GERMAN DEVELOPMENT COOPERATION IN FRAGILE CONTEXTS

Online Appendix

2019

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ABBREVIATIONS AND ACRONYMS

ACME	Average Causal Mediation Effect
BMZ	Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung (Federal Ministry for Economic Cooperation and Development)
BTI	Bertelsmann Transformation Index
CEW	Crisis Early Warning (BMZ)
CRS	Creditor Reporting System (OECD DAC)
CSF	Constellations of State Fragility (DIE)
DAC	Development Assistance Committee (OECD)
DIE	Deutsches Institut für Entwicklungspolitik (German Development Institute)
FC	Financial Cooperation
GIGA	German Institute of Global and Area Studies
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (German International Cooperation Ltd)
KfW	German government-owned development bank
ODA	Official development assistance
OECD	Organisation for Economic Co-operation and Development
SE	Standard Error
SFI	State Fragility Index (CSF)
TC	Technical Cooperation
WASH	Water, Sanitation and Hygiene
UCDP	Uppsala Conflict Data Program
USD	United States Dollar

1. CHAPTER 2: DEFINING AND MEASURING FRAGILITY

This section presents an extensive description of concepts of state fragility as well as graphs of the concept structure.

1.1 Extensive description of concepts of state fragility

States of Fragility

Concept

The OECD (2016: 21) defines fragility as "the combination of exposure to risk and insufficient coping capacity of the state, system and/or communities to manage, absorb or mitigate those risks".

It differentiates five dimensions of fragility: economic, environmental, political, security, and societal (OECD, 2016: 22–25, 73, 152–159). These dimensions are further defined by two attributes each: risks and coping capacities. For instance, the environmental dimension consists of the environmental risk and the environmental coping capacity while the political dimension consists of the political risks and the political coping capacities. Three to seven indicators operationalize each attribute. Overall, there are 51 indicators in the States of Fragility 2018 Report (OECD, 2018: 265, 268–270).[1] These indicators mainly rely on publicly available indices and information from international organisations.

Aggregation and Typology

In each dimension, indicators are aggregated to two non-correlated principal components resulting in a two-dimensional space with two statistically derived components.[2] Aggregating to principal components leads to a data-driven weighting procedure. Each indicator is weighted according to the amount of new information it brings to the data.

The two principal components in each dimension form a two-dimensional space. Each country in the sample is situated in this space, with countries similarly affected by fragility having similar positions. Emerging clusters of countries constitute specific types of fragility and are described qualitatively.[3]

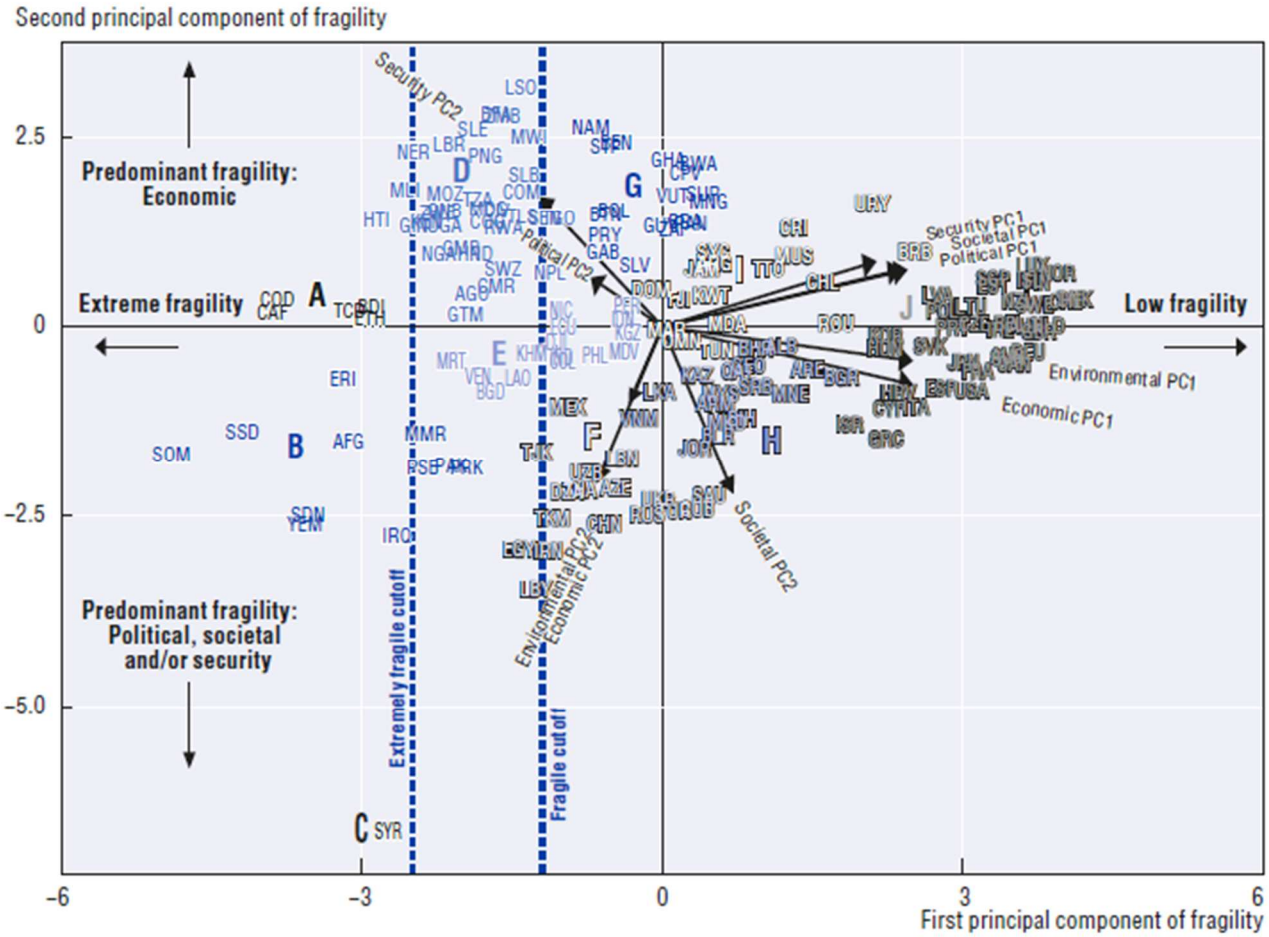
The ten principal components (two in each of the five dimensions) are then aggregated by means of a second principal components analysis, leading to another two-dimensional space which forms the overall assessment of fragility. This second step identifies the most fragile countries and classifies them as "extremely fragile" or "fragile" based on two arbitrary thresholds.

[1] Figure A A.1. (p. 265) in the OECD's States of Fragility 2018 Report displays 52 indicators. However, there is a typing error, stating that there are nine indicators within the societal dimension. In fact, the societal dimension draws on only eight indicators.

[2] Principal components analysis is a procedure to reduce a set of correlated variables to a smaller number of non-correlated components. For instance, in the political dimension, the first principal component is mainly determined by the following indicators: voice and accountability, judicial constraints on executive power, perception of corruption, legislative constraints on executive power, and political terror. The second principal component of the political dimension is mostly influenced by the indicators of regime persistence and decentralised elections.

[3] E.g. the political dimension differentiates five categories of country: extreme political fragility, centralized state leadership fragility, high political fragility, moderate political fragility, and low political fragility (OECD, 2016: 168).

Figure 1: Aggregate fragility analysis



Source: OECD (2016, p.173)

Constellations of State Fragility

Concept

Whereas the OECD's concept of fragility is comparatively wide, Grävingholt et al. (2018) focus more closely on statehood. They distinguish three types of state–society relations: authority, capacity, and legitimacy. In contrast to the OECD, the authors only draw on ten indicators. The authority dimension is measured by the monopoly of violence, battle-related deaths, and homicides. The capacity dimension is defined as the state's ability to provide basic services: the protection from harmful but avoidable diseases (operationalized by under-five child mortality as well as the access to drinking water), basic education (primary school enrolment), and basic administration (respective measure from the Bertelsmann Transformation Index). It is more difficult to measure legitimacy, as there is no direct empirical evidence for it. Thus, Grävingholt et al. use the indirect indicators human rights protection, freedom of the press, and asylum applications granted as proxies to measure a state's outright repression.

Aggregation and Typology

Similar to the OECD's approach, Grävingholt et al. (2018) employ a statistical technique to identify clusters of countries characterized by similar configurations of indicators. The authors employ finite mixture modelling[4] in order to derive types from typical empirical constellations of the attributes of state fragility. To aggregate the indicators in each of the dimensions, they apply the weakest-link approach. Hence, rather than the mean, the weakest indicator determines the aggregated value in each dimension. Missing values are imputed.

This procedure results in scores for authority, capacity, and legitimacy in any given country-year within the sample. After having pooled all country-years in the sample to increase the number of observations, Grävingholt et al. use mixture model clustering to derive dominant constellations of state fragility from the data. The model specifications result in six to nine group constellations. Testing these numbers with k-means and hierarchical clustering provides evidence to opt for the six different group constellations.

Crisis Early Warning (CEW)

Concept

The CEW aims to detect emerging crises in order to allow the BMZ to take early action and thereby mitigate the risk of further escalation of violence. Although not a concept of state fragility in a narrow sense, we include the CEW in our assessment because emerging crises tackle a core dimension of statehood. States that are not able to provide the physical security of their population due to violent political conflict on their territory or high levels of crime are considered fragile.

The CEW concept is predictive. It should make predictions of the tendency for violence and the phase of violent conflict, in order for the BMZ to assess the need for preventive actions.

The conceptualization of the tendency for violence is made along three dimensions: structural conflict factors, conflict-enhancing processes, and strategies of conflict-solution and use of force. These three dimensions are further differentiated into three analysis sectors each, culminating in nine analysis sectors overall.[5] These nine sectors draw on three to six multiple-choice questions each, resulting in an overall of 35 indicators.

Besides these 35 questions, there are two questions to determine the phase of violent conflicts constituting a tenth analysis sector. Two more questions assess fragility in post-conflict situations.

Aggregation and Typology

Assigned country experts answer the 35 multiple-choice questions for their respective country. The answers to the multiple-choice questions are mostly related to a value of 1 or 2 and are added up in each of the nine analysis sectors. These values are then weighted and again totalled to derive the overall tendency for violence. The potential for violent conflict is, by contrast, directly retrieved from the two questions referred to above.

[4] Finite mixture modelling is a procedure to identify unobserved subgroups from a mixed distribution.

[5] The three analysis sectors defining structural conflict factors are: structural disparities, forms of settling conflict, and efficiency and legitimacy of political institutions. The three analysis sectors defining conflict-enhancing processes are: transformation and modernisation processes, external influences and collective perception of threat, and experiences of violence. The three analysis sectors defining strategies of conflict solution and use of force are tendencies of internal social polarisation, changes of the political strategies of single actors, and increasing use of force and violence.

From the aggregated value of the tendency for violence, CEW derives three broader categories:

(1) low tendency for violence

(2) heightened tendency for violence

(3) acute tendency for violence.

The categories for the potential of violent conflict are:

(a) at peace/pre-violent conflict

(b) violent conflict in sub-regions

(c) violent conflict

(d) post-violent conflict.

This leads to twelve possible constellations, of which ten are again aggregated, finally resulting in a ternary typology (green, yellow, and red) of countries.[6]

Fragility component of BMZ Catalogue of Criteria for Assessing Development Orientation

Concept

The fragility component of BMZ's Catalogue of Criteria for Assessing Development Orientation conceptualizes statehood rather than fragility. The three dimensions conceptualizing statehood are, in accordance with CSF: authority, capacity, and legitimacy. Each of the dimensions draws on four to eight questions answered by the ministry's employee in charge of the respective country (*LänderbearbeiterIn*).

The questions are answered on a scale ranging from 1 (worst) to 5 (best). For every dimension, the mean of the answers' values is calculated to receive one aggregated score per dimension. This differs from the weakest-link approach. To answer the questions as accurately as possible, the responsible officials can rely on international indices and sources provided by the ministry. However, the use of the indices is not compulsory and is not systematically tracked.

Aggregation and Typology

If a country's mean in any dimension is below 2.5, this dimension is considered a country's weakness. In the event that all three dimensions score below 2.5 on average, the country is considered "most fragile".

[6] As soon as a country-wide violent conflict is detected, the country will automatically be regarded as category 3 (acute tendency for violence), irrespective of the result of the other indicators/analysis sectors of the violence tendency dimension. This means that there is no possibility for the combination of violent conflict (c) and either low or heightened tendency for violence.

1.2 Graphs of concept structures

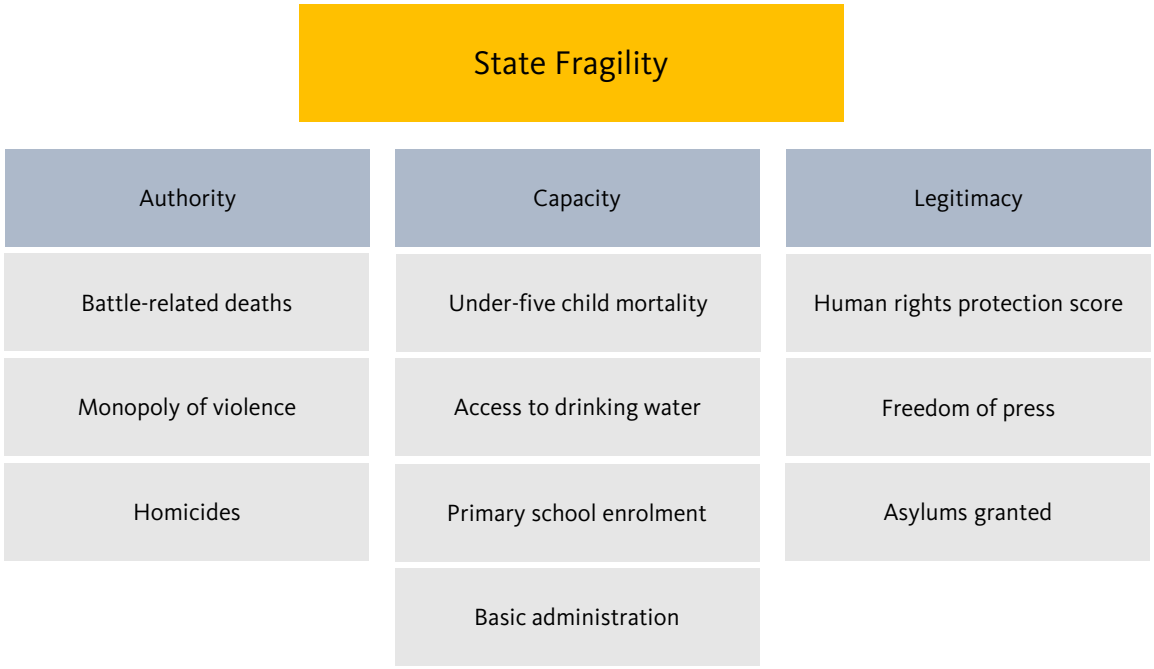
Figure 2: Concept structure – OECD States of Fragility

Fragility

Economic dimension		Environmental dimension		Political dimension		Security dimension		Societal dimension	
Risk	Coping capacity	Risk	Coping capacity	Risk	Coping capacity	Risk	Coping capacity	Risk	Coping capacity
Resource rent dependence	Education	Natural hazard exposure	Rule of law	Regime persistance	Decentralised elections	Violent conflict risk	Police officers	Gini coefficient	Core civil society index
General government gross debt	Regulatory quality	Environmental health	Core civil society index	Political terror	Restricted gender physical integrity value	Homicide rate	Armed security officers	Gender inequality	Access to justice
Youth not in education, employment or dependency	Remoteness	Prevalence of infectous diseases	Government effectiveness	Perception of corruption	Voice and accountability	Level of violent crime activity	Rule of law	Horizontal inequality	Voice and accountability
Aid dependency	Males in labour force	Uprooted people	Food security		Judicial constraints on executive power	Deaths by non-state actors	Control over territory	Uprooted people	
GDP growth rate	Women in labour force	Socio-economic vulnerability			Legislative constraints on executive power	Impact of terrorism	Government effectiveness	Urbanisation growth	
Unemployment rate	Food security					Battle related deaths	Restricted gender physical integrity value		
Socio-economic vulnerability							Formal alliances		

Source: own figure based on OECD 2016, 2018

Figure 3: Concept structure – Constellations of State Fragility



Source: own figure based on Grävingholt et al. 2018

2. CHAPTER 3: STRATEGIES

This section presents the descriptive and inferential results of the empirical analysis of Chapter 3. Additional robustness tests for all models are available upon request.

2.1 Method

To evaluate the coherence between strategies and country portfolios, we first derive empirical implications from analysed documents. Subsequently, we test these empirical implications for the years 2004 to 2017 based on German bilateral aid commitments as recorded in the OECD DAC Creditor Reporting System (CRS). We restrict our data to commited grants and loans and, further, to BMZ, KfW, DEG, DED and GIZ projects through the respective agency codes in the CRS data. One shortcoming of the data is that they do not permit distinction between financing and implementing agency. To operationalize strategy implementations, we identify the type of development cooperation mentioned in the strategy by identifying the closest possible match in the CRS data. If necessary, we also use data from other sources (see **Fehler! Verweisquelle konnte nicht gefunden werden.**).

Table 1 provides a detailed summary of all operationalizations. The main unit of analysis is a single allocation decision, defined as a certain type of ODA commitment in a given country and a given year. We observe allocation decisions in 138 countries[7] over 14 years. Commitments are typologized by 178 purpose codes, 15 types of aid, and 47 channel codes. Each operationalization has been carefully developed in exchanges with the reference group. However, some implications might not fully reflect all relevant country portfolios.

To test strategy implementation, we combine descriptive and inferential approaches. We assume an implementation gap of two years for technical cooperation and four years for financial cooperation.[8] The descriptive analysis compares, for each empirical implication separately, whether total or relative aid commitments to fragile countries changed after the implementation of the respective strategy. The analytical approach applies a fixed-effect regression analysis to rule out alternative explanations for changes in allocations. Thereby, we exploit the panel structure of the observed data, where different entities are observed at different points in time. The pivotal advantage of the fixed-effect model is that it can control for unobserved heterogeneity.

