



# Conflicting News: Recent Trends in Political Violence and Future Challenges

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International Conflict Research | ETH Zurich | [www.icr.ethz.ch](http://www.icr.ethz.ch)

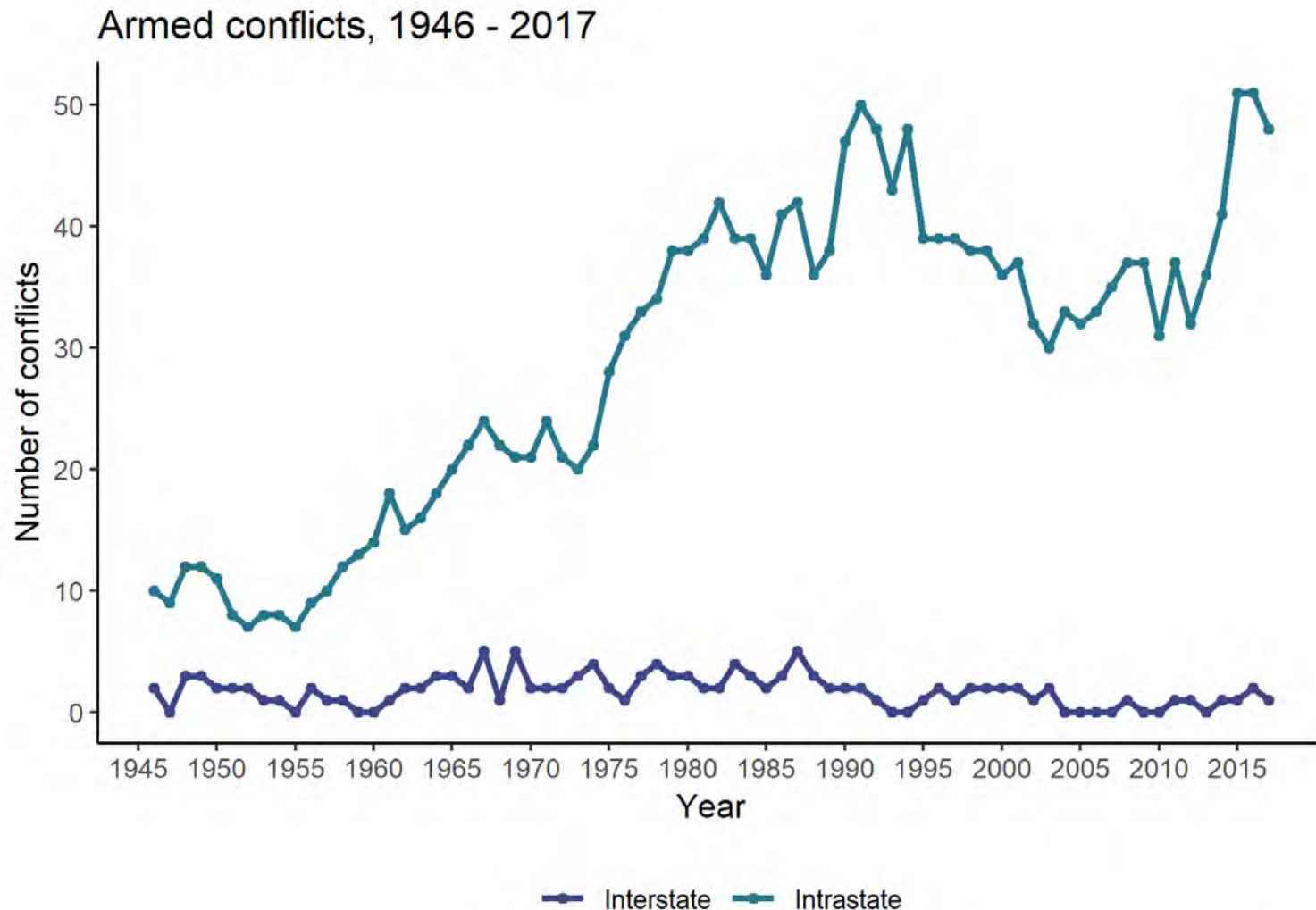
UN: Gathering Storms and Silver Linings

New York, February 20-21, 2019

# UN Sustainable Development Goals: Selected Targets

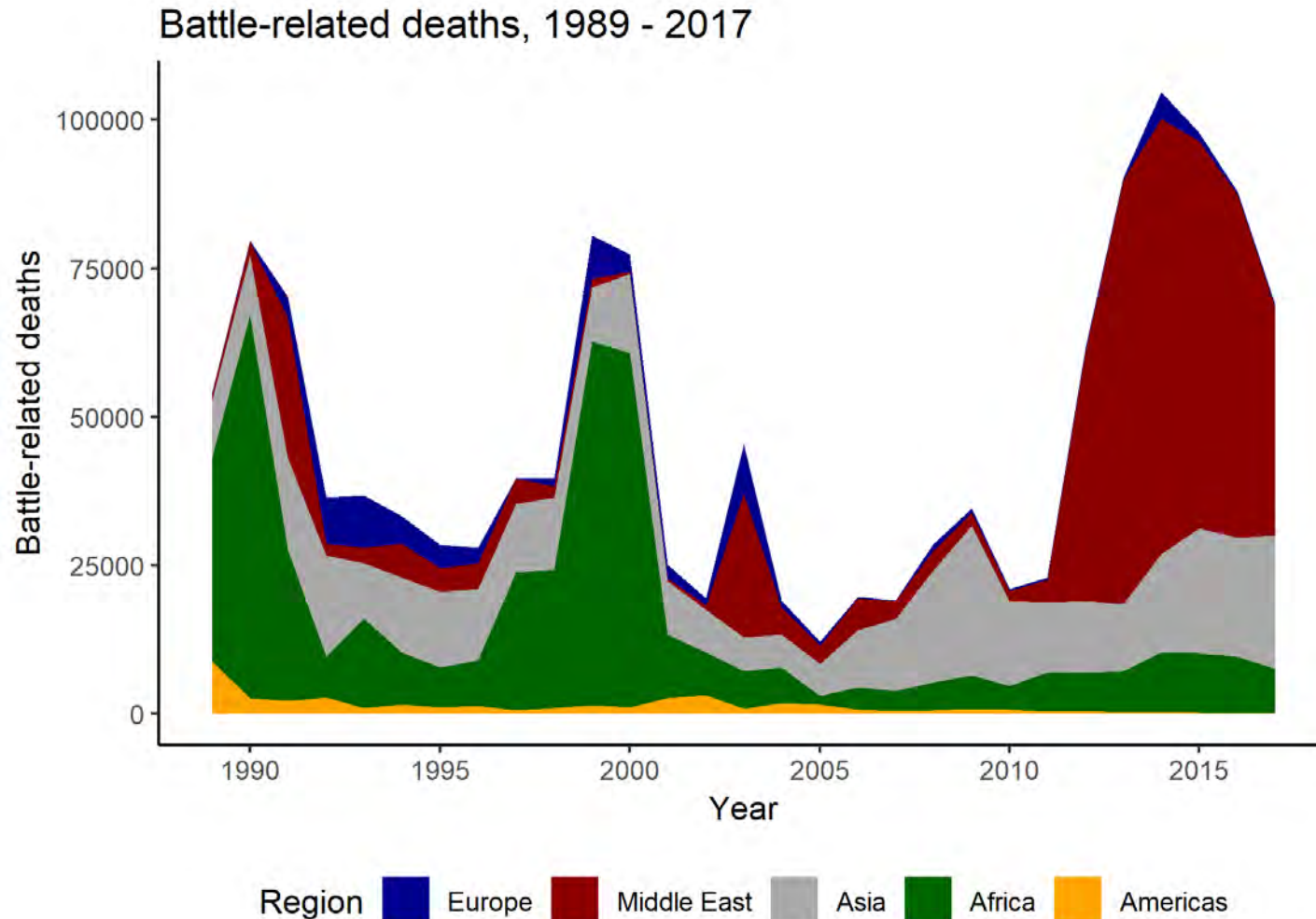
- Significantly reduce all forms of violence and related death rates everywhere (16.1)
- By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status (10.2)
- Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries (13.1)
- Facilitate orderly, safe, regular and responsible migration and mobility of people, including through the implementation of planned and well-managed migration policies (10.7)

