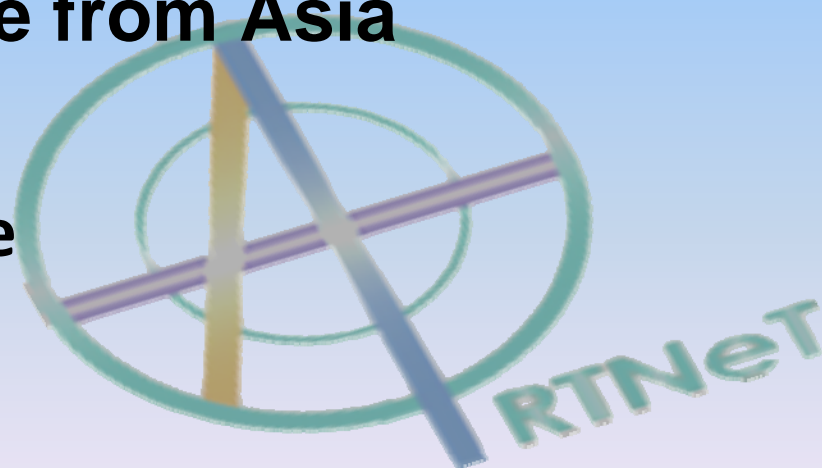


Trade-led Growth in Times of Crisis
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Does Governance Matter for Enhancing Trade?
Empirical Evidence from Asia

Prabir De



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Outline

- Motivation of the study
- Institutions and Governance for Development: Literature Review
- Measuring Governance in Asia and the Pacific Region
- Impact of Governance on Trade in Asia: Empirical Evidence
- Conclusions and policy implications

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Motivation of the Study

- Asia's participation in the international economy has increased, with greatly reduced barriers to international transactions. However, poor governance makes countries isolated from best practice global markets.
- Countries face significant constraints in improving trade – institutions and governance are few of them.
- Good governance in institutions is similar to what tariff liberalisation to trade.
- Countries (and regions) with higher income, stronger institutions, good governance, and more open economies are likely to have higher levels of regional infrastructure.
- Economic integration becomes successful when the higher trade and investment coupled with good governance supports the region's growth and prosperity.
- Economic integration is successful where “prosper-thy-neighborhood” sentiment becomes stronger; its pace escalates when well-planned policies, institutions and governance enforce the regional projects - physical or otherwise - towards building a regional harmony and unity.
- Ongoing financial and economic crisis has refocused our attention on the governance aspects of economies, but to which economists have not paid enough attention.
- The primary objective of this paper is to find out whether or not the governance matters for enhancing Asia's trade.

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Research Objectives

1. To understand Asian countries performance in governance over time;
2. To assess the empirical relationship between governance and trade in context of Asia;
3. To estimate the strength (and intensity) of essential factors including governance influencing trade in Asia at sub-regional level



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Definition of Institutions

- Institutions can be defined as humanly devised constraints that structure political, economic and social interactions (North, 1990).
- One of the objectives of institutions is to reduce uncertainties that arise from incomplete information concerning the behaviour of other individuals in the process of interaction.
- Main agents imposing institutions (formal) are rulers, parliaments and bureaucracies.
- The outcome of their actions can broadly be defined as governance, that is, either good or bad governance.

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Definition of Governance

- **“Governance” can be defined as the process of decision-making and the process by which decisions are implemented (or not implemented).**
 - Governance is outcome of quality of institutions (Rodrik et al, NBER, 2002)
- Governance has several dimensions such as economic governance, corporate governance, international governance, regional governance, national governance and local governance (Dixit, AER, 2009)
- An appropriate institutional and policy framework is required for the functioning of an effective governance framework.

