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AR-RASHID

*The Righteous Teacher*

# ASIAN ECONOMIES SECTORS PERFORMANCE, ECONOMIC VOLATILITY AND QUALITY OF INSTITUTIONS



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# Introduction

**According to ADP outlook (2016) Asian countries contribute 60% of total world economic activity and also perform significant role in supporting the interconnected global economy.**

**The economic volatility is widely required for sustainable economic growth which is widely required after great depression**

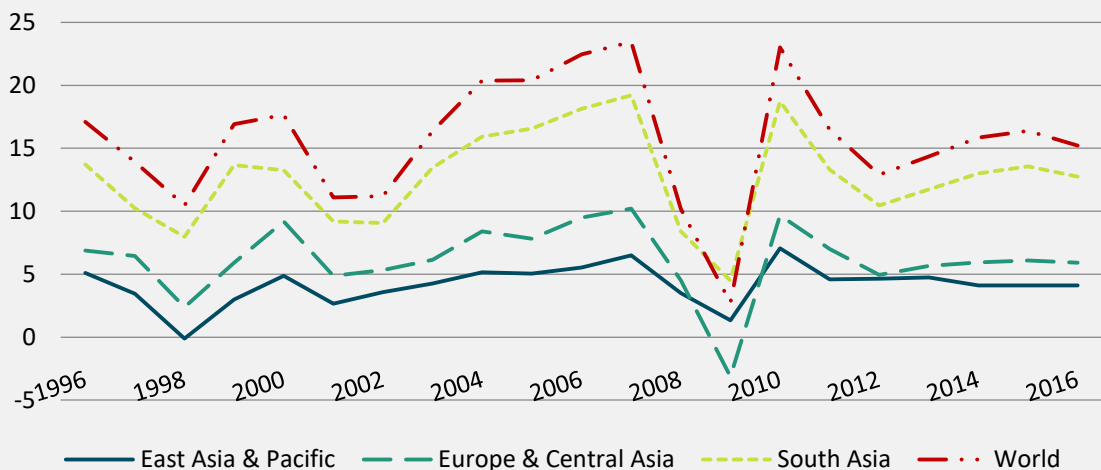
**Asian economies have been facing economic fluctuation due to many reasons. However, sub region of Asian economy faced slow growth mainly after financial crisis, growth in South Asia was 6.9 percent which was the highest expansion among all sub regions of Asian economies**



Southeast Asia economic performance has been controlled after financial crisis because the large economies including Indonesia and Philippines increased investment.

Asian Development Outlook (2016) documented that average potential growth of 22 Asian countries was 98 percent of GDP in 2014 has been drop down to 2 percentage points from peak of 8.4 percent in 2007.

**Fig 1: Economic Growth of Asian Economies  
By sub-regions**



**Figure 2: Agricultural Growth of Asian Economies by sub-regions**

The sectoral growth of Asian economy (agriculture, industry and services) accounts major contribution in global sectoral growth (see Figure 2-4).

Since the global financial crisis there is visible slowdown of Asian economies sectoral growth momentum.

