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## Oil and property rights

Resources Policy

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	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Oil $t-1$	-0.030 (0.008)***	-0.030 (0.007)***	-0.028 (0.007)***	-0.030 (0.008)***	-0.032 (0.008)***	-0.030 (0.008)***	-0.024 (0.007)***	-0.068 (0.028)**	-0.062 (0.027)**
Infant Mortality $t-1$	-0.036 (0.010)***	-0.035 (0.016)**	-0.037 (0.010)***	-0.029 (0.009)***	-0.031 (0.010)***	-0.036 (0.010)***	-0.019 (0.008)**	-0.038 (0.011)***	-0.018 (0.014)
Population Size $t-1$	-0.044 (0.007)***	-0.045 (0.009)***	-0.064 (0.022)***	-0.033 (0.007)***	-0.037 (0.008)***	-0.044 (0.008)***	0.000 (0.007)	-0.029 (0.013)**	0.012 (0.029)
Democracy $t-1$	0.175 (0.009)***	0.175 (0.009)***	0.175 (0.010)***	0.167 (0.010)***	0.174 (0.009)***	0.175 (0.010)***	0.148 (0.014)***	0.175 (0.009)***	0.149 (0.014)***
Leftist Government $t-1$	-0.102 (0.014)***	-0.102 (0.014)***	-0.102 (0.014)***	-0.101 (0.014)***	-0.091 (0.016)***	-0.101 (0.014)***	-0.093 (0.015)***	-0.098 (0.015)***	-0.089 (0.016)***
Civil War $t-1$	-0.013 (0.006)**	-0.013 (0.006)**	-0.013 (0.006)**	-0.012 (0.006)*	-0.013 (0.006)**	-0.013 (0.006)**	-0.013 (0.006)**	-0.010 (0.007)	-0.011 (0.005)**
Infant Mortality $t-10$		-0.002 (0.012)							-0.004 (0.010)
Population Size $t-10$			0.020 (0.021)						0.004 (0.022)
Democracy $t-10$				0.047 (0.013)***					-0.022 (0.012)*
Leftist Government $t-10$					-0.052 (0.012)***				0.003 (0.012)
Civil War $t-10$						0.001 (0.004)			0.011 (0.007)
Property Rights $t-10$							0.331 (0.079)***		0.371 (0.090)***
Oil $t-10$								0.017 (0.011)	0.018 (0.011)
First-Stage F-Statistic	27.29	29.88	27.71	27.28	27.63	27.26	27.52	18.26	14.30
AR Wald Test (Pr. $>\chi^2$ )	(0.00)***	(0.00)***	(0.00)***	(0.00)***	(0.00)***	(0.00)***	(0.00)***	(0.00)***	(0.00)***
Number of Observations	5,367	5,367	5,367	5,367	5,367	5,367	5,367	5,367	5,367

Notes: Dependent variable is always the VDEM property rights index. Instrumental-variable fixed-effects estimates reported. Country-fixed effects and year-fixed effects always included. Driscoll-Kraay standard errors in parentheses. Model (1) reproduces the baseline model with a reduced sample size for comparison. \*p<0.1, \*\*p<0.05, \*\*\*p<0.01.

**Supplementary Table 1: Effect of Past Shocks on Instrumental-Variable Estimates**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Oil $t-1$	-0.021 (0.006)***	-0.023 (0.004)***	-0.038 (0.005)***	-0.032 (0.005)***	-0.024 (0.005)***	-0.032 (0.005)***	-0.037 (0.006)***	-0.033 (0.005)***	-0.023 (0.007)***	-0.019 (0.008)**	-0.034 (0.005)***
Infant Mortality $t-1$		-0.044 (0.008)***	-0.064 (0.008)***	-0.032 (0.012)***		-0.074 (0.009)***	-0.038 (0.009)***	-0.034 (0.008)***			-0.024 (0.009)***
ln (Per Capita Income) $t-1$	-0.002 (0.006)										
Population Size $t-1$	0.002 (0.012)	-0.060 (0.004)***	-0.032 (0.009)***	-0.072 (0.006)***	-0.045 (0.008)***	-0.099 (0.007)***	-0.081 (0.006)***	-0.071 (0.005)***	-0.049 (0.009)***		-0.059 (0.006)***
Democracy $t-1$	0.168 (0.012)***		0.171 (0.009)***	0.231 (0.009)***	0.208 (0.008)***		0.200 (0.009)***	0.190 (0.007)***			0.222 (0.013)***
VDEM Electoral Democracy $t-1$		0.360 (0.019)***									
Leftist Government $t-1$	-0.050 (0.017)***	-0.141 (0.013)***	-0.132 (0.011)***	-0.135 (0.018)***	-0.139 (0.010)***	-0.150 (0.014)***		-0.129 (0.013)***			-0.142 (0.016)***
Civil War $t-1$	-0.025 (0.006)***	-0.010 (0.005)**	-0.011 (0.005)**	-0.026 (0.011)**	-0.013 (0.005)**	-0.021 (0.006)***	-0.015 (0.005)***				-0.022 (0.014)*
First-Stage F-Statistic	15.72	57.19	58.93	28.54	78.07	55.82	56.38	56.48	57.69	56.32	14.22
AR Wald Test (Pr.> $\chi^2$ )	(0.00)***	(0.00)***	(0.00)***	(0.00)***	(0.00)***	(0.00)***	(0.00)***	(0.00)***	(0.02)**	(0.02)**	(n/a)
Kleibergen-Paap Test (p-value)											(0.01)**
Hansen J-Test (p-value)											(0.17)
Number of Observations	5,829	6,380	6,363	1,333	6,613	6,389	6,363	6,363	6,363	6,363	6,076

