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Article

A panel analysis of corporate governance spillovers among the G7, BRICS, and GIIPS countries

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ACCOUNTING, CORPORATE GOVERNANCE & BUSINESS ETHICS | RESEARCH ARTICLE

A panel analysis of corporate governance spillovers among the G7, BRICS, and GIIPS countries

Jutamas Wongkantarakorn¹, Chaiyuth Padungsaksawasdi²*, Thanomsak Suwannoi³ and Tatre Jantarakolica³

Abstract: This study uses the Worldwide Governance Indicators (WGI) developed by the World Bank to examine a cross-country corporate governance spillover effect among the G7, BRICS, and GIIPS countries during the period of 1996–2014. The panel unit root tests show stationary panel time series properties of the WGI among these country groups. However, the results of panel vector autoregression partially support the spillover effect, which the U.S. possesses a governance-influence over the GIIPS and BRICS countries, but not for the remaining G7 countries.

Subjects: Corporate Finance; Corporate Governance; Corporate Social Responsibility & Business Ethics

Keywords: Corporate governance; spillovers; worldwide governance indicators JEL Classifications: G3; F4; F6

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PUBLIC INTEREST STATEMENT

This study uses the Worldwide Governance Indicators (WGI) to examine a cross-country corporate governance spillover effect among the G7, BRICS, and GIIPS countries. The results partially support the spillover effect, which the U.S. possesses a governance-influence over the GIIPS and BRICS countries, but not for the remaining G7 countries.

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1. Introduction

A good corporate governance paradigm is considered as an effective means to minimize the agency problem and to improve transparency. This paper aims to examine whether or not good governance practices can extend across economically relevant countries or regions. Using the Worldwide Governance Indicators (WGI) developed by the World Bank, the results show that there are governance spillovers among the G7, BRICS, and GIIPS countries. Panel unit root tests confirm stationary panel time series properties in all groups. However, panel vector autoregression (VAR) tests do not fully support governance spillover effect, which the U.S. has a governance-influence over the GIIPS and BRICS countries, but not for the remaining G7 countries.

2. Literature review

2.1. Governance indicators as a proxy for corporate governance practices

Kaufmann et al. (1999b) document a positive relationship between governance and economic development outcomes in 150 countries. They use the Worldwide Governance Indicators (WGI), measuring six dimensions of governance. First, Voice and Accountability captures the degree to which country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media. Second, Political Stability and Absence of Violence captures the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means (e.g., politically motivated violence and terrorism). Third, Government Effectiveness measures the quality of public and civil services, degree of independence from political pressures, quality of policy formulation and implementation, and credibility of the government's commitment to such policies. Fourth, Regulatory Quality measures the ability of the government to formulate and implement sound policies and regulations promoting private sector development. Fifth, Rule of Law measures the extent to which agents have confidence in and abide by the rules of society, and the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence. Lastly, Control of Corruption indicates the perceptions of the extent to which public power is exercised for private gain. These reflect perceptions of interested parties, residents of a country, entrepreneurs, foreign investors, and civil society at large regarding the quality of governance in a country. The aggregate indicators are based on several underlying variables, taken from a wide variety of existing data sources (See, Kaufmann et al. (1999a), (1999b) for the governance dimensions measured and aggregation methodology).

The WGI is not without a limitation. Critics have focused on problems of bias or lack of comparability of these indicators. For example, Thomas (2010) focuses on whether the indicators have a construction validity and whether they measure what they are supposed to measure. The argument is that the WGI is based on personal and untested notions of governance and that the WGI claims to measure governance; as yet no evidence has been offered that this is true. Langbein and Knack (2010) also argue that the WGI is tautological and is not measuring what claims to measure.

2.2. Corporate governance spillover

A transmission of corporate governance among firms can be explained by the model of career concerns (Cheng, 2011; Holmstrom, 1982; Meyer & Vickers, 1997) that managers of two firms compare each other's performance and decide how much to inflate earnings based on their performance differential. The competing managers, who are motivated by their own career concerns, are more likely to inflate their own earnings to boost up stock prices.¹

Based on the micro foundation of spillovers, the corporate governance practices can extend across borders due to, for instance, the economic integration, cross-border mergers and acquisitions and financial market integration. For the past decades, free trade agreements among countries in the same region and across regions have been widely established and implemented (e.g., the European Union (EU), ASEAN Economic Community (AEC) and The North American Free

Trade Agreement (NAFTA)), resulting in an increasing level of economic integration among the groups of countries under the agreements.² In addition, firms in the countries under the free trade agreement have been integrated through the mergers and acquisitions (M&A). Corporate governance of the firms can then be spilled over between the two merged firms.³ With a higher level of international trade and economic integration among countries, the cross-country M&As have enforced the notion of the corporate governance spillovers. In summary, corporate governance spillovers can spread between the two countries through the cross-border merger and acquisition activity.

