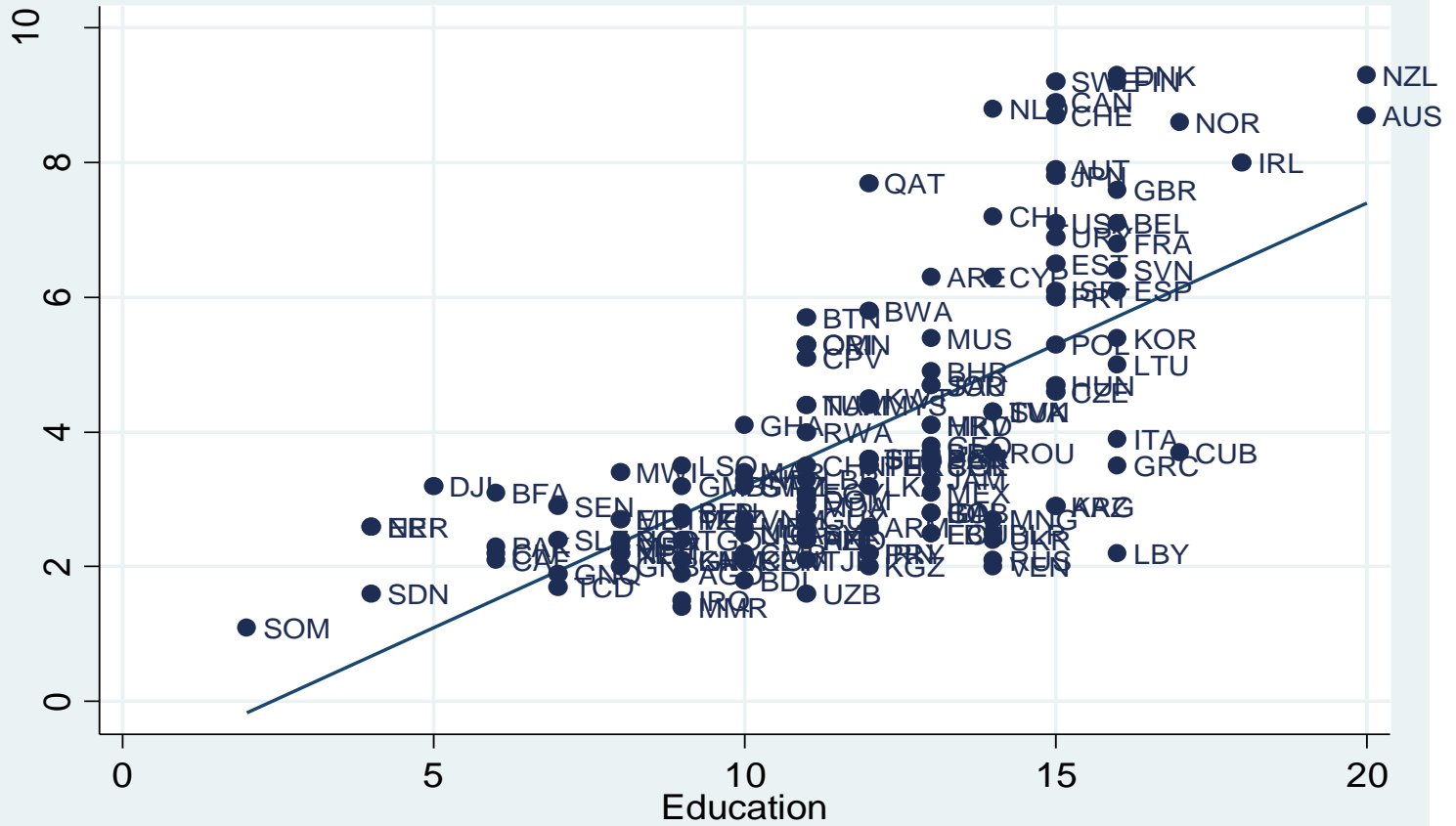


# THE QUALITY OF GOVERNMENT

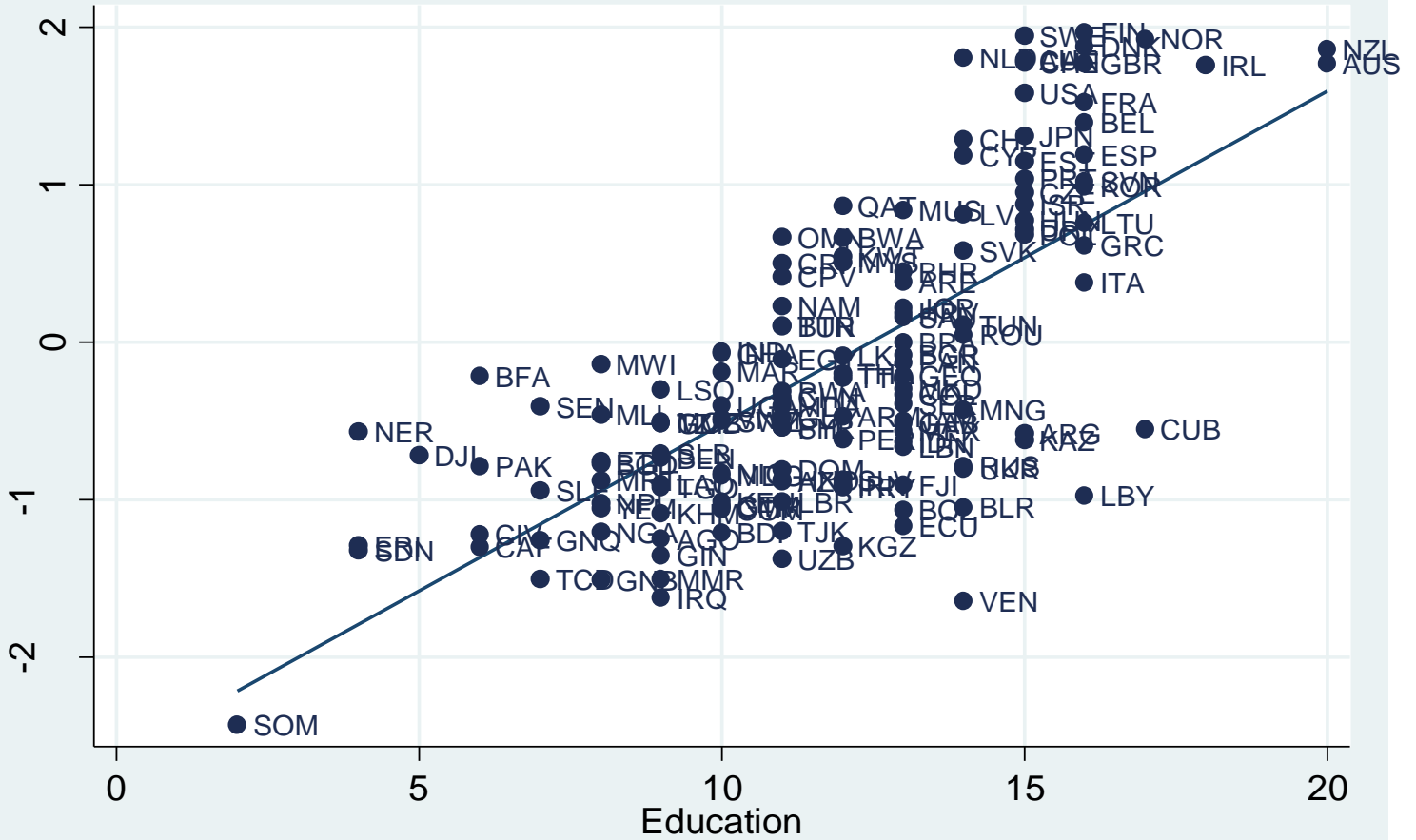
## LEONTIEF CENTER

Andrei Shleifer  
June 21, 2012

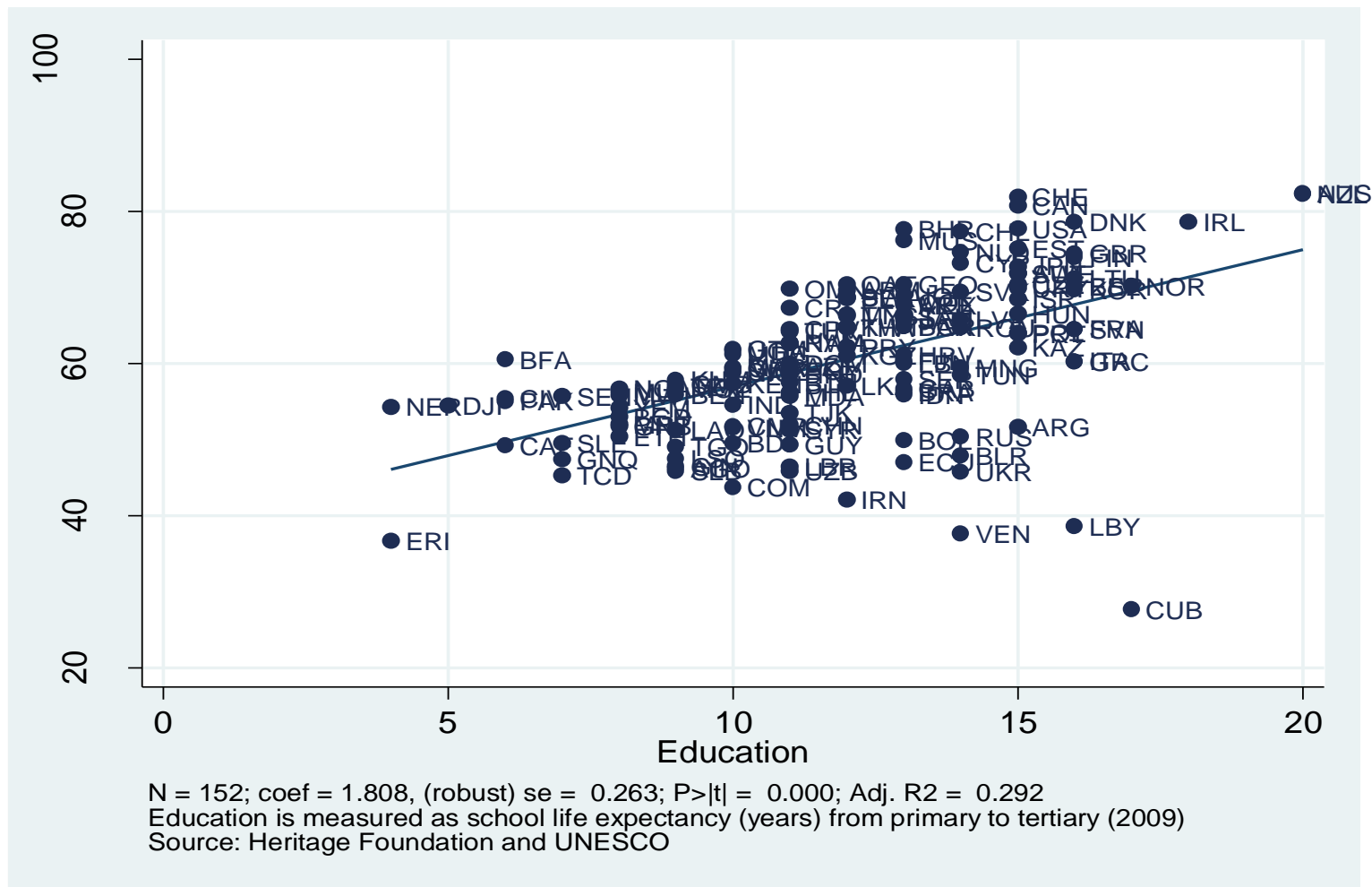
- Richer countries almost always have better governments
  - Less corrupt
  - More efficient
- Quality of government improves with development and education
- But why?

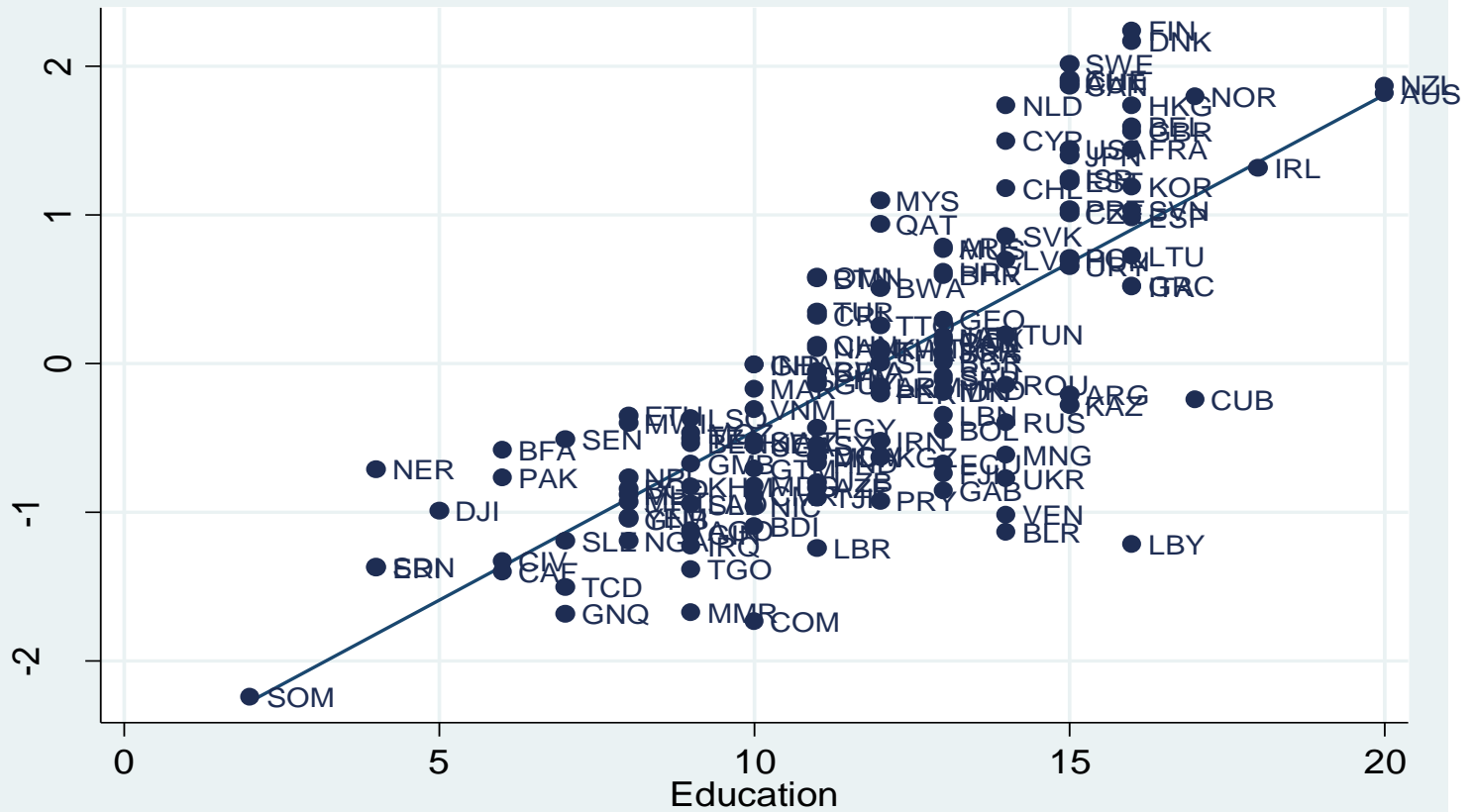


