

Online Appendix
The End of Exceptionalism?
Explaining Chinese National Oil Companies' Overseas Investments

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A. Descriptive Statistics

Table A1. Descriptive Statistics					
Variable	Indicator	Mean	Std. Deviation	Min	Max
Chinese OFDI	Investment (USD/million)	83.98	800.80	0	20600
Hypothesis 1	Rule of law	0.04	1.03	-2.11	2
	Corruption	2.72	1.19	0	6
Hypothesis 2	Regime stability	27.67	33.61	0	203
	Regime type	3.67	6.48	-10	10
	Business freedom	60.83	11.70	17.2	90
Control	Market size (ln)	10.83	2.26	4.64	15.60
Variables	Market growth	2.66	4.72	-62.58	58.36
	Inflation (ln)	1.36	1.07	-4.07	5.78
	Energy market (ln)	1.10	1.39	0	4.34
	Geographical distance	8992.92	3875.81	809.53	19297.47

B. List of NOC Investments by Country and Year

Table A2: Chinese Oil and Gas OFDI Investment

Country	Year	Investment (USD millions)
Angola	2006	180.4
Angola	2006	440
Angola	2006	302.5
Argentina	2010	2450
Argentina	2010	3100
Australia	2002	537.31
Australia	2008	555.96
Australia	2009	270
Australia	2010	1580
Australia	2011	1348.61
Australia	2011	25.38
Australia	2011	1765
Australia	2012	2002.18
Australia	2012	270
Australia	2012	1630
Australia	2012	42.89
Azerbaijan	2002	26
Azerbaijan	2003	10.5
Azerbaijan	2003	44
Bol. Rep. of Venezuela	2008	4000
Bol. Rep. of Venezuela	2009	4000
Bol. Rep. of Venezuela	2010	20600
Bol. Rep. of Venezuela	2011	4000
Bol. Rep. of Venezuela	2012	4000
Brazil	2009	10000
Brazil	2010	7111
Brazil	2011	4800
Canada	2005	124.59
Canada	2008	2028.48
Canada	2009	1740
Canada	2010	817
Canada	2010	329
Canada	2010	4650

Canada	2011	2070.03
Canada	2011	2075.5
Canada	2012	150
Canada	2012	150
Canada	2012	19119.31
Canada	2012	670
Canada	2012	1519
Canada	2012	2180
Chad	2007	202.5
Ecuador	2005	1420
Ecuador	2010	1000
Ecuador	2011	2000
Ecuador	2011	571
FYR of Macedonia	2011	150
France	2009	1015
France	2011	3150
Ghana	2012	1000
Hong Kong	2004	16.47
Indonesia	2002	0.6
Indonesia	2002	262.03
Indonesia	2002	275
Indonesia	2002	591.86
Indonesia	2003	164
Indonesia	2004	105.1
Indonesia	2008	130
Indonesia	2010	680
Islamic Rep. of Iran	2007	2010
Islamic Rep. of Iran	2009	3350
Islamic Rep. of Iran	2009	2250
Kazakhstan	2003	200
Kazakhstan	2005	4200
Kazakhstan	2007	2603.9
Kazakhstan	2009	940
Netherlands	2012	273.69
Nigeria	2006	2692
Norway	2008	2500.95
Peru	2004	200
Russia	2005	6000
Russia	2006	3501
Russia	2009	270

Russia	2009	15000
Russia	2009	10000
Saudi Arabia	2011	3300
Singapore	2009	1020
Sri Lanka	2004	83
Switzerland	2009	7157.4
Switzerland	2012	170
Syrian Arab Republic	2005	581.19
Syrian Arab Republic	2005	576
Trinidad und Tobago	2009	315.41
Trinidad und Tobago	2009	315.41
Trinidad und Tobago	2011	850
Turkmenistan	2009	4000
Turkmenistan	2011	4100
UK of GB and Ireland	2005	4141.18
UK of GB and Ireland	2011	510
UK of GB and Ireland	2012	1500
United Arab Emirates	2012	25.05
United States	2001	15.48
United States	2004	2500
United States	2007	100
United States	2010	1581
United States	2010	200
United States	2010	180
United States	2010	1080
United States	2011	570
United States	2012	300
United States	2012	2500

C. Robustness of Results: Alternative Risk Indicators

Control of corruption: This alternative indicator for corruption is derived from the World Bank Institute Governance Indicators (WBI). This indicator captures ‘perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as ‘capture’ of the state by elites and private interests’ (Kauffman et al., 2010: 4). Values for *Corruption* range from -2.5 = high levels of corruption to 2.5 = low levels of corruption.