The fixed-effect model for our regression analysis includes entity-fixed effects which allows for omitted variables which differ between entities but do not vary over time. Time-fixed effects are added to account for effects which are constant across entities but evolve over time. Period effects are thereby removed from our estimate of the treatment effect. Furthermore, we extend the fixed-effect model for some implications to include fixed effects controlling for types of commitment (e.g. the purpose code, the channel code, or the recipient).[9]

We then combine the results qualitatively, taking into account the descriptive and inferential evidence. A team of researchers at DEval rated the empirical results using the Likert scale (see Table 3). We then

[7] The CRS dataset includes all ODA-egligble countries as defined by the OECD.
[8] Due to data constraints, we only apply an implication gap of one year for the 2013 strategy.
[9] For our analysis, we only consider positive aid commitments. In addition, we exlude aid allocated to regional or unspecified recipients.

aggregated the evidence for each critical juncture to come to an overall assessment. The aggregated results of the empirical analysis are summarized in Table 4.

Table 1: List and sources of variables for the empirical analysis in Chapter 3

armed conflict	Dummy variable that equals 1 for countries affected by an armed conflict, otherwise 0 (UCDP)
Bundeswehr	Dummy that equals 1 for the presence of a Bundeswehr mission, otherwise 0 (www.bundeswehr.de)
development orientation	Clientelism, regime corruption, social class equality in respect of civil liberties (Varieties of Democracy dataset)[10]
level of governance	Electoral democracy index, civil society participation index, women civil liberties index, liberal component index (Varieties of Democracy dataset)[11]
treat	Dummy variable that equals 1 for commitments allocated to fragile countries[12] after the strategy was implemented and which are in line with the respective implication, otherwise 0.
partner country	Dummy variable that equals 1 for BMZ partner countries, otherwise 0.
postconflict	Dummy variable that equals 1 for countries five years after intrastate armed conflict, otherwise 0 (UCDP)

Source: own table.

[10] Change in development orientation = difference in development orientation compared to previous year. Constant [-1Standard Error (SE), 1SE], Improving [1SE, infinity]] or Deteriorating [-infinity, -1SE].

[11] Low governance: Level of governance below median level of governance of all countries in data frame.

[12] We classify fragile countries according to CEW. Since the data are only available for the years after 2006, we impute values for the years 2004 to 2006 using UCDP data on armed conflict as well as CSF data.

Table 2: Operationalization of implications

Implication	Operationalization
1	PurposeCode: 152** (Conflict, Peace and Security)
2	Bundeswehr: 1
3	PurposeCode: 140** (Water Supply and Sanitation) or 232** (Energy Generation, renewable sources) or 233** (Energy Generation, non-renewable sources) or 730** (Reconstruction Relief and Rehabilitation) and postconflict: 1
4	ChannelCodes: 20000 (NGOs and civil society) or 21000 (international NGO) or 22000 (donor country-based NGO) or 23000 (developing country-based NGO) and low governance and deteriorating development orientation
5	PurposeCodes: 14030 (WASH) or 14031 (WASH) or 14032 (WASH) or 16050 (multisector aid for basic social services) or 112** (sector basic education) or 122** (sector basic health) and low governance and deteriorating development orientation
6	PurposeCodes: 15110 (public sector policy and administrative management) or 15111 (public finance management) or 15112 (decentralization and support to subnational government) or 15114 (domestic revenue mobilization) or 15130 (legal and judicial development) and low governance and improving development orientation
7	PurposeCodes: 16011 (women's equality organizations and institutions) or 33110 (trade policy and administrative management) or 510** (general budget support) and low governance and improving development orientation[13]
8	Type of Aid: B04 (basket funds) and year later than 2009 (data start in 2010) and low governance and constant or improving development orientation
9	PurposeCode: 15110 (public sector policy and administrative management) or 15111 (public finance management) or 15112 (decentralization and support to subnational government) or 43030 (urban development and management) and low governance and constant development orientation
10	Not tested

[13] We also included sector budget support as a robustness check. It does not substantially change the results. We do not include it here, because data are only available from 2010.

Implication	Operationalization
11	PurposeCodes: 15150 (democratic participation and civil society) or 15151 (elections) or 15153 (media and free flow of information) and ChannelCodes: 20000 (NGOs and civil society) or 21000 (international NGO) or 22000 (donor-country based NGO) or 23000 (developing country-based NGO)
12	PurposeCode: 730** (reconstruction relief & rehabilitation) or armed conflict: 1 and partner country: 0
13	PurposeCodes: 15220 (civil peacebuilding, conflict prevention and resolution) or 15210 (security system management and reform)
14	PurposeCode: 510** (general budget support)

Note: The links "and"/"or" denote the logical operators.

Source: own table

Table 3: Instruments by governance rating

Governance level	Development orientation	Instruments
Low	Improving	Technical cooperation for institutional reform support and capacity development, e.g. public budget and financial management Strengthening national parliaments and local authorities Financial support of national poverty and sector strategies (PBA) Programme-oriented joint funding (basket funding or budget aid if complemented by civil society support)
Low	Constant	Delivery of basic supplies and services (health, water, education) to poor and disadvantaged segments of society Local governance support to local authorities if development orientation higher than at central level Strengthening civil society in supplementing state functions, building networks of CSOs and other "drivers of change" Strengthen (sub-)regional mechanism for crisis prevention Joint strategies and special financing instruments with other donors
Low	Deteriorating	Implementation of projects outside state structures because "it is virtually impossible to deploy the classic instruments of bilateral development cooperation" (BMZ, 2007: 24) → Support of or via non-state cooperation, such as Civil Peace Service, NGOs, churches, grassroots CSOs

Governance level	Development orientation	Instruments
		Support political actors/CSOs in exile Strengthening/activating regional organizations Direct delivery of basic services Call upon international community if partner country fails in its responsibility to protect
Medium/High	Deteriorating	Preventive approach to avoid fragility/failure Policy dialogue with partner to agree on governance milestones (RoL, anti-corruption, democracy) Disbursement conditionality: Support for reform-oriented actors Incentives to government through PJF Withdrawal of bilateral and multilateral funds to sanction government's conduct
Presence of international peace mission		Apply 2005 peace concept Cooperation with military actors/peacekeepers If under mandate administration, rebuild autonomous partner state structures Fast-impact measure Instruments also depend on recipient's trend in development orientation (see above)

Source: own table

Table 4: Evidence aggregation

Key:

Strong evidence of allocation patterns opposite to implication	Weak evidence of allocation patterns opposite to implication	No clear evidence	Weak evidence of allocation patterns in line with implication	Strong evidence of allocation patterns in line with implication
- -	-	o	+	+ +

Table 5: Results of the empirical analysis

	Empirical implication	Year	Descriptive results		Inferential result	Summary
			Total	Relative share	Fixed-effect model	
1	More aid is committed to conflict transformation and peacebuilding	2005	++	++	++	++
2	Countries with a German military presence receive more aid on average	2005	++	++	++	++
3	Financial development cooperation for reconstruction increases in post-conflict countries	2005	+	+	++	++
4	More aid is channelled to non-state actors in countries with low governance and deteriorating development orientation	2007	+	o	--	-
5	More aid is committed to the direct delivery of basic services in countries with low governance and deteriorating development orientation	2007	++	o	+	+
6	Aid supports public institutions, e.g. ministries, national parliaments or local governments, in countries with low governance and improving development orientation	2007	+	+	+	++
7	Financial development cooperation supports the government in its national poverty and sectoral strategies in countries with low governance and improving development orientation	2007	--	--	+	--
8	More aid is allocated in basket funds in countries with low governance and constant or improving development orientation	2007	(o)	(o)	NA	(o)
9	More aid is used to support local governments in countries with low governance and constant development orientation	2007	o	o	++	+
10	More assistance for crisis prevention is given to relevant regional bodies (regions) in countries with low governance and constant development orientation	2007	NA	NA	NA	NA

11	The relative share of governance aid to non-state actors, e.g. the media, increases	2009	+	-	--	-
12	Non-partner countries that are affected by armed conflict or in the transition phase receive transitional aid	2013	+	++	++	++
13	More aid was allocated to conflict prevention programmes	2013	++	+	-	+
14	No aid was granted in the form of budgetary support	2013	+	+	-	+

Source: own table

2.2 Fixed-effect regression analysis

Table 6: Fixed-effect regression: Aid commitments and exposure to strategy implication

Dependent variable: Aid commitment in million USD (logarithm)

	I1	I2	I3	I4	I5	I6	I7	I9	I11	I12	I13	I14
treat	0.104*	0.173***	0.120***	-0.162***	0.116	0.170	0.603	0.109**	-0.265***	0.227***	-0.050	0.512
	(0.045)	(0.023)	(0.024)	(0.036)	(0.072)	(0.103)	(0.606)	(0.034)	(0.033)	(0.063)	(0.051)	(0.454)
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Allocation type FE	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	43020	43044	42959	40010	43041	43047	43047	43020	42944	42922	43030	43047

Note: The table reports estimates of the fixed-effect models for all implications under consideration. The dependent variable is the natural logarithm of aid commitments in million USD. The variable of interest *treat* takes the value 1 for commitments allocated to fragile countries after the strategy was implemented and which are in line with the respective implication, otherwise 0. The years under analysis are 2004 to 2017. Standard errors are reported in parentheses. *p<0.05; **p<0.01; ***p<0.001.

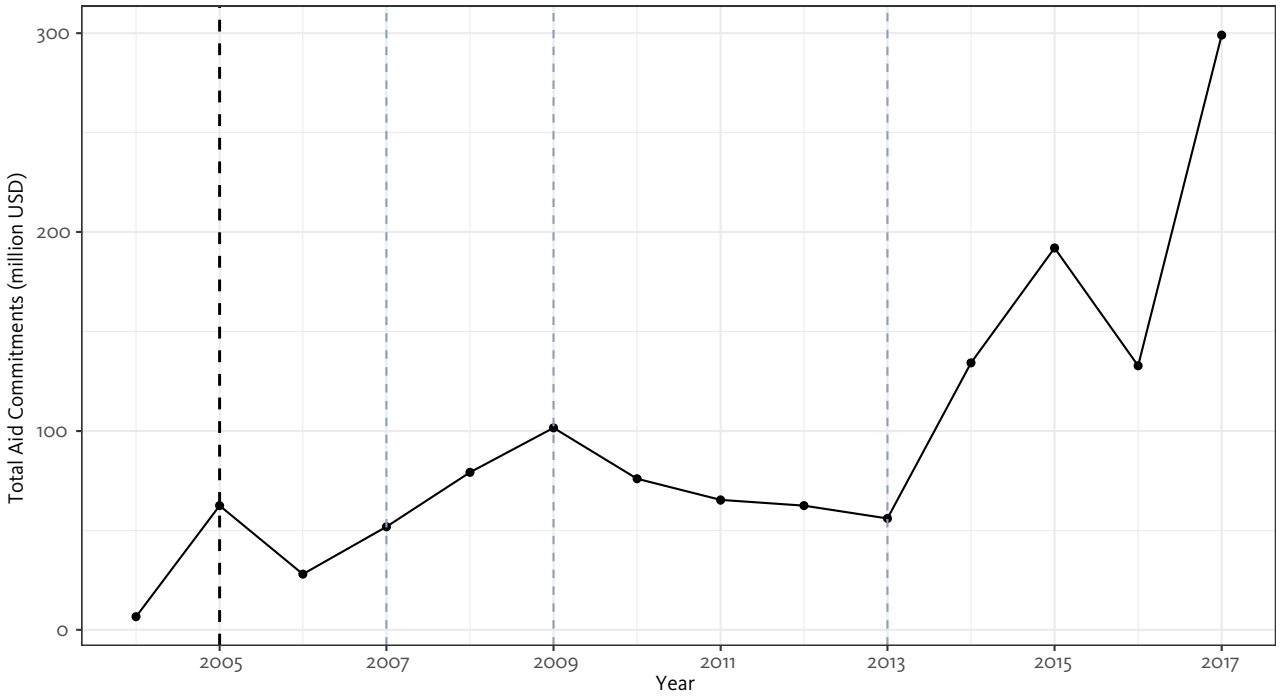
Source: own table.

2.3 Descriptive analysis

2.3.1 Empirical implication 1

More aid is committed to conflict transformation and peacebuilding

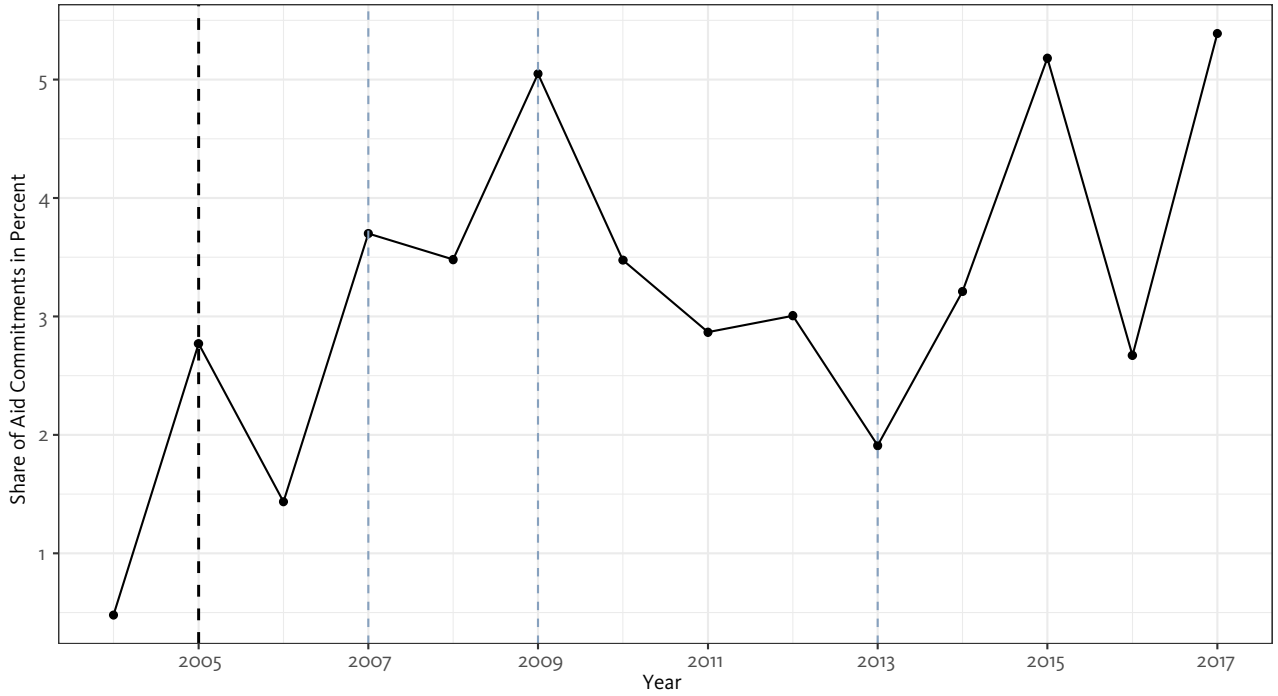
Figure 4: Implication 1 – Total aid commitments



Source: own figure

The figure displays total aid commitments in million USD to conflict transformation and peacebuilding in fragile countries for all years under analysis. The dark vertical bar indicates the publication year of the strategy under analysis. The lighter dashed bars indicate publication years of the other strategies.

Figure 5: Implication 1 – Share of aid commitments



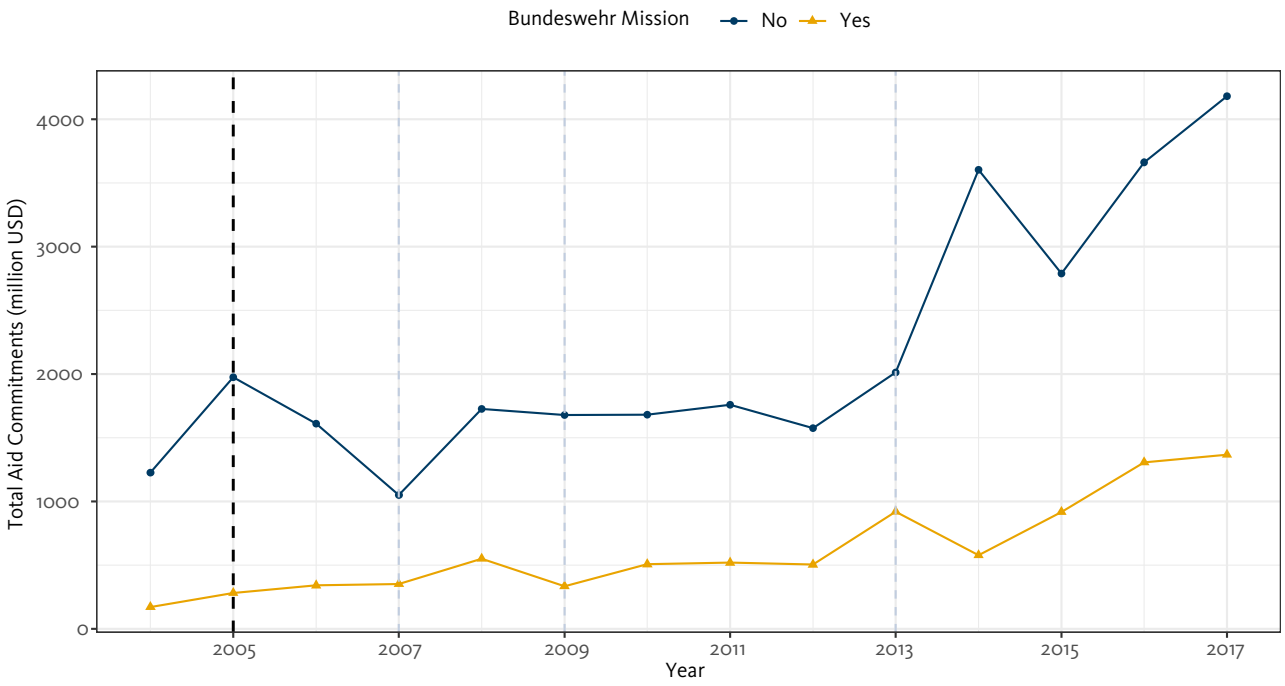
Source: own figure

The figure displays the share of aid commitments in percentages to conflict transformation and peacebuilding in fragile countries for all years under analysis. The dark vertical bar indicates the publication year of the strategy under analysis. The lighter dashed bars indicate publication years of the other strategies.