Notes: Dependent variable is always the VDEM property rights index. Instrumental-variable fixed-effects estimates reported. Country-fixed effects and year-fixed effects always included. Driscoll-Kraay standard errors in parentheses. Model (3) adds regional trends (as interactions between a set of regional dummies and the year fixed-effects) to the baseline model. Model (4) reports results for data averaged over a maximum of eleven consecutive 5-year periods; no lags are used for these estimates. Model (11) reports an IV-regression where infant mortality, democracy, left-wing incumbency and civil war also instrumented by past lags (lags at  $t-2$  and  $t-3$ ). Here, we also report tests for under-identification (Kleibergen-Paap test) and over-identification (Hansen J-test), with both tests pointing to instrument soundness. \* $p < 0.1$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$ .

### Supplementary Table 2: Changes to Baseline Model

	(1)	(2)	(3)	(4)	(5)	(6)
Oil $t_{-1}$	-0.034 (0.005)***	-0.020 (0.006)***	-0.030 (0.011)***	-0.024 (0.008)***	-0.021 (0.007)***	-0.006 (0.003)**
Infant Mortality $t_{-1}$	-0.035 (0.008)***	-0.040 (0.006)***	-0.040 (0.009)***	-0.035 (0.006)***	-0.036 (0.007)***	-0.006 (0.006)
Population Size $t_{-1}$	-0.072 (0.005)***	-0.023 (0.010)**	-0.013 (0.011)	-0.024 (0.013)*	-0.030 (0.016)*	0.001 (0.004)
Democracy $t_{-1}$	0.186 (0.007)***	0.154 (0.012)***	0.150 (0.013)***	0.160 (0.012)***	0.165 (0.014)***	0.029 (0.012)**
Leftist Government $t_{-1}$	-0.128 (0.012)***	-0.048 (0.017)***	-0.065 (0.019)***	-0.055 (0.018)***	-0.063 (0.022)***	-0.033 (0.012)***
Civil War $t_{-1}$	-0.016 (0.005)***	-0.026 (0.006)***		-0.018 (0.006)***	-0.021 (0.006)***	-0.002 (0.003)
Development Aid $t_{-1}$	0.001 (0.000)***					
Economic Growth $t_{-1}$		0.000 (0.000)				
Mineral Wealth $t_{-1}$			0.001 (0.001)			
Trade Openness $t_{-1}$				0.000 (0.000)***		
Government Size $t_{-1}$					0.001 (0.000)***	
Lagged Property Rights $t_{-1}$						0.883 (0.045)***
First-Stage F-Statistic	54.15	24.56	27.22	20.58	20.73	73.71
AR Wald Test (Pr.> $\chi^2$ )	(0.00)***	(0.00)***	(0.00)***	(0.00)***	(0.00)***	(0.03)**
Number of Observations	6,363	5,705	5,336	5,514	5,368	6,122

Notes: Dependent variable is always the VDEM property rights index. Instrumental-variable fixed-effects estimates reported. Country-fixed effects and year-fixed effects always included. Driscoll-Kraay standard errors in parentheses. \*p<0.1, \*\*p<0.05, \*\*\*p<0.01.

Operationalization and sources of additional controls:

- 1) Development aid: (Net) Foreign development assistance as share of gross national income. Source: WDI.
- 2) Economic growth: Growth rate of real GDP p.c. Source: WDI.
- 3) Mineral wealth: Difference between production value of stock of minerals (tin, gold, iron, silver etc.) at world prices and their production costs as share of GDP. Source: WDI.
- 4) Trade openness: Sum of exports and imports as share of GDP. Source: WDI.
- 5) Government size: General government final consumption expenditure as share of GDP. Source: WDI.
- 6) Lagged property rights: Five-year moving average of dependent variable. Source: VDEM.