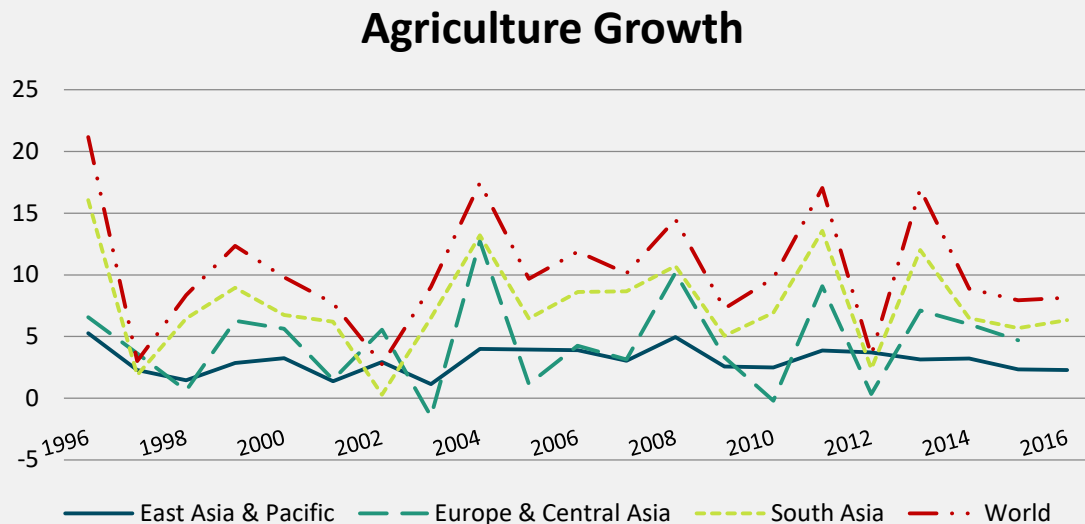
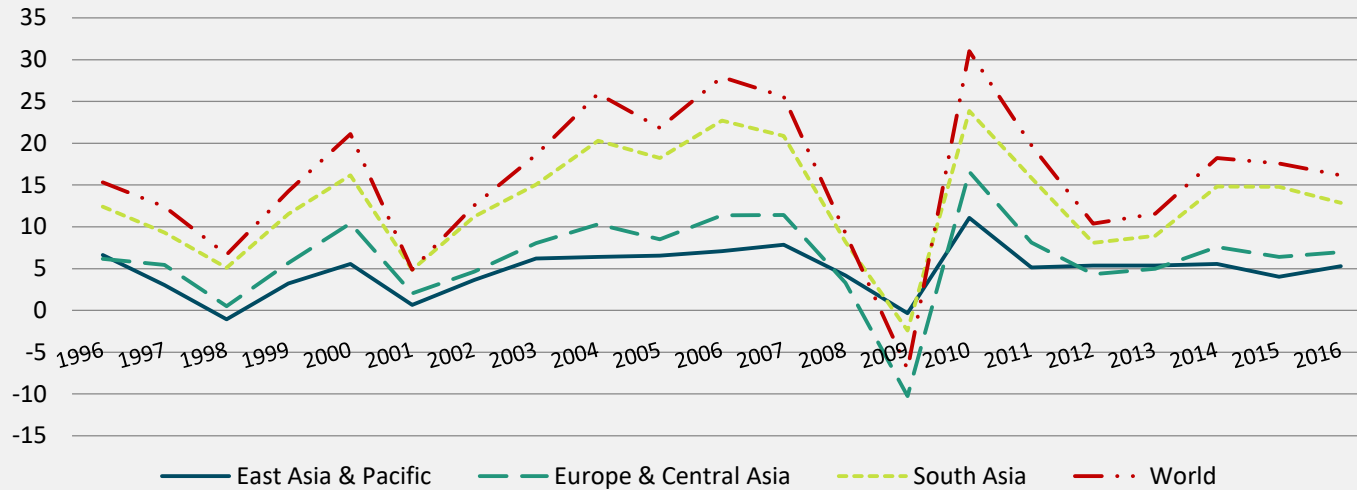
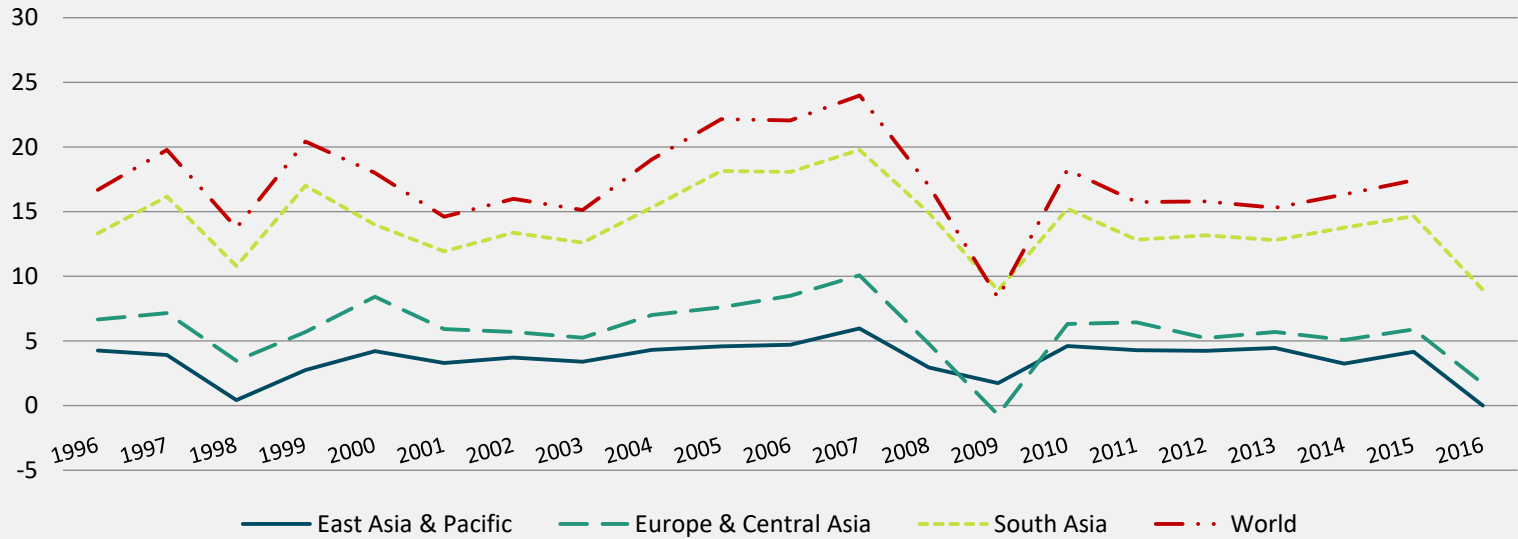