Financial market integration among countries has also largely increased through the world financial market during the past decades. The financial integration allows cross-border capital flows and cross-listing. For example, Liao and Ferris (2015) examine the intra-industry spillover in international equity markets by explaining that foreign cross-listing firms have to comply with the SEC and exchange regulation, subsequently pushing to a higher level of corporate governance. All in all, there is strong evidence that the level of governance practices can extend across the borders from one country to the other.

3. Data

While other studies focus on corporate governance at the firm level based on several aspects, such as the sustainability index, individual governance index, Environmental, Social, and Governance of corporate (ESG), this study highlights on the country level by using the Worldwide Governance Indicators (WGI) of the World Bank.⁴ Kaufmann et al. (2011) employ the unobserved components model (UCM) in order to create WGI by grouping 31 sources of survey data into six dimensions of governance, namely *Voice and Accountability, Political Stability and Absence of Violence/Terrorism, Government Effectiveness, Regulatory Quality, Rule of Law, and Control of Corruption.*⁵

The WGI data are based on the survey of participant perceptions regarding governance. The WGI is constructed from many sources of expert survey, for example, the Global Competitiveness survey, BERI survey, and Economic Freedom Index Poll. The sample in this study excludes missing data and countries that do not have stock exchanges. The remaining sample covers 182 countries over the period of 1996–2014. To provide an economic justification on the governance spillovers of the economic/financial integration, this study uses three country groups namely, the G7, BRICS, and GIIPS countries as follows.

G7	BRICS	GIIPS
Canada	Brazil	Portugal
France	Russia	Italy
Germany	India	Ireland
Italy	China	Greece
Japan	South Africa	Spain
United Kingdom		
United States		

The annual stock market index returns are calculated from its closing stock index prices, which are collected from the Refinitiv Thomson Reuters.

4. Methodology

Starting from a panel unit root test, we hypothesize that a cross-country corporate governance spillover exists among countries within the same economic groups. If it is the case, the panel time

series using the annual WGI of these country groups (G7, BRICS and GIIPS) should be stationary. The tests include the LLC test (Levin et al., 2002), IPS test (Im et al., 2003) and MW test (Maddala & Wu, 1999), which assume that cross-sectional (countries) WGIs in the panel are all independent or there is no relationship among the cross-sectional (countries) WGIs.

The LLC test computes the test statistic by averaging single time-series Augmented Dickey Fuller (ADF) *t*-tests of all cross-sectional units (countries) assuming homogenous across cross-sectional units (countries). The null hypothesis is that each individual country corporate governance time series contains a unit root against the alternative that each country corporate governance time series is stationary. The testing model is

$$\Delta \mathsf{CG}_{it} = \rho_i \mathsf{CG}_{i,t-1} + \sum_{l=1}^{p_i} \theta_{iL} \Delta \mathsf{CG}_{it-l} + \alpha_{im} \mathsf{d}_{imt} + \varepsilon_{it} \tag{1}$$

where *i* represents countries which i = 1, 2, 3, ..., k, d_{mt} is a vector of deterministic variables, $m = 1, 2, 3, d_{1t} = \{empty set\}, d_{2t} = \{1\}, d_{3t} = \{1, t\}$, and α_{mi} is a vector of coefficients.

The test procedures can be divided into three steps. The first step begins by performing separate augmented Dickey–Fuller (ADF; equation (1)) for each *i* cross-sectional country currency where lag order p_i can be varied across *i*. For given time *T*, optimal lag p_i can be determined. The two regression models are then estimated (i) using ΔCG_{it} as dependent variable and ΔCG_{it-L} (for all $L = 1, ..., p_i$) and d_{imt} as independent variables to obtain residual \hat{e}_{it} and (ii) using CG_{it-1} as dependent variable and ΔCG_{it-L} (for all $L = 1, ..., p_i$) and d_{imt} as independent variables to get residual \hat{v}_{it-1} . Then, standardized values of the two residuals should be computed as $\tilde{e}_{it} = \frac{\hat{e}_{it}}{\hat{\sigma}_{ci}}$ and $\tilde{v}_{i,t-1} = \frac{\hat{v}_{it}}{\hat{\sigma}_{ci}}$, where $\hat{\sigma}_{\varepsilon i}$ is standard error from each ADF test.

