

A photograph of a white UN peacekeeping armored vehicle, marked with 'UNIT 12742' and 'UN', driving on a road. A soldier in blue uniform is visible on top. Another similar vehicle is in the background. The image is partially covered by a dark blue overlay on the right side where the text is located.

# HOW UN PEACEKEEPING MISSIONS ENFORCE PEACE AGREEMENTS?

*Replication Research*

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# INTRODUCTION

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## Background

Civil wars commonly come to an end through the adoption of comprehensive peace agreements. Agreement adoption represents a significant moment in a country's transition from war to peace: not only are these agreements the result of years of sustained negotiation among warring parties; they also depart from traditional ceasefire agreements to include an array of provisions committing the signatories and post-conflict society to processes of economic, political, and social reform in order to address the structural causes of conflict (*Mac Ginty, Joshi, and Lee, 2019; Walter 1999*).

These agreements are arduous to implement. Consequently, the United Nations (UN) regularly deploys peacekeeping missions ("missions") to enforce the process (*Joshi 2013; Stedman, Cousens, and Rothchild 2002*). Previous scholarship on UN missions has demonstrated their robust effectiveness at reducing violence and ending conflict.

Indeed, the vast majority (82 %) of post-Cold War missions' mandates make explicit reference to the enforcement of peace agreements. However, these studies often (implicitly or explicitly) treat the enforcement of peace agreements and their constitutive provisions as a homogenous condition, yet missions are rarely mandated to enforce peace agreements in their entirety, instead being mandated to enforce, on average, a minority (45 percent) of agreement provisions at any given time.

## Question

If peacekeeping enforcement is crucial both to agreement implementation and conflict termination, how do missions actually enforce peace agreements, and what effect do higher rates of enforcement have on agreement implementation and patterns of armed conflict?



# TO SOLVE THE QUESTION

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What should we do?

# DATASET & ARTICLE

## Introduction

The Peace Accord Matrix Implementation Dataset (PAM\_ID) [1] is a project of the Kroc Institute of International Peace Studies at the University of Notre Dame, and contains data on the degree to which the provisions found within comprehensive intrastate peace agreements are implemented in the decade following the signing of the accord.

The project defines a provision as a goal oriented reform or stipulation that is costly to one or both actors, falling under relatively discrete policy domain. Examples of a provision include: judicial reform, women's rights, educational reform, and natural resource management.

Currently the project recognizes 51 different types of provisions that form the corpus of issues or topics found within peace agreements worldwide. This document describes the logic and coding rules underpinning the construction of the implementation dataset and specifies the indicators used to code the implementation of each provision on an annual basis. Observation of the implementation of each provision begins immediately after the signing of the peace agreement and continues for ten years where applicable.

## Reference

1. Joshi, Madhav, Jason Michael Quinn & Patrick M. Regan. 2015. "Annualized Implementation Data on Intrastate Comprehensive Peace Accords, 1989-2012." *Journal of Peace Research* 52(4): 551-562.
2. Mailhot, Cameron, *How UN Peacekeeping Missions Enforce Peace Agreements* (August 23, 2023). *American Journal of Political Science*, Forthcoming, Available at SSRN: <https://ssrn.com/abstract=4548982>

### How UN Peacekeeping Missions Enforce Peace Agreements

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#### Abstract

How do UN peacekeeping missions enforce peace agreements, and what effect do higher rates of enforcement have on agreement implementation and conflict recidivism? Peace agreement enforcement forms a central component of peacekeeping effectiveness, yet missions are often mandated to enforce a minority of agreement provisions, and they vary across both time and space in the ways in which they do so. I identify the three dimensions along which enforcement operates—the proportion and type of provisions that missions are mandated to enforce, alongside their mandated level of involvement in their implementation—and theorize about their positive effects on agreement implementation and conflict termination. Analyzing the Peacekeeping Enforcement Dataset, an original dataset of the enforcement patterns of all UN peacekeeping missions (1989-2015), I find that each dimension of enforcement has, at various time points, a distinct impact on agreement implementation and preventing conflict recidivism.