Figure 3: Industrial Growth of Asian Economies by sub-regions



**Figure 4: Services Growth of Asian Economies by sub-regions**



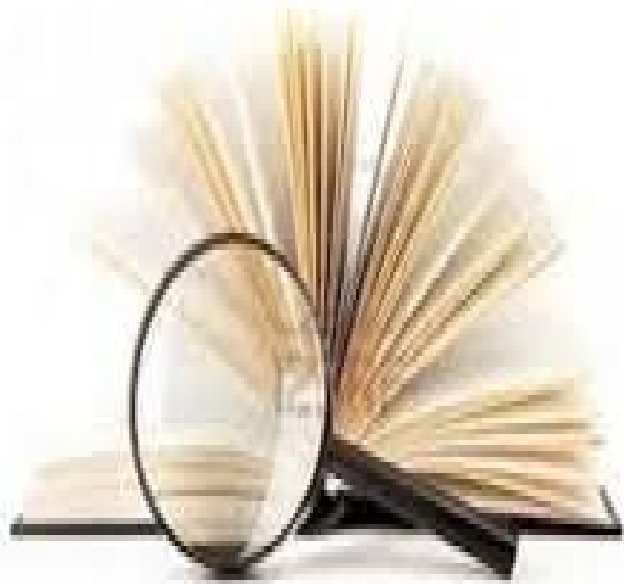




01 **However, in latest years, the growth deceleration has spread to Asian economies, causing as whole international economy to slow down.**

02 **This paper finds the relationship among Sectoral growth (agriculture, industry, and services), economic volatility and Quality of institution for the panel of 47 Asian economies with the time span of 1996-2016.**

03 **In this regard, Pooled OLS, Fixed and Random effects techniques are applied.**



# Literature Review

The main feature of Asian economies during this era is their exposure to domestic and outer economic shocks.

This section provides a review of current literature on economic volatility and its factors.

The economic volatility reflects the greater size of country and higher volatility of exogenous outer shocks which are more intensified through volatile local policy with weak absorption and modification capacity.

# Literature



Fiaschi,

Fiaschi, Davide et al (2005). recommended a model to describe the volatility in economic growth over change in structure and the size of economy. □



Kaldor

Kaldor's (1966) argued that industrial sector is the engine of growth, he further described three laws. □



Wilber

Wilber (2002) documented that the growth of service sector compared to the rest of the economy direct to lessen output growth in long run due to production of this sector does not based on physical capital. □



Baumol

during twentieth century the Baumol model explained the growth of service sector of advanced countries □

## Literature Review

□ In addition, the long run economic expansion should be formed by focusing on property rights of individuals and the crucial element for quality of institutions is the effective public service (Easterly 2013).

□ North (1990) described that the institutions considered as the rules of game in any society.

