

## **SUPPLEMENTARY MATERIAL**

### **THE LOGIC OF VULNERABILITY AND CIVILIAN VICTIMIZATION Shifting Front Lines in Italy (1943–1945)**

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## **Online Appendix**

### **The Logic of Vulnerability and Civilian Victimization:**

#### **Shifting frontlines in Italy (1943-1945)**

**Table 1A Effect of the moving frontline on violent events against civilians**

**Table 2A Effect of frontline stabilization on violent events against civilians**

**Table 3A Unit and Time Fixed Effects**

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**Table 9A Data descriptive and sources**

**Table 10A Appendix: Maps as source for coding “staggered treatment”**

**Table 1A Appendix: Effect of the moving frontline on violent events against civilians**

	M1 Diff.-in- diff.	M2 Matched DiD	M3 Matched DiD & controls
Pre-treat. Diff.	0.107** (0.041)	0.121** (0.058)	0.204*** (0.060)
Post-treat. Diff.	0.862*** (0.059)	0.793*** (0.077)	0.881*** (0.079)
Diff.-in- diff.	0.755*** (0.072)	0.672*** (0.097)	0.677*** (0.096)
Partisan presence			0.267*** (0.054)
R-squared	0.06	0.05	0.06
Observations	5940	4584	4584

*Note:* Standard errors in parentheses. \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.1. In matched models, we matched units of analysis by share of mountainous terrain and vote share of Left-wing parties before the war. Dependent variable is the number of violent events rather than the number of civilians killed.

**Table 2A Appendix: Effect of frontline stabilization on violent events against civilians (matched DiD & controls)**

	M7	M8	M9
Matched DiD & controls		Matched DiD & controls	Matched DiD & controls
25 Kms		50 Kms	75 Kms
Pre-treat. Diff.	1.154*** (0.106)	1.106*** (0.101)	0.901*** (0.094)
Post-treat. Diff.	-0.142 (0.106)	-0.093 (0.099)	0.054 (0.559)
Diff.-in- diff.	-1.295*** (0.149)	-1.199*** (0.141)	-0.847*** (0.132)
Partisan presence	0.535*** (0.139)	0.366** (0.123)	0.306** (0.118)
R-squared	0.10	0.10	0.07
Observations	1848	1824	1812

*Note:* Standard errors in parentheses. \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.1. Units of analysis matched by share of mountainous terrain and vote share of Left-wing parties before the war.

As an alternative estimation, we performed a time-series cross-section analysis with cell and month-fixed effects and a treatment dummy variable for the cells that experienced the moving frontline. We performed the same analysis for the frontline stabilization. The results are largely similar to those presented in the article.

**Table 3A Appendix: Unit and Time Fixed Effects**

	M7	M8	M9
Civilians Killed			
Moving			
Frontline			
Treatment	2.654*** (0.361)	-19.138*** (2.081)	-13.984*** (1.677)
Cell Fixed Effects	Y	Y	Y
Month Fixed Effects	Y	Y	Y
R-squared Within	0.04	0.05	0.04
Observations	5940	2760	2760

Note: Standard errors in parentheses. \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.1.

**Table 4A Appendix: Unit and Time Fixed Effects, Spatial lags**

	M10	M11	M12
Civilians Killed			
Moving			
Frontline			
Treatment	1.792*** (0.383)	-15.722*** (2.246)	-10.924*** (1.823)
Temporal Spatial Lag Nazi Violence	1.256*** (0.131)	1.634*** (0.409)	1.741*** (0.414)
Cell Fixed Effects	Y	Y	Y
Month Fixed Effects	Y	Y	Y
R-squared Within	0.04	0.05	0.04
Observations	5610	2760	2760

Note: Standard errors in parentheses. \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.1.