N = 157; coef = 0.420, (robust) se = 0.042; P>|t| = 0.000; Adj. R2 = 0.447  
 Education is measured as school life expectancy (years) from primary to tertiary (2009)  
 Source: TI and UNESCO



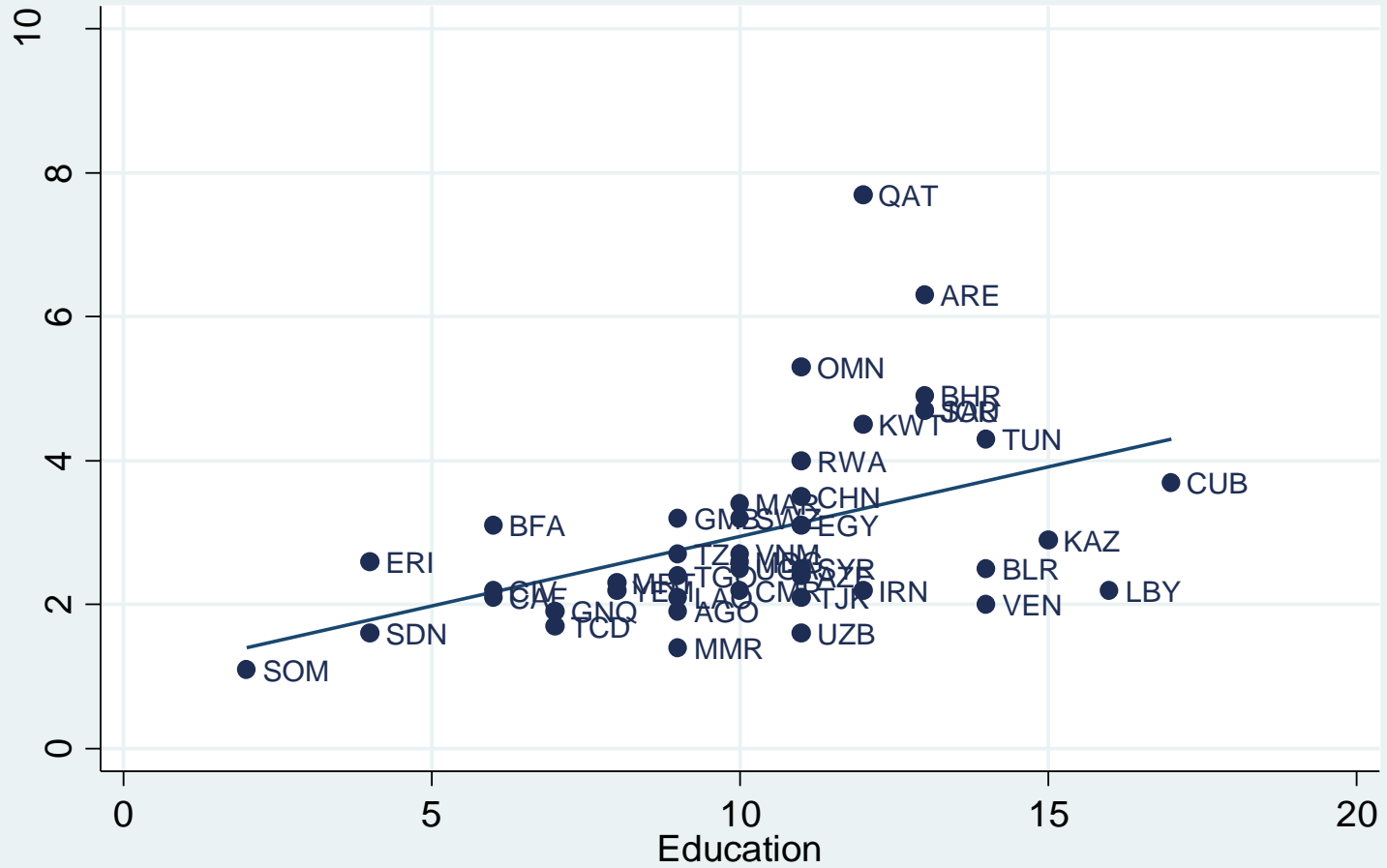
N = 158; coef = 0.212, (robust) se = 0.018;  $P > |t| = 0.000$ ; Adj. R2 = 0.494  
 Education is measured as school life expectancy (years) from primary to tertiary (2009)  
 Source: WB and UNESCO