**Keywords:** peacekeeping, peace agreements, mandate, enforcement, conflict, provisions

[How UN Peacekeeping Missions Enforce Peace Agreements](#) [2]



# RESEARCH DESIGN

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## Steps

The author answers these questions in three steps. First, identify missions' mandated agreement enforcement patterns along three dimensions:

- (1) the proportion of peace agreement provisions that missions are mandated to enforce.
- (2) the types of provisions that missions are mandated to enforce.
- (3) the level of missions' mandated involvement in the provision implementation process.

Second, theorize about the independent, positive impact that these dimensions of enforcement have on agreement implementation and conflict termination, including the mediating role of the former on the latter.

Third, test the claims by leveraging insights from the Peacekeeping Enforcement Dataset.

## Three Dimensions

In this section, the author explicated and theorized about the ways in which each of these three dimensions of enforcement:

- (1) the proportion of provisions mandated to enforced.
- (2) the type of provisions mandated to enforced.
- (3) the level of mandated involvement.

# HYPOTHESES & VARIABLES

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## Hypotheses

Dimension I: Proportion of Provisions Mandated to Enforce

**Hypothesis 1: The higher the proportion of peace agreement provisions that missions are mandated to enforce, the higher the rate of peace agreement implementation.**

Dimension II: The Mandated Enforcement of Specific Types of Provisions

**Hypothesis 2: The more security-oriented provisions that missions are mandated to enforce, the higher the rate of peace agreement implementation.**

Dimension III: Level of Involvement in the Provision Implementation Process

**Hypothesis 3: The more directly involved missions are mandated to be in the implementation of peace agreement provisions, the higher the rate of peace agreement implementation.**

# HYPOTHESES & VARIABLES

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## Response Variables

**Y: agg\_implem\_score:**

Aggregate Implementation Score (Achieved Points divided by Total Possible Points (0 – 100%). This score reflects the aggregate level of implementation at the end of the accord-year in light of the number of provisions in the accord. This variable was constructed by taking the annual sum of implementation points across all provisions in an accord (total\_implem\_points) and dividing that sum by the highest possible implementation score that could have been received (number of provisions\*three points). This yields a normalized annual percentage that ranges from 0 to 100%.

## Explanatory Variables

**X1: InvolvementBinaryRate:**

Variable capturing the total number of peace agreement provisions in which a UN mission is mandated to enforce, divided by the total number of provisions in the peace agreement. This is Dimension I.

**X2: SecurityInvolveBinaryRateMinimum:**

Variable capturing the total number temporally proximate security-oriented provisions in the UN mission's mandate. This includes the following provision types: ceasefires, disarmament, demobilization, territorial power-sharing, transitional power-sharing, reintegration, and withdrawal.

**X3: InvolveLevelRateByBinaryRate:**

Variable capturing the total level of mandated involvement of a mission, divided by the total number of provisions in the peace agreement. This is Dimension III.

# MODELS

```
model1 <- plm(diff(agg_implem_score) ~ InvolvementBinaryRate, data = df, weights = fit$weights)
model2 <- plm(diff(agg_implem_score) ~SecurityInvolveBinaryRateMinimum, data = df, weights = fit2$weights)
model3 <- plm(diff(agg_implem_score) ~InvolveLevelRateByBinaryRate, data = df, weights = fit2$weights)
stargazer(model1, model2, model3, align=TRUE, out = "TableMain.html")
```

Dependent variable:			
	diff(agg_implem_score)		
	(1)	(2)	(3)
InvolvementBinaryRate	0.184*** (0.037)		
SecurityInvolveBinaryRateMinimum		0.101*** (0.030)	
InvolveLevelRateByBinaryRate			0.120*** (0.017)
Observations	289	289	289
R <sup>2</sup>	0.111	0.078	0.174
Adjusted R <sup>2</sup>	-0.009	-0.045	0.064
F Statistic (df = 1; 254)	25.002***	11.351***	48.655***

Note: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01



# EFFECTS BY OTHER VARIABLES

## GDP per capita

- **e\_gdppc**
- Variable capturing the point estimate from latent variable model of Gross Domestic Product Per Capita based on a number of sources. This variable is derived from Fariss et al. (2021) via the Varieties of Democracy Project (Coppedge et al. 2021).

## personnel deployed

- **YearlyPersonnelAvg**
- This variable captures the annual average number of personnel deployed to a given country through a UN mission. This variable is derived from Perry and Smith (2013) at the International Peace Institute.