The second step is to compute the ratio of long-run to short-run standard deviations. The longrun variance can be computed as:

$$\hat{\sigma}_{CG_{i}}^{2} = \frac{1}{T-1} \sum_{t=2}^{T} \Delta CG_{it}^{2} + 2 \sum_{L=1}^{\bar{K}} w_{\bar{K}L} \left[\frac{1}{T-1} \sum_{t=2+L}^{T} \Delta CG_{it} \Delta CG_{i,t-1} \right]$$
(2)

where \bar{K} is optimal truncated lag and $w_{\bar{K}L} = 1 - (L/(\bar{K}+1))$. Then, ratio of long-run standard deviation to innovation standard deviation is computed as $\hat{s}_i = \hat{\sigma}_{R_i}/\hat{\sigma}_{\varepsilon_i}$ and average standard deviation can also be computed as $\bar{S} = \frac{1}{N} \sum_{i=1}^{N} \hat{s}_i$ which N = k countries.

The last step is to compute the panel unit root test statistics by estimating pooled regression based on $N\tilde{T}$ observations of

$$\tilde{e}_{it} = \rho \tilde{v}_{i,t-1} + \tilde{\varepsilon}_{it}$$
(3)
where: $\tilde{T} = T - \bar{p} - 1$ and $\bar{p} = \sum_{i=1}^{N} p_i / N$.

Then, the panel unit root *t*-test for $H_0: \rho = 0$ can be computed:

$$\begin{aligned} \mathbf{t}_{\rho} &= \frac{\hat{\rho}}{\hat{\sigma}_{\hat{\rho}}} \end{aligned} \tag{4} \\ \text{where: } \hat{\rho} &= \frac{\sum_{i=1}^{N} \sum_{t=2+\rho_{i}}^{T} \tilde{v}_{i,t-1} \tilde{\mathbf{e}}_{it}}{\sum_{i=1}^{N} \sum_{t=2+\rho_{i}}^{T} \tilde{v}_{i,t-1}^{2}} \quad \text{and } \hat{\sigma}_{\hat{\rho}} &= \frac{\hat{\sigma}_{e}}{\left[\sum_{i=1}^{N} \sum_{t=2+\rho_{i}}^{T} \tilde{v}_{i,t-1}^{2}\right]^{2}} \\ \text{and } \hat{\sigma}_{\hat{e}}^{2} &= \frac{1}{NT} \sum_{i=1}^{N} \sum_{t=2+\rho_{i}}^{T} \left(\tilde{\mathbf{e}}_{it} - \hat{\rho} \tilde{\mathbf{v}}_{i,t-1}\right)^{2} \end{aligned}$$

Finally, to obtain asymptotic property, the adjusted *t*-statistic can be computed:

$$t_{\rho}^{*} = \frac{t_{\rho} - N\tilde{T}\hat{S}_{N}\hat{\sigma}_{\tilde{\varepsilon}}^{-2}\hat{\sigma}_{\rho}\mu_{m\tilde{T}}^{*}}{\sigma_{m\tilde{T}}^{*}} \Rightarrow N(0, 1)$$
(5)

Table 1. Descriptive statistics

This table shows descriptive statistics of six dimensions of the governance indexes of 16 countries of the G7, BRICS and GIIPS countries from 1996 to 2014.Panel A: Voice and Accountability

