

Can Government Secure your Investment?

Arijit Das¹

*Jawaharlal Nehru University
New Delhi*

Abstract:

The fear of global financial crisis created shocks throughout the global economy. Shocks create volatility in the stock markets. The magnitude of volatility depends on many economic and policy issues. Controlling other factors this paper finds that governance is significant determinant of magnitude of volatility. This paper finds that governance is negatively related to volatility. High-level of governance is associated with stable stock markets. Also this study finds that economics shocks which have a negative impact in volatility increase instability in greater extent in those countries with lower level of regulation and governance. This confirms that the emerging economics have higher risk of getting affected from any economic shock.

Introduction

Global financial crisis became evident after September fifteen when the Lehman brothers filed for bankruptcy and AIG applied for a bailout from the fed and it triggered a crisis of confidence across the globe. The worst affected were the stock markets. Share prices went into a tailspin, volatility increased and dividends on the shares suffered badly. But the extent of volatility was different across the countries. This inter country variation

¹ Ph.d research scholar; email-arijitdas22@gmail.com

in volatility is due to many economic and non-economic reasons. Apart from other factors difference in governance responsible for inter country differences in volatility.

The term governance is defined by many ways. It is not recently we are talking about governance. In Chanakya's 'Arthashastra' we can see a vivid description of the responsibility of a king (government) to protect the wealth of the subject.

Governance is a complex relation between the sovereign and the subjects. In word of Locke governance being a contract between the sovereign and subject, and therefore, the contract should be well defined and must be maintained by both the parties. According to Webster's dictionary, 'governance' means 'the act of process of governing, especially authoritative direction and control'. Governance is a broader notion than government, state and, regime and is the interaction between formal institutions and those in civil society. Another definition puts it as, 'a process whereby elements in society wield power, authority and influence and enact policies and decisions concerning public life and social uplift'.

The World Bank on the other hand defines the governance as 'the manner in which power is exercised in the management of social and economic resources in a country'. This apparently describes that governance includes public sector management, accountability, the legal framework, transparency and information.

The Economic and Social Council for Asia and the Pacific provides another concept of governance. According to them governance is the process of decision making and the process by which decisions are implemented (or not implemented).

This paper is divided into five sections. In the first section I described the propositions of this study. The second section links this study with the existing theoretical and empirical works. In the next section I described the methodology of this paper and the fourth section describes the results of this paper. The fifth and final section is the conclusion of this paper.

I

This is the first section of this paper. This section describes the proposition of this study. In this paper I have formulated three propositions.

First, governance plays a robust and significant role in determining stability of the stock markets. There are five main measures of governance. But two components is relevant in determining the volatility of stock markets. These two components are government effectiveness and regulation quality.

Second, this financial crisis would marginally affect the stock markets of the emerging economics.

Third, short-term measures of government and central monetary authority would bring uniform outcome in all the countries.

II

Classical economists including Adam Smith and John Stuart Mill recognized the importance of political institutions and effective government for development. Gradually over the 1980s, many development economists gained an awareness of obstacles of growth that results from unpredictable policy making, insecure property rights, political malfeasance and administrative corruption and incapacity.

In a study of long term growth in 40 non-industrialized nations from 1850 to 1950, prominent development economists Llyod Reynolds conjectured that “the single most important explanatory variable” was 'political organization and administration of government.”

More concrete relation between governance and growth is found in the work of Douglas North. He views property and contract rights as key to channeling resources toward productive investment and away from wasteful rent-rent seeking: “The inability of societies to develop effective, low-cost enforcement of contracts is most important source of both historical stagnation and contemporary underdevelopment in the Third World”. His argument is certainly gives importance of Governance for Development.

Earlier, Hernando de Soto (1989) documented the extraordinary costs in time and money to start a small business. He found that the absence of formal property rights protection restricts investment.

Evidence from large cross country samples, based on more recent data and including numerous less-developed nations, was provided by Barro(1991), Mauro(1995) and Knack and Keefer(1995). Barro's (1991) classic empirical study on determinants of growth tested political instability, which he interpreted as “adverse influences on property rights”. He found that frequencies of revolutions, coups, and political assassinations were significantly and negatively related to growth rate and to private investment's share of GDP over the 1960 to 1985 period, controlling for initial income, government consumption, and other factors.

