED	Art. 2.7 sets only limited tasks for the monitoring institution; provisions do not fully assure political and financial independence of the monitoring institution.	REMOVED	**REMOVED**
Legal tool	Art. 3.2	Constitution	ADDED	Ordinary law	REMOVED	Strengthened law	UNCHANGED	**CHANGED***

* The restrictiveness of the legal tool is changed because bindingness was changed for rules 1,2,3,4,5. Therefore, the overall index is equal to 5 and, thus, customized restrictiveness (bindingness) of the legal tool is changed (for the details on how the index is constructed, see above).

1.1.3 Italy

Legislation:

- Normattiva. (n.d.). *Constitutional law of 20 April 2012, nr. 1*. https://www.normattiva.it/uri-res/N2Ls?urn:nir:stato:legge.costituzionale:2012-04-20;1 (last access: 25 August 2022).
- Normattiva. (n.d.). *Law of 24 December 2012, nr. 243*. https://www.normattiva.it/uri-res/N2Ls?urn:nir:stato:legge:2012-12-24;243 (last access: 25 August 2022).

Table A4: Assessment of customized restrictiveness in Italy

Name of rule	TSCG	Constitutional law of 20 April 2012, nr. 1	Degree of customization	Law of 24 December 2012, nr. 243	Degree of customization	OVERALL CUSTOMIZATION
Balanced budget rule	Art. 3.1(a)b)	Art. 1 states 'balance between revenues and expenditures' but does not foresee the possibility of 'budgetary surplus' as the TSCG does. Art. 2 foresees a balanced budget of public administrations. However, both articles state that the balanced budget shall be regulated 'in accordance with the legal order of the EU'.	UNCHANGED	Art. 3.1 states that all public administrations contribute to balanced budget as defined by Art. 97 Const. The balanced budget is defined as 'in line with EU law'; Art. 3.5 states that the balanced budget is equal to the MTO; Art. 14.1 states that the balanced budget shall be in line with the MTO-compatible target; no mention of 'surplus'.	UNCHANGED	**UNCHANGED**
Medium-term objective	Art. 3.1(b)	Rule not mentioned	REMOVED	Art. 3.2 states that the MTO is defined according to EU law, but it does not provide any numerical indication on the limit of the MTO. Art. 3.3 states that budgetary planning documents need targets to ensure at least the MTO or the adherence to the adjustment path towards the MTO. Art. 4.2 prescribes that objectives related to debt-GDP ratio shall be in line with EU law.	UNCHANGED	**UNCHANGED**

Name of rule	TSCG	Constitutional law of 20 April 2012, nr. 1	Degree of customization	Law of 24 December 2012, nr. 243	Degree of customization	OVERALL CUSTOMIZATION
Circumstances for non-respect	Artt. 3.1(c) and 3.3(b)	Art. 5.l better specifies exceptional events; Art. 1 adds that an absolute majority in both chambers is needed for authorizing higher debt in the annual budget.	ADDED	Art. 6 does not contain the requirement that the temporary deviation can be allowed only as long as it does not endanger medium-term fiscal sustainability. But 'exceptional events' is defined in a broader way; moreover, an absolute majority is needed for a deviation due to exceptional events.	ADDED	**ADDED**
Correction mechanism	Artt. 3.1(e) and 3.2	Art. 4(b) and Art. 5 (d) only mention the correction plan and the corrective measures, but they do not outline their functioning; the procedure is not automatic.	REMOVED	Art. 3 and Art. 6 specify in detail the measures to be adopted during the correction mechanism; the correction plan is adopted through absolute majority.	ADDED	**ADDED**
Independent monitoring institutions	Art. 3.2	Art. 5(f) mentions that the monitoring institution needs to be autonomous; it also mentions its tasks.	UNCHANGED	Artt. 16, 17, 18, 19 regulate the appointment, the functioning, the resources, and the tasks of the monitoring institutions in a detailed way.	ADDED	**ADDED**
Legal tool	Art. 3.2	Constitution	ADDED	Strengthened law	UNCHANGED	**CHANGED***

* The restrictiveness of the legal tool is changed because bindingness was changed for rule 1,3,4,5 and is unchanged for rule 2. Therefore, the overall index is equal to 4 and, thus, customized restrictiveness (bindingness) of the legal tool is changed (for the details on how the index is constructed, see above).

1.2 Measurement rules for customized density

As we did for customized restrictiveness, if a customizable rule appears in more than one national transposition act, we first assess customized density of each act separately, and then identify the overall customization of the rule. In most cases, the overall customization is equal to the customization of all rules. For instance, if a rule (e.g., on the balanced budget) appears with added density in three transposition acts, the overall customization of the rule is added density. In some other cases, for the overall customization we need to consider the transposition act that matters more. For instance, if a rule (e.g., on the MTO) appears with removed density in one transposition act because the MTO is not mentioned at all, and appears with unchanged density in another transposition act, the overall customization of the rule will be unchanged density. This means that if one transposition act contains elements that relate to the European rule and the other transposition acts do not include anything, the former will prevail over the latter: in other words, the transposition rule that provides more details prevails when it comes to the overall degree of customization.

Density is removed if the transposition rule has at least one substantial element less than the European rule and the Commission's 'Common principles on national fiscal correction mechanisms' (Commission's principles, see p. 3). It is also removed if a national act does not mention the European rule. Density is unchanged if the transposition rule directly/explicitly refers to the TSCG and has the same elements as the European rule and the Commission's principles. Density is added if the transposition rule has at least one element more than the European rule and the Commission's principles.
In order to assess the overall density of the legal tool (rule 6), we consider in how many different types of legal tool the new national rules adopted to transpose the TSCG are enshrined. Some of our countries put new national transposition rules in more than one legal tool, for example the constitution and an ordinary law. We consider this a case of added density. Others put all new transposition rules in one single legal tool, for instance, an ordinary law. We consider this a case of unchanged density. Hence, density of the legal tool can be either added or unchanged, but not removed.

1.2.1 France

Table A5: Assessment of customized density in France

Name of rule	**TSCG**	**Constitution du 4 octobre 1958 en vigueur (revised 23 July 2008)**	**Degree of customization**	**Loi organique n° 2001-692**	**Degree of customization**	**Loi organique n° 2012-1403**	**Degree of customization**
Balanced budget rule	Art. 3.1(a)(b)	Art 34: 'The multiannual orientations of public finances are defined by programming	UNCHANGED	Rule not mentioned	REMOVED	Art 1: 'In compliance with the objective of balancing the general government accounts (Art	UNCHANGED

Name of rule	TSCG	Constitution du 4 octobre 1958 en vigueur (revised 23 July 2008)	Degree of customization	Loi organique n° 2001-692	Degree of customization	Loi organique n° 2012-1403	Degree of customization
		laws. They are in line with the objective of balancing the public administrations accounts.') (Nothing added/removed compared to TSCG. Programming laws cannot be considered new policy instruments because they pre-existed the Treaty (first one following constitutional change in 2008))				34CF)' + 'in accordance with the stipulations of the above-mentioned Treaty, mentioned in Art 3 TSCG'. (explicit reference to TSCG)	
Medium term objective	Art. 3.1(b)	Rule not mentioned	REMOVED	Rule not mentioned	REMOVED	Art. 1: direct mention of TSCG art. 3	UNCHANGED
Circumstances for non-respect	Artt. 3.1(c) and 3.3(b)	Rule not mentioned	REMOVED	Rule not mentioned	REMOVED	Art. 2.5: 'conditions for taking into account the exceptional circumstances defined in Art 3 of the above-mentioned Treaty'. (explicit reference to TSCG)	UNCHANGED

Name of rule	TSCG	Constitution du 4 octobre 1958 en vigueur (revised 23 July 2008)	Degree of customization	Loi organique n° 2001-692	Degree of customization	Loi organique n° 2012-1403	Degree of customization
Correction mechanism	Artt. 3.1(e) and 3.2	Rule not mentioned	REMOVED	Art. 48: 'the government shall present a report on the evolution of the national economy and the orientations of public finances' (report replaces corrective measures)	REMOVED	Art. 23 defines automatic character of correction mechanism, calendar, reference to exceptional circumstances, role of Fiscal Council + Art 23 'deviations from target of more than 0.5 % GDP in one year or 0.25 % in two consecutive years then action plan' + corrective measures referred to in art 48 of 2001 Organic Law = conforms with TSCG requirements	UNCHANGED
Independent monitoring institutions	Art. 3.2	Rule not mentioned	REMOVED	Rule not mentioned	REMOVED	Artt. 11-19; 22; 23 Art 11 = autonomy, Art 12-19 tasks = much more details (checks macro-eco predictions, audits etc. = additional requirements); Art 20 (audition at the Parliament whenever = additional policy tool)	ADDED
Legal tool	Art. 3.2	Constitution	ADDED	Strengthened law	UNCHANGED	Strengthened law	UNCHANGED

The following table continues below:

Name of rule	TSCG	Loi n° 2014-1653	Degree of customization	Conseil constitutionnel 2012-653 DC and 2012-658 DC	Degree of customization	OVERALL CUSTOMIZATION
Balanced budget rule	Art. 3.1(a)b)	Art 2: 'The general government MT target referred to in Article 3(1)(b) of the TSCG in EMU, signed in Brussels on 2 March 2012, is set at -0.4% of potential GDP' (explicit reference) + Art 2 'The structural balance referred to in the first paragraph shall be achieved in 2019.' (the 2019 date is already a requirement in the country-specific recommendation of the EC)	UNCHANGED	§14 'the legislator can always amend or replace a programming law during the period' (adds exemption)	ADDED	**UNCHANGED**
Medium term objective	Art. 3.1(b)	Art 2 'The general government MT target referred to in Article 3(1)(b) of the TSCG in EMU, signed in Brussels on 2 March 2012, is set at -0.4 % of potential GDP' + Art 2 'The structural balance referred to in the first paragraph shall be achieved in	UNCHANGED	§14 'the legislator can always amend or replace a programming law during the period' (adds exemption)	ADDED	**UNCHANGED**

Name of rule	TSCG	Loi n° 2014-1653	Degree of customization	Conseil constitutionnel 2012-653 DC and 2012-658 DC	Degree of customization	OVERALL CUSTOMIZATION
		2019.' (the 2019 date is already a requirement in the country-specific recommendation of the EC)				
Circumstances for non-respect	Artt. 3.1(c) and 3.3(b)	Art 6(II) 'The obligations set out in 2° of this article shall not apply in the event of exceptional circumstances of such a nature as to justify the deviations observed, as defined in Article 3(b) of the Treaty referred to in Article 2' (explicit reference) + Art 6 (III) 'When the exceptional circumstances have ceased to exist, the Government shall present a public finance programming bill consistent with France's European obligations' (adds condition)	ADDED	Rule not mentioned	REMOVED	**ADDED**
Correction mechanism	Artt. 3.1(e) and 3.2	Art 6 has the same number of elements as Art. 3.1 and 3.2	UNCHANGED	Rule not mentioned	REMOVED	**UNCHANGED**

Name of rule	TSCG	Loi n° 2014-1653	Degree of customization	Conseil constitutionnel 2012-653 DC and 2012-658 DC	Degree of customization	OVERALL CUSTOMIZATION
		and same number of elements as the Commission's principles				
Independent monitoring institutions	Art. 3.2	Rule not mentioned	REMOVED	Rule not mentioned	REMOVED	**ADDED**
Legal tool	Art. 3.2	Ordinary law	REMOVED	Court decisions	REMOVED	**UNCHANGED***

***** The density of the legal tool is unchanged because the *new* (and not the pre-existing) national rules adopted to transpose the TSCG are enshrined in only one *new* (and not pre-existing) type of legal tool: the 'strengthened law'.