Country	Mean	Median	SD	Min	Max
Brazil	1.4924	1.4511	0.0910	1.3757	1.6752
Canada	1.2411	1.2203	0.1076	1.0885	1.4745
China	1.3757	1.3619	0.0556	1.2911	1.4728
France	1.0128	1.0235	0.0766	0.8913	1.1555
Germany	1.0045	1.0222	0.0636	0.8888	1.0999
Greece	1.3356	1.3144	0.0897	1.1976	1.6109
India	1.2571	1.2287	0.1729	0.9967	1.5407
Ireland	1.3818	1.3721	0.0939	1.2247	1.6146
Italy	0.9053	0.9463	0.1625	0.5649	1.1355
Japan	1.1616	1.1457	0.1191	0.9657	1.3275
Portugal	0.3869	0.4212	0.1328	0.0924	0.5297
Russia	-0.7420	-0.8581	0.2350	-1.0423	-0.2984
South Africa	0.3913	0.4076	0.0544	0.2574	0.4502
Spain	-1.5359	-1.5743	0.1262	-1.6816	-1.2854
United Kingdom	0.6516	0.6384	0.1015	0.5516	0.8740
United States	1.1988	1.1275	0.1237	1.0503	1.3659
Panel B: Political Stabilit	y and Absence of Violenc	e/Terrorism			
Brazil	1.0179	1.0300	0.1136	0.7906	1.1762
Canada	0.5439	0.5523	0.1820	0.1751	0.8502
China	0.9235	0.9279	0.2023	0.5454	1.3246
France	0.5766	0.5009	0.2407	0.2750	1.1261
Germany	1.0063	0.9902	0.0977	0.8365	1.1895
Greece	0.4832	0.4480	0.2738	0.0947	0.9834
India	0.9756	0.9382	0.2460	0.7019	1.3586
Ireland	1.1662	1.1518	0.1943	0.8772	1.4961
Italy	0.2924	0.4565	0.3665	-0.2240	0.7943
Japan	-0.0064	0.0100	0.2697	-0.4656	0.4193
Portugal	-0.1142	-0.1840	0.2108	-0.3779	0.2860
Russia	-1.0146	-0.9320	0.2344	-1.4622	-0.7360
South Africa	-1.1617	-1.1647	0.1589	-1.5269	-0.9124
Spain	-0.4635	-0.4787	0.1260	-0.6572	-0.1665
United Kingdom	-0.1332	-0.0944	0.2025	-0.5774	0.1986
United States	0.4653	0.5244	0.3362	-0.1960	1.0132
Panel C: Government Ef	fectiveness	-			
Brazil	1.8553	1.8339	0.0962	1.7523	2.0131
Canada	1.5451	1.5355	0.1426	1.3293	1.8147
China	1.6367	1.5809	0.1508	1.4013	1.9312
France	0.5430	0.4489	0.2136	0.2136	0.8687
Germany	1.3762	1.4376	0.2231	0.9566	1.8190
Greece	1.7025	1.6902	0.1552	1.4708	1.9165
India	1.0683	1.0710	0.1006	0.8826	1.2273
Ireland	1.5643	1.5717	0.1278	1.3363	1.7772
Italy	0.6221	0.6312	0.1543	0.3075	0.8344

(Continued)

Table1. (Continued)

This table shows descriptive statistics of six dimensions of the governance indexes of 16 countries of the G7, BRICS and GIIPS countries from 1996 to 2014.Panel A: Voice and Accountability

Country	Mean	Median	SD	Min	Μαχ
Japan	1.3037	1.1501	0.3626	0.8907	1.8988
Portugal	-0.0725	-0.0975	0.1072	-0.2299	0.1797
Russia	-0.4349	-0.4114	0.1604	-0.7660	-0.0785
South Africa	-0.0772	-0.0829	0.0838	-0.2044	0.1110
Spain	0.0269	0.0032	0.1405	-0.2483	0.3393
United Kingdom	0.5395	0.5107	0.1547	0.3252	0.8765
United States	1.6198	1.6028	0.1194	1.4575	1.8426
Panel D: Regulatory Quo	ality				
Brazil	1.6183	1.6222	0.1014	1.4258	1.8309
Canada	1.1330	1.1843	0.1497	0.8075	1.3109
China	1.5127	1.5262	0.1042	1.2184	1.6951
France	0.8714	0.9053	0.1259	0.6614	1.0925
Germany	1.0081	1.1023	0.2381	0.4841	1.2597
Greece	1.7718	1.7608	0.1263	1.5931	2.0229
India	1.0206	1.0741	0.2162	0.6337	1.2896
Ireland	1.6887	1.6536	0.1241	1.5351	1.9169
Italy	0.7408	0.8082	0.1911	0.3450	0.9980
Japan	1.1601	1.1903	0.1603	0.7772	1.3535
Portugal	0.1472	0.0957	0.1614	-0.0726	0.4120
Russia	-0.3331	-0.3587	0.1126	-0.5640	-0.1130
South Africa	-0.3560	-0.3680	0.0926	-0.4807	-0.1584
Spain	-0.2448	-0.2351	0.1020	-0.5306	-0.1294
United Kingdom	0.4840	0.4060	0.1585	0.2672	0.7784
United States	1.5070	1.5596	0.1460	1.2524	1.7394
Panel E: Rule of Law	1		[]		
Brazil	1.7430	1.7415	0.0691	1.6328	1.8925
Canada	1.4141	1.4302	0.0718	1.1967	1.5115
China	1.6547	1.6272	0.0757	1.5654	1.8522
France	0.5225	0.4279	0.1998	0.3370	0.9822
Germany	1.3129	1.3188	0.1006	1.1359	1.5987
Greece	1.6835	1.6690	0.0789	1.5468	1.8870
India	1.1176	1.0885	0.1158	0.9529	1.2941
Ireland	1.6484	1.6931	0.1109	1.4666	1.8010
Italy	0.7000	0.7450	0.1906	0.3448	0.9762
Japan	1.1638	1.1456	0.1266	0.9370	1.3918
Portugal	-0.2680	-0.3069	0.1577	-0.4924	-0.0037
Russia	-0.8709	-0.8687	0.1058	-1.1265	-0.7114
South Africa	0.0652	0.0625	0.1404	-0.1119	0.2896
Spain	-0.4202	-0.4328	0.0691	-0.5473	-0.3219
United Kingdom	0.0951	0.0910	0.0584	-0.0126	0.2372
United States	1.5539	1.5628	0.0581	1.4307	1.6298
Panel F: Control of Corru	uption		I		I
Brazil	2.0161	1.9946	0.1345	1.8178	2.2386