Knack and Keefer (1995) replaced the political violence frequencies with subjective assessments of the quality of governance, in form of political risk rating, provided by commercial firms to overseas investors. These measures of corruption, bureaucratic quality, rule of law, expropriation risk etc. was found to be strongly associated with lower investment and growth rates. Knack and Keefer(1995) find that that a one standard deviation increase in the quality of governance(namely, a 12- point increase in their 50-point ICRG index) increases the annual rate of growth in per capita income by 1.2 percentage points on average, in a Barro-type growth regression.

Rodrik (1999) found robust and statistically significant association between extent of democracy and the level of manufacturing wages in a country. He found that this relation exists both across the countries and overtime with the country. Some of his result implies that Mexican wages would raise by almost 90 percent as a consequence of Mexico attaining same the democracy level of United States.

III

This has paper measured the volatility of stock market as a measure of stability of financial system in each of the country. Here I used Volatility as a measure of fickleness. The less volatility of share market indicates stable investment pattern and volatile stock market indicates fickle minded investment decision. I used the closing indexes of each share market to formulate volatility of each stock market. Here the volatility measured during the period of fifteen September to October seventeen.

Next I tried to find how government can affect the stability of stock market. Here, I used two major measurement of governance namely—effectiveness of governance and

regulation quality. These two measurement closely associated with financial system and hence presumably have implication in stability of financial system (here I considered only the stock market). Then I used OLS technique to regress these two variables on volatility. Here, I have regressed them separately to find out how they are affecting volatility separately. I did not consider other variables which have significant impact on volatility. Controlling those variables I try to find the significance of governance (two important components of governance).

The table here gives us the list of countries considered in this study with their respective stock market. Only one stock market is selected from each according to its highest importance.

Table 1: List of Countries and their respective Stock Market Indexes

Country	Stock Market
Americana	
Argentina	MerVal
Brazil	Bovespa
Canada	S&P TSX Composite
Chile	-
Mexico	IPC
United States	DOW
Europe	
Finland	-
France	CAC 40
Germany	DAX
Italy	MIBTel
Russia	-
Sweden	Stockholm General
Turkey	-
United Kingdom	FTSE 100
Asia	
China	Shanghai Composite
Hong Kong	Hang Seng
India	BSE 30
Indonesia	Jakarta Composite
Israel	-
Japan	Nikkei 225
Malaysia	KLSE Composite
South Korea	Seoul Composite
Taiwan	Taiwan Weighted
Thailand	SET

The data on market indices are collected from the web address Bloomberg.com and finance.yahoo.com. Other data like governance and regulation are collected from World Bank. Here in this paper two major components of governance have been used which could have an influence on the financial system a country. The two major components are Government Effectiveness (GE hereafter) and Regulatory Quality (RQ hereafter). Certainly these issues are going to create sense of trust on the peoples mind. This trust is reflected in the movements of the indices of the stock exchange. These two sets of data are provided by Institute for Management Development, an educational and research organization headquartered in Lausanne, Switzerland. The respondents are business people working in respective countries. Hence, the data is relevant in this kind of analysis where I am trying to capture the effectiveness of the government (governance) on stability of stock market. Government Effectiveness address the issues like government economic policies do not adapt quickly to changes in the economy, the public service is not independent from political interference, government decisions are not effectively implemented, bureaucracy hinders business activity, the distribution infrastructure of goods and services is generally inefficient, and policy direction is not consistent. Where as the Regulation Quality deals with the exchange rate policy of a country that could hinders the competitiveness of firms, protectionism in the country that negatively affects the conduct of business, competition legislation in a country which does not prevent unfair competition, price controls affect pricing of products in most industries, access to capital markets (foreign and domestic) is easily available or not, ease of doing business is not a competitive advantage for your country, financial institutions' transparency is not widely developed in your country, customs' authorities do not facilitate the efficient transit of goods, is legal framework is detrimental to the country's competitiveness, foreign investors are free to acquire control in domestic companies, public sector contracts are sufficiently open to foreign bidders, real personal taxes are non distortionary, real corporate taxes are non distortionary, whether banking regulation does not hinder competitiveness, Labor regulations hinder business activities, is subsidies impair economic development and how ease to start a business.