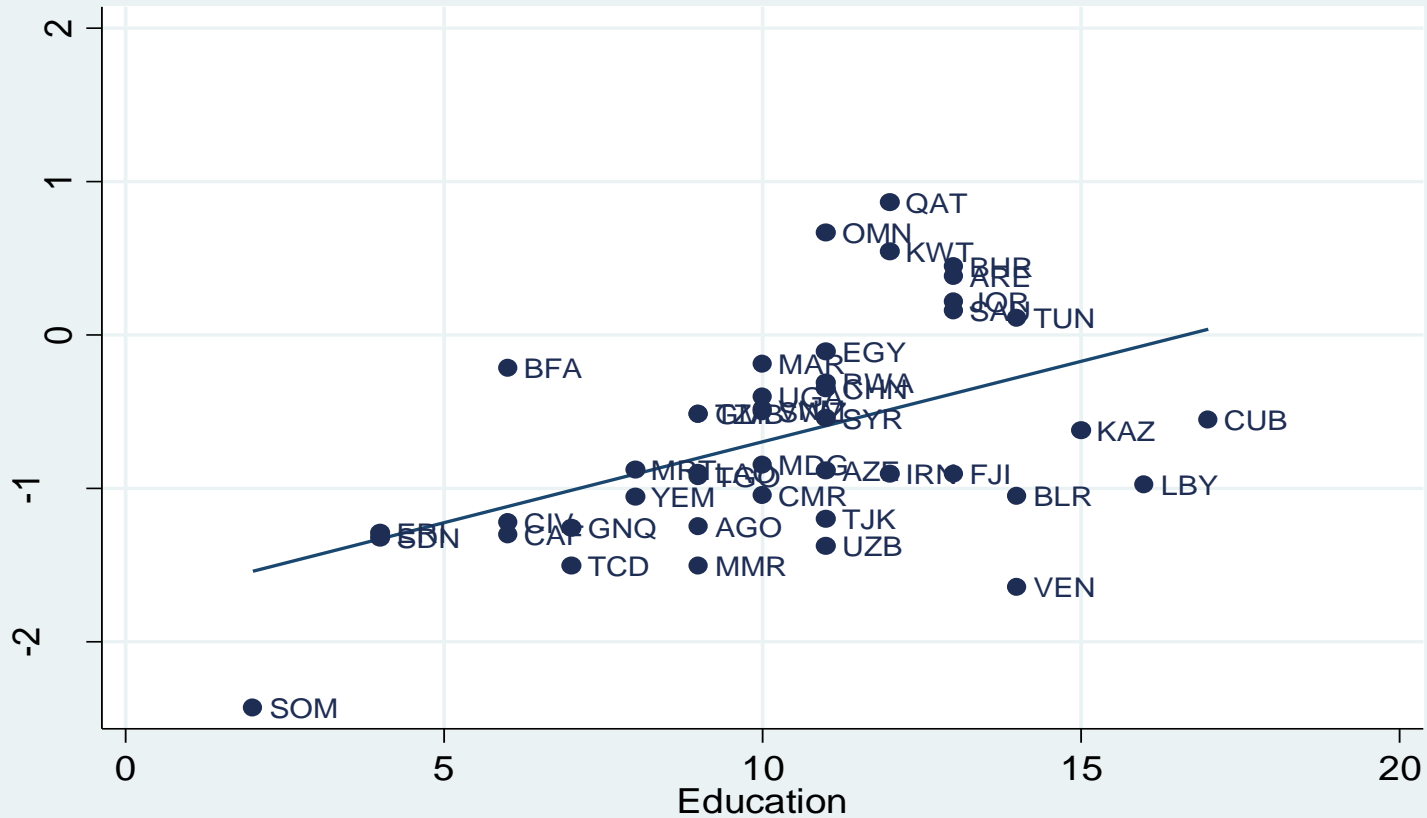
N = 159; coef = 0.227, (robust) se = 0.016;  $P > |t| = 0.000$ ; Adj. R2 = 0.570  
 Education is measured as school life expectancy (years) from primary to tertiary (2009)  
 Source: WB and UNESCO

- Usual explanation: democracy
  - ▣ People vote out corrupt and incompetent politicians
  
- But the quality of government improves with education / development in non-democracies as well



N = 46; coef = 0.194, (robust) se = 0.052; P>|t| = 0.001; Adj. R2 = 0.190  
 Education is measured as school life expectancy (years) from primary to tertiary (2009)  
 Source: TI and UNESCO





N = 47; coef = 0.105, (robust) se = 0.032; P>|t| = 0.002; Adj. R2 = 0.217  
 Education is measured as school life expectancy (years) from primary to tertiary (2009)  
 Source: WB and UNESCO

# Not a completely obvious issue

9

- Take corruption
- With Development
  - ▣ Opportunities improve
  - ▣ Regulations increase
  - ▣ Yet corruption decreases

# In this lecture, two additional theories

10

- Complaining
  - ▣ Educated people complain, and complaints lead to improved public conduct
  
- Productivity
  - ▣ Government is like any other business: it is more productive in richer countries

# One source for the improvement in institutions is citizen complaints

11

- A bureaucrat trades off the benefit of an extra violation of rules against the cost
- Expected cost rises as complaints rise, even if responsiveness to complaints is very low
- Educated people complain more (and more effectively)
- So, with education, costs of official misconduct rise, and it declines

- A completely decentralized theory consistent with democracy and dictatorship
- Related to Hirschman and Verba, but do not focus on elections
- We test the link: education → complaints

# World Justice Project Data

13

- Surveys of 1,000 individuals in 65 countries during 2009 and 2011
- Representative by gender, education, socio-economic status
- Only use questions about own or household experience
- Contains information on income, education, trust
- Questions on complaints about government and about victimization and reporting of crime

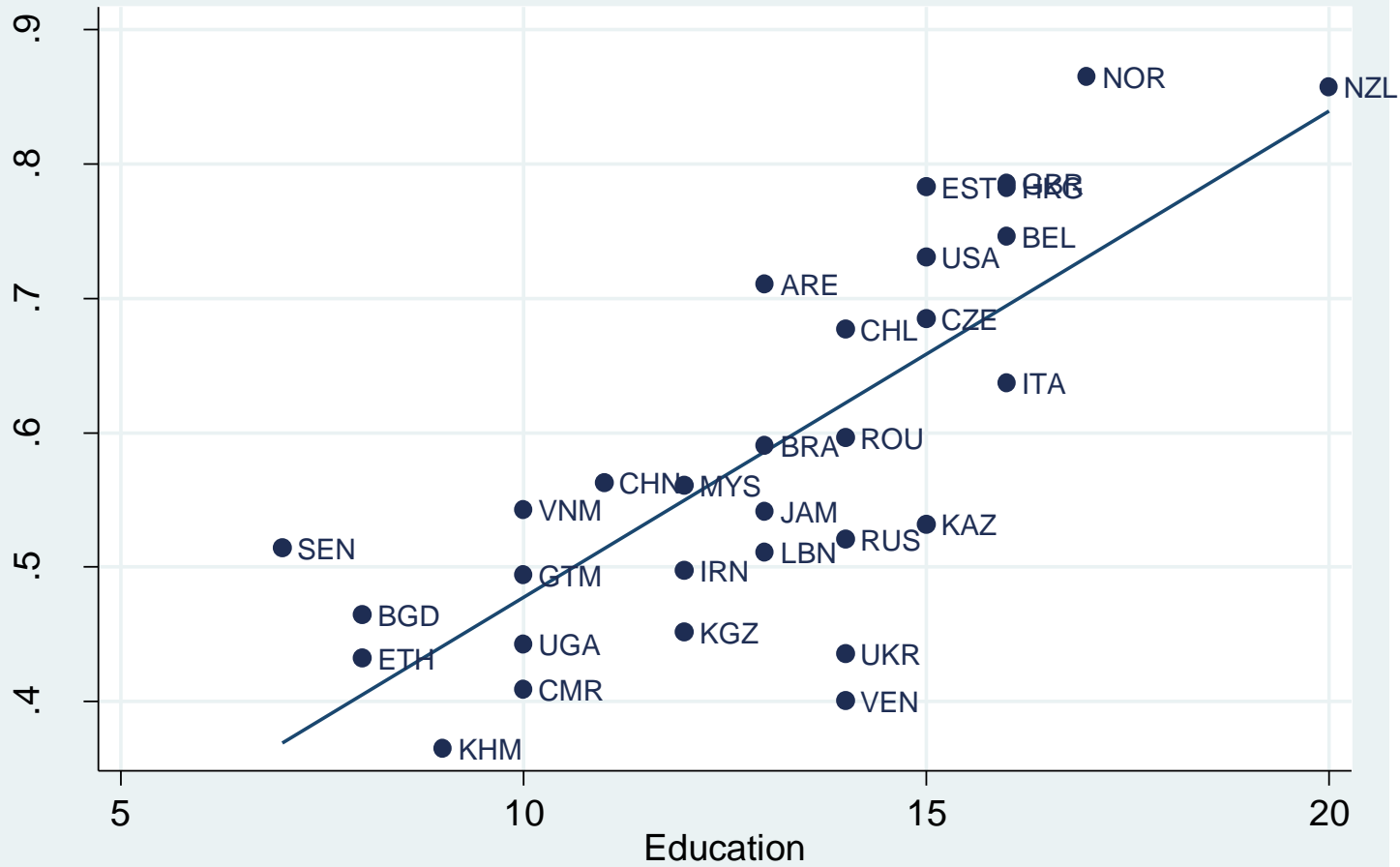
# Supplementary data for robustness

14

- International Crime Victims Survey (ICVS)
  - ▣ Crime victimization, reporting, and reasons for reporting and non-reporting in 78 countries
  
