Durgadevi Saraf
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Conference Proceedings

DONOR'S MESSAGE

Shri Vishwaprakash Harlalka
Donor, Remsons Centre for Management Research,
(In Memory of Radhadevi Harlalka)
Durgadevi Saraf Institute of Management Studies

Research is an integral part of a management institution for its growth and development. I am happy to know that Durgadevi Saraf Institute of Management Studies is playing an active role in the area of research under the Remsons Centre for Management Research. The institute is organizing an International Conference on the theme 'The Rise of Asia - Opportunities and Challenges' to be held on 14th March, 2014. The conference will be inaugurated by Dr. Liu Youfa (Consul General of People's Republic of China) who will also deliver the key note address. Many research papers will also be presented in the conference.

I compliment Dr. Sharad Kumar, Officiating Director and Head, Remsons Centre for Management Research and all his team for organizing the conference and wish the conference a grand success.

CHAIRMAN'S MESSAGE

Mr. Ashok M. Saraf
Chairman, Governing Board,
Durgadevi Saraf Institute of Management Studies

I have great pleasure to know that Durgadevi Saraf Institute of Management Studies is hosting an International Conference on the theme "The Rise of Asia - Opportunities and Challenges" to be held on 14th March, 2014 at the institute's premises under Remsons Centre for Management Research.

It is a matter of great pride that the conference will be inaugurated by Dr. Liu Youfa (Consul General of People's Republic of China) who will also deliver the key note address. The conference will be attended by a large number of academicians, professionals, research scholars, policy makers and students. Many research papers will also be presented in the Conference.

I take this opportunity to compliment Dr. Sharad Kumar, Officiating Director and Head, Remsons Centre of Management Research and all staff for this unique endeavour to host a conference on one of the most critical issues for Asian economic growth in times of uncertainity. I wish a grand success to the conference.

WELCOME ADDRESS

Good Morning Ladies and Gentlemen !

It is my great pleasure to welcome you all to our first International Conference today. My special welcome to Dr. Liu Youfa, the Consul General of China, who has kindly agreed to inaugurate the Conference as well as to be the Chief Guest. Keeping in view the theme of the conference, ie. Rise of Asia: Challenges and Opportunities, there cannot be any one else other than Dr Youfa whom we expect to share with us the success story of China which has driven the Asian growth to a higher trajectory at the time of western economic crises.

I also welcome our distinguished Researchers from Academia and Industry who are here to present their papers in this conference. I also welcome the invitees from other Business Schools and corporates who had shown their interest in participating in our conference. I also welcome our trust members and invitees from our sister institutions who have come to attend the inaugural session. I also welcome my faculty colleagues and our Students in this conference.

Before elaborating the theme of the conference, I may like to give a brief about our Institute. Our institute is quite new, just completing four years of its existence. It offers Mumbai University MMS Programme in four streams and Part-time Post Graduate programmes in Finance, Marketing and HR. We also conduct a flagship programme of PGDM approved by AICTE and also a number of short duration and specialized programmes catering to the needs of various segments. This institute has recently been adjudged as the fastest growing private educational institute 2012-13 in the "Business School Category" by Process Advisors and Evaluators – KPMG in India. The Institute has also recently obtained ISO Certification.

This conference is being organized under the aegis of Remsons Centre for Management Research. The Remsons Centre for Management Research is an advanced centre of excellence focusing on developing contemporary and usable research in various areas of Management. This Centre is set up to reiterate DSIMS's commitment to bring academic relevance to industry practices with the help of the magnanimous donation from Remsons Group of Companies. It is set up by Shri Vishvaprakashji Harlalka in the memory of his mother Smt. Radhadevi Harlalka.

Coming back to the theme of our conference, it is well known that the impact of western crises which was triggered by the US sub-prime had minimal impact on most of Asian countries. Asia covers over 29% of the Earth's land area and has a human population of over 4.2 billion which accounts for about 60% of the world population. The populations of China and India together are estimated to be around 2.6 billion people. Economically, most of Asia is traditionally considered part of the "Second World", with the significant exception of the industrialized "First World" nations of Israel, Japan, and South Korea.

As in all world regions, the wealth of Asia differs widely between, and within, states. This is due to its vast size, meaning a huge range of differing cultures, environments, historical ties and government systems. Wealth (if measured by GDP per capita) is mostly concentrated in East Asian territories as well in oil rich countries in West Asia. Asia is currently undergoing rapid growth and industrialization spearheaded by China and India - the two fastest growing major economies in the world. Asia has accumulated over US$4 trillion of foreign exchange reserves - more than half of the world's total.

Thus, it is interesting to see the opportunities available to Asia for continuing its growth trajectory and the challenges to be tackled.

I again welcome each and every one in this conference and expect fruitful deliberations.

Dr. Sharad Kumar

Remsons Chair Professor for Management Research

Editorial

The unprecedented level of growth in the major Asian economies have lately been resonating in the global financial market. This economic growth transformed the global business landscape and catapulted some of the East Asian economies into major players in the world market. Not only there was a marked change in the lives of millions in this part of the planet, it also resulted in making some of the progressive Asian Economies like China, India, Singapore and Malaysia the cynosure of the eyes of advanced economies of the West. This unabated growth which started in the early 1990s and often referred to as the “Asian Miracle” continued till 2007. There were some minor shocks in the global financial meltdown in 2008, however, India and China’s growth story sustained the momentum and noticeably, there was a shift in the economic center of gravity from the developed economies to the newly emerging economies of the East. Geopolitical commentators have observed that India, along with China will emerge as the two largest and mightiest economies in the coming decades.

It is critically imperative to analyze the rise in Asia from the viewpoint of business leadership and policy analyst to evaluate the underlying economic opportunities and risks in Asia. There is a necessity to emerge a well-developed understanding of the roots to success of the Asian economies, context analysis of the region with respect to socio-political, economic, cultural and technological changes and scenario building for the medium to long-term for the regional economies of Asia. These rising nations are redefining the nature of relationship based on international cooperation. China is by far the dominant Asian economy. China’s dominance in the region stems from the contribution in infrastructure, telecommunications, education and cultural investments in the economies of Cambodia, Mongolia, Philippines, Vietnam, Laos and Myanmar. As already stated, India and Thailand have consistent presence as development partners in the region. The APEC and ASEAN integration is a growing testimony to the rise of Asian superpowers and re-balancing of trade dynamics in the Asia Pacific.

The International Conference at Durgadevi Saraf Institute of Management Studies (DSIMS), Mumbai on 14th March, 2014 aptly conveys the new economic order of the rapidly emerging Asian economies and highlights the political and business strategies to harness the strong economic fundamentals and the growth potential of the region.

The papers presented in the International Conference on the theme "The Rise of Asia - Opportunities and Challenges" was organized by Durgadevi Saraf Institute of Management Studies (DSIMS), Mumbai on 14th March, 2014 are collected as a part of the post Conference Proceedings.

Nine research papers are presented in this Proceeding.

Following the footsteps of Robert Mumdell's classical work on OCA, the authors Prof. C.D. Shreedharan and Prof. Arindam Bandyopadhyay's work 'Determining Feasibility of Optimal Currency Area for SAARC Region based on Political Variables' is an endeavor toward assessing the feasibility of OCA formation in the SAARC region.

Sneha Srinivasan and Syed A A Farhan's article on "A Roadmap to Regional Integration: Micro-financing Clean Energy for Sustainable Livelihood across Asia" mutual reciprocity of energy and financial inclusion toward creation of sustainable livelihood.

The work by Prof. Sharad Kumar and Prof. Dinesh Rajput on "External Sector Developments in Select Asian Countries During 2008-12: A Comparative Study" highlights the performance of external sector in the Asian region and offers critical insight on comparative analysis of the external sector development of Asian countries included in BRI and N11 group during post crises period i.e. from 2008 to 2012.

Prof. Janardhana A in his work "China: A threat or opportunity for India" examines the country level competitiveness of China and India and flags important areas of competition and trade relations.

Prof. R. Kannan's article "Role of India and Asia in the Global Economy" brings forth the economic growth in Asia and possible synergies between India and China to sustain the growth momentum.

The research article on "Capital Markets Development and Economic Growth - An Asian Perspective" authored by Prof. Sarat Kumar Malik & Prof. Akriti studies the development of capital markets in Asian countries and analyzes the quantum and direction of FII inflows in India.

Prof. Sharmila Bonnerjee, Prof. Rusha Das and Prof. Sumana Chaudhuri in their working paper on "Integrating India into ASEAN: An Infrastructural Perspective" analyzes the role of cross border transport infrastructure in promoting economic growth through a case study of India – Myanmar – Thailand Trilateral Highway project under the aegis of Remsons Center for Management Studies and Research.

Prof. Mohinder Pal Singh in his work "Strategic and Economic Dimensions of Indo-Myanmar Relations" focuses on growing synergy between India and Myanmar toward strengthening of strategic, economic, cultural ties between these two nations.

Prof. Prerna Goyal Ramuka and Prof. Kusum Pawar in their work "A review of Corporate Social Responsibility in Asia with special reference to China, India and Japan" reviews the evolution and importance of Corporate Social Responsibility (CSR) in Asian countries.

This is a unique endeavor on the part of the Institute (DSIMS) under the aegis of Remsons Centre for Management Studies & Research to host an International Conference on one of the most critical strategic dimensions of the Asian growth trajectories in times of uncertainty. It is hoped that the Conference Proceedings will be useful to future researchers and academicians to understand the changing paradigms of Asian economies in contemporary times.

Sumana Chaudhuri

Editor

Contents

Keynote Address by Dr. Liu Youfa
(Consul General of People's Republic of China)

Dear researchers, students and faculty members,

I would like to begin by thanking DSIMS for inviting me as a keynote speaker for the conference. I accepted the invitation immediately because the subject "Rise of Asia – Opportunities and Challenges" is dear to me and I can speak my natural thoughts not as a Consulate General but as a Professor. I still hold the position of Professor and would like to speak as one, for this address.

I cannot but stress the importance of strong bilateral ties between India and China. The focus of my talk would be how India and China can dominate the world economy if they join forces.

Let me make a few points regarding the combined strength of India and China. India and China together account for more than half of the global population and nearly half of the world land mass. India and China are both "rising" economies, as they have not yet fully risen, but will achieve full potential in the near future. The growth of middle class population is highest in India and China and in just a few years; the combined middle class population in India and China will exceed that in US and Europe.

I have divided my presentation into three parts as follows:

a. Asia's economic position post 2008 financial crisis.
b. Challenges faced by Asia.
c. What Asia can do to overcome these challenges.

Both India and China are growing economic engines and would turn into new economic engines as the world economy recovers. In today's world, India and China are some of the few economies still growing strongly, producing almost half of the world output. Hence, for Asia to rise and dominate the world in economic terms, it is imperative that India and China join hands and work towards a common goal of world economic dominance by focussing on their core competencies. This is the main theme and focus of my address.

India and China both have a large labour market. It is important that we achieve sustainable growth by collaboration and understand that sub regional integration is the key to rise of Asia. India and China are no longer developing but developed economies, similar to Taiwan, Hong Kong and Singapore. In India, Tatas are a global conglomerate.

The huge FDI inflow in India and China is based not on cheap labour, but on skilled labour. China is strong in manufacturing while India is strong in services and IT sector. With a large middle class population and skilled labour, both India and China are poised for growth. In China, FDI inflow and outflow is almost equal indicating the rise of China as an Asian superpower.

India and China need a stronger education system as the number of universities in US is more than in entire Asia. Both India and China have vast consumption potential making us global players in economic production. Earlier G7 countries set the rules and price for products and services, but now India and China should be price setters rather than price takers. Unfortunately, we are yet to dictate our terms as far as the pricing of our skilled labour force is concerned. I hope this scenario will not continue in near future.

I would like to conclude my address by highlighting the challenges faced by India and China in becoming economic super powers viz. export import imbalance, inflation and other infrastructural bottlenecks. We need to jointly tackle these impediments so as to achieve our goal of an economic super power. The one thing that I feel is mandatory for achieving a higher growth and facilitating our other under developed nations is to have better economic and political relations with our neighbours, by building economic corridors.

Determining Feasibility of Optimal Currency Area for SAARC Region Based on Political Variables

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Synopsis

Professor Robert Mundell of Columbia university conceived the theory of Optimum Currency Area(OCA) in 1961.According to him the main criteria for designing an OCA is the degree of factor mobility within the zone which provides an adjustment mechanism. Euro zone is an example of this theory. A region facing “symmetric economic shocks” can be conducive to form an OCA. But OCA being endogeneous by nature, the OCA theory in reverse also holds true. In other words, once an OCA has been formed economic parity can be achieved with a little effort. But for the reverse OCA to operate, significant political willingness is necessary. It is well documented that international trade is affected by economic variables. However, the effects of political variables on trade are also significant. Between countries having friendly relations, political agenda can enhance trade through protectionism; whereas, between hostile nations political interventions can block trade. It is also observed that trade facilitation & currency exchange coordination are a potential source of political cooperation between nations. In spite of these factors, economists in large part have not studied the relationship between exchange rate volatility and political interference between nations.