The data on freedom index is obtained from freedom house. This organization annually publishes report on economic freedom of most of the countries. I obtained the data for the

year 2008 from their report “2008 index of Economic Freedom” available at freedomhouse.org.

IV

This section describes the results of this paper. I begin my analysis by comparing economic freedom with decline in the index of stock markets in different countries. The data on economic freedom is obtained from freedom house, a non-profit organization. Economic freedom means larger access to market. The free access gives the liberty to decide where one would invest, lesser trade barrier and larger participation of the foreign investors. Particularly, free movement of investments. Here the meltdown is defined as percentage change in the market index during the period of September 12 to October 31. But it was quite interesting result got when I studied the meltdown and the degree of freedom. I divided the countries into two groups- highly economically free (Degree of economic freedom is more than 75%) and less economically free (Degree of economic freedom is less than 61%). It is quite surprising that the relatively free countries have lesser meltdown in the share prices while in the closed countries the meltdown was huge. The usual phenomena should be the other way round. Any negative signal that is actually prevailing at this time would drive away more money in those countries with free economic structure. Because the entry and the exit in those markets would be easier than country where market is tied with regulation. The average decline in the index for the free economics is only 23.87 whereas the average is 46.43 for economically non-free countries. But here in this table 2 we are observing a completely opposite picture. This implies some other strong factors giving us this result. One of the plausible reasons may be ‘effectiveness of the governance’ and ‘regulation quality’ which is making people more trusting in their financial system. In the next section we will observe how this governance is affecting the share market.

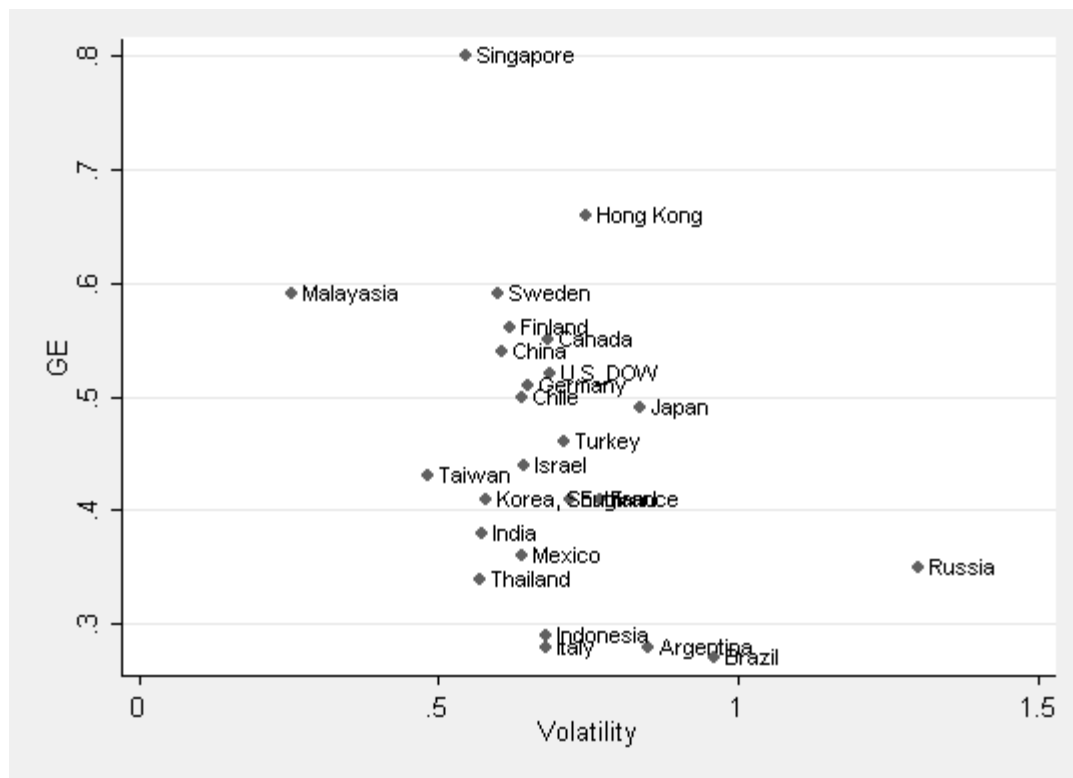
Table 2: Economic freedom and decline in the stock market index