When the legal and political rights are provided poor public service it reflects unproductive (Easterly 2013).



- The quality of institutions consists of six dimensions namely; voice and accountability, Political Stability and absence of violence, Government effectiveness, Regulatory quality, Rule of law and Control of corruption (Bruinshoofd, 2016).



# Theoretical Framework



# Theoretical Foundation

It has been widely proven that diversified economies have more potential to smooth shocks. There are two main approaches for diversification:



First, shock can be diversified when it strokes few sector of economy through the remaining sectors.



As Mobarak (2005) estimated panel data for 139 countries with a time span of 1960-1990 and found that those economies are capable to adjust internal shocks which have high skilled sectors like the service sector



Secondly, the diversification of shocks can be possible externally if a country has affiliation of economic or trade union (Klomp and Haan, 2008).



# Theoretical Foundation

As far as quality of institutions is concerned, it incorporates law, individual rights, government regulations, corruption and political stability.

Bruinshoofd (2016) exhibited that it opens the potential of economic growth and does not innately undergo from diminishing return. He also determined that since 21<sup>st</sup> century economies with high quality of institutions have been fortunate in take up frontier technology and productivity.

Rodrik (1999) described that the main reason of negative effect of economic volatility are weak institutions and social conflicts. He further highlighted the means in which social conflicts integrated with outer shocks and the local institutions with conflict management.

# METHODOLOGY

The paper finds the impact of sectoral growth, quality of institutions on economic volatility in case of Asian countries.

In this regard, the paper used data from World Bank Group data from 1996-2016.





$$EV = f (AGRI, IND, SERV, AVG, FD, TO, INF, EM) \dots\dots(1)$$

Agri

**Agriculture sector value added percentage of GDP**

FD **Financial Development**

IND

**Industry sector value added percentage of GDP**

TO **Trade openness**

SERV

**Service sector value added percentage of GDP**

INF **Inflation**

AVG

**Joint effect of Voice and Accountability (VA), Political Stability and absence of violence (PS), Government Effectiveness (GE), Regulatory quality (RQ), Rule of law (RL) and Control of corruption (CC)]**

EM **Employment**

# Empirical Analysis



Table 1: Estimation of IQ on economic growth for Asian Countries

Variables	Pooled	Fixed	Random
CC	2.468* (3.73)	2.148* (2.75)	2.736* (3.48)
GE	2.937* (3.32)	4.143* (4.79)	3.887* (4.13)
PS	6.632* (2.99)	1.051*** (2.38)	8.579* (2.61)
RQ	1.414*** (2.51)	3.526* (3.91)	2.645* (3.14)
RL	1.748 (1.51)	1.638* (1.82)	2.152*** (2.50)
VA	2.643 (0.84)	3.060 (0.45)	5.032 (1.04)
cons	3.075 (1.11)	-2.633 (0.54)	4.709 (0.98)
Number of obs.	987	987	987
R-squared	0.05	0.813	0.853
<u>HausmanTest Prob&gt;chi2</u>			0.0004

Note: \*, \*\* and \*\*\* represents 1%, 5 % and 10 % level of significance, and ( ) represents t or z-statistics.

**Table 2: Estimation of IQ on economic volatility for Asian Economies**

<i>Variables</i>	<b>Pooled</b>	<b>Fixed</b>	<b>Random</b>
<i>CC</i>	-0.2475** (2.27)	-0.1936*** (1.75)	-0.2355*** (2.21)
<i>GE</i>	0.4018* (3.35)	-0.00023 (0.00)	-0.0109 (0.10)
<i>PS</i>	-0.01(0.24)	-0.123*** (2.27)	-0.122** (2.37)
<i>RQ</i>	0.0093 (0.11)	-0.3786* (3.57)	-0.3428* (3.38)
<i>RL</i>	-0.3960* (2.99)	-0.2766*** (2.13)	-0.2167 (1.74)***
<i>VA</i>	-0.0709 (1.20)	-0.6886* (-7.43)	-0.6138* (7.32)
<i>cons</i>	1.2519* (24.01)	0.9740 (14.37)	1.0029 (8.02)
<i>Number of obs</i>	925	925	925
<i>R-squared</i>	0.87	0.60	0.18
<i>HausmanTest Prob&gt;chi2</i>			0.0321

Note: \*, \*\* and \*\*\* represents 1%, 5% and 10% level of significance, and () represents t or z statistics.