1.2.2 Germany

Table A6: Assessment of customized density in Germany

Name of rule	TSCG	Basic Law	Degree of customization	Act on the Implementation of Article 115 of the Basic Law	Degree of customization	Fiscal Compact Implementation Act	Degree of customization	OVERALL CUSTOMIZATION
Balanced budget rule	Art. 3.1(a)b)	Art. 109.3 uses one sentence (like Art. 3.1(a)b) that includes the same number of elements as Art. 3.1(a)b): 'The budgets of the Federation and the *Länder* shall, in principle, be balanced without revenue from credits.'	UNCHANGED	§1 uses one sentence (like Art. 3.1(a)b) that includes the same number of elements as Art. 3.1(a)b): 'during a normal economic situation, revenues and expenditures are in principle to be balanced without revenues from credits'	UNCHANGED	Rule not mentioned	REMOVED	**UNCHANGED**
Medium term objective	Art. 3.1(b)	Rule not mentioned	REMOVED	§2 uses one sentence (like Art. 3.1(a)b) that includes the same number of elements as Art. 3.1(a)b): 'only credits up to 0.35 per cent of nominal GDP as structural component are allowed'	UNCHANGED	Art. 1.2 uses one single sentence to make direct/explicit reference to the TSCG on matters related to the MTO: 'Concerning the value, the calculation, and the allowed deviation from the MTO, Art. 3	UNCHANGED	**UNCHANGED**

Name of rule	TSCG	Basic Law	Degree of customization	Act on the Implementation of Article 115 of the Basic Law	Degree of customization	Fiscal Compact Implementation Act	Degree of customization	OVERALL CUSTOMIZATION
						of the TSCG applies.'		
Circumstances for non-respect	Artt. 3.1(c) and 3.3(b)	Art. 109.3 adds one element compared to the TSCG rule, namely what can be done in circumstances for non-respect: in cases of natural catastrophes and unusual emergency situations beyond governmental control and substantially harmful to the state's financial capacity, the borrowing limit can be exceeded on the basis of a decision by a majority of the Bundestag's members and an amortization plan is needed.	ADDED	§6 adds one element compared to the TSCG rule, namely what can be done in circumstances for non-respect: in cases of natural catastrophes and unusual emergency situations beyond governmental control and substantially harmful to the state's financial capacity the borrowing limit can be exceeded on the basis of a decision by a majority of the Bundestag's members and an amortization plan is needed.	ADDED	Art. 1.2 uses one single sentence to make direct/explicit reference to the TSCG on matters related to the MTO: 'concerning the value, the calculation, and the allowed circumstances for deviation from the MTO, Art. 3 of the TSCG applies.'	UNCHANGED	**ADDED**

Name of rule	TSCG	Basic Law	Degree of customization	Act on the Implementation of Article 115 of the Basic Law	Degree of customization	Fiscal Compact Implementation Act	Degree of customization	OVERALL CUSTOMIZATION
Correction mechanism	Artt. 3.1(e) and 3.2	Art. 109.3 uses one sentence (like Art. 3.1(e) and 3.2) that includes the same number of elements as Art. 3.1(e) and 3.2 of the TSCG which mention the need for 'measures to correct the deviations': Art. 109.3 states that an amortization plan is needed to correct deviations from the MTO. Art. 115.2 uses one sentence (like Art. 3.1(e) and 3.2) that includes the same number of elements as Art. 3.1(e) and 3.2: 'repayment of the credits borrowed under the sixth sentence must be accomplished within an appropriate period of time' (the TSCG speaks of a 'definite period of time').	UNCHANGED	§6 uses one sentence (like Art. 3.1(e) and 3.2) that includes the same number of elements as Art. 3.1(e) and 3.2 of the TSCG which mention the need for 'measures to correct the deviations': § 6 states that an amortization plan is needed to correct deviations from the MTO. Also for the timeframe of correction it uses one sentence (like Art. 3.1(e) and 3.2) that includes the same number of elements as Art. 3.1(e) and 3.2: 'repayment of the credits borrowed under the sixth sentence must be accomplished	UNCHANGED	Art. 1.2 uses one single sentence to make direct/explicit reference to the TSCG on matters related to the MTO: 'concerning the size and timeframe of the correction mechanism in case of deviations from the MTO, Art. 3 of the TSCG applies.'	UNCHANGED	**UNCHANGED**

Name of rule	TSCG	Basic Law	Degree of customization	Act on the Implementation of Article 115 of the Basic Law	Degree of customization	Fiscal Compact Implementation Act	Degree of customization	OVERALL CUSTOMIZATION
				within an appropriate period of time' (the TSCG speaks of a 'definite period of time').				
Independent monitoring institutions	Art. 3.2	Rule not mentioned	REMOVED	Rule not mentioned	REMOVED	Art. 2.7 includes less elements than the Commission's principles and specifically lacks the following elements: functional, political, and financial autonomy; whether the correction is proceeding in accordance with national rules and plans; the occurrence of circumstances for triggering, extending and exiting escape clauses; the obligation for political actors	REMOVED	**REMOVED**

Name of rule	TSCG	Basic Law	Degree of customization	Act on the Implementation of Article 115 of the Basic Law	Degree of customization	Fiscal Compact Implementation Act	Degree of customization	OVERALL CUSTOMIZATION
						to comply with, or alternatively explain publicly why they are not following the assessments of the independent monitoring institution.		
Legal tool	Art. 3.2	Constitution	ADDED	Ordinary law	REMOVED	Strengthened law	UNCHANGED	**UNCHANGED***

* The density of the legal tool is unchanged because the *new* (and not the pre-existing) national rules adopted to transpose the TSCG are enshrined in only one *new* (and not pre-existing) type of legal tool: the ordinary law.

1.2.3 Italy

Table A7: Assessment of customized density in Italy

Name of rule	TSCG	Constitutional law of 20 April 2012, nr. 1	Degree of customization	Law of 24 December 2012, nr. 243	Degree of customization	OVERALL CUSTOMIZATION
Balanced budget rule	Art. 3.1(a)b)	Art. 1 uses one sentence (like Art. 3.1(a)b) that includes the same number of elements as Art. 3.1(a)b): 'The State assures the balance between revenues and expenditures' Art. 2 uses one sentence (like Art. 3.1(a)b) that includes the same number of elements as Art. 3.1(a)b): 'the public administration, in line with the legal order of the European Union, assures the balance between revenues and expenditures'.	UNCHANGED	Art. 3.1 uses one sentence (like Art. 3.1.(a)b)) that includes the same number of elements as Art. 3.1(a)b): 'The public administration contributes to balanced budget as defined by Art. 1 of the constitutional law nr. 1/2012.' In turn, Art. 1, const. law nr. 1/2012), includes the same number of elements as Art. 3.1.(a)b). The balanced budget is defined as 'in line with EU law'; Art. 3.5 states that the balanced budget is equal to the MTO; Art. 14.1 states that the balanced budget shall be in line with the MTO-compatible target; no mention of 'surplus'.	UNCHANGED	**UNCHANGED**
Medium-term objective	Art. 3.1(b)	Rule not mentioned	REMOVED	Art. 3.2 states that the MTO is defined according to EU law. Art. 3 adds further elements compared to Art. 3.1(b) of the	ADDED	**ADDED**

Name of rule	TSCG	Constitutional law of 20 April 2012, nr. 1	Degree of customization	Law of 24 December 2012, nr. 243	Degree of customization	OVERALL CUSTOMIZATION
				TSCG: the economic and financial planning needs to include measures (divided in sub-sectors) on how to reach the MTO or the path towards it (Art. 3.3.); in line with EU law, the impact of costs for structural reforms with positive effects on the sustainability of public finances can be considered (Art. 3.4); the balance is budget if the structural balance of government finances is at least equal to the MTO or moves towards it (Art. 3.5.)		
Circumstances for non-respect	Artt. 3.1(c) and 3.3(b)	Art. 1 adds one element compared to the TSCG rule, namely that an absolute majority in both chambers of parliament is needed for authorizing higher debt in the annual budget.	ADDED	Art. 6 adds some elements compared to Art. 3.1(c) and 3.3(b) of the TSCG in the definition of 'exceptional events': the government needs to get in touch with the European Commission and present a report for updating the objectives of public finance (the MTO). It needs to ask for temporary deviation from the MTO;	ADDED	**ADDED**

Name of rule	TSCG	Constitutional law of 20 April 2012, nr. 1	Degree of customization	Law of 24 December 2012, nr. 243	Degree of customization	OVERALL CUSTOMIZATION
				indicate the amount and timeframe of the deviation; Moreover, an absolute majority in both chambers of parliament is needed to approve the government's request for deviation from the MTO due to exceptional events; resources borrowed on the market can be used only to face the exceptional events.		
Correction mechanism	Artt. 3.1(e) and 3.2	Art. 4(b) and Art. 5 (d) use less elements than Art. 3.1(e) and 3.2 of the TSCG: they only mention the correction plan and the corrective measures, but they do not outline their functioning, and the procedure is not automatic.	REMOVED	Art. 6 adds some elements compared to Art. 3.1(e) and 3.2 of the TSCG in the functioning of correction mechanism, namely that the corrective plan needs to be proportionate with regard to the exceptional character of the events; an absolute majority in both chambers is needed to approve the government's request for deviation from the MTO due to exceptional events; the government can change the correction plan if new exceptional events arise or if—based on	ADDED	**ADDED**

Name of rule	TSCG	Constitutional law of 20 April 2012, nr. 1	Degree of customization	Law of 24 December 2012, nr. 243	Degree of customization	OVERALL CUSTOMIZATION
				the economic situation—the government wants to make changes.		
Independent monitoring institutions	Art. 3.2	Art. 5(f) uses one sentence (like Art. 3.2) that includes the same number of elements as Art. 3.2 of the TSCG: it mentions that the monitoring institution needs to be politically independent, check the country's public finances and monitor compliance with budgetary rules.	UNCHANGED	Artt. 16, 17, 18, 19 includes more elements than the Commission's principles: the detailed appointment procedure (and the required legal act) of the members of the independent monitoring institution, specifically the high parliamentary majority required in both chambers for approving the list of potential members; the salary of members; the term of office (6 years); the incompatibility of the mandate of members with other professional tasks; the procedure of removal; the internal rules of functioning (Art. 16); the internal organization, including the maximum number of members; the relationship with the parliament (Art. 17); the relationship with	ADDED	**ADDED**

Name of rule	TSCG	Constitutional law of 20 April 2012, nr. 1	Degree of customization	Law of 24 December 2012, nr. 243	Degree of customization	OVERALL CUSTOMIZATION
				the public administration; the detailed tasks of the institution; the case of disagreement with the government on the assessment of public finance decisions and the obligation for political actors to comply with, or alternatively explain publicly why they are not following the assessments of the independent monitoring institution (Art. 18); the functional, political, and financial independence, specifically the resources available to the institution, which need to allow for the fulfilment of all task and needs to be part of the annual budgetary law; the possibility for the institution to submit its opinion on the resources allocated to it (Art. 19).		
Legal tool	Art. 3.2	Constitution	ADDED	Strengthened law	UNCHANGED	**ADDED***

***** The density of the legal tool is added because the *new* (and not the pre-existing) national rules adopted to transpose the TSCG are enshrined in two *new* (and not pre-existing) types of legal tool: the constitution and the 'strengthened law'.

