



Letter Grading Government Efficiency

Citation

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Appendix A: Variable definitions and basic descriptive statistics

Variable name	No. Obs	Mean	Std. Dev.	Coeff. Variation	Min	Max	Definitions and sources
Got the letter back (r)	159	0.59	0.33	1.80	0.00	1.00	Fraction of the number of letters that were received back as "return to sender." We sent 10 letters to 5 different cities in each country. This variable is scaled to have values between zero (i.e., no letters were received back), to 1 (i.e., all letters were received back). (Source: Own calculation).
Got the letter back in 90 days (r_{90})	159	0.35	0.32	1.11	0.00	1.00	Fraction of the number of letters that were received back as "return to sender" in 90 days. We sent 10 letters to 5 different cities in each country. This variable is scaled to have values between zero (i.e., no letters were received back in 90 days), to 1 (i.e., all letters were received back in 90 days). (Source: Own calculation).
Average number of days to get the letter back (q)	159	228.22	120.03	1.90	16.20	418.80	The average number of calendar days that took to get back all the letters that returned as "return to sender." We sent 10 letters to 5 different cities in each country. To calculate this number, we sum the number of days it took to get back each of the 10 letters and divide this number by 10. For those letters which we did not get back, we calculated the number days as the number of calendar days between our cutoff date (February 4, 2012) and the date when we sent the letter. (Source: Own calculation).
Letter-post items (S) in millions	158	2661.05	15671.92	0.17	0.01	191287.50	Thr total number of letter-post items (<i>S</i>) in millions in a given country in 2011. According to the Universal Postal Union, "letter-post items essentially consist of letters and postcards, aerogrammes, printed matter (newspapers, periodicals), addressed or unaddressed advertising materials, small packets, literature for the blind and, where applicable, in the domestic service, commercial papers, samples of merchandise, phonopost items, postal packets, etc." The data comes from the statistics of the Universal Postal Union. If the data for 2011 is unavailable, we use the most recent value between 2005 and 2010. For countries with missing data (i.e., Belgium, Canada, New Zealand and Taiwan we used either older Universal Postal Union ratios, data from the national post office annual reports, or data provided directly to us by the postal office of those countries). (<i>Source: Own calculation</i>).
Staff (L)	158	27136.44	95887.12	0.28	15.00	887406.00	The number of full-time staff (<i>L</i>) in a given country in 2011. According to the Universal Postal Union, full-time staff are all employees performing their functions during normal working hours (i.e., the number of working hours per week set by the designated operator for full-time employment). The data comes from the statistics of the Universal Postal Union. If the data for 2011 is unavailable, we use the most recent value between 2005 and 2010. For countries with missing data (i.e., Belgium, Canada, Germany, Hong Kong, Kosovo and Taiwan we used either older Universal Postal Union ratios,data from the national post office annual reports, or data provided directly to us by the postal office of those countries). (<i>Source: Own calculation</i>).
Letter boxes (K)	157	16020.06	59720.11	0.27	4.00	639174.00	The number of letter boxes in a given country in 2011. According to the Universal Postal Union, "letter boxes are receptacles situated in the street or at the post office, for the posting of mail.". The data comes from the statistics of the Universal Postal Union. If the data for 2011 is unavailable, we use the most recent value between 2005 and 2010. For counries with missing data (i.e., New Zealand, Paraguay, Taiwan and Tonga, we used either older Universal Postal Union ratios, data from the national post office annual reports, or data provided directly to us by the postal office of those countries). (Source: Own calculation based on Universal Postal Union data).
Postcode database	159	0.46	0.41	1.13	0.00	1.00	The type of postcode database used in each country in 2011. We elaborated this data using the information of the classification of postcode databases that countries have according to the Universal Postal Union. The data is based on the classification made by the Universal Postal Union of the type of postcode database that each country sends them. UPU creates a Universal Database of raw postcodes containing all available information on the postal addressing data. This database contains the postcode data to town locality, street and delivery point level, depending on the particular country's system. UPU classifies countries in four groups: (A) the database of the country contains postcodes for localities and streets, to which we assign a value of 1; (B) the database contained postcodes for localities and districts, to which we assigned a value of 0.66; (C) the database contains postcodes for localities, to which we assigned a value of 0.33; and (D) the database only contains names of localities only, to which we assigned the value of 0. The data for Taiwan, who does not belong to the Universal Postal Union, was provided directly to us by the postal office of the country. (Source: Own calculation based on Universal Postal Union data).
Alphabet used is Latin- based	159	0.66	0.48	1.39	0.00	1.00	The variable equals one if the alphabet used in the country is derived from the Latin alphabet, and zero otherwise. (Source: Own calculation based on the classification of alphabets in www.wikipedia.org).
Ln distance from country to U.S.	159	8.97	0.51	17.62	6.31	9.69	Natural logarithm of the distance in kilometers from the most populated city in each country to Hannover in the state of New Hampshire in the United States. (Source: Own calculation using data from http://www.distancescalculator.com/).
							Public sector management
Weberian public administration	102	4.11	0.67	6.08	2.44	5.66	Index of "Weberian" qualities of the public administration. Each expert was asked to provide a quantitative answer in a scale from 1 (hardly ever) to 7 (almost always) to each question included in the Quality of Government Survey. The questions included in the Weberian index are: (1) When recruiting public sector employees, the skills and merits of the applicants decide who gets the job; (2) When recruiting public sector employees, the political connections of the applicants decide who gets the job (we inverted the scale for this question); (3) The top political leadership hires and fires senior public officials (we inverted the scale for this question); (4) Senior public officials are recruited from within the ranks of the public sector; (5) Public sector employees are hired via a formal examination exam; (6) Once one is recruited as a public sector employee, one stays a public sector employee for the rest of one's career; (7) The terms of employment for public sector employees are regulated by special laws that do not apply to private sector employees; (8) Senior officials have salaries that are comparable with the salaries of private sector managers with roughly similar training and responsibilities; and (9) The salaries of public sector employees are linked to appraisals of their performance. To construct the index for each country, we average the responses of all country experts to each question and then average the scores of the nine questions. We include all countries for which at least 2 expert responses were obtained. (Source: Own calculation based on expert data from the Quality of Government Survey (2011) and Dahlstrom, Lapuente and Teorell (2011)).
Professional & non- political public administration	103	3.93	0.99	3.98	2.08	6.28	Sub-index of "Weberian" qualities of the public administration that refer to the professionalism and non-political interference in hiring of the bureaucracy following Dahlstrom, Lapuente and Teorell (2011). This sub-index covers questions (1), (2), (3) and (4) of the Weberian public administration index described above. (Source: Own calculation based on expert data from the Quality of Government Survey (2011) and Dahlstrom, Lapuente and Teorell (2011)).

Appendix A: Variable definitions and basic descriptive statistics

Variable name	No. Obs	Mean	Std. Dev.	Coeff. Variation	Min	Max	Definitions and sources
Closed public administration	103	5.04	0.88	5.69	2.67	6.67	Sub-index of "Weberian" qualities of the public administration that refer to meritocratic recruitment and the closedness of the bureaucracy following Dahlstrom, Lapuente and Teorell (2011). This sub-index covers questions (5), (6) and (7) of the Weberian public administration index described above. (Source: Own calculation based on expert data from the Quality of Government Survey (2011) and Dahlstrom, Lapuente and Teorell (2011)).
Public management performance	118	5.65	1.76	3.21	1.62	9.23	Management performance index from the Bertelsmann Stiftung BTI Bertelsmann Transformation Index. This index focuses on the steering and management of development and transformation processes. The index reviews and evaluates the reform activities of political decision makers, thus providing valuable information on the key factors of success and failures for states on their way to a market-based economy. The values range from 0 to 10. (Source: Bertelsmann Stiftung BTI Bertelsmann Transformation Report).
							Attitudes and decision making by public officials
Public sector employees strive to be efficient	103	4.29	1.00	4.29	2.00	6.36	This variable measures the goals and objectives of the public bureaucracy. It is built on comparable expert evaluations of employment-related bureaucratic structures. Each expert was asked to provide a quantitative answer in a scale from 1 (hardly ever) to 7 (almost always) to the question: To what extent would you say that public sector employees strive to be efficient? The methodology is identical to one used in the construction of the Weberian public administration index described above. (Source: Own calculation based on expert data from the Quality of Government Survey (2011) and Dahlstrom, Lapuente and Teorell (2011)).
Public sector employees strive to be implement policies decided by top politicians	103	4.91	0.80	6.14	3.00	7.00	This variable measures the goals and objectives of the public bureaucracy. It is built on comparable expert evaluations of employment-related bureaucratic structures. Each expert was asked to provide a quantitative answer in a scale from 1 (hardly ever) to 7 (almost always) to the question: To what extent would you say that public sector employees strive to implement the policies decided upon by the top political leadership? The methodology is identical to one used in the construction of the Weberian public administration index described above. (Source: Own calculation based on expert data from the Quality of Government Survey (2011) and Dahlstrom, Lapuente and Teorell (2011)).
Public sector employees strive to help citizens	103	4.28	0.93	4.59	2.25	6.00	This variable measures the goals and objectives of the public bureaucracy. It is built on comparable expert evaluations of employment-related bureaucratic structures. Each expert was asked to provide a quantitative answer in a scale from 1 (hardly ever) to 7 (almost always) to the question: To what extent would you say that public sector employees strive to help citizens? The methodology is identical to one used in the construction of the Weberian public administration index described above. (Source: Own calculation based on expert data from the Quality of Government Survey (2011) and Dahlstrom, Lapuente and Teorell (2011)).
Public sector employees strive to follow rules	103	4.88	0.99	4.93	2.53	7.00	This variable measures the goals and objectives of the public bureaucracy. It is built on comparable expert evaluations of employment-related bureaucratic structures. Each expert was asked to provide a quantitative answer in a scale from 1 (hardly ever) to 7 (almost always) to the question: To what extent would you say that public sector employees strive to follow rules? The methodology is identical to one used in the construction of the Weberian public administration index described above. (Own calculation based on expert data from the Quality of Government Survey (2011) and Dahlstrom, Lapuente and Teorell (2011))
Public sector employees strive to fulfill the ideology of the parties in government	103	4.37	0.94	4.67	2.33	6.50	This variable measures the goals and objectives of the public bureaucracy. It is built on comparable expert evaluations of employment-related bureaucratic structures. Each expert was asked to provide a quantitative answer in a scale from 1 (hardly ever) to 7 (almost always) to the question: To what extent would you say that public sector employees strive to fulfill the ideology of the party/parties in government? The methodology is identical to one used in the construction of the Weberian public administration index described above. (Source: Own calculation based on expert data from the Quality of Government Survey (2011) and Dahlstrom, Lapuente and Teorell (2011)).
Impartiality of public sector employees	101	4.06	1.19	3.41	2.00	6.50	Index of the impartiality of the bureaucracy following Dahlstrom, Lapuente and Teorell (2011). It is built on comparable expert evaluations of employment-related bureaucratic structures. Each expert was asked to provide a quantitative answer in a scale from 1 (hardly ever) to 7 (almost always) to each question included in the Quality of Government Survey. The questions included in the impartiality index are: (1) Firms that provide the most favorable kickbacks to senior officials are awarded public procurement contracts in favor of firms making the lowest bid? (We inverted the scale for this question); (2) When deciding how to implement policies in individual cases, public sector employees treat some groups in society unfairly? (We inverted the scale for this question); and (3) When granting licenses to start up private firms, public sector employees favor applicants which they have strong personal contacts? (we inverted the scale for this question). The methodology is identical to one used in the construction of the Weberian public administration index described above. (Source: Own calculation based on expert data from the Quality of Government Survey (2011) and Dahlstrom, Lapuente and Teorell (2011)).
Public sector officials act impartially when deciding to implement a policy in a case	103	4.34	1.05	4.15	2.00	6.40	This variable measures the impartiality of the public bureaucracy. It is built on comparable expert evaluations of employment-related bureaucratic structures. Each expert was asked to provide a quantitative answer in a scale from 1 (hardly ever) to 7 (almost always) to the question: Generally speaking, how often would you say that public employees today act impartially when deciding how to implement a policy in an individual case? The methodology is identical to one used in the construction of the Weberian public administration index described above. (Own calculation based on expert data from the Quality of Government Survey (2011) and Dahlstrom, Lapuente and Teorell (2011)).
							Public sector wages
Senior officials with salaries comparable to salaries of managers of private sector	103	3.18	1.02	3.13	1.33	6.00	This variable corresponds to question (8) of the Weberian public administration index described above. (Source: Own calculation based on expert data from the Quality of Government Survey (2011) and Dahlstrom, Lapuente and Teorell (2011)).