2.3.2 Empirical implication 2

Countries with a German military presence receive more aid on average

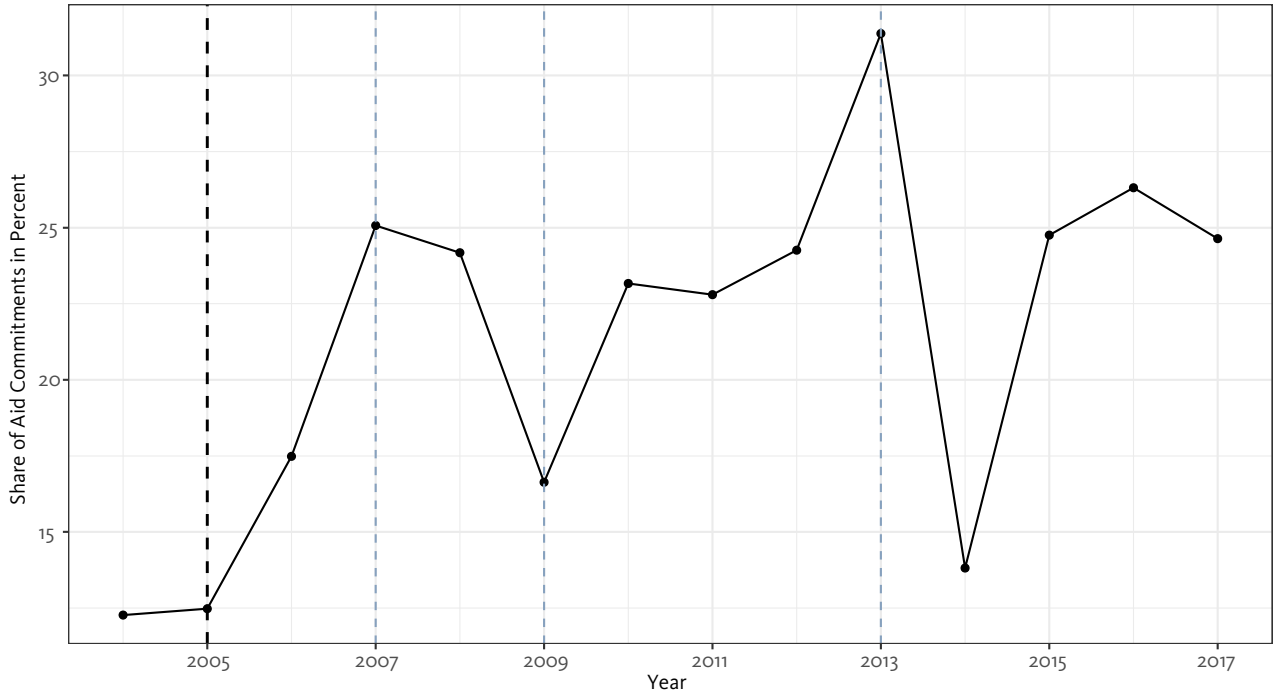
Figure 6: Implication 2 – Total aid commitments



Source: own figure

The figure displays total aid commitments to fragile countries with a German military presence in million USD for all years under analysis. The dark vertical bar indicates the publication year of the strategy under analysis. The lighter dashed bars indicate publication years of the other strategies.

Figure 7: Implication 2 – Share of aid commitments



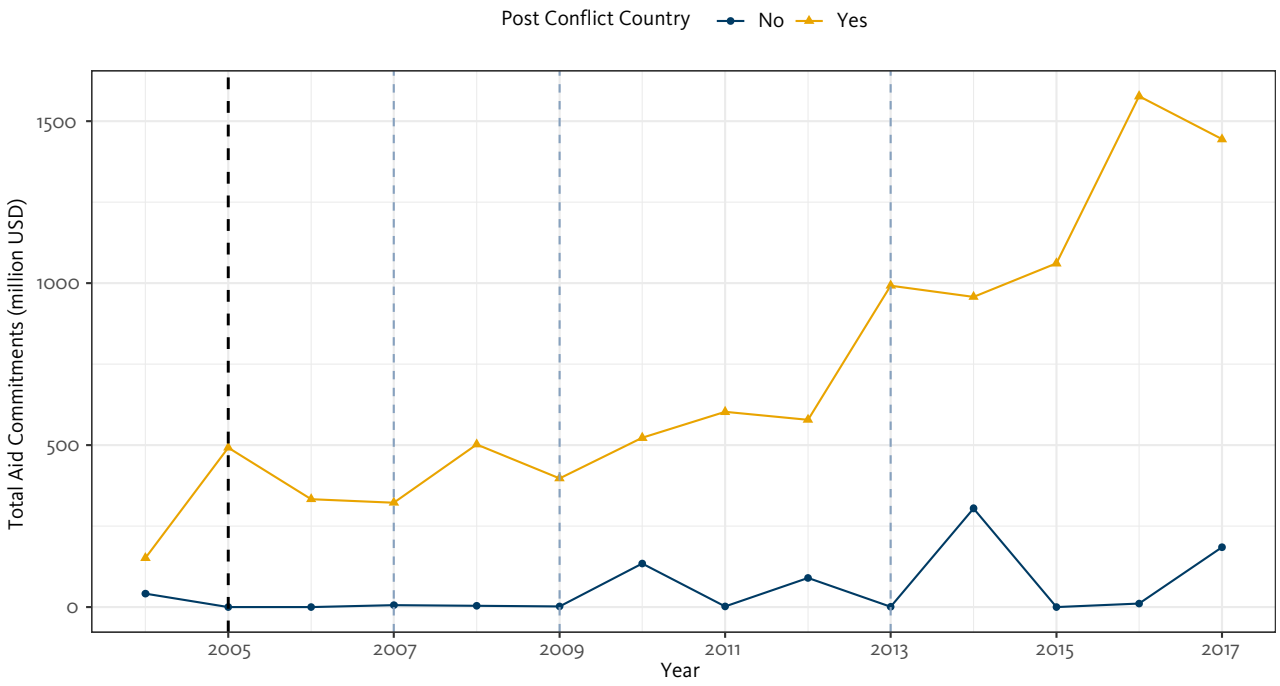
Source: own figure

The figure displays the share of aid commitments to fragile countries with a German military presence in percentages for all years under analysis. The dark vertical bar indicates the publication year of the strategy under analysis. The lighter dashed bars indicate publication years of the other strategies.

2.3.3 Empirical implication 3

Financial development cooperation for reconstruction increases in post-conflict countries

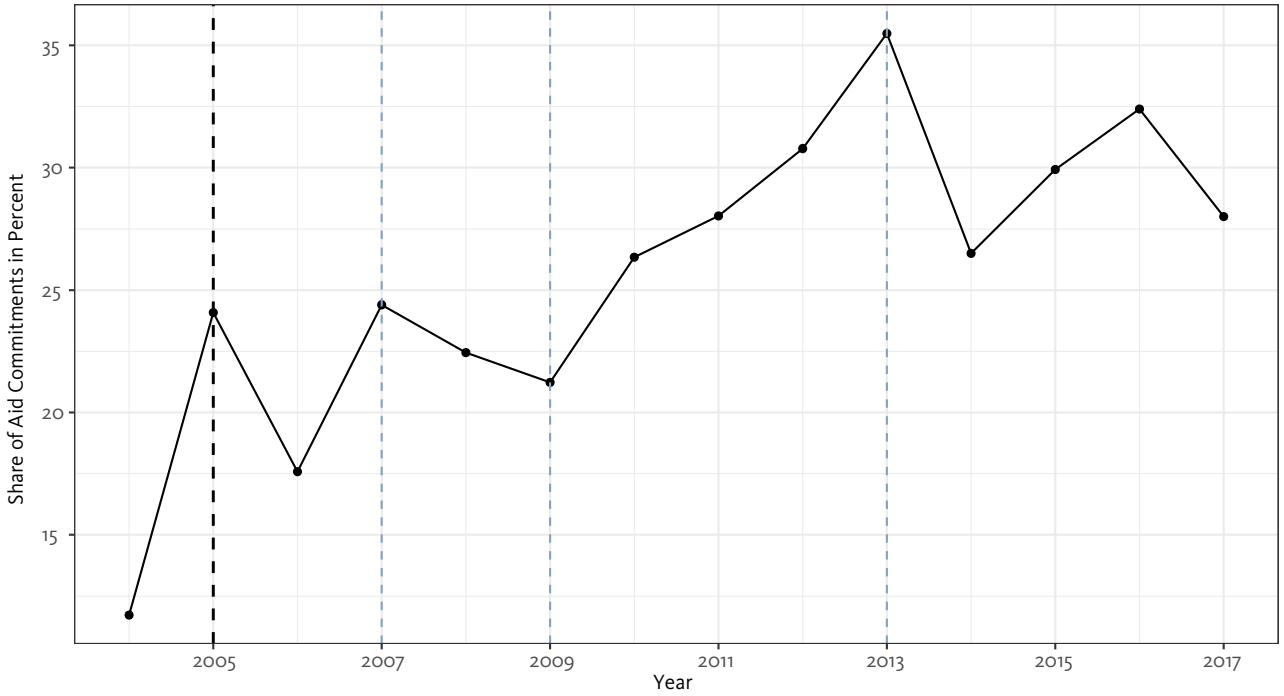
Figure 8: Implication 3 – Total aid commitments



Source: own figure

The figure displays total aid commitments to reconstruction projects in fragile post-conflict countries in million USD for all years under analysis. The dark vertical bar indicates the publication year of the strategy under analysis. The lighter dashed bars indicate publication years of the other strategies.

Figure 9: Implication 3 – Share of aid commitments



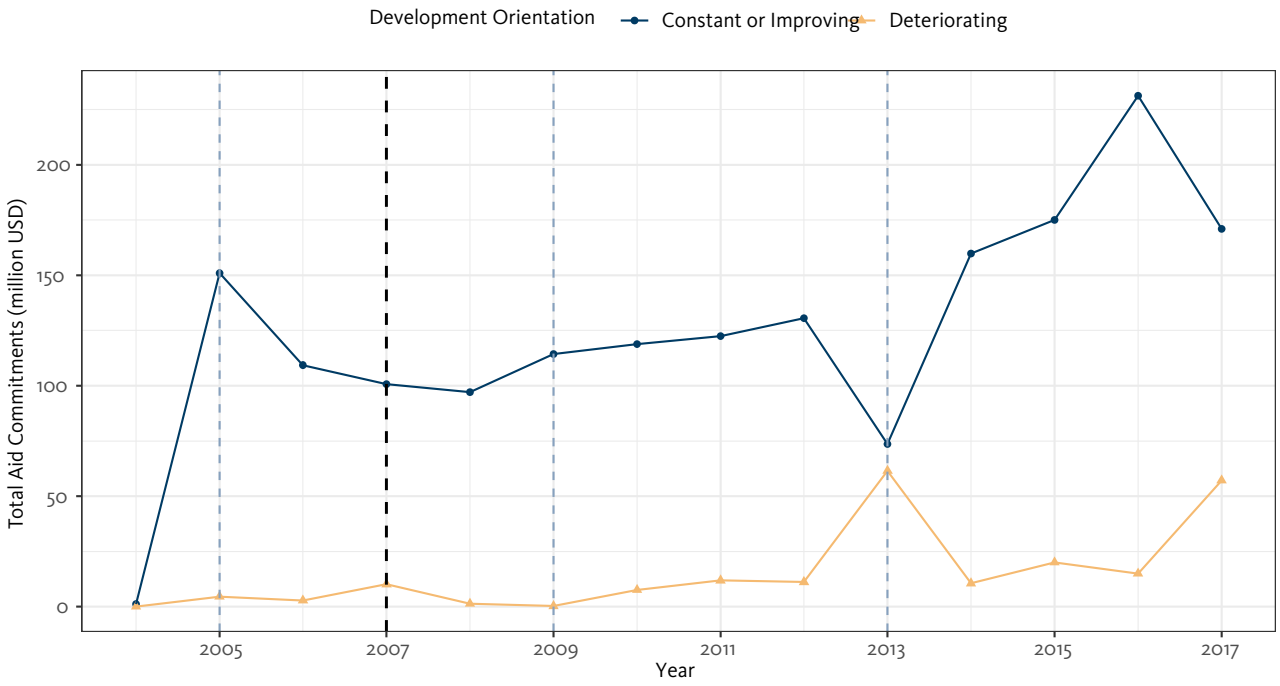
Source: own figure

The figure displays the share of aid commitments to reconstruction projects in fragile post-conflict countries in percentages for all years under analysis. The dark vertical bar indicates the publication year of the strategy under analysis. The lighter dashed bars indicate publication years of the other strategies.

2.3.4 Empirical implication 4

More aid is channelled to non-state actors in countries with low governance and deteriorating development orientation

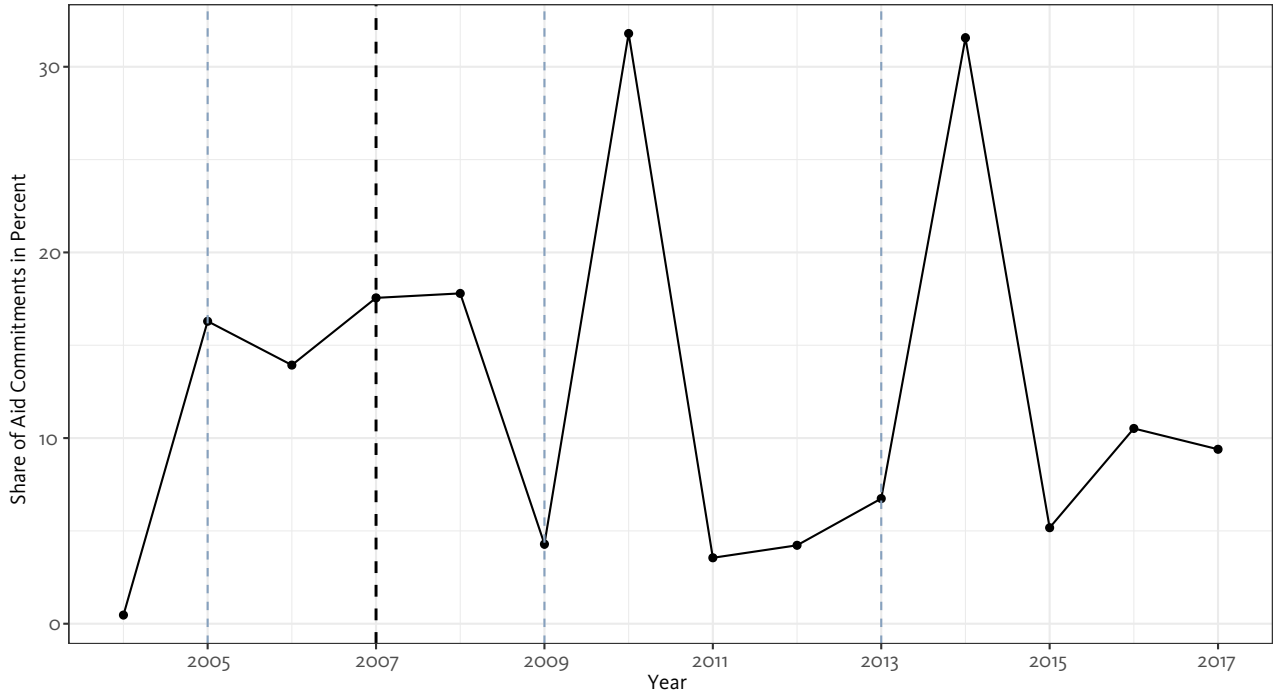
Figure 10: Implication 4 – Total aid commitments



Source: own figure

The figure displays total aid commitments to non-state actors in fragile countries with low governance and deteriorating development orientation in million USD for all years under analysis. The dark vertical bar indicates the publication year of the strategy under analysis. The lighter dashed bars indicate publication years of the other strategies.