1.3 Calibration rules for literal compliance and customized compliance

Given the nature of our hypotheses, our analysis deals with two outcomes: literal compliance (LIT), defined as an outcome with unchanged density and unchanged restrictiveness; and customized compliance (~ LIT), where either the density or the restrictiveness of EU rules is changed, or both.
We calibrate degrees of customized compliance as follows:
1= fully in (unchanged density and unchanged restrictiveness)
0.4 = more out than in (unchanged restrictiveness but changed density)
0.2 = rather but not fully out (unchanged density but changed restrictiveness)
0 = fully out (changed restrictiveness and density)

2 Measurement and calibration of conditions

2.1 High fit (FIT)

2.1.1 Measurement

We measure fit by comparing the new EU rules with pre-existing, national rules:

- There is fit if a national rule which regulates the same issue in the same way, or a national rule which regulates the same issue in a similar way, is already present in the legal order of the member state when the TSCG was signed.
- There is no fit if a national rule equivalent or similar to the European rule is not yet present in the legal order of the member state when the TSCG was signed.

By fit of the legal tool (rule 6) we assess whether the constitution already included any of the rules 1-5 prior to the TSCG. If the constitution included a rule which regulates the same issue in the same way, or a rule which regulates the same issue in a similar way, we code rule 6 as fit. Otherwise, we code rule 6 as no fit.

2.1.2 Calibration

We calibrate the set "High fit" (FIT) as follows:
1 = there is fit between the European and the national rule
0 = there is no fit between the European and the national rule

2.2 Pre-existing national rule used for transposition (PRE)

2.2.1 Measurement

In order to transpose an EU rule, member states may create a new national rule or use a pre-existing national rule, i.e., a national rule regulating the same issue and already enshrined in the domestic legal order prior to the TSCG.

2.2.2 Calibration

We calibrate the set "Pre-existing national rule" (PRE) as follows:
1 = pre-existing national rule was used
0 = non-pre-existing national rule was used

2.3 Budgetary discipline (DISC)

2.3.1 Measurement

Since the governments of our case studies transposed the TSCG, we assume them to be in favor of budgetary discipline. However, there could be differences in kind about the support for budgetary discipline. To measure such differences, the paper focuses on two factors. The first might be called path dependency and refers to whether a balanced budget law was already enshrined in national law or was concretely planned to be inserted in national law closely before the ratification of the TSCG. The second factor is the salience of budgetary discipline, i.e., whether budgetary discipline figures as a key objective enshrined in the manifestos of the government party (parties) or in the coalition agreement (if available) of the government.

Based on this distinction, the paper measures budgetary discipline as follows.

- A government is strongly in favor of budgetary discipline if both path dependency AND salience are given.
- A government is in favor of budgetary discipline if path dependency is given but salience is not given.

2.3.2 Calibration

Based on these data, the paper distinguishes between a government being in favor and being strongly in favor of budgetary discipline.

1 = strongly in favor

0 = in favor

2.4 Domestic opposition to EU rule (OPP)

2.4.1 Measurement

We measure opposition against a specific rule by all members of parliament, i.e., from both the government and the opposition. To do so, we analyze the content of the plenary debates on the ratification of the treaty or on the transposition measures. We distinguish two types of opposition manifested against a rule. Firstly, political opposition, which concerns the rule as such (meaning in its entirety) or fundamental principles of the rule: for example, national sovereignty, governmental discretion, and the role of parliaments. Secondly, technical opposition, which concerns minor issues or specific parts of the rule but not the entire rule: for example, legal or economic details in the way the rule is formulated, or its technical feasibility. Based on this distinction, the paper measures opposition against a specific rule as follows.

- Opposition to a rule is strong if it is both political and technical.
- Opposition to a rule is intermediate if it is political only.
- Opposition to a rule is weak if it is technical only.

The measurement implies that political opposition is more important than technical opposition. For the cases de3 and it2, no evidence is available for whether opposition exists, which we code as weak opposition and hence a non-member of the set of opposition.

2.4.1.1 France

Parliamentary debates on the ratification of the TSCG:

- Assemblée nationale. (n.d.). *Première séance du mercredi 3 octobre 2012.* https://www.assemblee-nationale.fr/14/cri/2012-2013/20130005.asp (last access: 25 August 2022).
- Assemblée nationale. (n.d.). *Première séance du mardi 9 octobre 2012.* https://www.assemblee-nationale.fr/14/cri/2012-2013/20130012.asp (last access: 25 August 2022).

Table A8: Statements of opposition to rules (France)

Rules	***Statements of opposition***
fr1: 'Balanced budget rule'	**4 statements of opposition:** • Darmanin (Union pour un mouvement populaire or UMP): 'I will not vote for the treaty, not because I reject the golden rule—on the contrary, it is necessary—but because we are going to give technocrats, when we have just been elected by the French people, the power to judge.' • Dolez (Groupe Gauche démocrate et républicaine or GDR): 'The internal constraint, the "golden rule", even if it is not in the Constitution but simply in the organic law, will be imposed on all laws, and therefore on all finance laws. This calls into question the primary prerogative of Parliament, which for almost two centuries has been to vote on the budget.' • Sansu (GDR): 'A Member State may refer the matter to the European Court of Justice if it considers that one of its partners has not correctly transposed this "golden rule" into its national law.' • Serville (GDR): 'How can we accept the ratification of the golden rule, criticized by the opposition at the time, which reduces our room for maneuver while depriving our Parliament of the possibility of debating certain aspects of economic policy, in particular a so-called pro-cyclical recovery policy?'
fr2: 'Medium-term objective'	**13 statements of opposition:** • Asensi (GDR): 'As the constitutionalist Didier Maus states, "the budget is a regal prerogative". It is one of the pillars of national sovereignty. The balanced budget rule, which is certainly not new, is in fact considerably tightened in its definition by a structural deficit of 0.5%.' • Asensi (GDR): 'By limiting the deficit of all public administrations to 0.5%, the treaty imposes a triple neoliberal straitjacket: a straitjacket on the state budget, a straitjacket on the social security budget, and a straitjacket on the local government budget.' • Auroi (Parti Socialiste or PS): 'Let us take the definition of the structural deficit, which it claims to limit to 0.5 % of GDP. Despite the efforts of the European Parliament and the solid consensus among economists, the measure of the structural balance currently used by Brussels still does not preserve the future investments made by the Member States.' • Bechtel (PS): 'Bound by the objective of restoring the deficit and the debt situation, the legislator will not be able to define the medium-term objective of restoring this situation itself.' • Candelier (GDR): 'I would add that the notion of annual structural deficit, which must not exceed 0.5% of GDP, poses a methodological problem recognized by the Budget Minister himself. No one, in fact, calculates it in the same way. So let us not play the sorcerer's apprentice.' • De Rugy (Greens): 'At the same time, it makes no provision, in the method of calculating acceptable national deficits, for taking into account the investments that would make it possible to achieve the objectives I mentioned just now.' • Le Pen (Front National or FN): 'Mr Séguin said in this Chamber: "No assembly is competent to relinquish its legislative power." A fortiori, no assembly can delegate a power that it exercises only on behalf of the people. However, the bill before us contains an empowerment of such generality that it can be likened to a blank check.' • Myard (GDR): 'Turning now to the structural deficit, who would be able to give a precise definition?' • Poisson (UMP): 'Many notions, in particular the central notion of structural deficit, which is in the Treaty, are still the subject of absolutely endless debate among economists, and no one today is able to give a clear vision.' • Pompili (Greens): 'Setting horizons based solely on public budget deficits, as this treaty and its medium-term objective does, does not seem to us to be the most effective way of responding to this crisis. This is the analysis, the convictions but also the doubts behind the Green's no.'

Rules	*Statements of opposition*
	• Schwartzenberg (Parti Radical de Gauche or PRG): 'On the one hand, it risks subjecting Parliament's budgetary power to even greater control by the Commission and the Court of Justice of the European Union, bodies not elected by universal suffrage and therefore lacking the same legitimacy.' • Schwartzenberg (PRG): 'In such a situation, forced fiscal austerity would risk having recessionary effects.' • Serville (GDR): 'In other words, voting for this text is tantamount to admitting that the productive investments we need for our growth—including those that would integrate the European strategic objectives—are limited to 0.5% of the structural deficit, unless they are compensated by spending cuts or tax increases.'
fr3: 'Circumstances for non-respect'	**1 statement of opposition:** • Auroi (PS): 'Let us mention, in the same vein, the famous "exceptional circumstances" provided for by the Treaty to adjust the rigor of the adjustments, whose exceptional character is mainly due to their restrictive nature.'
fr4: 'Correction mechanism'	**5 statements of opposition:** • Bechtel (PS): 'Nor will it [the legislator] have control over the correction mechanism which, according to the letter of the Treaty, is triggered automatically.' • De Rugy (Greens): 'To imagine that the implementation of automatic sanctions will suffice to erase the effects of economic hazards is, in our opinion, illusory. Illusory, but also dangerous, because it amounts to locking the European authorities into a role that is as ungrateful as it is unfair, as the policeman of national budgets, an easy scapegoat for the vindictiveness of public opinion.' • Myard (GDR): 'The correction mechanisms are automatic: formatted in advance by the Commission and adopted by the Council, it is naturally up to the former to implement them, provided that there is no opposing majority [...] And what can be said about the abandonment of the sovereign decision to vote on the budget, a sovereign decision for which, ladies and gentlemen of the left, we, you, have made the Revolution!' • Poisson (UMP): 'Sanctions should be applied to countries that do not respect their commitments. If this is not a loss of sovereignty, Minister—let us not play with words—it is a loss of the freedom of decision of parliaments in budgetary matters.' • Sansu (GDR): 'No State will be able to escape the objective of a balanced budget: sanctions are made almost automatic throughout the procedure in the event of slippage or a deficit exceeding 3 % of GDP.'
fr5: 'Independent monitoring institutions'	**1 statement of opposition:** • Asensi (GDR): 'In France, this government of judges and experts will come about if this treaty is adopted. It will take the form of the High Committee on Public Finances: a Trojan horse of the European Commission, it will ensure compliance with the criteria for reducing deficits and will erode the powers of the government, which is responsible for conducting the nation's policy. For this mission, it will not have received any mandate from our fellow citizens.'
fr6: 'Legal tool'	**1 statement of opposition** • Asensi (GDR): 'Consistently, at the time of the Maastricht, Amsterdam and Lisbon treaties, the Constitutional Council had ruled that the transfers of competences undermined the essential conditions for the exercise of national sovereignty. But the incredible became reality on 9 August. In its decision, the Council departed from this jurisprudence, endorsing a transfer of sovereignty without constitutional amendment.'