# Is there still a decline of conflict?



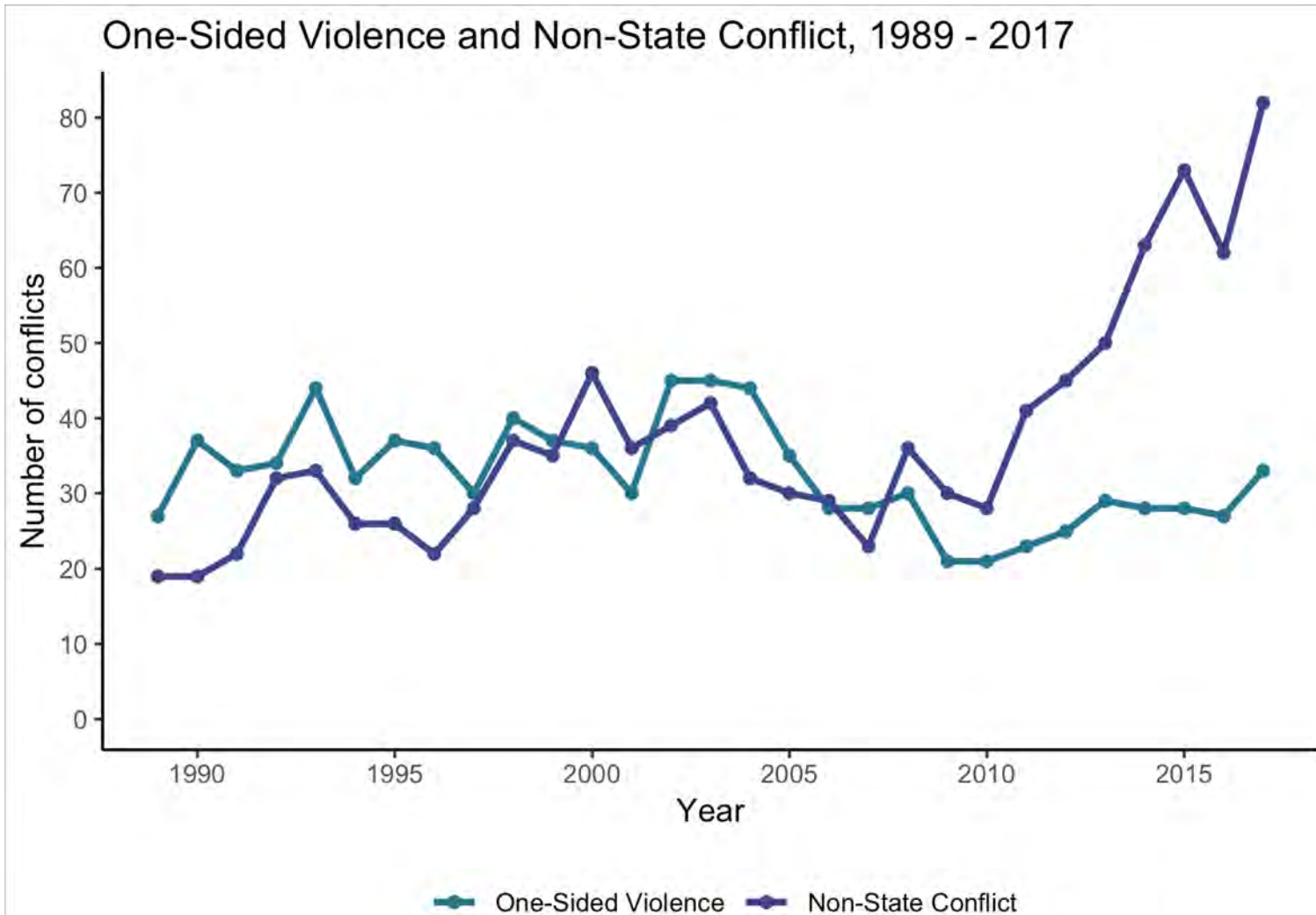
Data source: Uppsala Conflict Data Program

# Conflict intensity in world regions



Data source: Uppsala Conflict Data Program

# Other types of intra-state violence



Data source: Uppsala Conflict Data Program

# Mostly bad news

- Civil conflict has been increasing in recent years
- Non-state conflict also increasing
- General indices confirm that various conflict measures have increased in recent years

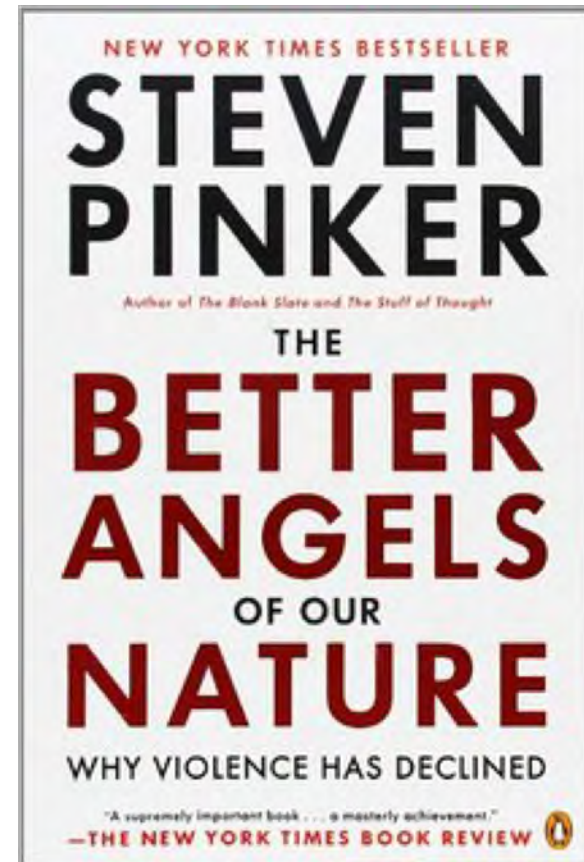


RANK	COUNTRY	SCORE	CHANGE	RANK	COUNTRY	SCORE	CHANGE	RANK	COUNTRY	SCORE	CHANGE
1	Iceland	1.095	→	29	Botswana	1.059	↓ 4	57	United Kingdom	1.876	↓ 5
2	New Zealand	1.192	→	30	Spain	1.078	↓ 10	58	Montenegro	1.893	↓ 5
3	Austria	1.214	↓ 1	31	Latvia	1.089	↑ 1	59	Timor-Leste	1.895	↓ 5
4	Portugal	1.218	↓ 1	32	Poland	1.227	↑ 1	60	Vietnam	1.905	→
5	Denmark	1.353	→	33	Estonia	1.732	↓ 3	61	France	1.909	↓ 5
6	Canada	1.372	→	34	Taiwan	1.736	↓ 3	62	Cyprus	1.913	↓ 3
7	Czech Republic	1.381	→	35	Sierra Leone	1.74	↓ 5	63	Liberia	1.931	↓ 27
8	Singapore	1.382	↓ 3	36	Lithuania	1.749	↓ 2	64	Moldova	1.939	→
9	Japan	1.391	↓ 1	37	Uruguay	1.761	↓ 2	65	Equatorial Guinea	1.946	↓ 7
10	Ireland	1.393	↓ 2	38	Italy	1.766	↓ 1	66	Argentina	1.947	↓ 5
11	Slovenia	1.395	↓ 1	39	Madagascar	1.766	↓ 4	67	Sri Lanka	1.954	↓ 5
12	Switzerland	1.407	↓ 3	40	Costa Rica	1.767	↓ 6	68	Nicaragua	1.96	↓ 7
13	Australia	1.435	→	41	Ghana	1.772	↓ 6	69	Benin	1.973	↓ 12
14	Sweden	1.502	→	42	Kuwait	1.799	↓ 5	70	Kazakhstan	1.974	↓ 2
15	Finland	1.506	↓ 3	43	Namibia	1.806	↓ 7	71	Morocco	1.979	↓ 4
16	Norway	1.519	→	44	Malawi	1.811	↓ 8	72	Swaziland	1.98	↓ 2
17	Germany	1.531	→	45	UAE	1.82	↓ 12	73	Oman	1.984	↓ 11
18	Hungary	1.533	↓ 2	46	Lebanon	1.821	↓ 2	74	Peru	1.986	↓ 1
19	Bhutan	1.545	↓ 5	47	Mongolia	1.821	↓ 1	75	Ecuador	1.987	↓ 5
20	Mauritius	1.548	↓ 1	48	Zambia	1.822	↓ 7	76	The Gambia	1.989	↓ 25
21	Belgium	1.56	→	49	South Korea	1.823	↓ 6	77	Paraguay	1.997	↓ 1
22	Slovakia	1.568	↓ 3	50	Panama	1.826	↓ 4	78	Tunisia	1.998	↓ 7
23	Netherlands	1.574	↓ 1	51	Tanzania	1.837	↓ 2	79	Greece	2.02	→
24	Romania	1.595	↓ 3	52	Albania	1.849	↓ 7	80	Burkina Faso	2.025	↓ 16
25	Malaysia	1.619	↓ 4	53	Senegal	1.849	↓ 9	81	Cuba	2.037	↓ 8
26	Bulgaria	1.635	↓ 2	54	Berlin	1.851	↓ 1	82	Douala	2.043	→
27	Croatia	1.639	↓ 4	55	Indonesia	1.853	↓ 2	83	Angola	2.048	↓ 3
28	Chile	1.649	↓ 5	56	Qatar	1.869	↓ 26	84	Nepal	2.053	↓ 4