Figure 11: Implication 4 – Share of aid commitments



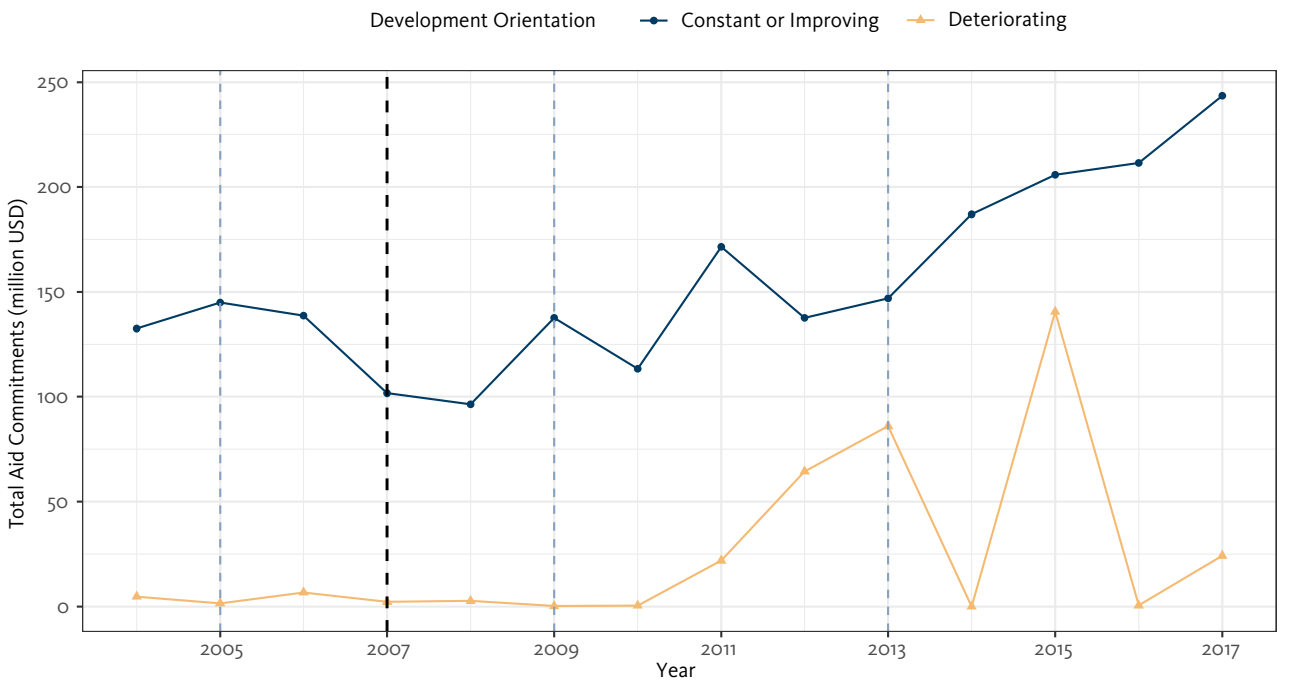
Source: own figure

The figure displays the share of aid commitments to non-state actors in fragile countries with low governance and deteriorating development orientation in percentages for all years under analysis. The dark vertical bar indicates the publication year of the strategy under analysis. The lighter dashed bars indicate publication years of the other strategies.

2.3.5 Empirical implication 5

More aid is committed to the direct delivery of basic services in countries with low governance and deteriorating development orientation

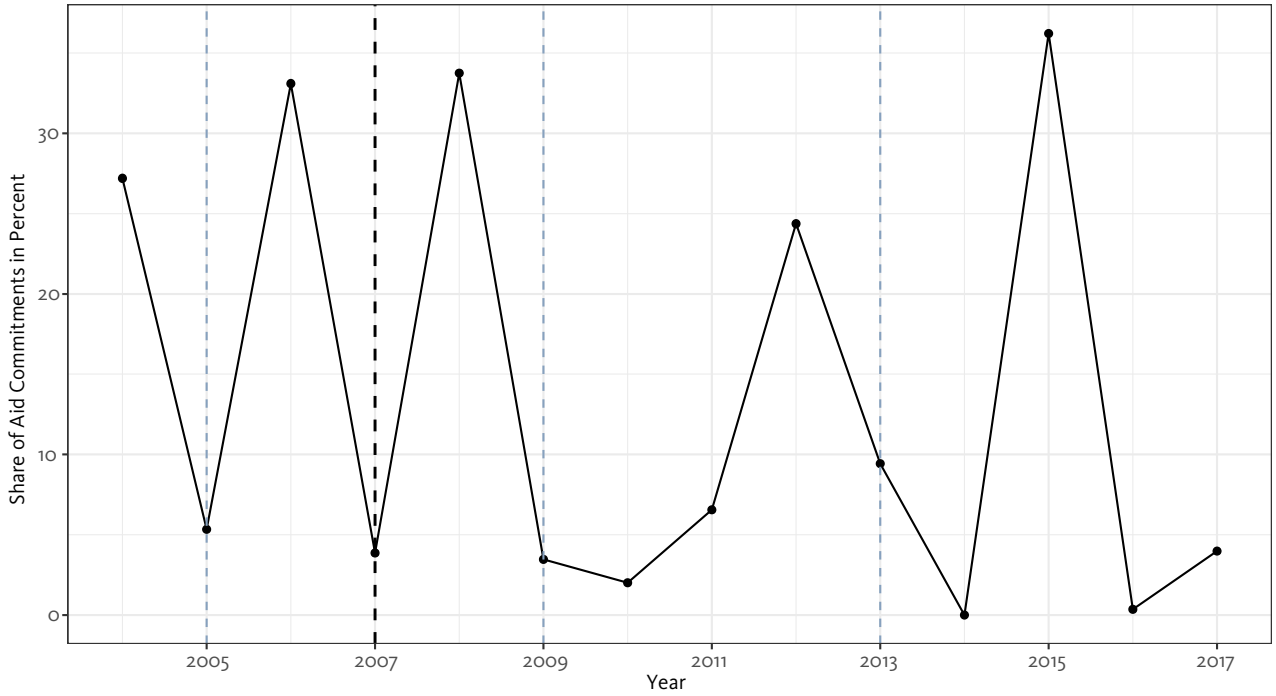
Figure 12: Implication 5 – Total aid commitments



Source: own figure

The figure displays total aid commitments to direct delivery of basic services in fragile countries with low governance and deteriorating development orientation in million USD for all years under analysis. The dark vertical bar indicates the publication year of the strategy under analysis. The lighter dashed bars indicate publication years of the other strategies.

Figure 13: Implication 5 – Share of aid commitments



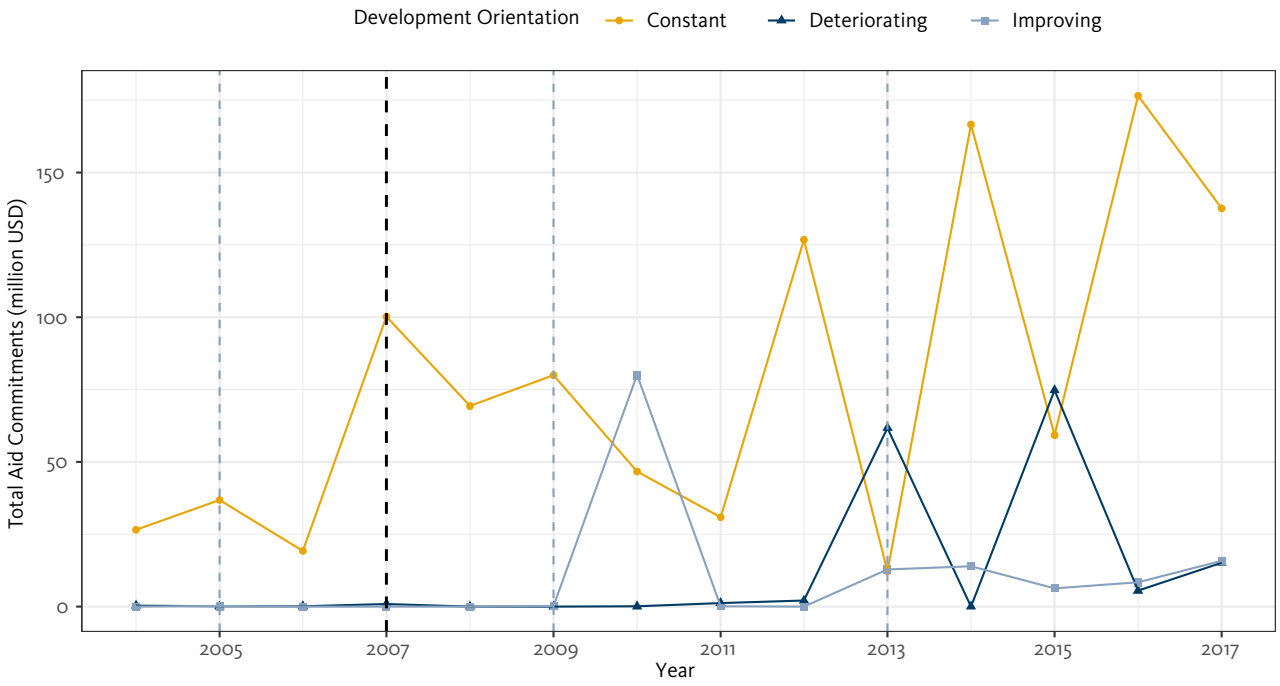
Source: own figure

The figure displays the share of aid commitments to direct delivery of basic services in fragile countries with low governance and deteriorating development orientation in percentages for all years under analysis. The dark vertical bar indicates the publication year of the strategy under analysis. The lighter dashed bars indicate publication years of the other strategies.

2.3.6 Empirical implication 6

Aid supports public institutions, e.g. ministries, national parliaments or local governments, in countries with low governance and improving development orientation

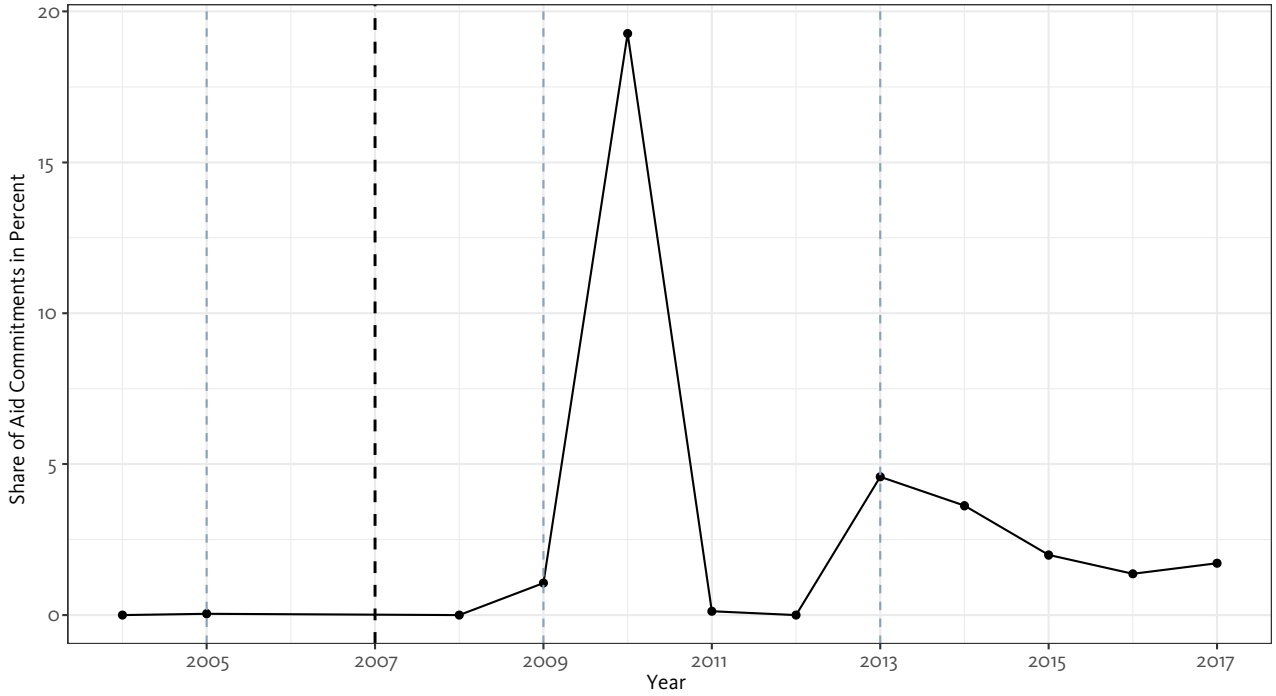
Figure 14: Implication 6 – Total aid commitments



Source: own figure

The figure displays total aid commitments to public institutions in fragile countries with low governance and improving development orientation in million USD for all years under analysis. The dark vertical bar indicates the publication year of the strategy under analysis. The lighter dashed bars indicate publication years of the other strategies.

Figure 15: Implication 6 – Share of aid commitments



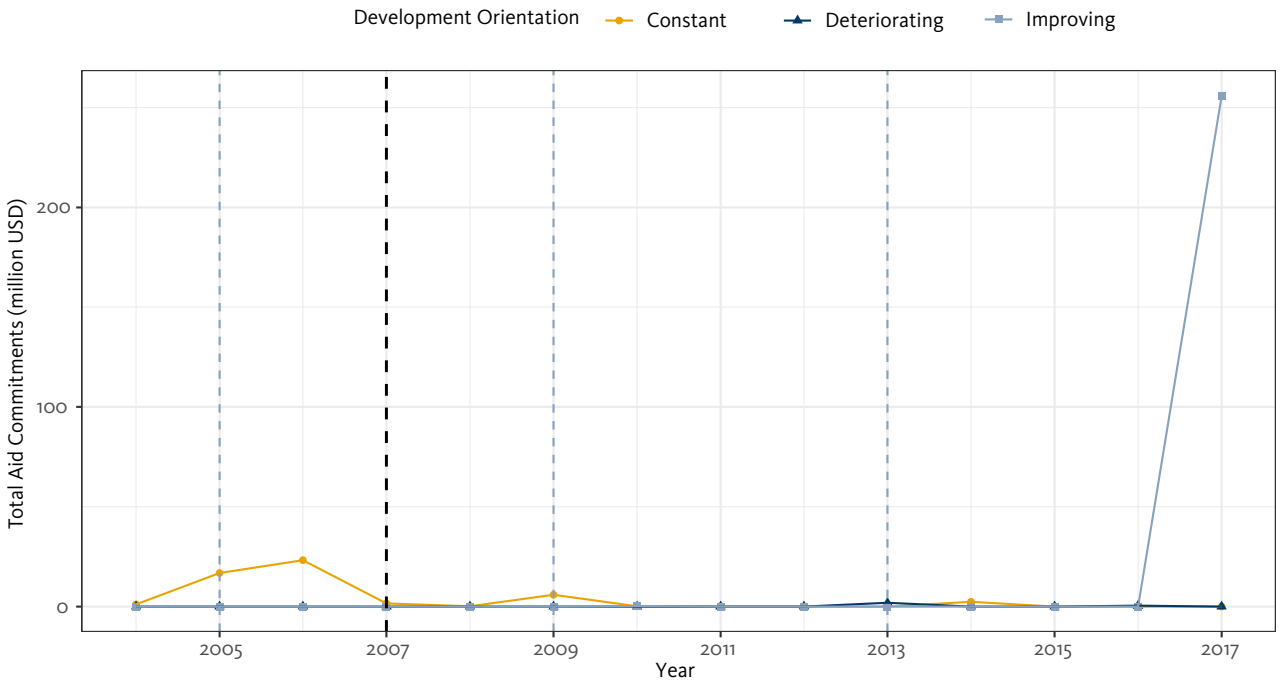
Source: own figure

The figure displays the share of aid commitments to public institutions in fragile countries with low governance and improving development orientation in percentages for all years under analysis. The dark vertical bar indicates the publication year of the strategy under analysis. The lighter dashed bars indicate publication years of the other strategies.

2.3.7 Empirical implication 7

Financial development cooperation supports the government in its national poverty and sector strategies in countries with low governance and improving development orientation

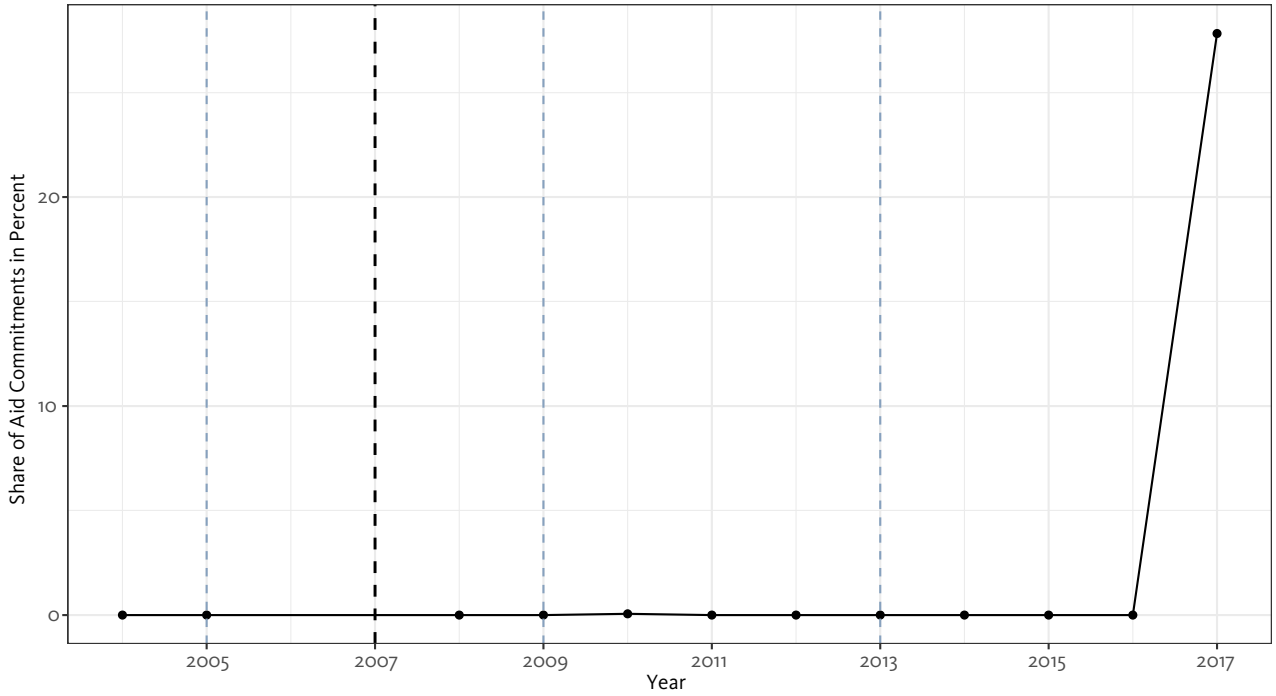
Figure 16: Implication 7 – Total aid commitments



Source: own figure

The figure displays total aid commitments to public institutions in fragile countries with low governance and improving development orientation in million USD for all years under analysis. The dark vertical bar indicates the publication year of the strategy under analysis. The lighter dashed bars indicate publication years of the other strategies.