2.4.1.2 Germany

Parliamentary debates on the ratification of the TSCG:

- Deutscher Bundesrat. (n.d.). *Stenographischer Bericht 896. Sitzung, 11. Mai 2012.* https://dserver.bundestag.de/brp/896.pdf (last access: 25 August 2022).
- Deutscher Bundesrat. (n.d.). *Stellungnahme des Bundesrats, 11. Mai 2012.* https://dserver.bundestag.de/brp/896.pdf (last access: 25 August 2022).
- Deutscher Bundesrat. (n.d.). *Stenographischer Bericht 898. Sitzung, 29. Juni 2012.* https://dserver.bundestag.de/brp/898.pdf (last access: 25 August 2022).
- Deutscher Bundestag. (n.d.). *Stenographischer Bericht 181. Sitzung, 24. Mai 2012.* https://dserver.bundestag.de/btp/17/17181.pdf (last access: 25 August 2022).
- Deutscher Bundestag. (n.d.). *Stenographischer Bericht 188. Sitzung, 29. Juni 2012*. https://dserver.bundestag.de/btp/17/17188.pdf (last access: 25 August 2022).

Table A9: Statements of opposition to rules (Germany)

Rules	***Statements of opposition***
de1: 'Balanced budget rule'	**5 statements of opposition:** ● Gabriel (SPD): 'We remember how that started: only a fiscal agreement and the obligation to save, no initiative for growth and even less the strongly needed participation of financial markets in the removal of the disaster which you have yourself caused. [...] It is unacceptable that we have strong rules for the question of indebtedness but at the same time we need to live with non-binding discussions and shimmery concepts like "open coordination" in economic, tax, and social policy.' ● Hänsel (Die Linke): 'With the Fiscal Compact, future governments in Europe can be obliged to enforce a rigid austerity policy: in social policy, in education, in health. We are seeing where this politics leads to.' ● Pau (Bündins 90/Die Grünen): 'Debt brakes are not wrong in principle. But if wrongly designed, they are wrong. Now we do not need in Europe an even tighter austerity package through a Fiscal Compact with eternity clause outside the European treaties [...]' ● Wagenknecht (Die Linke): 'Who wants growth and well-being in Europe must stop the indescribable Fiscal Compact with its billions of fiscal cuts obligations. Who does not do that is a hypocrite. I am telling you this very directly.' ● Walter-Borjans (Sozialdemokratische Partei Deutschlands or SPD): 'What has been decided with the Fiscal Compact and has long been presented to us as an evolution of the German model of the debt brake without additional requirements beyond the consolidation path we have already undertaken, today turns out to be a clear tightening of the constitutionally anchored debt brake.'
de2: 'Medium-term objective'	**2 statements of opposition:** - Kühl (SPD): 'At the end of the day, there are fiscal issues if the Fiscal Compact leads to a tightening of the German debt brake. 0.5 % are overall allowed. In our constitution, 0.35 % is allowed for the Federation. This means, *Länder*, municipalities and social insurances can discuss the remaining 0.15 % in order to decide who can do how much. There cannot be stricter requirements for the *Länder* on the already difficult path for complying with the debt brake. The Federation has different options for supporting the *Länder* in this.' - Walter-Borjans (SPD): 'In the future, what matters is no longer the upper limit of new indebtedness of 0.35 % to GDP for the federal budget starting from 2016 and the consolidation of the structurally new indebtedness of the *Länder* to zero until 2020; what matters is the 0.5 % overall, i.e. the new indebtedness of the whole state from 2014. [...] Who examines the medium-term finance planning of the Federation in depth will see how much uncertainty is in there.'
de3: 'Circumstances for non-respect	**1 statement of opposition:** ● Walter-Borjans (SPD): 'If one adds the difficulty to predict economic developments in Europe and across the world, a question arises: can we say that all budgetary problems stemming from those developments will justify exceptions because they are not structural but conjunctural in nature? Who decides this? Which consequences would stem from this? How would this be decided? Which risks lie ahead of us [...]?'
de4: 'Correction mechanism'	**3 statements of opposition:** ● Joint statement by the *Bundesrat*: 'The *Bundesrat* expects the federal government to make sure that Art. 3(c).1, letter e (automatic correction mechanism) of the Fiscal Compact protects the budgetary autonomy of the *Länder*; this pertains particularly to certain guidelines on type, coverage and temporary framework of the correction mechanism.' ● McCallister (Christlich Demokratische Union or CDU): 'The legislative decision on the consolidation path must take place in the *Länder*. The Federation must make sure at EU level that the expected principles on the correction mechanism by the European Commission are compatible with the results of the current European negotiations.'

Rules	*Statements of opposition*
	• Walter-Borjans (SPD): 'All these questions need concrete answers. This also pertains to the automatic correction mechanism and those sanctions that are decided based on it. Who will be hit by those sanctions?'
de5: 'Independent monitoring institutions'	**4 statements of opposition:** • Beck (SPD): 'Out of a sudden we have a proposal on the table, which besides political control supports a bad habit of our time, i.e. to set up an advisory board (*Beirat*). Does somebody really believe that a *Beirat* made up with researchers or who knows whom should decide whether our *Länder* give priority to education? I tell you: this is the end of federalism.' • Friedrich (SPD): 'Thus I cannot understand why we take a decision according to which we the *Länder*, which we explicitly committed to debt reduction, transfer our political discretion to the recommendations of scientific institutions. Legally one can argue: It will be necessary that each political decision on which the parliament and the government (which are elected for that) have to decide will be subject to the evaluation of the *Beirat*, which will teach us why this and that cannot work, for instance if we try to build sustainable growth. This is why we cannot agree on this rule as such.' • Joint statement by the *Bundesrat*: 'The *Bundesrat* believes that the Stability Council and not the *Beirat* should play a central role in the surveillance of the compliance with the rules of Art. 3(c).2.' • McCallister (CDU): 'The statements of the Stability Council on the surveillance of the consolidation path can only have the nature of recommendations.'
de6: 'Legal tool'	**2 statements of opposition:** • Danckert (SPD): 'The creeping change of our constitutions through European treaties is a fact that I can personally not accept. Of course, we will also ask this to the constitutional court. I believe we should regulate here in the German parliament what is needed as constitutional change or in case through referendum, and not making a detour in which we get taught how to change our constitution.' • Friedrich (SPD): 'I believe we should have cooperated earlier on the question of how to transpose the TSCG into national law. Cooperation is there, but the federal government has recognized only late that the existing debt brake is not enough for transposing the TSCG.'

2.4.1.3 Italy

Parliamentary debates on the ratification of the TSCG, const. law 1/2012 and l. 243/2012[1]:

- Camera dei deputati. (n.d.). *Resoconto stenografico dell'Assemblea. Seduta n. 554 di martedì 29 novembre 2011: 1st debate on const. law 1/2012 in the Chamber of Deputies.* https://leg16.camera.it/410?idSeduta=0554&tipo=alfabetico_stenografico. (last access: 25 August 2022).
- Camera dei deputati. (n.d.). *Resoconto stenografico dell'Assemblea. Seduta n. 597 di lunedì 5 marzo 2012: 2nd debate on const. law 1/2012 in the Chamber of Deputies*. https://web.camera.it/resoconti/resoconto_seduta.asp?idSeduta=597&resoconto=stenografico (last access: 25 August 2022).
- Camera dei deputati. (n.d.). *Resoconto stenografico dell'Assemblea. Seduta n. 668 di mercoledì 18 luglio 2012: 1st debate on TSCG ratification in the Chamber of Deputies*. https://leg16.camera.it/410?idSeduta=0668&tipo=stenografico (last access: 25 August 2022).
- Camera dei deputati. (n.d.). *Resoconto stenografico dell'Assemblea. Seduta n. 669 di giovedì 19 luglio 2012: 2nd debate on TSCG ratification in the Chamber of Deputies.* https://leg16.camera.it/410?idSeduta=0669&tipo=stenografico (last access: 25 August 2022).
- Camera dei deputati. (n.d.). *Resoconto stenografico dell'Assemblea. Seduta n. 732 di martedì 11 dicembre 2012: Debate on law 243/2012 in the Chamber of Deputies.* http://documenti.camera.it/leg16/resoconti/assemblea/html/sed0732/sommario_new.htm#sed0732.sommario.tit00010 (last access: 25 August 2022).
- Senato della Repubblica. (n.d.). *Resoconto stenografico 710° seduta 17 aprile 2012: Debate on const. law 1/2012 in the Senate of the Republic.* https://www.senato.it/service/PDF/PDFServer/BGT/657918.pdf (last access: 25 August 2022).
- Senato della Repubblica. (n.d.). *Resoconto stenografico 763° seduta 11 luglio 2012: 1st debate on TSCG ratification in the Senate of the Republic.* https://www.senato.it/service/PDF/PDFServer/BGT/667367.pdf (last access: 25 August 2022).
- Senato della Repubblica. (n.d.). *Resoconto stenografico 764° seduta 12 luglio 2012: 2nd debate on TSCG ratification in the Senate of the Republic.* https://www.senato.it/service/PDF/PDFServer/BGT/667491.pdf (last access: 25 August 2022).
- Senato della Repubblica. (n.d.). *Resoconto stenografico 857° seduta 20 dicembre 2012: Debate on law 243/2012 in the Senate of the Republic.* https://www.senato.it/service/PDF/PDFServer/BGT/696925.pdf (last access: 25 August 2022).

