

Appendix

Oilfields, Mosques, and Violence: Is There a Resource Curse in Xinjiang?

June 17, 2017

Table A.1 Summary statistics

Variable	N	Mean	Std. Dev.	Min.	Max.
Violence	584	0.070	0.458	0	9
Oil Sales	584	3.041	7.896	-0.693	22.870
Gas Sales	584	1.965	6.473	-0.693	21.340
Oil & Gas Sales	584	3.157	8.069	-0.693	22.926
Mosque Density	563	2.023	2.090	-3.077	8.798
Mosque Density before 1949	577	0.737	2.495	-2.303	8.613
Oil Reserve (Earliest)	584	1.162	3.523	-0.693	10.115
Oil Reserve (Closest to 1997)	584	1.157	3.531	-0.693	10.155
Oil Reserve (Average)	584	1.199	3.595	-0.693	10.381
Gas Reserve (Earliest)	584	0.475	2.348	-0.693	7.828
Gas Reserve (Closest to 1997)	584	0.474	2.339	-0.693	7.828
Gas Reserve (Average)	584	0.546	2.485	-0.693	7.893
Proportion of Uyghur	584	0.428	0.387	0	0.995
Population Density	584	0.072	0.305	0.0001	3.619
Distance to Border	584	0.333	0.899	-2.046	1.908
Fiscal Revenue	584	8.006	1.153	4.500	10.982
Government Transfer	563	7.175	0.644	5.063	9.308
Per Capita GDP	553	-0.661	0.752	-4.055	2.254
Bingtuan	584	0.102	0.158	0	0.975
Slope	584	1.830	0.662	1	3.660

Notes: The unit of measurement for population density is 1,000 people/km². The unit of measurement for GDP per capita is the logarithmic value of 10,000 RMB. All variables except violence, population density, proportion of Uighur, slope and bingtuan are logarithmic values.

Table A.2 Oil/Gas Reserves and Ethnic Violence

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Oil Reserves	-0.237** (0.103)		-0.368*** (0.099)		-0.224** (0.100)		-0.350*** (0.100)	
Gas Reserves		-0.299* (0.155)		-0.483*** (0.183)		-0.258* (0.148)		-0.414** (0.177)
Proportion of Uighur	0.952 (0.632)	0.955 (0.638)	2.663** (1.077)	2.279** (0.985)	0.947 (0.633)	0.946 (0.638)	2.626** (1.060)	2.228 ** (0.972)
Population Density	0.344 (0.586)	0.373 (0.609)	-0.678 (0.465)	-0.584 (0.483)	0.347 (0.588)	0.382 (0.615)	-0.664 (0.466)	-0.561 (0.486)
Distance to Border	0.666** (0.286)	0.632** (0.284)	0.362 (0.359)	0.325 (0.342)	0.665** (0.285)	0.628** (0.283)	0.362 (0.358)	0.323 (0.339)
Fiscal Revenue			1.117*** (0.316)	1.043*** (0.297)			1.099*** (0.311)	1.019*** (0.291)
Central Transfer			-0.826** (0.403)	-0.731* (0.400)			-0.807** (0.400)	-0.670* (0.397)
GDP Per Capita			0.100 (0.285)	-0.019 (0.304)			0.096 (0.284)	-0.037 (0.308)
Bingtuan			0.271 (2.096)	0.283 (2.276)			0.314 (2.167)	0.317 (2.204)
Slope			0.009 (0.511)	-0.036 (0.530)			-0.013 (0.510)	-0.059 (0.527)
Measurement	Reserves closest to 1997				Average reserve			
Year FE	Y	Y	Y	Y	Y	Y	Y	Y
N	584	584	534	534	584	584	534	534

Notes: Regression results are based on negative binomial model. Robust standard errors clustered at the county level are in parentheses. All time variant variables are lagged one year. All variables except population density, proportion of Uighur, slope and bingtuan are logarithmic values. Estimates using earliest reserves reports, and estimates of constant and year fixed effects are not reported. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Table A.3 Natural Resources, Mosques and Violence (Mosque per population)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Oil Sales	-0.205*** (0.061)			-0.210*** (0.061)			-0.177*** (0.069)		
Oil Sales × Mosque Density	0.044** (0.021)			0.039** (0.020)			0.003 (0.026)		
Gas Sales		-0.236*** (0.070)			-0.242*** (0.070)			-0.220*** (0.081)	
Gas Sales × Mosque Density		0.062** (0.028)			0.060** (0.028)			0.031 (0.034)	
Oil & Gas Sales			-0.212*** (0.060)			-0.220*** (0.062)			-0.180*** (0.067)
Oil & Gas Sales × Mosque Density			0.047** (0.020)			0.043** (0.020)			0.004 (0.026)
Mosque Density	0.436** (0.203)	0.429** (0.202)	0.432** (0.202)	0.311 (0.205)	0.322 (0.206)	0.310 (0.203)	0.757** (0.322)	0.703** (0.304)	0.751** (0.319)
Proportion of Uyghur				0.339 (0.809)	0.236 (0.825)	0.318 (0.807)	0.767 (1.548)	0.322 (1.482)	0.741 (1.543)
Population Density				0.403 (0.655)	0.464 (0.710)	0.402 (0.650)	-0.561 (0.494)	-0.414 (0.555)	-0.560 (0.493)
Distance to Border				0.643** (0.290)	0.578** (0.282)	0.651** (0.289)	0.436 (0.391)	0.252 (0.339)	0.439 (0.387)
Fiscal Revenue							1.133*** (0.306)	0.905*** (0.276)	1.128*** (0.304)
Central Transfer							-0.785* (0.423)	-0.584 (0.419)	-0.785* (0.421)
GDP Per Capita							-0.007 (0.297)	-0.105 (0.334)	-0.014 (0.298)
Year FE	Y	Y	Y	Y	Y	Y	Y	Y	Y
N	574	574	574	563	563	563	513	513	513