Appendix A: Variable definitions and basic descriptive statistics

Variable name	No. Obs	Mean	Std. Dev.	Coeff. Variation	Min	Max	Definitions and sources
Salaries of public administration workers are linked to performance	102	2.96	0.95	3.13	1.24	5.63	This variable corresponds to question (9) of the Weberian public administration index described above. (Source: Own calculation based on expert data from the Quality of Government Survey (2011) and Dahlstrom, Lapuente and Teorell (2011)).
Avg. government wage / GDP per capita	84	2.58	2.37	1.09	0.54	10.75	Average wage of all public sector employees over gross domestic product per capita both in 2000 in constant US dollars. (Source: World Bank).
Postman salary / GDP per capita	25	0.66	0.48	1.38	0.23	2.38	Postman job average net monthly income in constant 2005 US dollars PPP adjusted as a proportion of GDP per capita in constant 2005 US dollars. The postman job includes the following responsibilities: (i) sorts mail according to streets and street numbers; (ii) delivers mail along a regular route to private home or business establishments. The gross income is obtained from data provided to the international Labor Organization by government agencies. (Source: World Salaries Organization).
							Private sector management
Will to delegate authority	137	3.74	0.79	4.72	2.30	6.30	An index of the willingness to delegate authority. This index is constructed from the answers to the question "in your country, how do you assess the willingness to delegate authority to subordinates? The values go from 1, in situations where top management controls important decisions to 7, where authority is mostly delegated to business unit heads and other lower-level management. (Source: World Economic Forum).
Innovation capacity	134	3.20	0.92	3.47	1.72	5.88	An index of the innovation capacity in the country. This index is constructed from the answers to the question "how would you assess the innovation capacity your country? The values go from 1, poor to 7, excellent. (Source: World Economic Forum).
Quality of management schools	137	4.20	0.85	4.94	1.80	6.10	An index of the quality of the business schools in the country. This index is constructed from the answers to the question "how would you assess the quality of the business schools in your country? The values go from 1, poor to 7, excellent. (Source: World Economic Forum).
Management practices	16	2.94	0.22	13.52	2.64	3.33	Index of firm overall management practices in each country. The index is based on an interview-based evaluation tool that defines and scores from 1 ("worst practice") to 5 ("best practice") 18 basic management practices of a sample of firms in each country. The index is the average of the 18 scores for all sampled firms in the country. The management practices in the index fall in three broad areas: (1) monitoring; (2) targets; and (3) incentives. (Source: Bloom and Van Reenen, 2007 and 2010).
Monitoring management	16	3.12	0.28	11.26	2.63	3.53	Sub-index of firm "monitoring management practices" in each country. Monitoring practices measure how well companies monitor what goes on inside their firms and use this for continuous improvement. The sub-index is the average of six of the 18 basic management practices in the overall management practices index. (Source: Bloom and Van Reenen, 2007 and 2010).
Targets management	16	2.92	0.25	11.78	2.53	3.24	Sub-index of firm "targets in management practices" in each country. The questions included in this sub-index measure if companies set the right targets, track the right outcomes and take the appropriate action if the two are inconsistent. The sub-index is the average of five of the 18 basic management practices in the overall management practices index. (Source: Bloom and Van Reenen, 2007 and 2010).
Incentives management	16	2.81	0.19	14.67	2.50	3.30	Sub-index of firm "incentive management practices" in each country. Incentive management practices measure if companies are promoting and rewarding employees based on performance, and if they are trying to hire and keep their best employees. The subiindex is the average of seven of the 18 basic management practices in the overall management practices index. (Source: Bloom and Van Reenen, 2007 and 2010).
							Other independent variables
Ln GDP per capita	154	8.76	1.40	6.25	2.15	11.33	Natural logarithm of gross domestic product per capita in PPP constant 2005 international dollars in 2010. When data for 2010 is not available, we use the most recent information available for the period 2004-2009. (Source: World Development Indicators 2011).
Years of schooling	156	7.86	2.75	2.86	0.91	12.69	The average years of schooling from primary school onward for the population aged 15 years or older. We use the most recent information available for the period 1990-2006. (Source: Gennaioli et al. 2013, supplemented with additional data calculated following the same methodology used in Gennaioli et al. 2013).
Years of college	106	2.23	1.74	1.28	0.03	8.74	The average years of college for the population aged 15 years or older. We use the most recent information available for the period 1990-2006. (Source: Gennaioli et al. 2013).
Fiscal capacity	93	17.15	5.64	3.04	7.27	34.48	Tax revenues as a percentage of GDP in 2010. (Source: World Development indicators 2011)

Appendix B Panel A: Mail efficiency and alternative measures of government efficiency and accountability (Instrumenting the average of the second letter sent to each of the 5 cities in each country)

This table shows the results of robust OLS and robust Instrumental Variables regressions using the full sample of countries with letters data. Each row shows regression results using each of our three mail efficiency variables on the measure of government efficiency or accountability shown in the first column. For each of the three mail efficiency variables, the first two columns show the results of robust OLS regressions. The first column shows the coefficient and significance level for the mail variable used as regressor and the second column the Adjusted R-squared of the specification. The third and fourth columns show the results of robust Instrumental Variables regressions. For the Instrumental Variables regressions, each mail efficiency variables is calculated as the average of the second letter sent to each of the five different cities in each country, and is instrumented by the average of the first letter sent to each of the five different cities in each country. For each of the three mail efficiency variables, the last column shows the number of observations used in the regressions. All OLS and IV regressions include a constant, but the coefficients of the constant is not shown. Significance levels: a if p<0.01; b if p<0.05; and c if p<0.10.

			(Got the le	etter back		Got the	e letter ba	ack in 90 da	ıys	Ln avg.	number o	of days to go back	et the
			OLS	S	IV	_	OLS	5	IV		OL	S	IV	7
				Adj.		Adj.				Adj.				Adj.
Dependent Variables:	Source	Obs.	Coeff.	R-sq.	Coeff.	R-sq.	Coeff.	R-sq.	Coeff.	R-sq.	Coeff.	R-sq.	Coeff.	R-sq.
			P	anel A: (Governemen	t efficiend	су							
Bureaucratic quality (1995-2008)	BERI	132	1.890 ^a	0.30	2.030 ^a	0.29	1.730 ^a	0.25	1.824 ^a	0.25	-0.874 ^a	0.31	-0.898 ^a	0.30
Extent of bureaucratic red tape	Global Competitiveness Report 2011	125	-0.988 ^a	0.38	-1.093 ^a	0.34	-0.838 ^a	0.30	-0.938 ^a	0.24	0.434 a	0.37	0.462 a	0.31
Teacher absenteeism hinders education a lot	PISA 2010	70	-0.091 b	0.06	-0.104 ^b	0.05	-0.040	0.01	-0.053	-0.01	0.034^{b}	0.05	0.039^{b}	0.02
Overall Ease of doing business rank	Doing Business Report 2011	153	-81.129 a	0.24	-85.169 ^a	0.25	-83.369 ^a	0.23	-88.500 a	0.23	41.212 a	0.28	43.025 ^a	0.26
Starting a business days	Doing Business Report 2011	153	-0.932 ^a	0.10	-0.996 ^a	0.10	-0.936 ^a	0.09	-1.013 ^a	0.09	0.455 $^{\rm a}$	0.10	0.488 ^a	0.09
Documents to export	Doing Business Report 2011	153	-0.471 ^a	0.20	-0.454^{a}	0.24	-0.430 ^a	0.15	-0.442 a	0.16	0.219 ^a	0.20	0.220 a	0.23
Enforcing contracts procedures	Doing Business Report 2011	153	-0.183^{a}	0.10	-0.173 ^a	0.12	-0.163 ^a	0.07	-0.157 ^a	0.08	0.083 ^a	0.09	0.081 ^a	0.13
Time firms spend meeting with tax officialas	WB Enterprise Surveys	99	-2.559 ^b	0.11	-2.329 ^b	0.13	-1.757 ^b	0.04	-1.225	0.05	1.096 ^b	0.07	0.872 $^{\rm c}$	0.08
Infrastructure quality	Global Competitiveness Report	134	1.661 ^a	0.28	1.928 ^a	0.13	1.681 ^a	0.19	1.814 ^a	0.18	-0.824 ^a	0.22	-0.906 ^a	0.16
% household with running water at home	Gallup 2007	128	0.570 ^a	0.27	0.597 ^a	0.27	0.601 ^a	0.31	0.654 ^a	0.28	-0.278 ^a	0.33	-0.286 ^a	0.26
				Panel	B: Account	ability								
Disclosures by politicians required by law	La Porta et al 2010	148	0.532 ^a	0.17	0.511 ^a	0.16	0.492 ^a	0.15	0.416 ^a	0.14	-0.258 ^a	0.18	-0.233 ^a	0.17
Disclosures by politicians publicly available	La Porta et al 2010	148	0.673 a	0.25	0.632 a	0.24	0.643 a	0.22	0.595 a	0.22	-0.333 a	0.27	-0.312 a	0.27
Voice and accountability index (1996-2004)	Kaufmann et al. 2008	156	1.875 ^a	0.40	1.910 ^a	0.44	1.836 ^a	0.36	1.865 ^a	0.38	-0.897 ^a	0.43	-0.898 a	0.45
Judicial independence	Global Competitiveness Report	134	1.859 ^a	0.18	2.189 a	0.13	1.541 ^a	0.13	1.735 ^a	0.11	-0.823 a	0.18	-0.913 ^a	0.14
Democracy index (1990-2006)	Polity IV	148	6.576 ^a	0.34	6.353 ^a	0.39	6.601 ^a	0.31	6.592 ^a	0.33	-3.188 ^a	0.36	-3.067 ^a	0.39
Executive constraints (1990-2006)	Polity IV	147	3.488 ^a	0.33	3.358 ^a	0.39	3.530 ^a	0.30	3.441 ^a	0.34	-1.687 ^a	0.35	-1.601 ^a	0.38
Freedom of the press	Freedom House 2006	157	-40.223 a	0.32	-41.652 ^a	0.35	-40.937 ^a	0.32	-42.413 ^a	0.32	19.569 ^a	0.35	19.687 ^a	0.39
ICRG corruption index (2000-2008)	ICRG	132	2.053 ^a	0.33	2.290 a	0.28	2.009 a	0.32	2.289 a	0.24	-0.961 ^a	0.34	-1.059 ^a	0.28
% firms expect to give gifts for water connection	WB Enterprise Surveys	97	-20.702 a	0.15	-20.249 ^a	0.16	-22.509 ^a	0.15	-22.247 ^a	0.14	11.250 ^a	0.17	11.433 ^a	0.12

Appendix B Panel B: Mail efficiency and alternative measures of government efficiency and accountability (regressions controlling for Ln GDP per capita)

The table shows the results of robust OLS regressions using the full sample of countries with letters data. The dependent variables are shown in the first column and the source of the variable in the second column. Each row shows the results of three different regressions using each of our mail efficiency variables on the measures of government efficiency and accountability shown in the first column. Each regression includes the log of GDP per capita and a constant. The cells for each of the three regressions show: (1) the coefficient and significance level for the mail variable used in the regression; (2) the number of observations; (3) the Adjusted R-squared of the regression; and (4) the Additional R-squared from adding the mail efficiency variable to a regression that only controls for the ln of GDP per capita and a constant. The coefficients of the ln GDP per capita and the constant are not shown. Significance levels: a if p<0.01; b if p<0.05; and c if p<0.10.