[1] In Italy, the ratification of the TSCG is closely connected to the adoption of const. law 1/2012 and l. 243/2012. Therefore, when searching for opposition against specific rules, we consider also those two debates.

Table A10: Statements of opposition to rules (Italy)

Rules	***Statements of opposition***
it1: 'Balanced budget rule'	**8 statements of opposition:** • Bricolo (Lega Nord Padania): 'The Fiscal Compact obliges us to adopt the balanced budget and a plan of debt reduction which —set as such—is clearly unsustainable.' • Evangelisti (Italia dei Valori): 'To insert the balanced budget rule in the Constitution would have been a politically very improvident choice because to add further restrictions such as a strict ceiling to public expenditure would only have worsened things […]. We fear, in fact, that a number of new restrictions, in addition to the balanced budget rule into the constitution, would represent a very critical political choice as would be the imposition of a too rigid ceiling to public expenditure.' • Franco (Lega Nord Padania): 'The balanced budget principle in the Constitution […] would make the budgets too rigid and would also make the elasticity of public expenditure too rigid without a counter-attraction that concerns growth.' • Iannaccone (Misto-Autonomia Sud-Lega Sud Ausonia-Popoli Sovrani D'europa): 'After signing another commitment which for us will be a further limit to the growth of the country, the so-called fiscal compact, our group considers that proposing—in this situation—a constitutional limit which foresees the balanced budget, with very specific measures, will not produce positive effects in facing, for instance, difficult economic cycles or expenditures for natural disasters.' • La Loggia (Forza Italia): 'Public administrations assure the balanced budget in accordance with the European legal order. So, if it was not in accordance with European law, we should not do it?' • Mascitelli (Italia dei Valori): '[…] What has the constitutionalization of the balanced budget rule brought along concretely? In our view, nothing.' • Pardi (Italia dei Valori): 'Italia dei Valori shares criticisms of renowned economists on the constitutionalization of the balanced budget rule, which prevents a strong countercyclical policy which supports demand and promotes investments.' • Pistorio (Misto-Movimento per l'Autonomia): 'The balanced budget to be met so shortly is a way too strict objective.'
it2: 'Medium term objective'	**1 statement of opposition:** • Polledri (Lega Nord Padania): '[…] 0.5 % of GDP—we also got cute—with the deviation which EU law and international agreements consider significant. At least here has the Commission been more realistic. I do not understand why the French do it and why we need to put a fix number beyond the agreement.'
it3: 'Exceptional circumstances'	**1 statement of opposition:** • Lo Presti (Popolo delle Libertà): 'In some parts we would also like to raise the bar higher like, for instance, in the case of the parliamentary majority required for approving, in exceptional circumstances, the indebtedness, we would have liked to raise it to three fifth because this parliamentary majority today is substantially the same as the one of the law which, currently, already grants a prefixed majority with the "winner takes it all" system.'
it4: 'Correction mechanism'	**3 statements of opposition:** • Aderenti (Lega Nord Padania): 'Let's not forget that the Fiscal Compact determines an automatic correction mechanism, which must be set up at national level. If the economic-financial corrections are not adopted, for the Commission this is enough for a member state to appeal to the Court of Justice. And the member states will be able to do so also without the judgement of the Commission.' • Maggioni (Lega Nord Padania): 'It is worrying to read that in the Fiscal Compact Treaty member states are obliged to activate correction mechanisms within a defined period of time if they deviate from budgetary objectives.' • Pistorio (Misto-Movimento per l'Autonomia): 'A dramatic situation, characterized also by particularly strict mechanisms.'

Rules	*Statements of opposition*
it5: 'Independent monitoring institutions'	**8 statements of opposition:** • Agostini (Partito Democratico): 'A proposal like the current one which foresees that even the committees which deal with public finance propose a list of ten names to the presidents of the Chamber and the Senate, among which the presidents of Chamber and Senate choose three members, this seems to me not enough […].' • Azzolini (Popolo delle Libertà): 'The solution granted to the Parliamentary Budgetary Office in my view is unsatisfactory. There are things that need to be improved and it will be useful to do so.' • Donadi (Italia dei Valori): 'Such a body, which is even located within the institutions that it is supposed to control, does not sufficiently guarantee the independence and impartiality that is the reason for its existence.' • Lanzillotta, Linda (Misto): 'One should be very careful in avoiding that functions already assigned to other bodies like the Court of Auditors or ISTAT are replicated. In fact, the risk is that, in the end, nobody truly is responsible for monitoring public finances and has the right tools and powers.' • Mantini (Unione di Centro per il Terzo Polo): 'We would have preferred a strong and authoritative monitoring institution, technically well-organized through the coordination between Chamber and Senate, which would have benefitted also from the reports of the Court of Auditors and ISTAT […].' • Mascitelli (Italia dei Valori): 'The chambers exercise a controlling function on public accounts and on the quality of public expenditures—this has not been abrogated. Hence, this parliament and this Senate should fulfil their task and roles as always […].' • Stracquadanio (Popolo delle Libertà): '[…] I will vote against and will not abstain because if we look at this legal monster born with that independent institution… […] when we create a body with constitutional status inside the Parliament, we do not understand the nature of the legal relationship to the other constitutional bodies. And in this constitutional law which should give effect to the new art. 81 nothing is said on how such institution is formed and from where it derives its legitimacy. Never should one set up—within the constitution—bodies without indicating their composition and the source of their legitimacy. This, Mr. President, breaks with fundamental principles of law; I hope the Senate will notice and get rid of this.' • Tassone (Unione di Centro per il Terzo Polo). '[…] When we speak of an independent parliamentary body which should monitor the budget, we did not understand what "independent" means. Is it a new authority? It is an independent body within the parliament. But the parliament has the committees; one should make a bicameral commission […] for monitoring all account movements, for assuring the balanced budget, and the committees in charge of each topic could perform this task.'
it6: 'Legal tool'	• Franco (Lega Nord Padania): 'A very pervasive constitutional change of our system which does neither assign responsibilities nor performs a critical function.' • Tassone (Unione di Centro per il Terzo Polo): 'We are changing the constitution bit by bit. I don't think this is something constructive and rational; […] I do think that the "Euro Plus Pact" did not require the constitutionalization of the balanced budget; it had asked the balanced budget to be an important reference in the activity of the parliament and of the course in the activity of the government; perhaps this part needed to be enshrined in an ordinary or strengthened law and not in a constitutional law […].'

2.4.2 Calibration

We calibrate the set "Opposition" (OPP) as follows:
1 = strong opposition (opposition is expressed and has political and technical reasons)
0.67 = intermediate opposition (opposition is expressed and has political reasons only)
0 = weak opposition (opposition is expressed and has technical reasons only, or it is absent)

2.5 Flexibility (FLEX)

2.5.1 Measurement

Flexibility indicates the discretion that an implementing actor has in practically complying with a rule.

- A rule is flexible if it is possible to practically comply with it in different ways because the rule is formulated in a broad way or leaves a certain margin of political discretion during implementation. In the former case, a rule may formulate a principle (e.g., the need to introduce a balanced budget rule) or a circumstance (e.g., the exceptional conditions where a rule does not apply) and leave the exact wording of how the principle/the circumstance is regulated to the implementing actor. In the latter case, a rule may specify an economic target between a minimum and a maximum value (e.g., between -1 and 1), and leave the choice of the exact value to the implementing actor.
- A rule is rigid if it does not entail flexibility in its practical implementation, i.e., it is not possible to practically comply with the rule in different ways. For example, a rule might prescribe a correction mechanism to be activated automatically, further detailing its nature, size, and timeframe. Or alternatively, a rule might prescribe the establishment of an institution and regulate its functioning in detail.

2.5.2 Calibration

We calibrate the set "Flexibility" (FLEX) as follows:
1 = the rule is flexible
0 = the rule is not flexible but rigid

2.6 High deficit (HIGHDEF)

2.6.1 Measurement

We consider the deficit level in percentage related to Gross Domestic Product (GDP) in the year in which the TSCG was adopted and ratified (2012). In 2012, deficits were equal to 5.0 % in France and to 2.9 % in Italy. For Germany, 2012 marked a condition of 0 deficit (for all values, see here).

2.6.2 Calibration

Using the direct calibration method, the paper distinguishes high or low levels of deficit based on the 3 % value enshrined in the Stability and Growth Pact.

Excessive deficit: lower than -3 %
Low deficit: higher or equal than -3 % but lower than 0 %
Surplus: higher or equal than 0 %

We calibrate the set "High deficit" (HIGHDEF) as follows:
1 = -5 %
0.5 = -3 %
0 = 0 %

2.7 Unsustainable refinancing costs (UNSUST)

2.7.1 Measurement

Refinancing costs—measured through the long-term interest rate—are the costs that a national government must pay for borrowing additional resources from investors on the financial market. The less investors trust that the government will repay them, the higher the interest rate they will demand. This affects the member state's ability to borrow money from financial markets. In an extreme case, refinancing costs can become (almost) unsustainable, thus preventing the state from financing itself. For the interest rate, we consider the year (2012) in which the TSCG was adopted and ratified. Based on OECD's data, we analyze the interest rates on the 10-year sovereign bond of France, Germany, and Italy. In 2012, the value for France was 2.54 %, for Germany 1.5 %, and for Italy 5.49 % (see here).

2.7.2 Calibration

Using the direct calibration method, we use the empirical maximum and minimum values in our sample as thresholds for full (non-)membership, and compare the interest rates to the euro area average sovereign bond interest rate in 2012 which was 3.5 % (see here). When the member states' interest rate is above the euro area average, we call it high. When it is below, we call it low. This makes sense from a theoretical standpoint since the market assesses refinancing costs by comparing one country's situation with its peers, especially with countries sharing the same currency. If a member state's interest rate is significantly above the euro area average, then the markets see a concrete risk of unsustainable refinancing costs compared to its peers. If a member state's interest rate is below the euro area average, then the markets see the country as a 'safe haven' compared to neighbors.

1 = 5.49
0.5 = 3.5
0 = 1.5

2.8 Excessive deficit procedure as deterrent (EDP)

2.8.1 Measurement

All our cases have been under an EDP during the time which goes from the adoption of the TSCG (2 March 2012) to the date of completion of the process of transposition, i.e., the date on which the last transposition measure was adopted. We distinguish between cases where the EDP lasted less than half of the overall transposition period from cases where the EDP covered the entire transposition period.
France has been under an EDP from April 2009 to 22 June 2018 (see here). The last French transposition measure dates 29 December 2014. The EDP against Germany was opened in January 2010 and was closed on 22 June 2012 (see here), whereas the last transposition measure was adopted on 15 July 2013. The EDP against Italy was also opened in January 2010 but abrogated one year later than in Germany (on 21 June 2013) (see here). Overall, France and Italy have been under the EDP

for the entire process of transposition of the TSCG. Germany has instead exited the EDP long before completing the transposition, thus spending less than half of the time from adoption to full transposition of the TSCG under an EDP.
An EDP's deterrent effect depends on the ability of a member state to face its adverse domestic costs. If such ability is low, the domestic costs of an EDP will be high. In that case, a long EDP which covers the entire transposition period of the TSCG will represent an effective and constant enforcement threat and, thus, a strong deterrent.