Figure 17: Implication 7 – Share of aid commitments



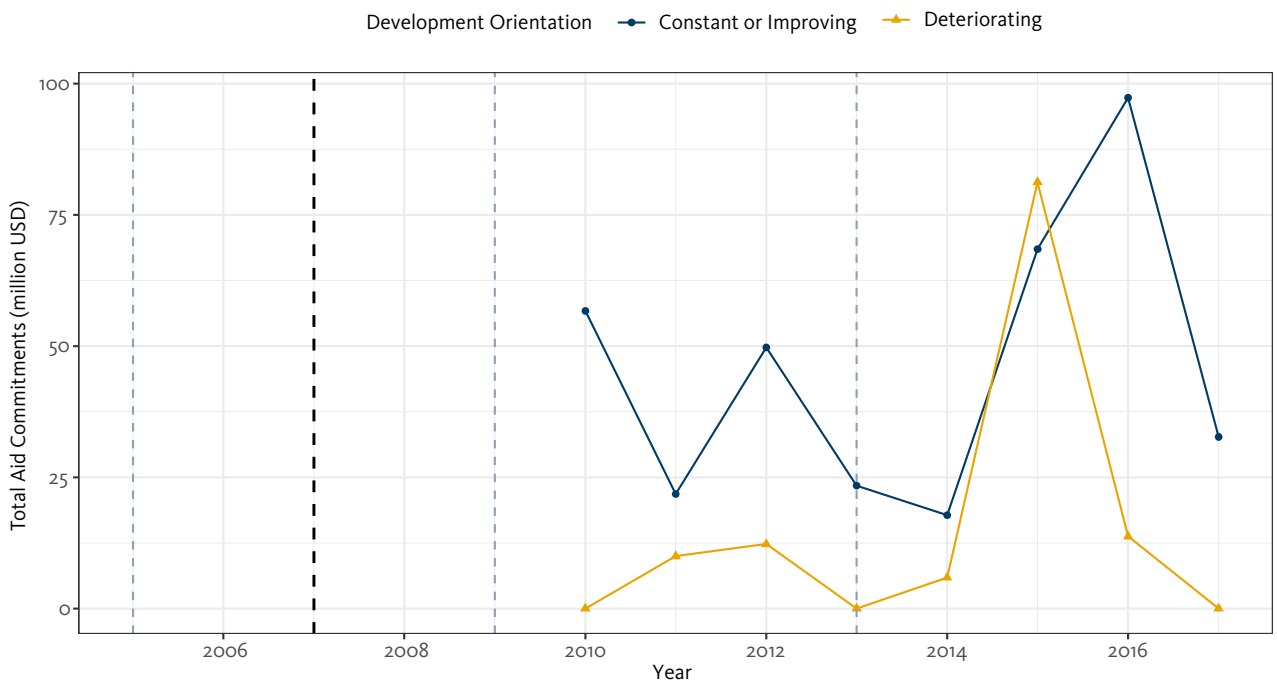
Source: own figure

The figure displays the share of aid commitments to public institutions in fragile countries with low governance and improving development orientation in percentages for all years under analysis. The dark vertical bar indicates the publication year of the strategy under analysis. The lighter dashed bars indicate publication years of the other strategies.

2.3.8 Empirical implication 8

More aid is allocated in basket funds in countries with low governance and constant or improving development orientation

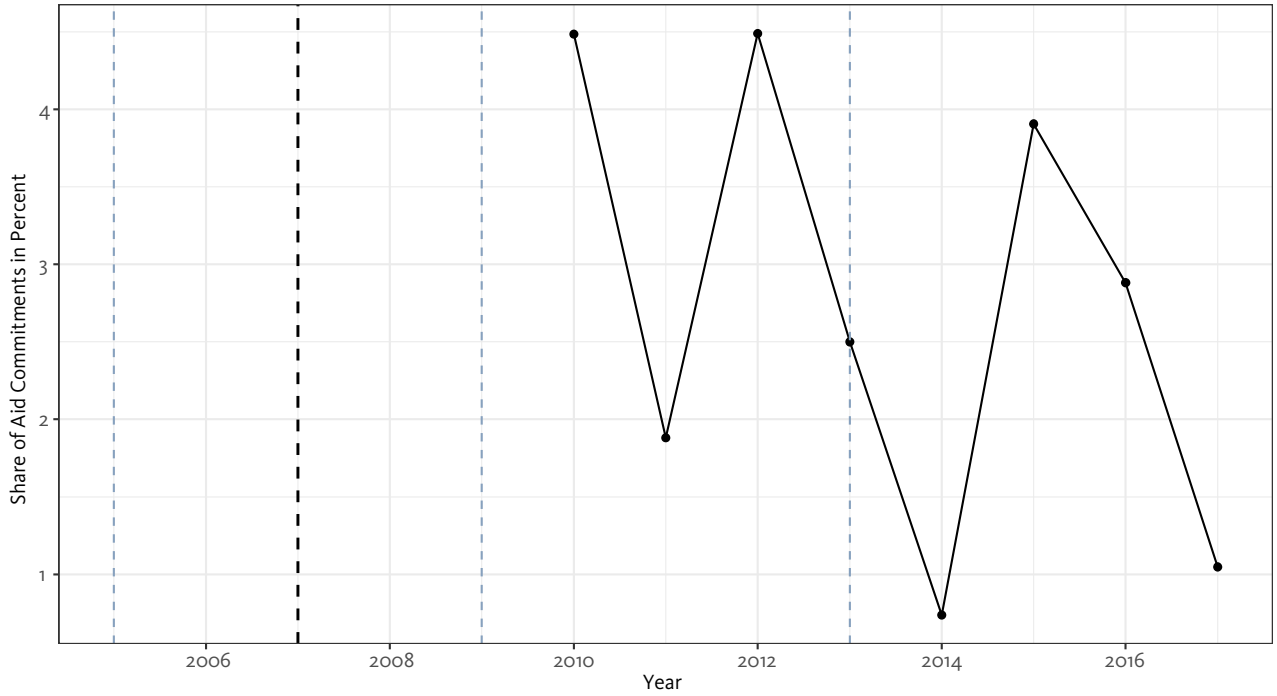
Figure 18: Implication 8 – Total aid commitments



Source: own figure

The figure displays total aid commitments in the form of basket funds in fragile countries with low governance and constant or improving development orientation in million USD for all years under analysis. The dark vertical bar indicates the publication year of the strategy under analysis. The lighter dashed bars indicate publication years of the other strategies.

Figure 19: Implication 8 – Share of aid commitments



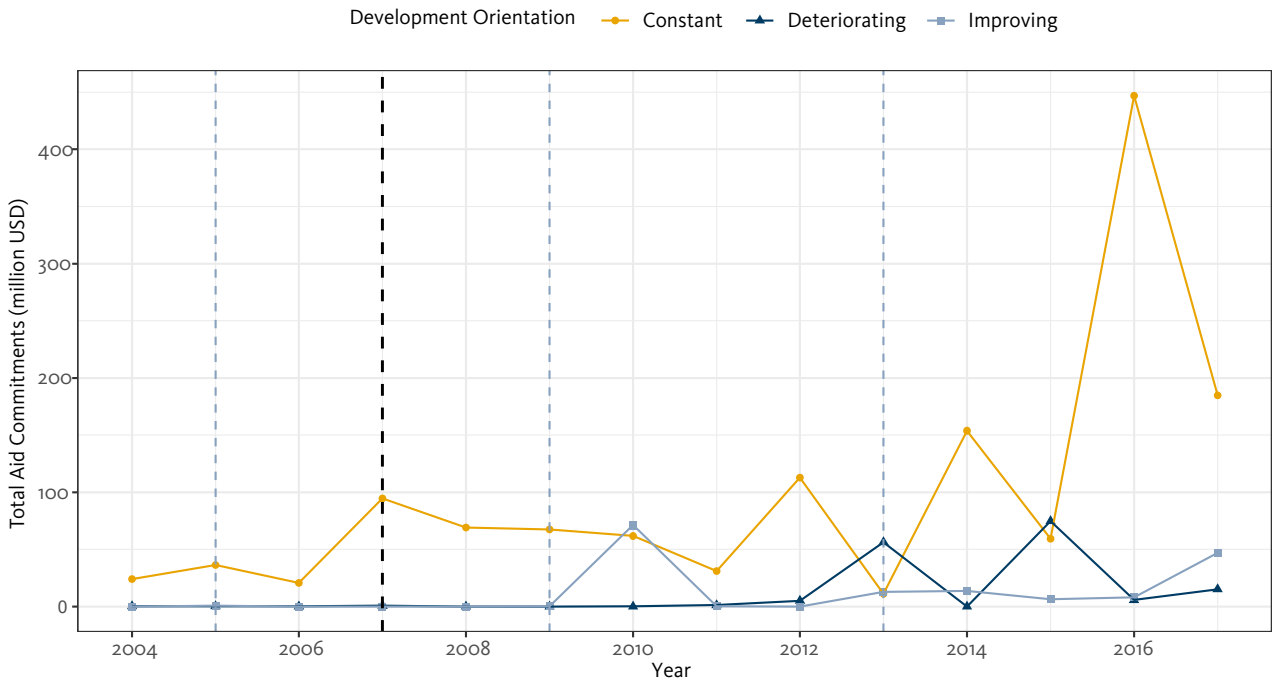
Source: own figure

The figure displays the share of aid commitments in the form of basket funds in fragile countries with low governance constant or improving development orientation in percentages for all years under analysis. The dark vertical bar indicates the publication year of the strategy under analysis. The lighter dashed bars indicate publication years of the other strategies.

2.3.9 Empirical implication 9

More aid is used to support local governments in countries with low governance and constant development orientation

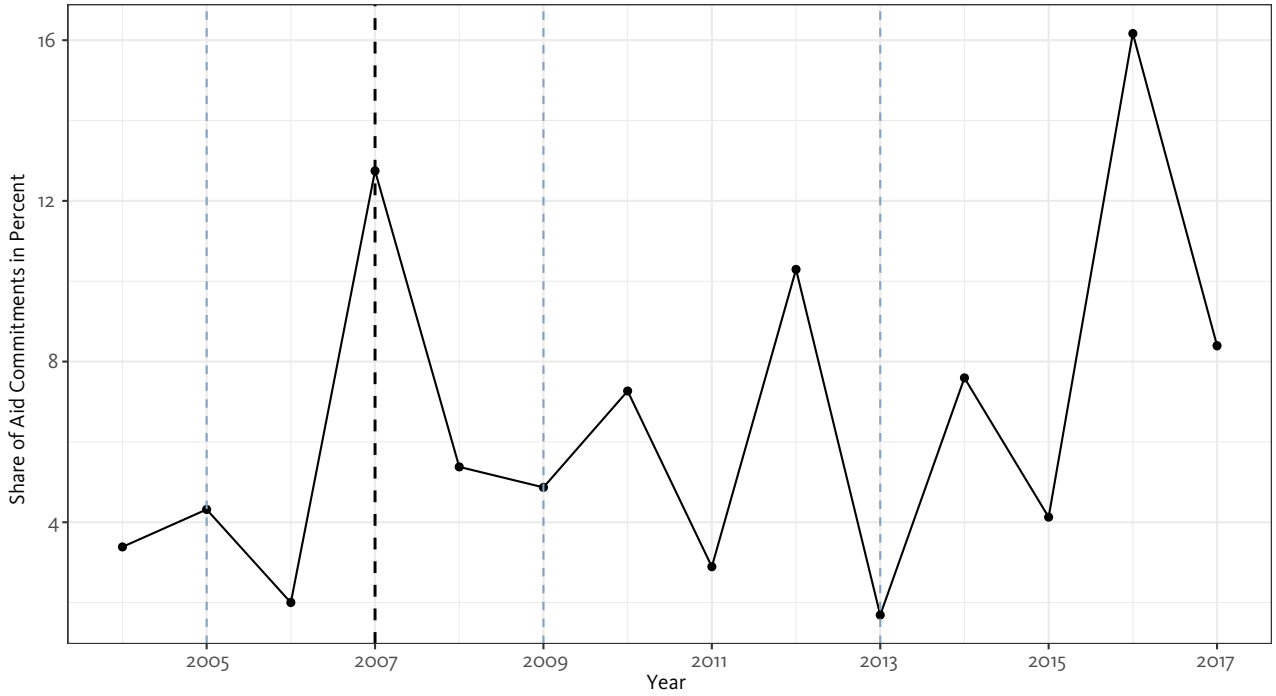
Figure 20: Implication 9 – Total aid commitments



Source: own figure

The figure displays total aid commitments to support fragile countries with local governments and low governance and constant development orientation in million USD for all years under analysis. The dark vertical bar indicates the publication year of the strategy under analysis. The lighter dashed bars indicate publication years of the other strategies.

Figure 21: Implication 9 – Share of aid commitments



Source: own figure

The figure displays the share of aid commitments to support fragile countries with local governments and low governance and constant development orientation in percentages for all years under analysis. The dark vertical bar indicates the publication year of the strategy under analysis. The lighter dashed bars indicate publication years of the other strategies.

2.3.10 Empirical implication 10

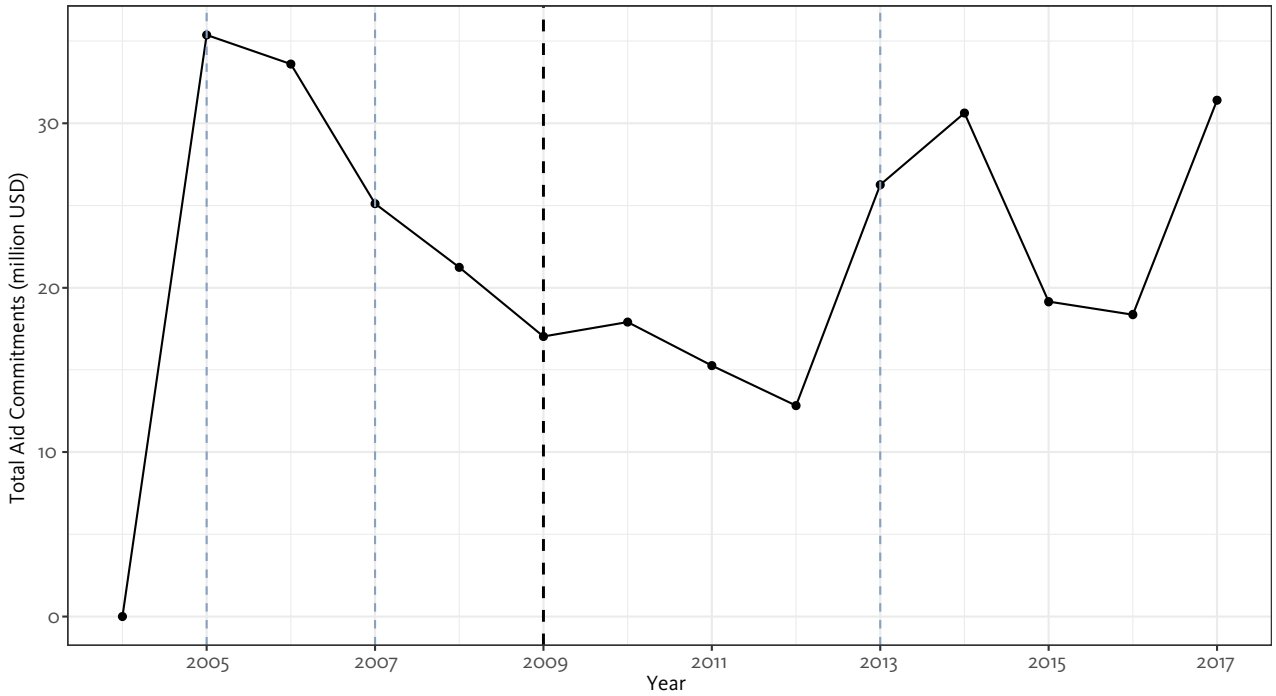
More assistance for crisis prevention was given to relevant regional bodies (regions) in countries with low governance and constant development orientation

We do not test this implication due to missing data.

2.3.11 Empirical implication 11

The relative share of governance aid to non-state actors, e.g. the media, increases

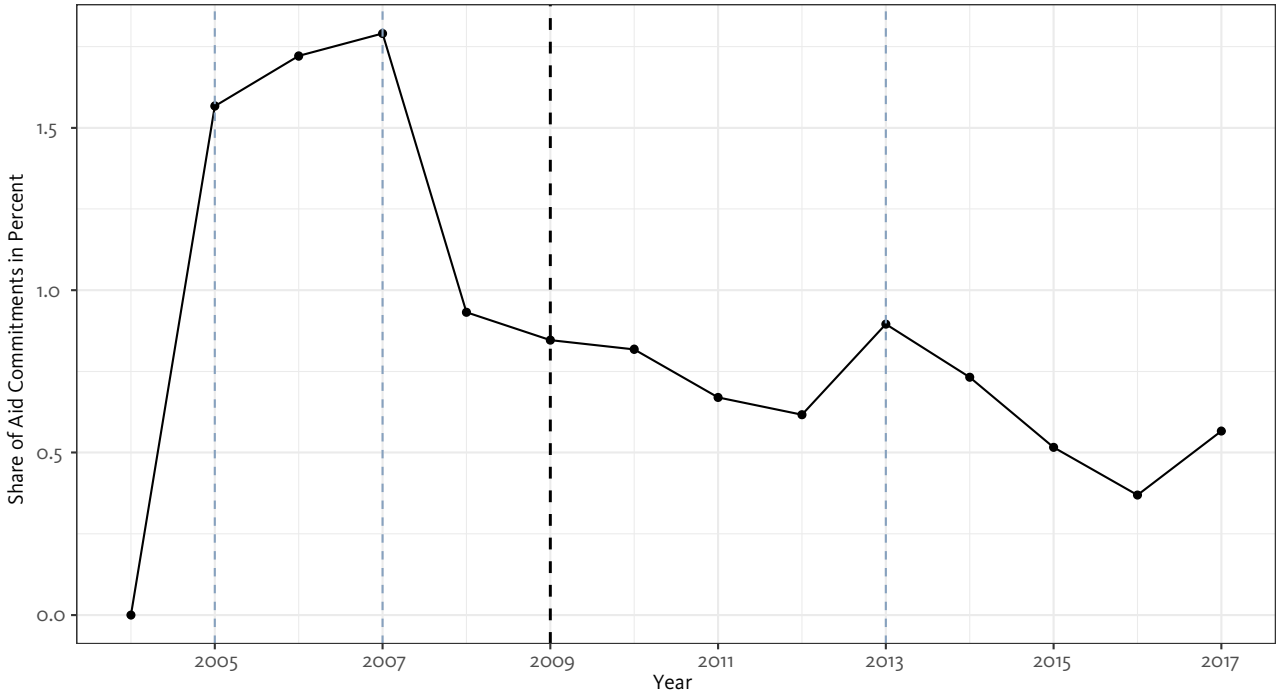
Figure 22: Implication 11 – Total aid commitments



Source: own figure

The figure displays total aid commitments in the form of governance aid to non-state actors in fragile countries in million USD for all years under analysis. The dark vertical bar indicates the publication year of the strategy under analysis. The lighter dashed bars indicate publication years of the other strategies.