Composite Risk: This alternative indicator for investment-related risks in host-states is derived from the International Country Risk Guide’s (ICRG). This is a frequently used proxy for assessments of the effects of risk on OFDI (Buckely et al., 2007; Cheung, de Haan, Qian, & Yu, 2010; Cheung & Qian, 2009; Qian, 2012; J. Zhang et al., 2011). This composite measure brings together data on perceptions of political, economic, and financial risk with values ranging from 0 to 100, with 0 = very high risk and 100 = very low risk.

Political stability and absence of violence/terrorism: Data for this indicator are derived from the WBI and serve as an alternative for Regime stability. It captures ‘perceptions of the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including politically-motivated violence and terrorism’ as well as “[t]he capacity of the government to effectively formulate and implement sound policies’ (Kauffman et al., 2010). Values range from -2.5 (weak stability) to 2.5 (high stability)

Table A3: Determinants of Chinese Oil and Gas OFDI using Alternative Indicators for Risk and Regime Stability

	(1)	(2)	(3)
Control of Corruption	65.83 (1.94)		
Composite Risk		6.827 (1.72)	
Political stability			77.89* (2.23)
<i>Control Variables</i>			
Market size	86.69*** (4.40)	108.7*** (5.32)	100.0*** (5.54)
Market growth	6.500 (0.91)	5.315 (0.72)	4.911 (0.70)
Inflation	14.26 (0.48)	12.30 (0.38)	14.47 (0.50)
Energy markets	43.51 (1.94)	35.72 (1.66)	38.35 (1.81)
Geographical distance	0.0283*** (3.40)	0.0352*** (3.85)	0.0287*** (3.45)
Constant	6.754*** (289.49)	6.782*** (282.04)	6.754*** (289.48)
N	933	879	933

t statistics in parentheses

* p < 0.05, ** p < 0.01, *** p < 0.001

Table A4: Determinants of Chinese Oil and Gas OFDI using Alternative Indicators for Risk and Regime Stability

	(1) 1999-2006	(2) 2007-2012	(3) 1999-2006	(4) 2007-2012	(5) 1999-2006	(6) 2007-2012
Control of corruption	-172.3 (-0.52)	2330.6*** (3.82)				
Composite risk			-47.02 (-1.38)	203.0* (2.51)		
Political stability					-389.0 (-1.31)	2853.3*** (3.96)
Control Variables						
Market size	634.9** (2.84)	2317.4*** (4.72)	659.8** (2.86)	2509.4*** (5.32)	605.7** (2.81)	2770.8*** (5.54)
Market growth	134.4* (2.04)	70.41 (0.58)	156.2* (2.20)	-21.39 (-0.18)	151.1* (2.16)	24.01 (0.21)
Inflation	35.29 (0.14)	567.1 (0.89)	-120.5 (-0.47)	239.1 (0.40)	-12.49 (-0.05)	527.5 (0.90)
Energy markets	598.6** (2.60)	2011.4*** (3.68)	596.2** (2.68)	1199.6** (2.83)	574.5** (2.60)	1702.7*** (3.62)
Geographical distance	-0.00661 (-0.09)	0.478*** (3.75)	-0.0175 (-0.25)	0.533*** (4.11)	-0.00851 (-0.12)	0.515*** (4.08)
Constant	1879.1*** (5.36)	4336.7*** (8.55)	1901.1*** (5.33)	4372.0*** (8.51)	1894.7*** (5.34)	4216.3*** (8.60)
N	505	428	473	406	505	428

t statistics in parentheses

* p < 0.05, ** p < 0.01, *** p < 0.001

D. Robustness of Results: Energy Backed Loans

Table A5: Determinants of Chinese Oil and Gas OFDI including control for Energy Backed Loans

