

Online Appendix for Predatory Rulers, Credible Commitment and Tax Compliance in the Ottoman Balkans

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1 List of Wars

Table A1: List of Wars by Date and Source

Years	Month and Day	Name	Source
1591-1606		Habsburg-Ottoman	Clodfelter (2008)
1603-1612		Turco-Persian	Clodfelter
1614-1621		Polish-Turkish War	Clodfelter
1616-1618		Turco-Persian	Clodfelter
1623-1638		Turco-Persian	Clodfelter
1645-1669		Candian War	Clodfelter
1663-1664		Habsburg-Ottoman	Clodfelter
1671-1676		Polish-Turkish War	Clodfelter
1676-1681		Russo-Turkish War	Davies (2007)
1683-1699	14 July-26 January	Habsburg-Ottoman	Clodfelter
1695-1700	?-July 14	Russo-Turkish War	Clodfelter
1710-1711	October-21 July	Russo-Turkish War	Clodfelter
1714-1718	9 December-21 July	Venetian-Austrian-Turkish War	Clodfelter
1722-1727	?-October	Turco-Persian	Clodfelter
1730-1736	Spring-October	Turco-Persian	Clodfelter
1735-1739	Late 1735-3 October	Austro-Russian-Turkish War	Clodfelter
1742-1746	4 October-4 September	Turco-Persian	Clodfelter; Ulutas and Baser (2019)
1768-1774	October-16 July	Russo-Turkish War	Clodfelter
1775-1779		Turco-Persian	Shaw (1991)
1787-1792	19 August-9 January	Russo-Turkish War	Clodfelter
1798-1801	1 July-2 September	French Campaign in Egypt & Syria	Clodfelter
1804-1813	14 February-7 October	Serbian Wars of Independence	Clodfelter
1806-1812	?-28 May	Russo-Turkish	Clodfelter
1811-1818	Early 1811-11 September	Wahhabi War	Clodfelter; COW (Sarkees and Wayman 2010)
1815-1817	March-?	Serbian Wars of Independence	Clodfelter
1820-1821	September-?	Ottoman Conquest of Sudan	COW
1821	20 February-June	Romanian Independence	Clodfelter
1821-1829	February-September	Greek War of Independence	Clodfelter; COW
1821-1823		Turco-Persian War	COW
1826	June-September	Janissary Rebellion	Clodfelter; COW
1828-1829	26 April-16 September	Russo-Turkish War	Clodfelter; COW
1830-1831	February-November	First Albanian Revolt	COW
1831-1833	1 October-27 December	Egyptian-Turkish	Clodfelter; COW
1832-1837		Bilmez-Asiri War	COW
1836-1837		First Bosnian Uprising	COW
1839-1841	10 June-February	Egyptian-Turkish	Clodfelter; COW
1841		Second Bosnian Uprising	Clodfelter; COW
1842-1843	December-January	Karbala Revolt	COW
1848	June-September	Romanian Independence	Clodfelter; COW
1851	April-July	Ottoman-Yam	COW

Table A1: List of Wars by Date and Source (continued)

Years	Month and Day	Name	Source
1852-1853	December- March	First Turco-Montenegrin	Clodfelter; COW
1853-1856	16 October-30 March	Crimean	Clodfelter; COW
1856	January-February	Hodeida Siege	COW
1856		Cretan Insurrection	COW
1858-1859	May-June	Second Turco-Montenegrin	Clodfelter; COW
1861-1862	December-31 August	Third Turco-Montenegrin	Clodfelter; COW
1866-1867	May-February	First Cretan Insurrection	Clodfelter; COW
1870-1872	November-December	Ottoman Conquest of Arabia	COW
1875-1876	30 June-29 June	Bulgarian and Bosnian Insurrections	Clodfelter; COW
1876-1877	18 June-23 April	Serbo-Turkish	Clodfelter; COW
1877-1878	24 April-31 January	Russo-Turkish	Clodfelter; COW
1890-1892	April-September	First Yemen Rebellion	COW
1895-1897	September-February	Second Cretan Insurrection	Clodfelter; COW
1895-1896	October-?	Druze-Turkish	COW
1897	18 April-20 May	Greco-Turkish	Clodfelter; COW
1903	2 August-2 November	Ilinden Insurrection	Clodfelter; COW
1904-1906	November-January	Second Yemen Rebellion	COW
1908	July	Young Turk Revolution	COW
1909	April	Young Turks Counter-Coup	COW
1910-1912	March-16 October	Second Albanian Revolt	Clodfelter; COW
1910-1911	October-October	Asir-Yemen Revolt	COW
1911-1912	29 September-18 October	Italian-Turkish War	Clodfelter; COW
1912-1913	17 October-19 April	First Balkan War	Clodfelter; COW
1913	15 July-10 August	Second Balkan War	Clodfelter; COW

