Bilateral Conflict Risk and Trade: Military Wars, Trade Wars, and Diplomatic Noise

JADT 2026 Conference – S06 Text Analysis in Economics

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Aula 9, University of Palermo
Chair: Davide Furceri

Conference venue: Complesso Didattico – Building 19, University of Palermo

The puzzle

Military war

Missile strikes, invasion, battlefield destruction

Immediate disruption

Trade war

Tariffs, sanctions, export controls, coercive diplomacy

Policy uncertainty + retaliation

War of words

Protests, accusations, diplomatic friction

Potentially just noise

How damaging is a "trade war" relative to a military war or diplomatic noise?

Where the paper sits in the literature

Conflict, sanctions and trade

- **War and trade:** Martin, Mayer and Thoenig (2008); Glick and Taylor (2010).
- **Political frictions and sanctions:** Fuchs and Klann (2013); Heilmann (2016); Felbermayr et al. (2020); Crozet and Hinz (2020).
- **This paper:** continuous directed hostility, split into kinetic and trade-context layers.

Text-as-data indicators

- Baker, Bloom and Davis (2016); Mueller and Rauh (2018); Caldara and Iacoviello (2022).
- Closest dyadic benchmark: Chevalier et al. (2026) and IntenSE.
- **This paper:** severity weights, media salience, ICEWS calibration, directionality, and sanctions-context reclassification.

Fragmentation and gravity

- Geoeconomic fragmentation: Gopinath et al. (2025); Mohr and Trebesch (2025).
- Structural gravity: Santos Silva and Tenreyro (2006).
- **This paper:** layer-specific PPML trade effects, delayed retaliation, and aggregate trade at risk.

Contribution

The paper links **preprocessed event data** to **dyadic geopolitical measurement** and then to **gravity-based trade losses**.

Contributions to the literature(s)

Substantive literatures

- **War and trade / sanctions:** continuous directed hostility, not only binary wars, sanctions, or single episodes.
- **Geoeconomic fragmentation:** bilateral hostility is measured directly, rather than proxied by blocs or voting distance.

Text-as-data contribution

- Raw event data are preprocessed through severity weights, media salience, ICEWS calibration, directionality, and sanctions context.
- In horse races against IntenSE, the preprocessed indicator wins: it remains significant when IntenSE controls are added.

Econometric payoff

Only **military wars** and **trade-context conflicts** measurably reduce trade; baseline diplomatic noise is close to zero in the long run.

A simple example: why preprocessing matters

The problem

News-based indicators can mix three objects: actual conflict, media visibility, and negative language. This is especially problematic when the same underlying GDELT source is transformed through article tone and frequency.

Example: military exercises

- Joint military exercises may contain militarized vocabulary.
- They may receive intense press coverage.
- But they can reflect strategic cooperation, not bilateral conflict.

Example: economic coercion

- Technical sanctions or export controls may receive little coverage.
- Highly publicized diplomatic announcements may be overweighted.
- The economically relevant object is trade-context hostility.

Our contribution

We preprocess raw events using severity and salience weights, supervised calibration on ICEWS, directionality, and sanctions-context reclassification. This turns news events into an economically interpretable bilateral conflict indicator.

Measurement pipeline

GDELT v2 events 2015–2026 → Goldstein-weighted hostile shares daily → monthly → Ridge calibration against ICEWS 2015–2019 → Four directed layers $i \to j$ → PPML gravity trade effects

Daily hostile share

$$r_{ij,d} = \frac{\sum_{e \in C_{ij,d}} |G_e| M_e}{\sum_{e \in C_{ij,d}} |G_e| M_e + \sum_{e \in K_{ij,d}} G_e M_e}$$

Monthly directed score

$$r_{ij,t} = \frac{1}{|D_t|} \sum_{d \in D_t} r_{ij,d}$$

- Direction $i \to j$ is retained.
- Calibration corrects automated-coding noise.
- The layer split is imposed after preprocessing.

Goldstein score G_e captures conflict/cooperation intensity; NumMentions M_e weights media salience.

Four layers of bilateral hostility

Pair	L^{kin}	L^{pos}	L^{trd}	L^{base}	Pattern
ISR→PSE	0.300	0.007	0.004	0.095	Kinetic war
USA→CHN	0.003	0.003	0.154	0.000	Trade war
RUS→UKR	0.254	0.035	0.158	0.000	Kinetic + sanctions
USA→IRN	0.023	0.001	0.204	0.000	Sanctions
FRA→DEU	0.008	0.002	0.001	0.044	Baseline diplomacy

Interpretation

The same aggregate score can hide very different mechanisms: **USA→CHN** is overwhelmingly economic, **ISR→PSE** is kinetic, and **FRA→DEU** is mostly baseline diplomacy.