	(1)	(2)	(3)	(4)	(5)	(6)
Rule of law	71.76* (2.04)					-81.58 (-1.06)
Corruption		59.30* (2.21)				31.68 (0.81)
Regime stability			3.788*** (4.10)			3.356** (2.65)
Regime type				1.231 (0.18)		-6.444 (-0.82)
Business freedom					9.265** (2.90)	8.651 (1.59)
Market size	80.04*** (4.19)	97.04*** (4.90)	64.63*** (3.31)	99.10*** (5.09)	88.25*** (4.86)	91.88*** (3.89)
Market growth	2.254 (0.37)	2.147 (0.33)	2.730 (0.44)	1.831 (0.27)	3.598 (0.53)	4.819 (0.66)
inflation	19.78 (0.73)	11.14 (0.41)	26.89 (1.02)	-0.306 (-0.01)	29.94 (1.06)	34.18 (1.11)
Energy markets	36.72 (1.69)	37.42 (1.74)	31.59 (1.52)	18.70 (0.65)	43.21 (1.87)	25.36 (0.82)
Geographical distance	0.0218** (2.71)	0.0231** (2.66)	0.0148 (1.76)	0.0194* (2.20)	0.0207* (2.50)	0.0184 (1.69)
Energy backed loans	2637.3*** (7.04)	2584.6*** (6.70)	2704.1*** (7.17)	2605.0*** (6.82)	2642.2*** (6.95)	2690.7*** (6.82)
Constant	6.714*** (295.12)	6.744*** (287.08)	6.719*** (291.81)	6.733*** (290.85)	6.729*** (290.67)	6.760*** (280.69)
N	966	906	943	933	933	862

t statistics in parentheses

* p < 0.05, ** p < 0.01, *** p < 0.001

Table A6: Determinants of Chinese Oil and Gas OFDI including control for Energy Backed Loans

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	1999- 2006	2007- 2012	1999- 2006	2007-2012	1999- 2006	2007- 2012	1999- 2006	2007- 2012	1999- 2006	2007- 2012	1999- 2006	2007- 2012
Rule of law	-76.12 (-0.21)	2610.0*** (3.94)									-1018.8 (-0.81)	-4863.8* (-2.27)
Corruption			-37.78 (-0.16)	2369.2*** (4.11)							-16.45 (-0.03)	3226.3** (3.16)
Regime stability					13.13 (1.55)	56.54*** (4.57)					38.44 (1.73)	57.97** (2.99)
Regime type							166.0 (1.65)	218.4 (1.41)			201.2 (1.37)	-456.1* (-2.49)
Business freedom									54.97 (1.46)	222.8*** (4.12)	105.3 (1.57)	169.4 (1.32)
Risk											-106.8 (-1.37)	159.3 (1.13)
Market size	543.3** (2.64)	2550.5*** (4.77)	524.7** (2.61)	2592.8*** (4.70)	397.5 (1.90)	2441.4*** (4.53)	367.4 (1.55)	2590.0*** (5.02)	582.3* (2.45)	2967.4*** (4.89)	155.6 (0.40)	3508.7*** (4.60)
Market growth	50.19 (1.25)	38.96 (0.33)	51.08 (1.28)	22.41 (0.18)	47.02 (1.14)	-8.823 (-0.07)	152.0* (2.08)	-128.2 (-0.95)	102.0 (1.35)	19.25 (0.15)	142.1 (1.51)	79.07 (0.55)
Inflation	58.57 (0.24)	369.2 (0.64)	79.74 (0.38)	394.4 (0.65)	181.3 (0.78)	391.9 (0.67)	3.563 (0.01)	-314.1 (-0.56)	362.9 (1.05)	349.8 (0.57)	18.18 (0.05)	954.5 (1.39)
Energy markets	675.5** (2.79)	2209.1*** (3.83)	677.2** (2.88)	2191.8*** (3.63)	805.9** (3.21)	1577.5** (3.13)	1197.4* (2.71)	1760.0* (2.51)	863.9** (2.99)	1955.8*** (3.46)	1643.5* (2.25)	128.5 (0.18)
Geographical distance	-0.0351 (-0.52)	0.291* (2.22)	-0.0344 (-0.48)	0.187 (1.37)	-0.0675 (-0.86)	0.183 (1.36)	-0.0983 (-1.04)	0.187 (1.29)	-0.0862 (-0.97)	0.255* (1.97)	-0.293 (-1.75)	0.225 (1.42)
Energy backed loans	0 (.)	10113.1** (4.19)	0 (.)	9427.5*** (3.98)	0 (.)	10185.0** (4.31)	0 (.)	8149.7*** (3.51)	0 (.)	10616.0** (4.22)	0 (.)	12655.4** (4.58)
Constant	1914.8* (5.33)	4045.4*** (8.77)	1915.7* (5.33)	4074.8*** (8.75)	1923.8*** (5.22)	3969.5*** (8.81)	1927.1* (5.22)	4334.1*** (8.52)	2056.5* (4.90)	4105.1*** (8.66)	2088.9*** (4.74)	3809.4*** (8.74)
N	523	443	491	415	513	430	511	422	504	429	469	393