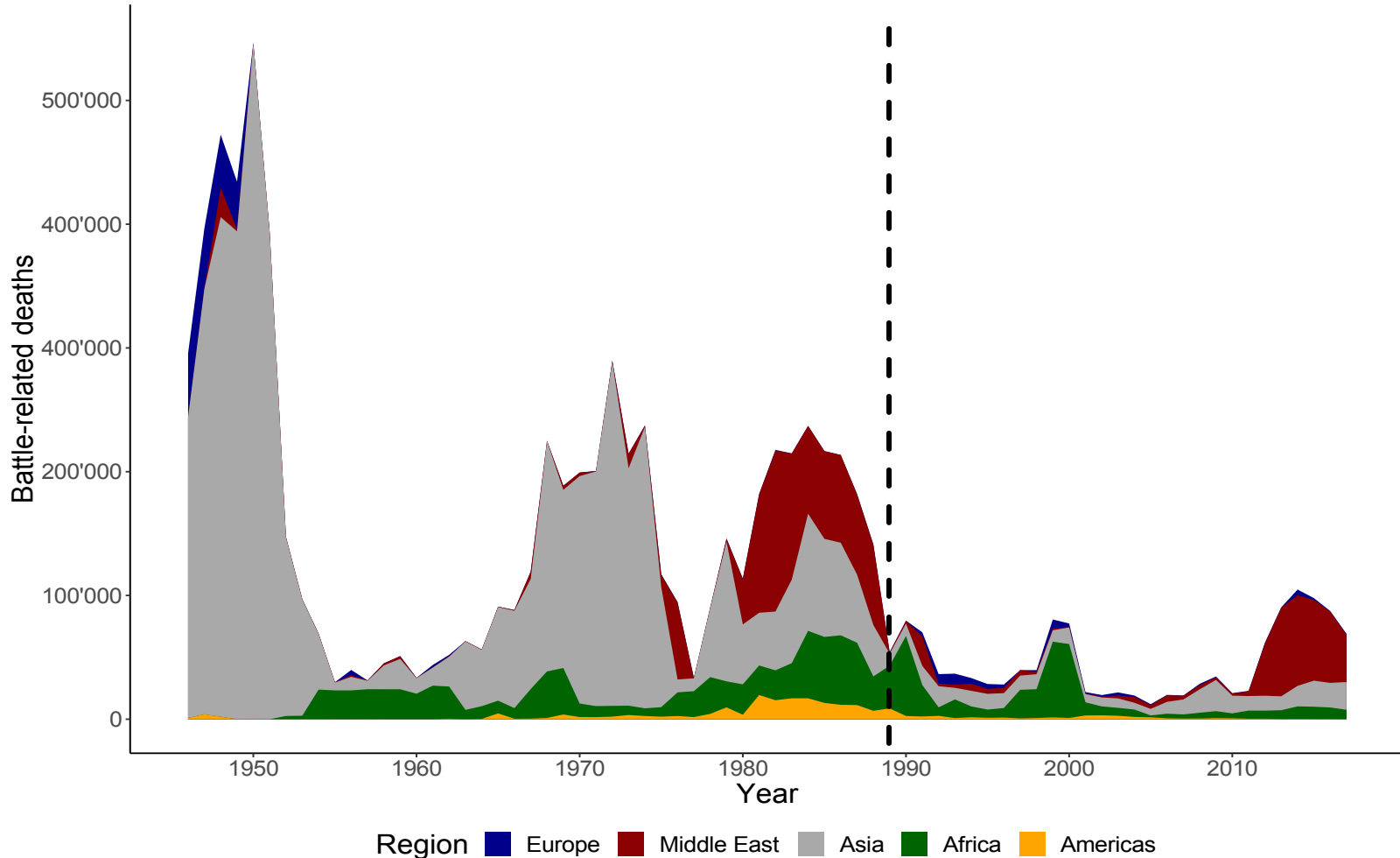
## .. but also some silver linings

- Yet, macro-historically there is progress: Pinker 2011
- Beyond Middle East things look better
- Ethnic civil conflict declining
- Interstate conflict also declining



# Trends in battle deaths since WWII

Battle-related deaths, 1946-2017  
From inter- and intrastate war



Data source: UCDP & PRIO via ourworldindata.org



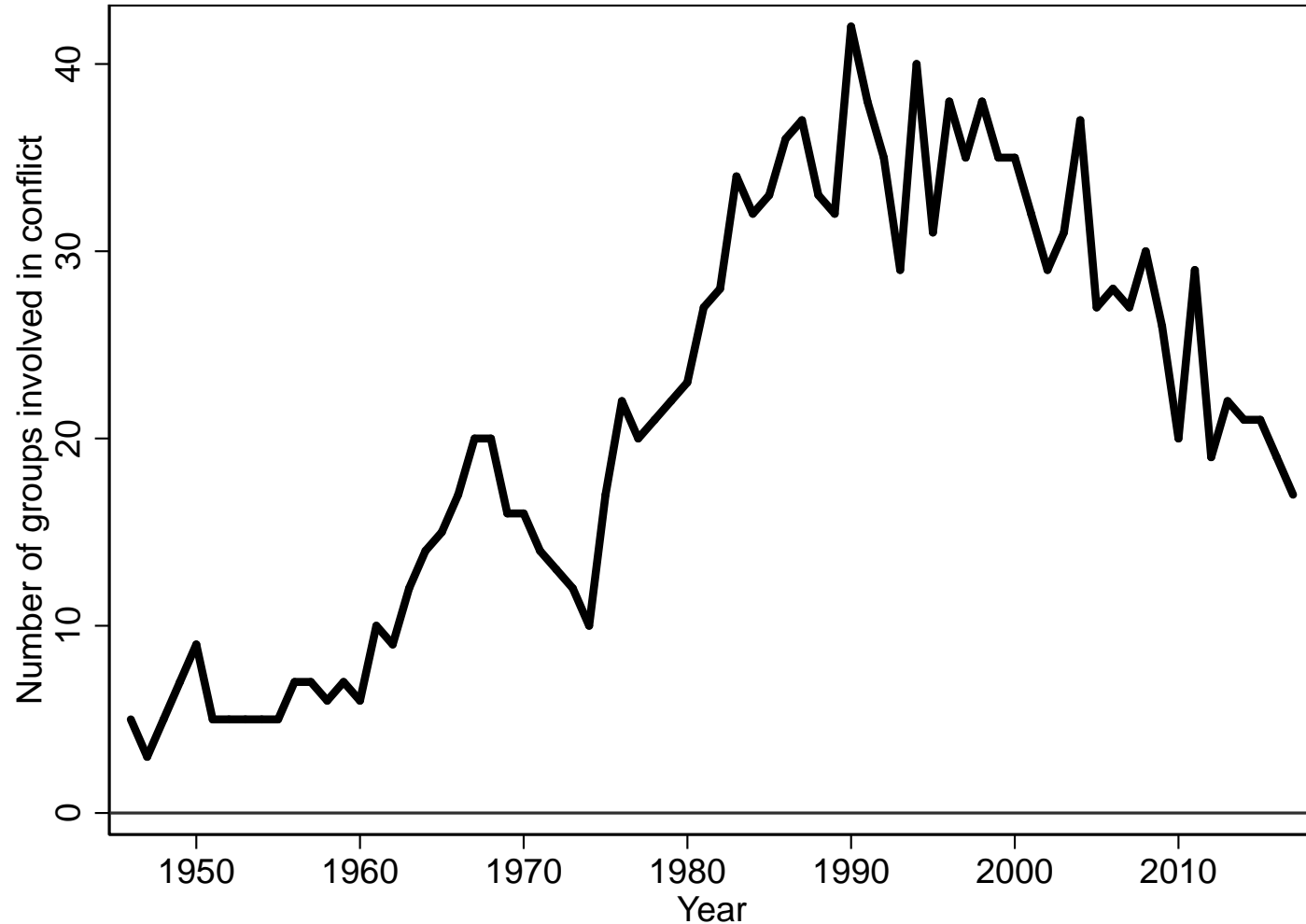
# Gurr: Decline of ethnic war

- "Ethnic Warfare on the Wane," *Foreign Affairs* (2000)
- From mid-1990s, decline of ethnic war
- Regime of accommodation:
  - Minority rights
  - Autonomy and power sharing
  - Negotiation and compromise
  - International norms and organizations