Values are 2015–2023 means of calibrated hostility components. Components sum to aggregate calibrated risk.

Descriptive result: the economisation of conflict

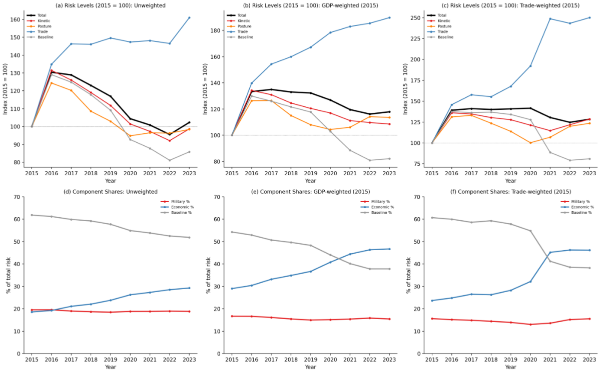


Figure 1 from the manuscript: global conflict risk, 2015–2023.

Key pattern

- Aggregate risk is comparatively stable.
- Trade-context hostility rises sharply.
- Trade-weighted economic hostility approaches one-half of total bilateral hostility.

Conflict is increasingly economic.

Case studies: same label, different mechanisms

USA→CHN

Trade-context conflict

$$L^{trd} = 0.154$$
$$L^{kin} = 0.003$$

Tariffs, sanctions context, export controls, and coercive economic diplomacy.

RUS→UKR

Kinetic + sanctions

$$L^{kin} = 0.254$$
$$L^{trd} = 0.158$$

Military escalation combines with economic confrontation after 2022.

FRA→DEU

Baseline diplomacy

$$L^{base} = 0.044$$
$$L^{trd} = 0.001$$

Low-level political friction without a trade-relevant conflict channel.

Why the decomposition matters

The same aggregate label can describe distinct mechanisms. A single conflict coefficient would misread both the US–China trade confrontation and the Russia–Ukraine war.

Values are 2015–2023 means of calibrated hostility components.

Gravity specification

$$x_{ij,t} = \exp\left(\sum_s \beta_s \, Risk_{ij,t-s} + \alpha_{ij,m} + \gamma_{i,t} + \delta_{j,t}\right) + \varepsilon_{ij,t}$$

Outcome and estimator

- Monthly bilateral trade from UN COMTRADE.
- PPML-HDFE gravity estimator.
- Standard errors clustered by directed pair.

Fixed effects and lags

- Pair $\times$ calendar-month FE.
- Exporter $\times$ year-month FE.
- Importer $\times$ year-month FE.
- Lags: $\bar{L}_1$, $\bar{L}_{2-4}$, $\bar{L}_{5-7}$.

Identifying variation

Bilateral escalation or de-escalation within a directed pair, net of country-specific time shocks and pair seasonality.

Main result: only two layers reduce trade

Channel	Cumulated effect	SE
Kinetic conflict, L_{ij}^{kin}	-4.544^{***}	(0.614)
Trade-context hostility, L_{ij}^{trd}	-1.400^{***}	(0.251)
Retaliation, L_{ji}^{trd}	-0.527^{***}	(0.130)
Total trade-context, $ij + ji$	-1.927^{***}	(0.303)

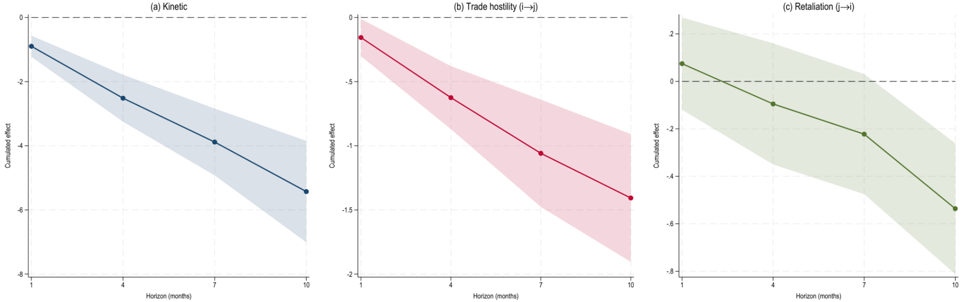
Preferred specification; cumulated effects over seven months. $^{***}p < 0.01$.