In this paper the authors analyze the relationship between Exchange Rate Variability (ΔER) and the OCA Political Variables (i.e., *Rule-of-Law(RL), Government-Effectiveness(GE), Control of Corruption(CC),Regulatory-Quality(RQ),Political-Stability-&-Absence-of- violence/Terrorism (PS)* and *Voice-&-Accountability(VA)*) among the countries of the SAARC region & ascertain the feasibility of forming OCA for the region. The Multiple Linear Regression function, Y=f(X) has been used as the basal of the deterministic model

Keywords:
Optimum currency area (OCA), SAARC Region, political variables, exchange rate volatility, Euro-zone debt crisis

Introduction

South Asian Association for Regional Cooperation (SAARC) was established in 1985 with Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka as its member nations, with the objective of promoting greater macroeconomic coordination within the South Asian region. Afghanistan joined the SAARC in 2007. SAARC Secretariat is headquartered in Katmandu, Nepal. The South Asian Preferential Trade Agreement (SAPTA)[1] was signed in 1995 and subsequently in April 2006, the member states signed the South Asian Free Trade Area (SAFTA)[2].Despite the signing of SAFTA regional integration in South Asia is still a far cry (Kher, 2012), and with persistent regional conflicts the resultant being that SAARC countries have not been able to take the full benefit of these agreements.

Common Currency for SAARC Region

Introducing a common currency in the SAARC region will significantly enhance trade and create employment in the region. It will bestow unified identity to the countries of the SAARC region and introduce exchange rate stability. Volatility in exchange rate provokes price uncertainty, triggering increased adjustment costs and decreases the efficiency of resource allocation in domestic markets (Masron and Yusop, 2006). Volatility in Exchange rates are caused by economic variables like inflation, current account deficits, fiscal deficits, interest rate changes, currency speculation by dealers and merchants, etc.

Ghani and Iyer (2010)[3] observed that political factors like violence, conflicts etc. retard economic growth. Countries ravaged by persistent regional and inter-government political conflicts are slow to grow. Since exchange rates stability greatly contributes to overall GDP in a region, the study of the political variables impacting the exchange rates become relevant.

[1]http://saarc-sec.org/areaofcooperation/detail.php?activity_id=4
[2]http://saarc-sec.org/areaofcooperation/detail.php?activity_id=5
[3] Rodan, G. (Ed.). (2013).*Political Oppositions in Industrializing Asia*. Routledge..

The largest and most significant currency union is the Economic and Monetary Union of the European Union (EMU). The Treaty of Maastricht, signed in 1992, created the European Union in 1993, and led to the adoption of a single currency the Euro(€) in 2000 by 11 (now 18) of its 28 its member states. The European Central Bank (ECB) is the central bank for Euro-zone and administers the monetary policies of the Euro-zone. The theory of optimum currency areas (OCA) explores the criteria as well as the costs and benefits of forming a common currency area. (Broz, 2005).

Literature review on the formation of an OCA in Asian region

Masron and Yusop (2006) investigated how well macro economic variables will work in the context of the ASEAN region when the Singapore Dollar, given its relative stability, is used as an anchor currency for OCA. Their results indicated that economic variables play an important role in explaining bilateral exchange rate volatility. In addition, exchange rate volatility exerts a negative impact on bilateral trade and gross domestic product (GDP). It is also a source of divergence among ASEAN members.

Taguchi (2010) examined the economic feasibility of forming a regional currency block in Asia, by adopting Generalized Purchasing Power Parity (G-PPP) approach to identify the existence of common trends in real exchange rates among a group of countries. South Asia, as a group, passed the G-PPP condition.

Gopinath (2005) researched to examine the suitability of SAARC for an optimum currency area on the basis of three criteria viz., intensity of trade, shock symmetry and homogeneity of economies. His study revealed that SAARC is ill suited for a common currency, as the extent of trade is extremely low, idiosyncratic, economies are heterogeneous. Forhad (2013) found that low share of intra-regional trade, low degree of factor mobility and lack of political integration would suggest that introduction of a common currency is not feasible across the SAARC countries.

Hooy & Choong (2010) observed that real exchange rate volatility was found to have a significant and negative impact on the export demand of most of the SAARC countries. This implied that higher exchange rate fluctuation did not encourage intra-regional trade within SAARC region.

Kher (2012) concluded that although regional integration in South Asia is still a distant priority for South Asian countries, the changes in the world economic order and recent developments in South Asia made it pertinent to re-look at the case of integration in South Asia. She examined the politico- economic factors that create impediments to economic integration in the region. Her study looked at regional integration arrangements in other parts of the world to identify key lessons for South Asia. Further, she also examined the role of legal instruments in South and Southeast Asia in the area of trade and investment which are required for regional integration.

Chowdhury, Chowdhury and Haque (2008) observed that formation of regional integration has been greatly successful in bringing historically hostile countries together. The classic example is the state in the European Union and the South East Asia where economic dimensions have brought long time foes in the same dais. The basic premise on which SAARC was founded was that by activating cooperative cultural identities and economic interests, political conflicts and tensions in South Asia could be moderated, if not completely eliminated. It looks advantageous if SAARC countries could adopt a single currency-thereby substantially enhancing their bargaining power together in the world market. A common currency's attraction is that it doesn't represent the currency of any single country. It's advantageous to deal with a lesser number of currencies since each time one converts a currency there is a huge loss. The common currency regime, when achieved, can present substantial benefits to the region. With uncertainty about exchange rates removed, and transaction costs reduce. Trade and investment in the region can get a big boost. Also with money creation under regional guidelines, there would be better prospects of synchronization of inflation, interest rate and GDP growth, all of which can contribute to accelerated growth and poverty reduction.

Objective of the Study

This paper attempts to establish whether changes in political variables have any significant influence on changes in exchange rate for each of the eight currencies of the SAARC region. Secondly, it aims to find which political variables have a stronger effect on changes in the individual currency exchange rates, thereby establishing whether there exists similarity of political shock effects on each of the SAARC nations. Thirdly, based on the degree of political variables' influence on the exchange rates, it tries to analyze the feasibility of using any of the existing currencies while forming the Optimum Currency Area.

The following table gives the Exchange Rate Regime followed by the eight member countries of the SAARC region:

Country	Currency Used	ISO 4217 Code	Exchange Rate Regime
Afghanistan	Afghan Afghani	AFN	Managed Float
Bangladesh	Bangladeshi Taka	BDK	Managed Float
Bhutan	Bhutanese Ngultrum	BTN	Fixed Peg
India	Indian Rupee	INR	Managed Float
Maldives	Maldivian Rupee	MVR	Fixed Peg
Nepal	Nepalese Rupee	NPR	Fixed Peg
Pakistan	Pakistani Rupee	PKR	Managed Float
Sri Lanka	Sri Lankan Rupee	LKR	Managed Float

It may be seen that five countries follow managed floating regime (India, Pakistan, Sri Lanka, Afghanistan & Bangladesh) while three countries follow fixed peg regimes (Bhutan, Nepal & Maldives).

Research Hypotheses

Taking into account the exchange rate regimes followed by member countries of SAARC region and the six most important 'political variables', namely, *Rule-of-Law(RL), Government-Effectiveness(GE), Control of Corruption(CC), Regulatory-Quality(RQ), Political-Stability-&-Absence-of-Violence/Terrorism(PS)* and *Voice-&-Accountability(VA),* the authors have formed the following hypotheses :-

H_0: Political variables affect the exchange rate variability

H_1: Political variables do not affect exchange rate variability

H_3: Political variables will influence the formation of OCA in SAARC region

H_4: Political variables will not influence the formation of OCA in SAARC region

Deterministic Model and Estimation Procedure

Dependent Variable

This research paper takes into account the six political variables mentioned below as independent variables which influence the Exchange Rate Variability (ΔER) of the SAARC countries. The dependent variable is Exchange Rate Variability (ΔER).

ΔER is taken as the change in exchange rate of two consecutive years as on 31st December. For example, the change in exchange rate year 2001 less that of year 2000.

Independent Variables

1) *Rule-of-Law(RL):*

Reflects perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence.

2) *Government-Effectiveness(GE):*

Reflects perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.

3) Control of Corruption(CC):

Reflects perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests.

4) Regulatory-Quality(RQ):

Reflects perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.

5) Political-Stability-&-Absence-of-Violence/Terrorism(PS):

Reflects perceptions of the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including politically-motivated violence and terrorism.

6) Voice-&-Accountability(VA):

Reflects perceptions of the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media.

Building the deterministic model

In our framework for investigating feasibility of OCA for the SAARC region, the input–output relationship is characterized by a Multiple Linear Regression function, Y=f(X).This enables us to learn more about the relationship between several independent or predictor variables (X) and a dependent or criterion variable (Y):

$$Y = c + \sum m_i X_i + \varepsilon \qquad \text{.............................(1)}$$

Our Deterministic Model takes the form:

$$\Delta ER = \alpha_0 + \sum \beta_i^* \Delta OCA_i + \varepsilon \qquad \text{................. (2)}$$

where OCA is the optimum currency area political parameters. Substituting the proxy for OCA, we get:

$$\Delta ER = \alpha_0 + \beta_0^*\Delta RL + \beta_1^*\Delta GE + \beta_2^*\Delta CC + \beta_3^*\Delta RQ + \beta_4^*\Delta PS + \beta_5^*\Delta VA + \varepsilon \qquad \text{............................. (3)}$$

where…

ΔER is change in Exchange Rate of currency of a country

ΔRL is change in *Rule-of-Law* of country

ΔGE is change in *Government-Effectiveness* of country

ΔCC is change in *Control-of-Corruption* of country

ΔRQ is change in *Regulatory-Quality* of country

ΔPS is change in *Political-Stability and Absence-of-Violence/Terrorism* of country

ΔVA is change in *Voice-and-Accountability* of country

α_0 is the Intercept representing the Economic variables; the intercept is kept equal to zero to nullify effect of other factors on dependent variable ΔER

$\beta_0, \beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ are the coefficients of ΔRL, ΔGE, ΔCC, ΔRQ, ΔPS and ΔVA respectively

ε is the error term

Methodology

The values of the 6 independent variables were accessed from The Worldwide Governance Indicators (WGI), 2013 Update, World Bank Group (See annexure B) for SAARC countries.

(http://info.worldbank.org/governance/wgi/index.aspx#home)

The values of dependent variable for the respective SAARC currencies against US$ were accessed from (http://exchangerateweb.com/others/historical-rates.php?).

The data period covered is from 2000 to 2012; and long run regression was done with the help of Excel regression function. Correlation coefficients for the exchange rates were worked with the help of EXCEL correlation function.

Analysis and Interpretation

1. Afghanistan (Table 1), the long run regression equation is ΔER = -13.96*ΔRL – 9.93*ΔGE + 17.51*ΔCC + 11.28*ΔRQ – 13.2*ΔPS – 19.34*ΔVA. The R-squared value of the Regression Analysis is 0.987268 (Table 1-A) which signifies an extremely **high degree** of influence of the political variables over the exchange rate of Afghan Afghani (AFN), wherein all the political variables *Rule-of-Law, Government-Effectiveness, Control-of-Corruption, Regulatory-Quality, Political-Stability and Absence-of-Violence/Terrorism and Voice-and-Accountability* have an influence over its exchange-rate.

Table 1: Afghanistan data set

Sample Yr.	ΔRL	ΔGE	ΔCC	ΔRQ	ΔPS	ΔVA	ΔER
2004-2003	-0.04	0.29	0.12	-0.01	-0.03	0.03	0.00
2005-2004	-0.01	-0.34	-0.04	-0.14	0.21	0.07	-0.68
2006-2005	-0.23	-0.26	0.02	-0.03	-0.14	-0.01	7.69
2007-2006	0.03	0.08	-0.15	-0.01	-0.17	0.07	-0.23
2008-2007	-0.02	-0.08	-0.05	0.08	-0.29	-0.11	2.36
2009-2008	0.04	-0.02	0.12	-0.07	-0.02	-0.22	-2.89
2010-2009	0.01	0.03	-0.11	0.14	0.15	-0.02	-3.38
2011-2010	-0.03	0.01	0.08	-0.01	0.07	0.07	2.54
2012-2011	0.21	0.06	0.14	0.33	0.06	0.09	3.60

Table 1-A: Afghanistan Regression Statistics – 1

Regression Statistics	
Multiple R	0.993613
R Square	0.987268
Adjusted R Square	0.632713
Standard Error	0.665679
Observations	9

Table 1-B: Afghanistan Regression Statistics - 2

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A
ΔRL	-13.9634	2.956551	-4.72286	0.017983	-23.3725	-4.55433
ΔGE	-9.9264	1.442221	-6.88272	0.006283	-14.5162	-5.33661
ΔCC	17.51198	2.340942	7.48074	0.004947	10.06206	24.9619
ΔRQ	11.28128	2.200572	5.126522	0.014371	4.278079	18.28448
ΔPS	-13.2012	1.810409	-7.29185	0.005325	-18.9628	-7.4397
ΔVA	19.34006	2.570819	7.522916	0.004868	11.15856	27.52155

2. Bangladesh (Table 2), the long run regression equation is ΔER = -2.92*ΔRL – 110.16*ΔGE + 18.17*ΔCC + 25.55*ΔRQ + 12.17*ΔPS + 11.9*ΔVA. The R-squared value of the Regression Analysis is 0.722282 (Table 5) which signifies a very high degree of influence of the political variables over the exchange rate of Bangladeshi Taka (BDT), in particular the political variables *Government-Effectiveness* and *Regulatory-Quality* have an extremely **high influence** over its exchange-rate.