Figure 23: Implication 11 – Share of aid commitments



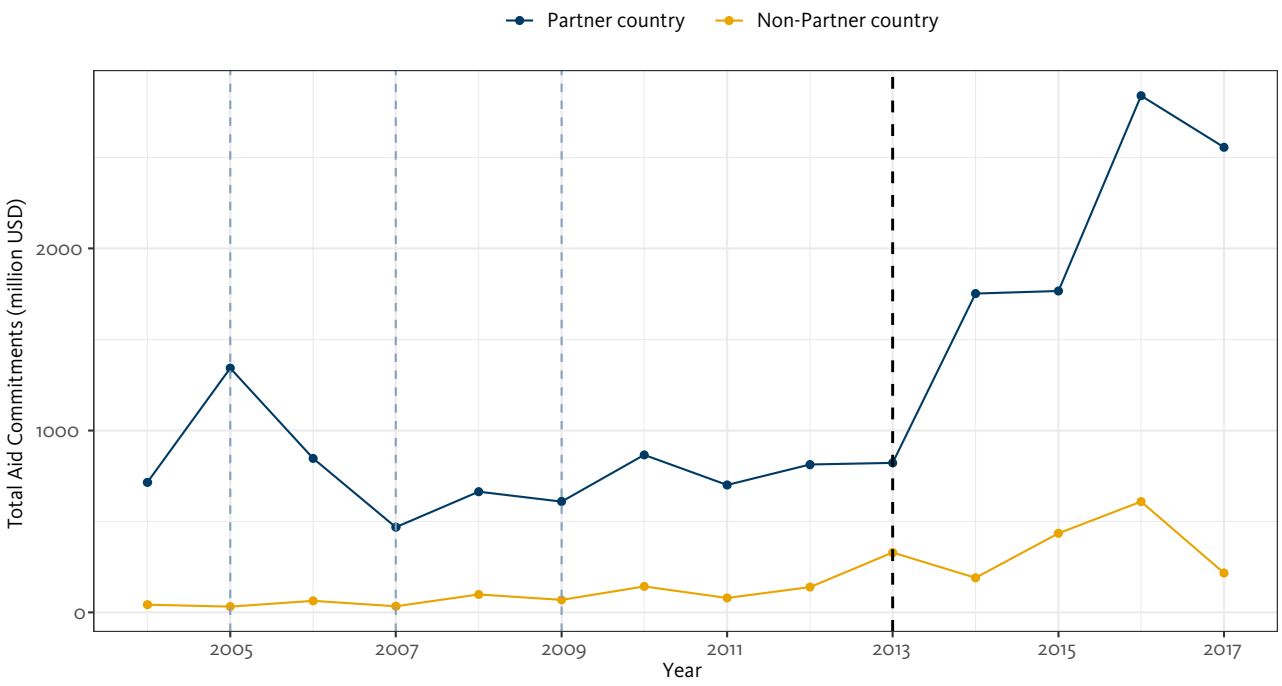
Source: own figure

The figure displays the share of aid commitments in the form of governance aid to non-state actors in fragile countries in percentages for all years under analysis. The dark vertical bar indicates the publication year of the strategy under analysis. The lighter dashed bars indicate publication years of the other strategies.

2.3.12 Empirical implication 12

Non-partner countries that are affected by armed conflict or in the transition phase receive transitional aid

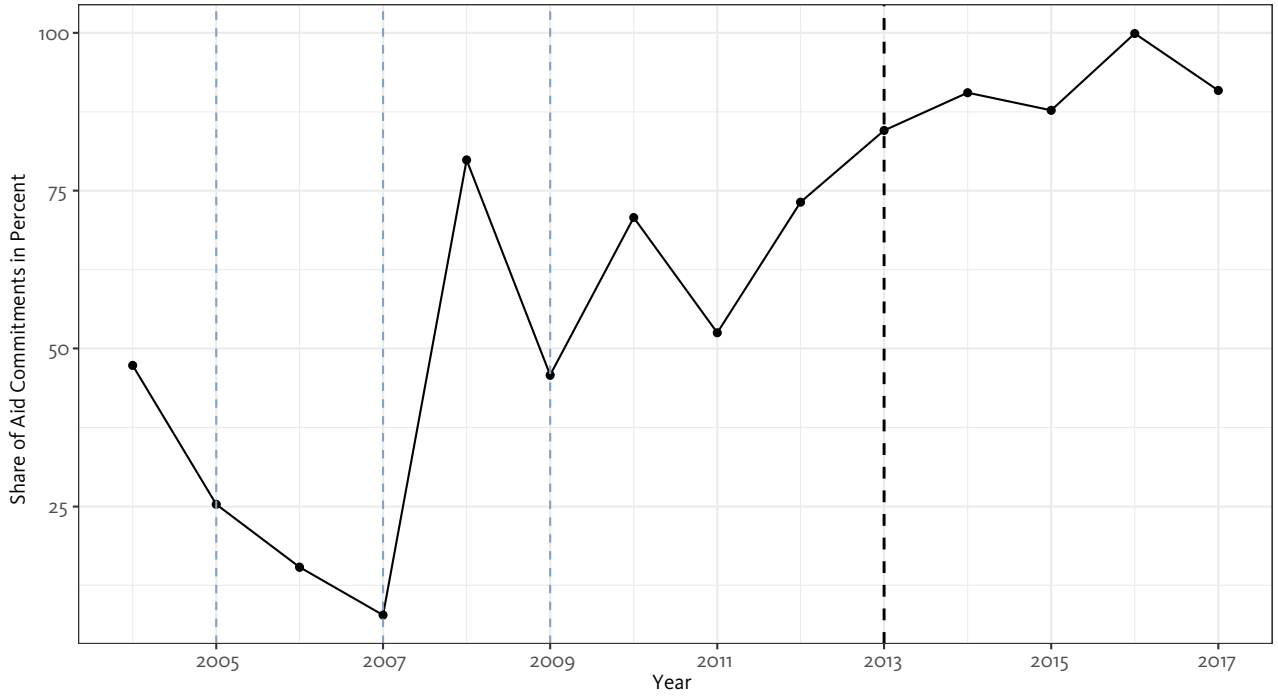
Figure 24: Implication 12 – Total aid commitments



Source: own figure

The figure displays total aid commitments to fragile non-partner countries that are affected by armed conflict or in the transition phase in million USD for all years under analysis. The dark vertical bar indicates the publication year of the strategy under analysis. The lighter dashed bars indicate publication years of the other strategies.

Figure 25: Implication 12 – Share of aid commitments



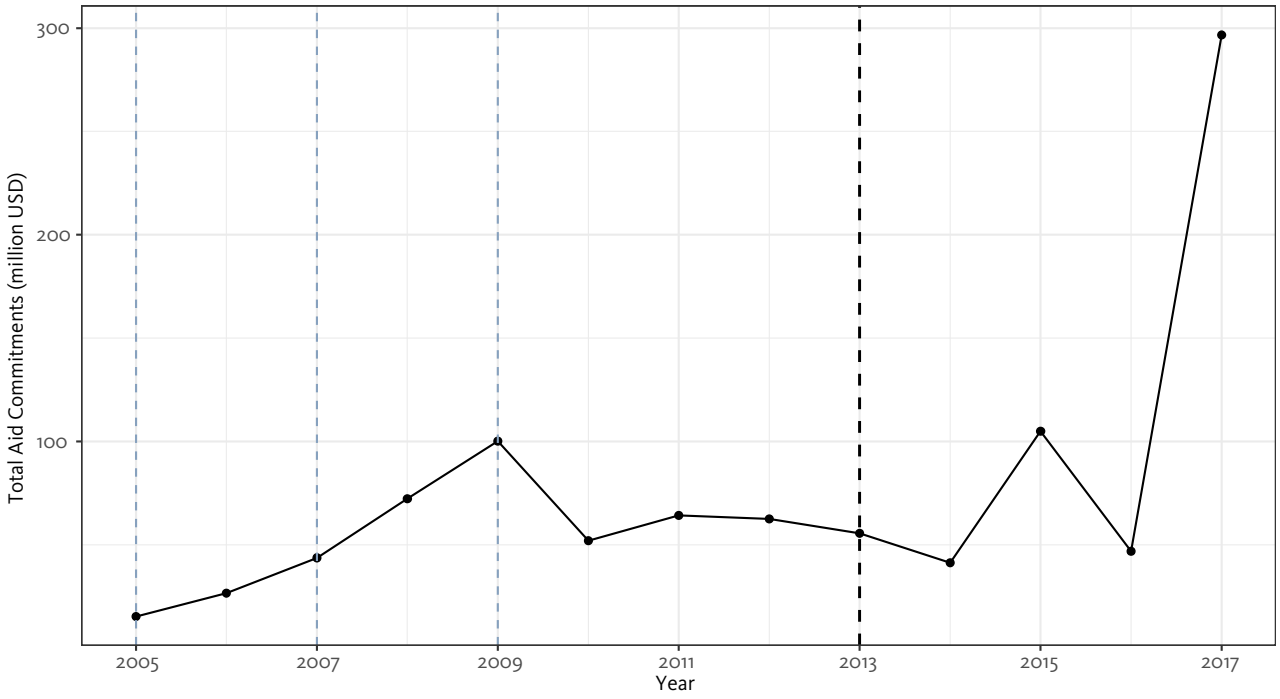
Source: own figure

The figure displays the share of aid commitments to fragile non-partner countries that are affected by armed conflict or in the transition phase in percentages for all years under analysis. The dark vertical bar indicates the publication year of the strategy under analysis. The lighter dashed bars indicate publication years of the other strategies.

2.3.13 Empirical implication 13

More aid was allocated to conflict prevention programmes

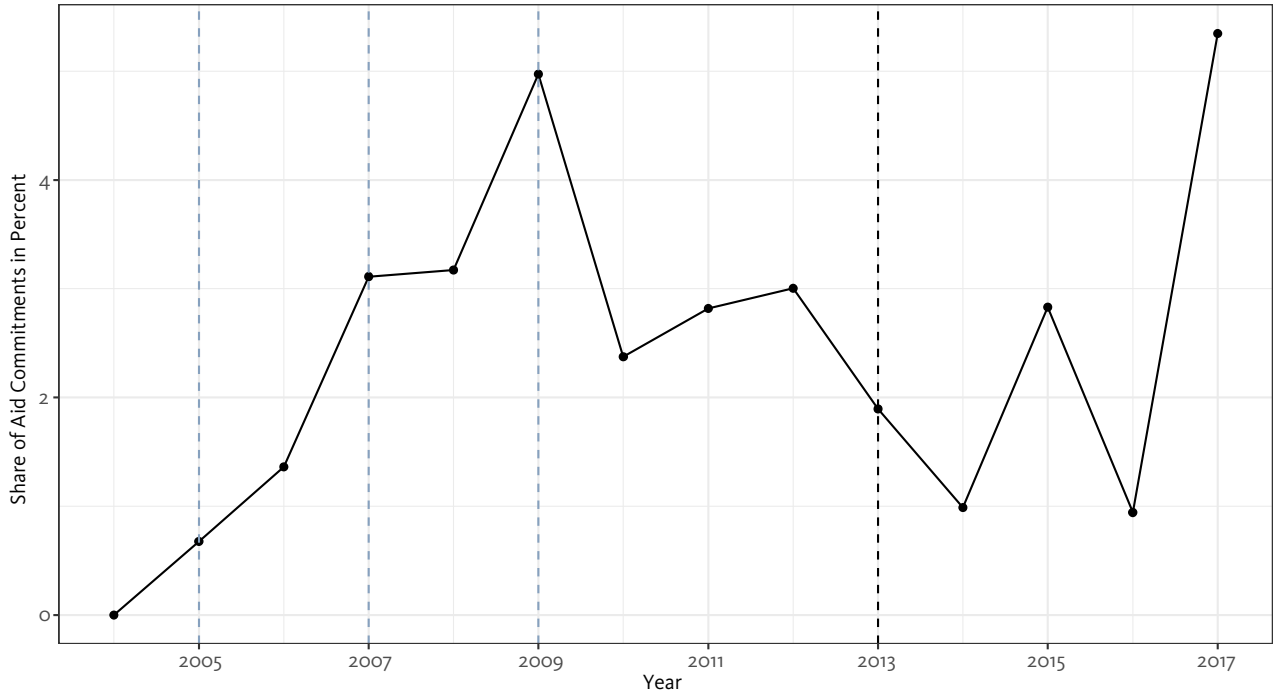
Figure 26: Implication 13 – Total aid commitments



Source: own figure

The figure displays total aid commitments to conflict prevention programmes in fragile countries in million USD for all years under analysis. The dark vertical bar indicates the publication year of the strategy under analysis. The lighter dashed bars indicate publication years of the other strategies.

Figure 27: Implication 13 – Share of aid commitments



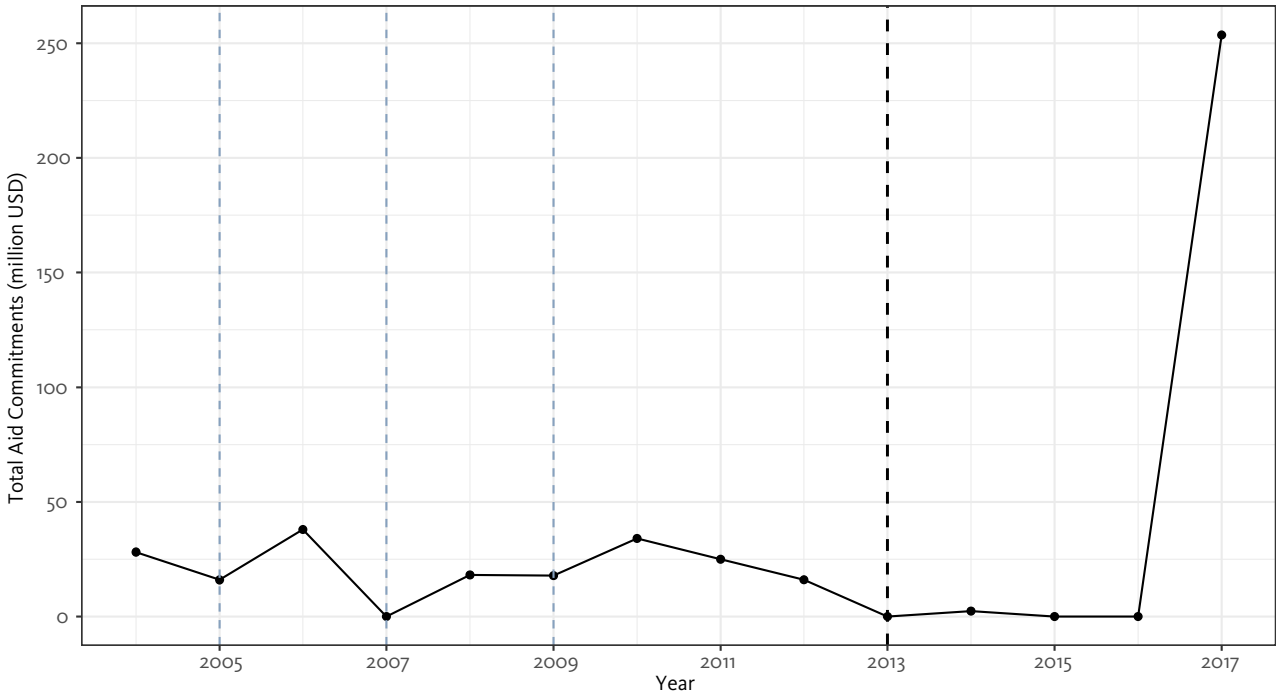
Source: own figure

The figure displays the share of aid commitments in percent to conflict prevention programmes in fragile countries in percentages for all years under analysis. The dark vertical bar indicates the publication year of the strategy under analysis. The lighter dashed bars indicate publication years of the other strategies.