Notes: Regression results are based on negative binomial model. Robust standard errors clustered at the county level are in parentheses. All time variant variables are lagged one year. All variables except population density, proportion of Uighur, slope and bingtuan are logarithmic values. Estimates of slope, bingtuan, constant and year fixed effects are not reported. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Table A.4 The Effect of Pre-1949 Mosque Density on Contemporary Variables (Tests for Exclusive Restriction)

	(1)	(2)	(3)	(4)	(5)	(6)
	Mosque	Church & Temple	Primary School	Middle School	Government Size	Fiscal Expenditure
Mosque Density Before 1949	0.340* (0.182)	0.049 (0.038)	0.007 (0.056)	-0.007 (0.025)	0.002 (0.005)	-0.022 (0.023)
Proportion of Uighur	0.827 (1.042)	-0.473 (0.597)	1.299 (0.787)	0.386 (0.338)	-0.091 (0.060)	-0.109 (0.307)
Distance to Border	-0.184 (0.331)	-0.087 (0.118)	0.216 (0.238)	0.018 (0.107)	-0.016 (0.037)	-0.063 (0.073)
Fiscal Revenue	0.403* (0.212)	0.136* (0.077)	-0.527*** (0.141)	-0.195*** (0.067)	-0.073*** (0.016)	-0.171*** (0.046)
Central Transfer	0.502** (0.230)	0.108 (0.147)	-0.242 (0.181)	-0.211*** (0.079)	0.024 (0.031)	-0.193*** (0.063)
GDP Per Capita	-0.063 (0.110)	0.016 (0.068)	-0.061 (0.109)	0.110 (0.067)	0.028 (0.023)	0.131*** (0.035)
Bingtuan	-0.241 (1.223)	0.507 (0.347)	-2.374*** (0.563)	-0.573* (0.302)	-0.046 (0.059)	-0.600** (0.229)
Slope	0.322 (0.293)	0.221 (0.150)	0.286 (0.200)	0.008 (0.077)	-0.039* (0.022)	-0.019 (0.070)
Year FE	Y	Y	Y	Y	Y	Y
Prefecture FE	Y	Y	Y	Y	Y	Y
<i>N</i>	508	508	522	524	528	529

Notes: Robust standard errors clustered at the county level are in parentheses. The density of mosque, church and temple use area as the denominator. The density of primary schools and middle schools use the population as the denominator. Government size and fiscal expenditure are also normalized by population. Mosque density, church and temple density, fiscal expenditure per capita, and all other variables except population density, proportion of Uighur, slope and bingtuan are logarithmic values. All time variant variables are lagged one year. Estimates of constant, year fixed effects and prefecture fixed effects are not reported. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Table A.5 Natural Resources and Individual Income (OLS)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	SOE	Private	SOE	Private	SOE	Private	SOE	Private
Panel A: Income of All Population								
Average Oil Sales	0.019*** (0.005)	0.001 (0.005)						
Average Gas Sales			0.019** (0.007)	-0.000 (0.008)				
Oil Reserve (Earliest)					0.035*** (0.013)	0.001 (0.012)		
Gas Reserve (Earliest)							0.034 (0.022)	-0.003 (0.016)
Controls	Y	Y	Y	Y	Y	Y	Y	Y
<i>N</i>	1591	439	1591	439	1591	439	1591	439
Panel B: Income of Han Population								
Average Oil Sales	0.018*** (0.005)	0.006 (0.004)						
Average Gas Sales			0.018** (0.007)	0.001 (0.008)				
Oil Reserve (Earliest)					0.031** (0.013)	0.009 (0.012)		
Gas Reserve (Earliest)							0.029 (0.022)	0.010 (0.019)
Controls	Y	Y	Y	Y	Y	Y	Y	Y
<i>N</i>	1312	322	1312	322	1312	322	1312	322
Panel C: Income of Uighur Population								
Average Oil Sales	0.018* (0.010)	-0.006 (0.008)						
Average Gas Sales			0.017 (0.014)	0.008 (0.011)				
Oil Reserve (Earliest)					0.042** (0.020)	-0.015 (0.019)		
Gas Reserve (Earliest)							0.034 (0.036)	-0.025 (0.026)
Controls	Y	Y	Y	Y	Y	Y	Y	Y
<i>N</i>	155	76	155	76	155	76	155	76

Notes: Robust standard errors clustered at the county level are in parentheses. Income, oil sales, gas sales, oil reserves, and gas reserves are logarithmic values. Control variables included but not reported are working hours, age, age², male, education, urban hukou, and constant. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Table A.6 Natural Resources and County-level Employment (County-level Census Data)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Dep. Var.: 2005 employment rate - 2000 employment rate								
Average Oil Sales (2000-2005)	0.003* (0.001)			0.003** (0.001)			0.002 (0.002)		
Average Gas Sales (2000-2005)		0.003** (0.001)			0.004*** (0.001)			0.003* (0.002)	
Average Oil & Gas Sales (2000-2005)			0.003* (0.001)			0.003** (0.001)			0.002 (0.002)
Average Proportion of Uyghur				-0.088** (0.034)	-0.086** (0.034)	-0.087** (0.034)	-0.151*** (0.054)	-0.147*** (0.053)	-0.149*** (0.054)
Average Population Density				0.017 (0.022)	0.015 (0.021)	0.017 (0.022)	-0.040 (0.028)	-0.045 (0.027)	-0.041 (0.027)
Average Fiscal Revenue							0.041** (0.018)	0.042** (0.018)	0.041** (0.018)
Average Fiscal Grant							0.040 (0.025)	0.036 (0.027)	0.040 (0.026)
Average GDP Per Capita							-0.106** (0.040)	-0.103** (0.040)	-0.105** (0.041)
Average Bingtuan							0.112* (0.060)	0.097 (0.059)	0.109* (0.061)
Slope							0.001 (0.017)	0.001 (0.018)	0.001 (0.017)
Distance to Border							0.000 (0.015)	0.001 (0.015)	-0.000 (0.015)
<i>N</i>	85	85	85	85	85	85	84	84	84