Table 2: Bangladesh data set

Sample Yr.	ΔRL	ΔGE	ΔCC	ΔRQ	ΔPS	ΔVA	ΔER
2001-2000	0.01	-0.03	-0.06	-0.03	-0.08	-0.05	0.84
2002-2001	0.03	-0.10	-0.18	-0.10	-0.23	-0.16	1.25
2003-2002	-0.12	-0.01	-0.16	0.09	-0.06	-0.11	1.07
2004-2003	0.03	-0.07	-0.15	-0.17	-0.24	-0.05	1.21
2005-2004	0.03	-0.09	0.08	0.06	-0.46	0.08	7.98
2006-2005	0.08	0.09	-0.01	0.08	0.37	0.12	0.51
2007-2006	0.05	0.09	0.38	0.05	-0.02	-0.06	0.39
2008-2007	0.08	-0.03	0.03	0.02	0.02	0.07	1.04
2009-2008	-0.02	-0.08	-0.01	0.04	-0.06	0.17	16.00
2010-2009	-0.01	0.04	0.00	0.01	0.14	0.02	1.72
2011-2010	0.07	-0.01	-0.02	0.03	0.01	-0.04	4.10
2012-2011	-0.20	-0.07	0.18	-0.16	0.04	-0.09	7.13

Table 2-A: Bangladesh Regression Statistics - 1

Regression Statistics	
Multiple R	0.849872
R Square	0.722282
Adjusted R Square	0.324184
Standard Error	4.28483
Observations	12

Table 2-B: Bangladesh Regression Statistics - 2

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A
ΔRL	-2.91795	19.49051	-0.14971	0.885898	-50.6095	44.7736
ΔGE	-110.156	45.18836	-2.43772	0.050629	-220.728	0.415566
ΔCC	18.16874	10.31721	1.761013	0.128715	-7.07656	43.41405
ΔRQ	25.55144	21.43939	1.191799	0.278338	-26.9089	78.01174
ΔPS	12.11646	12.3782	0.978855	0.365454	-18.1719	42.40482
ΔVA	11.8968	19.02248	0.625407	0.55473	-34.6495	58.44312

3. Bhutan (Table 3), the long run regression equation is ΔER = – 4.57*ΔRL – 7.82*ΔGE – 15.37*ΔCC + 3.23*ΔRQ + 8.81*ΔPS + 13.64*ΔVA. The R-squared value of the Regression Analysis is 0.434578 (Table 3A) which signifies a **low degree** of influence of the political variables over the exchange rate of Bhutanese Ngultrum (BTN), wherein none of the political variables have influence over its exchange-rate.

Table 3: Bhutan data set

Sample Yr.	ΔRL	ΔGE	ΔCC	ΔRQ	ΔPS	ΔVA	ΔER
2001-2000	-0.02	-0.01	0.05	-0.02	0.05	-0.06	1.37
2002-2001	-0.06	-0.03	0.15	-0.07	0.14	-0.19	-0.43
2003-2002	0.14	-0.35	0.17	0.46	0.31	0.04	-2.37
2004-2003	0.12	-0.52	-0.14	-0.80	0.27	0.27	0.00
2005-2004	0.01	0.42	0.13	0.38	0.13	-0.11	-0.25
2006-2005	-0.11	-0.10	-0.09	-0.17	0.00	0.03	-0.68
2007-2006	0.12	0.02	0.08	-0.13	-0.69	0.17	-4.89
2008-2007	0.00	0.03	0.03	-0.10	0.13	0.28	8.81
2009-2008	-0.19	0.26	0.04	-0.27	0.06	0.05	-1.62
2010-2009	-0.06	0.09	0.01	-0.10	-0.04	0.06	-1.75
2011-2010	0.03	0.05	-0.09	0.02	0.08	0.00	8.19
2012-2011	0.05	-0.14	0.09	0.06	-0.04	0.13	1.76

Table 3-A: Bhutan Regression Statistics - 1

Regression Statistics	
Multiple R	0.659225
R Square	0.434578
Adjusted R Square	-0.20327
Standard Error	4.180946
Observations	12

Table 3-B: Bhutan Regression Statistics - 2

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A
ΔRL	4.568177	20.44686	0.223417	0.830623	-45.4635	54.59985
ΔGE	7.824639	8.515166	0.918906	0.393586	-13.0112	28.6605
ΔCC	-15.3739	14.91107	-1.03104	0.342279	-51.86	21.11217
ΔRQ	3.227549	6.806927	0.474156	0.652151	-13.4284	19.8835
ΔPS	8.814793	5.70021	1.546398	0.172969	-5.13312	22.76271
ΔVA	13.64446	11.50403	1.186059	0.280433	-14.5049	41.7938

4. India (Table 4), the long run regression equation is ΔER = -21.2*ΔRL – 40.86*ΔGE + 12.8*ΔCC + 24.27*ΔRQ – 4.48*ΔPS – 2.78*ΔVA. The R-squared value of the Regression Analysis is 0.62313 (Table 4-A) which signifies a high degree of influence of the political variables over the exchange rate of Indian Rupee (INR), wherein the political variables *Government-Effectiveness* has an extremely **high influence** over its exchange-rate.

Table 4: India data set

Sample Yr.	ΔRL	ΔGE	ΔCC	ΔRQ	ΔPS	ΔVA	ΔER
2001-2000	-0.08	0.00	-0.03	-0.06	-0.06	0.03	1.54
2002-2001	-0.24	0.01	-0.10	-0.17	-0.19	0.08	-0.27
2003-2002	0.13	0.06	0.06	0.01	-0.28	0.03	-2.45
2004-2003	-0.06	-0.03	0.02	-0.03	0.31	-0.01	-1.88
2005-2004	0.12	0.02	0.02	0.16	0.23	0.01	1.44
2006-2005	0.03	0.04	0.10	0.01	-0.07	0.02	-1.00
2007-2006	-0.08	0.16	-0.13	-0.03	-0.09	0.01	-4.69
2008-2007	-0.02	-0.14	0.06	-0.09	0.05	0.01	8.78
2009-2008	-0.06	0.02	-0.12	0.05	-0.23	0.01	-1.80
2010-2009	-0.06	0.02	-0.04	-0.07	0.10	-0.02	-0.70
2011-2010	-0.07	-0.02	-0.06	0.03	-0.06	-0.04	6.55
2012-2011	0.01	-0.18	0.01	-0.14	0.05	-0.04	2.20

Table 4-A: India Regression Statistics - 1

Regression Statistics	
Multiple R	0.789386
R Square	0.62313
Adjusted R Square	0.142406
Standard Error	3.225268
Observations	12

Table 4-B: India Regression Statistics - 2

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A
ΔRL	-21.2005	21.27284	-0.9966	0.357438	-73.2533	30.85228
ΔGE	-40.8623	16.41098	-2.48994	0.047166	-81.0185	-0.70607
ΔCC	12.80364	24.15733	0.53001	0.615136	-46.3072	71.9145
ΔRQ	24.27321	18.56748	1.307297	0.238972	-21.1598	69.7062
ΔPS	-4.48493	7.028142	-0.63814	0.546952	-21.6822	12.71232
ΔVA	-2.78094	40.51288	-0.06864	0.947504	-101.912	96.3505

5. Maldives (Table 5), the long run regression equation is ΔER = – 5.32*ΔRL – 2.42*ΔGE – 0.658*ΔCC + 2.21*ΔRQ – 0.081*ΔPS – 1.37*ΔVA. The R-squared value of the Regression Analysis is 0.699984 (Table 5-A) which signifies a high degree of influence of the political variables over the exchange rate of Maldivian Rufiyaa (MVR), wherein the political variables *Rule-of-Law* has a **high influence** over its exchange-rate.

Table 5: Maldives data set

Sample Yr.	ΔRL	ΔGE	ΔCC	ΔRQ	ΔPS	ΔVA	ΔER
2001-2000	-0.08	0.00	0.03	0.02	-0.02	-0.04	0.00
2002-2001	-0.23	0.00	0.10	0.06	-0.07	-0.11	0.92
2003-2002	0.09	-0.27	0.21	-0.18	0.00	-0.39	0.00
2004-2003	-0.08	-0.12	-0.22	-0.67	-0.49	-0.20	0.06
2005-2004	0.15	0.27	-0.13	0.54	0.30	0.13	-0.15
2006-2005	-0.11	-0.12	-0.23	-0.15	-0.04	-0.01	0.05
2007-2006	-0.14	-0.03	-0.30	-0.32	-0.70	0.09	-0.03
2008-2007	-0.14	-0.28	-0.04	-0.37	-0.24	0.60	-0.02
2009-2008	-0.01	-0.18	0.19	-0.02	-0.07	0.22	0.00
2010-2009	-0.16	0.24	0.16	0.02	0.09	-0.01	0.03
2011-2010	-0.24	-0.10	0.00	-0.01	-0.08	-0.11	2.78
2012-2011	0.07	0.15	0.08	0.06	-0.07	-0.31	-0.04

Table 5-A: Maldives Regression Statistics - 1

Regression Statistics	
Multiple R	0.83665
R Square	0.699984
Adjusted R Square	0.283303
Standard Error	0.656027
Observations	12

Table 5-B: Maldives Regression Statistics - 2

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A
ΔRL	-5.32221	1.624469	-3.27628	0.016901	-9.29715	-1.34728
ΔGE	-2.4217	1.623699	-1.49147	0.186435	-6.39474	1.551353
ΔCC	-0.65753	1.476532	-0.44532	0.671703	-4.27048	2.95541
ΔRQ	2.206147	1.445453	1.526267	0.177794	-1.33075	5.743043
ΔPS	-0.08112	1.437885	-0.05642	0.95684	-3.5995	3.437255
ΔVA	-1.36651	0.825956	-1.65446	0.149116	-3.38756	0.654527

6. Nepal (Table 6), the long run regression equation is ΔER = – 0.02995*ΔRL + 4.75*ΔGE + 3.26*ΔCC – 4.45*ΔRQ + 18.33*ΔPS – 15.46*ΔVA. The R-squared value of the Regression Analysis is 0.20259 (Table 6-A) which signifies an extremely **low degree** of influence of the change in political variables over the exchange rate of Nepalese Rupee (NPR), wherein none of the political variables have an influence over its exchange-rate.

Table 6: Nepal data set

Sample Yr.	ΔRL	ΔGE	ΔCC	ΔRQ	ΔPS	ΔVA	ΔER
2001-2000	-0.05	0.00	-0.03	0.00	-0.14	-0.14	-1.26
2002-2001	-0.15	0.00	-0.08	-0.01	-0.42	-0.41	0.06
2003-2002	-0.09	-0.08	0.20	0.15	-0.15	-0.07	-2.77
2004-2003	-0.14	-0.18	-0.33	-0.10	-0.17	-0.23	-0.70
2005-2004	-0.08	-0.09	0.02	0.03	0.01	-0.05	2.09
2006-2005	0.21	0.06	0.28	0.00	0.19	0.29	-2.25
2007-2006	-0.01	0.13	0.02	-0.05	0.01	0.31	0.00
2008-2007	-0.08	-0.10	-0.06	-0.06	0.07	0.06	7.90
2009-2008	-0.18	-0.18	-0.24	-0.08	0.22	0.06	-3.25
2010-2009	-0.10	0.08	-0.03	-0.04	0.03	-0.01	-1.45
2011-2010	0.06	-0.02	0.02	0.02	0.17	-0.02	12.40
2012-2011	0.16	-0.11	-0.01	-0.09	0.04	-0.20	2.55

Table 6-A: Nepal Regression Statistics – 1

Regression Statistics	
Multiple R	0.4501
R Square	0.20259
Adjusted R Square	-0.62859
Standard Error	5.816049
Observations	12

Table 6-B: Nepal Regression Statistics - 2

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A
ΔRL	-0.02995	24.85313	-0.00121	0.999078	-60.8434	60.78347
ΔGE	4.754434	24.85645	0.191276	0.854618	-56.0671	65.57597
ΔCC	3.259243	26.93176	0.121019	0.907627	-62.6404	69.15889
ΔRQ	-4.45444	42.41493	-0.10502	0.919782	-108.24	99.33115
ΔPS	18.33424	19.44816	0.942724	0.382215	-29.2537	65.92216
ΔVA	-15.4626	17.8986	-0.8639	0.420831	-59.2589	28.33369

7. Pakistan (Table 7), the long run regression equation is $\Delta ER = 15*\Delta RL - 52.67*\Delta GE + 7.69*\Delta CC - 24.46*\Delta RQ + 2.93*\Delta PS + 44.92*\Delta VA$. The R-squared value of the Regression Analysis is 0.777377 (Table 7-A) which signifies a very **high degree** of influence of the political variables over the exchange rate of Pakistani Rupee (PKR), wherein the political variables *Government-Effectiveness* and *Voice-&-Accountability* have an extremely high influence over its exchange-rate.

Table 7: Pakistan data set

Sample Yr.	ΔRL	ΔGE	ΔCC	ΔRQ	ΔPS	ΔVA	ΔER
2001-2000	0.05	0.05	-0.03	-0.02	-0.14	0.02	1.74
2002-2001	0.14	0.14	-0.08	-0.05	-0.42	0.07	-1.74
2003-2002	0.03	0.01	0.20	0.07	0.13	-0.04	-0.67
2004-2003	-0.10	-0.07	-0.33	-0.15	0.02	0.04	2.02
2005-2004	-0.05	0.03	0.02	0.27	-0.20	0.17	0.16
2006-2005	0.04	0.05	0.28	0.16	-0.28	0.16	1.30
2007-2006	-0.04	-0.10	0.02	-0.05	-0.39	-0.07	0.43
2008-2007	-0.10	-0.24	-0.06	-0.07	-0.14	0.10	17.37
2009-2008	0.13	-0.08	-0.24	0.01	-0.06	-0.03	5.45
2010-2009	0.10	0.02	-0.03	-0.03	-0.05	0.06	1.50
2011-2010	-0.17	-0.05	0.02	-0.04	-0.14	-0.01	3.46
2012-2011	0.00	0.02	-0.01	-0.10	0.13	-0.01	8.02

Table 7-A: Pakistan Regression Statistics - 1

Regression Statistics	
Multiple R	0.88169
R Square	0.777377
Adjusted R Square	0.42519
Standard Error	3.959092
Observations	12

Table 7-B: Pakistan Regression Statistics - 2

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A
ΔRL	15.00352	14.90705	1.006471	0.353039	-21.4727	51.47976
ΔGE	-52.6662	15.88638	-3.31518	0.016101	-91.5388	-13.7936
ΔCC	7.685183	9.47839	0.810811	0.448433	-15.5076	30.87797
ΔRQ	-24.4567	15.23116	-1.6057	0.159463	-61.726	12.81265
ΔPS	2.933995	6.366509	0.460848	0.661139	-12.6443	18.51228
ΔVA	44.91618	18.98336	2.366082	0.055818	-1.53441	91.36678

8. Sri Lankan (Table 8), the long run regression equation is ΔER = –64.65*ΔRL – 10.37*ΔGE + 56.22*ΔCC – 19.88*ΔRQ + 11.42*ΔPS + 4.93*ΔVA. The R-squared value of the Regression Analysis is 0.636585 (Table 8-A) which signifies an extremely high degree of influence of the political variables over the exchange rate of Sri Lankan Rupee (LKR), wherein the political variables *Control-of-Corruption* has an extremely **high influence** over its exchange-rate.