- 2009 TI Global Corruption Barometer
  - ▣ Corruption, its reporting, and reasons for non-reporting in 69 countries

# Institutional quality and education (WJP data)

15



N = 32; coef = 0.036, (robust) se = 0.005;  $P > |t| = 0.000$ ; Adj. R2 = 0.563  
Education is measured as school life expectancy (years) from primary to tertiary (2009)  
Source: WJP and UNESCO



# Complaints and education

	Complained about government services	Police abuse	Report police abuse
College	0.045*** [0.013]	-0.004 [0.004]	0.130*** [0.032]
High/Middle school	0.022 [0.013]	-0.004 [0.004]	0.051* [0.026]
Observations	29,820	59,984	3,614
R-squared	0.001	0.000	0.009
Mean Dep. Var.	0.136	0.0638	0.442
Number of countries	31	61	61
Fixed effects	YES	YES	YES

Standard errors clustered by country in parentheses. Significance levels: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

# Complaints and education (Autocracies and democracies)

	Complained about government services	Police abuse	Report police abuse
<i>Panel A: Autocracies</i>			
College	0.080** [0.026]	0.006 [0.009]	0.186** [0.062]
High/Middle school	0.045 [0.032]	0.005 [0.008]	0.099 [0.065]
<i>Panel B: Democracies</i>			
College	0.031** [0.012]	-0.006 [0.005]	0.122*** [0.036]
High/Middle school	0.013 [0.012]	-0.005 [0.004]	0.045 [0.028]

Standard errors clustered by country in parentheses. Significance levels: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

# Robustness: Crime reporting and education (ICVS)

	Burglary (ICVS)	Report burglary (ICVS)	Attempt	Report Attempt
College	0.021*** [0.003]	0.105*** [0.011]	0.034*** [0.003]	0.044*** [0.012]
High/Middle school	0.011*** [0.002]	0.056*** [0.010]	0.028*** [0.002]	0.024** [0.010]
Observations	126,318	15,289	125,596	13,382
R-squared	0	0.006	0.001	0.001
Mean Dep. Var.	0.128	0.571	0.114	0.305
Num. of countries	71	71	71	71
Fixed effects	YES	YES	YES	YES

Standard errors clustered by country in parentheses. Significance levels: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

# Robustness: Crime reporting and education (ICVS)

	Robbery	Report Robbery	Fraud	Report Fraud	Theft	Report Theft
College	0.023***	0.091***	0.104***	0.012** *	0.084** *	0.036** *
	[0.002]	[0.016]	[0.003]	[0.005]	[0.003]	[0.009]
High/Middle school	0.019***	0.029**	0.052***	0.014** *	0.044** *	0.014*
	[0.002]	[0.013]	[0.003]	[0.004]	[0.003]	[0.007]
Observations	126,367	8,546	115,860	24,906	126,162	24,475
R-squared	0.001	0.004	0.008	0	0.005	0.001
Mean Dep. Var.	0.0782	0.356	0.218	0.0505	0.206	0.276
Num. of countries	71	71	69	67	71	71
Fixed effects	YES	YES	YES	YES	YES	YES

Standard errors clustered by country in parentheses. Significance levels: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

# Corruption reporting and education (ICVS)

	Corruption (ICVS)	Report corruption Police (ICVS)	Report corruption other (ICVS)
College	0.096*** [0.005]	0.007 [0.007]	0.011** [0.005]
High/Middle school	0.058*** [0.004]	-0.002 [0.006]	0.002 [0.005]
Observations	46,022	5,324	4,432
R-squared	0.01	0.001	0.001
Mean Dep. Var.	0.118	0.0195	0.0111
Num. of countries	23	23	22
Fixed effects	YES	YES	YES

Standard errors clustered by country in parentheses. Significance levels: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

# Corruption reporting and education (TI Barometer)

---

	Paid a bribe in the last 12 months	Report Corruption
College	0.043*** [0.004]	0.024** [0.011]
High/Middle school	0.022*** [0.004]	0.013 [0.010]
Observations	60,184	10,179
R-squared	0.00	0.00
Mean Dep. Var.	0.177	0.198
Num. of countries	62	62
Fixed effects	YES	YES

---

Standard errors clustered by country in parentheses. Significance levels: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

# Conclusion



- Educated people complain more
- Seems to be the effect of education, not just income or trust
- Probably know rules better, and fear less
- Might explain institutional improvement

- Another view: government is just like a business
- Businesses are unproductive in poor countries, perhaps because of bad management, and so are governments
- How can we test?



- We propose an objective indicator of government efficiency:
  - ▣ Performance of the mail system returning an incorrectly addressed international letter.
  - ▣ Measure the share of letters we got back, and how long it took to get them back, in each of 159 countries, and analyze correlates of these measures of postal efficiency.
- Our approach to measuring government efficiency has two key advantages:
  - ▣ **Simple** and **universal** government service
  - ▣ **Free from political economy** influences, corruption plays no role

# The Experiment

25

- Between December 2010 and February 2011 we sent 10 letters to non-existent business addresses in 159 countries: 2 letters in each country's largest 5 cities.
- The addresses included an existent city and zip code (where available), but a non-existent business name and street address.
- Each envelope
  - ▣ Had a typed up address using the Latin alphabet (as required by international postal conventions) and
  - ▣ Included a return address and a clear request to “please return to sender if undeliverable.” All countries subscribe to an international postal convention requiring them to return the letters posted to an incorrect address.
- The letter was a one page business letter in English requesting a response from the recipient. Nothing else in to avoid the temptation to open and steal (see Castillo et al. 2011).
- Stopped keeping track of returns a year after the final postings from Cambridge MA (i.e, Feb 4, 2012).

# The Letters

Professor Rafael La Porta  
Tuck School of Business at Dartmouth  
100 Tuck Hall  
Hanover, NH 03755

PLEASE RETURN TO SENDER IF UNDELIVERABLE

1-3-2012  
060511  
NEW YORK

BOSTON MA 021

29 DEC 2010 PM 17 T



Gakere Michuki  
Smart Computer Services  
Tobin Rd 1048  
Eldoret  
KENYA

RTS.

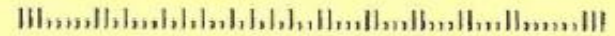
RETURN TO SENDER.

NIXIE 100 SE 1 01 12/22/11

RETURN TO SENDER  
OTHER REASON  
UNABLE TO FORWARD

BC: 03755900000 \*1721-20889-29-32

00240+0001  
03755@9000



Porta  
ness at Dartmouth.

5

TO SENDER IF UNDELIVERABLE

BOSTON MA 021

14 DEC 2010 PM 17 L



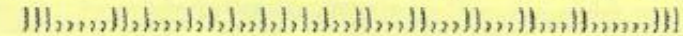
Faciliah Huk  
Technology Professional Partners (المهنية التكنولوجية شراكة)  
763, Kuznets St  
Benghazi  
Libyan Jamahiriya  
شماره تلفن  
ADDRESS NUMERIQUE  
بوتخانه  
REFUSE  
نه تونسيه  
NON-CLASSE  
پستخانی