Notes: Robust standard errors clustered at the county level are in parentheses. Estimates of constant are not reported. * p < 0.1; ** p < 0.05; *** p < 0.01.

Table A.7 Natural Resources and County-level Employment Rate (Individual Census Data Merged into County Level)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Dep. Var.: 2005 employment rate - 2000 employment rate								
	Total			Han			Uyghur		
Average Oil Sales (2000-2005)	0.000 (0.002)			0.001 (0.005)			0.006* (0.004)		
Average Gas Sales (2000-2005)		0.003 (0.003)			-0.002 (0.004)			0.011*** (0.004)	
Average Oil & Gas Sales (2000-2005)			0.000 (0.002)			0.003 (0.005)			0.007 (0.004)
Average Proportion of Uyghur	-0.213*** (0.078)	-0.226*** (0.081)	-0.211*** (0.079)			-0.384** (0.177)			-0.066 (0.200)
∞ Average Population Density	-0.055* (0.030)	-0.050* (0.030)	-0.056* (0.030)	-0.074 (0.078)	-0.080 (0.083)	-0.067 (0.075)	0.034 (0.051)	0.037 (0.049)	0.039 (0.052)
Average Fiscal Revenue	0.069*** (0.023)	0.061** (0.026)	0.070*** (0.023)	0.061 (0.054)	0.075 (0.059)	0.079 (0.052)	0.067 (0.048)	0.059 (0.048)	0.062 (0.051)
Average Fiscal Grant	0.013 (0.051)	0.021 (0.053)	0.011 (0.051)	0.105 (0.166)	0.087 (0.142)	0.135 (0.152)	-0.186 (0.118)	-0.177 (0.121)	-0.177 (0.126)
Average GDP Per Capita	-0.184*** (0.053)	-0.186*** (0.052)	-0.183*** (0.053)	-0.035 (0.091)	-0.046 (0.091)	-0.225* (0.113)	-0.168* (0.093)	-0.160* (0.094)	-0.194 (0.116)
Average Bingtuan	0.128 (0.167)	0.117 (0.163)	0.125 (0.168)	0.202 (0.280)	0.195 (0.256)	0.005 (0.241)	0.695*** (0.196)	0.631*** (0.180)	0.645*** (0.236)
<i>N</i>	59	59	59	47	47	47	55	55	55

Notes: Robust standard errors clustered at the county level are in parentheses. Slope, distance to border and constant are not reported. * p < 0.1; ** p < 0.05; *** p < 0.01.

Table A.8 Potential Spill-over Effects of Resource

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Oil Production in	-0.003		-0.174	-0.030		-0.201	-0.030		-0.176
Neighboring Counties	(0.057)		(0.147)	(0.060)		(0.127)	(0.070)		(0.127)
Gas Production in		0.014	0.117		0.002	0.112		0.009	0.094
Neighboring Counties		(0.042)	(0.106)		(0.042)	(0.090)		(0.048)	(0.087)
Oil Sales	-0.093*			-0.112**			-0.172***		
	(0.055)			(0.056)			(0.051)		
Gas Sales		-0.095			-0.105*			-0.148***	
		(0.062)			(0.059)			(0.055)	
Oil & Gas Sales			-0.088			-0.105*			-0.156***
			(0.054)			(0.054)			(0.052)
Proportion of Uighur				0.944	0.946	0.681	2.619**	2.101**	2.367**
				(0.643)	(0.650)	(0.579)	(1.097)	(0.946)	(1.033)
Population Density				0.325	0.424	0.364	-0.698	-0.445	-0.628
				(0.584)	(0.656)	(0.570)	(0.476)	(0.548)	(0.484)
Distance to Border				0.726**	0.595*	0.830**	0.468	0.258	0.535
				(0.330)	(0.316)	(0.343)	(0.389)	(0.356)	(0.395)
Fiscal Revenue							1.131***	0.904***	1.034***
							(0.336)	(0.317)	(0.353)
Central Transfer							-0.759*	-0.526	-0.725*
							(0.417)	(0.445)	(0.422)
GDP Per Capita							0.051	-0.058	0.180
							(0.297)	(0.329)	(0.302)
Bingtuan							-0.148	0.267	-0.331
							(1.413)	(1.450)	(1.305)
Slope							0.039	-0.200	0.004
							(0.507)	(0.547)	(0.484)
Year FE	Y	Y	Y	Y	Y	Y	Y	Y	Y
N	596	596	596	584	584	584	534	534	534

Notes: Robust standard errors clustered at the county level are in parentheses. All variables except population density, proportion of Uighur, slope and bingtuan are logarithmic values. Constant and year fixed effects are not reported. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Table A.9 Potential Spill-over Effects of Violence