(Continued)

Country	Mean	Median	SD	Min	Max
Canada	1.3713	1.3678	0.0783	1.2391	1.5221
China	1.8447	1.8072	0.1312	1.6976	2.1648
France	0.2802	0.3326	0.2500	-0.1100	0.7208
Germany	1.3138	1.2712	0.2570	0.8569	1.7303
Greece	1.8507	1.7571	0.2412	1.5605	2.2409
India	1.0885	1.0479	0.1710	0.8846	1.5229
Ireland	1.5885	1.5783	0.1491	1.2967	1.7933
Italy	0.2293	0.2946	0.3718	-0.2546	1.0572
Japan	1.1081	1.0799	0.2292	0.5260	1.3734
Portugal	-0.0541	-0.0463	0.1243	-0.3783	0.1457
Russia	-0.9339	-0.9432	0.1164	-1.0876	-0.7105
South Africa	-0.4393	-0.4303	0.0891	-0.5728	-0.2830
Spain	-0.4692	-0.5259	0.1424	-0.6537	-0.2405
United Kingdom	0.2803	0.2778	0.2945	-0.1653	0.7609
United States	1.4853	1.3935	0.2336	1.2597	2.0114

This table shows descriptive statistics of six dimensions of the governance indexes of 16 countries of the G7, BRICS and GIIPS countries from 1996 to 2014.Panel A: Voice and Accountability

Table 2. Panel unit root test

A panel unit root test using the LLC method for the corporate governance dimensions of the groups of countries. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Group	Variables	Adjusted t delta star	
G7	Voice and Accountability	-2.6109	***
G7	Political Stability	-8.3776	***
G7	Government Effectiveness	-1.6778	**
G7	Regulatory Quality	-0.1972	
G7	Rule of Law	-1.6103	*
G7	Control of Corruption	-2.6279	***
GIIPS	Voice and Accountability	-0.4565	
GIIPS	Political Stability	-2.5185	***
GIIPS	Government Effectiveness	-1.3146	*
GIIPS	Regulatory Quality	1.8646	
GIIPS	Rule of Law	-1.5527	*
GIIPS	Control of Corruption	-0.5782	
BRICS	Voice and Accountability	-6.0127	***
BRICS	Political Stability	-3.2020	***
BRICS	Government Effectiveness	-0.8396	
BRICS	Regulatory Quality	-1.5006	*
BRICS	Rule of Law	-2.2306	**
BRICS	Control of Corruption	-1.5306	*

Table 3. Multivariate Panel vector autoregressive models (XTVAR)

Panel A presents the multivariate panel vector autoregressive results of corporate governance spillovers between the remaining G7 countries and the U.S. There are six dimensions of corporate governance spillovers. There are the coefficients of lag term (θ) of equation $\Delta CG_{it} = \phi CG_{i,t-1} + \gamma_{it} +$

 $\sum_{j=1}^{p} \theta_{ij} \Delta C G_{i,t-j} + u_{it}$ in the table. There are two equations of the spillover tests in XTVAR. The first equation has the WGIs of the remaining G7 countries

as a dependent variable and a lagged dependent variable and the U.S.'s WGI as the independent variables. The second equation uses the U.S.'s WGI as a dependent variable and the same set of independent variables. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Panel A: G7 (excluding the U.S.)