2 Robustness Checks

Table A2: Analysis of Determinants of Family Waqf, Start Date Moved to 1700

	Established Waqf is Family Waqf			
	(1)	(2)	(3)	(4)
During War	1.342 t = 1.681*	1.333 t = 1.632	1.885 t = 2.817***	1.876 t = 2.772***
Rule of Law	0.606 t = -2.895***	0.616 t = -2.627***	0.830 t = -0.869	0.839 t = -0.788
Female Donor		1.237 t = 0.790		1.204 t = 0.685
State-Affiliated Donor		0.758 t = -1.318		0.743 t = -1.403
Distance to Istanbul (100km)		1.126 t = 2.199**		1.127 t = 2.203**
During War * Rule of Law			0.409 t = -2.476**	0.409 t = -2.462**
Observations	649	649	649	649
Log Likelihood	-406.419	-402.529	-403.350	-399.495
Akaike Inf. Crit.	818.839	817.057	814.699	812.990

Note:

*p<0.1; **p<0.05; ***p<0.01
Odds ratios with t-values reported

Table A3: Logistic Regression Analysis of Determinants of Family Waqf for the Temporal Subsets of the Sample, Start Date Moved to 1700

	Established Waqf is Family Waqf			
	Subsets:			
	Pre-1839 (1)	Pre-1839 (2)	Post-1839 (3)	Post-1839 (4)
During War	1.885 t = 2.817***	1.859 t = 2.735***	0.772 t = -0.919	0.785 t = -0.842
Female Donor		1.272 t = 0.706		0.937 t = -0.141
State-Affiliated Donor		0.682 t = -1.597		1.015 t = 0.031
Distance to Istanbul (100km)		1.058 t = 0.864		1.291 t = 2.503**
Observations	410	410	239	239
Log Likelihood	-241.998	-239.686	-161.351	-157.782
Akaike Inf. Crit.	487.997	489.372	326.703	325.565

Note:

*p<0.1; **p<0.05; ***p<0.01
Odds ratios with t-values reported

Table A4: Logistic Regression Analysis of the Determinants of Family Waqf for the Whole Sample, Geography Held Constant

	Established Waqf is Family Waqf			
	(1)	(2)	(3)	(4)
During War	1.082 t = 0.354	1.041 t = 0.178	1.632 t = 1.496	1.500 t = 1.211
Rule of Law	0.492 t = -3.185***	0.515 t = -2.628***	0.687 t = -1.295	0.687 t = -1.196
Female Donor		2.643 t = 2.371**		2.611 t = 2.339**
State-Affiliated Donor		0.587 t = -1.797*		0.595 t = -1.744*
Distance to Istanbul (100km)		1.084 t = 1.140		1.077 t = 1.034
During War * Rule of Law			0.464 t = -1.719*	0.509 t = -1.485
Observations	404	404	404	404
Log Likelihood	-248.775	-242.102	-247.297	-240.998
Akaike Inf. Crit.	503.550	496.203	502.594	495.997

Note:

*p<0.1; **p<0.05; ***p<0.01
Odds ratios with t-values reported

Table A5: Logistic Regression Analysis of Determinants of Family Waqf for the Temporal Subsets of the Sample, Geography Held Constant