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Violence in Neighboring Counties	-0.400 (0.570)	-0.390 (0.572)	-0.409 (0.569)	-0.662 (0.537)	-0.609 (0.536)	-0.674 (0.539)	-0.581 (0.603)	-0.424 (0.616)	-0.604 (0.604)
Oil Sales	-0.094* (0.055)			-0.117** (0.054)			-0.177*** (0.051)		
Gas Sales		-0.091 (0.063)			-0.106* (0.058)			-0.149*** (0.056)	
Oil & Gas Sales			-0.096* (0.055)			-0.119** (0.054)			-0.177*** (0.051)
Proportion of Uighur				1.170* (0.661)	1.077 (0.668)	1.151* (0.659)	2.697** (1.081)	2.161** (0.968)	2.660** (1.072)
Population Density				0.309 (0.611)	0.370 (0.648)	0.305 (0.607)	-0.726 (0.473)	-0.528 (0.531)	-0.729 (0.472)
Distance to Border				0.655** (0.300)	0.584** (0.290)	0.663** (0.300)	0.415 (0.364)	0.271 (0.338)	0.421 (0.361)
Fiscal Revenue							1.123*** (0.311)	0.920*** (0.282)	1.119*** (0.307)
Central Transfer							-0.701* (0.410)	-0.522 (0.421)	-0.700* (0.407)
GDP Per Capita							0.028 (0.306)	-0.068 (0.329)	0.019 (0.306)
Bingtuan							-0.372 (1.450)	0.365 (1.444)	-0.331 (1.424)
Slope							0.057 (0.514)	-0.158 (0.562)	0.055 (0.513)
Year FE	Y	Y	Y	Y	Y	Y	Y	Y	Y
N	595	595	595	584	584	584	534	534	534

Notes: Regression results are based on negative binomial model. Robust standard errors clustered at the county level are in parentheses. All time variant variables are lagged one year. All variables except population density, proportion of Uighur, slope and bingtuan are logarithmic values. Constant and year fixed effects are not reported. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Table A.10 Alternative Measure of Resource Extraction: Rents Per Capita

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Oil Sales Per Capita	-0.215 (0.138)			-0.265* (0.139)			-0.409*** (0.121)		
Gas Sales Per Capita		-0.251 (0.188)			-0.294 (0.186)			-0.425** (0.175)	
Oil & Gas Sales Per Capita			-0.221 (0.137)			-0.269** (0.137)			-0.405*** (0.119)
Proportion of Uighur				0.997 (0.631)	0.920 (0.640)	0.975 (0.630)	2.566** (1.102)	2.007** (0.946)	2.529** (1.095)
Population Density				0.387 (0.618)	0.439 (0.662)	0.382 (0.612)	-0.633 (0.475)	-0.455 (0.526)	-0.633 (0.474)
Distance to Border				0.665** (0.299)	0.600** (0.291)	0.672** (0.298)	0.425 (0.389)	0.288 (0.350)	0.431 (0.385)
Fiscal Revenue							1.122*** (0.335)	0.908*** (0.293)	1.119*** (0.331)
Central Transfer							-0.751* (0.422)	-0.545 (0.425)	-0.752* (0.419)
GDP Per Capita							0.033 (0.304)	-0.069 (0.331)	0.023 (0.303)
Bingtuan							-0.505 (1.482)	0.161 (1.470)	-0.445 (1.440)
Slope							0.021 (0.505)	-0.186 (0.552)	0.022 (0.505)
Year FE	Y	Y	Y	Y	Y	Y	Y	Y	Y
N	595	595	595	584	584	584	534	534	534

Notes: Regression results are based on negative binomial model. Robust standard errors clustered at the county level are in parentheses. All time variant variables are lagged one year. All variables except population density, proportion of Uighur, slope and bingtuan are logarithmic values. Estimates of constant and year fixed effects are not reported. * p < 0.1; ** p < 0.05; *** p < 0.01.

Table A.11 Alternative Data on Violence: Cao et al. (2016)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Violence I		Violence II		Violence I		Violence II	
	Count Variable				Dummy Variable			
Oil Sales	-0.115*** (0.044)		-0.132*** (0.047)		-0.107** (0.043)		-0.119*** (0.043)	
Oil & Gas Sales		-0.114*** (0.043)		-0.132*** (0.047)		-0.107** (0.042)		-0.118*** (0.043)
Proportion of Uighur	2.173** (1.096)	2.160** (1.080)	2.721** (1.247)	2.711** (1.230)	2.496** (1.096)	2.488** (1.089)	2.794** (1.129)	2.788** (1.123)
Population Density	-0.225 (0.182)	-0.222 (0.181)	-0.317 (0.213)	-0.315 (0.213)	0.016 (0.169)	0.018 (0.169)	-0.064 (0.173)	-0.062 (0.173)
Distance to Border	0.406 (0.309)	0.410 (0.309)	0.277 (0.311)	0.281 (0.311)	0.288 (0.313)	0.290 (0.312)	0.168 (0.301)	0.169 (0.301)
Fiscal Revenue	1.069*** (0.291)	1.068*** (0.289)	1.124*** (0.290)	1.123*** (0.289)	0.880*** (0.229)	0.879*** (0.229)	0.950*** (0.235)	0.949*** (0.235)
Central Transfer	0.042 (0.355)	0.045 (0.355)	0.080 (0.361)	0.082 (0.361)	-0.618* (0.338)	-0.618* (0.337)	-0.544 (0.338)	-0.543 (0.338)
GDP Per Capita	-0.559 (0.345)	-0.565 (0.345)	-0.176 (0.424)	-0.180 (0.425)	-0.322 (0.288)	-0.324 (0.288)	-0.078 (0.321)	-0.080 (0.321)
Model	Negative Binominal				<i>Logit</i>			
Year FE	Y	Y	Y	Y				
N	534	534	534	534	534	534	534	534