	Voice and Accountability		Political	Political Stability		Government Effectiveness	
	G7	U.S.	G7	U.S.	G7	U.S.	
L1_G7	0.428***	-0.174**	0.260**	-0.224	0.768***	0.01	
L1_U.S.	0.121*	0.864***	0.161***	0.623***	-0.06	0.540***	
R-Squared	0.31	0.780	0.319	0.342	0.617	0.399	
	Regulatory Quality		Rule of Law		Control of Corruption		
	G7	U.S.	G7	U.S.	G7	U.S.	
L1_G7	0.506***	-0.06	0.701***	-0.017	0.8096***	0.2584**	
L1_U.S.	-0.057	0.859***	-0.053	0.400***	0.017	0.711***	
R-Squared	0.382	0.663	0.428	0.145	0.735	0.591	

Panel B presents the multivariate panel vector autoregressive results of corporate governance spillovers between the GIIPS countries and the U.S. There are six dimensions of corporate governance spillovers. There are the coefficients of lag term (θ) of equation $\Delta CG_{it} = \phi CG_{i,t-1} + \gamma_{it} + \gamma_{it}$

 $\sum_{j=1}^{p} \theta_{ij} \Delta C G_{i,t-j} + u_{it}$ in the table. There are two equations of the spillover tests in XTVAR. The first equation has the WGIs of the GIIPS countries as

a dependent variable and a lagged dependent variable and the U.S.'s WGI as the independent variables. The second equation uses the U.S.'s WGI as a dependent variable and the same set of independent variables. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively. Panel B: GIIPS

	Voice and Accountability		Political	Political Stability		Government Effectiveness	
	GIIPS	U.S.	GIIPS	U.S.	GIIPS	U.S.	
GIIPS							
L.GIIPS	0.6839***	0.0071	0.7509***	-0.2830**	0.6170***	0.1648***	
L.U.S.	0.1774*	0.8418***	0.0584	0.5660***	0.4715***	0.4472***	
R-Squared	0.6225	0.7642	0.6726	0.3881	0.6856	0.4567	
	Regulato	ry Quality	Rule of Law		Control of Corruption		
	GIIPS	U.S.	GIIPS	U.S.	GIIPS	U.S.	
GIIPS							
L.GIIPS	0.5559***	0.1860**	0.8564***	-0.1122**	0.7922***	0.2453**	
L.U.S.	0.5196***	0.7503***	0.0059	0.3199**	0.1314**	0.6495***	
R-Squared	0.6851	0.6843	0.699	0.2124	0.8052	0.5963	

Panel C presents the multivariate panel vector autoregressive results of corporate governance spillovers between the BRICS countries and the U.S. There are six dimensions of corporate governance spillovers. There are the coefficients of lag term (θ) of equation $\Delta CG_{it} = \phi CG_{i,t-1} + \gamma_{it} + \phi CG_{i,t-1} + \phi CG_{i,t-1}$

 $\sum_{i=1}^{\nu} \theta_{ij} \Delta C G_{i,t-j} + u_{it}$ in the table. There are two equations of the spillover tests in XTVAR. The first equation has the WGIs of the BRICS countries as

a dependent variable and a lagged dependent variable and the U.S.'s WGI as the independent variables. The second equation uses the U.S.'s WGI as a dependent variable and the same set of independent variables. The ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Panel C: BRICS

	Voice and Accountability		Political	Stability	Government Effectiveness	
	BRICS	U.S.	BRICS	U.S.	BRICS	U.S.
L.BRICS	0.7263***	0.0158	0.3024***	-0.0487	0.6456***	-0.0183
L.U.S.	0.0567	0.8398***	0.1089*	0.5547***	0.0601	0.6015***
R-Squared	0.6723	0.7644	0.2301	0.332	0.3799	0.384
	Regulatory Quality		Rule of Law		Control of Corruption	

(Continued)

	BRICS	U.S.	BRICS	U.S.	BRICS	U.S.
L.BRICS	0.5411***	0.0512	0.6503***	0.0591	0.6510***	0.3429**
L.U.S.	0.1858**	0.8562***	0.1948	0.3728***	0.1326**	0.6722***
R-Squared	0.4776	0.6612	0.4702	0.1583	0.5801	0.5932

where: $\mu_{m\tilde{t}}^*$ and $\sigma_{m\tilde{t}}^*$ are the mean and standard deviation adjustments obtained from LLC computations. As a result, the t_{ρ}^* is asymptotically distribution as N(0, 1).