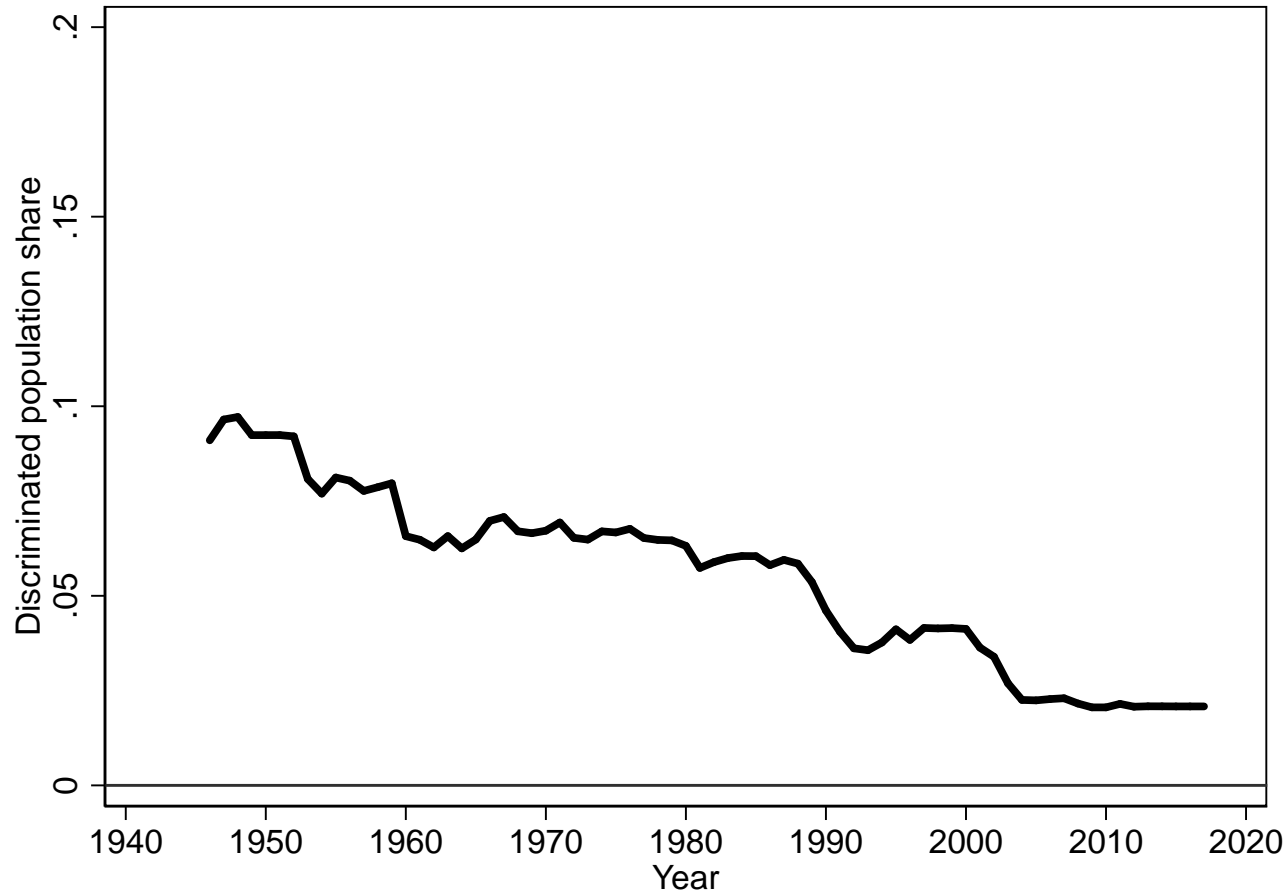


Ted Robert Gurr

# Trends in ethnic civil conflict



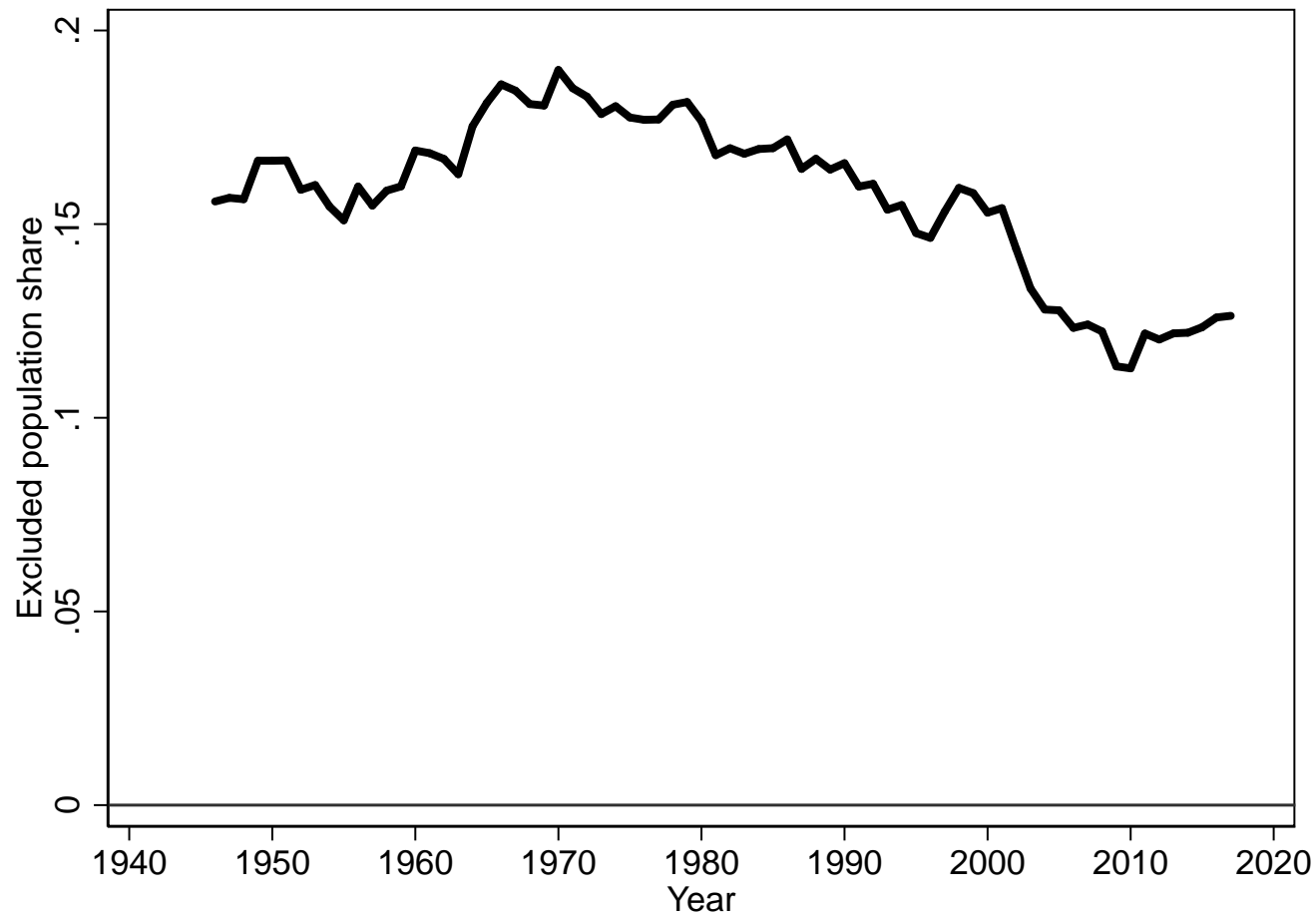
# Global trend in ethnic discrimination



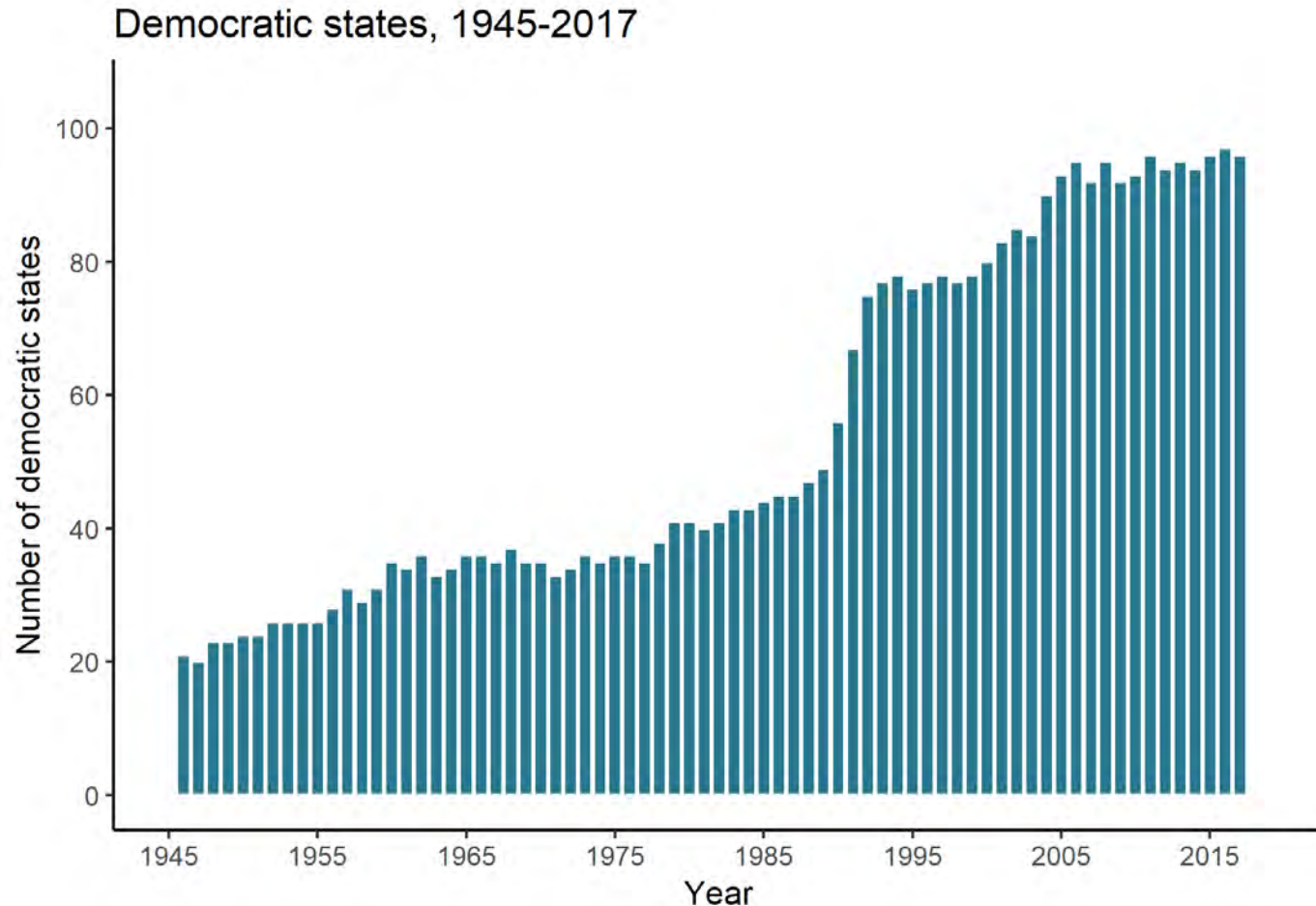
# Global trend in ethno-regional autonomy