		Go	t the lett	ter back		Got the l	etter ba	ack in 90) davs	Ln avg. n	umber e letter	•	s to get
				Adj.	Add.			Adj.	Add.			Adj.	Add.
Dependent Variables:	Source	rce Coeff.		R-sq.	R-sq	Coeff.	Obs.	R-sq.	R-sq	Coeff.	Obs.	•	R-sq
	Panel A:	Governemen	t efficier	ісу									
Bureaucratic quality (1995-2008)	BERI	0.851 ^a	128	0.50	0.05	0.636 ^b	128	0.47	0.03	-0.373 ^b	128	0.47	0.04
Extent of bureaucratic red tape	Global Competitiveness Report	-0.803 ^a	124	0.40	0.18	-0.616 ^a	124	0.33	0.11	0.356 a	124	,39	0.17
Teacher absenteeism hinders education a lot	PISA 2010	-0.060 ^c	69	0.11	0.10	-0.022	69	0.09	0.08	0.021	69	0.11	0.09
Overall Ease of doing business rank	Doing Business Report	-23.855 ^c	151	0.52	0.01	-21.122 ^c	151	0.52	0.01	12.747^{b}	151	0.52	0.01
Starting a business days	Doing Business Report	-0.523 ^b	151	0.14	0.03	-0.508 ^c	151	0.14	0.02	0.263^{b}	151	0.14	0.03
Time to import	Doing Business Report	-0.501 a	151	0.49	0.04	-0.531 ^a	151	0.49	0.04	0.280 a	151	0.49	0.05
Documents to export	Doing Business Report	-0.241 ^b	151	0.33	0.04	-0.162 ^c	151	0.30	0.01	0.102^{b}	151	0.31	0.03
Enforcing contracts procedures	Doing Business Report	-0.118 ^b	151	0.13	0.03	-0.088	151	0.11	0.02	0.051 ^c	151	0.12	0.03
Paying taxes rank	Doing Business Report	12.952	151	0.20	0.00	6.642	151	0.20	0.00	-4.989	151	0.20	0.00
Time firms spend meeting with officialas	WB Enterprise Surveys	-2.665 ^c	99	0.09	0.09	-1.569	99	0.03	0.02	1.161	99	0.07	0.06
Infrastructure quality	Global Competitiveness Report	0.34	133	0.45	0.00	0.333	133	0.46	0.00	-0.172	133	0.45	0.00
% household with running water at home	Gallup 2007	0.171 ^c	125	0.61	0.01	0.183 ^b	125	0.63	0.02	-0.084 ^c	125	0.63	0.02
	Pane	el B: Account	ability										
Disclosures by politicians required by law	La Porta et al 2010	0.331 ^a	147	0.17	0.03	0.238 ^b	147	0.15	0.05	-0.159 ^b	147	0.17	0.03
Disclosures by politicians publicly available	La Porta et al 2010	0.417 ^a	147	0.25	0.04	0.374 a	147	0.24	0.03	-0.229 a	147	0.26	0.05
Voice and accountability index (1996-2004)	Kaufman	1.226 ^a	152	0.46	0.13	1.117 ^a	152	0.43	0.10	-0.596 a	152	0.46	0.13
Judicial independence	Global Competitiveness Report	0.669 ^c	133	0.36	0.01	0.207	133	0.36	0.00	-0.204	133	0.36	0.00
Democracy index (1990-2006)	Polity IV	4.624 ^a	144	0.35	0.11	4.466 a	144	0.33	0.09	-2.349 a	144	0.35	0.12
Executive constraints (1990-2006)	Polity IV	2.575 a	143	0.34	0.13	2.526 a	143	0.32	0.11	-1.304 ^a	143	0.34	0.14
Freedom of the press	Freedom House	-30.712 a	153	0.36	0.14	-29.954 ^a	153	0.35	0.13	15.337 ^a	153	0.37	0.15
ICRG corruption index (2000-2008)	ICRG	1.265 ^a	128	0.43	0.09	1.212 a	128	0.42	0.08	-0.605 a	128	0.43	0.09
% firms expect to give gifts for water connection	WB Enterprise Surveys	-13.477 ^b	96	0.20	0.05	-13.640 ^b	96	0.19	0.04	7.465 ^b	96	0.20	0.05

Appendix C: The UPU Universal Database and Our Postcodes

This tables shows several examples of the United Postal Union Universal Database and our postcodes deatabse variable. The first three columns of the table describe the level of dissagregation of postcodes in the UPU Universal Database classification and our value assignments to create our postcode database variable. The remaining columns provide illustrations of the information that is provided by each different level of the postcodes database.

UPU Universal Database		Postcode database	Name	Company	Street Address	District	Postcode	City	Country
Data level		(our variable)							
Names of localities only	С	0.00	Steven Taylor	Computer Management Professionals	7444 Stone Rd			Kingston	Jamaica
Names of localities only Names of localities only	C C	0.00 0.00	Soleymane Umbelina Hakeem al-Otaiba	Os profissionais de gerenciamento de inventário Business Inventory Management	1 Modigliani St	•		Kuito Ash-Shariqah	República de Angola United Arab Emirates
Postcodes for localities Postcodes for localities Postcodes for localities	B B B	0.33 0.33 0.33	Intizara Cham Yuval Goldblatt Oshin Yeritsian	Business Management Specialists Computer Management Professionals Business Manufacturing Group International	6123 Rue Meade 6 Frisch Rd Schultz Ave 349		31017 91999 901	Ouahran Jerusalem Vagharshapat, Armavir	Algeria Israel Armenia
Postcodes for localities and districts Postcodes for localities and districts Postcodes for localities and districts	B+ B+ B+	0.66 0.66 0.66	Eber Vega Baba Senaviratne Raúl Ortega	Servicios Informáticos Inteligentes Supply Area Partners Socios De Tecnología Profesional	Av Tobin 659 1 Stone St Avenida Ohlin 324	Col Real de Guadalupe Horagala Las Acacias	72016 10502 1040	Puebla, Puebla Colombo Caracas, DF	Mexico Sri Lanka Venezuela
Postcodes for localities and streets Postcodes for localities and streets Postcodes for localities and streets Postcodes for localities and streets Postcodes for localities and streets	A A A A	1.00 1.00 1.00 1.00 1.00	Aaron Macay Akihito Ozawa Leo Jönsson Ethan Brown Rafael Fernández	Supply Area Partners Supply Management United Försörjningsområde Grupp Technology Professional Partners Profesionales De La Gestión De Inventario	213 Friedman St Simonuki Frischgatan 1047 626 Kuznets St Carrer de Tobin 65	Chuo-ku	ON M5C 1R6 541-0045 111 47 90033 29015	Toronto Osaka-shi, Osaka-fu Stockholm Los Angeles, CA Málaga	Canada Japan Sweden United States Espana

Appendix D Panel A: Correlations of Weberian scale components, public sector employees attitudes and public sector wages

The table shows raw pair-wise correlations between the components of the Weberian scale index, measures of public sector employees attitudes and measures of public sector wages for the full sample of countries with letters data. Significance levels: a if p<0.01; b if p<0.05; and c if p<0.10.

		Public s	ector employees	strive to:			of public sector	Public sector of	employee wages
	Be efficient	Implement policies designed by top politicians	Help citizens	Follow rules	Fulfill the ideology of the parties in government	Impartiality index	Act impartially when deciding to implement a policy in a case	Avg. government wage / GDP per capita	Postman salary / GDP per capita
		F	Professional & no	n-political publi	c administration				
Skills and merits decide who gets the job when recruiting	0.774 ^a	0.600 ^a	0.808 ^a	0.781 ^a	-0.400 ^a	0.788 ^a	0.837 ^a	-0.108	0.232
Political connections do not decide who gets the job when recruiting	0.719 ^a	0.492 ^a	0.748 ^a	0.712 ^a	-0.386 ^a	0.775 ^a	0.757 ^a	-0.090	-0.064
Political leadership does not hire and fire senior public sector officials	0.522 ^a	0.287 ^a	0.530 ^a	0.433 ^a	-0.383 ^a	0.654 ^a	0.523 ^a	0.061	0.154
Senior public officials are hired from the ranks of the public sector	0.340 ^a	0.334 ^a	0.416 ^a	0.437 ^a	-0.300 ^a	0.369 ^a	0.568 ^a	0.051	-0.054
			Closed	public administi	ration				
Public sector employees hired via formal examination system	0.177 ^c	0.216 ^b	0.228 ^b	0.320 ^a	-0.162	0.121	0.289 ^a	0.153	0.338 ^c
If recruited, one stays as a public sector employee for the rest of one's career	0.012	0.025	0.124	0.214 ^b	-0.235 ^b	0.075	0.259 ^a	0.234 ^c	0.275
Terms of contracts regulated by special laws not applying to private sector	-0.133	0.009	-0.036	0.102	0.005	-0.101	0.026	0.105	-0.080
				Salaries					
Senior officials have salaries comparable to those of similar private sector managers	0.219 ^b	0.202 ^b	0.167 ^c	0.131	0.091	0.123	0.186 ^c	-0.199	-0.096
Salaries of public administration workers are linked to performance appraisals	0.567 ^a	0.526 ^a	0.574 ^a	0.508 ^a	-0.139	0.470 ^a	0.526 ^a	-0.255 ^b	0.122

Appendix D Panel B: Correlations of Weberian scale components and measures of private sector management quality

The table shows raw pair-wise correlations between the components of the Weberian scale index and measures of private sector management quality for the full sample of countries with letters data. Significance levels: a if p<0.01; b if p<0.05; c if p<0.10.

