The Foreign Service and Foreign Trade:

Embassies as Export Promotion

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Question

- Does diplomatic representation abroad affect exports?

Answer

- Yes: each additional foreign mission raises exports 6-10%

The Real Underlying Motivation: *What use is the Foreign Service?*

o Foreign Service is a prestigious part of civil service

o Foreign Service is expensive

   ▪ In 2004, US spent over $5 billion

o Ambassadors rank high in protocol

   ▪ Before Secretary of State, President of UN General

     Assembly

Embassies have Much Reduced Importance

- o Few decisions made by ambassadors

- o Little information advantage

- o All because of falling communication cost

In the age of the internet, *What is the Role of the Foreign Service?*

Increasingly Popular Answer

- o Diplomatic Corps is agent for development and

  maintenance of export markets

US State Department's Self-Described Role is to:

- "Promoting peace and stability in regions of vital interest;

- *Creating jobs at home by opening markets abroad;*

- *Helping developing nations establish stable economic environments that provide investment and export opportunities …*

True Elsewhere Too! UK FCO's role:

"… a range of essential services to the public – from advising British travellers to issuing UK visas *and promoting trade and investment opportunities overseas."* Further, "The UK is the fifth largest trading nation: our exports are vital to our national prosperity. One in four jobs in the UK is linked to business overseas. *So the FCO has a key role in promoting our companies and products abroad. Nearly 1,500 FCO staff equivalents are engaged in commercial and investment work (about 350 UK-based and just over 1,100 locally-engaged)."*

Objective of this Paper

- o Test this hypothesis

- o Use fact that different countries have varying numbers of foreign missions and exports

  - ▪ Ex: In 2003, Brazil and Belgium exported $17 billion to US; but Belgium's economy is double that of Brazil.

  - ▪ Brazil has 7 consulates + embassy; Belgium has 4 + 1; the way the playing field is evened?

My Approach

o Use data for 22 large exporters and 200 importers

o Bilateral cross-section of data (2002-03)

o Control for many other exports determinants via "gravity model of trade"

o Control for endogeneity via instrumental variables

  ▪ IVs: country importance (e.g., proven oil reserves); and diplomatic desirability (e.g., nice restaurants, sights)

Add Foreign Missions to this econometric trade model

o Some embassies cover many countries

▪ Ex: US covers C.A.R. from Chad and Cameroon

o Some countries get only an embassy

▪ Ex: US in Cape Verde

2.Some countries get additional consulates

▪ Ex: US has 6 additional consulates in Canada

Gravity Model

$$\ln(X_{ij}) = \beta_0 + \beta_1 \ln D_{ij} + \beta_2 \ln(Y_i) + \beta_3 \ln(Y_j) + \beta_4 \ln(Pop_i)$$

$$+ \beta_5 \ln(Pop_j) + \beta_6 Lang_{ij} + \beta_7 Cont_{ij} + \beta_7 Landl_{ij}$$

$$+ \beta_8 Island_{ij} + \beta_9 \ln(Area_i Area_j) + \beta_{10} Col_{ij} + \beta_{11} CU_{ij}$$

$$+ \beta_{12} FTA_{ij} + \gamma EmbCon_{ij} + \varepsilon_{ij}$$

where i and j denotes trading partners, t denotes time.

Estimation: OLS with robust standard errors; panel and IV too

Parameter of Interest: γ

Instrumental Variables:

Two Sets

1.**Geo-Political Importance**: a) proven oil reserves (in bbl);

b) proven gas reserves (cu m); and c) military spending ($)

2.**Preferences of Diplomatic Corps**: a) Condé-Nast top 100 destinations; b) Zagat surveys; c) Ritz hotels; d) Four Seasons hotels; e) Starwood Luxury hotels; f) Baedeker guides; g) Blue guides; h) Lonely Planet guides; i) Michelin guides; j) Economist city guides; k) whether the country experiences monsoonal rains; and l) the number of Google hits for the search ' +"Travel Destination" +"city" +"x" ' where x is the name of the capital city.

Data Set

- Trade data from IMF's *Direction of Trade*

- WDI for population, GDP

- CIA's website

	Foreign Missions
Australia	97
Belgium	108
Brazil	117
Canada	147
China	216
France	233
Germany	209
India	186
Indonesia	132
Italy	229
Japan	204
Korea	127
Mexico	120
Netherlands	461
Poland	135
Russia	228
Spain	165
Sweden	92
Switzerland	301
Turkey	148
UK	259
USA	239

Netherlands figures includes all consulates and consulates-general (many honorary); note 13.