**Table 3: Estimation of Sectoral growth on Economic growth for Asian Economies**

<i>Variables</i>	<b>Pooled</b>	<b>Fixed</b>	<b>Random</b>
<i>INF</i>	-0.0677 (0.83)	-.1296** (1.79)	-.1229*** (1.68)
<i>TO</i>	.3887* (19.15)	.8094* (32.54)	.6975* (29.34)
<i>FD</i>	.0071 (0.21)	-.4922* (7.60)	-.2840* (5.37)
<i>EM</i>	0.5689*** (1.71)	-2.1273* (2.94)	-0.6685* (1.20)
<i>AVG</i>	-1.259 (6.63)*	-2.1571 (3.77)*	-2.148 (6.21)
<i>AGRI</i>	0.1365 (0.65)	0.2548 (0.92)	0.1013 (0.40)
<i>IND</i>	0.0863 (0.80)	-0.0799 (0.70)	-0.0484 (0.43)
<i>SER</i>	-0.2590 (1.60)	0.3012** (1.85)	0.1734 (1.05)
<i>CONS</i>	-35.8323* (2.46)	-47.0296* (3.12)	-54.5489* (3.56)
<i>Number of obs</i>	924	924	924
<i>R-squared</i>	0.31	0.42	0.72
<i>HausmanTest Prob&gt;chi2</i>			0.0000

Note: \*, \*\* and \*\*\* represents 1%, 5 % and 10 % level of significance, and () represents t or z-statistics.

**Table 4:**  
**Estimation of**  
**Sectoral growth**  
**on Economic**  
**Volatility for**  
**Asian Countries**

<i>Variables</i>	Pooled	Fixed	Random
<i>INF</i>	-0.1421 (0.80)	.7348 (0.60)	.5411 (0.45)
<i>TO</i>	-0.1728* (4.05)	-0.00546* (13.36)	-0.51839* (12.97)
<i>FD</i>	-0.0938 (1.31)	.7979* (7.42)	.6819* (6.77)
<i>EM</i>	-0.1073 (1.52)	.04717* (3.82)	.3683* (3.27)
<i>AVG</i>	-0.4518* (7.22)	-0.2961* (2.56)	-0.3167* (3.24)
<i>AGRI</i>	-0.0191* (4.28)	-0.0134* (2.96)	-0.0129* (2.94)
<i>IND</i>	0.1916 (0.85)	0.5082* (2.74)	0.5003* (2.73)
<i>SER</i>	0.24748 (0.73)	-0.0795 (2.99)	-0.7379* (2.78)
<i>CONS</i>	1.664* (5.41)	1.375* (5.55)	1.458* (5.37)
<i>Number of obs</i>	868	868	868
<i>R-squared</i>	0.72	0.42	0.52
<i>HausmanTest Prob&gt;chi2</i>		0.0002	

Note: \*, \*\* and \*\*\* represents 1%, 5% and 10% level of significance, and () represents t or z stat

# CONCLUSION

The paper investigated the association of agriculture, industry and service sector growth on Asian economies growth and volatility. It also examines the relationship of quality of institutions with economic growth and volatility.

The analysis of the relationship of sectors growth with economic growth suggest that the agriculture and service sector made the major contribution in economic growth. In other words, service sector grow leads to improvement in Asian economies.



# CONCLUSION

The evidence of this paper supported Park and Shin, (2012) that service sector has been played vital role in Asian economies productivity and growth. It may suggest that service sector contribute substantially in future economic development.

Moreover, by reducing excessive regulation and constraint for service sector trade can also help in growth of service sector which eventually effect the region's growth.



# CONCLUSION



Moreover, quality of institutions has significant and positive impact on economic growth, that is to say that quality of institutions are the best indicators for economic development and for future welfare creation for a region.

The good quality of institutions not only prevent the coming economic crisis but also raise the economies to deal with and pull through from such crisis.





# Recommendation

- To improve the growth of sectors, skill formation in sectors, technological support, financing through advance methods are required.
- Moreover, quality of institutions plays imperative role in sustainable growth,
- For stabilized economic performance, well-functioning of institutions are desired.