	Will to delegate authority	Innovation capacity	Quality of management schools	Management practices	Monitoring management	Targets management	Incentives management
	Profess	ional and non-p	olitical public adn	ninistration			
Skills and merits decide who gets the job when recruiting	0.596 ^a	0.593 ^a	0.551 ^a	0.561 ^b	0.493 ^c	0.428 ^c	0.626 ^a
Political connections do not decide who gets the job when recruiting	0.610 ^a	0.573 ^a	0.512 ^a	0.521 ^b	0.499 ^b	0.469 ^c	0.461 ^c
Political leadership does not hire and fire senior public sector officials	0.397 ^a	0.407 ^a	0.378 ^a	-0.052	-0.113	-0.378	0.002
Senior public officials are hired from the ranks of the public sector	0.324 ^a	0.435 ^a	0.303 ^a	0.247	0.346	0.237	0.073
		Closed publ	ic administration				
Public sector employees hired via formal examination system	0.158	0.155	0.078	-0.275	-0.367	-0.237	-0.132
If recruited, one stays as public sector employee for the rest of one's career	0.019	0.151	0.124	-0.261	-0.159	-0.177	-0.398
Terms of contracts regulated by special laws not applying to private sector	0.177 °	0.047	0.040	-0.107	-0.179	-0.049	-0.050
		S	alaries				
Senior officials have salaries comparable to those of similar private sector managers	0.136	0.075	0.145	-0.196	-0.180	-0.198	-0.164
Salaries of public administration workers are linked to performance appraisals	0.435 ^a	0.442 ^a	0.380 ^a	0.489 ^c	0.480 ^c	0.362	0.501 ^b

Appendix E Panel A: Public sector management quality and mail efficiency

		L	$n\left(1 + \frac{r_{90} *}{L}\right)$	<u>s</u>)			Ln($1 + \frac{q * S}{L}$		
Ln letter boxes per staff	0.639 ° [0.371]	0.683 ° [0.373]	0.665 ° [0.388]	0.783 ^b [0.347]	0.492 [0.309]	0.185 [0.165]	0.217 [0.170]	0.208 [0.178]	0.397 ^b [0.183]	0.273 [0.184]
Postcode databases	3.656 ^a [1.228]	3.605 ^a [1.157]	3.520 ^a [1.096]	3.826 ^a [1.148]	3.832 ^a [1.022]	1.993 ^a [0.680]	2.114 ^a [0.603]	2.030 ^a [0.564]	2.521 ^a [0.655]	1.961 ^a [0.577]
Alphabet used is Latin-based	0.186 [0.907]	0.037 [0.907]	-0.011 [0.916]	0.276 [0.951]	-1.666 ^b [0.692]	0.834 ^c [0.495]	0.506 [0.491]	0.440 [0.486]	0.887 [0.572]	-0.294 [0.422]
Ln distance from country to US	-1.556 ^b [0.728]	-1.632 ^b [0.722]	-1.524 ^b [0.722]	-1.533 ^b [0.714]	-1.696 ^b [0.847]	-0.494 [0.327]	-0.520 ° [0.307]	-0.326 [0.291]	-0.338 [0.329]	-0.063 [0.410]
Weberian public administration	0.785 [0.664]					1.330 ^a [0.334]				
Professional & non-political public administraiton		0.460 [0.424]					0.801 ^a [0.197]			
Hired for skills and merits			0.463 [0.403]					0.736 ^a [0.199]		
Closed public administration				0.239 [0.418]					0.367 [0.254]	
Public management performance					0.885 ^a [0.227]					0.554 ^a [0.135]
Constant	8.252 [7.590]	9.94 [7.632]	9.124 [7.546]	8.108 [7.981]	9.575 [8.081]	4.085 [3.575]	6.378 ° [3.556]	4.879 [3.552]	3.294 [4.054]	1.302 [4.165]
Observations Adj. R-squared	102 0.32	103 0.32	103 0.32	103 0.31	117 0.40	102 0.45	103 0.43	103 0.44	103 0.36	117 0.37

Appendix E Panel B: Attitudes and decision making by public officials and mail efficiency

			I	$\ln\left(1+\frac{r_{90}*5}{L}\right)$	2)					I	$Ln\left(1+\frac{q*S}{L}\right)$)		
Ln letter boxes per staff	0.753 ^b [0.360]	0.671 ° [0.355]	0.676 ° [0.356]	0.674° [0.359]	0.786 ^b [0.326]	0.686 ^c [0.376]	0.629 ° [0.348]	0.338 ° [0.182]	0.305 ° [0.180]	0.276 [0.172]	0.313 ^c [0.183]	0.423 ^b [0.170]	0.284 [0.185]	0.218 [0.162]
Postcode databases	3.662 ^a [1.144]	3.651 ^a [1.073]	3.316 ^a [1.167]	3.264 ^a [1.110]	3.459 ^a [1.185]	3.554 ^a [1.187]	3.481 ^a [1.172]	2.213 ^a [0.589]	2.407 ^a [0.528]	1.933 ^a [0.573]	2.057 ^a [0.551]	2.327 ^a [0.622]	2.162 ^a [0.558]	2.130 ^a [0.596]
Alphabet used is Latin-based	-0.009 [0.893]	0.067 [0.886]	-0.185 [0.886]	-0.036 [0.912]	0.0323 [0.870]	-0.278 [0.952]	-0.152 [0.928]	0.424 [0.480]	0.592 [0.483]	0.275 [0.472]	0.498 [0.506]	0.577 [0.489]	0.144 [0.482]	0.313 [0.483]
Ln distance from country to US	-1.548 ^b [0.717]	-1.506 ^b [0.706]	-1.513 ^b [0.733]	-1.551 ^b [0.706]	-1.433 ^c [0.722]	-1.396 ^c [0.724]	-1.510 ^b [0.737]	-0.373 [0.299]	-0.292 [0.269]	-0.303 [0.273]	-0.334 [0.284]	-0.235 [0.316]	-0.202 [0.281]	-0.299 [0.285]
Public sector employees strive to be efficient	0.389 [0.412]							0.679 ^a [0.211]						
Public sector employees strive to implement policies decided by top politicians		0.805 [0.502]							0.786 ^a [0.295]					
Public sector employees strive to help citizens			0.787 ^c [0.465]							0.958 ^a [0.195]				
Public sector employees strive to follow rules				0.701 ^c [0.414]							0.659 ^a [0.204]			
Public sector employees strive to fulfill the ideology of the parties in government					-0.784 ^b [0.360]							-0.587 ^a [0.188]		
Impartiality of public sector employees						0.615 [0.397]							0.703 ^a [0.132]	
Public sector officials act impartially when deciding to implement a policy in a case							0.717 ^c [0.416]							0.877 ^a [0.204]
Constant	8.442 [7.728]	6.771 [7.679]	7.734 [7.653]	7.982 [7.526]	12.120 ^c [7.210]	7.309 [7.609]	8.44 [7.501]	3.761 [3.623]	2.299 [3.635]	3.016 [3.441]	3.508 [3.574]	6.794 ^c [3.629]	3.195 [3.566]	3.873 [3.436]
Observations Adj. R-squared	103 0.31	103 0.33	103 0.33	103 0.33	103 0.34	101 0.34	103 0.34	103 0.42	103 0.41	103 0.46	103 0.41	103 0.40	101 0.45	103 0.47

Appendix E Panel C: Public sector wages and mail efficiency

	_	$\operatorname{Ln}\left(1+\frac{7}{2}\right)$	<u>F90 * S</u>			$\operatorname{Ln}\left(1+\frac{1}{2}\right)$	$\frac{1}{L} \times \frac{S}{L}$	
Ln letter boxes per staff	0.804 ^b [0.358]	0.697° [0.353]	1.268 ^a [0.389]	1.107 ° [0.580]	0.431 ^b [0.191]	0.322 ° [0.171]	0.754 ^a [0.212]	0.899 ^b [0.320]
Postcode databases	3.826 ^a [1.099]	3.891 ^a [1.145]	3.910 ^b [1.327]	1.33 [2.054]	2.543 ^a [0.602]	2.507 ^a [0.593]	1.969 ^a [0.724]	1.804 [1.108]
Alphabet used is Latin-based	0.199 [0.883]	-0.097 [0.907]	0.323 [0.962]	1.024 [2.292]	0.75 [0.516]	0.422 [0.492]	1.110° [0.575]	1.187 [1.071]
Ln distance from country to US	-1.423 ° [0.720]	-1.509 ^b [0.736]	-1.667 ^b [0.806]	-0.455 [0.702]	-0.186 [0.341]	-0.360 [0.310]	-0.400 [0.354]	-0.195 [0.438]
Senior officials with salaries comparable to to salaries of managers of private sector	0.269 [0.354]				0.354 ^c [0.179]			
Salaries of public administration workers are linked to performance appraisals		0.515 [0.391]				0.630 ^a [0.208]		
Avg. government wage / GDP per capita			-0.081 [0.187]				-0.132 [0.095]	
Postman salary / GDP per capita				-1.507 [2.514]				0.607 [0.945]
Constant	18.375 ^b [7.002]	18.464 ^a [6.988]	21.600 ^a [7.531]	13.475 [8.699]	8.262 b [3.318]	9.164 ^a [2.954]	11.801 ^a [3.241]	9.850 ^b [4.363]
Observations Adj. R-squared	103 0.31	102 0.32	84 0.46	25 0.14	103 0.37	102 0.41	84 0.47	25 0.40

Appendix E Panel D: Private sector management quality and mail efficiency

			Li	$n\left(1 + \frac{r_{90} * S}{L}\right)$)					L	$\ln\left(1+\frac{q*S}{L}\right)$			
Ln letter boxes per staff	0.640 ^b [0.295]	0.414 [0.279]	0.535 ° [0.280]	0.173 [0.249]	0.067 [0.220]	0.135 [0.266]	0.368 [0.297]	0.373 b [0.153]	0.264 ° [0.152]	0.306 ^b [0.141]	0.265 [0.212]	0.201 [0.188]	0.231 [0.233]	0.421 ° [0.235]
Postcode databases	4.066 ^a [0.810]	3.249 ^a [0.870]	3.495 ^a [0.799]	-0.613 [0.999]	-0.638 [0.830]	-0.692 [1.081]	0.007 [1.432]	2.047 ^a [0.425]	1.610 ^a [0.445]	1.670 ^a [0.417]	0.114 [0.919]	0.178 [0.819]	0.040 [1.031]	0.531 [1.236]
Alphabet used is Latin-based	-1.259 ° [0.696]	-1.018 [0.674]	-1.366 ^b [0.670]	0.505 [0.534]	0.080 [0.437]	0.575 [0.609]	0.720 [0.927]	0.002 [0.361]	0.242 [0.362]	-0.056 [0.332]	0.500 [0.535]	0.182 [0.479]	0.560 [0.601]	0.713 [0.803]
Ln distance from country to US	-2.421 ^a [0.738]	-2.201 ^a [0.706]	-2.117 ^a [0.705]	-0.082 [0.263]	-0.136 [0.220]	-0.300 [0.270]	-0.086 [0.405]	-0.501 ^c [0.294]	-0.396 [0.283]	-0.249 [0.267]	0.049 [0.212]	-0.014 [0.194]	-0.134 [0.212]	0.114 [0.325]
Will to delegate authority	1.028 ^a [0.333]							1.054 ^a [0.182]						
Innovation capacity		1.497 ^a [0.296]							1.101 ^a [0.169]					
Quality of management schools			1.559 ^a [0.325]	L						1.328 ^a [0.171]	L			
Management practices index				3.902 ^b [1.439]	2.045 a						3.288 ^b [1.203]	2.016 a		
Monitoring management Targets management					3.945 ^a [1.256]	3.006 ^b						3.016 ^a [0.879]	2.550 ^b	
Incentives management						[1.166]	2.332						[1.048]	2.519
Constant	15.774 b	15.988 ^b	12.033 ^c	-2.374	-0.994	2.786	[1.609] -0.661	3.721	4.672	0.925	-3.225	-1.383	1.094	[1.446] -3.7690
Observations Adj. R-squared	[7.418] 137 0.42	[7.190] 134 0.45	[7.028] 137 0.46	[5.552] 20 0.25	[4.770] 20 0.46	[4.834] 20 0.18	[8.976] 20 0.03	[3.415] 137 0.48	[3.269] 134 0.51	[3.026] 137 0.55	20 0.43	[3.952] 20 0.55	[3.880] 20 0.36	[7.247] 20 0.25

Appendix F Panel A: Postal Office Characteristics Robustness: Ln Permanent Offices per Staff and Public Management variables