t statistics in parentheses

* p < 0.05, ** p < 0.01, *** p < 0.001

E. Robustness of Results: Regression Specifications

Our analysis has examined Chinese oil and gas OFDI (*Investment*) in terms of the amount of the investment. A different way to approach our question is the determinants of whether or not an investment has been made at all. While we expect less risky host states to attract a greater amount of investment, ultimately more or less risk might not be directly translated into investment amounts. To examine this point, we have recoded our dependent variable into a binary indicator where any investments =1 and instances without any investments = 0. The result is a zero-inflated dependent variable. As our dependent variable takes binary values we mitigate this problem by using Firth's (1993) Penalized Maximum Likelihood Estimation method (using Joseph Coveny's *firthlogit* programme). The results are presented in tables A5 and A6.

Table A7. Determinant of Chinese Oil and Gas OFDI						
	(1)	(2)	(3)	(4)	(5)	(6)
Rule of law	0.630*** (3.45)					-2.092*** (-4.49)
Corruption		0.575*** (4.50)				0.762** (3.26)
Regime stability			0.0221*** (5.75)			0.0226*** (3.39)
Regime type				0.0871* (2.15)		0.00251 (0.05)
Business freedom					0.0827*** (5.49)	0.106*** (3.66)
Control variables						
Market size	0.700*** (6.52)	0.713*** (6.58)	0.618*** (5.19)	0.702*** (6.21)	0.753*** (6.61)	0.736*** (4.86)
Market growth	0.0646* (2.22)	0.0628* (2.12)	0.0522 (1.76)	0.0394 (1.28)	0.0586* (1.98)	0.0311 (0.95)
Inflation	0.0586 (0.38)	0.000819 (0.01)	0.0888 (0.57)	-0.210 (-1.58)	0.105 (0.63)	-0.0193 (-0.11)
Energy markets	0.848*** (6.85)	0.863*** (6.87)	0.849*** (6.95)	0.977*** (5.59)	0.903*** (7.37)	0.795*** (3.87)
Geographical distance	0.0000746* (2.08)	0.0000363 (1.00)	0.0000475 (1.20)	0.0000307 (0.78)	0.0000342 (0.95)	-0.0000801 (-1.50)
Constant	-13.54*** (-8.67)	-14.93*** (-8.92)	-13.17*** (-7.59)	-13.22*** (-8.13)	-19.09*** (-9.26)	-21.84*** (-7.09)
N	933	879	910	910	908	844