Highly Economically free Countries(More than 75% free)		
	Extent off Meltdown	Economic Freedom
Hong Kong	27.82	90.3
Singapore	30.18	87.4
Australia	18.3	82.0
United States	19.19	80.6
New Zealand	16.08	80.2
Canada	23.55	80.2
Chile	58.31	79.7
Switzerland	14.72	79.5
United Kingdom	19.19	79.5
Netherlands	32.95	76.8
Less Economically free Country (less than 61% freedom)		
Turkey	92.49	60.8
Egypt	36.18	59.2
Brazil	28.89	55.9
Argentina	38.65	55.1
India	85.69	54.2
Indonesia	30.34	53.9
China	16.87	52.8
Russia	42.36	49.9

Note: Data on economic freedom is obtained from freedom house.

The above discussion gives us details description how economic freedom varies across two sets of countries. In next part we will describe and analyze the results of the regression of government effectiveness and regulation quality on volatility. In this study, I try to study the effect of these two components separately. Hence, these two indicators regressed separately on volatility. Before observing the regression result let us review the scatter plot of these two components.

Figure1: Volatility and Effectiveness of Government: all Countries

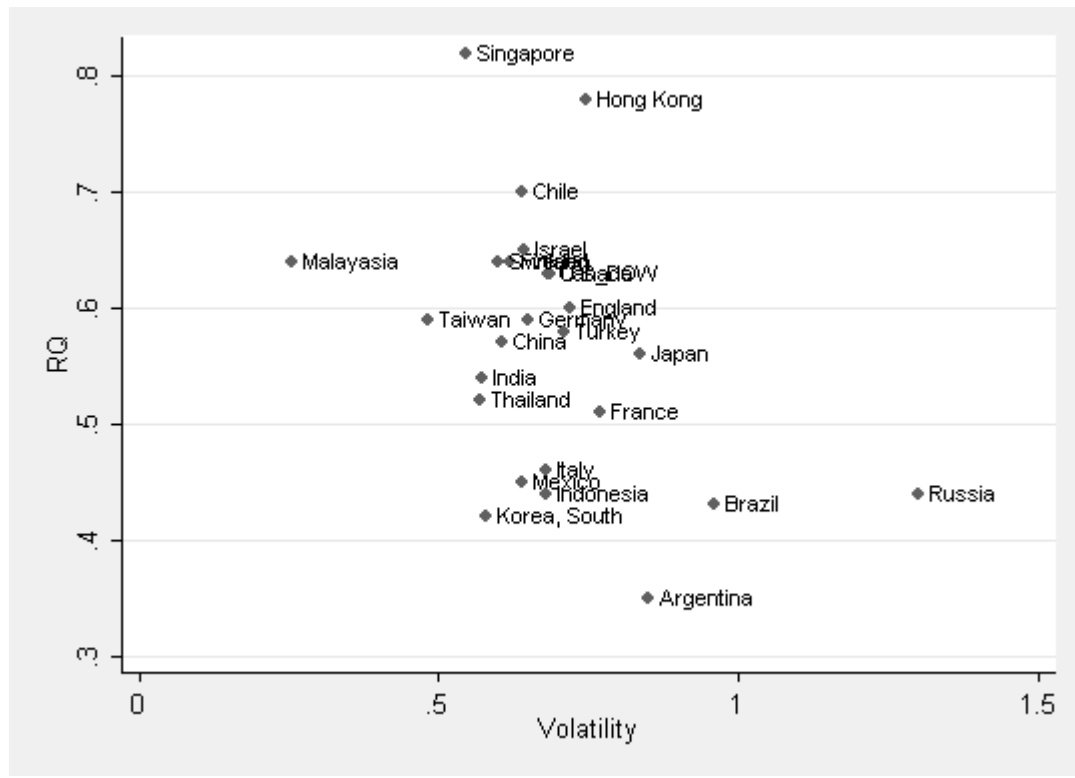


In the figure 1, I plotted effectiveness of volatility in the X-axis and in the Y-axis effectiveness of governance is measured. At a first glance it may seemed that there is negative relation between the two variables. But if it is closely observed then, we can see there are two sets of countries which are showing some significant directional relation. On the below part of the scatted diagram India, Taiwan, Thailand, Indonesia, Korea (South), Malaysia, Mexico, Italy, Argentina are showing pattern of relation, where volatility is decreasing with increasing governance effectiveness. Interesting thing is that most of the countries in this group are from Asia and they are emerging economies. This scatter diagram showing that the emerging economics are behaving in same manner. The perceptions of governance of these countries are behaving quite similar. While the perception of developed and high income economics are acting in a same direction but a higher level.

If Volatility is plotted against Regulation Quality same kind of result is found. The figure 2, which is a scatter diagram of volatility and RQ, indicates a negative relation between

two. In this diagram we can see few outliers like Singapore, Hong Kong and Russia. Expect that all the countries are clustered in a negatively sloping straight line.

Figure 2: Volatility and Regulation Quality: all Countries