NIXIE 100 SC 1 01 10/21/11

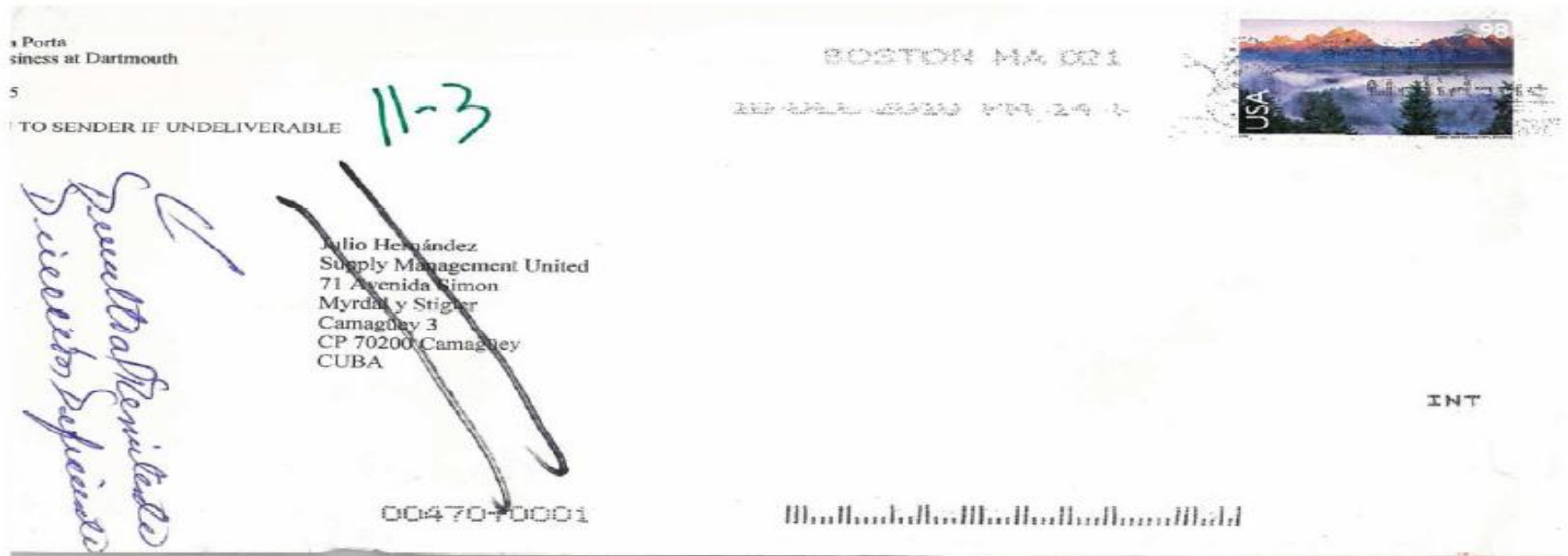
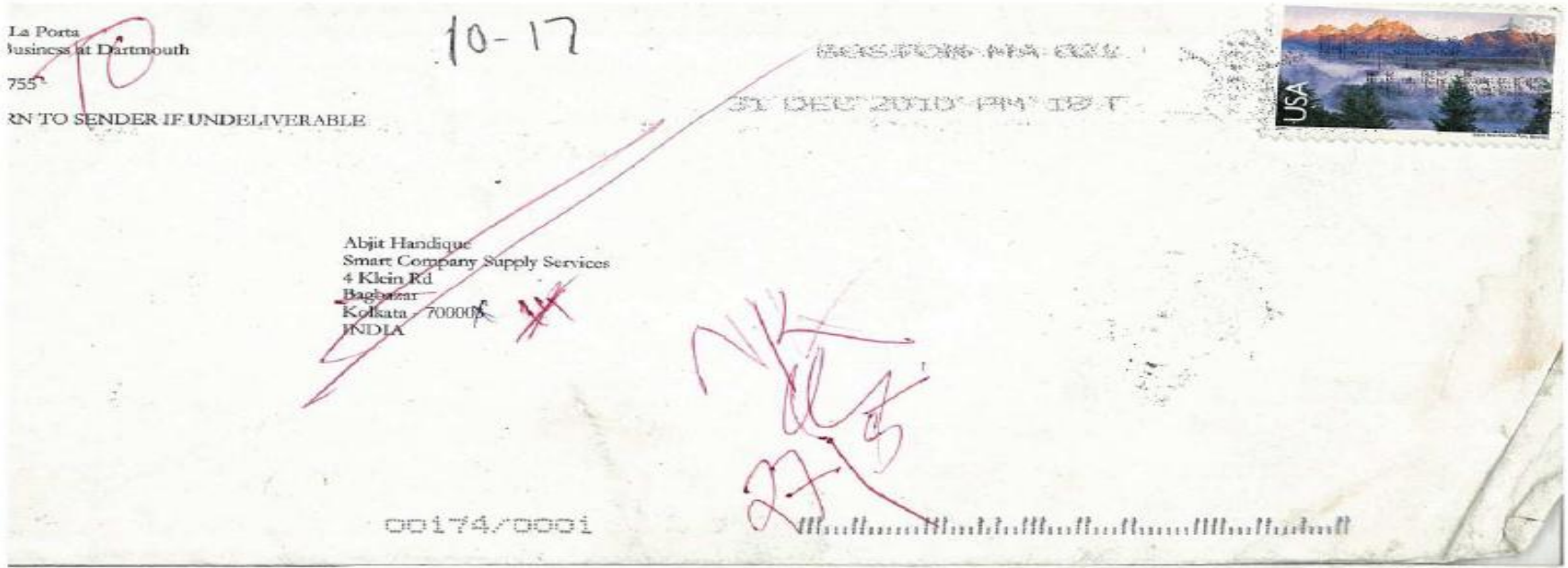
RETURN TO SENDER  
TEMPORARILY AWAY  
UNABLE TO FORWARD

BC: 03755900000 \*1721-10207-14-27



10-26

# The Letters



# The Letters

Professor Rafael La Porta  
Tuck School of Business at Dartmouth

5  
SENDER IF UNDELIVERABLE

BOSTON MA 021



Harsallah Kohistani  
Business Management Specialists [امپارگران تجاری متخصصان]  
7436 Meade str  
Herat  
AFGHANISTAN

RTS/ANK  
9-20-11

10-10

00120675399000

NIXIE 100 SE 1 00 10/02/11  
RETURN TO SENDER  
NOT DELIVERABLE AS ADDRESSED  
UNABLE TO FORWARD  
BC: 03753900000 \*1421-21454-09-43

Professor Rafael La Porta  
Tuck School of Business at Dartmouth  
100 Tuck Hall  
Hanover, NH 03755

PLEASE RETURN TO SENDER IF UNDELIVERABLE

1-3-2012

Reagan Urbano  
Services Professionals United  
Avenida Kantorovich 8  
Luanda  
REPÚBLICA DE ANGOLA

BOSTON MA 021



Return

002440675399000

NIXIE 100 SE 1 00 12/23/11  
RETURN TO SENDER  
NOT DELIVERABLE AS ADDRESSED  
UNABLE TO FORWARD  
BC: 03753900000 \*1821-08246-21-44

## Figure 1

This figure presents the text of the one-page letter that was sent to each of the 10 recipients in the largest 5 cities in all 159 countries

---

December 1, 2010

Re: Confidential

URGENT RESPONSE REQUESTED

Rafael La Porta  
Tuck School of Business at Dartmouth  
100 Tuck Hall  
Hanover, NH 03755, USA

Dear Mr. XXXXX,

I hereby confirm receipt of the previous correspondence.

Please let me know if you would like to continue with the collaboration project.

I will wait to hear from you, but please respond as soon as possible as this matter is of absolute importance.

Regards,

Rafael La Porta

---

# Letters' Data for Two Countries

30

Letter ID	Name	Street Address	Postcode and City	Date letter sent	Date letter received	Date of limit (02/04/2012)	Got it back	Got it back in 90 days	Number of days (up to limit of
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## Panel A: Letters sent to the Czech Republic

CZE_0	Zdenek Dvořák	Debreuská 1	110 00 Praha	09/12/2010	07/03/2011	04/02/2012	1	1	88.00
CZE_2	Vaclav Veselý	Meadeská 4	602 00 Brno	09/12/2010	08/03/2011	04/02/2012	1	1	89.00
CZE_6	Milan Růžička	Haavelmoská 2	301 00 Plzeň-Jižní	11/12/2010	04/01/2011	04/02/2012	1	1	24.00
CZE_3	Petr Svoboda	Buchananova 1704	602 00 Brno	14/12/2010	04/03/2011	04/02/2012	1	1	80.00
CZE_1	Jiri Kučera	Frischova 7526	120 00 Praha 2	15/12/2010	03/02/2011	04/02/2012	1	1	50.00
CZE_8	Milos Novotný	Millerská 7400	460 01 Liberec IV-Perštýn	29/12/2010	25/01/2011	04/02/2012	1	1	27.00
CZE_5	Jan Sedlářek	Lewisova 4051	702 00 Moravská Ostrava	29/12/2010	08/03/2011	04/02/2012	1	1	69.00
CZE_9	Kazimir Svoboda	Markowitzova 6404	460 07 Liberec III	31/12/2010	31/01/2011	04/02/2012	1	1	31.00
CZE_7	Kazimir Pospíšil	Hayekova 7	301 00 Plzeň-Jižní	31/12/2010	02/02/2011	04/02/2012	1	1	33.00
CZE_4	Zdenek Pokorný	Arrowská 48	713 00 Slezská Ostrava	04/02/2011	08/03/2011	04/02/2012	1	1	32.00
<b>Average</b>							<b>1.00</b>	<b>1.00</b>	<b>52.30</b>