t statistics in parentheses

* p < 0.05, ** p < 0.01, *** p < 0.001

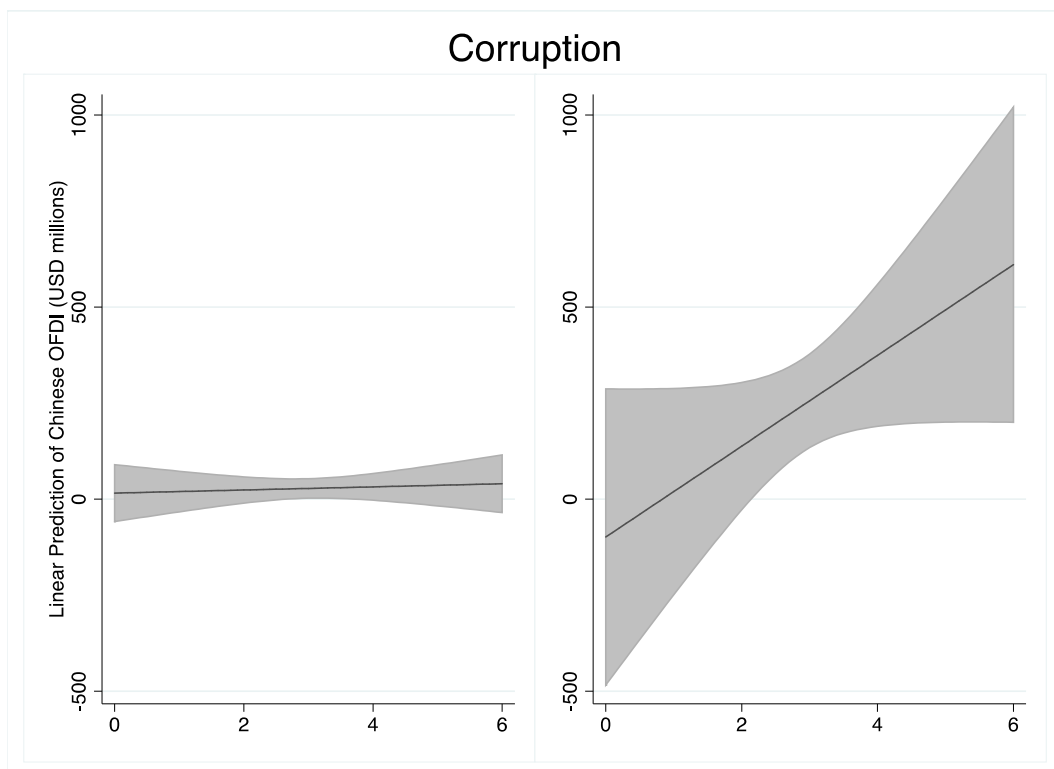
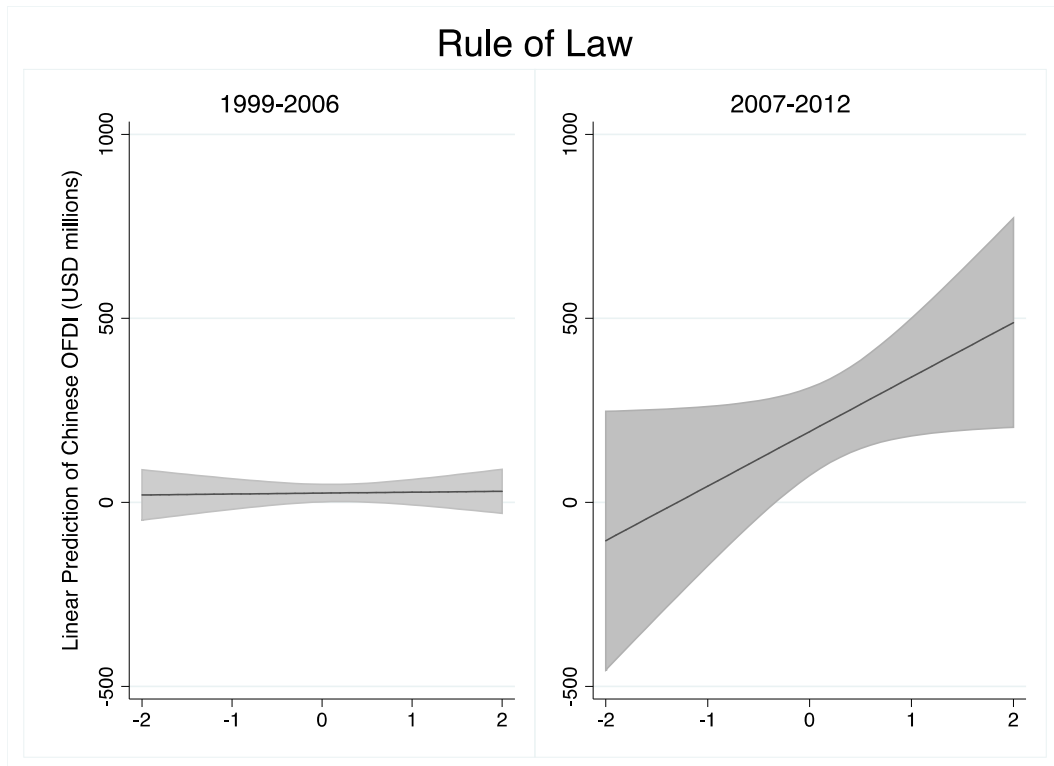
Table A8: Determinant of Chinese Oil and Gas OFDI