If we regress Government Effectiveness (GE here after) on volatility for all the countries, then the coefficient of GE is significant at 95% confidence level. This implies effectiveness of governance is significant factor in determining the volatility of stock markets. The coefficient of GE is -0.56 and it signifies negative relation with volatility. Hence, a 1% increase in the effectiveness of governance leads to .56% reduction in the volatility of stock market. From the above result it is plausible that the countries with effective governance (government effectiveness) can be able to divert this global shock easily than those who don't have effective governance.

Table3: Volatility and Government Effectiveness-all Countries

Volatility	Coefficient	Std. Err.	t	P> t	[95% Conf. Interval	
Government Effectiveness	-0.5679448	0.273592	-2.08	0.049	-1.13391	-0.00198
Constant	0.9399079	0.129723	7.25	0	0.671556	1.20826

Again when we regress volatility on Regulation Quality (RQ hereafter), that is also showing a significant effect on determining the stability of all the markets. The coefficient is -.66. It is more than the coefficient of GE. It indicates that it is perhaps more effectively explain the stability of the markets taken together. It indicates the importance of regulation in the stability of investment process. From this it can be inferred that the stability of financial system is highly dependent on the regulation quality. Measure to bring the confidence among the investors would not work in long-run if it is not supported by a stable and effective regulation system. The emerging markets perhaps possess greater threat as the regulation and government effectiveness is worse in measurement and quality for these countries with respect to developed countries. As a result, this crisis may be started in the developed countries but it would have serious effect on those emerging markets through the weak regulation and effectiveness of governance.

Table4 : Volatility and Regulation Quality-all Countries

Volatility	Coefficient	Std. Err.	t	P> t	[95% Conf. Interval	
Regulation Quality	-0.6630012	0.310091	-2.14	0.043	-1.30447	-0.02153
Constant	1.056525	0.179255	5.89	0	0.685708	1.427343

The analysis could be farther enlarged by dividing the countries according to their continents. We can start out analysis by Americana i.e. the Northern and Southern America. This group includes United States of America, Canada, Mexico, Brazil, Argentina and Chile. Although there are other countries are there, I chose to select them according to their availability of data and participation in world business. The table 5 below gives us the result.