Notes: First 4 columns use negative binomial model, while the next 4 columns are based on *logit* model. Robust standard errors clustered at the county level are in parentheses. Violence I indicates violent events identified at the county level. Violence II includes violent incidents identified at the prefecture level (assigned to the prefecture capital) in addition to Violence I. All time variant variables are lagged one year. All variables except population density, proportion of Uighur, slope and bingtuan are logarithmic values. Estimates of slope, bingtuan, constant and year fixed effects are not reported. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Table A.12 Alternative Specification: *logit* Model

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Oil Sales	-0.086*			-0.100*			-0.148***		
	(0.052)			(0.051)			(0.052)		
Gas Sales		-0.081			-0.091			-0.116**	
		(0.057)			(0.056)			(0.059)	
Oil & Gas Sales			-0.086*			-0.100**			-0.147***
			(0.051)			(0.050)			(0.052)
Proportion of Uighur				0.445	0.386	0.434	2.138**	1.518	2.115**
				(0.517)	(0.531)	(0.518)	(1.066)	(0.945)	(1.064)
Population Density				0.178	0.206	0.178	-0.493	-0.307	-0.492
				(0.361)	(0.361)	(0.361)	(0.415)	(0.399)	(0.415)
Distance to Border				0.476*	0.412*	0.479*	0.358	0.186	0.361
				(0.248)	(0.243)	(0.248)	(0.354)	(0.334)	(0.353)
Fiscal Revenue							0.836***	0.607**	0.833***
							(0.286)	(0.261)	(0.285)
Central Transfer							-1.103***	-0.954***	-1.103***
							(0.304)	(0.319)	(0.304)
GDP Per Capita							0.072	-0.070	0.067
							(0.300)	(0.350)	(0.300)
Bingtuan							-0.130	0.481	-0.110
							(1.217)	(1.224)	(1.203)
Slope							0.103	-0.133	0.102
							(0.491)	(0.554)	(0.491)
<i>N</i>	597	597	597	584	584	584	534	534	534

Notes: Regression results are based on *logit* model. Robust standard errors clustered at the county level are in parentheses. All time variant variables are lagged one year. All variables except population density, proportion of Uighur, slope and bingtuan are logarithmic values. Estimates of constant are not reported. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Table A.13 Alternative Specification: Prefecture Fixed Effects

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Neg. Binomial				IV			
Oil Sales	-0.113*				-11.223***		-12.753***	
	(0.062)				(2.097)		(2.067)	
Oil & Gas Sales		-0.114*				-11.075***		-12.577***
		(0.061)				(2.066)		(2.047)
Oil Reserve (Earliest)			-0.260**					
			(0.111)					
Gas Reserve (Earliest)				-0.282**				
				(0.143)				
Mosque Density					2.855***	2.826***	2.867***	2.846***
					(0.446)	(0.444)	(0.566)	(0.570)
Oil Sales× Mosque Density					3.044***		3.464***	
					(0.569)		(0.561)	
Oil & Gas Sales× Mosque Density						3.004***		3.417***
						(0.561)		(0.555)
Controls	Y	Y	Y	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	Y	Y	Y	Y	Y
Prefecture FE	Y	Y	Y	Y	Y	Y	Y	Y
<i>N</i>	534	534	534	534	513	513	506	506

Notes: Robust standard errors clustered at the county level are in parentheses. All time variant variables are lagged one period. Controls are the same as last column of Table 1. Estimates of constant, year fixed effects and prefecture fixed effects are not reported. In column (5) and (7), the negative binomial regressions is not concave, we use the poisson model instead. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Table A.14 Alternative Specification: Serial Correlation

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Oil Sales	-0.104*			-0.120**			-0.178***		
	(0.053)			(0.052)			(0.054)		
Gas Sales		-0.101*			-0.111*			-0.136**	
		(0.058)			(0.057)			(0.066)	
Oil & Gas Sales			-0.103**			-0.119**			-0.177***
			(0.052)			(0.051)			(0.054)
Proportion of Uighur				0.865	0.797	0.855	3.351*	2.591*	3.351*
				(0.601)	(0.612)	(0.602)	(1.758)	(1.480)	(1.758)
Population Density				0.383	0.405	0.382	-1.414*	-1.044*	-1.413*
				(0.335)	(0.331)	(0.335)	(0.742)	(0.610)	(0.741)
Distance to Border				0.660***	0.577**	0.662***	-0.080	-0.293	-0.080
				(0.251)	(0.235)	(0.250)	(0.399)	(0.395)	(0.398)
Fiscal Revenue							1.424***	1.066***	1.424***
							(0.418)	(0.400)	(0.418)
Central Transfer							-0.968***	-0.691*	-0.967***
							(0.342)	(0.407)	(0.342)
GDP Per Capita							0.204	0.133	0.203
							(0.338)	(0.423)	(0.338)
Bingtuan							-6.065	-4.121	-6.062
							(7.518)	(6.539)	(7.516)
Slope							0.005	-0.416	0.006
							(0.647)	(0.919)	(0.648)
<i>N</i>	597	597	597	584	584	584	418	418	418

Notes: Regression results are based on population-averaged GEE model. All time variant variables are lagged one year. All variables except population density, proportion of Uighur, slope and bingtuan are logarithmic values. Estimates of slope, bingtuan and constants are not reported. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Table A.15 Alternative Specification: Cross-sectional Analysis