**Supplementary Table 3: Additional Control Variables**

Sub-Sample →	(1) No MENA	(2) No OECD	(3) No Years before 1973	(4) No Years before 1990	(5) No Country with Oil Income Per Capita > 500\$
Oil $t-1$	-0.015 (0.003)***	-0.049 (0.013)***	-0.032 (0.009)***	-0.054 (0.020)***	-0.026 (0.009)***
Infant Mortality $t-1$	-0.057 (0.012)***	-0.029 (0.009)***	-0.052 (0.010)***	-0.051 (0.010)***	-0.041 (0.010)***
Population Size $t-1$	-0.109 (0.013)***	-0.118 (0.009)***	-0.061 (0.007)***	0.031 (0.022)	-0.079 (0.015)**
Democracy $t-1$	0.197 (0.009)***	0.162 (0.008)***	0.183 (0.011)***	0.074 (0.010)***	0.187 (0.010)***
Leftist Government $t-1$	-0.124 (0.014)***	-0.133 (0.013)***	-0.124 (0.015)***	-0.013 (0.007)*	-0.093 (0.014)***
Civil War $t-1$	-0.017 (0.006)***	-0.026 (0.006)***	-0.014 (0.007)**	-0.024 (0.006)***	-0.026 (0.006)***
First-Stage F-Statistic	13.45	34.82	43.66	39.42	14.64
AR Wald Test (Pr.> $\chi^2$ )	(0.00)***	(0.00)***	(0.00)***	(0.05)**	(0.03)**
Number of Observations	5,465	5,359	5,311	3,356	5,455

Notes: Dependent variable is always the VDEM property rights index. Instrumental-variable fixed-effects estimates reported. Country-fixed effects and year-fixed effects always included. MENA=Middle East and Northern Africa. OECD=Organisation for Economic Co-operation and Development. Driscoll-Kraay standard errors in parentheses. \*p<0.1, \*\*p<0.05, \*\*\*p<0.01.

**Supplementary Table 4: Sub-Sample Analysis**

	Oil Rents	Fuel Exports	Oil Production Dummy	Total Value of Oil Production	Total Oil Production	Total Oil Production Per Capita (No Logs)
Value of Oil Production	0.71*	0.61*	0.74*	0.83*	0.85*	0.48*
Oil Rents		0.81*	0.36*	0.45*	0.47*	0.63*
Fuel Exports			0.30*	0.39*	0.40*	0.38*
Oil Production Dummy				0.98*	0.96*	0.19*
Total Value of Oil Production					0.99*	0.24*
Total Oil Production						0.25*

Note: (\*) indicates that the correlation coefficients are significant at the 1% level.

**Supplementary Table 5: Pairwise Correlations between Oil Variables**

	Property Rights (Men)	Property Rights (Women)	Private Ownership of Economy	Transparent Laws with Predictable Enforcement	Access to Justice	Rule of Law
Property Rights	0.94*	0.96*	0.63*	0.67*	0.75*	0.62*
Property Rights (Men)		0.86*	0.68*	0.64*	0.71*	0.58*
Property Rights (Women)			0.60*	0.67*	0.74*	0.61*
Private Ownership of Economy				0.51*	0.53*	0.43*
Transparent Laws with Predictable Enforcement					0.85*	0.87*
Access to Justice						0.84*

Note: (\*) indicates that the correlation coefficients are significant at the 1% level.

**Supplementary Table 6: Pairwise Correlations between Alternative Measures of Economic Institutions**

Afghanistan	Congo	Hungary	Mauritius	Singapore
Albania	Congo, Dem. Rep.	India	Mexico	Slovak Republic
Algeria	Costa Rica	Indonesia	Moldova	Slovenia
Angola	Cote d'Ivoire	Iran	Mongolia	South Africa
Argentina	Croatia	Iraq	Morocco	Spain
Armenia	Cuba	Ireland	Mozambique	Sri Lanka
Australia	Cyprus	Israel	Myanmar	Sudan
Austria	Czech Republic	Italy	Namibia	Swaziland
Azerbaijan	Denmark	Jamaica	Nepal	Sweden
Bahrain	Djibouti	Japan	Netherlands	Switzerland
Bangladesh	Dominican Republic	Jordan	New Zealand	Syria
Barbados	Ecuador	Kazakhstan	Nicaragua	Tajikistan
Belarus	Egypt	Kenya	Niger	Tanzania
Belgium	El Salvador	Korea, North	Nigeria	Thailand
Benin	Equatorial Guinea	Korea South	Norway	Togo
Bolivia	Estonia	Kuwait	Oman	Trinidad/Tobago
Bosnia/Herzegovina	Ethiopia	Kyrgyz Republic	Pakistan	Tunisia
Botswana	Finland	Lao PDR	Panama	Turkey
Brazil	France	Latvia	Paraguay	Turkmenistan
Bulgaria	Gabon	Lebanon	Peru	Uganda
Burkina Faso	Gambia	Lesotho	Philippines	Ukraine
Burundi	Georgia	Liberia	Poland	U. Arab Emirates
Cambodia	Germany	Libya	Portugal	United Kingdom
Cameroon	Ghana	Lithuania	Qatar	United States
Canada	Greece	Macedonia	Romania	Uruguay
C. African Republic	Guatemala	Madagascar	Russia	Uzbekistan
Chad	Guinea	Malawi	Rwanda	Venezuela
Chile	Guinea-Bissau	Malaysia	Saudi Arabia	Yemen
China	Haiti	Mali	Senegal	Zambia
Colombia	Honduras	Mauritania	Sierra Leone	Zimbabwe

**List of Countries**