# MODELS

```
modell1 <- plm(diff(agg_implem_score) ~ InvolvementBinaryRate, data = df, weights = fit$weights)
modella <- plm(diff(agg_implem_score) ~ InvolvementBinaryRate + e_gdppc, data = df, weights = fit$weights)
modellb <- plm(diff(agg_implem_score) ~ InvolvementBinaryRate + e_gdppc + YearlyPersonnelAvg, data = df, weights = fit$weights)
```

*Dependent variable:*

	diff(agg_implem_score)		
	(1)	(2)	(3)
InvolvementBinaryRate	0.184*** (0.037)	0.137*** (0.037)	0.095** (0.044)
e_gdppc		-2.503*** (0.559)	-2.598*** (0.560)
YearlyPersonnelAvg			0.001* (0.0003)
Observations	289	289	288
R <sup>2</sup>	0.111	0.190	0.217
Adjusted R <sup>2</sup>	-0.009	0.078	0.105
F Statistic	25.002*** (df = 1; 254)	23.459*** (df = 2; 253)	17.054*** (df = 3; 251)

*Note:* \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

# MODELS

```
model2 <- plm(diff(agg_implem_score) ~ SecurityInvolveBinaryRateMinimum, data = df, weights = fit2$weights)
model2a <- plm(diff(agg_implem_score) ~ SecurityInvolveBinaryRateMinimum + e_gdppc, data = df, weights = fit2$weights)
model2b <- plm(diff(agg_implem_score) ~ SecurityInvolveBinaryRateMinimum + e_gdppc + YearlyPersonnelAvg, data = df, weights = fit2$weights)
```

Dependent variable:

	diff(agg_implem_score)		
	(1)	(2)	(3)
SecurityInvolveBinaryRate Minimum	0.101*** (0.030)	0.085*** (0.028)	0.050 (0.031)
e_gdppc		-3.647*** (0.600)	-3.576*** (0.593)
YearlyPersonnelAvg			0.001*** (0.0003)
Observations	289	289	288
R <sup>2</sup>	0.078	0.189	0.223
Adjusted R <sup>2</sup>	-0.045	0.077	0.111
F Statistic	11.351*** (df = 1; 254)	24.930*** (df = 2; 253)	20.097*** (df = 3; 251)

Note:

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

# MODELS

```
model3 <- plm(diff(agg_implem_score) ~ InvolveLevelRateByBinaryRate, data = df, weights = fit2$weights)
model3a <- plm(diff(agg_implem_score) ~ InvolveLevelRateByBinaryRate + e_gdppc, data = df, weights = fit2$weights)
model3b <- plm(diff(agg_implem_score) ~ InvolveLevelRateByBinaryRate + e_gdppc + YearlyPersonnelAvg, data = df, weights = fit2$weights)
```

Dependent variable:

	diff(agg_implem_score)		
	(1)	(2)	(3)
InvolveLevelRateByBinaryRate	0.120*** (0.017)	0.091*** (0.018)	0.072*** (0.021)
e_gdppc		-2.562*** (0.632)	-2.734*** (0.640)
YearlyPersonnelAvg			0.0005 (0.0003)
Observations	289	289	288
R <sup>2</sup>	0.174	0.227	0.242
Adjusted R <sup>2</sup>	0.064	0.120	0.133
F Statistic	48.655*** (df = 1; 254)	34.016*** (df = 2; 253)	23.700*** (df = 3; 251)

Note: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

# CONCLUSION

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First, we find that the mandated enforcement of a higher proportion of peace agreement provisions (Dimension I), alongside higher levels of involvement in the implementation process (Dimension III), are positively and significantly associated with agreement implementation—especially in the early post-conflict period.

Second, while we find that these two dimensions of mandated enforcement are insignificantly associated with the durable end to armed conflict, the mandated enforcement of specific types of provisions (Dimension III)— here, security-oriented provisions—is negatively and significantly associated with conflict termination when mediated by the agreement implementation process itself.

Additionally, when we added GDP per capita as a comparison, we found that GDP per capita has the biggest effect on the response variable. In comparison, number of personnel has smallest effect on the response variable.

With their divergent contributions to agreement implementation and conflict termination, the three dimensions of mandated enforcement ultimately paint a more holistic picture of the role that peacekeeping missions play in peace processes.



# THANK YOU

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