	(1)	(2)	(3)	(4)	(5)	(6)
Total Oil Sales	-0.010** (0.005)					
Total Gas Sales		-0.005 (0.005)				
Total Oil & Gas Sales			-0.010** (0.005)			
Average Oil Sales				-0.082** (0.037)		
Average Gas Sales					-0.042 (0.040)	
Average Oil & Gas Sales						-0.079** (0.036)
Average Proportion of Uighur	1.447 (1.030)	1.085 (1.007)	1.410 (1.026)	1.447 (1.030)	1.085 (1.007)	1.410 (1.026)
Average Population Density	0.431 (0.649)	0.705 (0.989)	0.448 (0.666)	0.431 (0.649)	0.705 (0.989)	0.448 (0.666)
Distance to Border	0.512** (0.260)	0.493* (0.262)	0.516** (0.260)	0.512** (0.260)	0.493* (0.262)	0.516** (0.260)
Average Fiscal Revenue	0.758*** (0.284)	0.648** (0.258)	0.753*** (0.282)	0.758*** (0.284)	0.648** (0.258)	0.753*** (0.282)
Average Central Transfer	-0.084 (0.279)	-0.128 (0.249)	-0.084 (0.277)	-0.084 (0.279)	-0.128 (0.249)	-0.084 (0.277)
<i>N</i>	87	87	87	87	87	87

Notes: Regression results are based on negative binomial model. Robust standard errors clustered at the county level are in parentheses. All variables except population density, proportion of Uighur, slope and bingtuan are logarithmic values. Average GDP per capita, Average bingtuan population proportion, slope and constant are not reported. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Table A.16 Alternative Specification: Non-linear (Quadratic) Specification

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Oil Sales	-0.892***			-0.907***			-0.609***		
	(0.211)			(0.215)			(0.206)		
Oil Sales ²	0.041***			0.040***			0.022**		
	(0.010)			(0.011)			(0.010)		
Gas Sales		-0.094			-0.135			-0.132	
		(0.115)			(0.122)			(0.118)	
Gas Sales ²		0.003			0.004			-0.000	
		(0.005)			(0.006)			(0.006)	
Oil & Gas Sales			-0.958***			-0.983***			-0.637***
			(0.229)			(0.237)			(0.220)
Oil & Gas Sales ²			0.044***			0.044***			0.023**
			(0.011)			(0.011)			(0.011)
Proportion of Uighur				1.030	1.335*	1.003	2.608**	3.466**	2.571**
				(0.636)	(0.691)	(0.636)	(1.081)	(1.346)	(1.078)
Population Density				0.360	0.134	0.358	-0.630	-0.738	-0.629
				(0.606)	(0.477)	(0.602)	(0.474)	(0.544)	(0.474)
Distance to Border				0.656**	0.557	0.665**	0.418	-0.064	0.423
				(0.293)	(0.388)	(0.292)	(0.377)	(0.388)	(0.375)
Fiscal Revenue							1.103***	1.171***	1.098***
							(0.324)	(0.348)	(0.320)
Central Transfer							-0.694*	-0.205	-0.693*
							(0.420)	(0.571)	(0.417)
GDP Per Capita							0.010	0.121	0.004
							(0.303)	(0.329)	(0.303)
Bingtuan							-0.206	1.455	-0.174
							(1.461)	(1.844)	(1.437)
Slope							0.025	0.051	0.020
							(0.508)	(0.691)	(0.507)
Year FE	Y	Y	Y	Y	Y	Y	Y	Y	Y
N	597	512	597	584	502	584	534	462	534

Notes: Regression results are based on negative binomial model. Robust standard errors clustered at the county level are in parentheses. All time variant variables are lagged one year. All variables except population density, proportion of Uighur, slope and bingtuan are logarithmic values. Estimates of constant and year fixed effects are not reported. * p < 0.1; ** p < 0.05; *** p < 0.01.