2.8.2 Calibration

As for length, the expectation is that a relatively short duration of the EDP has a weaker influence on the transposition process. On the contrary, the influence is stronger when a long EDP accompanies a member state during the whole transposition period.
We calibrate the set "Excessive Deficit Procedure" (EDP) as follows:
1 = EDP covered the entire transposition period
0 = EDP lasted less than half of the overall transposition period

2.9 Need to signal compliance (SIG)

2.9.1 Measurement

We measure the need for a member state to show to European and international actors that it is able to comply with a rule by considering the following sets: EDP, HIGHDEF and UNSUST

2.9.2 Calibration

SIG = HIGHDEF*UNSUST + UNSUST*EDP + EDP*HIGHDEF
(+ = 'or')

2.10 Directional expectations

Table A11 summarizes the conditions and their expected isolated effect on (non-)literal compliance. However, our analysis focuses on different constellations of conditions that express either an internal pressure to change EU rules, and/or an external pressure not to change EU rules.

Table A11: Directional expectations

Condition	**Contributes to**	
	LIT when	**~LIT when**
Internal pressure to change		
High policy fit (FIT): congruence of pre-existing national rule with the new EU rule	Present	Absent
Pre-existing rule (PRE): a pre-existing national rule regulating the same issue is used to transpose the new EU rule	--	--
Strong budgetary discipline (DISC)	--	--
Domestic opposition (OPP) to the EU rule	Absent	Present
External pressure to not change		
Flexibility of the EU rule (FLEX)	--	--
Need to signal compliance (SIG) due to the presence of two out of three of the following elements: either a high deficit OR high refinancing costs OR an ongoing Excessive Deficit Procedure	Present	Absent

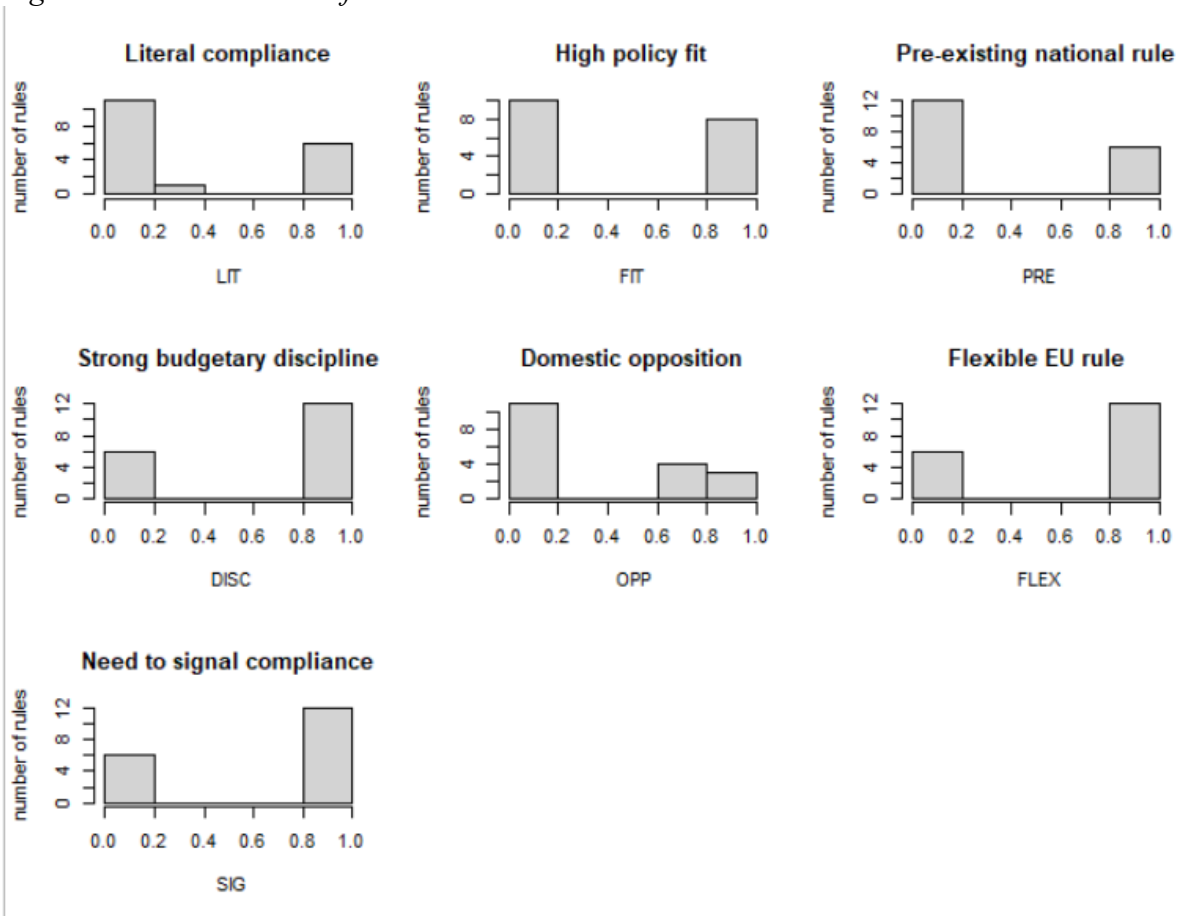
3 Data description and analysis

Descriptive statistics

Table A12: Descriptive statistics and set skewness

Statistic	*N*	*Mean*	*St. Dev.*	*Min*	*Max*	*Skewness (% > 0.5)*
LIT	18	0.389	0.457	0.000	1.000	33.33
FIT	18	0.444	0.511	0	1	44.44
PRE	18	0.333	0.485	0	1	33.33
DISC	18	0.667	0.485	0	1	66.67
OPP	18	0.316	0.420	0.000	1.000	38.89
FLEX	18	0.667	0.485	0	1	66.67
SIG	18	0.650	0.437	0.050	0.950	66.67

Figure A1: Visualization of calibrated sets



3.1 Analysis of necessity

Table A13: Results of necessity—individual conditions

Outcome	**Literal compliance (LIT)**			**Customized compliance (~LIT)**		
Parameters	**Cons.Nec**	**Cov.Nec**	**RoN**	**Cons.Nec**	**Cov.Nec**	**RoN**
FIT	0,629	0,55	0,735	0,327	0,45	0,694
PRE	0,486	0,567	0,822	0,236	0,433	0,779
DISC	0,543	0,317	0,423	0,745	0,683	0,612
OPP	0,391	0,482	0,807	0,285	0,553	0,829
FLEX	0,829	0,483	0,492	0,564	0,517	0,508
SIG	0,657	0,393	0,47	0,664	0,624	0,589
~FIT	0,371	0,26	0,519	0,673	0,74	0,755
~PRE	0,514	0,3	0,417	0,764	0,7	0,625
~DISC	0,457	0,533	0,811	0,255	0,467	0,789
~OPP	0,637	0,362	0,419	0,733	0,654	0,571
~FLEX	0,171	0,2	0,714	0,436	0,8	0,909
~SIG	0,371	0,413	0,76	0,355	0,619	0,83

Table A14: Results of necessity—SUIN conditions

	inclN	**RoN**	**covN**
Outcome: LIT			
FIT + OPP + ~SIG	0,90285714	0,54452055	0,54295533
Outcome: ~LIT			
DISC + ~FLEX	0,909090909	0,5	0,714285714

Note: The SUIN condition for LIT is empirically consistent and relevant, but not conceptually apt for meaningful interpretation in the light of existing compliance and implementation theory. The SUIN condition for ~LIT is not empirically consistent, as an XY plot reveals there is a Deviant case Consistency in Kind.

3.2 Analysis of sufficiency

Table A15. Truth table for literal compliance (LIT)

Row nr.	FIT	PRE	DISC	OPP	FLEX	SIG	OUT	n	incl	PRI	cases
8	0	0	0	1	1	1	1	1	1	1	fr2
16	0	0	1	1	1	1	1	1	1	1	it1
43	1	0	1	0	1	0	1	1	1	1	de2
52	1	1	0	0	1	1	1	1	1	1	fr6
56	1	1	0	1	1	1	1	1	1	1	fr1
57	1	1	1	0	0	0	1	1	1	1	de4
63	1	1	1	1	1	0	0	1	0.298507462686567	0	de1
12	0	0	1	0	1	1	0	3	0.229559748427673	0.118705035971223	it2, it3, it6
6	0	0	0	1	0	1	0	1	0.210526315789474	0	fr4
59	1	1	1	0	1	0	0	2	0.179372197309417	0	de3, de6
2	0	0	0	0	0	1	0	1	0	0	fr5
4	0	0	0	0	1	1	0	1	0	0	fr3
10	0	0	1	0	0	1	0	1	0	0	it4
14	0	0	1	1	0	1	0	1	0	0	it5
45	1	0	1	1	0	0	0	1	0	0	de5

Limited diversity: 15 out of 64 logically possible truth table rows (23.4%) are empirically observed.
Directional expectations used for intermediate solution: FIT → LIT, ~OPP → LIT, SIG→ LIT. No logically impossible remainder rows exist.
Conservative solution: FIT*PRE*~DISC*FLEX*SIG + ~FIT*~PRE*OPP*FLEX*SIG + FIT*~PRE*DISC*~OPP*FLEX*~SIG + FIT*PRE*DISC*~OPP*~FLEX*~SIG → LIT
Due to model ambiguities, there are 144 possible parsimonious models. The model ambiguity is reduced to 8 intermediate models listed below. A comparison shows that the Boolean formula remain very stable across the models: of the four paths, one is identical across all models, and of the other three, two versions of each exist, which all have a stable core and vary in the additional relevance that they do (not) grant to 1-2 additional conditions. For these additional conditions, we hence have inconclusive results regarding whether they do or do not have causal relevance for the outcome. To minimize this problem, we choose the model for interpretation that grants causal relevance to the least number of additional conditions—that is, the least complex of these intermediate models (M3, from C1P5, C1P6, C1P7, C1P8, C1P21, C1P22, C1P25, C1P26, C1P41, C1P42, C1P43, C1P44, C1P57, C1P58, C1P61, C1P62, C1P77, C1P78, C1P79, C1P80, C1P93, C1P94, C1P97, C1P98, C1P113, C1P114, C1P115, C1P116, C1P129, C1P130, C1P133, C1P13).

