

Appendix

Table 5 - Unreported results – WGI model estimated with heteroskedasticity-robust standard errors, no clustering:

	(1) Marginal product	(2) Capital-labor ratio	(3) Investment	(4) R&D	(5) Employees	(6) State ownership	(7) Age
Principal component 1	-6.63e+08*** (8.07e+07)	-2.51e-01*** (4.16e-02)	4.25e-02** (1.99e-02)	-2.06e-02** (9.89e-03)	-1.12e+01*** (3.08e+00)	-1.37e-01^ (1.04e-01)	-3.10e-01 (6.57e-01)
Principal component 2	5.62e+07 (8.00e+07)	4.54e-01*** (8.20e-02)	3.45e-02 (4.37e-02)	-2.24e-01*** (2.28e-02)	-4.02e+01*** (8.43e+00)	1.15e+00*** (2.33e-01)	3.15e+00^^ (2.15e+00)
log(GDP per capita)	3.07e+09*** (3.78e+08)	6.67e-01*** (1.31e-01)	-1.67e-01** (6.52e-02)	9.75e-02** (3.82e-02)	3.72e+01*** (8.83e+00)	-1.55e+00*** (3.96e-01)	6.78e+00*** (2.53e+00)
Tertiary education	-3.04e+06*** (3.46e+05)	-3.82e-04*** (4.68e-05)	8.96e-05*** (2.17e-05)	4.76e-05*** (1.21e-05)	8.37e-03*** (3.24e-03)	3.11e-04** (1.30e-04)	-2.35e-03** (9.36e-04)
Internet	-1.37e+09*** (4.81e+08)						
Loan		5.93e-01*** (8.62e-02)	6.16e-01*** (5.68e-02)	3.01e-01*** (3.22e-02)	6.32e+01*** (7.98e+00)		
R&D			4.72e-01*** (6.77e-02)				
Size				2.61e-01*** (2.01e-02)		6.75e+00*** (2.23e-01)	1.01e+01*** (1.34e+00)

Table 5 (cont'd)

	(1) Marginal product	(2) Capital-labor ratio	(3) Investment	(4) R&D	(5) Employees	(6) State ownership	(7) Age
Age					2.19e-02 ^{^^} (1.50e-02)	5.55e-03 ^{***} (9.04e-04)	
Total labor cost					1.77e-07 ^{***} (4.50e-08)		
Marginal product							-1.16e-11 ^{**} (5.78e-12)
Investment							-6.55e+00 ^{***} (1.66e+00)
<i>d</i> 2002	5.48e+09 ^{***} (6.43e+08)					1.43e+01 ^{***} (5.24e-01)	-2.84e+01 ^{***} (9.00e+00)
<i>d</i> 2005	2.28e+08 ^{**} (1.08e+08)	-8.96e-02 (1.48e-01)			-8.83e+01 ^{***} (1.09e+01)	8.22e+00 ^{***} (3.35e-01)	-2.65e+01 ^{***} (8.86e+00)
<i>d</i> 2007	-3.38e+09 ^{***} (3.99e+08)	-2.42e+00 ^{***} (1.38e-01)			1.31e+01 ^{^^} (8.94e+00)	5.83e-01 [*] (3.42e-01)	-2.12e+01 [*] (1.27e+01)
<i>d</i> 2008	-2.59e+09 ^{***} (3.66e+08)	-9.04e-01 ^{***} (1.19e-01)	3.51e-02 (7.26e-02)	-2.98e-01 ^{***} (3.99e-02)	-1.05e+01 (1.31e+01)	1.64e+00 ^{***} (3.51e-01)	
<i>d</i> 2009							2.83e+00 (1.07e+01)
Observations	13244	4020	2621	8229	10636	24535	13149
<i>R</i> ²	0.029	0.106	0.075	0.063	0.055	0.099	0.018

Standard errors in parentheses

[^] $p < 0.20$, ^{^^} $p < 0.15$, ^{*} $p < 0.10$, ^{**} $p < 0.05$, ^{***} $p < 0.01$

