Straight Ahead on Red:

How Foreign Direct Investment Empowers Subnational Leaders

Appendices 1-7

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Appendix 1: Selection of Vietnamese Newspapers

The five Vietnamese and one English language paper selected were: *Nhan Dan* (ND: People's Daily), *Lao Dong* (LD: Labor), *Sai Gon Giai Phong* (SGGP: Liberated Saigon), *Tuoi Tre* (TT: Youth), *Thanh Nien* (TN: Young People), and the *Vietnam Investment Review (VIR)*, the newspaper of record for the foreign investment community in Viet Nam.

To maximize geographical variation, three papers published in the northern capital of Hanoi (ND, LD, VIR) and three papers published in the southern metropolis of Ho Chi Minh City (HCMC) (TN, TT, and SGGP) were chosen. Because many papers do not have the budget to maintain regional beat reporters and therefore only cover one or both of the two main cities, an effort was made to choose papers which have the widest geographic coverage in terms of the number of provinces covered. These six papers are consistently cited as having the widest circulation in Vietnam and therefore were most likely to have regional news.

It was similarly important to capture papers published by a range of different government agencies, as it is possible that particular articles were selected to run in papers because of preconceptions about their readership. In addition, individual government agencies, while operating within clear parameters of the Vietnamese Communist Party (VCP), do have some editorial control over article selection. Working with only articles from a particular agency would lead to severe selection bias in the types of stories identified. ND and SGGP were selected because they are published by the National Party Office and the HCMC Party office respectively and therefore represent the official views of the Vietnamese Communist Party (VCP). To balance the conservative perspectives of the VCP, two papers thought to have reform orientations were selected. *TN* of the National Youth Federation and *TT* of the Ho Chi Minh Youth Organization of HCMC have been thought to take more reformist positions due to their

younger and often better educated readership. LD the flagship paper of the Vietnamese Labor Federation was selected because of its nationwide distribution, wide breadth of regional beat reporters, and its reputation as paper concerned with issues which affect the Vietnamese proletariat.

To balance articles selected to appeal to laborers and farmers, a fifth paper was cited to cover issues of importance to the foreign and Vietnamese business community *(The Vietnam Investment Review* or *Dau Tu*, the Vietnamese version). This weekly paper is published by the Ministry of Planning and Investment and had the added convenience of a searchable CD of articles going back to 1990, reducing the amount of time spent in the archives of the National Library. The one omission from the selection of papers was a paper representing military and security interests (of which there are several), but these papers have very limited regional coverage and would have led to reduced variance on the dependent variable.

Appendix 2:

Descriptive Statistics of Key Dependent and Independent Variables

Variable	N	Mean	Std. Dev.	Min	Max
Stock of FDI/GDP	584	14.73	33.33	0	232.84
Distance from metropolis	584	250.05	217.05	0	835
Infrastructure (Year 1)	584	-0.35	0.54	-0.91	2.49
Years of Asian Financial Crisis	584	0.21	0.41	0	1
City Dummy	584	0.06	0.23	0	1
Southern Dummy	584	0.54	0.5	0	1
% of secondary school graduates	584	85.47	10.87	46.26	99.56
Agriculture/GDP	584	42.92	18.69	2.71	120.26
GDP per Capita (Millions of Constant 1994 VND)	584	2.54	2.36	0.55	23.12
Number of Compatriots in Cabinet	584	0.61	1.02	0	5
Province the Result of Separation	584	0.54	0.5	0	1
Case of autonomy	584	85.47	10.87	46.26	99.56
Stock of Autonomous Actions	584	42.92	18.69	2.71	120.26
Mean autonomy of region	584	2.54	2.36	0.55	23.12
Years Since Party Congress	584	0.61	1.02	0	5
Party Control	544	0.99	0.85	0	4
Population (10,000 Citizens)	767	134.48	83.047	26.21	555.48
Exports/GDP	297	15.32	20.23	0	161.24