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Governance is Crucial for Economic Growth and Development

- Institutional quality (governance) is positively associated with
 - higher economic growth and income levels (Campos and Nugent, 1998; Acemoglu et al., 2002; Rodrik et al., 2002; Lee and Kim, 2009),
 - public and private investment (Knack and Keefer, 1995; Alfaro et al., 2005),
 - stock of human capital (Arimah, 2004),
 - better management of (ethnic) conflicts (Easterly, 2001)
 - less income inequality (Chong and Gradstein, 2004)
 - better financial development (Beck et al., 2001)
 - efficient allocation of aid (Epstein and Gang, 2009)
 - sustaining 'common resource pools' through human cooperation (Ostrom, 2005)
- Regulatory quality influences the interaction between trade and economic growth and that countries with excessive regulations do not benefit from trade (Bolaky and Freund, 2004).
 - excessive regulations may encourage a country to produce goods for which the country has no comparative advantage and/or the terms of trade have been unfavourable over recent decades.
- Weak institutions act as significant barriers to trade (Anderson and Marcouiller, 2002)
- Increasing transparency reduces trade costs (Helble et al., 2009)
- Institutional quality in trading partners is positively associated with bilateral trade (De Groot et al., 2004).

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Governance Indicators

- Governance indicators:
 1. Voice and accountability
 2. Political Stability & Absence of Violence/ Terrorism
 3. Government Effectiveness
 4. Regulatory Quality
 5. Rule of Law
 6. Control of Corruption
- Period: 1996 to 2007
- 174 countries worldwide
- Database: World Bank Institute (WBI)
 - Daniel Kaufmann, Aart Kraay and Massimo Mastruzzi (2008). "Governance Matters VII: Governance Indicators for 1996-2007". World Bank Policy Research, June 2008.

Global Ranks: Voice and Accountability (VA)

Central Asia	2007	1996	South Asia	2007	1996
AFGHANISTAN	148	167	BANGLADESH	120	92
ARMENIA	117	119	BHUTAN	128	152
AZERBAIJAN	146	141	INDIA	65	72
KAZAKHSTAN	140	127	MALDIVES	131	140
KYRGYZSTAN	121	118	NEPAL	130	83
TAJIKISTAN	155	162	PAKISTAN	138	120
TURKMENISTAN	172	164	SRI LANKA	107	94
UZBEKISTAN	169	154	Northeast Asia	2007	1996
Southeast Asia	2007	1996	CHINA	164	161
BRUNEI	142	142	HONG KONG	55	65
CAMBODIA	127	131	JAPAN	39	39
INDONESIA	92	143	KOREA, SOUTH	51	54
LAOS	163	138	MONGOLIA	74	56
MALAYSIA	115	99	TAIWAN	48	53
MYANMAR	173	172	Pacific	2007	1996
PHILIPPINES	91	70	AUSTRALIA	16	12
SINGAPORE	108	91	FIJI	113	95
THAILAND	118	61	NEW ZEALAND	7	1
VIETNAM	162	153	Rank correlation	0.91*	

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Global Ranks: Political Stability (PS)

Central Asia	2007	1996	South Asia	2007	1996
AFGHANISTAN	171	158	BANGLADESH	157	132
ARMENIA	96	68	BHUTAN	48	36
AZERBAIJAN	128	118	INDIA	141	137
KAZAKHSTAN	66	103	MALDIVES	85	70
KYRGYZSTAN	144	50	NEPAL	168	114
TAJIKISTAN	138	165	PAKISTAN	172	149
TURKMENISTAN	101	73	SRI LANKA	163	159
UZBEKISTAN	155	93	Northeast Asia	2007	1996
Southeast Asia	2007	1996	CHINA	113	100
BRUNEI	14	9	HONG KONG	19	85
CAMBODIA	118	146	JAPAN	21	34
INDONESIA	145	124	KOREA, SOUTH	60	76
LAOS	95	16	MONGOLIA	49	48
MALAYSIA	76	45	TAIWAN	58	26
MYANMAR	150	141	Pacific	2007	1996
PHILIPPINES	154	108	AUSTRALIA	30	10
SINGAPORE	16	13	FIJI	88	37
THAILAND	142	81	NEW ZEALAND	11	11
VIETNAM	69	66	Rank correlation	0.80*	

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Global Ranks: Government Effectiveness (GE)