Table 6: Summary – variables used

Variable name	Label/Source	Mean	Std. deviation
access_external_finance	How much of an obstacle is: Access to finance	1.431404	1.271415
age	Year of survey – foundation date	32.2707	181.8521
comp1	Principal components variable/WGI	-2.14e-09	2.277474
comp2	Principal components variable/WGI	1.02e-09	.6605375
courts_obstacle	Obstacle to the current operations : Courts	1.211275	1.24403
employees	No. permanent, full-time employees of this firm at end of last fiscal year	117.6389	752.3869
informal_payments	How often do firms like you pay additional payments/informal gifts?	2.335896	1.436075
internet	Does the firm have a high-speed, broadband Internet connection on its premises?	.6166934	.5082547
invest	Acquired additional land or buildings to expand operations in the last 3 years?	.3565916	.4790051
lassetswrk	log((assets)/employees)	10.88784	2.806868
lcgdp	log(GDP per capita)/Penn World Table Version 7.0	9.050133	.6804184
loan	Does this establishment have a line of credit or loan from a financial inst.?	.4851257	.4997962
marginal_product	sales/employees	1.17e+09	2.15e+10
rnd_invest	Invested in research and development (in-house or outsourced) in last 3 years?	.2797399	.4488837
size	-	1.760747	.792765
stateownership_percent	Government/State ownership	6.369566	23.0007

tertiary_educ	No. of people in tertiary education per 100.000/World Bank	4115.946	1461.095
total_labor_cost	Total labor cost (incl. wages, salaries, bonuses, etc) in last fiscal year	6.74e+07	2.54e+09
d2002, d2005, d2007, d2008, d2009	Dummy variables for respective years	-	-

Table 7: Relevant BEEPS survey questions

A.6a Size	Sampling size a6a
Less than 5 (only panel)	0
Small ≥ 5 and ≤ 19	1
Medium ≥ 20 and ≤ 99	2
Large ≥ 100	3

B.2

What percent of this firm is owned by each of the following:

Private domestic individuals, companies or organizations	b2a %
Private foreign individuals, companies or organizations	b2b %
Government/State	b2c %
Other	b2d %

K.8

At this time, does this establishment have a line of credit or a loan from a financial institution?

YES	1
NO	2
Don't know (spontaneous)	-9

O.3

In fiscal year **2007**, did this establishment spend on research and development activities, either in-house or contracted with other companies (outsourced)?

YES	1
NO	2
Don't know (spontaneous)	-9

K.30

Is **access to finance**, which includes availability and cost, interest rates, fees and collateral requirements, No Obstacle, a Minor Obstacle, a Moderate Obstacle, a Major Obstacle, or a Very Severe Obstacle to the current operations of this establishment?

	No obstacle	Minor obstacle	Moderate obstacle	Major obstacle	Very severe obstacle	Don't know
Access to finance	0	1	2	3	4	-9

J.30

As I list some factors that can affect the current operations of a business, please look at this card and tell me if you think that each factor is No Obstacle, a Minor Obstacle, a Moderate Obstacle, a Major Obstacle, or a Very Severe Obstacle to the current operations of this establishment.

	No obstacle	Minor obstacle	Moderate obstacle	Major obstacle	Very severe obstacle	Don't know
Tax rates	0	1	2	3	4	-9

Tax admin.	0	1	2	3	4	-9
Business licensing and permits	0	1	2	3	4	-9
Political instability	0	1	2	3	4	-9
Corruption	0	1	2	3	4	-9
Courts h30	0	1	2	3	4	-9

Q.39

Thinking about officials, would you say the following statement is always, usually, frequently, sometimes, seldom or never true?

It is common for firms in my line of business to have to pay some irregular “additional payments or gifts” to get things done with regard to customs, taxes, licenses, regulations, services etc. ECAq39	Never	Seldom	Sometimes	Frequently	Usually	Always
	1	2	3	4	5	6

L.1

At the end of fiscal year **2007**, how many permanent, full-time employees did this establishment employ? Please include all employees and managers.

Permanent, full-time employees end of last fiscal year	11
Don't know (spontaneous)	-9

N.2

For fiscal year **2007**, please provide the following information about this establishment:

Total annual cost of labor (including wages, salaries, bonuses, social security payments)	n2a
Total annual cost of raw materials and intermediate goods used in production	n2e
Total annual costs of fuel	n2f
Total annual costs of electricity	n2b
Total annual costs of communications services	n2c

Total annual costs of water	n2h
N.6 At the end of fiscal year 2007 , what was the net book value, that is the value of assets after depreciation, of the following:	
Machinery, vehicles, and equipment	n6a
Land and buildings	n6b