Appendix 3: Bivariate Correlation of Dependent and Independent Variable

Variable		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	Stock of FDI/GDP (fd)	1																
2	Distance from major market	-0.1427*	1															
3	Population in 10000s (fd)	0.1701*	-0.1286*	1														
4	Agriculture Output/GDP (fd)	-0.0938*	-0.0201	0.0061	1													
5	Infrastructure (Year 1)	0.2318*	-0.0514	0.3836*	-0.011	1												
6	% of secondary school graduates (fd)	-0.1061*	-0.03	0.0059	0.1765*	0.0351	1											
7	Years of Asian Financial Crisis	-0.0309	-0.0064	-0.0578	-0.0507	0.0235	0.2824*	1										
8	City Dummy	0.2662*	-0.2442*	0.3812*	-0.0217	0.6487*	0.0017	-0.0163										
9	Southern Dummy	0.0427	0.3043*	0.1211*	0.0314	0.1992*	0.0146	-0.0153	1									
10	Natural Log of GDP per Capita (fd)	0.2000*	-0.3099*	0.2351*	0.0572	0.5842*	0.071	0.1341*	0.3632*	1								
11	Stock FDI/GDP (fd) (lag 1)	0.5024*	-0.1876*	0.1716*	-0.0761	0.3147*	0.0374	0.0664	0.0401	0.2996*	1							
12	Exports (Millions of VND) (fd)	-0.0493	0.1092	0.0117	-0.1209	0.0175	-0.1215	0.0317	0.0396	0.0007	-0.0288	1						
13	Case of Fence-Breaking	0.1867*	-0.1283*	0.1466*	0.0081	0.2286*	-0.0013	-0.0274	0.0299	0.2834*	0.2252*	0.0197	1					
14	Province the Result of Separation	-0.0771	0.1940*	-0.2617*	0.0658	-0.1645*	0.0671	0.1797*	-0.0675	-0.1897*	-0.0437	0.0974	-0.1215*	1				
15	Number of Compatriots in Cabinet	0.0312	0.1147*	0.1410*	-0.0611	0.0973*	-0.0149	-0.0264	-0.1958*	-0.076	0.0828	-0.0092	0.1156*	0.0004	1			
16	Party Control of Provincial Leader	0.1849*	-0.0394	0.3325*	-0.0105	0.4796*	-0.0024	0.0495	0.0034	0.2510*	0.2285*	-0.0091	0.1542*	-0.1265*	0.2860*	1		
17	Years Since Party Congress	-0.1173*	-0.0166	-0.1031*	0.1630*	0.0081	0.3737*	0.1039*	-0.0152	0.0554	-0.0632	0.0742	0.1544*	0.0618	-0.0035	-0.044	1	
18	Net Autonomy of region (fd)	-0.1457*	0.0989*	-0.1022*	-0.0099	-0.1381*	-0.0564	0.0171	-0.0042	-0.1207*	-0.0745	0.0427	-0.0874	0.0724	0.015	-0.077	-0.0017	1

Bivariate Correlation of FDI, Exports, and Provincial Budget Surpluses in 2000

Variable		1	2	3
1	Stock of FDI/GDP (in 2000)	1		
2	Average Exports/GDP (1997-2000)	0.2042	1	
3	Average Budget Surplus (1997-2000)	0.5627*	0.0918	1

* Indicates significance at the .05 level (two-tailed test). Vietnamese Dong (VND)