			$\operatorname{Ln}\left(1+\frac{r*5}{L}\right)$	<u>S</u>)			L	$\ln\left(1 + \frac{r_{90} *}{L}\right)$	<u>S</u>)			L	$n\left(1+\frac{q*S}{L}\right)$)	
Ln permanent offices per staff	0.240 [0.250]	0.138 [0.258]	0.245 [0.279]	-0.012 [0.255]	0.141 [0.344]	0.359 [0.469]	0.206 [0.475]	0.280 [0.478]	0.090 [0.465]	0.011 [0.423]	-0.054 [0.170]	-0.124 [0.191]	-0.056 [0.206]	-0.260 [0.191]	0.080 [0.274]
Postcode databases	2.371 ^a [0.838]	2.513 ^a [0.747]	2.358 ^a [0.632]	3.203 ^a [0.821]	2.687 ^a [0.819]	4.322 ^a [1.112]	4.225 ^a [1.085]	4.124 ^a [1.023]	4.749 ^a [1.005]	4.195 ^a [0.971]	2.113 ^a [0.633]	2.241 a [0.563]	2.174 ^a [0.537]	2.844 a [0.584]	2.184 ^a [0.556]
Alphabet used is Latin-based	0.910 [0.655]	0.448 [0.612]	0.351 [0.593]	0.996 [0.796]	-0.413 [0.585]	-0.003 [0.899]	-0.287 [0.895]	-0.356 [0.889]	0.076 [0.964]	-1.872 ^a [0.688]	0.779 [0.484]	0.410 [0.469]	0.340 [0.461]	0.762 [0.570]	-0.407 [0.418]
Ln distance from country to US	-0.393 [0.363]	-0.400 [0.342]	-0.172 [0.348]	-0.050 [0.410]	0.079 [0.585]	-1.469 ^b [0.693]	-1.535 ^b [0.696]	-1.367 ^c [0.693]	-1.270 ° [0.702]	-1.284 [0.829]	-0.433 [0.332]	-0.435 [0.316]	-0.241 [0.312]	-0.131 [0.369]	0.158 [0.412]
Weberian public administration	1.824 ^a [0.438]					1.287 ^b [0.603]					1.439 ^a [0.343]				
Professional & non-political public administration		1.107 ^a [0.249]					0.802 ^b [0.395]					0.877 ^a [0.199]			
Hired for skills and merits			1.080 ^a [0.247]					0.774 ^b [0.363]					0.810 ^a [0.200]		
Closed public administration				0.680 ^c [0.353]					0.446 [0.458]					0.427 ^c [0.257]	
Public management performance					0.650 ^a [0.206]					0.912 ^a [0.234]					0.570 ^a [0.139]
Constant	0.399 [5.287]	5.063 [4.811]	1.665 [5.096]	3.911 [5.785]	0.771 [7.287]	8.892 [8.519]	13.739 ° [8.151]	11.326 [8.495]	13.139 [8.873]	11.592 [9.177]	6.056 ° [3.528]	9.552 ^a [3.368]	7.123 ^b [3.530]	9.198 ^b [3.949]	1.582 [4.768]
Observations Adj. R-squared	102 0.38	103 0.36	103 0.38	103 0.27	117 0.26	102 0.30	103 0.28	103 0.29	103 0.26	117 0.39	102 0.45	103 0.43	103 0.43	103 0.33	117 0.36

Appendix F Panel B: Postal Office Characteristics Robustness: Ln Permanent Offices per Staff and Private Management variables

				$\operatorname{Ln}\left(1+\frac{r*S}{L}\right)$							$\operatorname{Ln}\left(1+\frac{r_{90}*S}{L}\right)$)						$\operatorname{Ln}\left(1+\frac{q*S}{L}\right)$			
Ln permanent offices per staff	-0.034 [0.246]	-0.016 [0.250]	0.092 [0.216]	0.098	0.097 [0.237]	0.011 [0.251]	0.052 [0.307]	-0.007 [0.410]	0.148	0.158 [0.374]	0.115 [0.243]	0.139 [0.215]	0.007 [0.227]	0.019 [0.295]	-0.044 [0.186]	-0.025 [0.190]	0.042 [0.146]	0.068 [0.253]	0.069 [0.227]	-0.022 [0.245]	0.019 [0.303]
Postcode databases	3.023 ^a [0.642]	2.324 ^a [0.673]	2.476 ^a [0.617]	0.073	0.188	-0.082 [1.001]	0.470 [1.422]	4.591 ^a [0.750]	3.462 ^a [0.836]	3.906 ^a [0.721]	-0.634 [0.994]	-0.568 [0.784]	-0.783 [1.078]	-0.080 [1.642]	2.344 ^a [0.406]	1.734 ^a [0.432]	1.896 ^a [0.391]	0.016	0.132 [0.854]	-0.140 [1.040]	0.430 [1.480]
Alphabet used is Latin-based	-0.147 [0.555]	0.213	-0.202 [0.521]	0.32 [0.540]	0.030 [0.453]	0.411 [0.597]	0.423	-1.491 b [0.689]			. ,	0.018	0.489	0.465	-0.133 [0.362]	0.157	-0.169 [0.328]	0.317	0.016	0.41 [0.625]	0.422
Ln distance from country to US	-0.386 [0.391]	-0.239 [0.377]	-0.147 [0.364]	0.015	-0.041 [0.171]	-0.173 [0.191]	0.015	-2.230 ^a [0.709]	-2.082 ^a [0.685]	. ,	-0.109 [0.270]	-0.143 [0.220]	-0.337 [0.260]	-0.190 [0.438]	-0.381 [0.295]	-0.300 [0.288]	-0.145 [0.264]	-0.004 [0.227]	-0.060 [0.183]	-0.198 [0.203]	-0.006
Will to delegate authority	1.073 ^a [0.245]	[0.577]	[0.501]	[0.213]	[0.171]	[0.171]	[0.302]	1.230 ^a [0.346]	[0.005]	[0.073]	[0.270]	[0.220]	[0.200]	[0.150]	1.160 ^a [0.203]	[0.200]	[0.201]	[0.227]	[0.100]	[0.203]	[0.570]
Innovation capacity		1.159 ^a [0.212]							1.728 ^a [0.330]							1.214 ^a [0.176]					
Quality of management schools			1.512 ^a [0.236]							1.807 ^a [0.310]							1.455 ^a [0.180]				
Management practices index				3.611 ^a [1.101]							4.292 ^b [1.450]							3.731 ^a [1.150]			
Monitoring management					3.185 ^a [0.781]						[]	4.155 ^a [1.265]							3.311 ^a [0.824]		
Targets management						2.790 ^a [0.898]							3.207 ^a [1.054]							2.867 ^a [0.934]	
Incentives management						. ,	2.684 [1.731]						. ,	2.541 [1.921]						. ,	2.752 [1.783]
Constant	7.271 [5.408]	6.2144 [5.275]	1.596 [5.237]	-1.1371 [6.051]	0.160 [4.653]	4.100 [5.115]	2.1043 [9.949]	21.322 ^b [8.258]	17.571 ^b [8.149]	14.215 ° [7.894]	-2.241 [6.869]	-2.360 [5.932]	4.390 [5.284]	4.609 [10.752]	7.421 ^c [3.765]	7.054 ^c [3.648]	2.750 [3.477]	-1.128 [6.026]	0.124 [4.611]	4.343 [5.070]	2.321 [10.091]
Observations Adj. R-squared	137 0.30	134 0.33	137 0.36	20 0.39	20 0.52	20 0.33	20 0.12	137 0.39	134 0.44	137 0.44	20 0.34	20 0.46	20 0.17	20 -0.04	137 0.45	134 0.49	137 0.53	20 0.39	20 0.52	20 0.32	20 0.12

Appendix G - Geography Robustness: Postal office characteristics, management and geographic variables as determinants of mail efficiency

The table presents robust OLS regressions for all the countries in our sample. The dependent variable in all regressions is Ln(1 + r*S/L). Each of the three panels includes a different management variable. The management variable in cluded in each panel are: "Weberian public administration" in Panel A; "Public sector officials act impartially when deciding to implement a policy in a case" in Panel B; and "Quality of management schools" in Panel C. Robust standard errors are shown in parentheses under each coefficient. Significance levels: a if p<0.01; b if p<0.05; and c if p<0.10.

Dependent variable:				Ln	$\left(1 + \frac{r * S}{L}\right)$							Li	$n\left(1+\frac{r*S}{L}\right)$							Ln(1+	$+\frac{r*S}{L}$			
			Panel A	: Weberia	n public a	dmininstr	ration				Panel B:	Public se	ector offic	ials act in	npartially				Panel C:	Quality of	of manage	ement sch	ools	
Ln letter boxes per staff	0.315	0.221	0.235	0.274	0.245	0.274	0.132	0.193	0.320	0.247	0.282	0.311	0.273	0.289	0.151	0.263	0.209	0.235	0.234	0.269	0.259	0.262	0.12	0.203
Postcodes databases	[0.282] 2.107 ^b [1.008]	[0.250] 2.020 b [0.937]	[0.260] 2.092 ^b [0.930]	[0.252] 1.949 ^b [0.888]	[0.255] 2.010 ^b [0.936]	[0.256] 1.987 ^b [0.914]	[0.269] 1.115 [0.814]	[0.275] 1.133 [0.957]	[0.305] 2.357 ^a [0.821]	[0.258] 2.232 ^a [0.768]	[0.269] 2.282 ^a [0.772]	[0.263] 2.252 ^a [0.742]	[0.264] 2.174 ^a [0.768]	[0.266] 2.245 ^a [0.791]	[0.281] 1.303 ° [0.712]	[0.285] 1.438 ° [0.806]	[0.320] 2.520 ^a [0.760]	[0.280] 2.328 ^a [0.716]	[0.269] 2.277 ^a [0.671]	[0.269] 2.251 ^a [0.673]	[0.271] 2.308 ^a [0.698]	[0.267] 2.384 ^a [0.674]	[0.294] 1.668 ^b [0.687]	[0.285] 1.429 ^b [0.647]
Alphabet used is Latin-based	1.129	1.033	0.968	0.978	1.013	0.945	0.752	0.898	0.477	0.367	0.335	0.363	0.407	0.358	0.416	0.483	0.068	-0.138 [0.576]	-0.194 [0.561]	-0.091 [0.544]	-0.137 [0.570]	-0.276 [0.569]	0.044	0.122
Ln distance from country to U.S.	-0.281 [0.378]	-0.547 [0.538]	-0.449 [0.374]	-0.467 [0.355]	-0.452 [0.351]	-0.466 [0.394]	-0.199 [0.250]	-0.004 [0.287]	-0.038 [0.342]	-0.443 [0.536]	-0.199 [0.327]	-0.185 [0.311]	-0.234 [0.305]	-0.246 [0.330]	-0.057 [0.257]	0.142	0.169	-0.284	-0.310 [0.369]	-0.251 [0.350]	-0.189 [0.357]	-0.150 [0.360]	-0.285 [0.325]	-0.061 [0.303]
Management variable	1.610 ^a [0.423]	1.624 ^a [0.387]	1.643 ^a [0.403]	1.558 ^a [0.360]	1.575 ^a [0.373]	1.594 ^a [0.383]	0.806 ^b [0.392]	1.096 ^b [0.487]	1.044 ^a [0.233]	1.071 ^a [0.235]	1.055 ^a [0.237]	0.968 ^a [0.213]	1.029 a [0.219]	0.998 ^a [0.231]	0.535 ^a [0.188]	0.645 ^a [0.232]	1.336 a [0.221]	1.390 ^a [0.236]	1.524 ^a [0.266]	1.339 ^a [0.220]	1.419 ^a [0.217]	1.520 ^a [0.253]	0.842 ^a [0.278]	0.794 ^a [0.245]
Full State monopoly or some servivce reserved for the State	0.505 [0.605]								0.747 [0.641]								0.339 [0.605]							
US exports over country GDP		-4.191 [7.719]								-6.557 [7.960]								-1.200 [6.950]						
Landlocked dummy			0.327 [0.503]			0.188 [0.486]					0.283 [0.512]			0.286 [0.509]					0.713 [0.596]			0.455 [0.583]		
Ln area				-0.213 ^c [0.120]		-0.249 ° [0.138]						-0.17 [0.115]		-0.129 [0.129]						-0.157 ^c [0.092]		-0.306 ^b [0.122]		
Ln population density					0.119 [0.164]	-0.091 [0.190]							0.191 [0.153]	0.084 [0.173]							-0.080 [0.144]	-0.369 ° [0.187]		
Ln man-hour costs per million letters with geographic adjustments							-0.582 ^a [0.149]								-0.561 ^a [0.130]								-0.429 a [0.139]	
UPU fee classification (Group 2)								-0.287 [0.368]								-0.396 [0.272]								-0.135 [0.335]
UPU fee classification (Group 3)								-1.185 ^b [0.504]								-0.928 [0.567]								-0.956 b [0.465]
UPU fee classification (Group 4)								-2.114 ^a [0.705]								-1.968 ^a [0.620]								-2.382 ^a [0.586]
UPU fee classification (Group 5)								-3.297 ^a [1.085]								-3.014 ^a [1.100]								-2.669 ^a [0.906]
Constant	3.058 [3.897]	5.97 [4.961]	4.882 [3.408]	8.176 ^b [3.779]	4.774 [3.304]	8.818 ^b [3.856]	8.847 ^a [3.242]	5.013 [3.347]	3.097 [3.497]	7.493 [4.837]	5.201 ^c [2.937]	7.614 ^b [3.181]	4.868 ° [2.836]	7.094 ^b [3.388]	8.637 ^a [2.764]	5.4810c [2.857]	0.357 [3.586]	4.784 [4.162]	4.342 [3.634]	6.621 ° [3.678]	4.185 [3.546]	8.258 ^b [3.705]	8.822 ^b [3.916]	6.898 ^b [3.298]
Observations Adj. R-squared	93 0.40	100 0.37	102 0.38	102 0.40	102 0.39	102 0.39	101 0.49	102 0.44	94 0.41	101 0.39	103 0.40	103 0.41	103 0.41	103 0.40	102 0.49	103 0.44	123 0.37	134 0.36	137 0.37	137 0.38	137 0.37	137 0.39	136 0.40	137 0.42