Import Destinations

Afghanistan	Albania	Algeria	American Samoa
Angola	Argentina	Aruba	Australia
Azerbaijan	Antigua & Barbuda	Armenia	Austria
Bahamas	Bahrain	Bangladesh	Barbados
Belize	Benin	Bhutan	Bosnia & Herz.
Botswana	Brunei Darussalam	Bulgaria	Burkina Faso
Burundi	Belarus	Belgium	Bermuda
Bolivia	Brazil	Cambodia	Cameroon
Canada	Cape Verde	Central African Rep.	Chad
Chile	China	China, Hong Kong	China, Macao
Comoros	Congo, Dem. Rep.	Costa Rica	Cote D'Ivoire
Croatia	Cuba	Czech Rep.	Colombia
Congo, Rep	Cyprus	Denmark	Djibouti
Dominica	Dominican Republic	Ecuador	Egypt
El Salvador	Equatorial Guinea	Eritrea	Estonia
Ethiopia	Faeroe Islands	Falkland Islands	Fiji
Finland	France	French Polynesia	Gabon
Gambia	Georgia	Germany	Gibraltar
Greece	Greenland	Grenada	Guam
Guinea-Bissau	Guyana	Ghana	Guatemala
Guinea	Haiti	Honduras	Hungary
Iceland	India	Indonesia	Iran
Iraq	Ireland	Italy	Israel
Japan	Jordan	Jamaica	Kazakhstan
Kenya	Kiribati	Korea	Kuwait
Kyrgyz Rep.	Laos	Latvia	Lebanon
Lesotho	Liberia	Libya	Luxembourg
Lithuania	Macedonia	Madagascar	Malaysia
Maldives	Malta	Mauritania	Moldova
Morocco	Myanmar	Malawi	Mali
Mauritius	Mexico	Mongolia	Mozambique
Nepal	Netherlands	Netherlands Antilles	New Caledonia
Niger	Nigeria	North Korea	Norway
Namibia	Nauru	New Zealand	Nicaragua
Oman	Pakistan	Palau	Panama
Papua New Guinea	Paraguay	Peru	Philippines
Poland	Portugal	Qatar	Romania
Russia	Rwanda	Samoa	Sao Tome & Principe
Saudi Arabia	Senegal	Serbia & Montenegro	Seychelles
Sierra Leone	Singapore	Slovakia	Solomon Islands
Somalia	South Africa	Spain	Sri Lanka
St. Helena	St. Kitts & Nevis	St. Pierre-Miquelon	Suriname
Sweden	Switzerland	Slovenia	St. Lucia
St. Vincent & Gren.	Sudan	Swaziland	Syria
Tajikistan	Tanzania	Togo	Trinidad & Tobago
Tunisia	Turkmenistan	Tuvalu	Thailand
Tonga	Turkey	Uganda	Ukraine
United Arab Emirates	UK	USA	Uruguay
Uzbekistan	Vanuatu	Vietnam	Venezuela
Wallis-Futuna	Yemen	Zimbabwe	Zambia

Benchmark Results

	OLS	Exporter Fixed Effects	Importer Fixed Effects	Exporter, Importer FE	IV
Number of Foreign Missions	.10	.08	.11	.10	.06
	(.02)	(.02)	(.02)	(.02)	(.02)
Log Distance	-.69	-.83	-.72	-.88	-.70
	(.04)	(.05)	(.05)	(.05)	(.04)
Log Exporter GDP p/c	.86		.87	.99	.87
	(.03)		(.02)	(.04)	(.03)
Log Importer GDP p/c	.83	.85			.84
	(.02)	(.02)			(.02)
Log Exporter Population	.96		1.00	1.09	.96
	(.03)		(.03)	(.05)	(.03)
Log Importer Population	1.01	.99			1.02
	(.02)	(.02)			(.02)
RTA	.86	.58	.59	.19	.87
	(.08)	(.08)	(.11)	(.11)	(.08)
Currency Union	-.27	-.33	-.22	-.32	-.23
	(.18)	(.18)	(.21)	(.20)	(.17)
Log Product Area	-.15	-.11	-.20	-.31	-.15
	(.01)	(.02)	(.02)	(.03)	(.01)
Common Language	.57	.70	.61	.73	.58
	(.07)	(.07)	(.07)	(.07)	(.07)
Land Border	1.06	.95	1.26	1.12	1.13
	(.16)	(.17)	(.15)	(.17)	(.16)
# Landlocked	-.75	-.86	-.54		-.75
	(.05)	(.06)	(.09)		(.05)
# Islands	-.27	-.24	-.24	-.76	-.26
	(.05)	(.07)	(.06)	(.13)	(.05)
Colony	3.25	3.00	3.19	2.97	3.24
	(.38)	(.37)	(.42)	(.43)	(.38)
R^2	.77	.79	.83	.85	.77
Root MSE	1.464	1.409	1.289	1.221	1.465

Sensitivity Analysis

	Export Effect of # Foreign Missions
Benchmark	.10 (.02)
Separate RTAs	.11 (.02)
No industrial countries	.74 (.09)
No developing countries	.04 (.01)
Only countries with population > 1,000,000	.11 (.02)
Only countries with GDP p/c > $1,000	.07 (.02)
No African countries	.08 (.02)
No Latin American/Caribbean countries	.10 (.02)
Random Exporter Effects	.08 (.02)
Random Importer Effects	.10 (.02)
Random Importer Effects, Importer Effects	.10 (.02)

Instrumental Variable Results

	Export Effect of # Foreign Missions
Default IV	.06 (.02)
Exporter Fixed Effects	.04 (.03)
Importer Fixed Effects	.93 (.12)
Exporter and Importer Fixed Effects	.86 (.12)
Larger IV Set	.05 (.02)
Larger IV Set, Exporter Fixed Effects	.03 (.03)
Larger IV Set, Importer Fixed Effects	.93 (.12)
Larger IV Set, Exporter and Importer Fixed Effects	.86 (.12)

Separate Consulate Effects

	Embassy	Consulates	Square of Consulates
Default	1.03	.06	
	(.07)	(.01)	
Exporter Fixed Effects	.98	.05	
	(.06)	(.02)	
Importer Fixed Effects	.78	.05	
	(.06)	(.02)	
Exporter and Importer Fixed Effects	.78	.06	
	(.06)	(.02)	
Default	1.03	.11	-.003
	(.07)	(.02)	(.001)
Exporter Fixed Effects	.99	.09	-.002
	(.06)	(.03)	(.001)
Importer Fixed Effects	.78	.11	-.003
	(.06)	(.03)	(.001)
Exporter and Importer Fixed Effects	.76	.10	-.002
	(.06)	(.03)	(.001)

Conclusion

- o Robust effect of diplomatic representation abroad on trade

    - Each additional consulate raises exports 6-10%

2. Effect varies by exporter

3. Some evidence of non-linearity: consulates add less than creation of embassy