Central Asia	2007	1996	South Asia	2007	1996
AFGHANISTAN	159		BANGLADESH	135	120
ARMENIA	92	118	BHUTAN	74	56
AZERBAIJAN	125	139	INDIA	73	81
KAZAKHSTAN	115	148	MALDIVES	85	74
KYRGYZSTAN	132	109	NEPAL	136	86
TAJIKISTAN	149	165	PAKISTAN	124	110
TURKMENISTAN	162	164	SRI LANKA	90	105
UZBEKISTAN	131	147	Northeast Asia	2007	1996
Southeast Asia	2007	1996	CHINA	67	59
BRUNEI	40	27	HONG KONG	13	26
CAMBODIA	138	153	JAPAN	23	23
INDONESIA	100	57	KOREA, SOUTH	26	31
LAOS	137	69	MONGOLIA	127	111
MALAYSIA	33	32	TAIWAN	34	21
MYANMAR	169	157	Pacific	2007	1996
PHILIPPINES	75	65	AUSTRALIA	7	22
SINGAPORE	1	2	FIJI	110	69
THAILAND	66	44	NEW ZEALAND	10	5
VIETNAM	101	83	Rank correlation	0.90*	

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Global Ranks: Regulatory Quality (RQ)

Central Asia	2007	1996	South Asia	2007	1996
AFGHANISTAN	169		BANGLADESH	140	110
ARMENIA	67	150	BHUTAN	133	72
AZERBAIJAN	121	143	INDIA	94	100
KAZAKHSTAN	115	123	MALDIVES	81	72
KYRGYZSTAN	109	126	NEPAL	130	132
TAJIKISTAN	148	164	PAKISTAN	126	121
TURKMENISTAN	170	166	SRI LANKA	84	60
UZBEKISTAN	164	157	Northeast Asia	2007	1996
Southeast Asia	2007	1996	CHINA	95	83
BRUNEI	36	1	HONG KONG	3	4
CAMBODIA	122	92	JAPAN	32	59
INDONESIA	98	66	KOREA, SOUTH	42	61
LAOS	149	155	MONGOLIA	103	133
MALAYSIA	56	42	TAIWAN	40	31
MYANMAR	171	145	Pacific	2007	1996
PHILIPPINES	86	54	AUSTRALIA	9	20
SINGAPORE	4	2	FIJI	116	119
THAILAND	75	63	NEW ZEALAND	8	3
VIETNAM	112	115	Rank correlation	0.87*	

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Global Ranks: Rule of Law (RL)

Central Asia	2007	1996	South Asia	2007	1996
AFGHANISTAN	173	148	BANGLADESH	130	121
ARMENIA	99	98	BHUTAN	57	148
AZERBAIJAN	132	132	INDIA	70	57
KAZAKHSTAN	131	122	MALDIVES	73	
KYRGYZSTAN	158	112	NEPAL	117	75
TAJIKISTAN	156	157	PAKISTAN	138	108
TURKMENISTAN	161	144	SRI LANKA	71	74
UZBEKISTAN	151	137	Northeast Asia	2007	1996
Southeast Asia	2007	1996	CHINA	95	85
BRUNEI	64	45	HONG KONG	20	24
CAMBODIA	150	140	JAPAN	21	19
INDONESIA	125	93	KOREA, SOUTH	38	42
LAOS	143	160	MONGOLIA	92	67
MALAYSIA	54	41	TAIWAN	46	31
MYANMAR	164	147	Pacific	2007	1996
PHILIPPINES	112	69	AUSTRALIA	12	10
SINGAPORE	11	14	FIJI	88	60
THAILAND	76	46	NEW ZEALAND	5	3
VIETNAM	103	114	Rank correlation	0.89*	