Table5: Volatility and Government Effectiveness-Americana

Volatility	Coefficient	Std. Err.	t	P> t	[95% Conf. Interval	
Government Effectiveness	-0.80362	0.340463	-2.36	0.078	-1.7489	0.141656
Constant	1.074366	0.146029	7.36	0.002	0.668925	1.479808

This result shows that in Americana the negative relative between hold between the stability of market and the GE. But the coefficient is insignificant at 95% level of significance. This mean the coefficient is not significantly different from zero. But it is significant at 90% level of significance. In this case the variable GE able to explain the variability of volatility. On the contrary if we see how RQ is explaining the variation of the stock market, we find that RQ is not significantly affecting the volatility of stock market. The coefficient is negative but it is insignificant. In Americana the results shows a lose relation between stability of stock market and GE and RQ.

Table6: Volatility and Regulation Quality-Americana

Volatility	Coefficient	Std. Err.	t	P> t	[95% Conf. Interval	
Regulation Quality	-0.6362661	0.349786	-1.82	0.143	-1.60743	0.334895
Constant	1.080485	0.19125	5.65	0.005	0.54949	1.61148

In the next exercise I combined American and European continent countries and then I have regressed GE and RQ on volatility separately. The effect of these two factors becomes more prominent. The table 7 and 8 summarizes the effect of effects of the GE and RQ.

Table7: Volatility and Government Effectiveness-America &Europe

Volatility	Coefficient	Std. Err.	t	P> t	[95% Conf. Interval	
Government Effectiveness	-0.482749	0.187686	-2.57	0.022	-0.8853	-0.0802
Constant	0.9384099	0.088123	10.65	0	0.749406	1.127414

Table8: Volatility and Regulation Quality-America &Europe

Volatility	Coefficient	Std. Err.	t	P> t	[95% Conf. Interval	
Regulation Quality	-0.477487	0.210489	-2.27	0.04	-0.92894	-0.02603
Constant	0.9906151	0.122117	8.11	0	0.728701	1.252529

Both of these two variables i.e. GE and RQ has a significant coefficient and that is negative also. The coefficient of GE and RQ in this case is -.48 and -.47 respectively if they are regressed individually. This indicates they have same effect in the volatility of the stock markets. A 1% increase in the regulation by government increase the stability of the markets by .47%. Hence, a better regulated country can face a financial shock more easily than a country which has very fragile regulatory system. Although there are other factors that highly affects the stability of the market. But controlling those variables efficiency of the regulatory authority plays a significant role.

This study found very interesting results for Asia. If we see the scatter diagram of GE against volatility for Asian countries two separate sets are visible (Figure 3 & 4). For government effectiveness and regulation quality we can observe same result. In both figures we can see that the developed countries of Asia i.e. Japan, Hong Kong and Singapore shows some kind negative relation just as the emerging economics but at higher orbit.