# Global trend in ethno-political exclusion

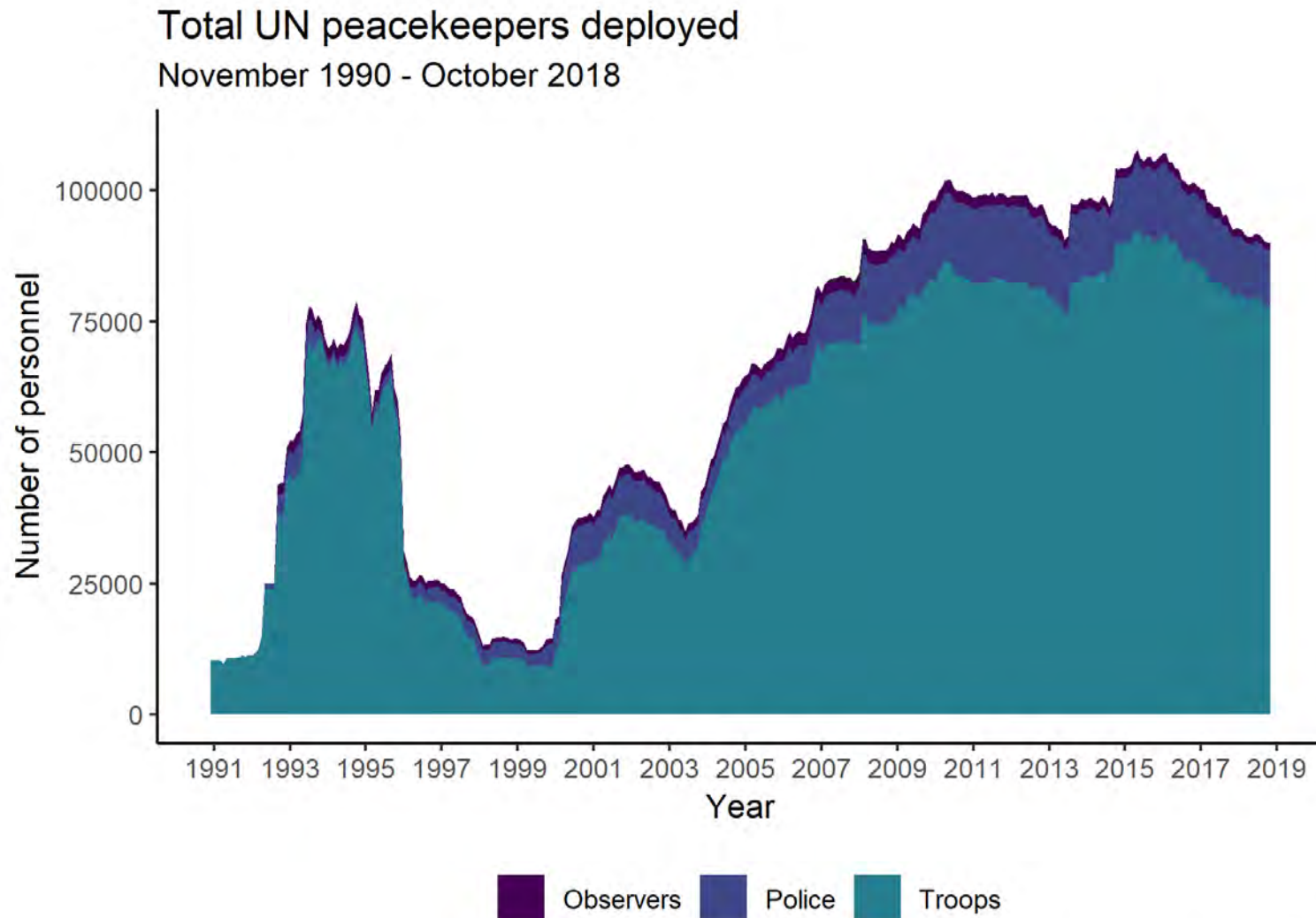


# Trend in democracy



Data source: Polity IV  
Democracy defined here as Polity score above 5

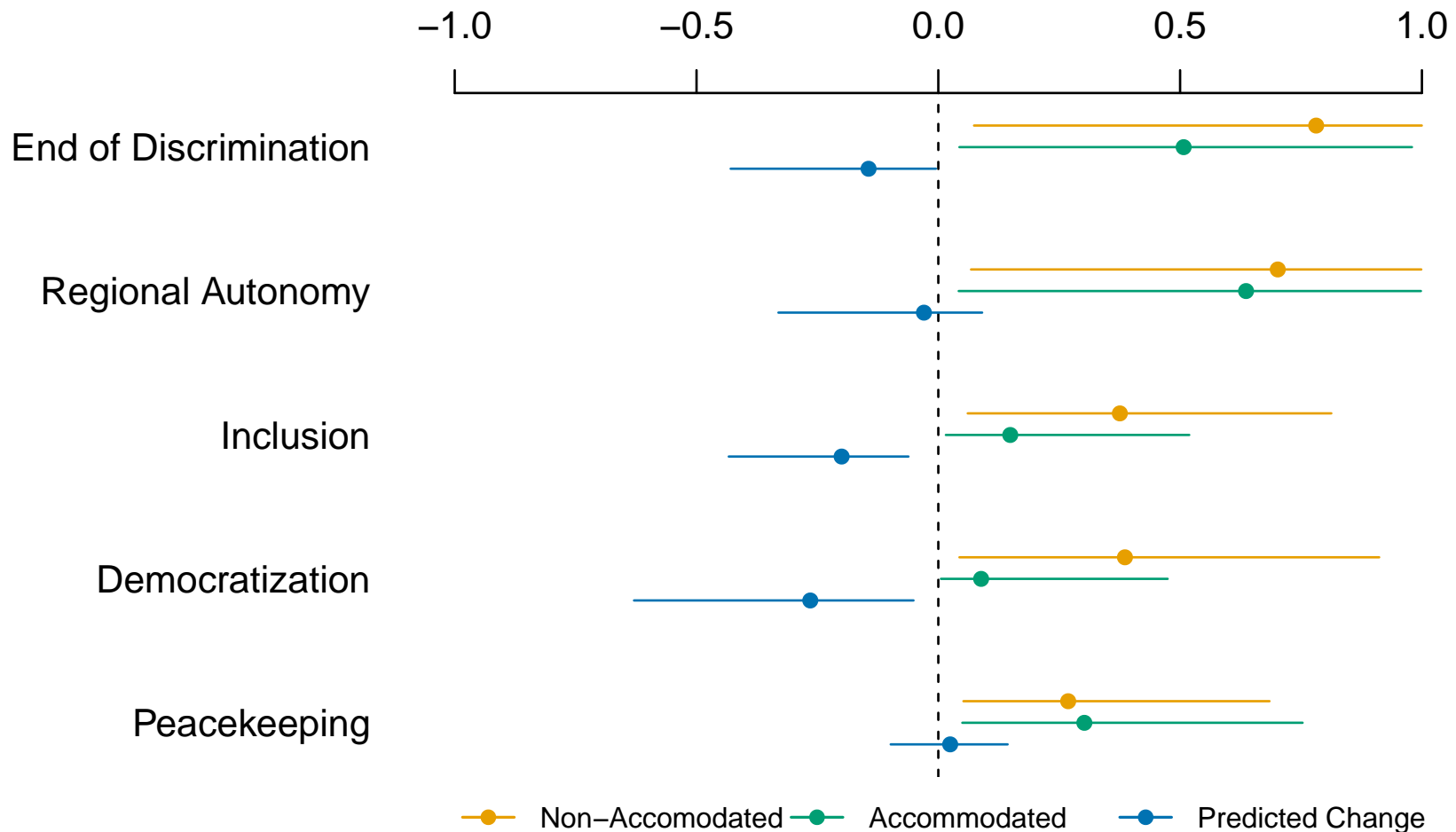
# Trend in peacekeeping



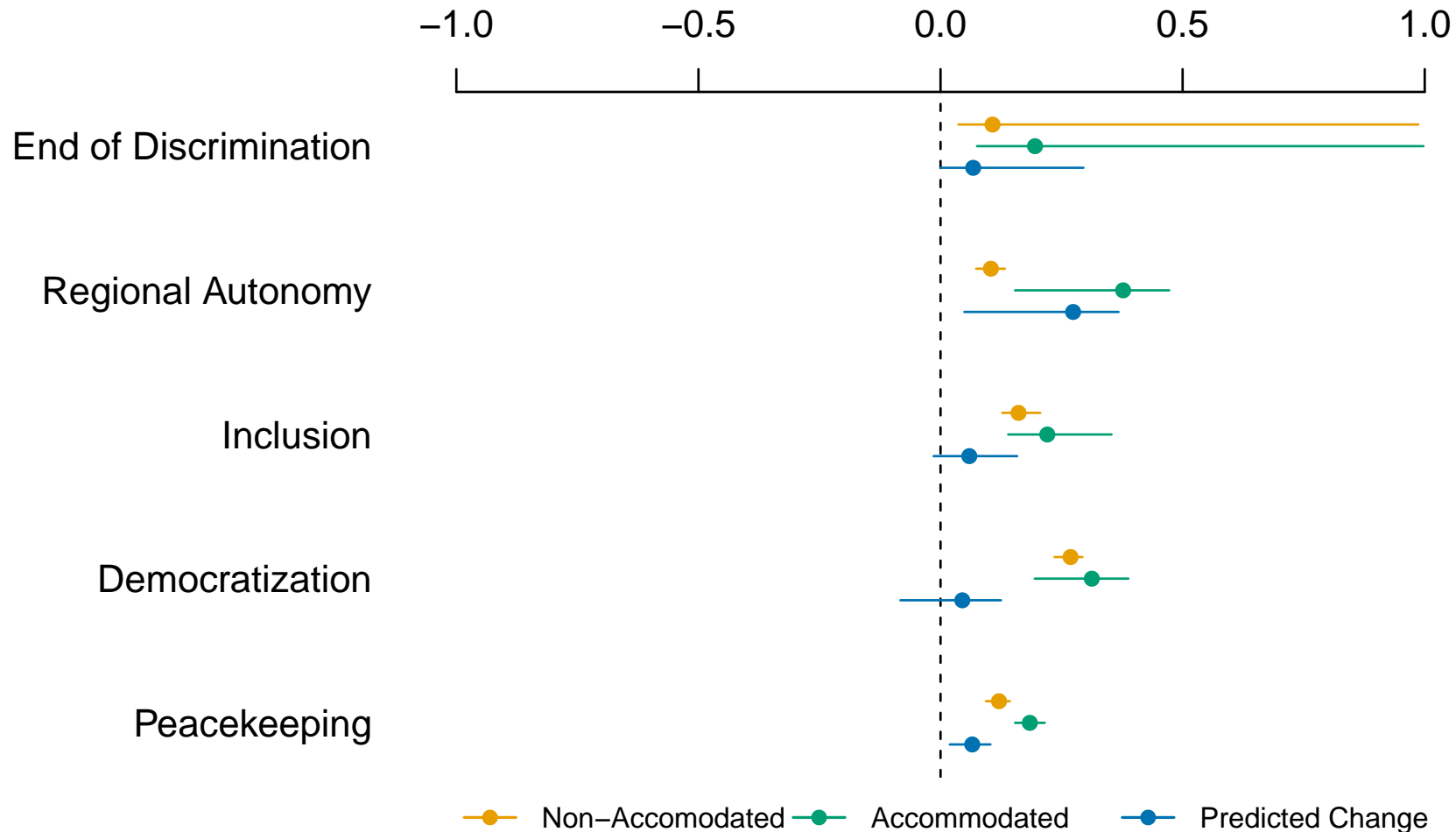
Data source: International Peace Institute