## Panel B: Letters sent to Russia

RUS_0	Roman Avdeyev	Ulitsa Debreuska 8689	gorod Moskva 115487	08/12/2010	.	04/02/2012	0	0	423.00
RUS_2	Ivan Zhakov	Ulitsa Modiglianaya 6802	Sankt-Peterburg 199178	09/12/2010	.	04/02/2012	0	0	422.00
RUS_4	Oleg Golikova	Ulitsa Arrowlok 8547	Novosibirsk, Novosibirskaya Obl	10/12/2010	.	04/02/2012	0	0	421.00
RUS_6	Fillyp Zubkov	Ulitsa Haavelmo ave 3	Ekaterinburg, Sverdlovskaya Obl	11/12/2010	.	04/02/2012	0	0	420.00
RUS_3	Dmitri Avdeyev	Ulitsa Ohlinov 2	Sankt-Peterburg 199178	13/12/2010	.	04/02/2012	0	0	418.00
RUS_8	Oleg Skryannik	Ulitsa Myrdalok 983	Nizhnij Novgorod, Nizhegorodskaya Obl	13/12/2010	.	04/02/2012	0	0	418.00
RUS_5	Pavel Ivanov	Ulitsa Allaiska 45	Novoe Devyatkinno, Leningradskaya Obl	14/12/2010	.	04/02/2012	0	0	417.00
RUS_7	Ivan Zhakov	Ulitsa Hayeka 63	Ekaterinburg, Sverdlovskaya Obl	14/12/2010	.	04/02/2012	0	0	417.00
RUS_1	Eduard Zhakov	Ulitsa Frischpik 402	gorod Moskva 101000	15/12/2010	.	04/02/2012	0	0	416.00
RUS_9	Ludvig Sobyenin	Ulitsa Stiglerova 2709	Nizhnij Novgorod, Nizhegorodskaya Obl	15/12/2010	.	04/02/2012	0	0	416.00
<b>Average</b>							<b>0.00</b>	<b>0.00</b>	<b>418.80</b>

## Mail Efficiency (Table 1)

	<i>Panel B: Full sample means</i>		
Full sample (159)	0.5931	0.3535	228.22
	<i>Panel C: Means by GDP per capita</i>		
High income (39)	0.8487 <sup>a</sup>	0.6000 <sup>a</sup>	125.91 <sup>a</sup>
Upper middle income (38)	0.6684	0.4316 <sup>c</sup>	196.27 <sup>c</sup>
Lower middle income (39)	0.5590	0.3026	245.99
Low income (38)	0.3211 <sup>a</sup>	0.0921 <sup>a</sup>	336.02 <sup>a</sup>
	<i>Panel D: Means by average number of years of schooling</i>		
Above median years of schooling (72)	0.7528 <sup>a</sup>	0.5208 <sup>a</sup>	164.48 <sup>a</sup>
Below median years of schooling (84)	0.4607	0.2120	281.65

Notes:

Number of countries in parentheses.

Significance levels: (a) if  $p < 0.01$ ; (b) if  $p < 0.05$ ; (c.) if  $p < 0.10$ .



## Mail Production Function (Table 3)

	Got it back	
Ln permanent offices percapita	0.0983a [0.017]	
Ln postal staff percapita		0.0957a [0.016]
Postcodes databases	0.2472a [0.063]	0.1800b [0.070]
Alphabet used is Latin-based	0.1231b [0.048]	0.1077b [0.047]
Constant	-0.0051 [0.067]	-0.1287 [0.084]
Observations	157	157
R-squared	0.42	0.42

Robust standard errors in brackets  
a  $p < 0.01$ , b  $p < 0.05$ , c  $p < 0.1$

# Mail Efficiency and Management Quality (Table 4)

	Got letter back			
Ln permanent offices pc	0.070a (0.019)	0.100a (0.017)	0.097a (0.016)	0.086a (0.019)
Postcode database	0.166b (0.078)	0.146b (0.061)	0.091 (0.060)	0.134c (0.074)
Alphabet used is Latin-based	0.072 (0.052)	0.138a (0.049)	0.121b (0.047)	0.150a (0.050)
Public Mgmt performance	0.051a (0.015)			
Will to delegate authority		0.059b (0.025)		
Quality of Mgmt schools			0.110a (0.024)	
Innovation capacity index				0.064b (0.025)
Constant	-0.133c (0.075)	-0.170 (0.106)	-0.360a (0.111)	-0.101 (0.095)
Observations	117	136	136	133
Adjusted $R^2$	0.39	0.39	0.44	0.38
Adjusted $R^2$ without management variable	0.35	0.37	0.37	0.36

## Mail Efficiency and Management Practices (Table 5)

	Got it back			
Ln permanent offices percapita	0.1318 [0.081]	0.1117 [0.077]	0.1358c [0.075]	0.1510 [0.087]
Postcodes databases	0.0817 [0.141]	0.1044 [0.120]	0.0795 [0.134]	0.1309 [0.194]
Alphabet used is Latin-based	0.0143 [0.091]	0.0004 [0.077]	0.0315 [0.092]	0.0275 [0.128]
Management practices	0.3789b [0.138]			
Monitoring management		0.3471a [0.106]		
Targets management			0.2890b [0.130]	
Incentives management				0.2401 [0.167]
Constant	-1.0360c [0.574]	-0.9081c [0.487]	-0.7976 [0.493]	-0.7444 [0.613]
Observations	16	16	16	16
R-squared	0.67	0.72	0.64	0.59
Adj. R-squared	0.55	0.61	0.51	0.44
R-squared w/o Management	0.55	0.55	0.55	0.55
Adj. R-squared w/o Management	0.43	0.43	0.43	0.43

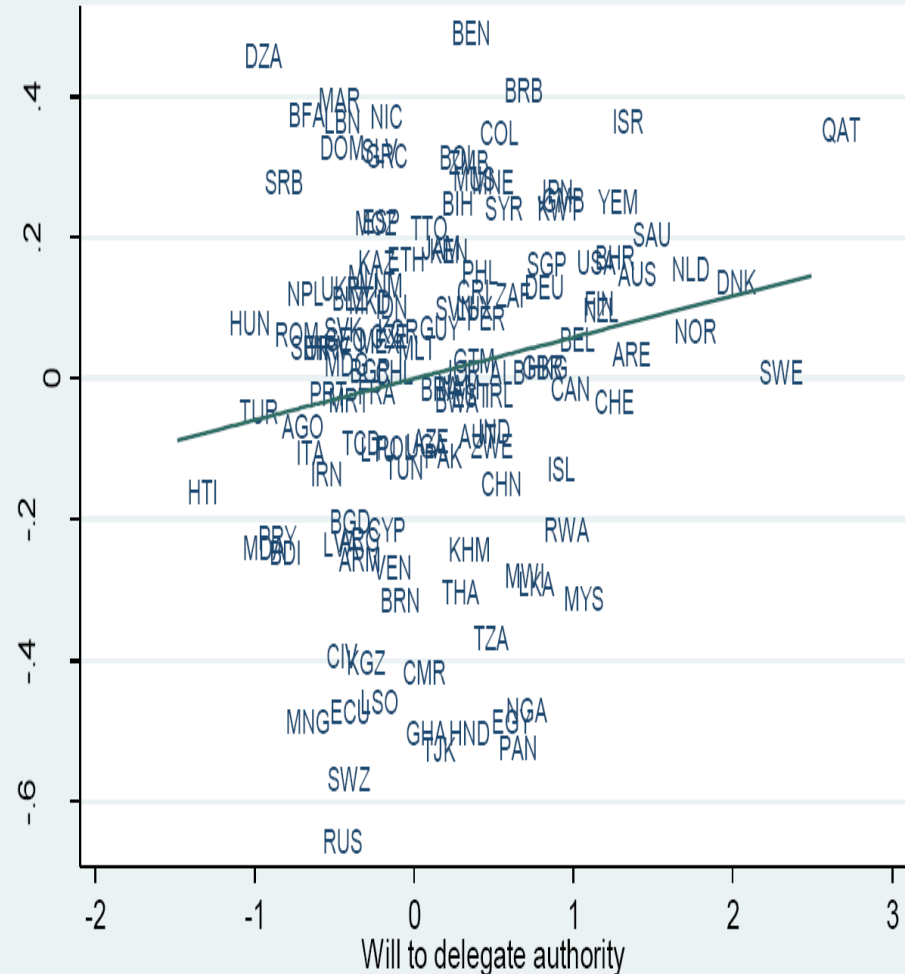
# Mail Efficiency and Management Quality (Fig.3)