Appendix H -Historical Robustness: Postal office characteristics, management, legal origins, religion, ethnic fractionalization, latitude and GDP per capita as determinants of mail efficiency

The table presents robust OLS regressions for all the countries in our sample. The dependent variable in all regressions is Ln(1 + r*S/L). Each of the three panels includes a different management variable. The management variable in cluded in each panel are: "Weberian public administration" in Panel A; "Public sector officials act impartially when deciding to implement a policy in a case" in Panel B; and "Quality of management schools" in Panel C. Robust standard errors are shown in parentheses under each coefficient. Significance levels: a if p<0.01; b if p<0.05; and c if p<0.10.

Dependent variable:				$\operatorname{Ln}\left(1+\frac{r}{I}\right)$	<u>* S</u>)					L	$n\left(1+\frac{r*}{L}\right)$	<u>s</u>)					Ln	$\left(1 + \frac{r * S}{L}\right)$)		
		Panel A	: Weber	ian publ	lic admin	instratio	on		Panel B.	: Public s	ector offi	icials act	impartia	ally		Panel C	C: Qualit	y of man	agemen	t school:	5
Ln letter boxes per staff	0.225	0.203	0.231	0.269	0.188	0.202	0.149	0.280	0.264	0.253	0.316	0.269	0.217	0.197	0.276	0.218	0.150	0.229	0.145	0.138	0.012
Postcodes databases	[0.268] 1.126	[0.259] 1.919 ^b	[0.262] 1.845 ^b	[0.263] 1.808 ^b	[0.275] 1.723 ^b	[0.269] 1.781 °	[0.298] 1.517 °	[0.278] 1.445 ^b	[0.273] 2.190 ^a	[0.266] 2.194 ^a	[0.273] 2.087 ^a	[0.285] 2.050 ^a	[0.279] 2.143 ^a	[0.304] 1.987 ^b	[0.276] 1.466 ^b	[0.287] 2.258 ^a	[0.270] 2.270 ^a	[0.269] 1.981 ^a	[0.291] 1.690 ^a	[0.286] 2.248 ^a	[0.301] 1.757 ^a
Alphabet used is Latin-based	[0.799] 1.045	[0.950] 0.992	[0.897] 0.468	[0.836] 1.193 °	1.186 c		[0.876] 0.679	[0.712] 0.600	[0.759] 0.259	[0.771] 0.413	[0.707] 0.564	[0.750] 0.536	[0.770] 0.421	[0.792] 0.516	[0.654] 0.350	-0.176	[0.678] -0.155	[0.627] 0.109	[0.610] 0.193	[0.694] -0.137	0.331
Ln distance from country to U.S.	[0.662]	[0.700]	[0.798]	[0.652] -0.331	[0.665] -0.269	[0.806]	[0.787] -0.053	[0.620]	[0.743] -0.155	[0.677] -0.202	[0.631] -0.101	[0.624] -0.090	[0.755] -0.232	[0.748] -0.103	[0.529]	[0.688] -0.282	[0.545] -0.338	[0.534]	0.012	[0.722]	[0.647]
Management variable	[0.282] 1.144 ^a	[0.346] 1.551 ^a	[0.352] 1.606 ^a	[0.321] 1.568 ^a	[0.344] 1.565 ^a	[0.383] 1.594 ^a	[0.396] 1.501 ^a	[0.263] 0.673 ^a	[0.337] 1.042 ^a	[0.308] 0.987 ^a	[0.292] 0.997 ^a	[0.304] 1.013 ^a	[0.377] 1.039 ^a	[0.373] 0.962 ^a	[0.304] 0.961 ^a	[0.378] 1.372 ^a	[0.362] 1.292 ^a	[0.349] 1.503 ^a	[0.345] 1.416 ^a	[0.380] 1.308 ^a	1.395 ^a
Ln GDP per capita	[0.410] 0.930 a	[0.504]	[0.395]	[0.391]	[0.378]	[0.505]	[0.516]	[0.207] 0.838 ^a	[0.256]	[0.290]	[0.216]	[0.212]	[0.322]	[0.310]	[0.277] 0.654 ^b	[0.231]	[0.244]	[0.227]	[0.217]	[0.257]	[0.262]
French legal origin	[0.288]	-0.255 [0.799]				-0.278 [0.910]	-0.547 [0.912]	[0.273]	-0.004 [0.007]				-0.003 [0.008]	-0.001 [0.007]	[0.285]	-0.006 [0.008]				-0.001 [0.009]	-0.001 [0.009]
German legal origin		0.670				0.428	-0.168 [0.895]		-0.007 [0.009]				-0.019 [0.019]	-0.016 [0.019]		0.002				-0.003 [0.018]	-0.007
Scandinavian legal origin		0.460 [0.640]				0.516	-0.358 [1.202]		-0.014 [0.009]				-0.012 [0.010]	-0.012 [0.010]		-0.009 [0.009]				-0.004 [0.010]	-0.002 [0.010]
Catholic % in 1980		[0.040]	0.003 [0.007]			0.004	0.007		[0.007]	-0.330 [0.750]			-0.496 [0.821]	-0.663 [0.798]		[0.007]	-0.890 c [0.510]			-0.931	-1.064 [0.655]
Protestant % in 1980			0.006			0.001	0.001			0.483			0.279	-0.093 [0.801]			0.515			0.512	-0.175
Muslim % in 1980			-0.015 [0.009]			-0.012 [0.010]	-0.012 [0.010]			-0.068 [0.535]			1.026	0.362			-0.114 [0.440]			0.015	-1.035
Ethnic fractionalization in 1985			[0.007]	-1.291 [1.061]		[0.010]	-0.766 [1.128]			[0.000]	-0.931 [1.000]		[1.000]	-0.637 [1.059]			[00]	-1.446 [0.913]		[111,0]	-0.995 [1.025]
Latitud				[1.001]	1.825 [1.603]		1.871 [2.499]				[1.000]	1.012 [1.603]		1.000 [2.366]				[0.710]	2.849 ^c [1.491]		2.898 [2.224]
Constant	-5.64 [3.585]	5.159 [3.461]	3.614 [3.605]	4.75 [3.204]	2.99 [3.311]	4.034 [3.849]	2.349 [3.900]	-4.13 [3.440]	5.446 ^c [3.194]	5.630 ° [2.973]	4.977 ^c [2.840]	4.058 [2.989]	6.242 ^c [3.318]	5.399 [3.425]	-2.009 [3.523]	5.199 [3.771]	6.008 [3.809]	2.012 [3.429]	1.072 [3.538]	5.929 [3.941]	1.635 [3.486]
Observations	101	102	99	100	100	99	98	102	100	103	101	101	100	99	136	133	137	134	134	133	131
Adj. R-squared	0.45	0.38	0.40	0.39	0.40	0.39	0.38	0.44	0.40	0.40	0.40	0.40	0.39	0.38	0.40	0.36	0.38	0.39	0.38	0.37	0.38

Appendix I: Robustness checks of management variables

The table shows the results of robust OLS regressions using the full sample of countries with letters data. The dependent variable for all regressions is "got the letter back." Each row shows the results of a different regression which includes: (i) all the independent variables used in our main specification in Table 3; (ii) a management variable, which is specified in the first column of the table; and (iii) an additional independent variable which is specified in the heading of each panel. The colums show for each regression: (i) the coefficient and significance level of the management variable; (ii) the coefficient and the significance level of the additional independent variable; (iii) the number of observations; and (iv) the Adjusted R-squared of the regression. The coefficients of the other independent variables are not shown. Significance levels: a if p<0.01; b if p<0.05; and c if p<0.10.

	Dependent variable: Lr	$n\left(1+\frac{r*S}{L}\right)$		
Management variable included as independent variable	Coefficient of management variable	Coefficient of additional indepdendent variable	Obs.	Adj. R-sq
Panel A: Control	ling for Ln GDP per capita			
No management variable		0.890 ^a	154	0.39
Weberian public administration	1.144 ^a	0.930 ^a	101	0.45
Professional and non-political public administration	0.608 ^a	0.973 ^a	102	0.43
Public management performance	0.370 ^c	0.632 °	114	0.27
Public sector employees strive to implement policies	0.610 ^c	1.053 ^a	102	0.42
Public sector employees strive to help citizens	0.799 ^a	0.892 ^a	102	0.45
Public sector employees strive to follow rules	0.146	1.128 a	102	0.41
Public sector employees strive to fulfil ideology of parties	-0.310	1.112 a	102	0.41
Impartiality of public sector employees	0.247	1.029 ^a	100	0.41
Public sector officials act impartially implementing policy	0.673 ^a	0.838 a	102	0.44
Will to delegate authority	0.357	0.807 ^b	136	0.37
Innovation capacity	0.619 ^a	0.694 ^a	133	0.38
Quality of management schools	0.961 ^a	0.654 ^b	136	0.40
Panel B: Control	lling for years of schooling			
No management variable		0.890 ^a	156	0.35
Weberian public administration	1.144 ^a	0.930 ^a	102	0.43
Professional and non-political public administration	0.608 ^a	0.973 ^a	103	0.41
Public management performance	0.370 °	0.632 °	117	0.26
Public sector employees strive to implement policies	0.610 ^c	1.053 ^a	103	0.38
Public sector employees strive to help citizens	0.799 ^a	0.892 a	103	0.42
Public sector employees strive to follow rules	0.146	1.128 ^a	103	0.36
Public sector employees strive to fulfil ideology of parties	-0.310	1.112 a	103	0.37
Impartiality of public sector employees	0.247	1.029 ^a	101	0.38
Public sector officials act impartially implementing policy	0.673 ^a	0.838 ^a	103	0.43
Will to delegate authority	0.357	0.807 ^b	136	0.33
Innovation capacity	0.619 ^a	0.694 ^a	133	0.34
Quality of management schools	0.961 ^a	0.654 b	136	0.38
	olling for years of college			
No management variable		0.229 °	106	0.32
Weberian public administration	1.113 ^b	0.010	87	0.36
Professional and non-political public administration	0.662 ^a	0.062	87	0.35
Public management performance	0.414 ^c	0.140	80	0.19
Public sector employees strive to implement policies	0.496	0.112	87	0.34
Public sector employees strive to help citizens	1.053 ^a	0.017	87	0.39
Public sector employees strive to follow rules	0.176	0.145	87	0.33
Public sector employees strive to fulfil ideology of parties	-0.192	0.139	87	0.33
Impartiality of public sector employees	0.331	0.085	86	0.33
Public sector officials act impartially implementing policy	0.787 ^a	-0.009	87	0.37
Will to delegate authority	0.582	0.196	101	0.30
Innovation capacity	0.908 ^a	0.189	100	0.35
Quality of management schools	1.156 ^a	0.212	101	0.35

Appendix I: Robustness checks of management variables

The table shows the results of robust OLS regressions using the full sample of countries with letters data. The dependent variable for all regressions is "got the letter back." Each row shows the results of a different regression which includes: (i) all the independent variables used in our main specification in Table 3; (ii) a management variable, which is specified in the first column of the table; and (iii) an additional independent variable which is specified in the heading of each panel. The colums show for each regression: (i) the coefficient and significance level of the management variable; (ii) the coefficient and the significance level of the additional independent variable; (iii) the number of observations; and (iv) the Adjusted R-squared of the regression. The coefficients of the other independent variables are not shown. Significance levels: a if p<0.01; b if p<0.05; and c if p<0.10.