Appendix 4: Hadri Lagrange Multiplier Tests of Stationarity

Unbalanced Panels with Varying Number of Provinces

Variable	Test-Statistic	P-Value	N	Range in Years
Stock of FDI/GDP	6.85	0	53	1992-1996
Stock of FDI/GDP	14.87	0	61	1997-2000
Stock of FDI/GDP (fd)	0.52	0.3	53	1992-1996
Stock of FDI/GDP (fd)	-3.03	1	61	1997-2000
Case of autonomy	-0.77	0.78	53	1992-1996
Case of autonomy	-1.08	0.86	61	1997-2000
Stock of Autonomous Actions	5.57	0	53	1992-1996
Stock of Autonomous Actions	20.29	0	61	1997-2000
Stock of Autonomous Actions (fd)	1.08	0.14	53	1992-1996
Stock of Autonomous Actions (fd)	6.19	0	61	1997-2000
Natural Log GDP per Capita (Millions of Constant 1994 VND)	5.57	0	53	1992-1996
Natural Log GDP per Capita (Millions of Constant 1994 VND)	20.29	0	61	1997-2000
Natural Log GDP per Capita (Millions of Constant 1994 VND) (fd)	1.08	0.14	53	1992-1996
Natural Log GDP per Capita (Millions of Constant 1994 VND) (fd)	16.38	0	61	1997-2000
% of secondary school graduates	2.54	0.01	53	1992-1996
% of secondary school graduates	5.53	0	61	1997-2000
% of secondary school graduates (fd)	0.9	0.18	53	1992-1996
% of secondary school graduates (fd)	1.75	0.04	61	1997-2000
Agriculture/GDP	5.67	0	53	1992-1996
Agriculture/GDP	5.24	0	61	1997-2000
Agriculture/GDP (fd)	-4.46	1	53	1992-1996
Agriculture/GDP (fd)	-4.14	1	61	1997-2000
Mean autonomy of region	1.35	0.09	53	1992-1996
Mean autonomy of region	15.12	0	61	1997-2000
Mean autonomy of region (fd)	-2.04	0.98	53	1992-1996
Mean autonomy of region (fd)	4.17	0	61	1997-2000
Infrastructure (Year 1)	4.89	0	53	1992-1996
Infrastructure (Year 1)	16.88	0	61	1997-2000
Infrastructure (Year 1) (fd)	-0.41	0.66	53	1992-1996
Infrastructure (Year 1) (fd)	-4.16	1	61	1997-2000

A test of stationarity was conducted using the Hadri Lagrange Multiplier. The null hypothesis is the variable exhibits a stationary process. Rows shaded in gray indicate that one cannot reject the null hypothesis of stationary. Un-shaded rows indicate that that one must reject the null hypothesis of stationarity, requiring differencing these variables in multivariate testing.

Appendix 5: Test of Exogeneity for Fence-Breaking

(Probit Model of Fence-Breaking with Standard Errors Clustered at Panel Level)

Dependent Variable = Case of Fence-Breaking (Dichotomous Variable)	**Baseline**[ψ] (1)	**Baseline with Residual from First Stage** [ψ] (2)
Stock of FDI/GDP (fd)[†]	0.137*	0.131*
	(0.058)	(0.057)
Years Since Party Congress	0.294*	0.535
	(0.058)	(0.41)
Province the Result of Separation	-0.361	-0.822
	(0.19)	(0.77)
Number of Compatriots in Cabinet	0.157	0.311
	(0.082)	(0.27)
Party Control of Provincial Leader	-0.0323	0.0680
	(0.11)	(0.19)
Infrastructure (Year 1)	0.166	0.772
	(0.22)	(0.95)
Residual from First Stage Baseline Model‡		-3.843
		(6.16)
Constant	-1.272*	-1.275*
	(0.41)	(0.41)
Observations	503	503
Wald Chi2	41.19	40.86
Likelihood-ratio	-297.9	-298.1
LR Chi2		-0.38

All models assume panel-specific AR1 processes and panel-level heteroskedatic errors (Standard errors in parentheses).

* Indicates significance at the .05 level (two-tailed test).