Note that the LLC test has also been claimed that its limitations are caused by cross-sectional independent assumption and test only no unit-root of all cross-sectional units.

5. Empirical results

Table 1 shows descriptive statistics of all six aspects on country governance (i.e., Voice and Accountability, Political Stability, Government Effectiveness, Regulatory Quality, Rule of Law, and Control of Corruption) of all countries. Mean values of the WGIs for the G7 and GIIPS countries are largely similar in all six aspects, while the mean figures of the WGIs for the BRICS countries are not in a uniform pattern because of differences in geography, economic background, and culture. The G7 countries have on average the WGIs higher than those of the two groups countries. This potentially shows that more advanced economies possess larger levels of corporate governance. The panel unit root tests of each aspect of WGIs are performed into three groups, namely G7, BRICS and GIIPS as shown in Table 2. The results demonstrate that most aspects are statistically significant, which is consistent to the presumptions of the models.⁶

To further examine the cross-country spillover effect, this study employs the panel VARs to determine the interdependence and dynamic relationship of the WGIof the examining G7, BRICS and GIIPS countries and the WGI of the foreign (US) country. Table 3 shows the estimated XTVAR results that the dependence of the WGIof the GIIPS and BRICS countries on the Government Effectiveness, Regulatory Quality and Control of Corruption aspects with those of the U.S. However, the results between the U.S.'s WGI and WGI of the remaining G7 countries indicate insignificant interdependent and dynamic relationship between the two variables. These results can be implied that U.S. has a governance-influence over the GIIPS and BRICS countries but has no impact on the remaining G7 countries. According to panel VARs, the results partially confirm that the economic and financial integration leads to governance spillovers.

6. Conclusion

This study reveals an empirical evidence of a cross-country corporate governance spillover effect. It uses a panel data technique to determine corporate governance spillover among countries within the same economic/regional groups. Based on the panel unit root tests, the results show a stationary panel time series of the WGIs among the G7, BRICS, and GIIPS countries, supporting the hypothesis that there exists a corporate governance spillover among the economically integrated countries. However, the results of the panel VARs partially support the governance spillover hypothesis. Specifically, the VARs suggest that the U.S. has a governance-influence over the GIIPS and BRICS countries, but has no impact on the remaining G7 countries. The limitation of this paper is that we compare other countries with the U.S., which the results might not be similar when comparing to other countries. This calls for further investigation.

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Notes

- The inflating earnings minimizes bad perceptions on a firm's performance (Holmstrom, 1982; Meyer & Vickers, 1997; Stein, 1989). Graham et al. (2005) document that career concerns and external labor market reputations are the first concern for managers. Gibbons and Murphy (1990) and Jenter and Kanaan (2015) reveal the significant relationship between relative performance evaluation in stock price performance and observably poor labor market outcomes such as being fired.
- Petri et al. (2012) find that the ASEAN markets, especially the ASEAN-5, have been integrated and converged in terms of economic growth (both productivity and unemployment). Trade among ASEAN has increased from about 18% in 1985 to more than 30% in 2015.
- 3. Mostly, an acquiring firm with a high level of corporate governance transfers its governance practice to the target firm with a lower level of corporate governance. Bris et al. (2008) show that the spillover of corporate governance is implemented via transfers of accounting standards and shareholder protection, subsequently improving the Tobin's Q. Based on the law hypothesis, a positive spillover states that a spillover of corporate governance caused by M&A spreads from a high level bidder firm in order to improve a relative low level corporate governance of target firm (Goergen and Renne, Lim et al., 2008; Martynova & Renneboog, 2008).
- 4. The sources of WGI data are available upon request.
- 5. For the methodological construction of the WGI indicators, see Kaufmann et al. (2011).
- 6. The results of panel cointegration are in line with the those of panel unit root. The results are available upon request.