**Table 5A Appendix: Effect of the moving frontline on civilian victimization in Emilia-Romagna, controlling for Partisans Attacks and Sabotages**

	M 13 Partisans Attacks	M 14 Partisans Sabotages
	Matched DiD & controls	Matched DiD & controls
Pre-treat. Diff.	-0.089 (0.154)	-0.041 (0.156)
Post-treat. Diff.	1.119*** (0.311)	1.081*** (0.314)
Diff.-in- diff.	1.208*** (0.348)	1.122*** (0.351)
Partisans Actions	2.649*** (0.134)	1.153*** (0.122)
R-squared	0.08	0.01
Observations	14522	14522

*Note:* Standard errors in parentheses. \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.1. Units of analysis matched by vote share of Left-wing parties before the war.

**Table 6A Appendix: Parallel Trends**

	M 15	M 16
	Civilians Killed Moving Frontline	Civilians Killed Stabilizing Frontline
Trend	0.014 (0.049)	0.137 (0.216)
Cell Fixed Effects	Y	Y
Interactions	Y	Y
Observations	4392	2088

Note: Standard errors in parentheses. \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.1.

**Table 7A Appendix: Effect of the moving frontline on civilian victimization including Area B in the control group.**

M 17	
Matched DiD	
Pre-treat. Diff.	0.393 (0.315)
Post-treat. Diff.	1.962*** (0.418)
Diff.-in- diff.	1.570*** (0.524)
R-squared	0.02
Observations	4890

*Note:* Standard errors in parentheses. \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.1. Units of analysis matched by share of mountainous terrain and vote share of Left-wing parties before the war.

**Table 8A: Jackknife resampling and the Trend Cubic Polynomial**

	M18
Staggered Treatment	8.280*** (2.505)
Partisans Presence	0.761** (0.348)
Trend	-0.792*** (0.221)
Trend 2	0.141*** (0.036)
Trend 3	-0.005*** (0.001)
Constant	0.409*** (0.154)
N	6.144

*Note:* Clustered standard errors in parentheses. \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.1.  
362 sampling replications

**Table 9 A: Data descriptive statistics and sources**

Variable	Mean	S.D.	Data Source
Nazi Fascist Killings	0.64	8.20	website <a href="http://www.straginazifasciste.it">www.straginazifasciste.it</a>
Nazi Fascist Violent Events	0.14	1.28	website <a href="http://www.straginazifasciste.it">www.straginazifasciste.it</a>
Partisans Bases	0.39	0.48	Baldissara, Luca. 2000. <i>Atlante Storico Della Resistenza Italiana</i> . Bruno Mondadori.
Nazi Fascist Killings (E.R.)	0.15	7.08	Casali, Luciano, and Dianella Gagliani. 2014. “Guerra e Resistenza: Azioni Partigiane e Stragi Nazifasciste in Emilia Romagna.” Online archive Bologna
Partisans attacks (E.R.)	0.09	0.63	Casali, Luciano, and Dianella Gagliani. 2014. “Guerra e Resistenza: Azioni Partigiane e Stragi Nazifasciste in Emilia Romagna.” Online archive Bologna
Voting radical Left	0.25	0.18	Piergiorgio Corbetta and Maria Serena Piretti, Atlante Storico-Elettorale d’Italia, 1861–2008 [Historical atlas of Italian elections, 1861–2008] (Bologna: Zanichelli, 2009).
Mountains	12.3	17.9	<a href="http://dati.istat.it">http://dati.istat.it</a>