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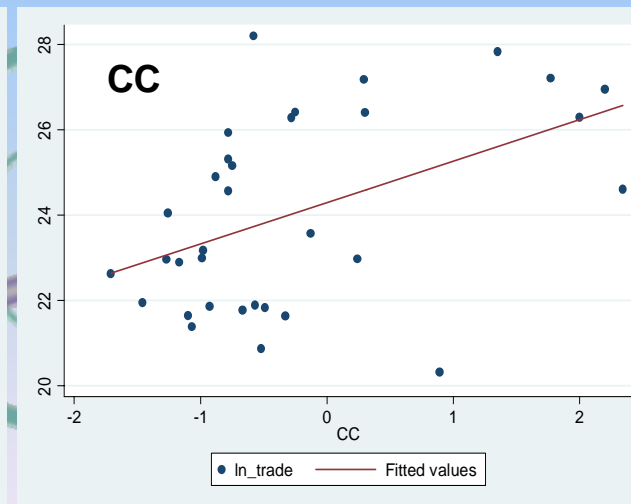
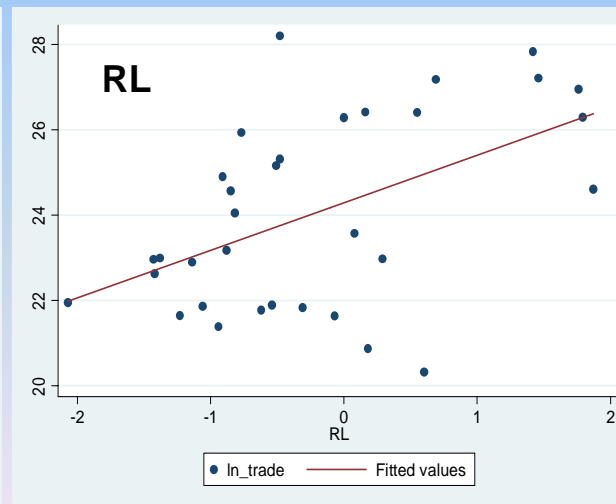
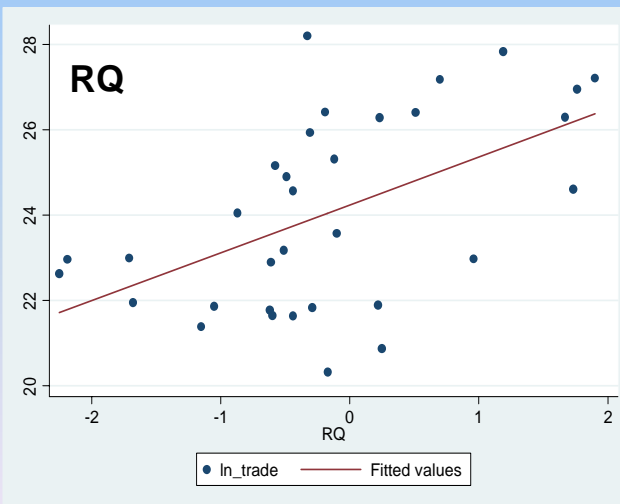
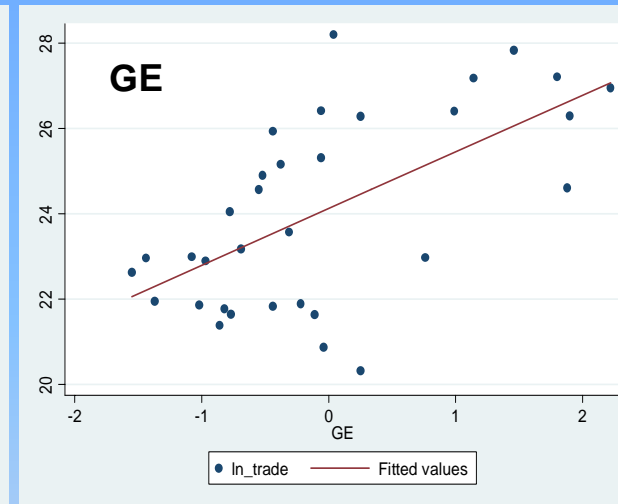
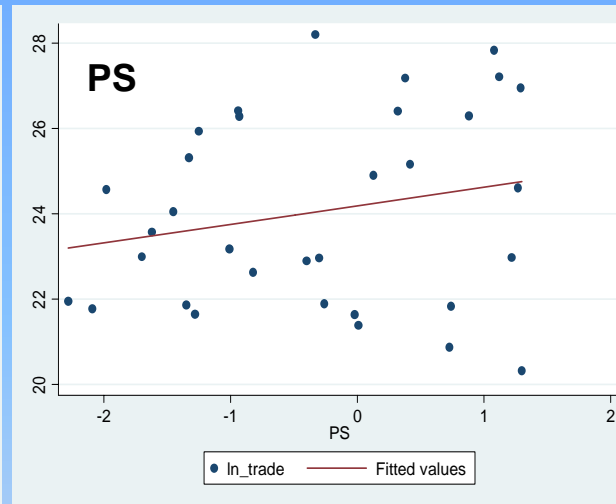
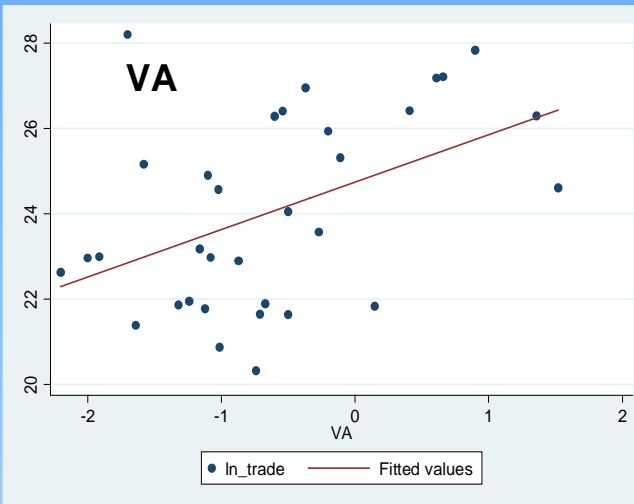
Global Ranks: Control of Corruption (CC)