Table A.17 Test for Reverse Causality

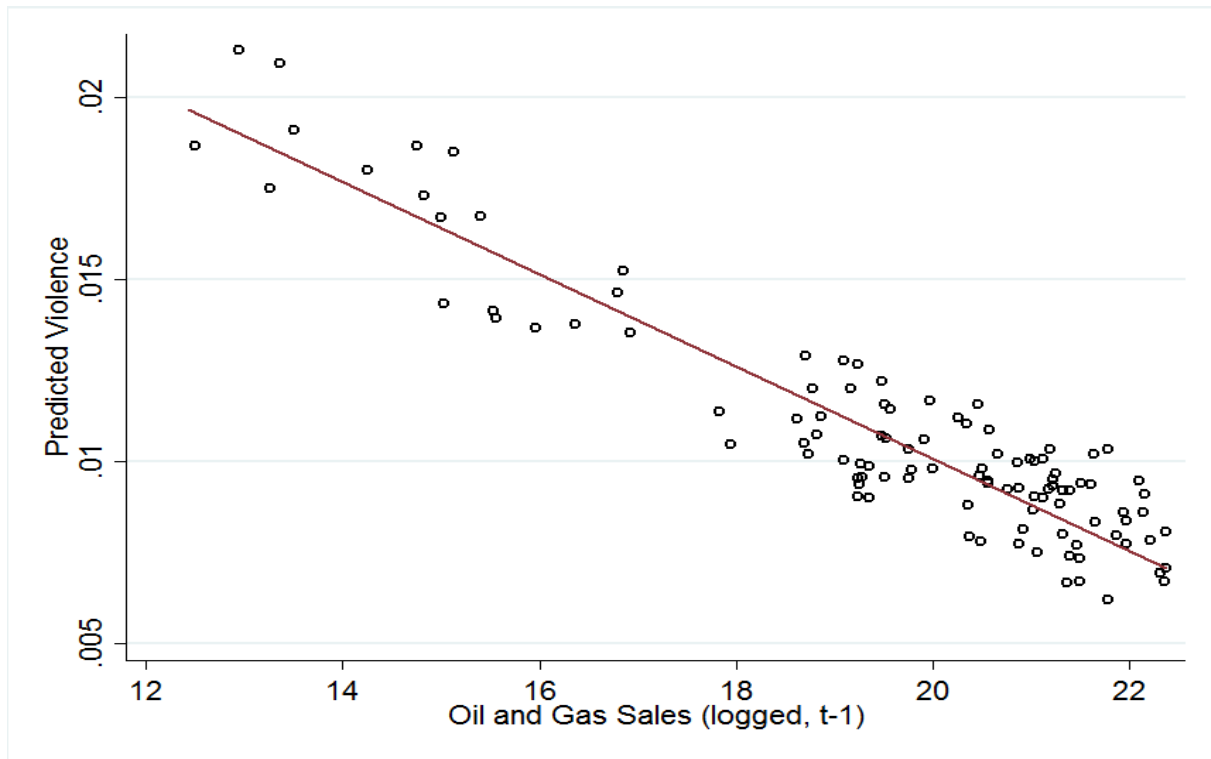
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Oil	Gas	Oil & Gas	Oil	Gas	Oil & Gas	Oil	Gas	Oil & Gas
Violence	0.104 (0.159)	0.166 (0.160)	0.130 (0.166)	0.135 (0.184)	0.193 (0.189)	0.156 (0.193)	0.024 (0.071)	0.072 (0.059)	0.034 (0.072)
Mosque Density				1.361 (1.496)	1.449 (1.507)	1.420 (1.554)	1.204 (1.259)	1.334 (1.273)	1.265 (1.307)
Proportion of Uighur				-1.721 (4.877)	-1.161 (5.108)	-1.252 (5.119)	-1.389 (4.778)	-0.327 (4.747)	-0.914 (4.994)
Population Density				-1.020 (1.261)	-1.070 (1.282)	-1.053 (1.316)	-0.764 (0.999)	-0.866 (1.022)	-0.823 (1.041)
Fiscal Revenue							0.459 (0.521)	0.566 (0.401)	0.517 (0.521)
Central Transfer							0.290 (0.241)	0.143 (0.133)	0.172 (0.211)
GDP Per Capita							-0.018 (0.112)	-0.067 (0.077)	-0.007 (0.112)
Bingtuan							0.854 (1.236)	1.060 (0.952)	0.684 (1.089)
County FE	Y	Y	Y	Y	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	Y	Y	Y	Y	Y	Y
<i>N</i>	596	596	596	570	570	570	520	520	520

Notes: The dependent variables are logarithmic values of oil, gas, and oil and gas production. Robust standard errors clustered at the county level are in parentheses. All time variant variables are lagged one year. All variables except population density, proportion of Uighur, slope and bingtuan are logarithmic values. Estimates of constant, county fixed effects and year fixed effects are not reported. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Table A.18 Data Sources