Figure 3: Volatility and Government Effectiveness-Asia

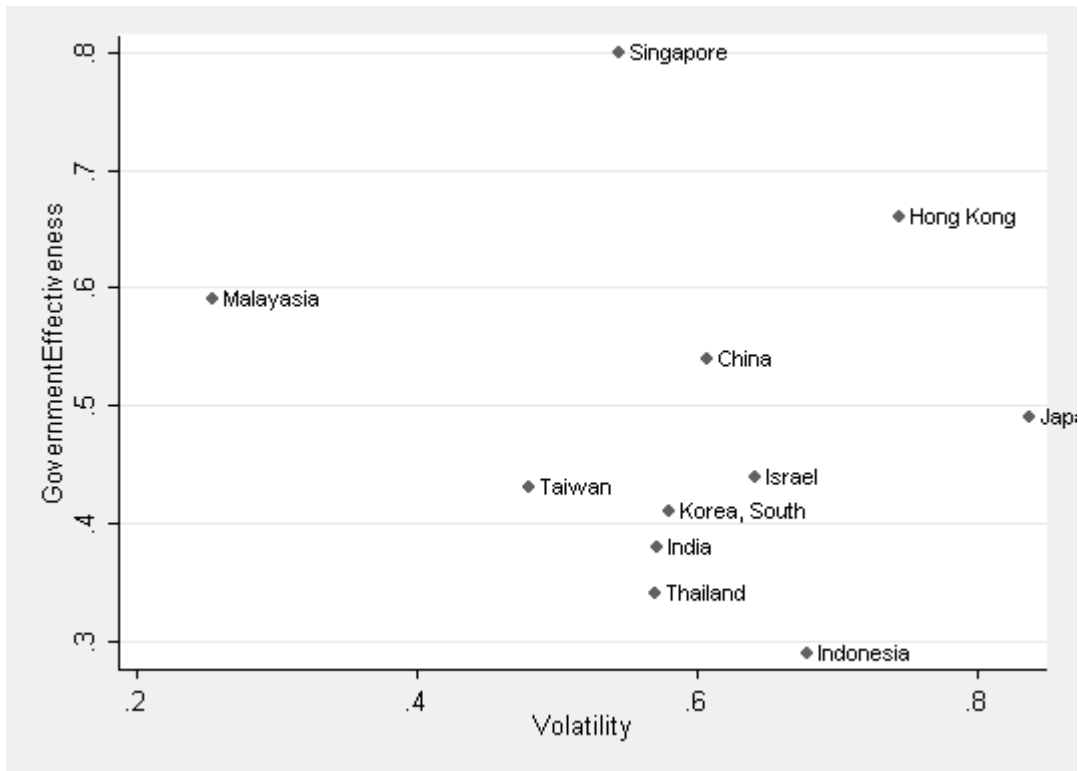
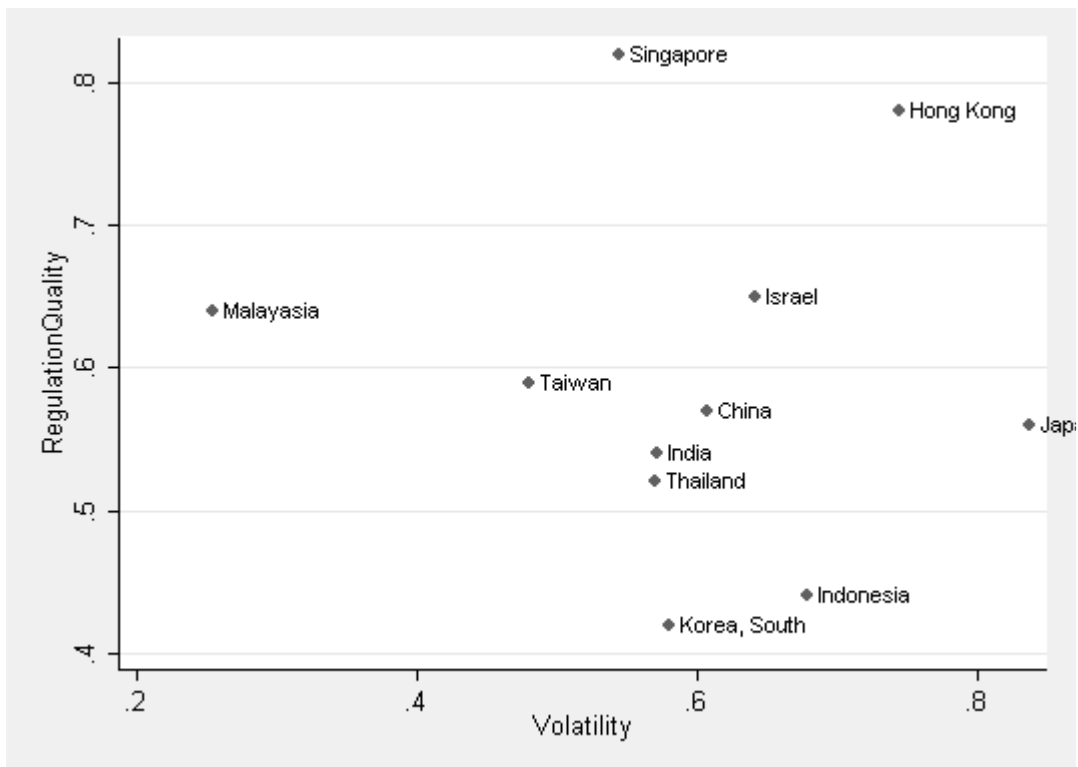


Figure 4: Volatility and Regulation Quality-Asia



Now if we see the regression result of Asian countries we find that both GE and RQ are insignificant. But from the figure we can understand that they are negatively related and the relation is quite visible. After this I used the data set of emerging economics of Asia which consists of seven countries i.e. China, India, Indonesia, Israel, Malaysia, Taiwan and Thailand. Then I have regressed GE and RQ on volatility. The result is described in table 9 and 10. Government effectiveness found to be significant determinant of stability of stock markets of emerging economics at 90% significant level. But regulation does not have any significant effect on volatility.