**Table 10A Appendix: Maps as source for coding “staggered treatment”**

Begin	End	Territory	Map
11/05/1944	11/05/1944	Gaeta, Cassino	USA-MTO-Cassino-I
11/05/1944	12/05/1944	Santa Maria Infante	USA-MTO-Cassino-II
12/05/1944	12/05/1944	Montecassino	USA-MTO-Cassino-1
11/05/1944	13/05/1944	Monte Majo	USA-MTO-Cassino-2
14/05/1944	14/05/1944	Minturno, Tremensuolo, Tufo	USA-MTO-Cassino-III
15/05/1944	15/05/1944	Spigno, Castellonorato, Santa Croce (Formia)	USA-MTO-Cassino-III
15/05/1944	15/05/1944	San Giorgio a Liri, Selvacava	USA-MTO-Cassino-3
19/05/1944	19/05/1944	Itri, Gaeta (5 km North of), Piedimonte San Germano	USA-MTO-Cassino-IV
22/05/1944	22/05/1944	Fondi, Lenola	USA-MTO-Cassino-4.
24/05/1944	24/05/1944	Terracina	USA-MTO-Cassino-4
24/05/1944	24/05/1944	Vallecorsa, Sonnino	USA-MTO-Cassino-IV
25/05/1944	25/05/1944	Latina, Cisterna	USA-MTO-Cassino-4
25/05/1944	25/05/1944	Cori	USA-MTO-Cassino-V
		Ardea, Villa Crocetta, Velletri (2km South of), Artena, Segni,	
31/05/1944	31/05/1944	Frosinone	USA-MTO-Cassino-VII
		Genzano, Rocca di Papa, Frascati, Zagarolo, Palestrina, Acuto,	
03/06/1944	03/06/1944	Vico nel Lazio	USA-MTO-Cassino-VII
04/06/1944	05/06/1944	Roma	USA-MTO-Cassino-6
11/06/1944	11/06/1944	Nunziatella, Canino, Valentano, Montefiascone	USA-MTO-Cassino-VIII
20/06/1944	21/06/1944	Montepescali, Radicofani, Chiusi, Perugia	USA-MTO-Cassino-VIII
25/06/1944	25/06/1944	Venturina	USA-MTO-Cassino-IX
28/06/1944	28/06/1944	Chianciano	USA-MTO-Cassino-IX
02/07/1944	02/07/1944	Cecina	USA-MTO-Cassino-IX
03/07/1944	03/07/1944	Siena, Cortona	USA-MTO-Cassino-IX
04/07/1944	04/07/1944	Umbertide	USA-MTO-Cassino-IX
09/07/1944	09/07/1944	Casole d'Elsa	USA-MTO-Cassino-IX
10/07/1944	10/07/1944	Rosignano Solvay, Castellina Marittima, Laiatico	USA-MTO-Cassino-7
12/07/1944	16/07/1944	Castiglion Fiorentino	USA-MTO-Cassino-IX
16/07/1944	16/07/1944	Numana, Filottrano	USA-MTO-Cassino-IX
17/07/1944	18/07/1944	Ancona	USA-MTO-Cassino-IX
19/07/1944	19/07/1944	Livorno, Collesalvetti, (Casciana Terme)	USA-MTO-Cassino-7
		Pisa (South of ), Capanne, Poggibonsi (North of ), Castiglion	
22/07/1944	23/07/1944	Fibocchi, Arezzo (North of )	USA-MTO-Cassino-IX
		Montelupo, Firenze (South of ), Pontassieve, Pratomagno,	
05/08/1944	05/08/1944	Anghiari	USA-MTO-Cassino-IX
		Arno (no Pisa, yes Firenze), Sanseplocro, Fossombrone, Fano	
25/08/1944	25/08/1944	Ssouth of )	USA-MTO-Cassino-X
10/09/1944	10/09/1944	Vaglia (Borgo San Lorenzo, South of ), Vaiano (circa)	USA-MTO-Cassino-XI
16/09/1944	18/09/1944	Il Giogo, La Futa (South of )	USA-MTO-Cassino-XI
25/09/1944	25/09/1944	Palazzuolo sul Senio, Moraduccio, Monte La Fine	USA-MTO-Cassino-XII
		Monte Battaglia, Monte Capello, Castel del Rio (Norht of ),	
01/10/1944	01/10/1944	Piancaldoli	USA-MTO-Cassino-XII
15/10/1944	15/10/1944	Grizzana, Livergnano, Monterenzio, Gesso, Monte la Pieve	USA-MTO-Cassino-XIII
31/01/1945	31/01/1945		USA-MTO-Cassino-XIV

Source: <http://ibiblio.org/hyperwar/USA/USA-MTO-Cassino/>