Table 8: Sri Lanka data set

Sample Yr.	ΔRL	ΔGE	ΔCC	ΔRQ	ΔPS	ΔVA	ΔER
2001-2000	0.04	0.07	0.01	-0.02	0.27	0.03	10.08
2002-2001	0.11	0.22	0.02	-0.05	0.81	0.09	3.72
2003-2002	-0.08	-0.14	-0.02	-0.08	-0.03	0.03	-0.19
2004-2003	-0.04	-0.20	0.12	-0.15	-0.18	-0.07	8.34
2005-2004	-0.06	0.11	-0.23	-0.31	-0.13	-0.02	-2.52
2006-2005	0.04	0.11	0.19	0.10	-0.23	-0.09	5.23
2007-2006	-0.04	0.09	0.08	-0.01	-0.31	-0.13	1.04
2008-2007	-0.15	-0.03	-0.09	-0.09	-0.06	-0.03	5.38
2009-2008	-0.06	0.00	-0.18	0.08	0.45	-0.03	0.62
2010-2009	-0.01	-0.06	-0.03	0.06	0.42	-0.03	-3.00
2011-2010	0.00	0.08	0.03	0.10	0.23	-0.04	2.50
2012-2011	-0.04	-0.13	0.13	-0.01	-0.01	-0.04	13.65

Table 8-A: Sri Lanka Regression Statistics - 1

Regression Statistics	
Multiple R	0.797863
R Square	0.636585
Adjusted R Square	0.167073
Standard Error	5.22493
Observations	12

Table 8-B: Sri Lanka Regression Statistics - 2

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A
ΔRL	-64.65210	46.62014	-1.38678	0.214834	-178.727	49.4233
ΔGE	10.37154	19.14892	0.541625	0.607587	-36.4842	57.22726
ΔCC	56.22271	21.51970	2.612616	0.039980	3.565897	108.8795
ΔRQ	-19.88450	15.34802	-1.29557	0.242730	-57.4397	17.67076
ΔPS	11.42204	5.765726	1.981024	0.094889	-2.68618	25.53026
ΔVA	4.925797	39.25370	0.125486	0.904238	-91.1246	100.9761

Exchange rate correlation Analysis

From Table 9, we observe that there is a very high degree of positive correlation between Indian INR, Nepalese NPR, Bhutanese BTN, Maldivian MVR and Pakistani PKR, However, Bangladeshi Taka BDT, Afghan AFN and Sri Lankan LKR do not have correlation with any of the SAARC currencies.

Table 9: Correlation between the various SAARC currencies

Country		Afghanistan	Bangladesh	Bhutan	India	Maldives	Nepal	Pakistan	Sri Lanka
	ISO 4217	AFN	BDT	BTN	INR	MVR	NPR	PKR	LKR
Afghanistan	AFN	1.000	-0.386	0.356	0.306	0.183	0.264	0.184	0.591
Bangladesh	BDT	-0.386	1.000	-0.044	-0.005	-0.047	-0.060	0.156	-0.144
Bhutan	BTN	0.356	-0.044	1.000	0.970	0.557	0.867	0.690	0.312
India	INR	0.306	-0.005	0.970	1.000	0.455	0.845	0.710	0.241
Maldives	MVR	0.183	-0.047	0.557	0.455	1.000	0.716	-0.064	-0.055
Nepal	NPR	0.264	-0.060	0.867	0.845	0.716	1.000	0.499	0.100
Pakistan	PKR	0.184	0.156	0.690	0.710	-0.064	0.499	1.000	0.344
Sri Lanka	LKR	0.591	-0.144	0.312	0.241	-0.055	0.100	0.344	1.000

Major Results and Recommendations

1. R^2 value is greater than 0.6 with 6 of the 8 long run equations. Thus it proves that the hypothesis H_0 is true. The combined political variables have a high influence on the Exchange Rate Variability among 6 countries. (i.e., 6/8 = 75% of the countries of the region). This also proves that H_3 holds good for the region as a whole.

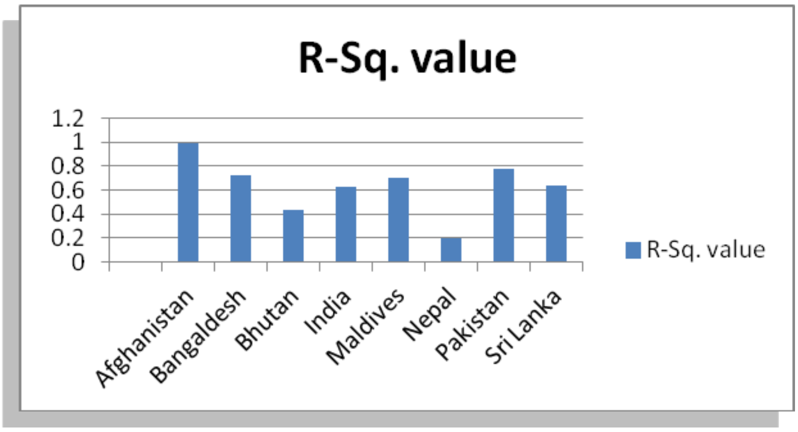


Figure 1: R-squared values of the 8 Long Run Eqn.

2. Nepal and Bhutan are the two countries in the SAARC region whose exchange rates are not significantly affected by political variables. Being small nations their trade volumes are low in the region despite India's trade and transit agreements with these countries. Indian rupee is used for settlement of trade between these countries. To this extent it saves the usage of foreign exchange by these two countries.

3. Five of the 8 countries have positive correlation in exchange rate variability, signifying that the shocks encountered politically have a similar effect on their individual currencies. The region as a whole has to ensure political stability and regional co-operation as envisaged in SAARC preamble in order to formulate a common currency.

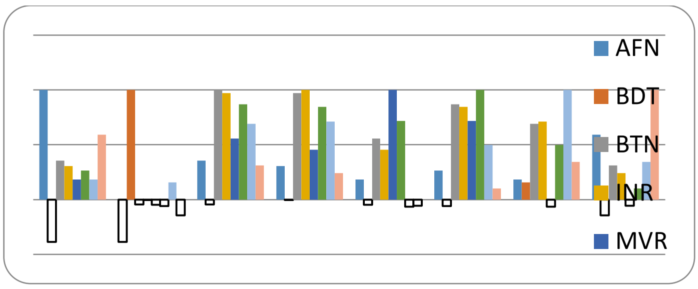


Figure 2: Correlation between the Exchange Rates of SAARC currencies

4. Major currencies of the SAARC region viz. INR, PKR, BDT, MVR and LKR are not in correlation with each other; therefore, choosing any of the existing currencies as a common currency may not be a viable solution.

5. It is advisable to introduce a new common currency say "SARC "(South Asian Regional Currency) so that every country can give up its legacy currency. The new currency will be legal tender in all the SAARC countries. However existing contracts in the respective currencies will be allowed to continue till its maturity.

6. A common Central Bank called SAARC Central Bank (SCB) can be established on the lines of European Central Bank to print the common currency and frame the common monetary policy for the SAARC region.

7. The common currency may also a freely floating currency against the global currencies like US$, Euro, Japanese Yen ,British Pound etc in all leading centers of the SAARC region.

8. The common currency (SARC) may be allowed to be quoted in Dubai, Singapore markets where SAARC country population is sizeable .This will help prevent Non-Deliverable Forward (NDF) market from growing further in INR .
9. Since SAARC has only 8 members the common currency is feasible. But political will to establish the same is required. India being the largest country in this region can take the lead in both ways by convincing their citizens as well as the neighboring countries.

Application or Implications

The authors opine that formation of Single Currency in SAARC region(OCA) is feasible and the benefits outweigh the loss of monetary policy freedom. As political variables exert great influence on the exchange rate of major countries in SAARC region the nations require the will to establish *Rule-of-Law*. Governments should promote – *Effectiveness* in administration and *Control-Corruption,* ensure *Regulatory-Quality & Political-Stability* besides encouraging

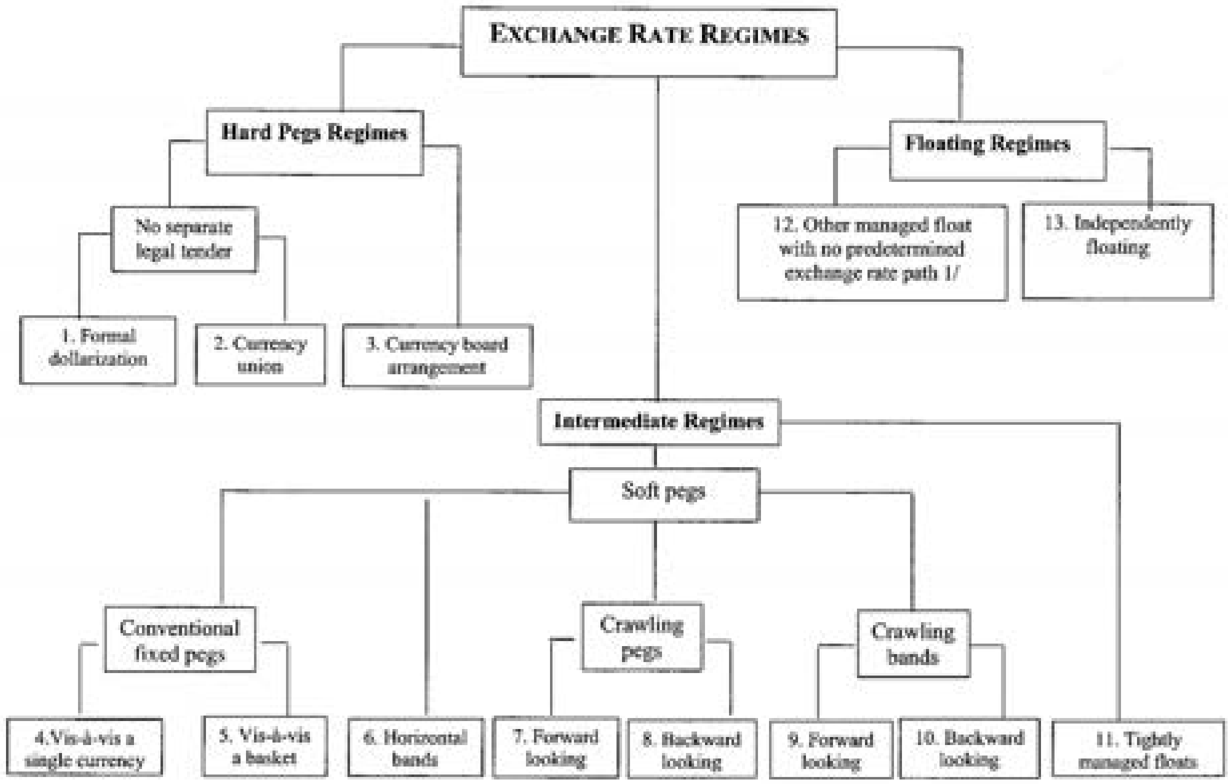
Voice-and-Accountability. Needless to say these Governments ensure *Absence-of-Violence/Terrorism* to make the common currency a reality. Furthermore, SAARC countries have lot of lessons to learn from Euro Crisis for SAARC OCA. The real test for the Euro has come now as euro zone experiences region wide asymmetric shocks. Countries like Greece, Portugal & Spain are facing acute debt repayment problems. A successful response to these shocks will require wage, price and fiscal coordination among euro zone countries. The developed countries like Germany & France expect more of fiscal discipline from these debt ridden countries to bail them out. The implication is that SAARC region will do well to avoid high indebtedness to ensure sustainability of the common currency if and when established.

Future Scope

There is considerable scope for doing further research on the impact of various political factors which influence exchange rate volatility. As the currencies of the SAARC region are floating, supply and demand of foreign exchange can be affected by political factors. Further studies will reveal the impact of politico-economic factors in sustaining a common currency for the region.