Table9: Volatility and Government Effectiveness-Asian emerging economics

Volatility	Coefficient	Std. Err.	t	P> t	[95% Conf. Interval	
Government Effectiveness	-0.9028686	0.402546	-2.24	0.066	-1.88786	0.082127
Constant	0.9339276	0.176065	5.3	0.002	0.503112	1.364743

Table10: Volatility and Regulation Quality-Asian emerging economics

Volatility	Coefficient	Std. Err.	t	P> t	[95% Conf. Interval	
Regulation Quality	-0.7625889	0.557149	-1.37	0.22	-2.12588	0.600705
Constant	0.9645154	0.307513	3.14	0.02	0.212059	1.716972

The above result compels me to investigate how the emerging economics of world behave on governance. If all the emerging economies are considered and a regression is done on volatility taking GE and RQ independent variables respectively, it is found that GE is highly

Table11: Volatility and Government Effectiveness-Emerging economics

Volatility	Coefficient	Std. Err.	t	P> t	[95% Conf. Interval	
Government Effectiveness	-1.452554	0.579749	-2.51	0.028	-2.71572	-0.18939
Constant	1.262262	0.239809	5.26	0	0.739764	1.78476

significant. Its coefficient is -1.45 which is much higher than earlier results. It indicates a high degree of negative relationship between GE and volatility. One percentage increase

Table12: Volatility and Regulation Quality-Emerging economics

Volatility	Coefficient	Std. Err.	t	P> t	[95% Conf. Interval	
Regulation Quality	-1.232518	0.570297	-2.16	0.052	-2.47509	0.010052
Constant	1.321521	0.303576	4.35	0.001	0.660084	1.982957

in the effectiveness of governance would result in 1.45% decline in the volatility. The emerging economics in respect has huge scope for improving their stability of their stock market. Regulation quality also found important factor that would affect the volatility in these emerging economics.

V

Conclusion

In this concluding part of this study, it is found that governance has significant influence in volatility of stock market. It is also found that the degree of effectiveness varies across the continents. But all countries taken together, two major ingredients of measurement of governance significantly can affect the stability of stock markets. A high level of regulation quality and government effectiveness would result in stable stock market and a stable stock market always attracts more investment than a volatile one. Thus a stable stock market directly boasts economic growth of a country. In a way better regulation and effective government would be helpful in recovery from negative sentiments of the investors through volatility. Hence, the finding of this paper supports the first proposition.

From the last part of the earlier section, it is found that governance (RQ and GE) is more significantly affecting the volatility of stock markets in the emerging economics than the developed economies. Apart from other economic factors bad performance of these emerging economics in crucial measurements of governance level is responsible of higher level of meltdown (table 2). Any kind of negative shock, controlling other variables would result in higher degree of instability in the emerging markets. Hence, the second proposition which says the emerging economies would be less affected from this financial shock is found to be wrong from the above findings.

From the above findings it can be concluded that the bailout process or injecting money into the system would work if the perception of the people towards the government is favourable. If the regulation quality is not then short-term measures would not work. The effort of bailing out or increasing spending could not bring desirable outcome that which is the need of this hour. Hence, short-term measures would not be effective if that is not supported by the long-term improvement of regulation and government effectiveness.

The quality of governance and regulation quality of developing countries are far below standard than that of the richer countries. Measure taken by their central government and central bank would give far less significant result than that of richer countries. Hence, the most important task for these emerging economies would be to improve the quality of regulation and government effectiveness. Only then they could counter this crisis effectively and improve their participation in world trade and sustain higher growth rate.

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