# Probability of conflict, 2004-2013



# Probability of conflict ending, 2004-2005



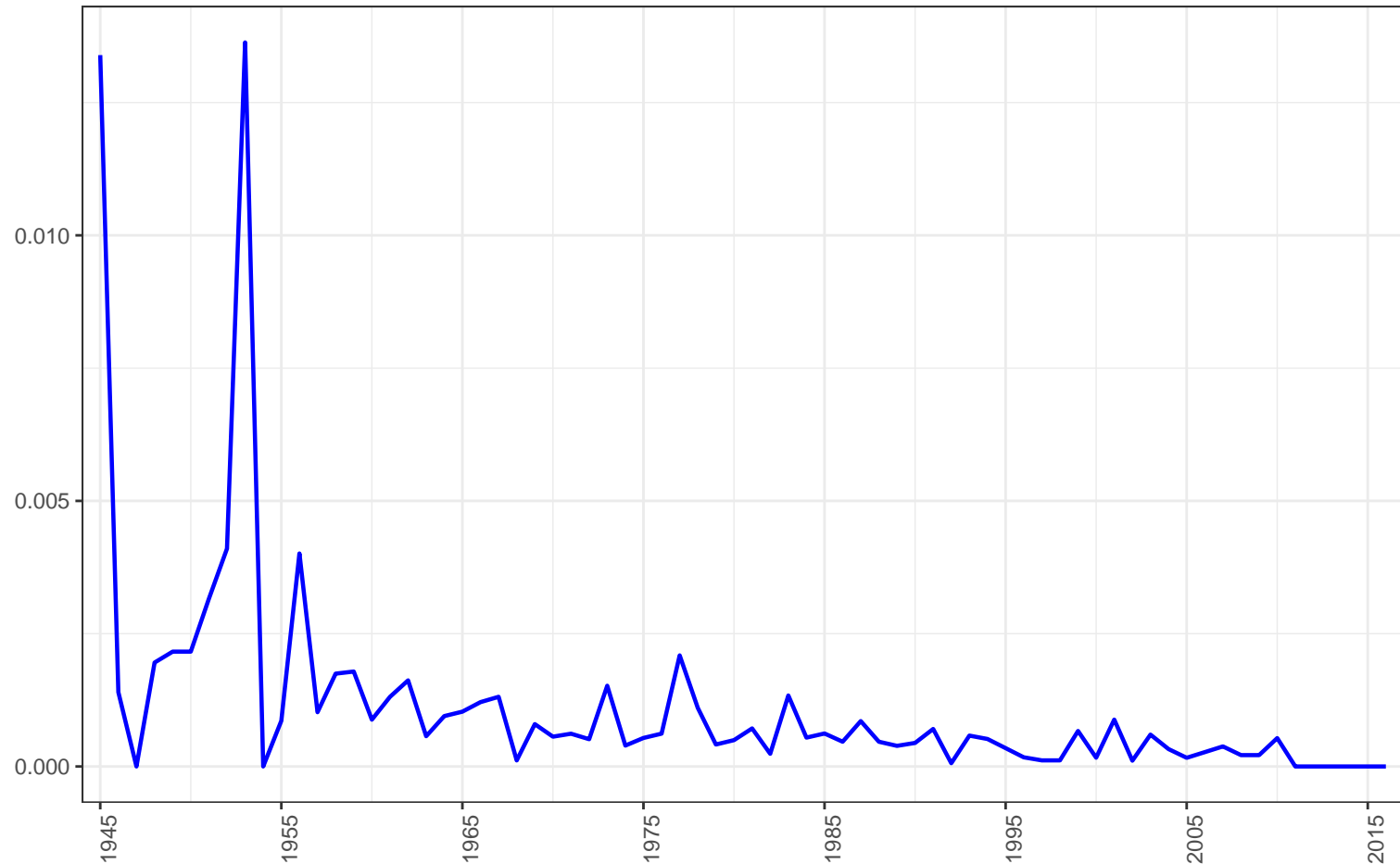
# Where Accommodation (plausibly) worked

Table III. Examples of conflict-preventing and termination-promoting accommodation since the mid-1990s

	<i>Group rights</i>	<i>Autonomy</i>	<i>Inclusion</i>	<i>Democratization</i>	<i>Peacekeeping</i>
Onset	Liberia, Nigeria	Kurds in Iraq	South Africa, Angola	Guatemala, Ghana	(●)
Termination	Tuaregs in Mali and Niger	Northern Ireland, Aceh	Bosnia	Burundi	Macedonia

**Source:** Cederman, Lars-Erik, Kristian Skrede Gleditsch and Julian Wucherpfennig. 2017. "Predicting the decline of ethnic civil war: Was Gurr right and for the right reasons?" *Journal of Peace Research* 54(2):262–274.

# Probability of interstate conflict per dyad



Source: Maoz et al. 2018

# Gathering Storms? Three main threats to peace

1. Erosion of liberal world order?
2. Climate change?
3. Migration?

# Threat 1. Erosion of liberal world order

- Domestic liberal order
  - Internal threats: rising inequality → populism
  - External threats: globalization, refugee flows, terrorism
- Liberal community of states
  - Hegemon unwilling: America First!
  - Weakening of NATO, EU
  - Diffusion of illiberalism: Populist victories in Eastern Europe, India, Brazil
- Global liberal norms
  - Weakening of multilateral institutions
  - Undermining human rights and international law
  - Western support for illiberal leaders



# The future of war in an illiberal world

- Increase in civil war
  - More discrimination and exclusion
  - More state-led repression
  - Less multilateral conflict resolution
- Increase in interstate conflict
  - Fewer democracy-democracy relations
  - Ethnic nationalism and Irredentism
  - Power politics rather than norms
- Nuclear crisis instability





## Threats 2 and 3. Tempting narratives

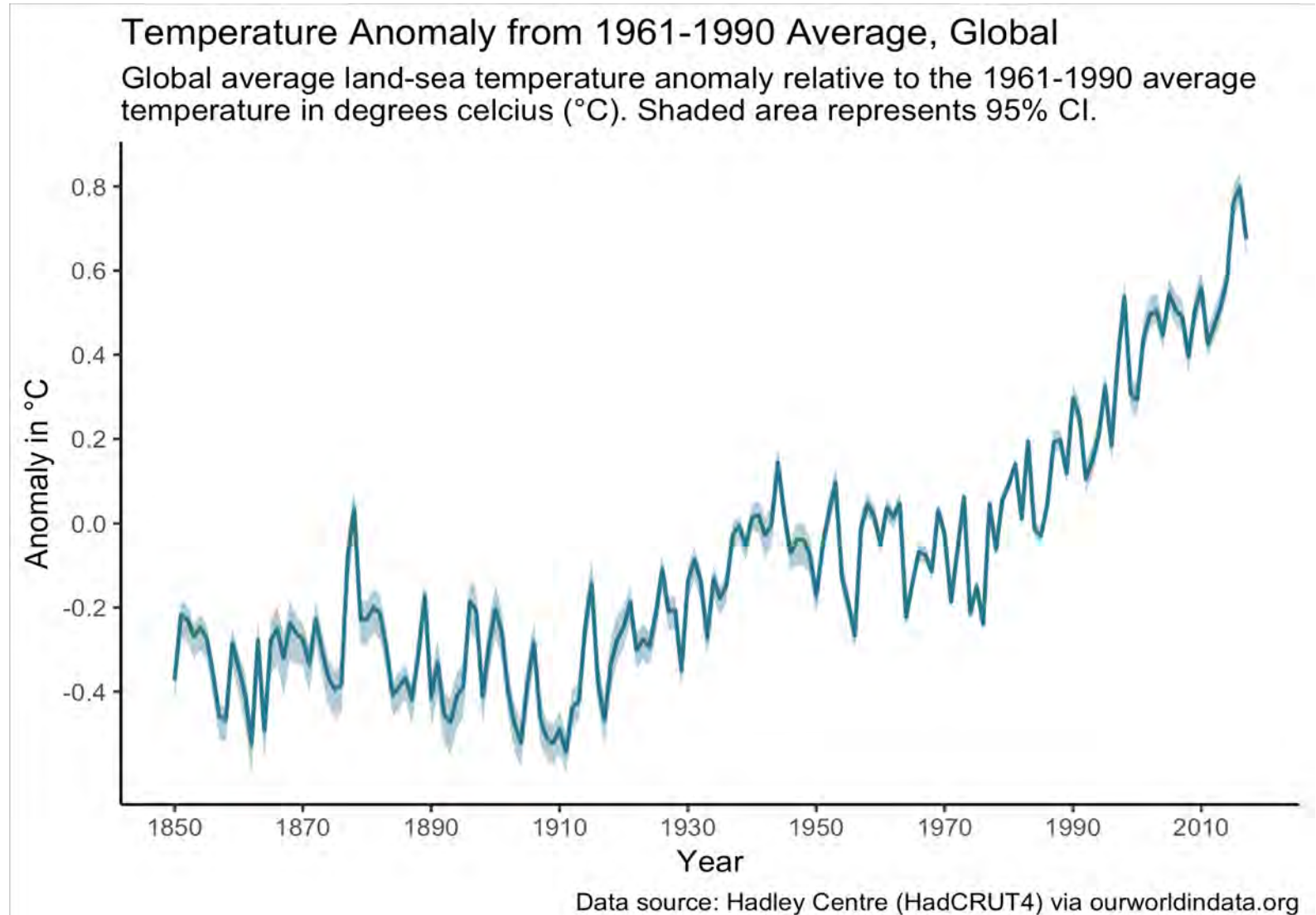
*“[O]ne of the major reasons for this horror in Syria was a drought that lasted for five or six years, which meant that huge numbers of people in the end had to leave the land.”*

Prince Charles (2015)