Annexure A

De Facto Classification of Exchange Rate Regimes



Annexure B

Table 2: Data of Afghanistan

Year	Rule of Law	Govt. Effectiveness	Control of Corruption	Regulatory Quality	Political Stability	Voice and Accountability	AFN/USD as on 31st Dec
2000	-1.77	-2.32	-1.91	-2.19	-2.57	-1.98	4750
2001	-1.77	-2.15	-1.79	-2.11	-2.48	-1.88	4726.25
2002	-1.77	-1.64	-1.43	-1.87	-2.21	-1.57	4726.25
2003	-1.67	-1.18	-1.55	-1.49	-2.26	-1.28	42.79
2004	-1.71	-0.88	-1.42	-1.50	-2.30	-1.25	42.79
2005	-1.72	-1.23	-1.46	-1.65	-2.09	-1.18	42.11
2006	-1.96	-1.49	-1.44	-1.67	-2.23	-1.19	49.8
2007	-1.92	-1.40	-1.59	-1.68	-2.40	-1.12	49.57
2008	-1.95	-1.48	-1.64	-1.60	-2.69	-1.24	51.93
2009	-1.91	-1.50	-1.51	-1.67	-2.70	-1.46	49.04
2010	-1.90	-1.47	-1.62	-1.53	-2.55	-1.48	45.66
2011	-1.93	-1.46	-1.55	-1.54	-2.48	-1.41	48.2
2012	-1.72	-1.40	-1.41	-1.21	-2.42	-1.32	51.8

Table 3: Data of Bangladesh

Year	Rule of Law	Govt. Effectiveness	Control of Corruption	Regulatory Quality	Political Stability	Voice and Accountability	BDT/USD as on 31st Dec
2000	-0.95	-0.56	-0.94	-0.87	-0.77	-0.31	53.85
2001	-0.93	-0.60	-1.00	-0.91	-0.84	-0.37	54.69
2002	-0.90	-0.70	-1.18	-1.01	-1.08	-0.52	55.94
2003	-1.02	-0.71	-1.33	-0.92	-1.14	-0.63	57.01
2004	-1.00	-0.78	-1.49	-1.10	-1.38	-0.68	58.22
2005	-0.97	-0.86	-1.41	-1.03	-1.84	-0.60	66.20
2006	-0.89	-0.77	-1.42	-0.96	-1.48	-0.48	66.71
2007	-0.83	-0.68	-1.05	-0.91	-1.50	-0.54	67.10
2008	-0.76	-0.71	-1.02	-0.89	-1.48	-0.47	68.14
2009	-0.77	-0.79	-1.03	-0.85	-1.54	-0.30	84.14
2010	-0.79	-0.75	-1.02	-0.83	-1.40	-0.28	85.86
2011	-0.71	-0.76	-1.05	-0.80	-1.39	-0.32	89.96
2012	-0.91	-0.83	-0.87	-0.96	-1.35	-0.42	97.09

Table 4: Data of Bhutan

Year	Rule of Law	Govt. Effectivenes s	Control of Corruptio n	Regulator y Quality	Political Stabilit y	Voice and Accountabilit y	BTN/USD as on 31st Dec
2000	0.18	0.78	0.38	-0.37	0.41	-0.98	46.68
2001	0.16	0.77	0.43	-0.40	0.46	-1.04	48.05
2002	0.09	0.73	0.58	-0.47	0.60	-1.23	47.62
2003	0.23	0.38	0.75	-0.01	0.91	-1.19	45.25
2004	0.36	-0.14	0.62	-0.81	1.17	-0.92	45.25
2005	0.36	0.28	0.75	-0.43	1.30	-1.03	45.00
2006	0.26	0.18	0.66	-0.60	1.31	-1.01	44.32
2007	0.37	0.19	0.74	-0.73	0.62	-0.84	39.43
2008	0.37	0.22	0.77	-0.83	0.75	-0.56	48.24
2009	0.18	0.48	0.81	-1.10	0.82	-0.51	46.62
2010	0.12	0.57	0.82	-1.19	0.77	-0.46	44.87
2011	0.14	0.62	0.74	-1.18	0.86	-0.46	53.05 5
2012	0.19	0.48	0.82	-1.12	0.81	-0.32	54.81

Table 5: Data of India

Year	Rule of Law	Govt. Effectiveness	Control of Corruption	Regulatory Quality	Political Stability	Voice and Accountability	INR/USD as on 31st Dec
2000	0.28	-0.14	-0.37	-0.16	-0.99	0.26	46.73
2001	0.20	-0.14	-0.40	-0.21	-1.05	0.28	48.27
2002	-0.04	-0.13	-0.50	-0.38	-1.24	0.36	48
2003	0.10	-0.07	-0.44	-0.36	-1.53	0.39	45.55
2004	0.04	-0.10	-0.41	-0.40	-1.22	0.38	43.67
2005	0.16	-0.08	-0.40	-0.24	-0.99	0.39	45.11
2006	0.19	-0.05	-0.30	-0.23	-1.06	0.42	44.11
2007	0.11	0.11	-0.42	-0.27	-1.15	0.43	39.42
2008	0.09	-0.03	-0.36	-0.36	-1.10	0.44	48.2
2009	0.02	-0.01	-0.48	-0.30	-1.33	0.45	46.4
2010	-0.04	0.02	-0.51	-0.37	-1.23	0.43	45.7
2011	-0.11	-0.01	-0.57	-0.33	-1.29	0.39	52.25
2012	-0.10	-0.18	-0.57	-0.47	-1.25	0.35	54.45

Table 6: Data of Maldives

Year	Rule of Law	Govt. Effectiveness	Control of Corruption	Regulatory Quality	Political Stability	Voice and Accountability	MVR/USD as on 31st Dec
2000	0.37	0.28	-0.29	0.66	1.12	-0.39	11.77
2001	0.29	0.28	-0.26	0.68	1.09	-0.43	11.77
2002	0.07	0.28	-0.16	0.74	1.03	-0.53	12.69
2003	0.15	0.01	0.05	0.57	1.02	-0.92	12.69
2004	0.08	-0.11	-0.17	-0.10	0.54	-1.12	12.75
2005	0.23	0.16	-0.30	0.44	0.83	-0.99	12.6
2006	0.12	0.04	-0.53	0.29	0.80	-1.00	12.65
2007	-0.02	0.00	-0.83	-0.02	0.09	-0.91	12.62
2008	-0.16	-0.27	-0.87	-0.39	-0.14	-0.31	12.6
2009	-0.17	-0.45	-0.68	-0.41	-0.22	-0.08	12.6
2010	-0.33	-0.21	-0.53	-0.40	-0.13	-0.10	12.63
2011	-0.57	-0.31	-0.52	-0.40	-0.21	-0.21	15.41
2012	-0.50	-0.16	-0.44	-0.35	-0.28	-0.52	15.3733

Table 7: Data of Nepal

Year	Rule of Law	Govt. Effectiveness	Control of Corruption	Regulatory Quality	Political Stability	Voice and Accountability	NPR/USD as on 31st Dec
2000	-0.33	-0.50	-0.82	-0.56	-1.23	-0.30	74.58
2001	-0.38	-0.49	-0.85	-0.57	-1.37	-0.43	73.32
2002	-0.53	-0.49	-0.92	-0.58	-1.79	-0.85	73.38
2003	-0.62	-0.57	-0.73	-0.42	-1.95	-0.92	70.61
2004	-0.76	-0.75	-1.06	-0.53	-2.12	-1.15	69.91
2005	-0.84	-0.84	-1.04	-0.50	-2.11	-1.19	72
2006	-0.63	-0.78	-0.76	-0.50	-1.92	-0.91	69.75
2007	-0.64	-0.65	-0.74	-0.55	-1.92	-0.59	69.75
2008	-0.72	-0.76	-0.80	-0.62	-1.84	-0.54	77.65
2009	-0.90	-0.94	-1.04	-0.70	-1.62	-0.47	74.4
2010	-1.01	-0.86	-1.07	-0.74	-1.60	-0.48	72.95
2011	-0.95	-0.88	-1.05	-0.72	-1.42	-0.50	85.35
2012	-0.79	-0.99	-1.06	-0.81	-1.38	-0.70	87.9

Table 8: Data of Pakistan

Year	Rule of Law	Govt. Effectiveness	Control of Corruption	Regulatory Quality	Political Stability	Voice and Accountability	PKR/USD as on 31st Dec
2000	-0.95	-0.58	-0.82	-0.73	-1.14	-1.32	58.14
2001	-0.90	-0.53	-0.85	-0.75	-1.28	-1.29	59.88
2002	-0.75	-0.39	-0.92	-0.79	-1.70	-1.22	58.14
2003	-0.73	-0.39	-0.73	-0.73	-1.58	-1.26	57.47
2004	-0.83	-0.45	-1.06	-0.88	-1.56	-1.23	59.49
2005	-0.88	-0.42	-1.04	-0.61	-1.76	-1.06	59.65
2006	-0.84	-0.37	-0.76	-0.45	-2.04	-0.90	60.95
2007	-0.88	-0.46	-0.74	-0.50	-2.43	-0.97	61.38
2008	-0.98	-0.70	-0.80	-0.57	-2.57	-0.87	78.75
2009	-0.84	-0.78	-1.04	-0.55	-2.63	-0.90	84.2
2010	-0.74	-0.76	-1.07	-0.58	-2.67	-0.84	85.7
2011	-0.91	-0.81	-1.05	-0.63	-2.81	-0.85	89.16
2012	-0.91	-0.79	-1.06	-0.73	-2.68	-0.87	97.18

Table 9: Data of Sri Lanka

Year	Rule of Law	Govt. Effectiveness	Control of Corruption	Regulatory Quality	Political Stability	Voice and Accountability	LKR/USD as on 31st Dec
2000	0.17	-0.35	-0.26	0.25	-1.93	-0.27	82.65
2001	0.21	-0.28	-0.26	0.23	-1.66	-0.24	92.73
2002	0.32	-0.06	-0.24	0.18	-0.85	-0.15	96.45
2003	0.24	-0.20	-0.26	0.10	-0.88	-0.12	96.26
2004	0.20	-0.40	-0.14	-0.04	-1.06	-0.19	104.6
2005	0.15	-0.29	-0.37	-0.35	-1.19	-0.21	102.08
2006	0.19	-0.18	-0.18	-0.25	-1.43	-0.30	107.31
2007	0.14	-0.09	-0.10	-0.26	-1.74	-0.43	108.35
2008	0.00	-0.12	-0.19	-0.35	-1.80	-0.46	113.73
2009	-0.07	-0.12	-0.37	-0.26	-1.35	-0.49	114.35
2010	-0.08	-0.18	-0.40	-0.20	-0.92	-0.52	111.35
2011	-0.07	-0.10	-0.37	-0.11	-0.70	-0.56	113.85
2012	-0.11	-0.24	-0.24	-0.12	-0.71	-0.60	127.5

Annexure C

Source: http://www.voxeu.org/article/conflict-and-development-lessons-south-asia

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A Roadmap to Regional Integration: Micro-financing Clean Energy for Sustainable Livelihoods across Asia

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Abstract

Sustainable livelihood is an integrated and a people-centric approach to poverty eradication. Sustainable Livelihood extends beyond the conventional perspective and was first introduced by the Brundtland Commission on Environment and Development and was further expanded by the 1992 United Nations Conference on Environment and Development. The Conference advocated for the achievement of sustainable livelihoods as a broad goal for poverty eradication and as means of addressing the hitherto unexplored ideas of vulnerability and social exclusion. Sustainable livelihood is considered as a proposal to improve the abilities of poor people to attain a living that is economically, socially, and ecologically sustainable. Funding clean energy projects addresses the many issues underlined within the framework of sustainable livelihood.

Climate change is an unequivocal reality according to the Intergovernmental Panel on Climate Change. Rapid development, consumption of resources and creation of waste is leading to a much polluted world. The Human Development Report (1994) has included environment as a part of human security. Climate change accelerated by carbon emissions and ozone layer depletion spells very disturbing future scenarios. Ecosystems are being destroyed due to rapid industrialization and man-made environmental disasters. Environmental policies and green ways of development are being implemented across the world. It has been well established that sustainable

development can birth from environmental friendly projects. This forms the essence for building or promoting green energy.

Energy is the most essential input for powering development. Availability of energy accelerates not only the agricultural, industrial and business sector but also enhances the quality of human life. Lack of energy makes rural electrification impossible leading to stagnation of growth and further marginalization of the rural poor. The energy demand-pulls from business requirements and domestic needs compel the use of non-renewable source of energy at an alarmingly increasing rate causing depletion of resources as well as environmental degradation. Development has to be sustainable i.e., the aspirations of development should not compromise on the needs of the future. Hence, there is a greater onus on the clean and renewable sources of energy to provide power and contribute to the alleviation of poverty. The central feature of renewable sources of energy is the initial establishment costs. These costs are one-time and the benefits reaped from such investments are aplenty. Investments in clean energy can aid in development which will help in achieving sustainable livelihoods for the poor.

Asia is fast growing and its demands for energy are ever increasing. The ever growing demand cannot be met only by the depleting nonrenewable sources of energy. The charge of powering emerging economies in Asia then falls on clean and renewable sources of energy. The underlying characteristics of many Asian countries are concentration of population in rural areas, poor infrastructure, and low-incomes. These characteristics spawn investors to consider implementation of businesses in rural regions as a venture of high risk and low profit investment. So it becomes crucial to first improve the infrastructure for power in rural regions to boost income. This can be achieved by targeted lending of microcredit and designing financial instruments for the purposes of setting up clean energy and addressing the capital needs of business sector and end-users and the requirements of impact investment.

ASEAN as such lags behind in reaching its full potential compared to other regional institutions. The reason for lack of economic integration is the focus on the bilateral trade deals or Free Trade Agreements. These are inadequate in dealing with cross regional trade issues. Moreover these are driven by geopolitical alignment of the countries. The solution then lies in a streamlined trade agreement that involves a program for regional economic integration and cooperation. This would help achieve the idea of an ASEAN Economic Community. The main object of such integration would aid in bringing about frameworks that stimulate micro-financing of clean energy projects thereby creating sustainable livelihoods across ASEAN.

This paper will first establish the idea of how energy inclusion and financial inclusion are mutually constitutive and then emphasize how microfinance could complement such development. Finally, the paper shall propose a framework for Asian integration in the field of micro-financing of green energy for sustainable livelihoods. It will suggest an alternative to free trade agreements in the region. Upgrading previous trade agreements in this field could act as a stepping stone for a mega-regional cooperation for sustainable development for all. It could be a significant revolution in global trading system ultimately producing a conducive environment to promote sustainable livelihoods across Asia.