M1: FIT*~PRE*DISC*~OPP*FLEX + FIT*PRE*DISC*~OPP*~FLEX + FIT*PRE*~DISC*FLEX*SIG + ~FIT*~PRE*OPP*FLEX*SIG -> LIT
M2: FIT*~PRE*DISC*~OPP*FLEX*~SIG + FIT*PRE*DISC*~OPP*~FLEX + FIT*PRE*~DISC*FLEX*SIG + ~FIT*~PRE*OPP*FLEX*SIG + -> LIT
M3: FIT*~PRE*DISC*~OPP*FLEX + FIT*PRE*DISC*~OPP*~FLEX + FIT*PRE*~DISC*FLEX*SIG + ~PRE*OPP*FLEX*SIG -> LIT
M4: FIT*~PRE*DISC*~OPP*FLEX*~SIG+ FIT*PRE*DISC*~OPP*~FLEX + FIT*PRE*~DISC*FLEX*SIG + ~PRE*OPP*FLEX*SIG -> LIT
M5: FIT*~PRE*DISC*~OPP*FLEX + FIT*PRE*DISC*~OPP*~FLEX*~SIG + FIT*PRE*~DISC*FLEX*SIG + ~FIT*~PRE*OPP*FLEX*SIG -> LIT
M6: FIT*~PRE*DISC*~OPP*FLEX*~SIG + FIT*PRE*DISC*~OPP*~FLEX*~SIG + FIT*PRE*~DISC*FLEX*SIG+ ~FIT*~PRE*OPP*FLEX*SIG -> LIT
M7 FIT*~PRE*DISC*~OPP*FLEX + FIT*PRE*DISC*~OPP*~FLEX*~SIG + FIT*PRE*~DISC*FLEX*SIG + ~PRE*OPP*FLEX*SIG -> LIT
M8: FIT*~PRE*DISC*~OPP*FLEX*~SIG + FIT*PRE*DISC*~OPP*~FLEX*~SIG + FIT*PRE*~DISC*FLEX*SIG + ~PRE*OPP*FLEX*SIG -> LIT

Table A16. Truth table for customized compliance (~LIT)

Row Nr.	FIT	PRE	DISC	OPP	FLEX	SIG	OUT	N	incl	PRI	cases
2	0	0	0	0	0	1	1	1	1	1	fr5
4	0	0	0	0	1	1	1	1	1	1	fr3
10	0	0	1	0	0	1	1	1	1	1	it4
14	0	0	1	1	0	1	1	1	1	1	it5
45	1	0	1	1	0	0	1	1	1	1	de5
63	1	1	1	1	1	0	1	1	1	1	de1
59	1	1	1	0	1	0	1	2	0.932735426008969	0.918032786885246	de3, de6
6	0	0	0	1	0	1	1	1	0.842105263157895	0.8	fr4
12	0	0	1	0	1	1	1	3	0.786163522012579	0.755395683453237	it2, it3, it6
8	0	0	0	1	1	1	0	1	0	0	fr2
16	0	0	1	1	1	1	0	1	0	0	it1
43	1	0	1	0	1	0	0	1	0	0	de2
52	1	1	0	0	1	1	0	1	0	0	fr6
56	1	1	0	1	1	1	0	1	0	0	fr1
57	1	1	1	0	0	0	0	1	0	0	de4

Limited diversity: 15 out of 64 logically possible truth table rows (23.4%) are empirically observed.
Directional expectations used for intermediate solution: ~FIT →~ LIT, OPP → ~LIT, ~SIG→ ~LIT. No logically impossible remainder rows exist.
Conservative solution: ~FIT*~PRE*~OPP*SIG + ~FIT*~PRE*~FLEX*SIG + FIT*PRE*DISC*FLEX*~SIG + FIT*~PRE*DISC*OPP*~FLEX*~SIG -> ~LIT
Due to model ambiguities, 8 possible parsimonious models exist. The model ambiguity is reduced to 4 intermediate models listed below. A comparison shows that the Boolean formula remain very stable across the models: of the four paths, two are identical across all models, and of the other two paths, two versions of each exist, which all have a stable core and vary in the additional relevance that they do (not) grant to 1 additional condition. For these additional conditions, we hence have inconclusive results regarding whether they do or do not have causal relevance for the outcome. To minimize this problem, we choose the model for interpretation that grants causal relevance to the least number of additional conditions—that is, the least complex of these intermediate models (M1, from C1P1, C1P2).

M1: ~FIT*~PRE*~OPP + ~FIT*~PRE*~FLEX + PRE*DISC*FLEX*~SIG + ~PRE*DISC*OPP*~FLEX*~SIG -> ~LIT
M2: ~FIT*~PRE*~OPP + ~FIT*~PRE*~FLEX*SIG + PRE*DISC*FLEX*~SIG + ~PRE*DISC*OPP*~FLEX*~SIG -> ~LIT
M3: ~FIT*~PRE*~OPP*SIG + ~FIT*~PRE*~FLEX + PRE*DISC*FLEX*~SIG + ~PRE*DISC*OPP*~FLEX*~SIG -> ~LIT
M4: ~FIT*~PRE*~OPP*SIG + ~FIT*~PRE*~FLEX*SIG + PRE*DISC*FLEX*~SIG + ~PRE*DISC*OPP*~FLEX*~SIG -> ~LIT

Table A17: Easy counterfactuals for intermediate model for LIT reported in paper

Row Nr.	FIT	PRE	DISC	OPP	FLEX	SIG
40	1	0	0	1	1	1
44	1	0	1	0	1	1
48	1	0	1	1	1	1
58	1	1	1	0	0	1

Table A18: Easy counterfactuals for intermediate model for ~LIT reported in paper

Row Nr.	FIT	PRE	DISC	OPP	FLEX	SIG
1	0	0	0	0	0	0
3	0	0	0	0	1	0
5	0	0	0	1	0	0
9	0	0	1	0	0	0
11	0	0	1	0	1	0
13	0	0	1	1	0	0
27	0	1	1	0	1	0
31	0	1	1	1	1	0

Figure A2: Intermediate solution for LIT

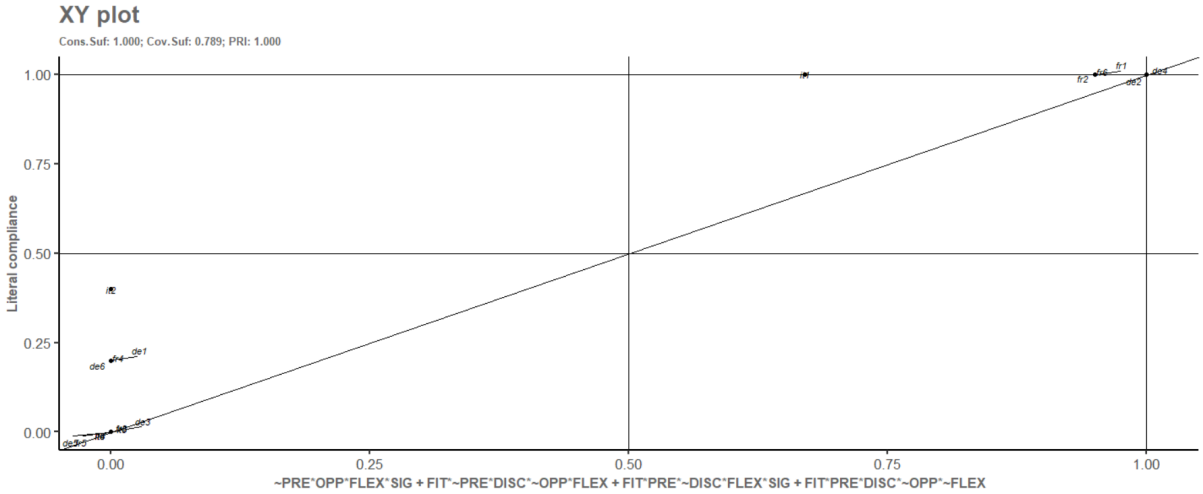


Figure A3: Intermediate solution for ~LIT

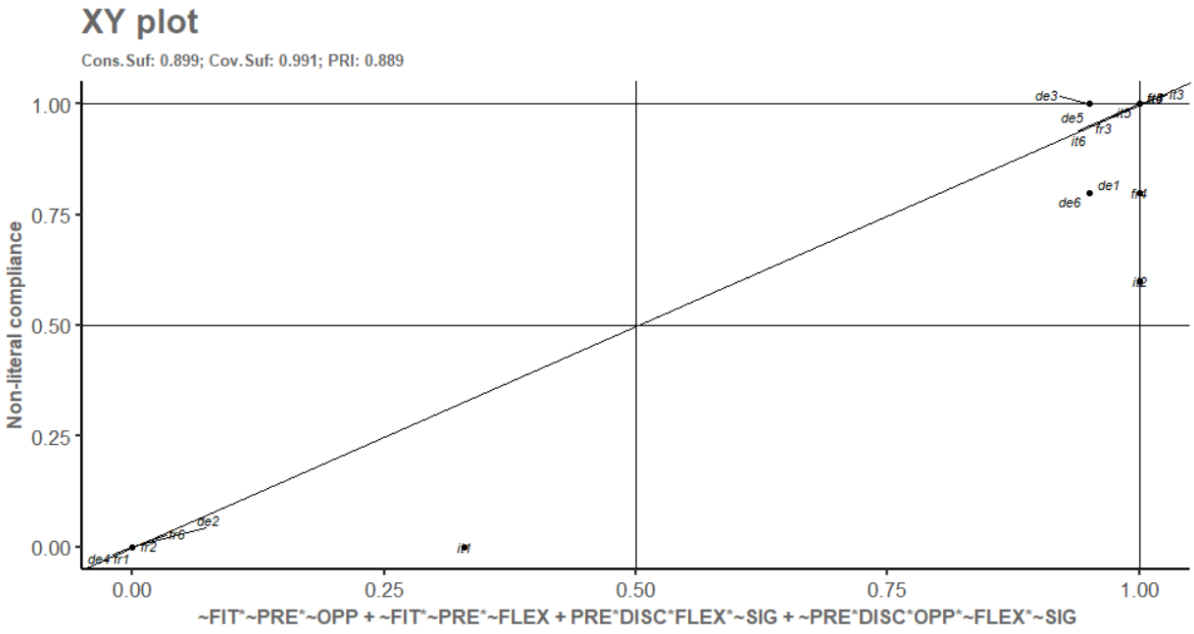
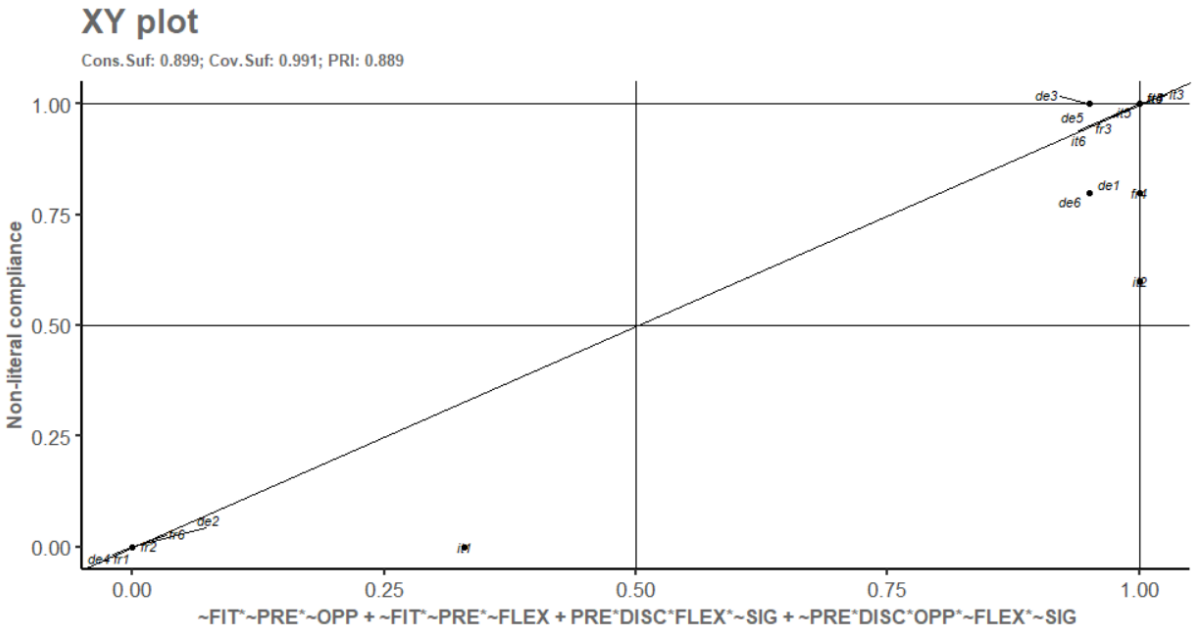