Central Asia	2007	1996	South Asia	2007	1996
AFGHANISTAN	172		BANGLADESH	157	96
ARMENIA	119	107	BHUTAN	36	
AZERBAIJAN	154	127	INDIA	91	88
KAZAKHSTAN	143	118	MALDIVES	130	
KYRGYZSTAN	161	115	NEPAL	118	80
TAJIKISTAN	137	148	PAKISTAN	135	128
TURKMENISTAN	164	144	SRI LANKA	72	77
UZBEKISTAN	147	130	Northeast Asia	2007	1996
Southeast Asia	2007	1996	CHINA	117	67
BRUNEI	59	46	HONG KONG	17	20
CAMBODIA	160	134	JAPAN	29	26
INDONESIA	125	103	KOREA, SOUTH	51	53
LAOS	150	123	MONGOLIA	113	46
MALAYSIA	62	37	TAIWAN	48	32
MYANMAR	171	140	Pacific	2007	1996
PHILIPPINES	133	78	AUSTRALIA	12	14
SINGAPORE	9	6	FIJI	100	
THAILAND	97	82	NEW ZEALAND	5	4
VIETNAM	123	102	Rank correlation	0.93*	

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Scatter of Trade and Governance Indicators in Asia (2007)



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Methodology and Data Sources

- Ordinary Least Squares (OLS),
- Countries covered: 30
- Years covered: 1996 and 2007
- Governance areas covered: Economic and political
- Data Sources:
 - World Bank Institute, World Governance Indicators Database.
 - World Development Indicators (WDI), World Bank
 - Direction of Trade Statistics Yearbook (DOTS), IMF
 - Policy documents published by the governments and MDBs
 - Others (e.g. national governments)

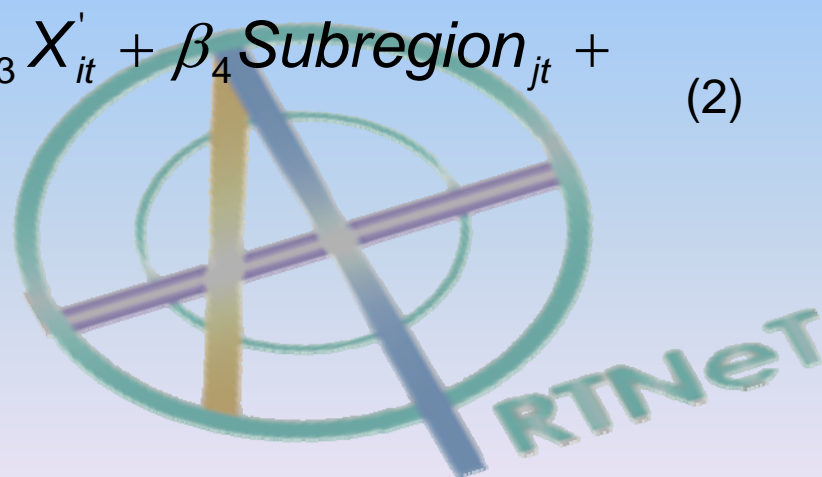
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Impact of Governance on Trade in Asia: Functional Specification