Key Words

Micro-finance, Clean Energy, Sustainable Livelihood, Emerging Economies, Regional Integration

Introduction

The smartest way to live in the present is the sustainable way. Sustainability has become a constant and truistic refrain that calls for fulfilling the present and future needs. Sustainable needs are not only associated with environmental factors but also with temporal, spatial, economic, social and political factors. This multidimensionality provides proof of its importance. Sustainability has become bigger than just survival. It sows and germinates the seeds of change in the way lives are led in the present and the future. The future of an emerging and resilient Asia depends upon the extent to which Asia's meteoric rise is sustainable. Asia's emerging economies are, by far, highly agrarian, and population is concentrated in rural areas. Hence, it becomes rational, beneficial and manageable to indoctrinate the concept of sustainability in development models. One such model is micro financing clean energy for sustainable livelihoods. This paper will extensively look at this development model and attempt to provide a link between this model and regional integration in Asia. It is intrinsically assumed that regional integration provides for positive coexistence, unity and peace. The vision is not to advocate a sporadic rise of Asia that is short lived, but to promote a sustainable Asia. This vision is riddled with its own naysayers but as Jeffrey D. Sachs puts it, "[the] energy and daring is to resist noes, until the final yes has been achieved."

The paper is divided into two halves. The first half of the paper will deal with the concepts of microfinance, green energy, and sustainable livelihoods and give basic outlines of the ideas contained within them. The second half of the paper will focus on regional integration in Asia and attempt to come up with a futuristic framework to create a roadmap for the same through micro financing clean energy for sustainable livelihoods.

Part 1: Micro-financing Clean Energy for Sustainable Livelihoods.

Microfinance: “Little drops of water make the mighty ocean.” - Julia Carney

The birth of microfinance is from the idea that the poor are financially excluded and that such exclusion will not assist in achieving the first of the eight millennium development goals of the United Nations Development Programme (UNDP) which is to eradicate extreme poverty. Microfinance, once associated exclusively with small value loans to poor, is now used to refer to a broad array of products (including payments, savings and insurance) tailored to meet the needs of the low-income individuals. Microfinance believes in the creditworthiness of the poor and in the ability of the poor to run business viably, build assets, generate income and manage risks (Yunus, 2007). At the micro level, microfinance provides access to finance to the poor households and helps them in building assets, income generation, smooth consumption, and risk management. At the policy level, decision-makers have realized the effectiveness and efficiency of an inclusive financial system in execution of social policies. At the macro level, a deeper financial intervention in the economy leads to more growth and less inequality.

Traditionally, the poor had to use the informal financial sector like the moneylenders, to fulfill their financial needs. Their vulnerability and urgent financial needs presses them to accept exploitative methods employed by the usurious moneylenders who charge exorbitant rates of interest, further exacerbating their condition. Thus the poor are in a constant and vicious cycle of poverty. Micro-financing institutionalizes the financial sector for the poor by giving them access to finance through the formal sectors (commercial banks) thus protecting them from the exploitive moneylenders and providing them with the chance to escape the cycle of poverty.

Clean Energy: “In the long run, we are all dead” - John M. Keynes

Clean energy is an ambiguous term. With no agreed definition, it is often confused with nuclear energy or natural gas. Clean energy refers to the heat and electricity produced from renewable sources such as wind, sun, water, biomass etc. resulting in little or no pollution. The need for clean energy resides in understanding the alarming situation of the global environment and the greater economic benefits in terms of long term profitability and sustainability.

The state of current environment beseeches for implementing clean modes of energy as exploitation of natural resources at current rates will deplete them within 50 years. Rapid development, consumption of resources and creation of waste is leading to a polluted world. Pollution is identified as the root cause of ozone depletion and climate change which is “an unequivocal reality” (Intergovernmental Panel on Climate Change). Ecosystems are being destroyed due to rapid industrialization and man-made environmental disasters. The IPCC summary states that sustained global warming would lead to the near-complete loss of the Greenland ice sheet, increase the prevalence of droughts in the Mediterranean and West Africa. Our common future looks bleak and presents a highly disturbing picture. There is urgency to control the current rates of global warming as further warming will worsen the control process. To ameliorate the current situation, the UN and its agencies have been introducing various programs to promote conservation of the environment. The Human Development Report (1994) included environment as part of human security. The need to cut emissions is imperative as the long terms implications of rising temperature do not decline for at least a thousand years (Solomon et al, 2009), impacting future generations. The extent of future degradation depends on shifting to a development curve that is clean and sustainable. Even if environmental aspects are not considered, mankind’s dependence on a finite resource to meet its energy needs is not economical. Alternative modes of energy are important for any developing country as part of an intelligent energy policy. Fossil fuels are finite and shortage of supply of these resources will be faced. Developmental demands are increasing exponentially driving up fuel prices. It is highly pragmatic and economical to shift to renewable resources to meet the surging energy needs and demands. The transition will have to take place, either on states' own terms or forced due to necessity.

Sustainable Livelihoods: Does micro-financing clean energy create sustainable livelihoods?

Sustainable livelihoods (SL) was introduced in the 1987 Report titled Our Common Future also popularly known as the Brundtland Report. SL is a people centric approach that provides a holistic yet flexible framework for understanding, measuring and analyzing poverty. It is an integrated development method targeting sustainable development. It focuses and builds on people's perceived strengths and opportunities and not on their problems and needs. Such focus directs priority in not just identifying the lack of assets of the poor but also what assets they own which helps in setting up interventions based on both capacities and needs. By addressing the constraints and taking advantage of the opportunities, SL builds on everyday realities and supports poor people in their pursuit of sustainable livelihoods. The essence of SL is to bring sustainability to poverty reduction.

Many instances all over the world prove that micro-financing clean energy solutions does in fact create sustainable livelihoods (Yunus, 2007). The base of any business in the rural areas is power and electricity and it is a known fact that the labor force in the economies of Asia are entrenched in the rural areas. Additionally, many of the rural areas are off the grid which implies that the major proportion of the rural workforce remain idle and thus poor. Advantageously, the rural areas are endowed with renewable resources which can be harnessed effectively and efficiently. Investment in renewable energy sources is one-time and the benefits reaped are sustainably long-lasting. Microfinancing clean energy solutions for sustainable livelihoods can be done in two ways: either, microfinance the vendor providing the renewable energy solutions/products or, the vendor himself offers the solutions/products to the customers on micro-credit. Another method identified is micro-franchising whereby the small business can be easily replicated by following proven marketing and operational concepts. Whatever may be the method, the result is creation of livelihoods that are sustainable.

The benefits of microfinancing clean energy for sustainable livelihoods are multidimensional. At the micro level, it provides the consumer choices. Usually when a person requires energy or electricity, they purchase it from the government as everyone can't own a thermal power plant. On the other hand, clean energy uses renewable sources such as sun, wind, water etc. that can impart choice to the individual. It proves to be a successful business model that provides returns which can be used to pay off the credit taken to set up the business. At the macro level, considerable development in the rural economy would be witnessed which will contribute to the overall development of the economy where many environment, social and economic evils are mitigated. Environmentally, clean energy will reduce the pressure on the non-renewable sources of energy and will help in pollution control. Socially, livelihoods based on clean energy will curtail migration and its effects like urbanization, crowding of cities etc.; help in generating employment opportunities; reduce poverty; and have health benefits (clean energy does not harm the health of both the direct and indirect consumers). Economically, optimum utilization of resources is achieved. The delinking of energy needs from the national government leads to economic stability, as they don't rely on fluctuating prices or shortages due to external factors. Also energy rates aren't dependent on unstable foreign markets (e.g. oil market). To illustrate, creation of wind farms in rural areas has the ability to fulfill a substantive percentage of energy requirements. Barring the unfavorable aspect of intermittence of wind, it has a huge return on investment. A one-time investment leads to an endless renewable power resource thereby generating rural livelihoods that are profitable and sustainable. The savings earned by shifting to clean energy encourages promotion of clean energy.

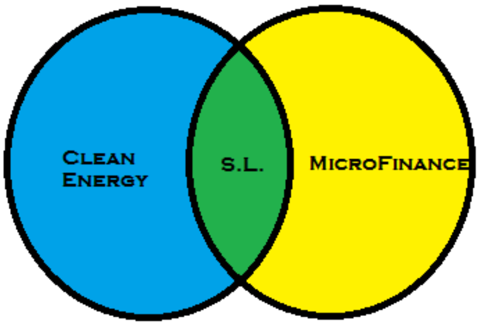
The environmental, social and economic benefits that tag along with clean energy, complement the need and linkage of microfinance to it. Microfinancing clean energy in the rural community has the capacity to act as a catalyst to provide energy as well as means for creating sustainable livelihoods to eradicate poverty.

The Asia Picture:

Countries in Asia are developing at unprecedented rates and such development is heavily propelled by tremendous amount of power. With the non-renewable sources of energy causing pollution and at the same time undergoing depletion, the onus rests on the renewable energy to step up and drive the power-hungry emerging economies of the orient. Clean energy sources are constantly supplied by nature, facilitating easy accessibility to clean energy sources and thus aids in energy inclusion of every square inch of the world. However, the investments in technologies harnessing the clean energy is yet to gain popularity. With easier movement of capital across borders, it is rational to expect financial inclusion to address the financing of clean energy for sustainable livelihoods. Asia with its rich natural endowments can definitely benefit from harnessing the clean energy sources to power its development strategies that are not only viable but also highly sustainable.

Energy and finance are mutually constitutive, (Figure 1) especially in the Asia region as without energy, business cannot run and without finance, producing energy is an impossible task. With both developmental and environmental concerns gaining seriousness and urgency, the only option available is clean energy. Financial and energy inclusion of rural Asia necessitates the availability of microfinance for clean energy. Micro financing clean energy apart from creating sustainable livelihoods, helps in decentralizing and de-monopolizing the power sector in many countries. The right to have power rests with the consumers themselves and is not dependent on the public sector providers. Thus, the consumers, both rural and urban, gain bargaining power which was denied to them by the debt-ridden public sector power providers.

Figure 1



Legend: S.L: Sustainable Livelihoods

Part 2: Situating Regional Integration

A valid question arises: is regional integration required for Asia? Regional integration has significant positive effects in tackling developmental and environmental problems. Regional integration is not just about removing the barriers to trade but encompasses standards and regulatory frameworks, reducing restrictions on financial capital and labor mobility, adopting common approaches to monetary and fiscal policy, promoting peace and conflict prevention, and the pooling of investments in cross-border infrastructure for transport, power and communication. In addition to the above horizontal categories of integration, the vertical expansion of regional integration is the key factor determining the outcomes for simultaneous achievement of development and environmental conservation.

A regional integration approach in the field of microfinancing clean energy in Asia would not only enhance the economies of scale but also augment the competition in the region. Clean energy technologies require knowledge, temporal and monetary investment in research and development (R&D) and an integrated approach would benefit countries which are unable to take up R&D due to lack of technical, educational, and financial capacities. The technologies developed are then made available to all the countries thus eliminating market discriminatory practices in the region. There is a greater degree of market organization and optimum resource allocation. Such are the economic benefits. The non-economic benefits are not any less either. The countries in the region are able to tackle common problems like environmental degradation through a collective approach to arrive at a common action as solution. It further leads to consensus building useful in regional political and security issues. Politically, it also improves the collective bargaining power of the developing countries vis-a-vis developed countries. With such positive effects of regional integration, the Asian region would definitely benefit the developing countries to tackle both development and environment issues.

Microfinancing clean energy is at present highly informal and requires institutionalization at the regional level to cater to the special and tailored requirements of the Asia region. The next section will deal with the approaches to institutionalization of microfinancing clean energy.

Organization and Institutionalization of Clean Energy:

The organization and institutionalization of microfinance of clean energy for sustainable livelihoods in Asia has been carried out through different approaches. The approaches that are identified are given below:

1. Privatized Approach:

   The private sector, either directly or indirectly, is involved in providing microfinance for clean energy for sustainable livelihoods. Direct involvement includes selling of clean energy solutions at micro-credit. Indirect involvement mainly deals with micro-franchising where the franchiser sets standards for the supplying the solutions at a fee to a franchisee. Though there is a marked increase in popularity in the privatized approach the only major drawback is the extent of operation which is considerably limited to households, non-extension of the operation to the community as a whole and the incapacity of the solutions to generate power for business and industrial purposes.

2. Governmental Approach:

Governments across Asia recognize the need to promote clean energy for sustainable livelihoods as demonstrated by India's National Solar Mission. This recognition is translated into action when governments introduce different policies and programmes to stimulate investments in clean energy especially in wind and solar energy. Unfortunately, these policies and programmes are mired with delays and implementation bottlenecks. Moreover, proper feedback mechanism is not in place as evidenced by the technical glitches concerned with servicing, repairs and upgradation, encountered after the set-up of large-scale clean energy farms. Corruption practices of officials involved in the process of implementation create accountability and responsibility issues. Another major drawback that can be identified when large-scale farms are set up is the emphasis on power distribution by the public utilities which foster monopolizing the power distribution sector. Monopoly of power distribution creates inequalities and thus does not help in promoting sustainable livelihoods. Such technical, administrative and economic obstacles engender the futility of the whole policy or programme.

3. Intergovernmental Approach:

The intergovernmental approach is further classified into bilateral, multilateral and liberal-regional institutions. Each category is critically discussed below.