	Dependent variable: L1	$n\left(1+\frac{r*S}{L}\right)$		
Management variable included as independent variable	Coefficient of management variable	Coefficient of additional independent variable	Obs.	Adj. R-sq
Panel D: Contr	colling for fiscal capacity	•		
No management variable		0.107 ^a	88	0.38
Weberian public administration	1.950 ^a	0.063 ^b	71	0.48
Professional and non-political public administration	0.667 ^a	0.058 ^b	71	0.45
Public management performance	0.552 ^b	0.118 ^b	65	0.25
Public sector employees strive to implement policies	0.174	0.073 ^b	71	0.29
Public sector employees strive to help citizens	1.010 ^a	0.037	71	0.50
Public sector employees strive to follow rules	0.274	0.076^{b}	71	0.40
Public sector employees strive to fulfil ideology of parties	-0.336 a	0.069 ^b	71	0.41
Impartiality of public sector employees	0.602 a	0.033	70	0.44
Public sector officials act impartially implementing policy	0.628 a	0.054 ^c	71	0.45
Will to delegate authority	0.658 ^a	0.090 ^b	83	0.35
Innovation capacity	0.938 a	0.089 ^b	83	0.37
Quality of management schools	1.247 ^a	0.076 ^b	83	0.41

Appendix J: Variable definitions and basic descriptive statistics for the variables used only in online appendices

Variable name	No. Obs	Mean	Std. Dev.	Coeff. Variation	Min	Max	Definitions and sources
Permanent offices	158	4047.83	14456.49	0.28	2.00	161193.00	The number of permanent post offices in a given country in 2011. According to the Universal Postal Union, permanent post offices are full-service and secondary post offices. Full-service permanent post offices are post offices to which, in principle, customers may apply for all postal services. This category also includes sections of exchange offices or sorting offices offering similar services. Secondary permanent post offices are permanent post offices that generally have reduced services and/or limited opening times for the public. This category also includes sections of exchange offices or sorting offices offering similar services, and establishments other than the designated operator providing postal services on the basis of a contract with the designated operator (such as shops offering postal services). The data for the number of permanent offices and the number of full-time staff of the post office comes from the statistics of the Universal Postal Union. If the data for 2011 is unavailable, we use the most recent value between 2005 and 2010. For countries with missing data (i.e., Kosovo, Nepal, and Taiwan, we used either older Universal Postal Union ratios, data from the national post office annual reports, or data provided directly to us by the postal office of those countries). (Source: Own calculation).
Full state monopoly or some service reserved for the state	141	0.74	0.44	1.70	0.00	1.00	Dummy variable equal to one if the state postal service has complete monopoly over all parcels or over letters and/or packages up to a certain weight, and zero otherwise. If the data for 2010 is unavailable, we use the most recent value between 2005 and 2009. We use Universal Postal Union data except for Taiwan, who does not belong to the Universal Postal Union and for which we use its post office annual report. (Source: Own calculation using Universal Postal Union data).
US exports over country GDP	152	0.03	0.04	0.72	0.00	0.21	Exports from the United States of America to each country as a proportion to the Gross Domestic Product of the country in 2010. (Source: Direction of Trade Statistics, International Monetary Fund).
Landlocked dummy	159	5.94	1.56	3.81	2.29	8.97	Dummy variable equal to one if the country is landlocked, and zero otherwise. (Source: Own calculation using Wikipedia data).
Ln area	159	5.94	1.56	3.81	2.29	8.97	Natural logarithm of the area in square kilometers of a given country in 2010. If the data for 2010 is unavailable, we use the most recent value between 2005 and 2009. We use Universal Postal Union data, except for Taiwan, who does not belong to the Universal Postal Union and for which we use its post office annual report. (Source: Own calculation based on Universal Postal Union data).
Ln population density	159	5.94	1.56	3.81	2.29	8.97	Natural logarithm of the number of population in the country per square kilometer in a given country in 2010. If the data for 2010 is unavailable, we use the most recent value between 2005 and 2009. We use Universal Postal Union data except for Taiwan, who does not belong to the Universal Postal Union and for which we use its post office annual report. (Source: Own calculation based on Universal Postal Union data).
Ln man hour costs per million letters with geographic adjustment	157	4.26	2.35	1.81	0.60	11.17	Natural logarithm of the normal million letters unit cost in man-years of a given country in 2010. If the data for 2010 is unavailable, we use the most recent value between 2005 and 2009. We use Universal Postal Union data, except for Taiwan, who does not belong to the Universal Postal Union and for which we use its post office annual report. The methodology is detailed in the Universal Postal Union country classification methodology for the terminal dues system. (Source: Universal Postal Union data).
UPU fee classification dummies	159	_				_	Classification of the Universal Postal Union based on the postal development indicator of the country in 2010. The methodology used is the one approved by UPU's Council of Administration in 2007. The methodology is detailed in the Universal Postal Union country classification methodology for the future terminal dues system. (Source: Universal Postal Union data).
Legal origin	159						Identifies the legal origin of the Company Law or Commercial Code of each country. There are five possible legal origins: (1) English Common Law; (2) French Commercial Code; (3) German Commercial Code; (4) Scandinavian Commercial Code; and (5) Socialist/Communist laws. (Source: La Porta et al., 1999, and 2008)
Religion	159					_	Identifies the percentage of the population of each country that belonged to the three most widely spread religions in the world in 1980. For countries of recent formation, the data is available for 1990-1995. The numbers are in percent (scale from 0 to 100). The three religions identified here are: (1) Roman Catholic; (2) Protestant; and (3) Muslim. The residual is called "other religions". (Source: La Porta et al., 1999)
Ethnic fractionalization in 1985	154	0.46	0.27	1.68	0.00	0.98	Average value of five different indicators of ethnolinguistic fractionalization. (Source: La Porta et al., 1999)
Latitude	154	0.30	0.19	1.56	0.00	0.72	The absolute value of the latitude of the country, scaled to take values between 0 and 1. (Source: La Porta et al., 1999)
Ln GDP per capita	154	8.76	1.40	6.25	2.15	11.33	Natural logarithm of gross domestic product per capita in PPP constant 2005 international dollars in 2010. When data for 2010 is not available, we use the most recent information available for the period 2004-2009. (Source: World Development Indicators 2011).
Years of schooling	156	7.86	2.75	2.86	0.91	12.69	The average years of schooling from primary school onward for the population aged 15 years or older. We use the most recent information available for the period 1990-2006. (Source: Gennaioli et al. 2013, supplemented with additional data calculated following the same methodology used in Gennaioli et al. 2013).
Years of college	106	2.23	1.74	1.28	0.03	8.74	The average years of college for the population aged 15 years or older. We use the most recent information available for the period 1990-2006. (Source: Gennaioli et al. 2013).
Fiscal capacity	93	17.15	5.64	3.04	7.27	34.48	Tax revenues as a percentage of GDP in 2010. (Source: World Development indicators 2011)

Appendix K1: Methodology of the Experiment

This appendix also includes two Excell files and a Word file containing all the information used to carry out the experiment.

We selected **159 countries** to send letters to based on the criteria of them being (1) sovereign countries and (2) the availability of human capital data from the 2010 education dataset by Barro et al. The five largest **cities** in each country were selected based on the use of Wikipedia and http://population.mongabay.com/. The information of the largest cities was inputted into the tab titled "addresses" of file "R2_addresses.xlsx".

We sent 2 letters to each of the 5 largest cities in 159 countries. These were airmail, first class letters, with correct international postage of 98 cents. The letters were dropped in street mail boxes in Cambridge, MA between December 8, 2010 and February 4, 2011.

Each letter sent was put in a standard envelope with black and white printing of the address. Standard international mail stamps were used. Both the letter inside and the information on the envelope used the Latin alphabet and the Arabic numerals, as required by the postal convention. The letter inside, reproduced in Figure 1, was always the same, and written in English. It came from Rafael La Porta at Tuck School of Business at Dartmouth College in Hanover, New Hampshire. The letter stated that it was confidential, confirmed the receipt of previous correspondence, and requested urgent response regarding the recipient's willingness to continue the collaboration project. The idea of such a letter was to add a bit of urgency to the task of returning in the event that a postal employee opened the envelope and read it. At the same time, we made sure there was only one piece of paper inside the envelope to minimize the temptation for postal employees to look for valuables inside.

The name of the addressee was chosen as a common name in the country. The **person names** on each letter were randomly chosen from a selection of the top twenty baby names and family names from each country. Lists of these names were found from many separate websites searching on the internet. We used a random number generator function in excel to select one of twenty choices for each country. The full list of first names and last names that were candidate names for use in our letters is found on the tab called "names&co" in the excel file titled "R2_addresses.xlsx".

In addition to the name of the addressee, each address on the front of the envelope had a generic name of a business, such as Computer Management Professionals, Smart Computer Services, Inventory Technology Partners, Professional Management Forum, Inventory Area Management Computer, etc.

The company names used in the address were from a list of 20 generic company names we invented.

We translated the company names to the local language of the country using Google translate where it was relevant to do so. The company name used in each address was randomly selected using a random number generator function in excel. These names are listed and selected on the tab titled "names&co" in the same excel file titled "R2_addresses.xlsx".

Following the name of the business, the envelope had a printed address, which had a correct existing zip code for the city in question but a non-existent address. Google maps was used to determine zip codes where possible. Postal codes, when not available through Google maps, were looked up with http://www.upu.int/en/resources/postcodes/looking-up-a-postcode.html and http://www.addressdoctor.com/lookup/default.aspx?lang=en.

The street names used on the letters sent were made up by us and were selected from a list of the last names of famous economists. Names of Nobel Laureates in Economics and famous Western composers were used as street names. In particular we chose the last thirty Nobel prize winning economists, as street names. We used a random number generator function in excel to select among these thirty

possible "street names". This was done on the "lookup" tab "R2_addresses" of the file "R2_addresses.xlsx". The house number on each street was also randomly generated. We randomly generated a digit length of 1 to 4 digits in length and then randomly generated the values of each digit using the same excel formula. This was done on the "lookup" tab "R2_addresses" of the file "R2_addresses.xlsx".