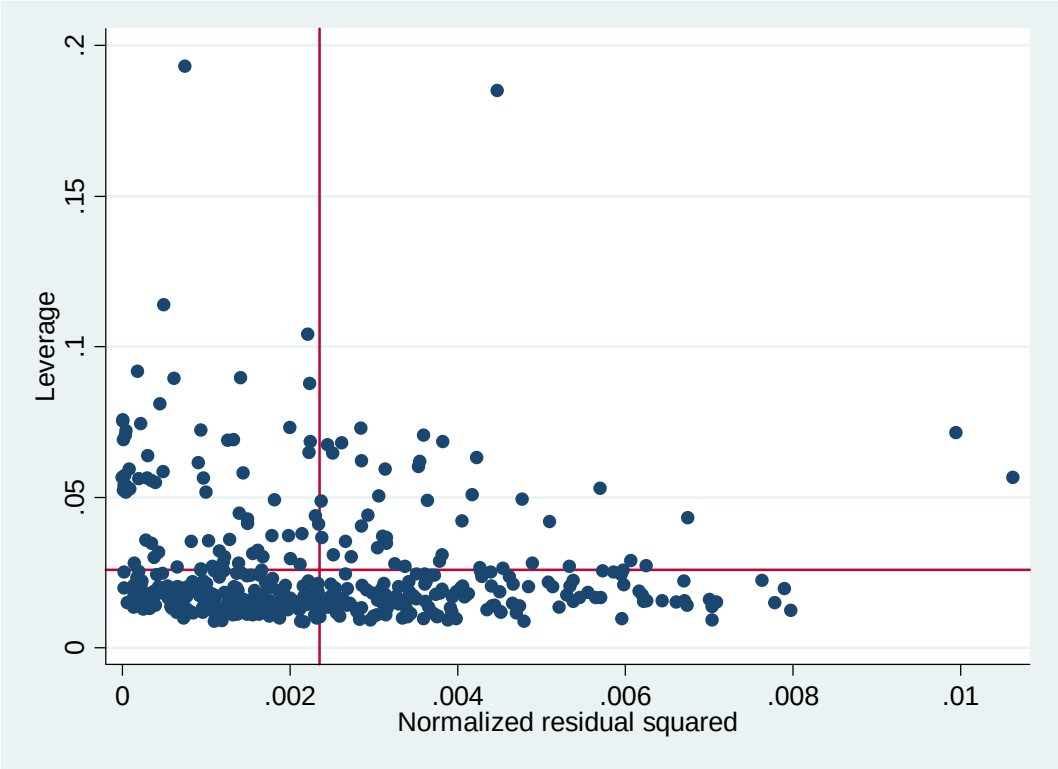
(lag1) lagged 1 year; (fd): indicates the first difference of variable taken.

† Instrument for Case of Autonomy Derived from Simultaneous Model in Equation 1.

ψ Second stage of two-stage simultaneous equation model.

‡ Residual from Regression Model 3, Table 3.

Appendix 6:
Influence of Outliers on Regression Results
(Leverage v. Residual Plot)



Appendix 7: Robusteness Tests - Simultaneous Equation 2

(Probit Model of Fence-breaking with Standard Errors Clustered at Panel Level)

Dependent Variable = Case of Fence-Breaking (Dichotomous Variable)	**Test 1 : Controlling for Exports$^{\Psi}$** (1)	**Test 2: Dropping Outliers$^{\Psi}$** (2)
Stock of FDI/GDP (fd)†	0.142*	0.151*
	(0.082)	(0.066)
Years Since Party Congress	0.466*	0.290*
	(0.23)	(0.080)
Province the Result of Separation	-0.105	-0.285
	(0.22)	(0.15)
Number of Compatriots in Cabinet	0.210*	0.181*
	(0.099)	(0.080)
Party Control of Provincial Leader	0.0701	-0.0412
	(0.21)	(0.13)
Infrastructure (Year 1)	0.226	0.0605
	(0.32)	(0.22)
City Dummy	1.046	
	(0.70)	
Southern Dummy	0.278	-0.287
	(0.22)	(0.18)
Net Autonomy of region (fd)	0.0400	0.468*
	(0.28)	(0.22)
Natural Log of GDP per Capita (fd)		0.785*
		(0.24)
Exports/GDP (fd)	0.00488	
	(0.0064)	
Constant	-1.974*	-1.600*
	(0.96)	(0.41)
Observations	212	389
Wald Chi2	22.28*	43.34*

All models assume panel-specific AR1 processes and panel-level heteroskedatic errors (Standard errors in parentheses).

* Indicates significance at the .05 level (two-tailed test).

(lag1) lagged 1 year; (fd): indicates the first difference of variable taken.

† Instrument for Case of Autonomy Derived from Simultaneous Model in Equation 1.

ψ Second stage of two-stage simultaneous equation model.