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)		
	1999- 2006	2007- 2012	1999- 2006	2007- 2012	1999- 2006	2007- 2012	1999- 2006	2007- 2012	1999- 2006	2007- 2012	1999- 2006	2007- 2012		
Rule of law	-0.168 (-0.48)	0.928*** (3.87)									-2.076** (-2.79)	-2.309*** (-3.30)		
Corruption			-0.00416 (-0.02)	0.951*** (4.80)							0.159 (0.43)	1.505*** (3.91)		
Regime stability					0.0167* (2.14)	0.0234*** (4.87)					0.0353** (2.62)	0.0247** (2.97)		
Regime type							0.117 (1.53)	0.0993 (1.75)			0.141 (1.48)	-0.109 (-1.69)		
Business freedom									0.0557 (1.89)	0.0937*** (4.85)	0.101* (2.22)	0.0817 (1.61)		
Market size	0.557** (3.22)	0.784*** (5.13)	0.518** (3.05)	0.784*** (4.83)	0.360 (1.88)	0.816*** (4.73)	0.342 (1.75)	0.883*** (5.51)	0.466** (2.70)	0.875*** (5.38)	0.137 (0.51)	1.088*** (4.47)		
Market growth	0.145* (2.54)	0.0220 (0.51)	0.147* (2.57)	0.0114 (0.24)	0.140* (2.35)	-0.0153 (-0.32)	0.155* (2.52)	-0.0635 (-1.28)	0.0938 (1.64)	0.0293 (0.69)	0.0579 (0.99)	-0.00629 (-0.11)		
Inflation	0.0242 (0.11)	0.00339 (0.02)	0.0916 (0.47)	0.0700 (0.29)	0.219 (1.00)	0.00414 (0.02)	0.000862 (0.00)	-0.204 (-0.97)	0.381 (1.35)	0.00623 (0.03)	0.184 (0.61)	0.0860 (0.30)		
Energy markets	0.668*** (3.60)	0.824*** (4.60)	0.697*** (3.92)	0.876*** (4.45)	0.825*** (4.55)	0.750*** (4.19)	1.109*** (3.51)	0.872*** (3.61)	0.868*** (4.72)	0.849*** (4.81)	1.194** (2.81)	0.473 (1.80)		
Geographical distance	-0.00 (-0.31)	0.00** (3.00)	-0.00 (-0.36)	0.00* (2.01)	-0.00 (-0.79)	0.00** (2.59)	-0.00 (-0.96)	0.00 (1.79)	-0.00 (-1.26)	0.00** (2.64)	-0.00** (-2.58)	0.00 (1.31)		
Constant	-11.07*** (-4.55)	-14.99*** (-6.65)	-10.68*** (-4.16)	-17.52*** (-6.67)	-	9.473*** (-3.55)	-16.04*** (-6.19)	-9.263*** (-3.52)	-15.68*** (-6.53)	-	13.35*** (-3.97)	-21.76*** (-7.31)	-13.05** (-2.84)	-27.73*** (-5.08)
N	505	428	473	406	495	415	495	415	492	416	457	387		