Interpretation

- Kinetic conflict has the largest effect.
- Trade-context hostility is large and precisely estimated.
- Retaliation adds about **27%** to the direct trade-context effect.
- Posture and baseline diplomacy are not retained in the parsimonious model.

Military wars and trade wars matter; diplomatic noise does not drive the long-run trade loss.

Dynamics distinguish mechanisms



Kinetic
immediate and monotonic

Trade-context
gradual adjustment

Retaliation
delayed response

Figure 9 from the manuscript: cumulated PPML effects with 95% confidence intervals.

Economic magnitude: trade at risk

Pair	Trade at risk	Dominant channel
CHN→USA	\$136.6B	trade-context hostility
USA→CHN	\$32.7B	trade-context hostility
USA→MEX	\$24.0B	sender hostility
MEX→USA	\$16.7B	retaliation channel
RUS→UKR	\$6.3B	kinetic conflict
All pairs	\$334B	68% trade, 29% retaliation, 3% kinetic

2015 trade weights; changes measured between 2015 and 2023.

Global decomposition

- Total bilateral trade at risk: **\$334B**.
- US–China accounts for roughly half.
- Channel shares: **68%** trade-context, **29%** retaliation, **3%** kinetic.

Policy reading

The largest aggregate losses come from economic coercion, not battlefield destruction.

Identification in one slide

What could go wrong?

- Slow bilateral drift.
- Lagged trade dependence.
- Firms anticipating future conflict.
- Reverse causality from trade to conflict.

What the paper checks

- ✓ Pair trends and lagged trade controls.
- ✓ Leads: trade-context passes; kinetic leads reflect anticipation.
- ✓ Reverse-causality test: past trade does not predict future conflict.
- ✓ Same-month feedback is unlikely at monthly frequency.

The causal reading is most persuasive for the **kinetic** and **trade-context** channels.

Horse races and robustness

Against IntenSE

- Monthly gravity: our calibrated indicator remains significant with IntenSE controls.
- Decomposed gravity: kinetic, trade-context, and retaliation remain significant; IntenSE is jointly insignificant.
- HS4 product-level replications deliver the same pattern.

Why preprocessing matters

- Raw automated event data overcode routine interactions.
- ICEWS calibration compresses systematic noise.
- Directionality identifies retaliation.
- Sanctions context assigns trade-relevant diplomacy to the trade layer.

Other robustness checks

Sanctions dummies, route risk, zero-filled panels, product-level aggregation, and UNGA alignment controls do not overturn the kinetic and trade-context results.

IntenSE comparison: Chevalier et al. (2026).

Takeaways for a text-analysis audience

1. **Raw event data require preprocessing.** Automated event coders overstate hostility in routine, high-media relationships unless calibrated.
2. **Context matters.** Diplomatic events during sanctions episodes are part of economic coercion, not generic political noise.
3. **Direction matters.** Retaliation is identified from asymmetric month-to-month movements within dyads.

Broader message

Text-as-data is most useful for economics when it is linked to a clear measurement target, external validation, and an outcome model.

Conclusion

Substantive conclusion

Geopolitical deterioration since 2015 has placed roughly **$334B** of bilateral trade at risk, mostly through **economic coercion** and **retaliation**.

Measurement conclusion

Aggregate conflict indices obscure the channels that matter. A directed four-layer decomposition distinguishes military wars, trade wars, and diplomatic noise.

Thank you

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Backup slides

Additional figures and details

Backup: early warning example, RUS→UKR

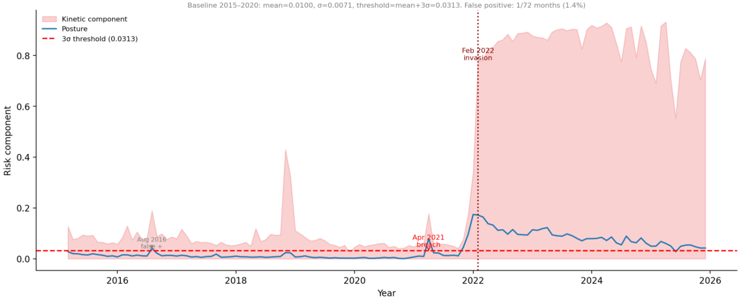
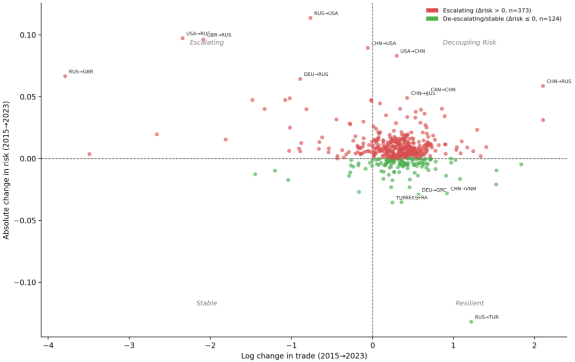


Figure 7 from the manuscript.