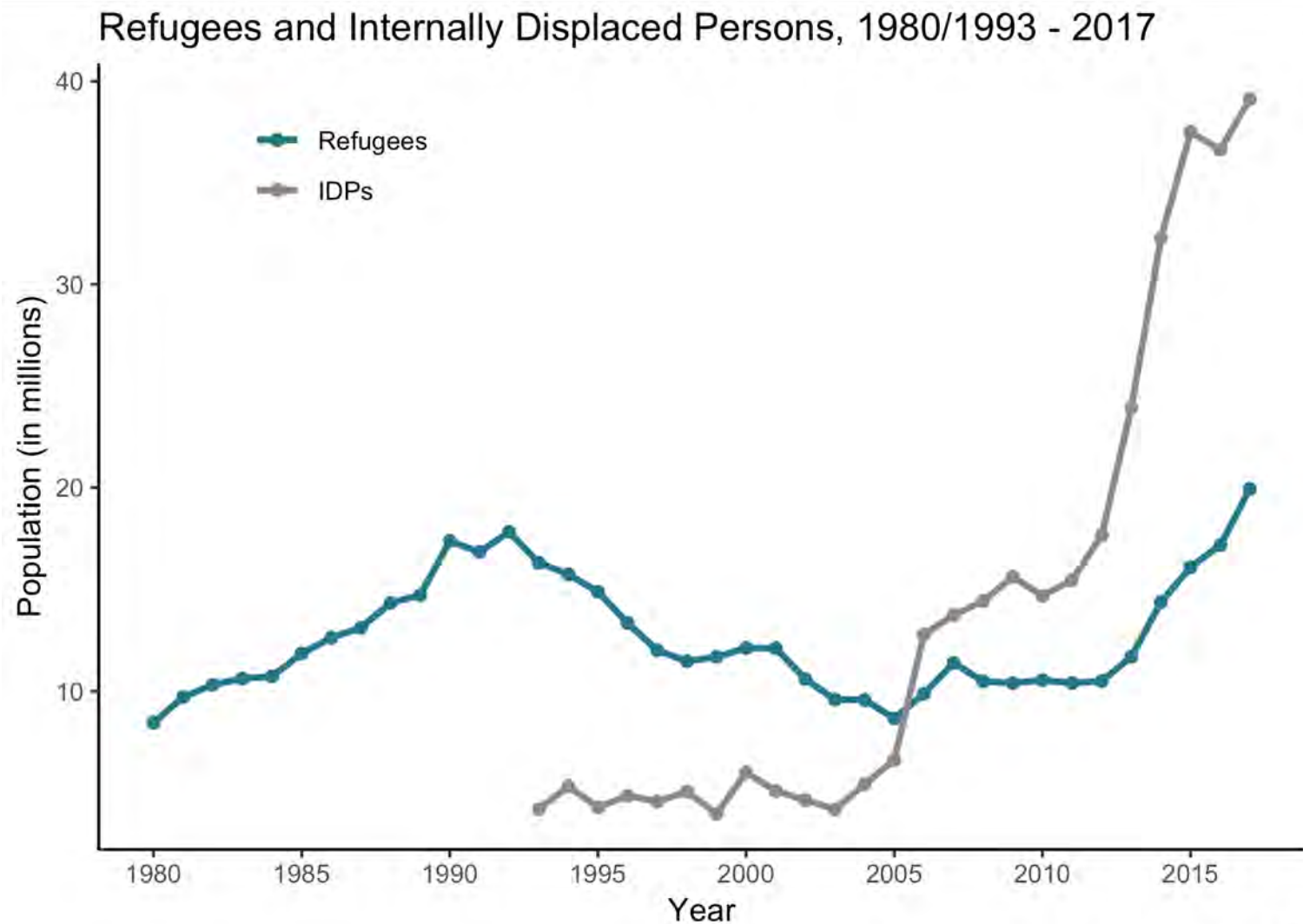
See also Gleick (2014) & Kelley et al. (2015)  
vs. Selby et al. (2017)



# Global climate trend. The heat is on



# Trends in flight and displacement



Data source: UNHCR

# Research on climate and conflict

- Rapidly developing, interdisciplinary field. No consensus yet.
- Climate anomalies as threat multiplier (*Hsiang et al. 2013. Science*)
- Recent trends & future directions:
  - Subnational data and analyses (e.g. *UCDP-GED & ACLED data sets*)
  - Causal mechanisms: food prices, migration, political competition, inequality... (e.g. *Raleigh et al. 2015. Glob. Env. Change*)
  - Scope conditions: ongoing conflict, agricultural dependence, pre-existing inequalities, institutions, type of conflict... (e.g. *von Uexkull et al. 2016. PNAS*)
  - Actors & Agency (e.g. farmers, herders, rebel groups, militias, political elites)
  - Conflict  $\leftrightarrow$  Adaptation, Mitigation & Disaster Relief Policies (e.g. *Walch. 2018. J. Peace Res.*)

# Research on climate, migration and conflict

- Conflict as main driver of migration and displacement
  - Refugees and IDPs often victims rather than perpetrators of violence (e.g. Linke et al. 2018. *Env. Res. Let.*)
  - Recent findings & future directions
    - Migration and displacement, in some contexts, associated with conflict incidence and diffusion (e.g. Bhavnani & Lacina. 2014. *World Politics*)
    - Political context and power relations matter (e.g. *JPR special issue*)
    - Some evidence that climate stress may induce out-migration; but no consensus (e.g. Carleton & Hsiang. 2016. *Science.*)
    - Migration as adaptation: No natural link to conflict (e.g. Brzoska & Fröhlich. 2016. *Mig. and Dev.*)
- Focus on causal mechanisms, scope conditions, actors & agency

# No Crystal Balls: Conflict Prediction

- Prediction has to be used with caution
- Big data are helpful but more data not enough
- Crucial to consider limitations:

1. Complexity
2. Data
3. Theoretical relevance
4. Policy relevance

- Cederman & Weidmann. 2017. *Science* **355**, 474-476.



SPECIAL SECTION PREDICTION

## ESSAY

### Predicting armed conflict: Time to adjust our expectations?

Lars-Erik Cederman<sup>1</sup>\* and Nils R. Weidmann<sup>2</sup>

This Essay provides an introduction to the general challenges of predicting political violence, particularly compared with predicting other types of events (such as earthquakes). What is possible? What is less realistic? We aim to debunk myths about predicting violence, as well as to illustrate the substantial progress in this field.

“Big data” can help us find the right partner, optimize the choice of hotel rooms, and solve many other problems in everyday life. It should also be able to save lives by predicting future outbreaks of deadly conflict (1). This is the hope of many researchers who apply machine learning techniques to new, vast data sets extracted from the Internet and other sources. Given the suffering and instability that political violence still inflicts on

the world, this vision is conflict researchers’ ultimate frontier in terms of policy impact and social control. Despite this promise, however, prediction remains highly controversial in academic conflict research. Relatively few conflict experts have attempted explicit forecasting of conflicts. Furthermore, no system of early warning has established itself as a reliable tool for policy-making, although major efforts are currently under way (2).

Recent years have seen the emergence of a series of articles that attempt to address this void by leveraging the latest advances in large-scale data collection and computational analysis. The task in these studies is to predict whether interna-

tional or internal conflict is likely to occur in a given country and year, thus creating yearly “risk maps” for violent conflict around the world. The first prediction models were based on the emerging quantitative methodology in political science at the time and relied on simple linear-regression models.

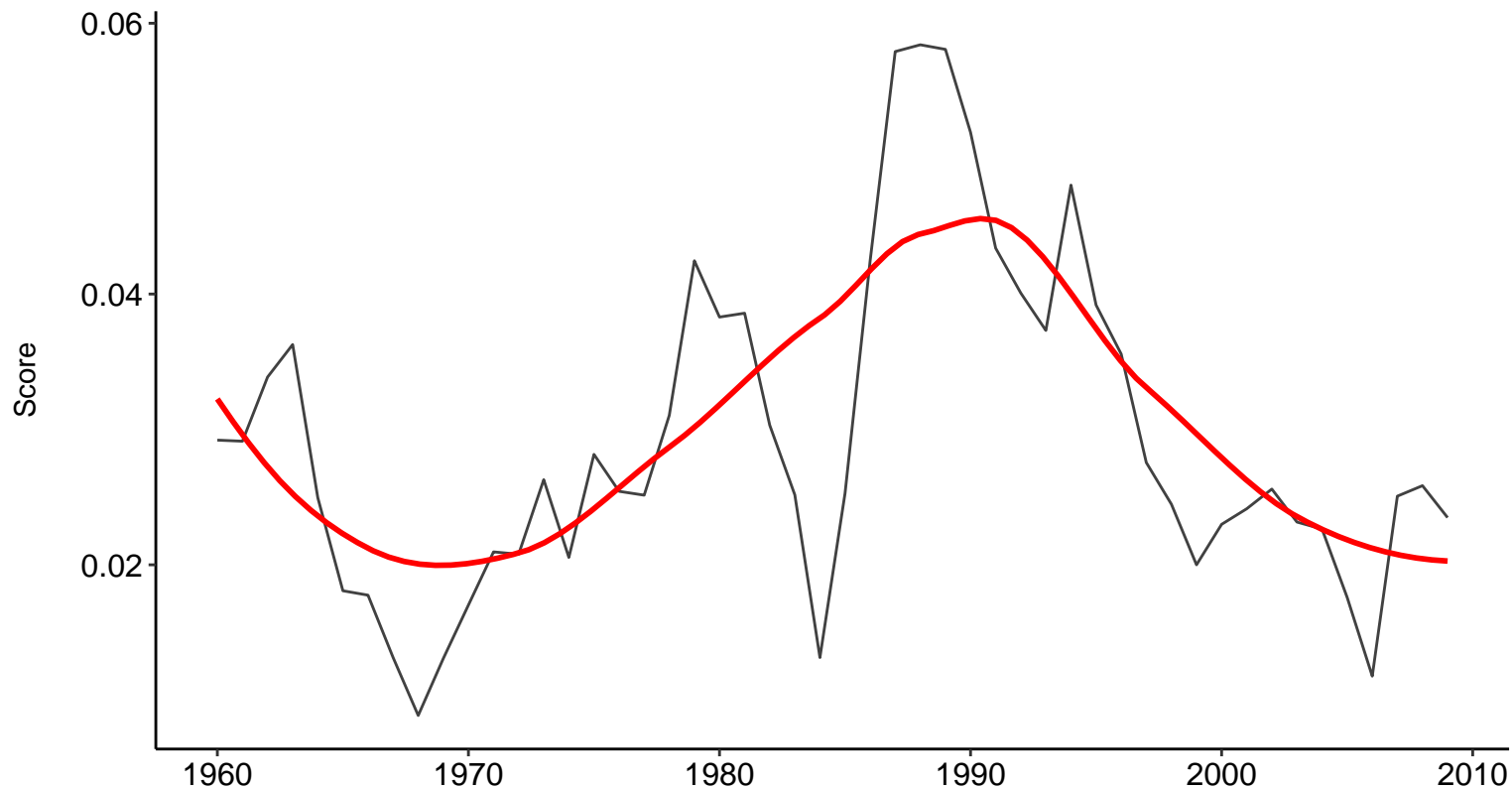
However, it was soon recognized that these models cannot capture the varying effects and complex interactions of conflict predictors. This realization led to the introduction of machine learning techniques such as neural networks (3), an analytical trend that continues to the present day. In these models, the interactions of risk factors generating violent outcomes are inductively inferred from the data, and this process typically requires highly complex models. Today, country-level analyses with resolution at the level of a year still constitute the majority of the work on conflict prediction, with some studies having pushed the time horizon of their predictions several decades into the future (4).