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References

- Bris, A., Brisley, N., & Cabolis, C. (2008). Adopting better corporate governance: Evidence from cross-border mergers. Journal of Corporate Finance, 14(3), 224–240. https://doi.org/10.1016/j. jcorpfin.2008.03.005
- Cheng, I.-H. (2011, April). Corporate governance spillovers. SSRN Electronic Journal. https://doi.org/10. 2139/ssrn.1299652
- Gibbons, R., & Murphy, K. J. (1990). Relative performance evaluation for chief executive officers. *ILR Review*, 43 (3), 30S. https://doi.org/10.2307/2523570
- Graham, J. R., Harvey, C. R., & Rajgopal, S. (2005). The economic implications of corporate financial

reporting. Journal of Accounting and Economics, 40(1– 3), 3–73. https://doi.org/10.1016/j.jacceco.2005.01.002

- Holmstrom, B. (1982). Moral hazard in teams. The Bell Journal of Economics, 13(2), 324. https://doi.org/10. 2307/3003457
- Im, K. S., Pesaran, M. H., & Shin, Y. (2003). Testing for unit roots in heterogeneous panels. *Journal of Econometrics*, 115(1), 53–74. https://doi.org/10.1016/ S0304-4076(03)00092-7
- Jenter, D., & Kanaan, F. (2015). CEO turnover and relative performance evaluation. The Journal of Finance, 70 (5), 2155–2184. https://doi.org/10.1111/jofi.12282
- Kaufmann, D., Kraay, A., & Mastruzzi, M. (2009). Governance matters VIII: Aggregate and individual governance indicators, 1996–2008. World Bank Policy Research Working Paper No. 4978. https://papers. ssrn.com/sol3/papers.cfm?Abstract_id=1424591
- Kaufmann, D., Kraay, A., & Mastruzzi, M. (2011). The worldwide governance indicators: Methodology and analytical issues. *Hague Journal on the Rule of Law, 3* (2), 220–246. https://doi.org/10.1017/ \$1876404511200046
- Kaufmann, D., Kraay, A., & Zoido, P. (1999b). Aggregating governance indicators. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.188548
- Kaufmann, D., Kraay, A., & Zoido-Lobatón, P. (1999a). Governance matters. SSRN Electronic Journal. https:// papers.ssrn.com/sol3/papers.cfm?abstract_id=188568
- Langbein, L., & Knack, S. (2010). The worldwide governance indicators: Six, one, or none? *Journal of Development Studies*, 46(2), 350–370. https://doi.org/ 10.1080/00220380902952399
- Levin, A., Lin, C.-F., & Chu, C.-S. J. (2002). Unit root tests in panel data: Asymptotic and finite-sample properties. *Journal of Econometrics*, 108(1), 1–24. https://doi.org/ 10.1016/S0304-4076(01)00098-7
- Liao, M. Y. S., & Ferris, S. (2015). Keeping up with the Joneses: cross-listing spillover effects. Managerial Finance, 41(12), 1258–1279. 10.1108/MF-09-2014-0240
- Lim, K. P., Brooks, R. D., & Hinich, M. J. (2008). Nonlinear serial dependence and the weak-form efficiency of Asian emerging stock markets. Journal of International Financial Markets, Institutions and Money, 18(5), 527–544. https://doi.org/10.1016/j. intfin.2007.08.001
- Maddala, G. S., & Wu, S. (1999). A Comparative Study of unit root tests with panel data and a new simple test. Oxford Bulletin of Economics and Statistics, 61(s1), 631–652. https://doi.org/10.1111/1468-0084. 0610s1631
- Martynova, M., & Renneboog, L. (2008). Spillover of corporate governance standards in cross-border mergers and acquisitions. *Journal of Corporate Finance*, 14(3), 200–223. https://doi.org/10.1016/j.jcorpfin. 2008.03.004
- Meyer, M. A., & Vickers, J. (1997). Performance comparisons and dynamic incentives. *Journal of Political Economy*, 105(3), 547–581. https://doi.org/10.1086/262082
- Pedroni, P. (1996). Fully modified OLS for heterogenous cointegrated panels and the case of purchasing power parity. Indiana University Working Papers in Economics, No. 96-020. https://pdfs.semanticscholar. org/f99a/f7633ca11e91c6ba51446 dae06f45591a573.pdf
- Petri, P. A., Plummer, M. G., & Zhai, F. (2012). ASEAN economic community: A general equilibrium analysis. *Asian Economic Journal*, *26*(2), 93–118. https://doi. org/10.1111/j.1467-8381.2012.02079.x

Stein, J. C. (1989). Efficient capital markets, inefficient firms: A model of myopic corporate behavior. The Quarterly Journal of Economics, 104(4), 655. https:// doi.org/10.2307/2937861 Thomas, M. A. (2010). What do the worldwide governance indicators measure?. The European Journal of Development Research, 22(1), 31–54. 10.1057/ ejdr.2009.32



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