Posture signal

- Posture component breaches a 3-sigma threshold in April 2021.
- Kinetic escalation follows in February 2022.
- Baseline diplomacy would miss the preparation signal.

Backup: decoupling risk among top trading pairs



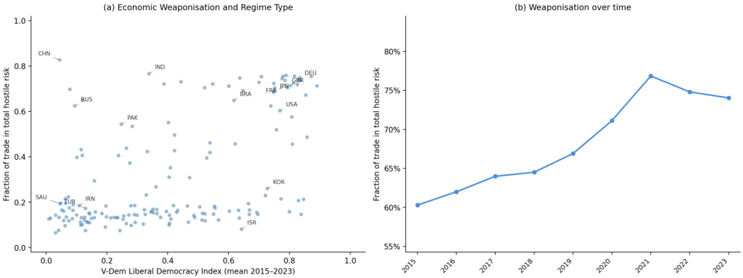
Sample: top-500 bilateral pairs by 2015 trade. Pairs with zero trade or zero risk in either year excluded (3 dropped).
373 of 497 pairs show escalating risk 2015→2023. RUS–UKR war outlier excluded: RUS→UKR (Δrisk=0.715, Δln trade=-7.27).
X-axis: ln(trade_2023/trade_2015). Y-axis: risk_2023 − risk_2015. Dashed lines at x = 0 and y = 0.

Figure 8 from the manuscript.

Reading

- Extreme escalation is concentrated in a few pairs.
- Many top trading pairs show stable or declining conflict risk.
- The global system is resilient but exposed to specific chokepoints in bilateral relations.

Backup: economic weaponisation



Weaponisation index: $W_i = \Sigma_j L_{ij}^{trade} / \Sigma_j (L_{ij}^{kinetic} + L_{ij}^{posture} + L_{ij}^{trade})$ = fraction of trade in total hostile risk. Countries with < 100 outgoing events excluded. Panel (b) uses 2015 bilateral trade weights.

Figure 5 from the manuscript.

Interpretation

- Some countries channel a large share of actionable hostility through economic instruments.
- Trade-weighted weaponisation rises over 2015–2023.

Backup: layer mapping

Layer	Event content	Interpretation
L^{kin}	CAMEO 18–20	Armed violence and fighting
L^{pos}	CAMEO 15 subset	Threats, force displays, military posture
L^{trd}	CAMEO 16–17 + sanctions context	Economic sanctions and coercion
L^{base}	Political/diplomatic residual	Diplomatic friction outside sanctions context

Sanctions-context reclassification

When trade or financial sanctions are active, diplomatic hostility is reassigned to the trade-context layer because demands, accusations, and threats become instruments of economic coercion.

Backup: aggregate-to-decomposed logic

Aggregate indicator

$$\widehat{r}^{cal}_{ij,t} = L^{kin}_{ij,t} + L^{pos}_{ij,t} + L^{trd}_{ij,t} + L^{base}_{ij,t}$$

Trade-context layer

$$L^{trd}_{ij,t} = \widehat{r}^{cal}_{trd,ij,t} + D^{sanc}_{ij,t}\widehat{r}^{cal}_{dip,ij,t}$$

Why additivity matters

The four layers exactly sum to the calibrated aggregate. The decomposition changes interpretation, not the total amount of measured hostility.

Selected references

- Baker, Bloom, and Davis (2016). Measuring economic policy uncertainty. *Quarterly Journal of Economics*.
- Caldara and Iacoviello (2022). Measuring geopolitical risk. *American Economic Review*.
- Chevalier et al. (2026). Trade under tensions: insights from media-reported bilateral events. CEPII Working Paper 2026-02.
- Crozet and Hinz (2020). Friendly fire: the trade impact of the Russia sanctions and counter-sanctions. *Economic Policy*.
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- Santos Silva and Tenreyro (2006). The log of gravity. *Review of Economics and Statistics*.