More recently, newly available data and improved models have allowed conflict researchers to disentangle the temporal and spatial dynamics of political violence. Some of this research produces monthly or daily forecasts. Such temporal disaggregation requires adaptations of existing prediction models. For example, the approach presented in (5) is based on conflict event data for the Israel-Palestine conflict. Using a model that

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# Forecasting inaccuracy over time (Brier score)

Forecasting 5 years into the future, training model on previous 15 years



Base model: Cederman, Gleditsch and Buhaug (2013)



# Conclusions for research

- Invest in data collection and careful research designs
- Study causes and consequences of conflict as genuinely political phenomena
- Engage across disciplinary boundaries
- Engage with policy-makers and journalists
- Avoid sensationalist claims, highlight limitations and complexity

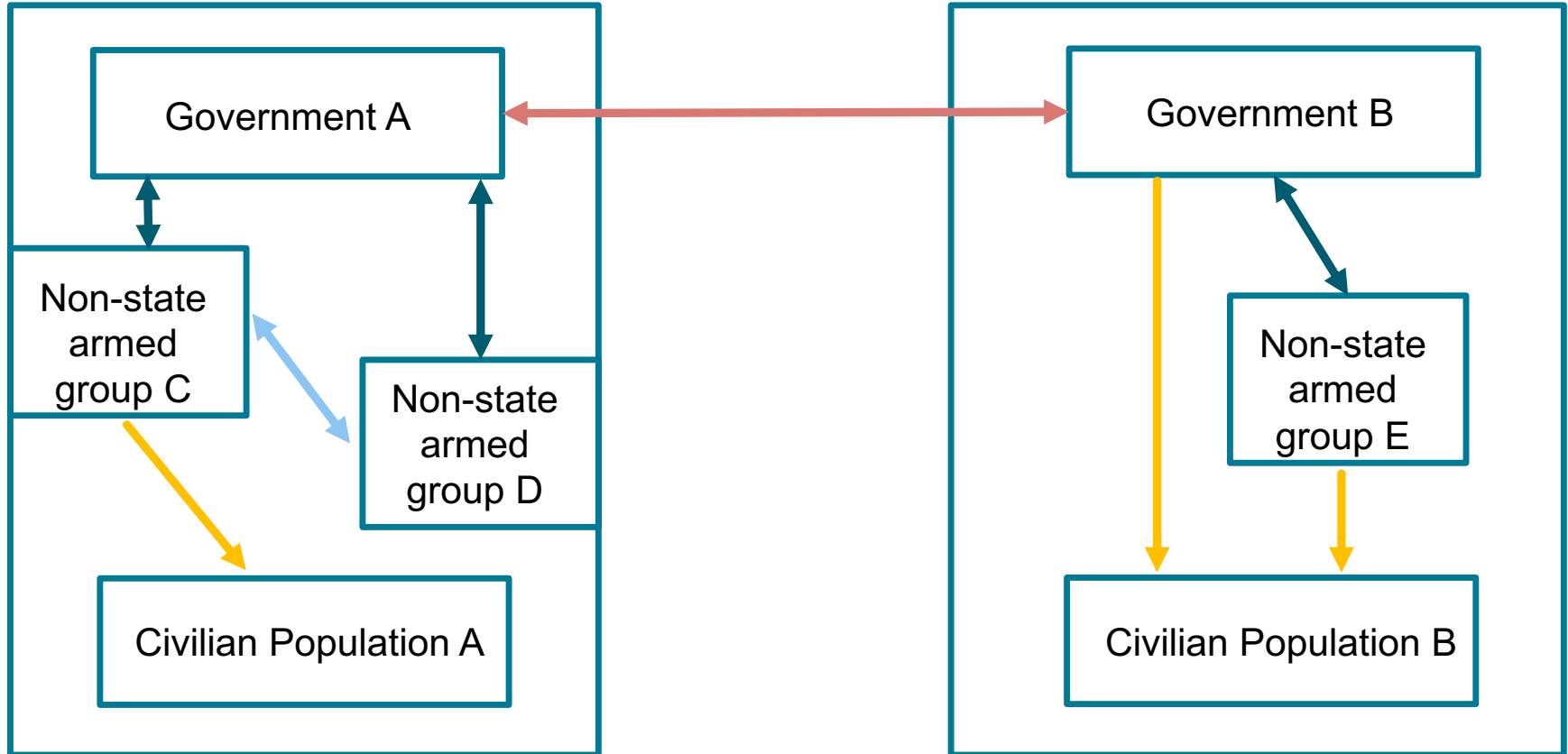
# Conclusions for policy

- Significantly reduce all forms of violence and related death rates everywhere (16.1)
- By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status (10.2)
- Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries (13.1)
- Facilitate orderly, safe, regular and responsible migration and mobility of people, including through the implementation of planned and well-managed migration policies (10.7)

# Appendix

# Types of Conflict according to UCDP

Arrows indicate direction of armed force | Based on: [www.pcr.uu.se/research/ucdp/definitions/](http://www.pcr.uu.se/research/ucdp/definitions/)



↔ = Interstate Conflict

↔ = Non-State Conflict

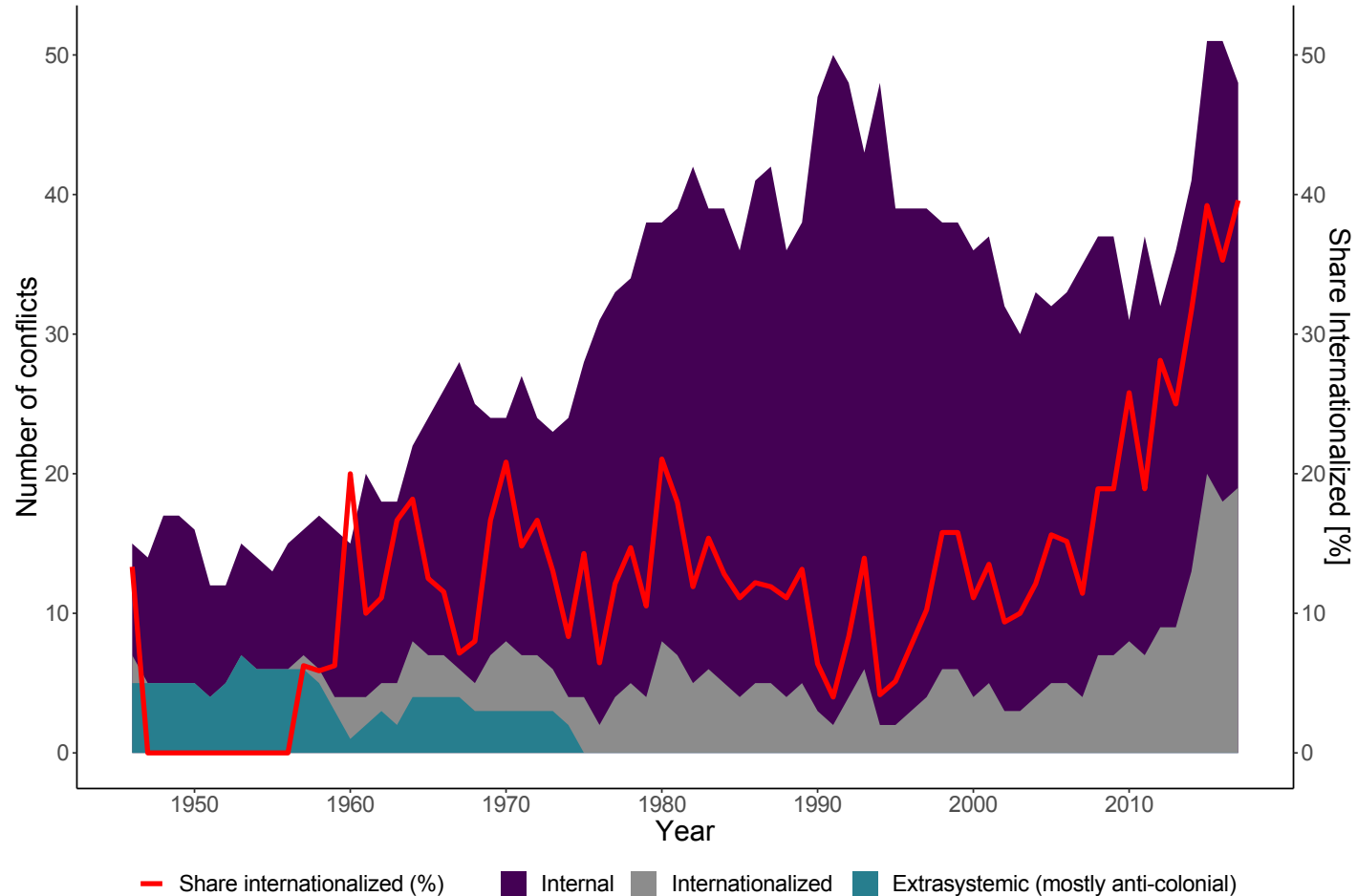
↔ = Intrastate Conflict

→ = One-Sided Violence

# Internationalization of Intrastate Conflict

## Increasing Internationalization of Intrastate Conflict

Internationalized: Foreign government(s) actively support(s) one or both conflict parties



Data source: Uppsala Conflict Data Program

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