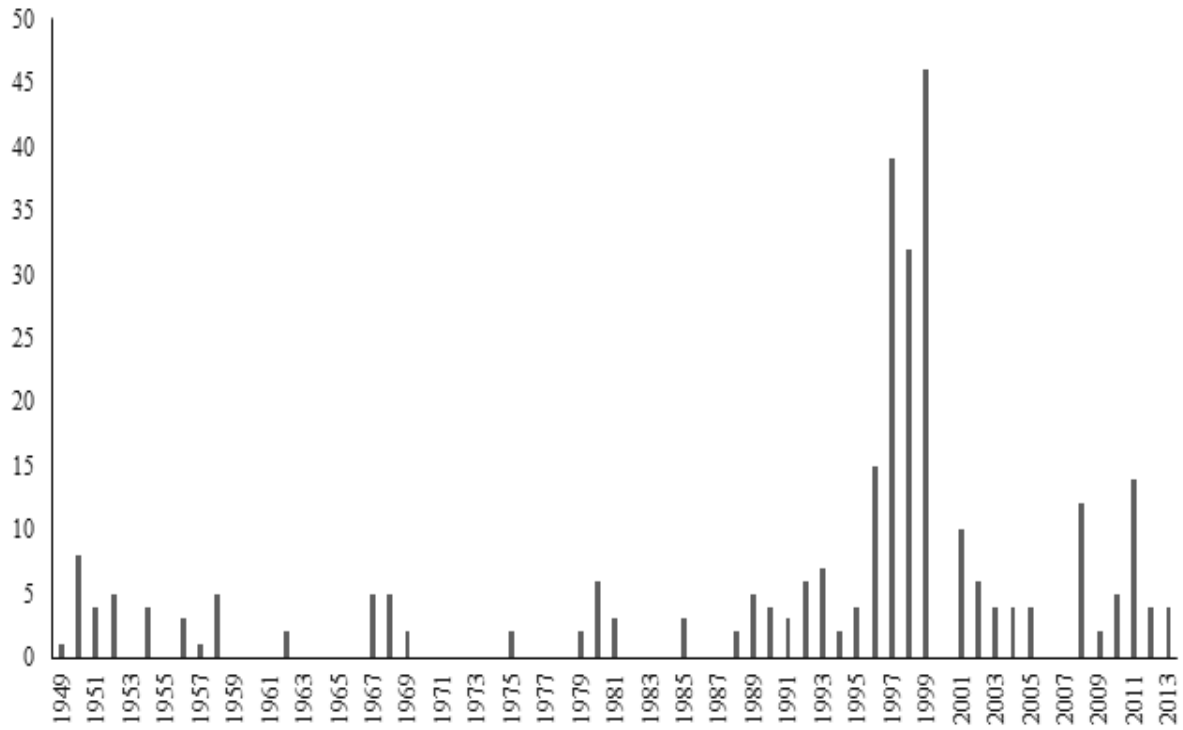
Variable	Period	Data Source
Violence	1998-2005	Bovingdon (2010), Hierman (2007), and public media reports
Oil production	1997-2005	China Oil and Gas Field Development Report (Karamay, Tuha, Talimu)
Gas production	1997-2005	China Oil and Gas Field Development Report (Karamay, Tuha, Talimu)
Oil reserves	available years	China Oil and Gas Field Development Report (Karamay, Tuha, Talimu)
Gas reserves	available years	China Oil and Gas Field Development Report (Karamay, Tuha, Talimu)
Population Density	1997-2005	Xinjiang Statistic Yearbook
Proportion of Uighur	1997-2005	Xinjiang Statistic Yearbook
GDP Per Capita	1997-2005	Xinjiang Statistic Yearbook
Bingtuan	1997-2005	Xinjiang Production and Construction Corps Statistic Yearbook
Employment rate (county-level)	1997-2005	China County (City) Socio-Economic Statistical Yearbook.
Individual income & employment (individual-level)	2000, 2005	China Individual Census (2000), China 2005 1% Population Inter-census Survey
Fiscal revenue	1997-2005	National Prefecture and County Finance Statistics Compendium
Fiscal expenditure	1997-2005	National Prefecture and County Finance Statistics Compendium
Special grants	1997-2005	National Prefecture and County Finance Statistics Compendium
Public security expenditure	1997-2005	National Prefecture and County Finance Statistics Compendium
Slope	—	Digital elevation model (DEM), USGS
Mosque (time variant)	1997-2004	China Data Online, University of Michigan
Mosque (time invariant)	1990s	Local gazetteers of each county in Xinjiang
Mosque1949	Before 1949	Local gazetteers of each county in Xinjiang

Figure A.1: National Resource Sales and Violence



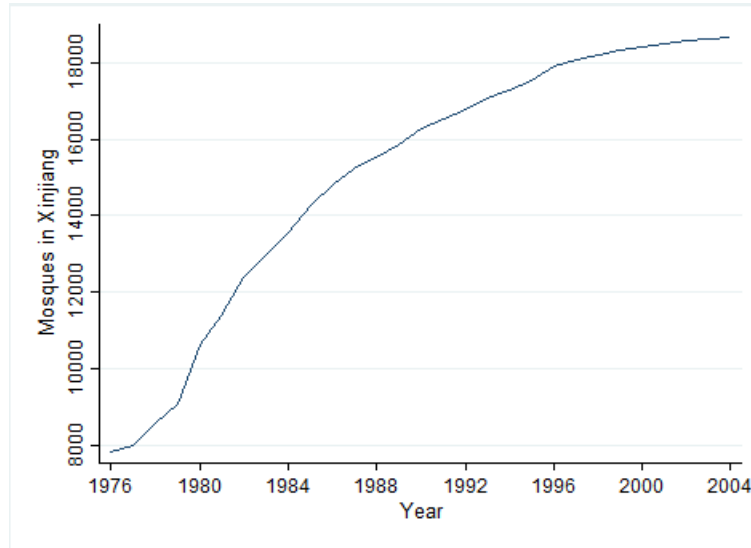
Notes. Probability of Violence is predicted by negative binomial regression.

Figure A.2: Frequency of Violence in Xinjiang from 1949 to 2013



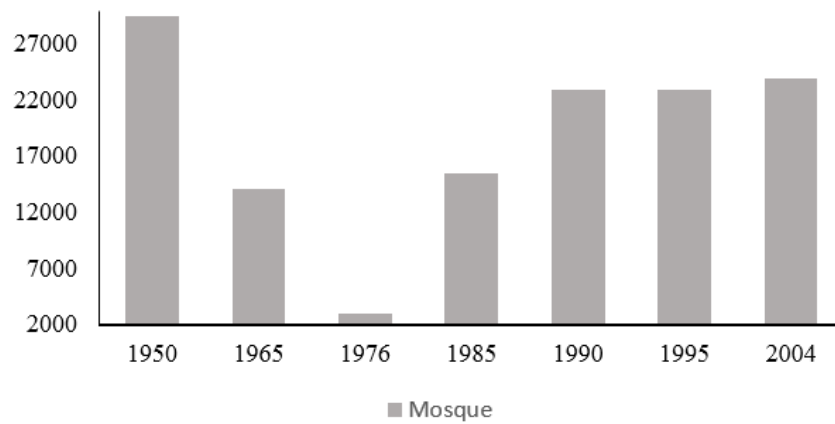
Notes. Frequency of violence refers to the number of violent events that occurred in Xinjiang.

Figure A.3: The Number of Mosques from 1976 to 2004 in Xinjiang



Note: The data is from *China Data Online*, University of Michigan.

Figure A.4: The Number of Mosques from 1950 to 2004 in Xinjiang



Notes. Numbers are from Li (2014) which collects the data from multiple official sources.

Figure A.5: Distribution of Mosques in the 1990s (up) and in 1949 (down)