$$Trade_{it} = \alpha_0 + \beta_1 Gov_{it} + \beta_2 TI_{it} + \beta_3 X'_{it} + \beta_4 Subregion_{jt} + \varepsilon_i \quad (1)$$

$$Trade_{it} = \alpha_0 + \beta_1 Gov_{it} + \beta_2 TI_{it} + \beta_3 X'_{it} + \beta_4 Subregion_{jt} + \beta_5 (Gov_{it} * Subregion_{jt}) + \varepsilon_i \quad (2)$$



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Baseline Regression Results

(a) Voice and Accountability

	National	Regional
TI	0.0116** (2.626)	0.0117*** (3.640)
LnPCI	2.604*** (6.512)	2.882*** (8.113)
LnPop	0.537*** (3.544)	0.776*** (3.771)
FDI	0.0212 (0.684)	0.1101* (1.257)
VA (National)	1.001** (2.079)	
VA (Regional), of which		
Central Asia		-0.0446 (-0.0621)
South Asia		-0.5517 (-0.548)
Southeast Asia		1.372* (1.678)
Northeast Asia		1.856* (2.006)
Mean VIF\$	1.54	1.61
IM-test χ^2 (p-value)#	18.74 (0.539)	30.00 (0.414)
Adjusted R ²	0.837	0.801
Observations	60	60

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Baseline Regression Results

(b) Political Stability (PS)

	National	Regional
TI	0.009* (1.968)	0.0113** (2.606)
LnPCI	3.010*** (9.037)	3.008*** (8.433)
LnPop	0.615*** (3.128)	0.605*** (4.267)
FDI	0.0149 (0.427)	0.039 (0.678)
PS (National)	0.0181** (2.038)	
PS (Regional), of which		
Central Asia		-0.989* (-1.528)
South Asia		-0.558* (-1.253)
Southeast Asia		0.599 (0.805)
Northeast Asia		3.344** (2.327)
Mean VIF\$	1.80	1.56
LM-test, χ^2 (p-value)#	18.05 (0.584)	30.00 (0.414)
Adjusted R ²	0.854	0.869
Observations	60	60

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Baseline Regression Results

(c) Government Effectiveness

	National	Regional
TI	0.034 (1.477)	0.025* (2.298)
LnPCI	1.829** (2.356)	2.802** (4.421)
LnPop	0.454** (2.523)	0.467*** (3.023)
FDI	0.0070 (0.18)	0.284 (0.73)
GE (National)	2.129** (2.565)	
GE (Regional), of which		
Central Asia		-0.675 (-0.77)
South Asia		-2.159* (-1.69)
Southeast Asia		0.319 (0.279)
Northeast Asia		3.185** (2.16)
Mean VIF ^{\$}	3.72	2.43
LM-test, χ^2 (p-value)#	22.51 (0.314)	30.00 (0.414)
Adjusted R ²	0.854	0.867
Observations	60	60

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Baseline Regression Results

(d) Regulatory Quality

	National	Regional
TI	0.007* (2.029)	0.016*** (2.911)
LnPCI	2.672*** (4.636)	2.699*** (4.891)
LnPop	0.615*** (3.324)	0.516*** (3.729)
FDI	0.0027 (0.6081)	0.0082 (0.1501)
RQ (National)	0.521 (0.609)	
RQ (Regional), of which		
Central Asia		-0.819 (-1.407)
South Asia		-3.108* (-1.543)
Southeast Asia		-0.836 (-0.491)
Northeast Asia		3.673* (2.315)
Mean VIF\$	2.44	2.50
IM-test, χ^2 (p-value)#	19.36 (0.499)	30.00 (0.414)
Adjusted R ²	0.810	0.819
Observations	60	60