Fig.3.a. Got the letter back and Public management performance



coef = .05056403, (robust) se = .01519826, t = 3.33

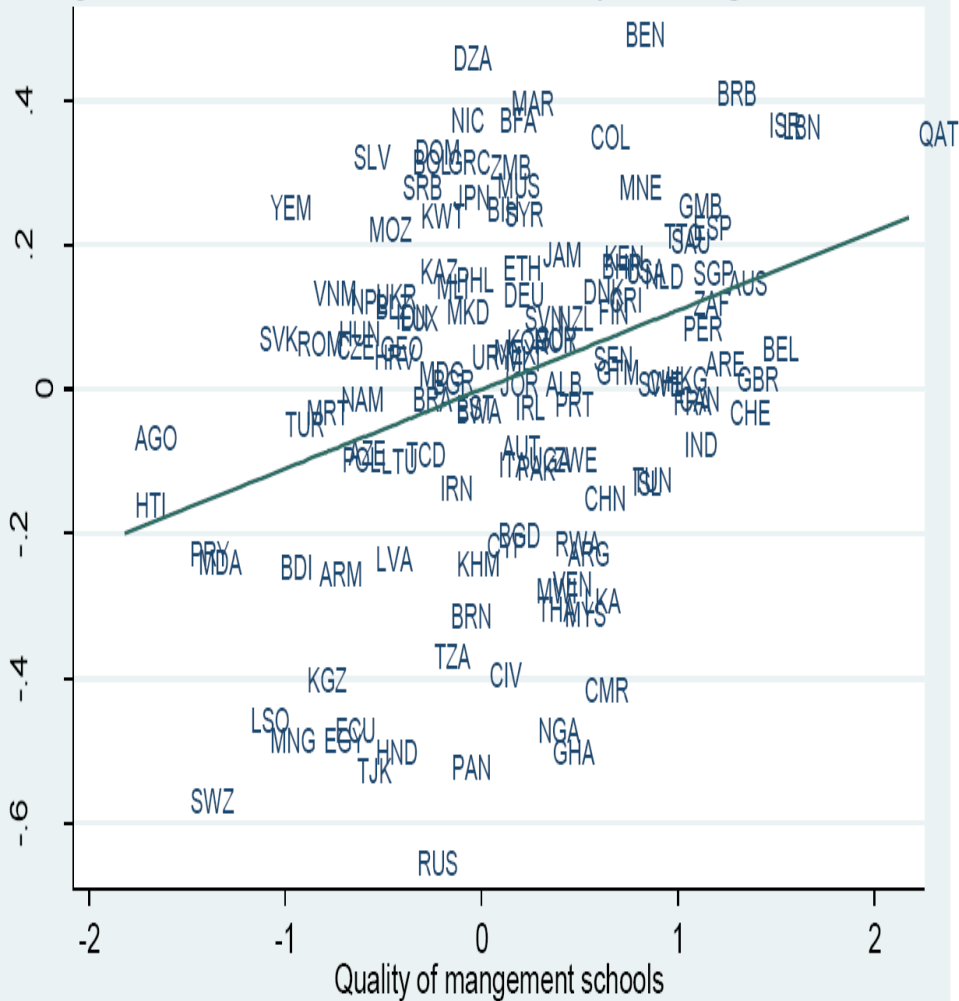
Fig.3.b. Got the letter back and Will to delegate authority



coef = .05863434, (robust) se = .02534307, t = 2.31

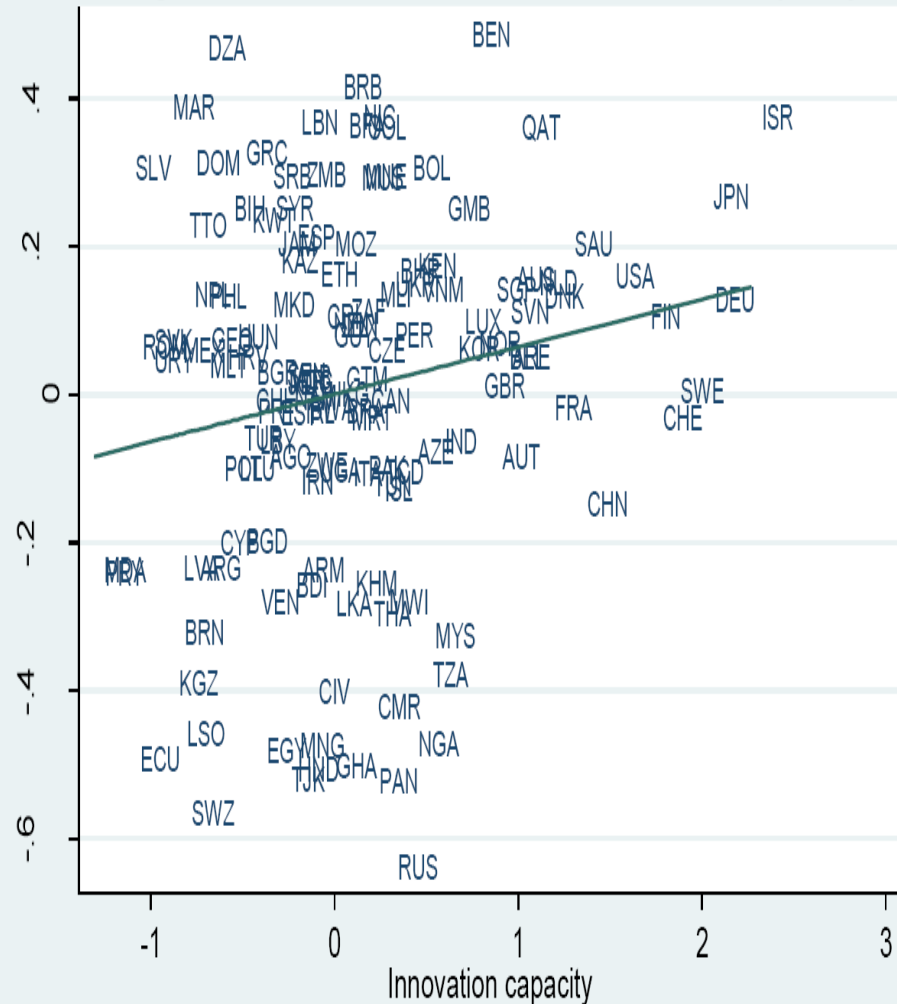
# Mail Efficiency and Management Quality (Fig.3)