[A] Bilateral Agreements

The Asian community comprises of various bilateral agreements. As these are easier to negotiate and pursue, they are preferred over the multilateral agreements. These agreements have formed a well-knit mesh between nations. They justify an economic principle of interdependence that drive trade and investment in the region. With the exception of their primary appeal of being quick and easy, these fail in handling genuine issues. Most of the bilateral agreements in Asia ignore important and sensitive issues regarding environment, agriculture, sustainability etc. Moreover, only a handful deal with trade-related measures. It is also extremely difficult to judge the trade policy environment, even if they are predicated on the notion of reducing barriers. Another major caveat of bilateral agreements are that they are based on the selective choice of trading partners and sectors to be liberalized in a preferential – that is, discriminatory (WTO Annual Report 2001). Political hues color the reason for establishing bilateral agreements sometimes and the fundamental necessity is lost in the political hues. Bilateralism also doesn't work in issues like Climate Change where the transaction costs are high. It is replete with skewed trade power, and powerful states use bilateral bargaining to gain leverage over weaker counterparts (Gruber (2000) and Guzman (1998) in Thompson and Verdier). There is also a possibility of duplication where two bilateral treaties in the same region between two different countries are working to solve a common global issue. The overlaps and duplications create ineffectiveness in terms of addressing a single issue. Finally, bilateral agreements in the field of micro-financing green energy simply do not work as these are trade diverting which worsens welfare. It should be remembered that only a trade creating agreements lead to welfare improvisation.(Refer to note 1)

[B] Multilateral Agreements

Multilateral agreements are considered substantially better as the responsibilities and risks are distributed among the nations and the situation is more strategically and economically beneficial for individual states. Especially on a global issue such as climate change, bilateral agreements to promote green energy usage is of very little incentive. Rather multilateral agreements are considered better to join in this arena. Further, regional agreements are even more promising than simple multilateralism. Regional multilateralism could act as a building block to move towards a global economy. The phenomenon of EFTA (European Free Trade Association) countries seeking to link with the European Community and several South American trading agreements wishing to join the NAFTA (North American Free Trade Agreement) shows regionalism can expand membership to join the world economy. Unfortunately, they also face their drawbacks in the Asian perspective as there are high power asymmetries in the region. Deals sometimes favor the biggest member at the expense of smaller nations. Power politics also play a part in major international relations and in these agreements. In ASEAN (Association of Southeast Asian Nations) or SAARC (South Asian Association for Regional Cooperation) bargaining power is a direct function of its economic size relative to the other countries (Melo and Panagariya, 1995). Economically, it can also divide the world market into competing trade blocs. Multilateralism isn't very effective when the transaction costs are low as it doesn't provide much incentive. With member surplus, it has high volatility in terms of free riding by small nations under a multilateral bargain. Nations not joining the Kyoto Protocol or ratifying it shows how multilateral regimes have a high probability of exclusion. This free riding can also lead to countries shirking their responsibilities and can create defection in some cases among nation-states.

[C] Liberal-Regional Institutions: Asian Development Bank (ADB)

A regional bank for the purposes of promoting development in the Asian region has identified the necessity to encourage clean energy for sustainable livelihoods. The bank has further recognized the capacity of microfinance in such ventures. The bank catalyzed by the donations from the member countries faces snags as enumerated by Grainne Ryder(2000) in his paper "Why Consumers and Citizens Should Pull the Plug on the Asian Development Bank?" which clearly highlights the flaws of the presence of ADB in the electricity sector. The debt ridden utilities of ADB finance community and environment damaging projects. With substantial amount of finance for power projects in Asia provide no result as the utilities that are involved in producing, selling and distributing power are knee deep in incompetence and corruption. Further, these investments are not subject to market discipline and public oversight thus denying accountability of donations of member countries. Additionally, the investments are done without responsibility. The absence of penalty on ADB further compounds the problem of accountability. There is no leniency on the repayment of loans for a failed project. The borrowers have to repay the loan for the project irrespective of its success or failure. This places additional and sustained burden on present and future taxpayers thus institutionalizing the cycle of debt. Barring the minimum development projects the bank supports, it unfortunately fosters monopoly of the public sector utilities over selling and distribution of power and cronyism. On examining the recipients of loans disbursed by ADB, it is found that most of the recipients are high or middle income countries which have the ability to repay. This is highly discriminatory and further deepens the rich-poor divide. With the extent and degree of the problems of ADB in the electricity sector, we can conclude that ADB does not provide solution to the energy crises but exacerbates the problem further.

Preliminary Conclusions:

There is always a breadth-versus-depth dilemma between these two types of arrangements. (Gilligan in Thompson and Verdier). As other authors have suggested that the idea is not which is better: multilateralism or bilateralism, but rather a more constructive answer to move beyond the fallacies of both. The more productive solution then lies in thinking beyond the ADB, bilateral and multilateral agreements. It lies in forming a more streamlined and comprehensive framework which integrates economies and creates development. It will help in implementing an idea for Asian connectivity. This idea of micro liberal institutionalism could start a domino effect for even more such regional cooperation leading to mutual development.

Theoretical Framework:

Institutions are autonomous agents in the international relations arena. The costs to establish and sustain these institutions stimulate higher level of welfare to signatories than the status quo. Institutions are established because of the presence of transaction costs and information asymmetries. An institution is created because agreements may be incomplete contracts and because of a demand for an arbitrator or an honest broker. The institution is often vested with substantial authority and given important responsibilities. The failure of the Copenhagen Summit to produce a binding international agreement shows that environmental issues require global solutions (King 2011). As the payoff structure and timeline of future scenarios is long, these should be handled by an organization dedicated and designed specifically to the cause. As liberal institutionalism explains, the reason for failure was because the payoff structure was that of a Prisoners' Dilemma, and because the shadow of the future was short, making the existent Prisoners' Dilemma single-play in nature; a single-play game being the least cooperative type of Prisoners' Dilemma. So in effect, it is safe to summarize that for a model and effective agreement the result should be an institution. Institutions also mediate market formation and this would help in building roots for using microfinance for sustainable development (Rankin, 2008). The unbounded structure of an institution helps in creating an arena of ongoing debate over culturally constructed meanings and practices of assemblage (Li, 2007). These can be as local as possible because microfinance in Asia targets the rural communities. The institution that is to be proposed will be in line with functionalism. The establishment and sustenance of such institution should be based on the common index of need and function for promoting microfinance of clean energy for sustainable livelihoods. Functionalism-based institutions encourages shared understandings of the common problem and stimulates collective action as remedy which augments cooperation in the Asia region. This form of integration is understood as transitional where instead of nations, an organization promotes cooperation, organization and mobilization from top to bottom. The development will be transcendental where it arises from bottom to top.

A New Outlook:

With the approaches critically analyzed in the previous section, one major observation crops up: the dichotomy of the private and that of the governments (inter and intra). The private players including the NGOs are involved in the distribution end and are not involved in the policy-making and investments process at all. On the other hand, the government (inter and intra) are more involved with the policy-making and investments that they are not able to address the bottom-end problems. To tackle the problems faced, it is imperative to integrate the private and the governmental players.

The private players have the capacities to bring with them

(1) Knowledge about the consumer demand,
(2) New clean technologies helping in supply of power which is provided by the scientific community, and
(3) The necessary capital, in case of large private players.
(4) Non-governmental organizations bring their capabilities of networking and identifying the non-economic and urgent energy needs.

All of the above together endorse competitive practices in the generation, selling and distribution of clean power.

The governmental players have the capacities to

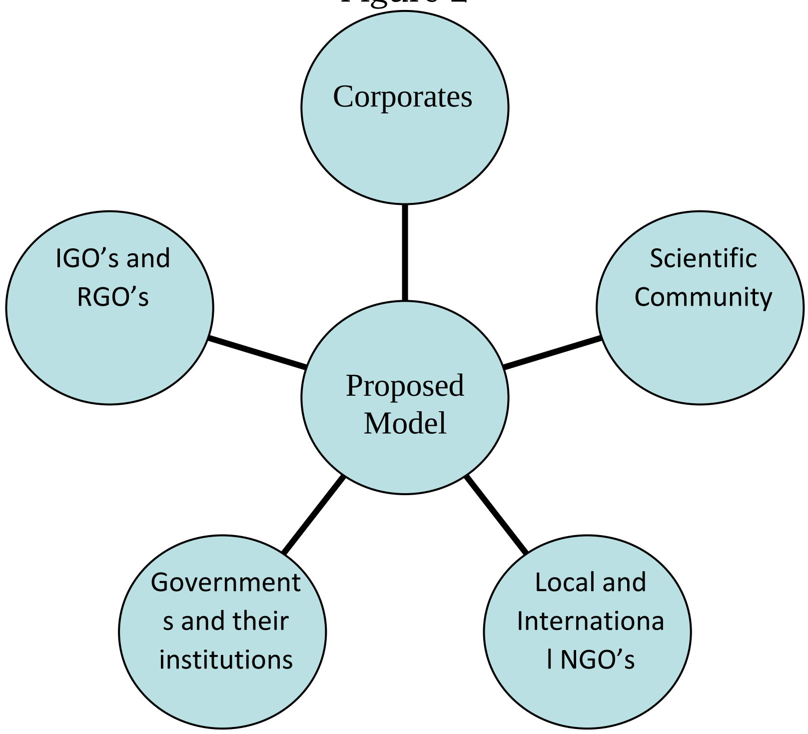
(1) Facilitate easy transfer of technology by reducing the tariffs on imports,
(2) Regulate the competition in the market to deter monopolistic practices,
(3) Provide tax benefits to private players involved in promoting clean energy solutions
(4) Bring in cooperation in investments and implementation across borders through agreements.
(5) Invest in research and development of clean energy technologies.

The corporate sector is encouraged to carry on social business that not only earns profits but also benefits the society at large. A motivating factor for the corporates is highlighting their participation as socially responsible investments which will be supplemented by certification schemes. NGOs reach the local level and display the required nimbleness and creativity when it comes to tackling development issues. These features are not usually associated with large scale government projects. They lack representation and have a limited scope unlike their counterparts in trade unions or industry associations. A crucial facet of involving governments is that the states won't be able to shirk away from their responsibilities by shifting the onus on to the NGOs to create livelihoods. While the private players think at the micro and local level, the government players act at the national and global level, thereby giving breadth and length to a solution.

It is therefore, necessary to involve both the private and governmental players in the promotion of microfinancing clean energy solutions for sustainable livelihoods. The best way to integrate capacities of both and serve the interests of both is through an intermediary where both the types of players are stakeholders exhorting accountability for providing financial, technical and administrative assistance to the intermediary. The intermediary could be modeled on the Private Public Partnership (PPP) Model. The proposed model would be a hybrid regional agency where the corporates, scientific community, NGOs, governments and IGOs (see figure 2) have stake in the agency which will boost participation at both micro and macro level of capacity building. Additionally, the proposed agency will fully concentrate on the issues of microfinancing of clean energy in the region which will bring in the required skill and specialization to develop this field and enhance sustainable livelihoods in the region. The flaws of lack of specialization due to a diverse development intermediary that has myriad avenues and portfolio, are thus removed. It is suggested that the proposed agency should involve investment like that of a shareholding which will generate returns. The returns aspect will motivate the players to contribute to the success of the goal. A staked and integrated capacity building mechanism would engender accountability, transparency and good governance.

Critically evaluating the proposed hybrid model supplies one major flaw: discounting power politics. Power politics cannot be ignored where cooperation of countries is concerned because power causes conflicts and distrust of intentions amongst nations. Other flaws like sidelining, free riding and misrepresentation of the poorer countries can be discerned from the similar problems faced by the EU. So it becomes imperative for us to perform a thorough analysis to overcome the hurdles and problems before rushing to implement the model.

Figure 2



Legends: IGO: International Governmental Organization
RGOs: Regional Governmental Organization

Conclusion:

Through the course of this paper we have justified the need for clean energy and how microfinance could aid in financing clean energy. As sustainable livelihoods originate from the use of clean energy, it is also the most pragmatic path to development. We have argued that issues concerning the environment being global issues are better tackled through a regional grouping as it is more economically viable. Moreover, we tried to explain that in Asia, a diverse continent, integration and solving global problems should be done by an institution rather than bilateral and multilateral agreements. As ADB has failed to perform due to its detachment from the grass-root level, we finally suggest that the solution lies in an institution solely dedicated to micro-financing clean renewable energy solutions across Asia, integrating and bringing them together in the process. We are aware there is no one solution. We are proposing one of the possible solutions and not 'the' solution. There are many ways of regional integration and the proposed model is one of the roadmaps towards regional integration for a new, cohesive and developed Asia.

Notes:

1.To expand, Viner (1950) (and numerous economists from that point forward) exhibited that while products from a partner country in a PTA are shabbier and more abundant than under a more widespread Most Favored Nation (MFN) tariff approach (what Viner (1950) called 'trade creation'), the in general welfare profits are all the more, as is put, vague. This is on the grounds that potential imports from countries outside the PTA are significantly more unmanageable to the domesticated purchaser, bringing on a sharp drop in exchange, what Viner (1950) called 'trade diversion', prompting a sharp drop in welfare in the excluded countries.