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Baseline Regression Results

(e) Rule of Law

	National	Regional
TI	0.014** (2.091)	0.027* (1.925)
LnPCI	2.204*** (4.43)	2.416*** (4.966)
LnPop	0.573*** (3.376)	0.547*** (3.489)
FDI	0.0202 (0.540)	0.0491* (1.418)
RL (National)	1.127** (2.354)	
RL (Regional), of which		
Central Asia		0.256 (0.471)
South Asia		-0.119 (-0.140)
Southeast Asia		1.782** (2.805)
Northeast Asia		3.771*** (3.205)
Mean VIF\$	2.15	1.83
IM-test, χ^2 (p-value)#	21.43 (0.372)	30.00 (0.414)
Adjusted R ²	0.856	0.867
Observations	60	60

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Baseline Regression Results

(f) Control of Corruption

	National	Regional
TI	0.0082** (2.632)	0.0056* (1.489)
LnPCI	2.037*** (3.869)	2.410*** (5.531)
LnPop	0.625*** (3.731)	0.569*** (3.499)
PPI	0.019 (0.549)	0.0479 (1.311)
CC (National)	1.872** (2.876)	
CC (Regional), of which		
Central Asia		0.683 (0.805)
South Asia		0.208 (0.287)
Southeast Asia		1.954*** (3.36)
Northeast Asia		3.343*** (3.634)
Mean VIF\$	2.08	1.77
LM-test, χ^2 (p-value)#	24.27 (0.201)	30.00 (0.414)
Adjusted R ²	0.876	0.886
Observations	60	60

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Baseline Regression Results

(g) Composite Governance

	National	Regional
TI	0.016** (2.132)	0.019* (2.431)
LnPCI	2.223*** (3.855)	2.618*** (4.714)
LnPop	0.611** (3.637)	0.642** (4.134)
FDI	0.014 (0.312)	0.067 (1.610)
Governance (National)	0.256* (1.923)	
Governance (Regional), of which		
Central Asia		-0.047 (-0.381)
South Asia		-0.110 (-0.501)
Southeast Asia		0.330* (1.414)
Northeast Asia		0.745** (2.784)
Mean VIF	2.67	2.29
LM-test, $\chi^2(p\text{-value})\#$	21.24 (0.383)	30.00 (0.414)
Adjusted R ²	0.865	0.889
Observations	60	60

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Conclusions

- All individual (national) governance indicators except RQ have significant impact on trade in Asia.
- GE is the most important for enhancing trade in Asia (other things being equal).
 - 1 point improvement in GE would lead to about 2 points rise in trade in Asia
- Level of governance varies widely among countries and impact of regional governance varies over major subregions of Asia.
- Countries which have successfully improved governance, institutions, and infrastructure over time have witnessed higher trade, other things being equal.
 - Northeast Asia is a case in point.
- Southeast Asia needs to improve RQ and GE in order to enhance trade.
- Regional governance in Central and South Asia does not show significant relation with trade but having expected positive sign.
 - This may indicate improvement in governance has not been significant enough over time to impact subregional trade.

Policy Implications

- Soft infrastructure such as the institutions and governance are crucial for enhancing trade in Asia
- Good governance and institutions help unlock trade potential of a region (or a nation)
- More effective policy approaches toward improved governance is needed to complement the regional trade policy in Asia and also in the rest part of the world.
- Complementary policy initiatives by countries, regional organisations, and multilateral development organisations are needed in order to strengthen governance in Asia and beyond.
- Regional cooperation has an important catalytic role to play in improving governance in countries and regions.

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Limitations of the Study and Future Research Agenda

- Relationship between governance and trade can not be interpreted as causal or accurate as we cannot rule out the possibility of endogeneity in our baseline equations.
- Statutory robustness checks are needed.
- Analysis may be verified with new governance indicators of alternate sources.
- An analysis on causality between governance and trade is also worth trying.
- Future studies should be undertaken in order to understand the relationship between governance indicators and trade at much disaggregated level.
- Efforts should also be made for collecting representative governance indicators, which contain better information.
- A more sophisticated dynamic analysis may be tried to verify the findings of the paper.
- Since there might be lag(s) between governance and trade, future study might be considered with lagged values of independent variables in panel data to better capture the direction of association.
- Sector-specific analysis, particularly for high export goods, would be useful in order to derive better policy formulation.

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