The addresses were typed following the postal convention. The final set of addresses used for each country are contained in the tab called "addresses" in the Excell file titled "R2_addresses.xlsx". It is possible but extremely unlikely that, by coincidence, the street address existed in that city at that zip code. For all practical purposes, the street address was non-existent. There is a specific reason we used incorrect street names. Had we used existing street names (which would be trivial), the letter would probably reach the mailman. Unless we used a crazy building number, the printed address would actually exist. In this case (as often happens in the U.S.), we would expect the mailman to actually deliver the letter to the existing address, so we could not distinguish throwing the letter out from delivering it to a non-existent addressee. To compute our measures of mail efficiency, we thus need a non-existent street, so that it becomes obvious at some point that the address is incorrect. The full addresses and list of letters sent is contained in the file called "mail.csv". This dataset contains the address of each letter, the unique letter identifier, the country code, the date the letter was sent, and the date the letter was returned.

In addition, each letter contained the return address of Rafael La Porta at the Tuck School of Business at Dartmouth. Under the address, it said in larger bold letters **PLEASE RETURN TO SENDER IF**UNDELIVERABLE. This too was done to encourage the return of the letter.

The letter inside each envelope was produced using a mail merge. The letter insert used is in the Word file titled "EnclosedLttr". The list of the letters sent and the actual addresses and names used in our

mailing can be found on the tab titled "master" in the Excel file titled "R2_addresses.xlsx". This is the source file used in the mail merge to create our letters.

All of the countries in the sample subscribe to the Universal Postal Union. Article 147 from the Universal Postal Union Letter Post Regulations Final Protocol of 2009 regulates the return of incorrectly addressed mail, and in particular mandates the return of such mail under normal circumstances (our letters certainly met those circumstances: they did not contain biodegradable or radioactive material, etc.). Moreover, the Regulations require that the letters must be returned within a month of entering the country, and that the sending country (i.e., the US) pays for the return (Articles RC 139.9, 202.1, and 202.2). The letters met all the requirements, such as how the addresses were typed, postage, return addresses, letter weight, to trigger the return under the Universal Postal Union.

Following the mailing, we kept track of the dates of return of the letters, checking every weekday when mail was delivered. Figure 2 presents the front of the envelope for several of the returned letters. Based on this information, we constructed three variables for each country. The first is the fraction of the 10 letters that were returned. The second is the fraction of 10 letters that were returned within 3 months, as would be (generously) required by postal conventions. The third is the average time to get the letter back using the (equalizing) assumption that the letters than never came back actually did come back on February 4, 2012, the last day we kept track of the data. Appendix A provides a detailed description of all the variables we use in the paper; Appendix B illustrates the construction of the mail variables for two countries: Czech Republic and Russia.

Appendix K2: Returned Letters

This appendix presents the front of the envelope of several returned letters.



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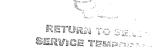


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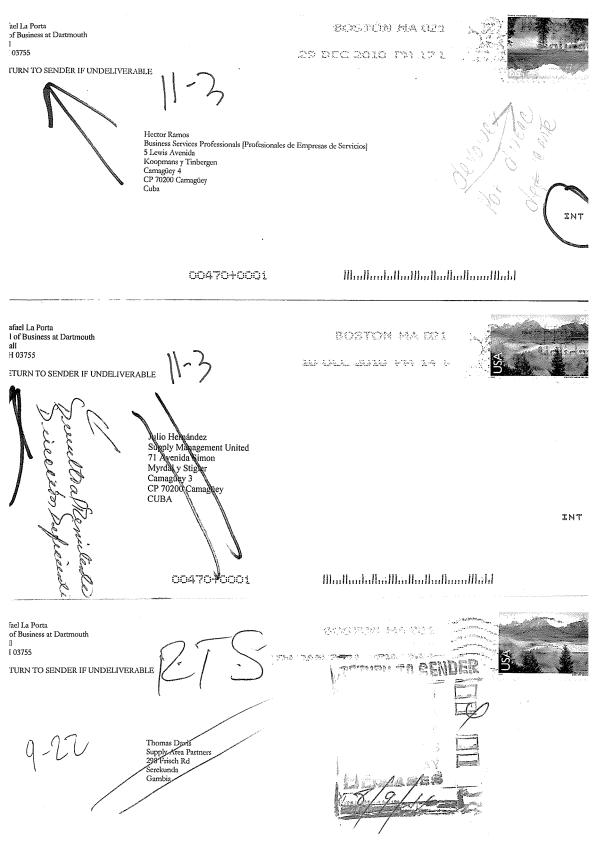
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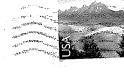
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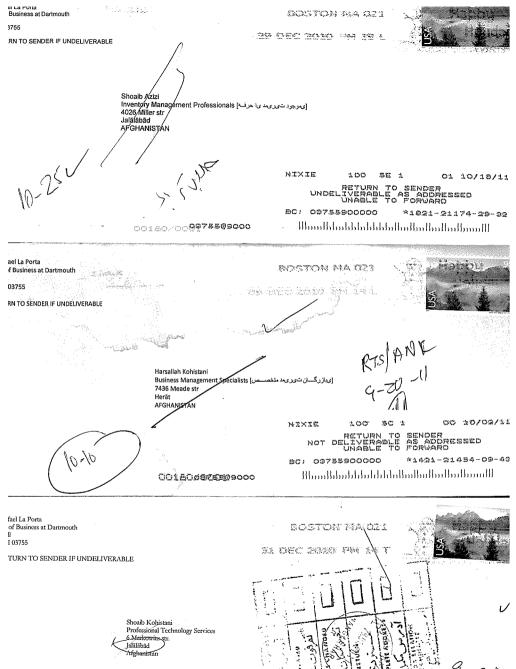


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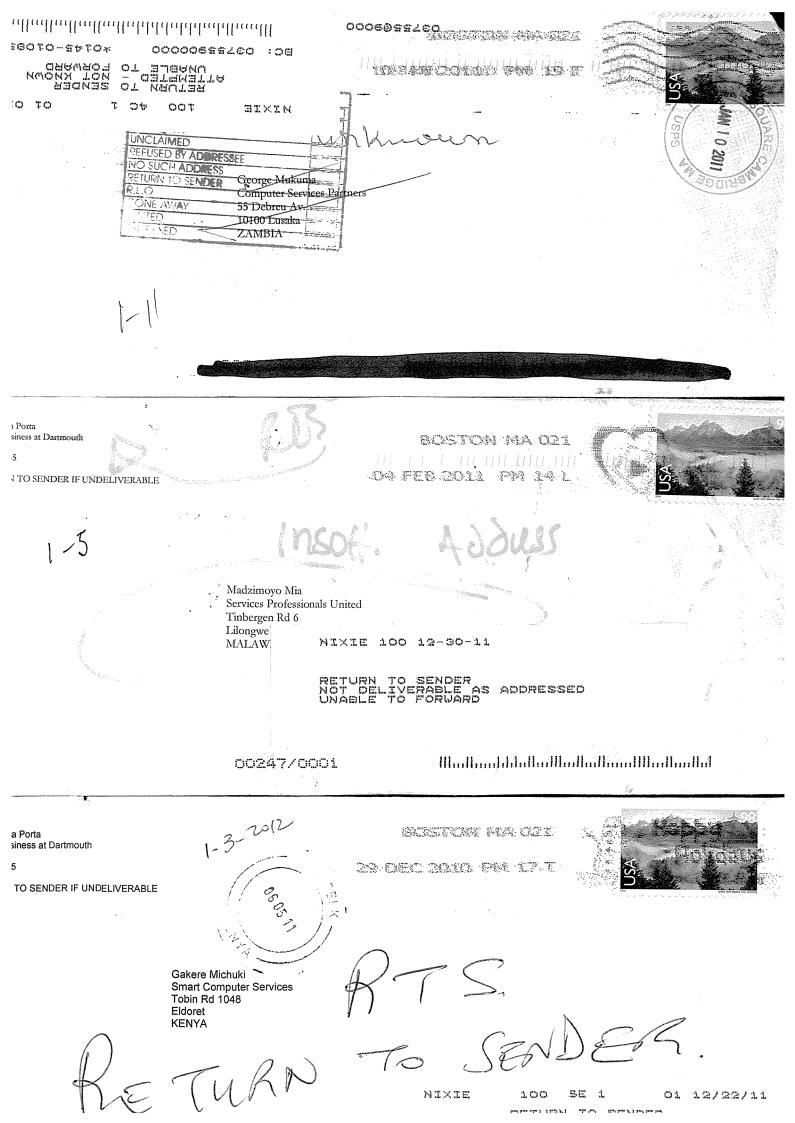
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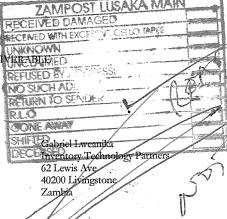
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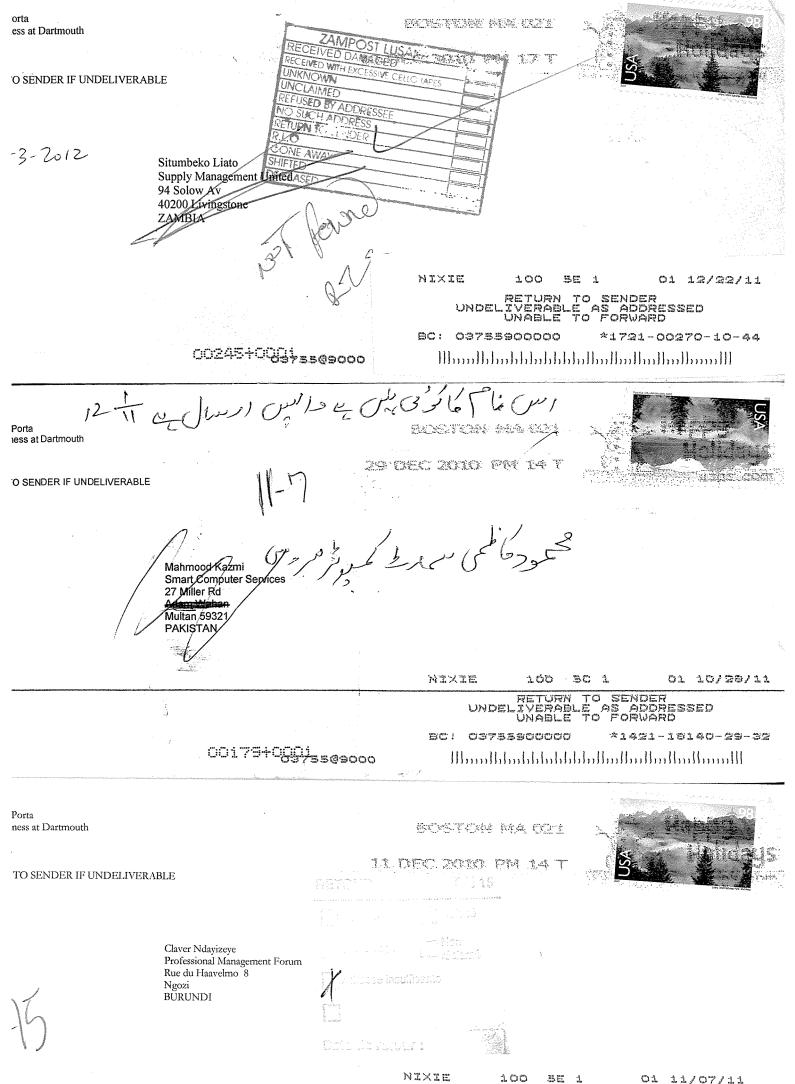






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