2.3.14 Empirical implication 14

No aid was granted in the form of budgetary support

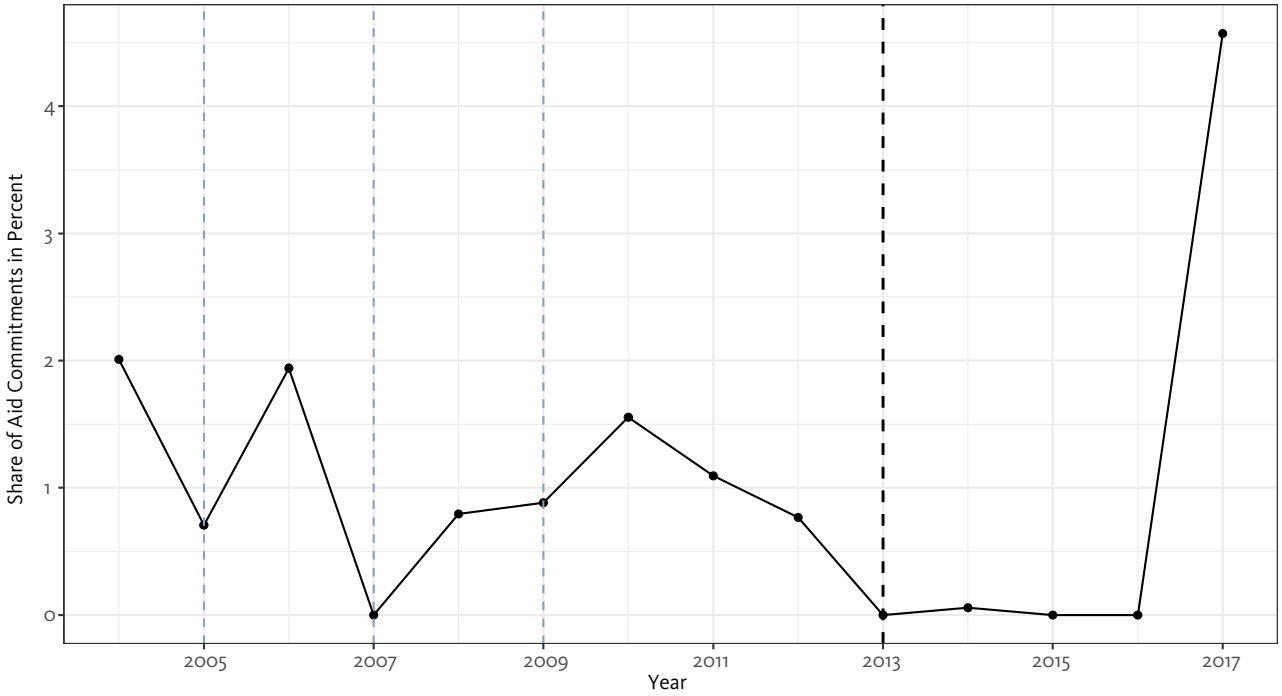
Figure 28: Implication 14 – Total aid commitments



Source: own figure

The figure displays total aid commitments in the form of general budget support in fragile countries in million USD for all years under analysis. The dark vertical bar indicates the publication year of the strategy under analysis. The lighter dashed bars indicate publication years of the other strategies.

Figure 29: Implication 14 – Share of aid commitments



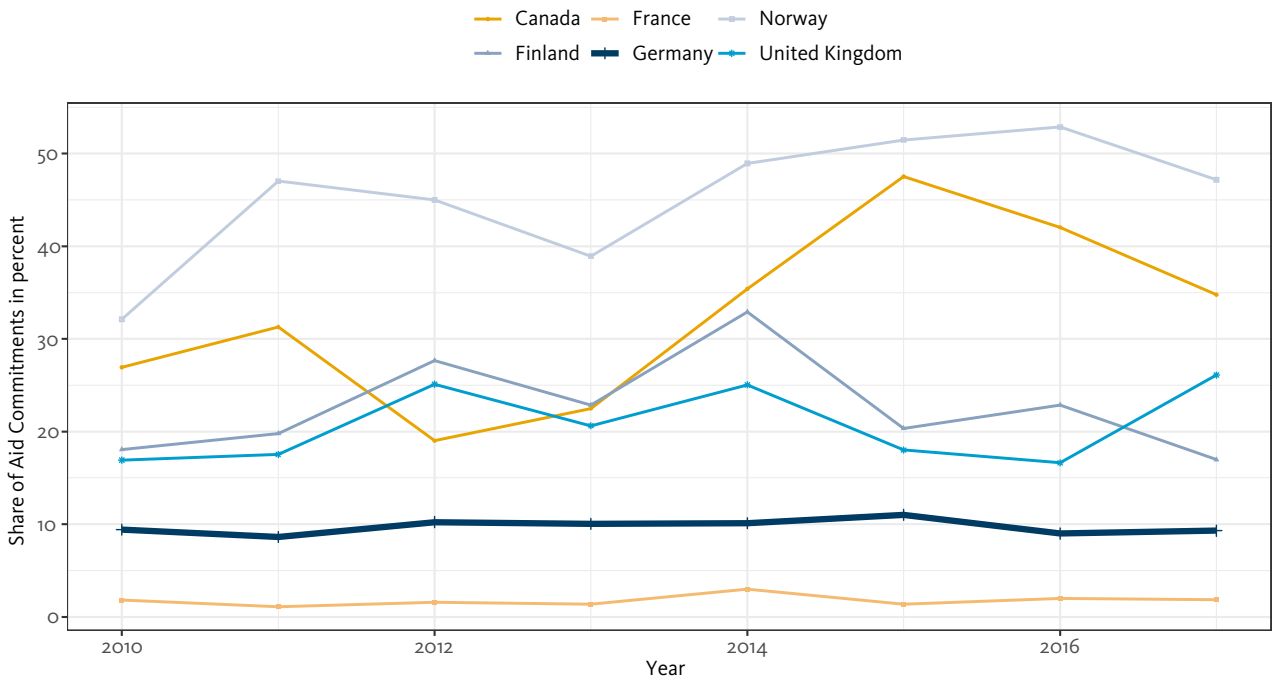
Source: own figure

The figure displays the share of aid commitments in the form of general budget support in fragile countries in percentages for all years under analysis. The dark vertical bar indicates the publication year of the strategy under analysis. The lighter dashed bars indicate publication years of the other strategies.

2.4 Aid commitments to non-state actors

This section contains further figures to illustrate aid allocations to non-state actors across donors.

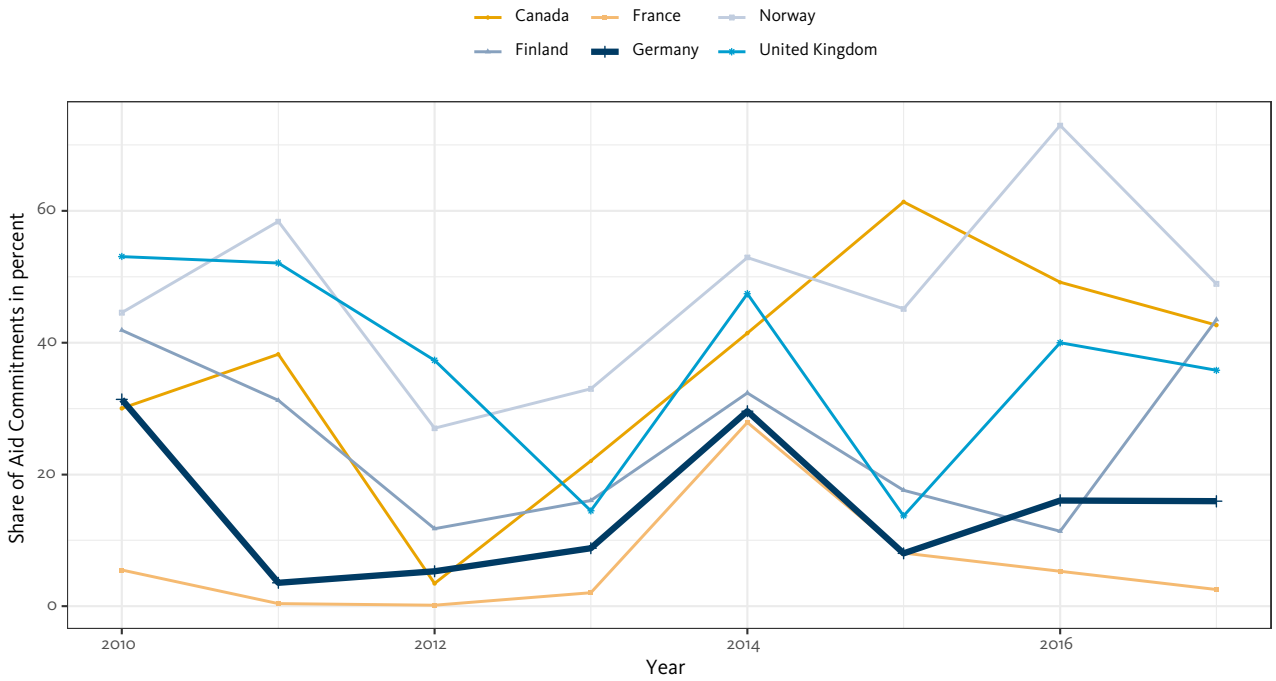
Figure 30: Share of aid commitments to non-state actors across donors (all recipients)



Source: own figure

The figure displays the share of aid commitments to non-state actors across donors in percentages. The data include all recipient countries from the sample, irrespective of fragility, governance, and development orientation.

Figure 31: Implication 4 – Share of aid commitments to non-state actors across donors



Source: own figure

The figure displays the share of aid commitments to non-state actors across donors in percentages. The data include fragile countries with low governance and deteriorating development orientation.

3. CHAPTER 4: EVALUATION

This section presents models on the effect of fragility on different quality criteria. It includes results from penalized logistic regressions and mediation analyses. Some models, e.g. the effect of fragility on the aggregated quality index, are not shown due to null findings. Results for the omitted models are available upon request.

Tables 7 and 8 contain a description of all variables used in the empirical analysis.

Table 7: Quality criteria

q1	Object described
q2	Area of enquiry formulated
q3	Results logic described
q4	Indicators formulated
q5	Methodology described
q6	Strengths/limitations discussed
q7	Stakeholder respondents identified
q8	Selection procedure described
q9	Before and after comparison
q10	Control/comparison group
q11	Causality inferred by plausibility
q12	Triangulation of data
q13	Triangulation of methods
q14	Conclusions referenced
q15	Conclusions plausible
q16	Database adequate

Source: own table

Table 8: List and sources of variables for the empirical analysis in Chapter 4

authority50	Binary measure of authority (CSF)[14]
bti	Bertelsmann Transformation Index (trust)
capacity50	Binary measure of capacity (CSF)
cons	Regression constant
democracy	Continuous measure of democracy (Noltze et al., 2018c)
economy	Continuous measure of economy (Noltze et al., 2018c)
fdays	Number of field days in evaluation mission (Noltze et al., 2018c)
legitimacy50	Binary measure of legitimacy (SFI)
peace	Continuous measure of peace (Noltze et al., 2018c)
sfi	Continuous measure of SFI[15]
sfi_authority	Continuous measure of authority (CSF)
sfi_capacity	Continuous measure of capacity (CSF)
sfi_legitimacy	Continuous measure of legitimacy (CSF)
wblog	World Bank logistics performance index (mobility)

Source: own table

[14] In this appendix, the models in the mediation analyses are run using a 50th percentile cutt-off point. Values above the cut-off are regarded as high fragility and below as low levels of fragility. Robustness checks are run for the 25th and 75th percentile and the results are available upon request.

[15] To operationalize fragility, we draw on CSF (see Chapter 2). We construct an index of state fragility (SFI) in which we add up the three dimensions (authority, capacity, and legitimacy) by calculating their mean.

3.1 Multivariate regression analysis

The following tables show the results of the multivariate regression analysis described in Chapter 4.4.

Table 9: Effect of authority on quality criteria q01-q08

	q01	q02	q03	q04	q05	q06	q07	q08
sfi_authority	-0.513	-0.00120	-0.234	-0.245	-0.776	-0.398	0.469	1.391
	(-0.51)	(-0.00)	(-0.38)	(-0.35)	(-1.33)	(-0.69)	(0.81)	(1.62)
democracy	0.104	0.119	0.736*	-0.204	-0.148	0.269	-0.706*	-1.528*
	(0.21)	(0.28)	(2.11)	(-0.60)	(-0.49)	(0.90)	(-2.34)	(-2.49)
peace	-1.931*	0.335	0.163	1.076	-0.448	-0.495	0.359	0.864
	(-2.22)	(0.34)	(0.17)	(0.72)	(-0.53)	(-0.52)	(0.37)	(0.97)
economy	0.575	0.893**	0.199	0.408	0.0550	0.00471	0.359	-0.00209
	(1.16)	(2.74)	(0.73)	(1.23)	(0.21)	(0.02)	(1.33)	(-0.01)
fdays	0.0163	0.122***	0.120***	0.00619	0.0399*	0.0288	0.0725***	0.105***
	(0.59)	(5.42)	(5.96)	(0.33)	(2.42)	(1.80)	(4.18)	(4.76)
cons	2.254**	-3.644***	-0.960*	1.338**	0.502	-0.895*	-0.732	-3.815***
	(3.20)	(-5.92)	(-2.18)	(2.73)	(1.22)	(-2.17)	(-1.77)	(-5.83)
Observations	365	365	365	365	365	365	365	365

Note: t statistics are reported in parentheses. *p<0.05; **p<0.01; ***p<0.001

Source: own table

Table 10: Effect of authority on quality criteria q09-q16

	q09	q10	q11	q12	q13	q14	q15	q16
sfi_authority	0.219	0.194	-0.249	0.558	-0.249	0.326	0.272	0.221
	(0.33)	(0.22)	(-0.13)	(0.91)	(-0.22)	(0.59)	(0.48)	(0.38)
democracy	-0.957*	-1.700*	-0.415	-0.320	-0.607	-0.128	-0.495	-0.787*
	(-2.28)	(-2.42)	(-0.27)	(-0.99)	(-0.96)	(-0.44)	(-1.68)	(-2.26)
peace	1.434	0.276	1.860	-1.950	1.008	-0.126	-0.388	0.949
	(1.69)	(0.28)	(1.15)	(-1.31)	(1.02)	(-0.15)	(-0.46)	(1.13)
economy	-0.548	-0.470	1.408	-0.111	-0.810	-0.176	-0.532*	-0.113
	(-1.75)	(-1.18)	(1.77)	(-0.41)	(-1.34)	(-0.70)	(-2.09)	(-0.43)
fdays	-0.0221	0.0909***	0.0170	0.0481**	0.0920***	0.00614	0.00123	-0.00896
	(-1.18)	(3.91)	(0.27)	(2.90)	(3.32)	(0.40)	(0.08)	(-0.55)
cons	-0.830	-3.106***	-4.377**	-1.614***	-3.609***	-0.490	0.558	-0.574
	(-1.78)	(-4.73)	(-2.94)	(-3.64)	(-4.33)	(-1.25)	(1.40)	(-1.39)
Observations	365	365	365	365	365	365	365	365

Note: t statistics are reported in parentheses. *p<0.05; **p<0.01; ***p<0.001

Source: own table

Table 11: Effect of legitimacy on quality criteria q01-q08

	q01	q02	q03	q04	q05	q06	q07	q08
sfi_legitimacy	0.779	1.278	1.137	1.578	-0.111	0.246	0.162	-2.187
	(0.55)	(1.19)	(1.31)	(1.56)	(-0.14)	(0.30)	(0.20)	(-1.86)
democracy	0.0697	0.0519	0.692*	-0.283	-0.136	0.260	-0.717*	-1.425*
	(0.14)	(0.12)	(1.97)	(-0.82)	(-0.45)	(0.86)	(-2.36)	(-2.32)
peace	-1.937*	0.347	0.125	1.055	-0.433	-0.497	0.340	0.907
	(-2.23)	(0.35)	(0.13)	(0.71)	(-0.51)	(-0.52)	(0.35)	(1.01)
economy	0.583	0.919**	0.213	0.432	0.0502	0.00614	0.362	-0.0287
	(1.17)	(2.80)	(0.77)	(1.30)	(0.19)	(0.02)	(1.34)	(-0.08)
fdays	0.0164	0.124***	0.122***	0.00589	0.0402*	0.0292	0.0722***	0.103***
	(0.60)	(5.43)	(5.98)	(0.31)	(2.44)	(1.82)	(4.16)	(4.72)
cons	1.665*	-4.190***	-1.554***	0.594	0.119	-1.212**	-0.539	-2.162***
	(2.43)	(-6.47)	(-3.37)	(1.23)	(0.29)	(-2.86)	(-1.29)	(-3.72)
Observations	365	365	365	365	365	365	365	365

Note: t statistics are reported in parentheses. *p<0.05; **p<0.01; ***p<0.001

Source: own table

Table 12 Effect of legitimacy on quality criteria q09-q16

	q09	q10	q11	q12	q13	q14	q15	q16
sfi_legitimacy	-0.962	-1.044	2.411	-0.329	0.606	-0.718	0.270	0.775
	(-1.00)	(-0.83)	(0.90)	(-0.39)	(0.38)	(-0.91)	(0.34)	(0.94)
democracy	-0.912*	-1.636*	-0.524	-0.309	-0.640	-0.0952	-0.511	-0.828*
	(-2.16)	(-2.33)	(-0.34)	(-0.95)	(-1.00)	(-0.32)	(-1.71)	(-2.36)
peace	1.451	0.275	1.827	-1.942	1.004	-0.118	-0.395	0.937
	(1.71)	(0.28)	(1.13)	(-1.30)	(1.02)	(-0.14)	(-0.47)	(1.11)
economy	-0.561	-0.490	1.434	-0.111	-0.805	-0.184	-0.527*	-0.102
	(-1.79)	(-1.23)	(1.80)	(-0.41)	(-1.33)	(-0.73)	(-2.07)	(-0.39)
fdays	-0.0221	0.0905***	0.0220	0.0474**	0.0922***	0.00598	0.00101	-0.00901
	(-1.18)	(3.91)	(0.34)	(2.87)	(3.34)	(0.39)	(0.07)	(-0.55)
cons	-0.331	-2.586***	-5.591***	-1.169**	-3.990***	-0.0256	0.601	-0.764
	(-0.70)	(-4.04)	(-3.32)	(-2.72)	(-4.72)	(-0.06)	(1.48)	(-1.82)
Observations	365	365	365	365	365	365	365	365

Note: t statistics are reported in parentheses. *p<0.05; **p<0.01; ***p<0.001

Source: own table

Table 13: Effect of capacity on quality criteria q01-q08

	q01	q02	q03	q04	q05	q06	q07	q08
sfi_capacity	0.559	-0.148	-0.522	-1.620*	0.478	-1.548*	0.267	0.351
	(0.50)	(-0.17)	(-0.77)	(-2.10)	(0.74)	(-2.27)	(0.41)	(0.40)
democracy	0.130	0.113	0.716*	-0.269	-0.123	0.221	-0.699*	-1.554*
	(0.26)	(0.27)	(2.05)	(-0.79)	(-0.41)	(0.73)	(-2.31)	(-2.51)
peace	-1.845*	0.311	0.107	0.859	-0.369	-0.717	0.380	0.916
	(-2.10)	(0.31)	(0.11)	(0.57)	(-0.43)	(-0.74)	(0.39)	(1.04)
economy	0.545	0.901**	0.222	0.496	0.0285	0.0769	0.348	-0.00344
	(1.09)	(2.74)	(0.80)	(1.47)	(0.11)	(0.28)	(1.28)	(-0.01)
fdays	0.0156	0.122***	0.122***	0.00841	0.0396*	0.0311	0.0719***	0.102***
	(0.57)	(5.43)	(5.99)	(0.44)	(2.40)	(1.94)	(4.14)	(4.70)
cons	1.761**	-3.584***	-0.891*	1.839***	-0.106	-0.538	-0.577	-3.145***
	(3.02)	(-6.41)	(-2.31)	(4.24)	(-0.30)	(-1.49)	(-1.60)	(-5.85)
Observations	365	365	365	365	365	365	365	365

Note: t statistics are reported in parentheses. *p<0.05; **p<0.01; ***p<0.001

Source: own table

Table 14: Effect of capacity on quality criteria q09-q16

	q09	q10	q11	q12	q13	q14	q15	q16
sfi_capacity	-1.444	0.192	1.100	0.0684	1.946	-1.071	-0.302	-0.142
	(-1.86)	(0.20)	(0.50)	(0.10)	(1.52)	(-1.69)	(-0.47)	(-0.22)
democracy	-1.017*	-1.703*	-0.371	-0.323	-0.558	-0.171	-0.509	-0.795*
	(-2.41)	(-2.42)	(-0.24)	(-1.00)	(-0.87)	(-0.58)	(-1.72)	(-2.28)
peace	1.247	0.306	2.011	-1.931	1.306	-0.278	-0.433	0.927
	(1.46)	(0.31)	(1.22)	(-1.29)	(1.29)	(-0.33)	(-0.51)	(1.09)
economy	-0.485	-0.479	1.345	-0.110	-0.934	-0.123	-0.516*	-0.105
	(-1.54)	(-1.19)	(1.67)	(-0.41)	(-1.53)	(-0.48)	(-2.02)	(-0.40)
fdays	-0.0204	0.0906***	0.0162	0.0473**	0.0936***	0.00720	0.00138	-0.00888
	(-1.09)	(3.91)	(0.25)	(2.86)	(3.33)	(0.47)	(0.09)	(-0.54)
cons	-0.173	-3.073***	-4.948***	-1.326***	-4.581***	0.0961	0.824*	-0.399
	(-0.43)	(-5.31)	(-3.42)	(-3.51)	(-5.73)	(0.28)	(2.33)	(-1.11)
Observations	365	365	365	365	365	365	365	365

Note: t statistics are reported in parentheses. *p<0.05; **p<0.01; ***p<0.001

Source: own table

3.2 Mediation analysis

The following tables show relevant results for the mediation analysis discussed in Chapter 4.4.