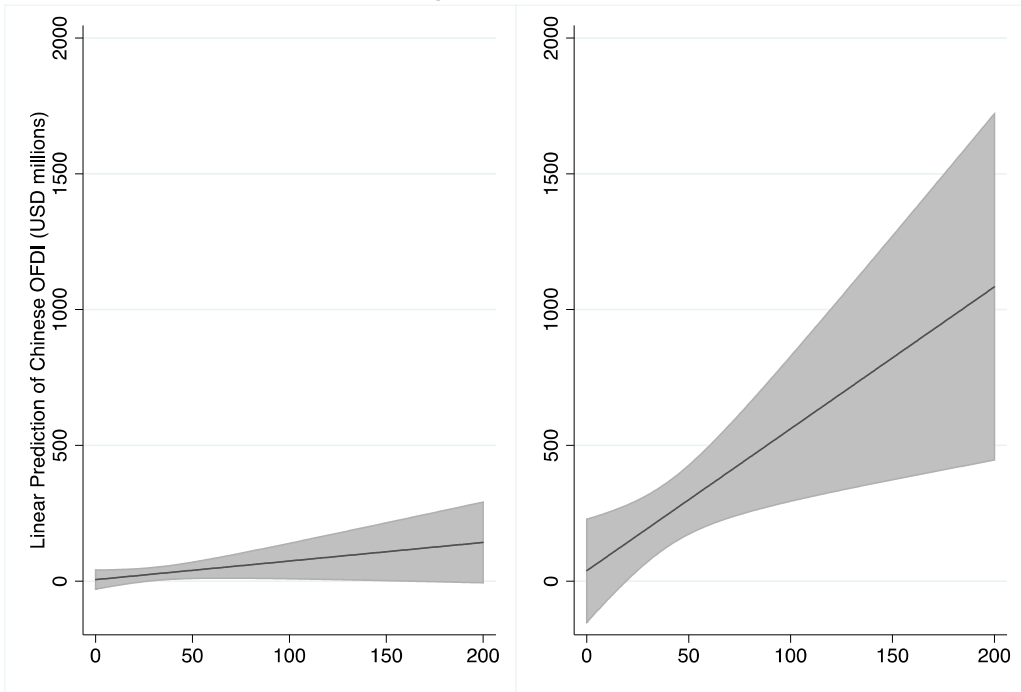
t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

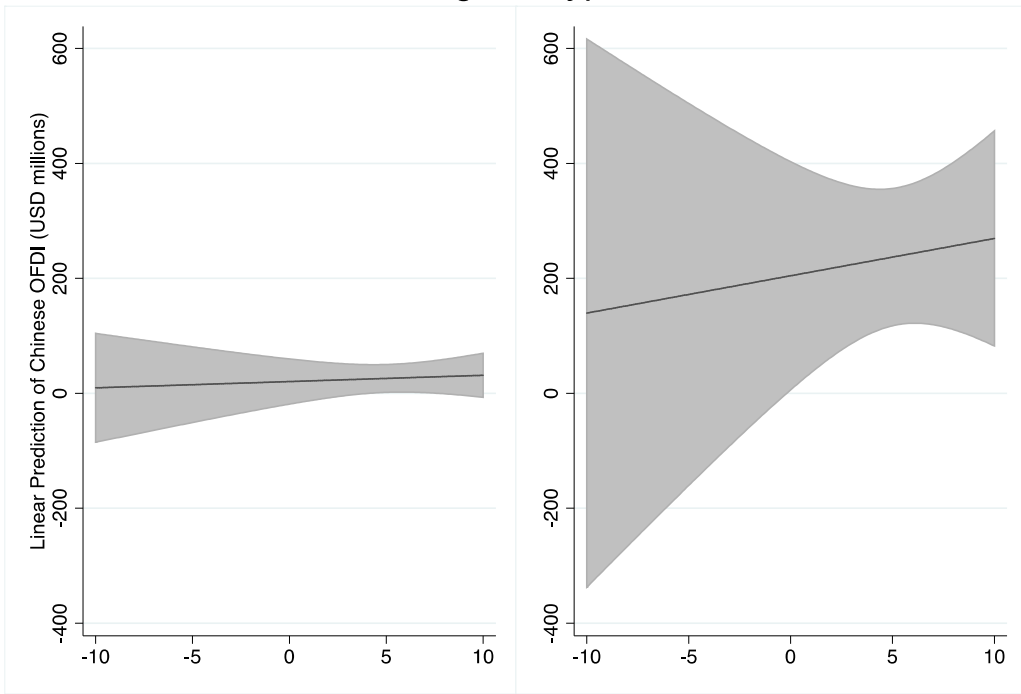
F. Linear Predictions of Chinese OFDI (USD millions) from Table 2



Regime Stability



Regime Type



Business Freedom