Fig.3c. Got the letter back and Quality of mangement schools



coef = .10967467, (robust) se = .02381863, t = 4.6

Fig.3d. Got the letter back and Innovation capacity

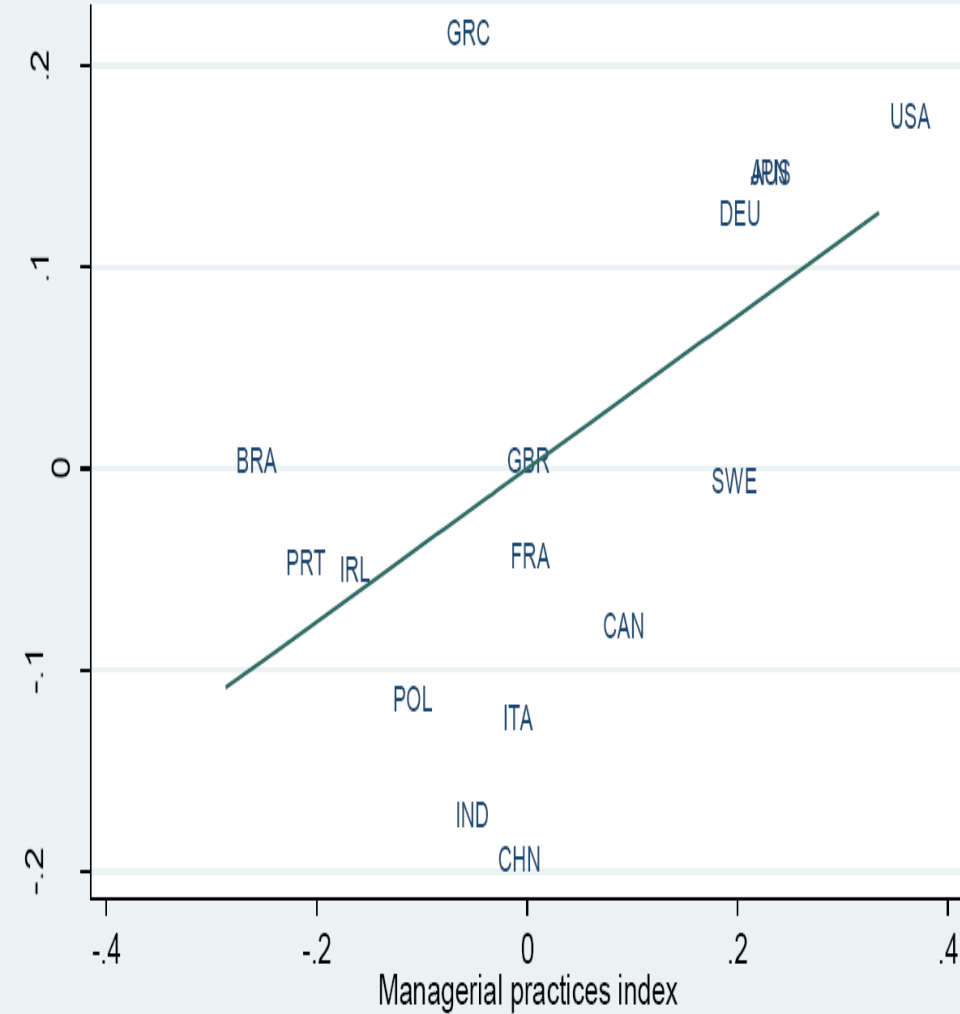


coef = .06407223, (robust) se = .02519683, t = 2.54

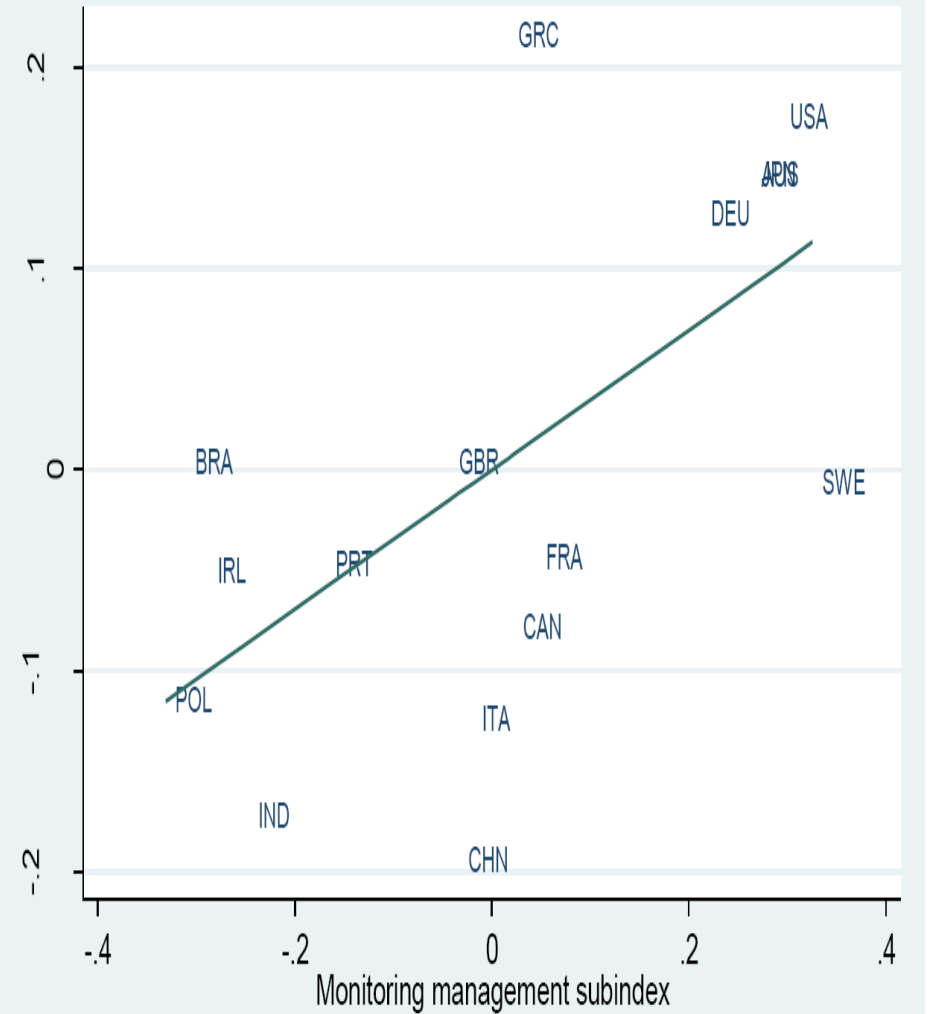
# Mail Efficiency and Management Practices (Fig.4)

Fig.4a. Got the letter back and Managerial practices index

Fig.4b. Got the letter back and Monitoring management subindex



coef = .37894344, (robust) se = .13811543, t = 2.74

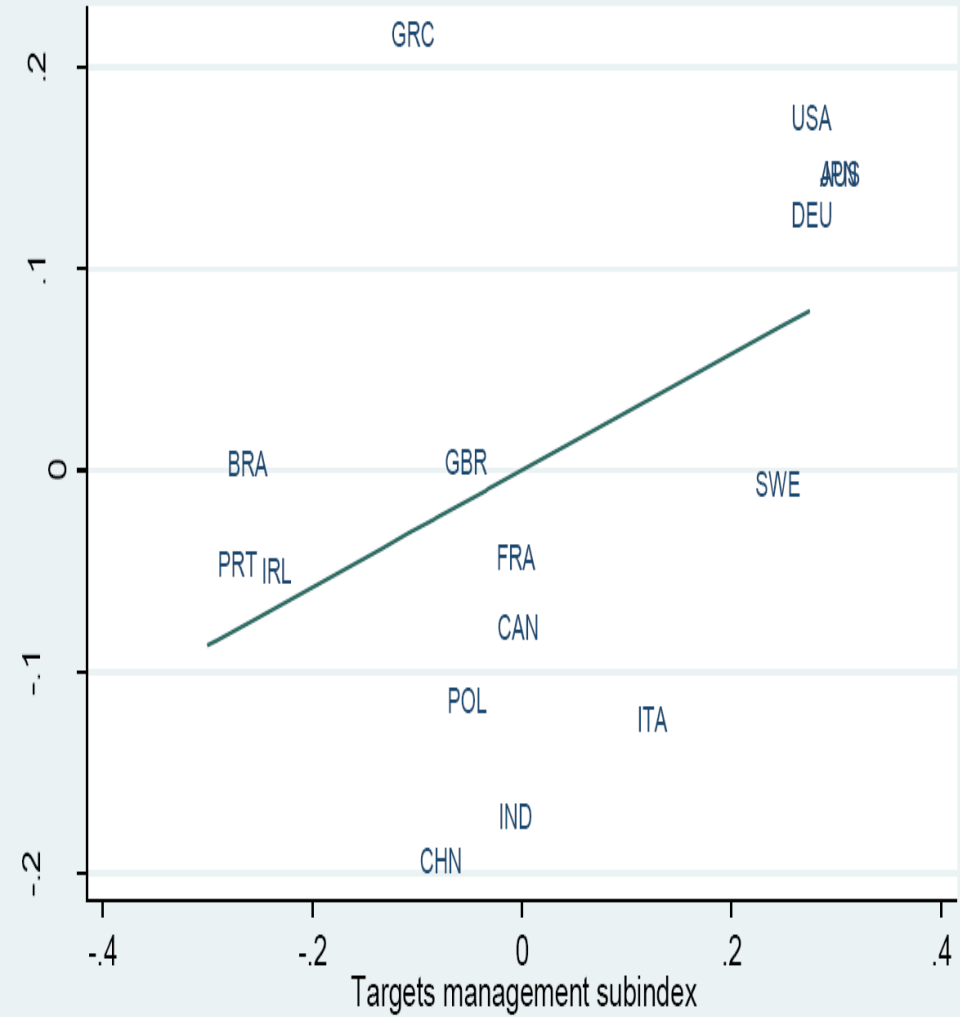


coef = .34714363, (robust) se = .10606969, t = 3.27

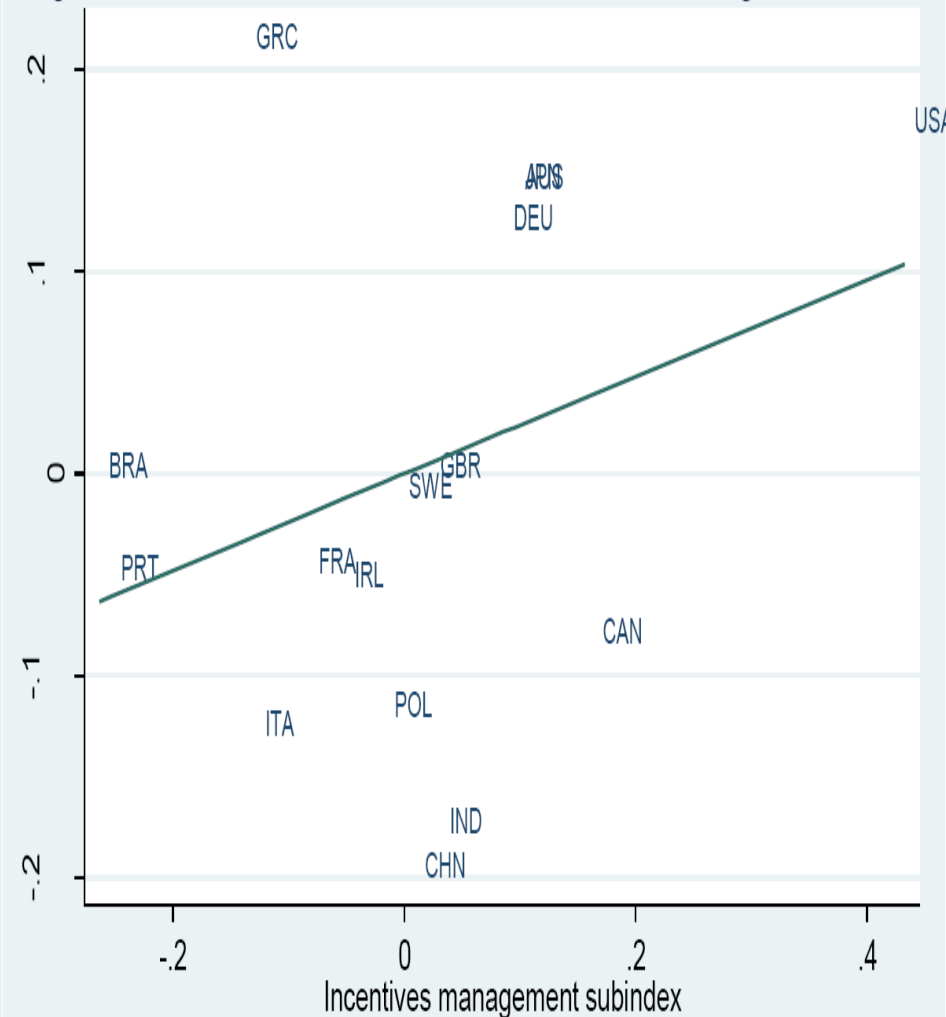
# Mail Efficiency and Management Practices (Fig.4)

Fig.4c. Got the letter back and Targets management subindex

Fig.4d. Got the letter back and Incentives management subindex



coef = .28903893, (robust) se = .13014389, t = 2.22



coef = .24008318, (robust) se = .16687621, t = 1.44

# Conclusion

- New objective measures for the quality of government in 159 countries, those based on return of incorrectly addressed international mail.
  - ▣ Measures correlate with other indicators of the quality of government, yet have the advantage that we know more precisely what goes into them.
  
- An important reason for poor government in developing countries is not corruption or patronage, but rather the same basic low productivity that plagues the private sector.
  - ▣ Such low productivity is related to inputs and technology, but also to management.
  - ▣ Not all bad government is caused by politics!