Table 15: Effect of authority on quality criterion q16 (database adequate) mediated by mobility

	Dependent variable: q16 (database adequate)
authority50	-0.144
	(-0.58)
wblog	0.735*
	(2.27)
q10 (monitoring data)	0.138
	(0.47)
bti	0.0294
	(0.28)
fdays	-0.0127
	(-0.81)
democracy	-0.679
	(-1.77)
peace	1.488*
	(2.01)
economy	-0.120
	(-0.51)
cons	-2.827**
	(-2.60)
Observations	352
ACME	0.194034
[95% Conf. Interval]	[.0025702, .0428082]

Note: t statistics are reported in parentheses. *p<0.05; **p<0.01; ***p<0.001

Source: own table

Table 16: Effect of capacity on quality criterion q14 (conclusion references) mediated by mobility

	Dependent variable:
	q14 (conclusion references)
capacity50	-0.570*
	(-2.12)
wblog	0.706*
	(2.02)
q10 (monitoring data)	0.567*
	(2.24)
bti	-0.0228
	(-0.28)
fdays	0.0111
	(0.67)
democracy	-0.185
	(-0.45)
peace	-0.249
	(-0.32)
economy	-0.236
	(-0.81)
cons	-2.302*
	(-2.15)
Observations	352
ACME	0.357947
[95% Conf. Interval]	[.0021471, .0737334]

Note: t statistics are reported in parentheses. *p<0.05; **p<0.01; ***p<0.001

Source: own table

Table 17: Effect of capacity on quality criterion q15 (conclusion plausible) mediated by mobility

	Dependent variable:
	q15 (conclusion plausible)
capacity50	-0.354
	(-1.72)
wblog	0.535
	(1.87)
q10 (monitoring data)	1.027***
	(3.31)
bti	-0.0169
	(-0.18)
fdays	0.00625
	(0.46)
democracy	-0.406
	(-1.22)
peace	-0.529
	(-0.71)
economy	-0.654*
	(-2.31)
cons	-0.996
	(-1.02)
Observations	352
ACME	.0260195
[95% Conf. Interval]	[8.19e-06, .0555236]

Note: t statistics are reported in parentheses. *p<0.05; **p<0.01; ***p<0.001

Source: own table

Table 18: Effect of capacity on quality criterion q16 (database adequate) mediated by mobility

	Dependent variable:
	q16 (database adequate)
capacity50	-0.235
	(-0.95)
wblog	0.788*
	(2.44)
q10 (monitoring data)	0.165
	(0.57)
bti	0.0366
	(0.35)
fdays	-0.0107
	(-0.69)
democracy	-0.715
	(-1.82)
peace	1.413*
	(1.96)
economy	-0.104
	(-0.44)
cons	-3.013**
	(-2.78)
Observations	352
ACME	.0370477
[95% Conf. Interval]	[.0083051, .069675]

Note: t statistics are reported in parentheses. *p<0.05; **p<0.01; ***p<0.001

Source: own table

Table 19: Effect of legitimacy on quality criterion q05 (methodology described) mediated by trust

	Dependent variable:
	q05 (methodology described)
legitimacy50	-0.112
	(-0.40)
bti	0.205*
	(2.21)
q10 (monitoring data)	0.250
	(0.89)
wblog	-0.201
	(-0.79)
fdays	0.0418*
	(2.41)
democracy	-0.154
	(-0.39)
peace	-0.312
	(-0.40)
economy	0.0276
	(0.11)
cons	-0.369
	(-0.40)
Observations	352
ACME	.0500452
[95% Conf. Interval]	[.0075661, .0955541]

Note: t statistics are reported in parentheses. *p<0.05; **p<0.01; ***p<0.001

Source: own table

Table 20: Effect of legitimacy on quality criterion q09 (before/after comparision) mediated by trust

	Dependent variable:
	q09 (before/after comparision)
legitimacy50	0.244
	(0.72)
bti	-0.274*
	(-2.32)
q10 (monitoring data)	0.483
	(1.60)
wblog	0.0305
	(0.09)
fdays	-0.0139
	(-0.60)
democracy	-0.975
	(-1.80)
peace	1.089
	(1.59)
economy	-0.496
	(-1.80)
cons	0.113
	(0.10)
Observations	352
ACME	-.0494565
[95% Conf. Interval]	[-.0901834,-.0066048]

Note: t statistics are reported in parentheses. *p<0.05; **p<0.01; ***p<0.001

Source: own table

Table 21: Effect of legitimacy on quality criterion q08 (selection procedure described) mediated by mobility

	Dependent variable:
	q08 (selection procedure described)
legitimacy50	0.00202
	(0.01)
wblog	1.077
	(1.92)
q10 (monitoring data)	-0.0862
	(-0.26)
bti	-0.143
	(-1.31)
fdays	0.105***
	(3.89)
democracy	-1.588*
	(-2.34)
peace	1.321
	(1.86)
economy	-0.0385
	(-0.10)
cons	-5.701**
	(-2.78)
Observations	352
ACME	-.0234678
[95% Conf. Interval]	[-.0506931, -.0007255]

Note: t statistics are reported in parentheses. *p<0.05; **p<0.01; ***p<0.001

Source: own table

Table 22: Effect of legitimacy on quality criterion q16 (database adequate) mediated by mobility

	Dependent variable:
	q16 (database adequate)
legitimacy50	0.473
	(1.73)
wblog	0.853**
	(2.69)
q10 (monitoring data)	0.121
	(0.44)
bti	-0.143
	(-1.31)
fdays	-0.0105
	(-0.69)
democracy	-0.786*
	(-2.01)
peace	1.395*
	(2.01)
economy	-0.0980
	(-0.41)
cons	-3.124**
	(-2.75)
Observations	352
ACME	-.0234678
[95% Conf. Interval]	[-.0506931 -.0007255]

Note: t statistics are reported in parentheses. *p<0.05; **p<0.01; ***p<0.001

Source: own table

4. CHAPTER 5: DEVELOPMENT INTERVENTIONS IN FRAGILE CONTEXTS

This section presents the results of the empirical analysis of Chapter 5. Results for all models are available upon request.

4.1 Method

One observation in the dataset is a project. To account for variations within macro-level data such as GDP over time, we first transform the data structure to project-year observations and then reaggregate these for each project. We try different approaches to aggregation, such as taking the value of the last year of the intervention or the mean over the period. However, different specifications do not yield substantially different results.

To confront the limitations of our data, we substantiate our findings by running robustness tests controlling for observable confounders. As a first set of controls, we take account of donor interests by including a binary variable indicating UN Security Council membership of partner countries. Since we focus exclusively on German development cooperation, we cannot control for other donor-specific characteristics.

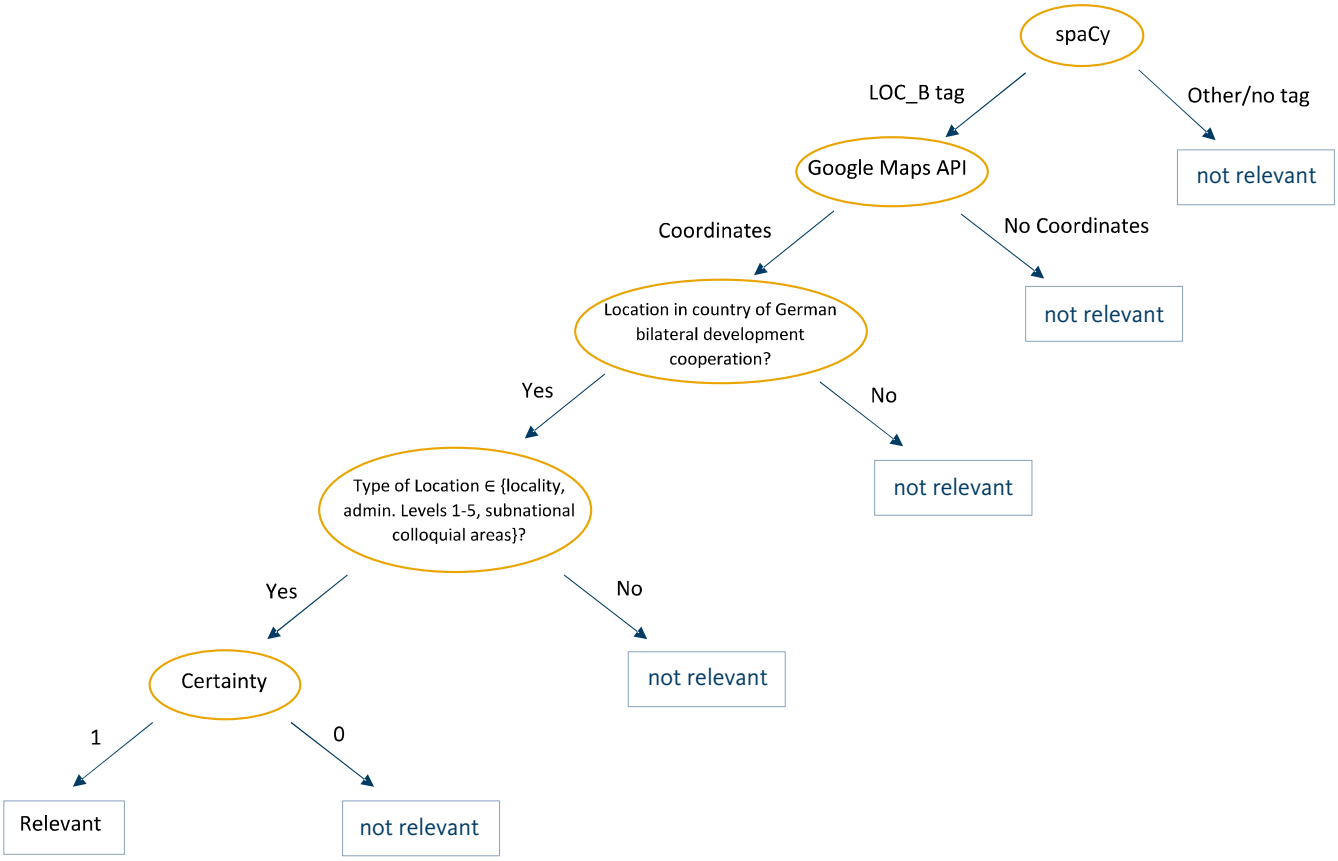
A second set of controls considers partner-country characteristics. The fact that our explanatory variable only varies slowly over time precludes the use of unit-fixed effects due to collinearity. We consequently test for the effect of those possible confounders that show enough variation over time. In order to account for the effect of the political regime, we include a measure of democracy from the Polity IV dataset. To account for possible effects of regime change, we include a measure of the change in the level of democracy over the project period. We do not include GDP per capita or the size of the population due to high collinearity with our explanatory variable state capacity.

A third set of controls weighs up characteristics of the intervention. We include year- and sector-fixed effects to control for possible effects of the period and confouders that are constant within sectors. Moreover, we include the value of the project to address the possibility that projects may be more or less complex in fragile settings.

A fourth set of controls is directed at mitigating possible shortcomings that may derive from our measurement of project success via project ratings from evaluation reports. We control for the implementing agency and the type of evaluation, since project ratings vary significantly between the GIZ and the KfW as well as between different types of evaluation (Noltze et al., 2018b). Evaluation quality might also differ significantly between fragile and non-fragile contexts, which could influence results. However, our review of evaluation quality in Chapter 4 does not find substantial differences.

Finally, development cooperation in fragile contexts might have lower requirements in order to be rated successfully. Due to limited information on the goals of interventions, we cannot take this possibly confounding effect into account. The development of such a measure should remain high on the research agenda as the possible confounding influence may invalidate the literature measuring project success via project ratings.

Figure 32: Coding process and quality checks



Source: own figure.

Note: "Certainty" refers to a cluster algorithm based on the distance of each location from the centroid of all locations.

Table 23: List and sources of variables for the empirical analysis in Chapter 5

authority	Continuous measure of authority (CSF)
authority alternative	Continuous measure of state authority in last year of project (CSF)
capacity	Continuous measure of state capacity (CSF)
capacity alternative	Continuous measure of state capacity in last year of project (CSF)
cons	Regression constant
do	Binary measure indicating implementing organization
dysfunctional	Binary measure indicating dysfunctional states (CSF)
legitimacy	Continuous measure of state legitimacy (CSF)
legitimacy alternative	Continuous measure of state legitimacy in last year of project (CSF)
low-authority	Binary measure indicating low-authority states (CSF)
low-capacity	Binary measure indicating low-capacity states (CSF)
low-legitimacy	Binary measure indicating low-legitimacy states (CSF)
polity2	Revised combined PolityScore (Marshall, Gurr, & Jaggers, 2017)
polity2 change	Standard deviation of polity2 (Marshall, Gurr, & Jaggers, 2017)
semi-functional	Binary measure indicating semi-functional states (CSF)
success	Project evaluation ratings, higher values indicate higher ratings
unsc	Binary measure indicating non-permanent UN security council membership (Dreher, Sturm, & Vreeland, 2009)
value (log)	Project costs (logarithm) (Noltze et al., 2018c)

Source: own table

4.2 Fixed-effect regression analysis

Table 24: Project rating by type of fragility

dysfunctional	-0.232
	(0.297)
low-authority	-0.046
	(0.259)
low-capacity	-0.017
	(0.248)
low-legitimacy	0.186
	(0.254)
semi-functional	0.184
	(0.258)
polity2	0.010
	(0.006)
polity2 change	-0.022
	(0.037)
unsc	-0.267
	(0.160)
do	0.262**
	(0.085)
value (log)	0.025
	(0.032)
cons	2.884***
	(0.562)
Observations	345

Note: The table reports estimates of the fixed-effect model. The regression includes sector-, evaluation type- and time-fixed effects. Standard errors are reported in parentheses. *p<0.05; **p<0.01; ***p<0.001

Source: own table

Table 25: Project rating by fragility component

authority	-0.062		0.302
	(0.155)		(0.198)
capacity	0.410*		0.470*
	(0.194)		(0.220)
legitimacy	-0.177		-0.347
	(0.215)		(0.265)
authority alternative		-0.039	
		(0.155)	
capacity alternative		0.394*	
		(0.194)	
legitimacy alternative		-0.205	
		(0.210)	
polity2			0.013
			(0.007)
polity2 change			-0.022
			(0.037)
unsc			-0.278
			(0.160)
do	0.277***	0.281***	0.266**
	(0.074)	(0.074)	(0.086)
value (log)			0.012
			(0.032)
cons	3.076***	3.079***	2.918***
	(0.215)	(0.212)	(0.559)
Observations	459	460	345

Note: The table reports estimates of the fixed-effect model. The regression includes sector-, evaluation type- and time-fixed effects. Standard errors are reported in parentheses. *p<0.05; **p<0.01; ***p<0.001

Source: own table

5. REFERENCES

Dreher, A. et al. (2009), "Development aid and international politics: Does membership on the UN Security Council influence World Bank decisions?", *Journal of Development Economics*, Vol. 88, No. 1, pp. 1-18.

Marshall, M.G. et al. (2017), "Polity IV Project. Political Regime Characteristics and Transitions, 1800-2016. Dataset Users' Manual", *https://www.systemicpeace.org/inscr/p4manualv2016.pdf* (accessed 06.02.2019).

Teorell, J. et al. (2018), "The quality of government standard dataset", Version Jan18, The Quality of Government Institute, *http://www.qog.pol.gu.se* (accessed 15.2.2019).

For further references see *main report.*