Figure A4: Intermediate solution for ~LIT



3.3 Robustness test

Following Oana et al. (2021), robustness tests should be performed only if there are substantively plausible analytic alternatives. Robustness can be tested against changes in:

a) Raw consistency thresholds

The raw consistency thresholds chosen are the best possible because they ensure that all cases are covered (explained), while also avoiding any deviant cases consistency in kind. The small deviations from perfect consistency for ~LIT are not due to actually inconsistent cases, but fuzzy differences in degree. Absent plausible analytic alternatives, robustness against alternative raw consistency thresholds is not tested.

b) Frequency thresholds

Given the small-N character of our analyses, introducing a frequency threshold would substantially and negatively affect the coverage and scope of our analysis. Absent plausible analytic alternatives, robustness against alternative frequency thresholds is not tested.

c) Calibration anchors

Most sets in our analysis are calibrated qualitatively using the theoretical/recoding method of calibration, based on an in-depth knowledge of our cases (see Tables 1 and 2 in the paper). The only exception are the three component sets of SIG. However, the crossover points chosen for these three sets have strong theoretical justifications (see Table 2, third column)—changing them would affect the conceptual meaning of the set in adverse ways. Absent plausible analytic alternatives, robustness against alternative calibration anchors is not tested. However, it is possible to think of an alternative way of aggregating the three component sets into the set SIG—using a substitutability structure instead of the family resemblance structure applied in the paper:

Initial aggregation (used in paper): SIG= HIGHDEF* UNSUST + HIGHDEF*EDP + EDP* UNSUST
Test aggregation (used for robustness test): SIG2= HIGHDEF + UNSUST + EDP

Robustness test for LIT

Sensitivity range for raw consistency threshold

Raw Consistency T.: Lower bound 0.299999999999999 Threshold 1 Upper bound 1

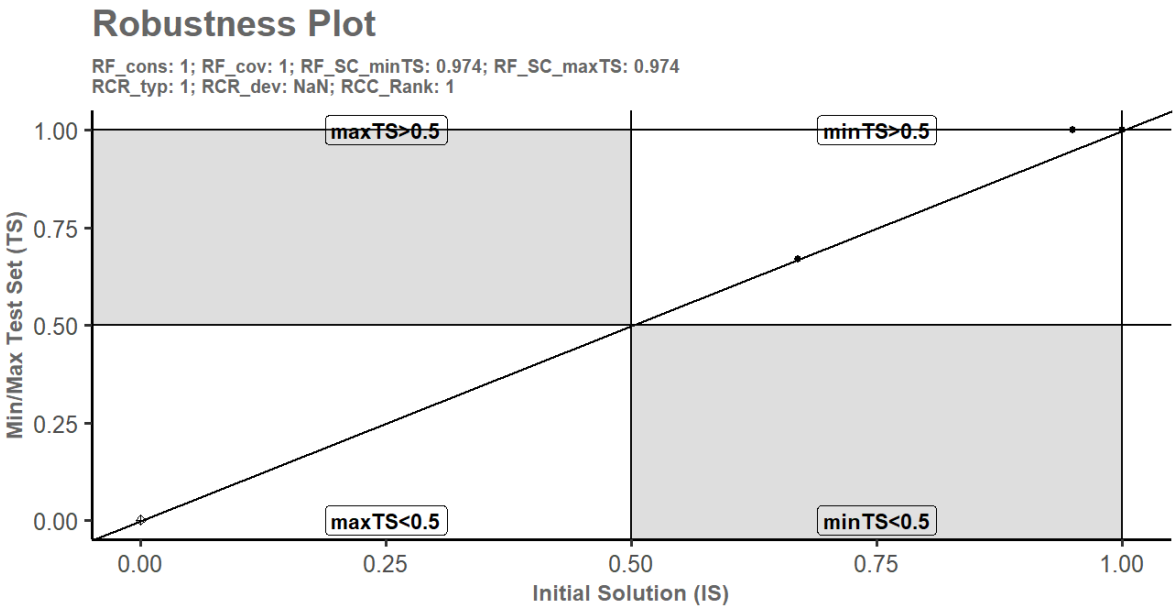
The solution is highly robust to changes in raw consistency thresholds. It remains the same until raw consistency threshold is lowered to 0.299, which is way below any recommended threshold for sufficiency.

Fit-oriented robustness (initial solution using SIG, test solution using SIG2)

	RF_cov	RF_cons	RF_SC_minTS	RF_SC_maxTS
Robustness_Fit	1	1	0.974	0.974

The initial solution overlaps perfectly with the robust core, meaning that it withstands all alterations and remains perfectly robust. In terms of parameters of fit, there is high set coincidence between the initial and the set solution.

Case-oriented robustness



There are no changes in typical or deviant cases from the initial to the test solution. The solution remains highly robust to the alternative aggregation of set SIG, with no substantive and only minor numerical changes in parameters of fit.

Robustness test for~ LIT

Sensitivity range for raw consistency threshold

Raw Consistency T.: Lower bound 0.00599999999999947 Threshold 0.786 Upper bound 0.786

The solution is highly robust to changes in raw consistency thresholds. It remains the same until raw consistency threshold is lowered to 0.005, which is way below any recommended threshold for sufficiency.

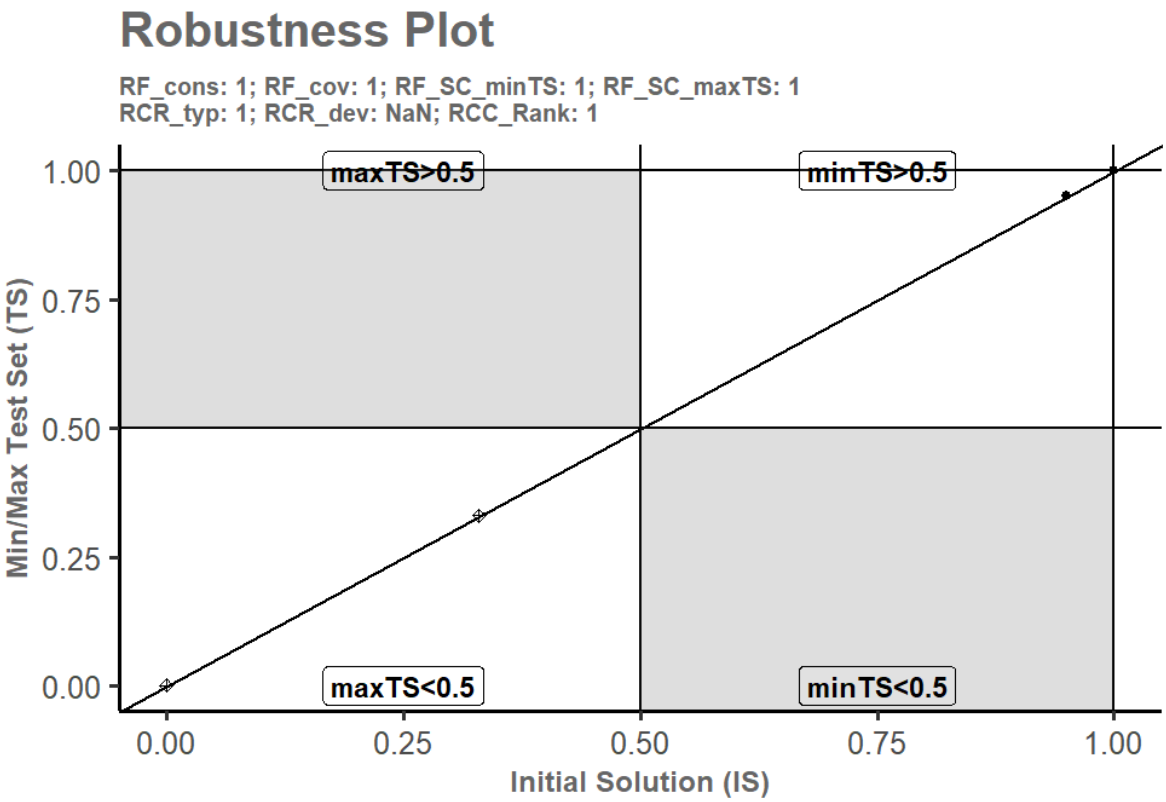
Fit-oriented robustness (initial solution using SIG, test solution using SIG2)

RF2

	RF_cov	RF_cons	RF_SC_minTS	RF_SC_maxTS
Robustness_Fit	1	1	1	1

The initial solution overlaps perfectly with the robust core, meaning that it withstands all alterations and remains perfectly robust. In terms of parameters of fit, there is perfect set coincidence between the initial and the set solution.

Case-oriented robustness



There are no changes in typical or deviant cases from the initial to the test solution. The solution remains highly robust to the alternative aggregation of set SIG, with no substantive or numerical changes in parameters of fit.

The QCA results are highly robust.