	Established Waqf is Family Waqf			
	Subsets:			
	Pre-1839 (1)	Pre-1839 (2)	Post-1839 (3)	Post-1839 (4)
During War	1.632 t = 1.496	1.520 t = 1.232	0.758 t = -0.914	0.805 t = -0.702
Female Donor		2.063 t = 1.368		2.719 t = 1.490
State-Affiliated Donor		0.407 t = -2.519**		1.280 t = 0.422
Distance to Istanbul (100km)		0.940 t = -0.620		1.213 t = 1.723*
Observations	203	203	201	201
Log Likelihood	-112.199	-106.212	-135.098	-130.909
Akaike Inf. Crit.	228.398	222.423	274.196	271.817

Note:

*p<0.1; **p<0.05; ***p<0.01
Odds ratios with t-values reported

Table A6: Analysis of the Relationship Between the Distance to the Ongoing War and Waqf Type

	Established Waqf is Family Waqf	
	(1)	(2)
Distance to War (100 km)	1.035 t = 1.807*	1.041 t = 2.061**
Rule of Law	0.345 t = -3.335***	0.363 t = -2.957***
Female Donor		2.716 t = 2.200**
State-Affiliated Donor		0.930 t = -0.221
Distance to Istanbul (100km)		1.066 t = 0.741
Observations	292	292
Log Likelihood	-163.838	-160.137
Akaike Inf. Crit.	333.676	332.274

Note:

*p<0.1; **p<0.05; ***p<0.01
Odds ratios with t-values reported

Table A7: Logistic Regression Analysis of the Determinants Whether the Donor is State Affiliated

	Donor is State Affiliated			
	(1)	(2)	(3)	(4)
During War	0.836 t = -0.959	0.840 t = -0.927	0.922 t = -0.401	0.925 t = -0.383
Rule of Law	0.209 t = -6.410***	0.229 t = -5.956***	0.255 t = -4.842***	0.279 t = -4.486***
Distance to Istanbul (100km)		1.166 t = 2.847***		1.165 t = 2.831***
During War * Rule of Law			0.469 t = -1.254	0.478 t = -1.222
Observations	687	687	687	687
Log Likelihood	-358.452	-354.404	-357.581	-353.578
Akaike Inf. Crit.	722.905	716.807	723.162	717.156

Note:

*p<0.1; **p<0.05; ***p<0.01
Odds ratios with t-values reported

Table A8: Logistic Regression Analysis of the Determinants Whether the Donor is State Affiliated Only for Family Waqfs

	Donor is State Affiliated			
	(1)	(2)	(3)	(4)
During War	1.058 t = 0.249	1.057 t = 0.243	1.092 t = 0.358	1.090 t = 0.349
Rule of Law	0.282 t = -4.153***	0.293 t = -4.011***	0.303 t = -3.241***	0.314 t = -3.135***
Distance to Istanbul (100km)		1.001 t = 1.253		1.001 t = 1.250
During War * Rule of Law			0.801 t = -0.335	0.805 t = -0.326
Observations	458	458	458	458
Log Likelihood	-241.311	-240.530	-241.254	-240.475
Akaike Inf. Crit.	488.622	489.059	490.508	490.951

Note:

*p<0.1; **p<0.05; ***p<0.01
Odds ratios with t-values reported

Table A9: Relationship Between War and Fiscal Revenues Before and After 1839, Using Alternative Data

	Changes in Fiscal Revenues per Decade		
	Full Sample	Subsets: Pre-1839	Post-1839
	(1)	(2)	(3)
Total Number of War Years (lagged)	0.009 (0.018)	0.009 (0.011)	0.096 (0.051)
Rule of Law	-0.079 (0.205)		
War Years * Rule of Law	0.087* (0.042)		
Constant	-0.029 (0.135)	-0.029 (0.083)	-0.108 (0.206)
Observations	13	7	6
R ²	0.528	0.124	0.472
Adjusted R ²	0.370	-0.051	0.340
Residual Std. Error	0.192 (df = 9)	0.118 (df = 5)	0.256 (df = 4)
F Statistic	3.352* (df = 3; 9)	0.707 (df = 1; 5)	3.576 (df = 1; 4)

Note:

*p<0.1; **p<0.05; ***p<0.01
OLS Regression. Standard errors in parantheses.

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