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*EXTERNAL SECTOR DEVELOPMENTS IN SELECT ASIAN COUNTRIES DURING 2008-12: A COMPARATIVE STUDY**

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ABSTRACT

The impact of 2008 global crisis was minimal in Asian countries. The growth rate of China and India remained significantly higher than the rest of the world. The BRIC countries which predominantly include two major Asian economies viz. China and India were expected to be the major economic powers by 2050 as per the Goldman Sachs report of 2003. The BRIC thesis posits that China and India will become the world's dominant suppliers of manufactured goods and services, respectively. Goldman Sachs came in 2005 with another group of potential fast growing economies, the so called Next Eleven or N11. This group includes economies which can potentially become among the biggest ones in the world. This also implies that they should be seen as potentially great investment opportunities. Thus, these countries provide greater opportunities to international investors which are driven by consistent and stable economic performance of these countries despite the 2008 economic crisis. The BRIC and N11 countries together hold over 4 million people representing almost 70% of the world population implying that, should current trends continue, they will represent a much bigger chunk of the world economy. The present study is aiming at comparative analysis of the external sector development of Asian countries included in BRI and N11 group during post crises period i.e. from 2008 to 2012 viz Volume of Imports (% change), Volume of Exports (% change), Current Account Balance (in US$ bn), Current

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Account Balance (as % of GDP), Foreign direct investment, External debt, Nominal and Real Effective Exchange Rates, Reserves (as a ratio of annual imports), etc. in respect of Asian countries included in BRIC and N11.

The analysis of data of Asian countries covered under BRIC and N11 during 2008 to 2012 confirmed that there was not any major setback faced by these countries due the financial crises triggered by US subprime. There has been some slowdown in the growth of both imports and exports during 2009 but the recovery has taken place quickly in subsequent period. The analysis of current account balances revealed that the current account balance of China remained extremely high due to their high exports. Only India and Indonesia had shown the current account deficit. India was always in deficit which significantly increased year by year due to its high oil import bills. The level of current account deficit (CAD) as a ratio of GDP for India has been a major concern during 2011 and onwards despite of lower import growth. It may be observed that except for China and Philippines, the currency of all other countries have devaluated compared to US$. Pakistani currency has devaluated maximum. The foreign exchange reserves for China remained extremely high due to their high exports, which have been consistently growing. India and Korea were also having significantly higher level of reserves compared to other countries.

Key Words: External Sector Developments, BRIC, N11, Imports, Exports, Current Account Balances

Introduction

The Global Financial Crisis of 2008, triggered by the US housing bubble had a devastating impact on western economy. This sub-prime crisis has also resulted in global recession and contributed to the European sovereign-debt crises. However, the impact of this global crisis was minimal in Asian countries. The growth rate of China and India remained significantly higher than the rest of the world. The BRIC countries (Brazil, Russia, India and China) which predominantly include two major Asian economies viz. China and

India were expected to be the major economic powers by 2050 as per the Goldman Sachs report of 2003. The BRIC thesis posits that China and India will become the world's dominant suppliers of manufactured goods and services, respectively. It is really unjustifiable to still call a country like China as an emerging economy, which has emerged as the second biggest economy in the world. Due to lower labour and production costs, many companies also cite BRIC as a source of foreign expansion opportunity.

The group of the BRIC economies is quite known and the concept has been successfully adopted by politicians, researchers and media. Goldman Sachs came in 2005 with another group of potential fast growing economies, the so called Next Eleven or N11. However, this N11 idea has had until now a harder way to be generally adopted. This group includes majority of Asian countries viz. Bangladesh, Indonesia, Iran, Pakistan, Philippines Vietnam and South Korea, (and transcontinental country like Turkey). According to Jim O'Neill (the same person who coined the term BRIC), this group includes economies which can potentially become among the biggest ones in the world. This also implies that they should be seen as potentially great investment opportunities. Thus, these countries provide greater opportunities to international investors which are driven by consistent and stable economic performance of these countries despite the 2008 economic crisis. The BRIC and N11 countries together hold over 4 million people representing almost 70% of the world population implying that, should current trends continue, they will represent a much bigger chunk of the world economy.

The Asian countries included in N11 group have an extremely diverse composition. On one side, it includes advanced Asian economy like South Korea and newly industrialized economies like Indonesia, Philippines and Iran on the other it also includes the developing economies like Vietnam, Pakistan and underdeveloped country like Bangladesh. Thus, it becomes interesting to analyse the trends of external sector development variables of these Asian countries post 2008 i.e post global crises in order to draw a comparison picture of these countries and to see the future trends.

Objective of the Study

The present study is aiming at comparative analysis of the external sector development of Asian countries included in BRI and N11 group during post crises period i.e. from 2008 to 2012 viz Volume of Imports (% change), Volume of Exports (% change), Current Account Balance (in US$ bn), Current Account Balance (as % of GDP), Foreign direct investment, External debt, Nominal and Real Effective Exchange Rates, Reserves (as a ratio of annual imports), etc. in respect of Asian countries included in BRIC and N11 viz. China, India, South Korea, Indonesia, Philippines, Iran, Vietnam, Pakistan and Bangladesh. These countries are expected to play a significant role in the world economy in future. The BRICs and the N-11 hold over four billion people, or almost 70 per cent of the world's population.

Review of Literature

While OECD countries continue to dominate world trade, accounting for about three quarters of both world merchandise exports and imports (60 per cent if intra-EU trade is excluded), over the past two decades a number of countries outside the OECD area have become increasingly important players. This reflects a major redistribution of both exports and imports within the non-OECD area.

From the mid-1970s to the time of the sharp fall in oil prices in 1986, OPEC was by far the largest non- OECD exporter and importer. Since then, however, OPEC's importance in world trade has diminished substantially. In contrast, emerging economies in Asia -- China, in particular -- have seen their share in word trade expanding steadily, especially in manufacturing. By 1996, Korea, China and other Asian emerging market economies taken as a group had a higher share in world merchandise exports than the United States, at about 23 per cent, compared with 13 per cent in 1985. (**Martine Durand, Christophe Madaschi and Flavia Terribile, 1998)**

Estimates show that 70% of world growth over the next few years will come from emerging markets, with China and India accounting for 40% of that growth. Adjusted for variations in purchasing power parity, the ascent of emerging markets is even more impressive: the International Monetary Fund (IMF) forecasts that the total GDP of emerging markets could overtake that of the developed economies as early as 2014. The forecasts suggest that investors will continue to invest in emerging markets for some time to come. The emerging markets already attract almost 50% of foreign direct investment (FDI) global inflows and account for 25% of FDI outflows. **(Ernst & Young, 2011)**

The N11 'dream' is different kind of story to the BRICs. At its heart, the BRICs growth story is just not about growth. It is about scale and seismic shift in the pattern of global activity. Although the N11 influence could grow, as we have shown, it will never be a global story at that level. Certainly, a few of N11 could join the world's largest economies and several more may become large regional economies. Their interaction with BRICs – particularly in East Asia and the Sub-Continent – may also reinforce the kinds of shift in the global economy that we have identified there. And some – such as Vietnam – seem plausible candidates for the kind of sustained, structural high growth path exemplified by China and India. **(Dominic Wilson and Anna Stupnytska, 2007)**

The most dynamic region in the world economy today is Asia. Asia is growing at more than twice the rate of the other developing regions. This growth is possible because of a policy orientation, which stresses free movement of capital, goods and services across the national boundaries. The result is the enhancement of economic efficiency and transfer of technology which foster shifts in production and comparative advantages. All the countries in this group, except the Philippines, grew at over 7 percent of GDP, led by high rates of investment and export growth. It is useful to make a distinction between the long-established, fast-growing market economies of Indonesia, Malaysia Philippines, and Thailand and the centrally planned economies of Cambodia, Laos, Myanmar and Vietnam, which are each now making their transition to a market economy.

Cross border flows of capital, commodities, labour and technology will have to play a major role in this optimistic assessment of Asia's growth. The elimination of barriers in these cross border flows is quite critical for sustaining high growth in the region. Central to the whole process is regional cooperation, which includes policy coordination in the removal of trade restrictions and tariff barrier, the facilitation of inter country capital movements and the coordination of policies on labour migration. Cross-border infrastructures would also play an important role. Intra-regional cooperation would help to provide railroads, roads, port, power and telecommunications that would facilitate the flow of capital, labour, technology and commodities across countries within the region. **(Prof. Dr. Li Choy Chong and Peter Lindstrom, 2000)**

Methodology

The study is based on the secondary data on variables reflecting internal sector developments from the published sources of IMF, World Economic Outlook Database, RBI, BIS, World Data Bank, Global Economic Monitor (GEM), The World Bank Group etc.

The data is presented in the forms of Tables and Graphs for comparative study and trend analysis.

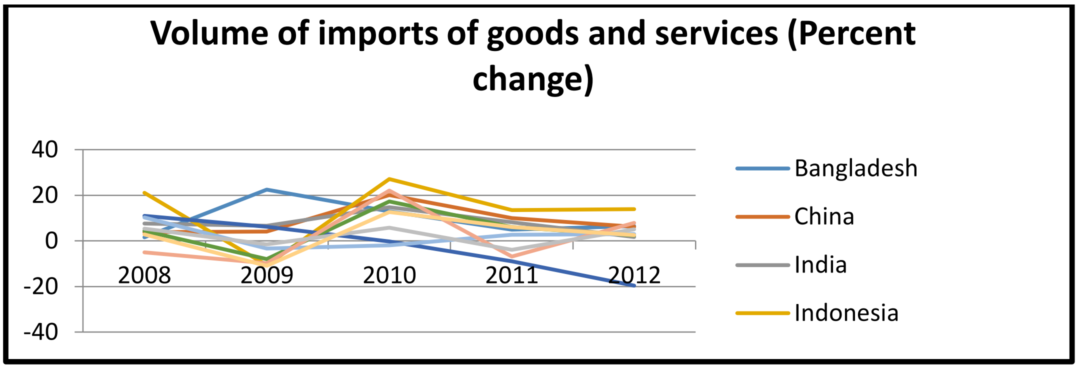
Data Analysis

Table I: Volume of Imports (as % change from previous year)

Sr.No.	Country	2008	2009	2010	2011	2012
1	**Bangladesh**	1.558	22.508	12.910	4.997	6.537
2	**China**	3.810	4.180	20.097	10.090	6.238
3	**India**	7.583	6.629	14.858	8.146	1.788
4	**Indonesia**	21.042	-10.629	27.140	13.484	14.000

5	**Islamic Republic of Iran**	10.959	6.256	-0.247	-8.874	-19.569
6	**Korea**	4.415	-7.982	17.253	6.076	2.502
7	**Pakistan**	10.339	-3.239	-1.887	2.794	2.964
8	**Philippines**	-4.971	-9.785	22.104	-6.843	7.960
9	**Vietnam**	5.418	-1.452	5.855	-3.873	5.124
10	**World**	2.832	-10.902	12.652	6.129	2.595

Source: International Monetary Fund, World Economic Outlook Database, October 2013



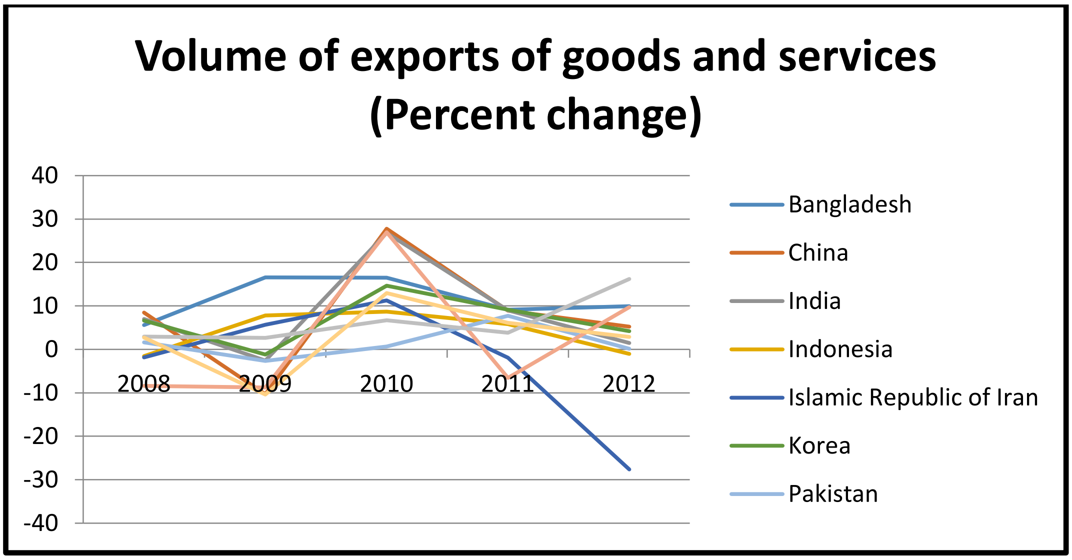
The year-on-year growth in volume of imports does not display any regular trend for any country included in the study. As regards the growth in imports at global level, it also did not follow any trend. While the growth of imports in 2009 at global level has been negative to the extent of around 11% reflecting the impact of economic slowdown as a result of global financial crises, it remained significantly positive for Bangladesh, India, China and Iran. The trend has been reversed in subsequent years. In 2012 for which the latest data for imports is available, the growth has been positive for all Asian economies except for Iran (-19.56%). The significantly high negative growth in imports is the result of sanctions imposed by many western countries on Iran.

Table II: Volume of Exports (as % change from previous year)

Sr.No.	**Country**	**2008**	**2009**	**2010**	**2011**	**2012**
1	**Bangladesh**	5.619	16.552	16.494	9.1250	9.940
2	**China**	8.447	-10.340	27.772	8.937	5.242
3	**India**	6.970	-2.615	26.826	8.956	1.448
4	**Indonesia**	-1.556	7.785	8.699	5.798	-1.038

5	**Islamic Republic of Iran**	-1.856	5.692	11.254	-1.896	-27.661
6	**Korea**	6.614	-1.197	14.680	9.134	4.178
7	**Pakistan**	1.647	-2.684	0.641	7.751	0.105
8	**Philippines**	-8.411	-8.740	26.959	-6.600	9.699
9	**Vietnam**	2.908	2.627	6.705	3.844	16.168
10	**World**	2.735	-10.366	12.921	6.084	2.831

Source: International Monetary Fund, World Economic Outlook Database, October 2013



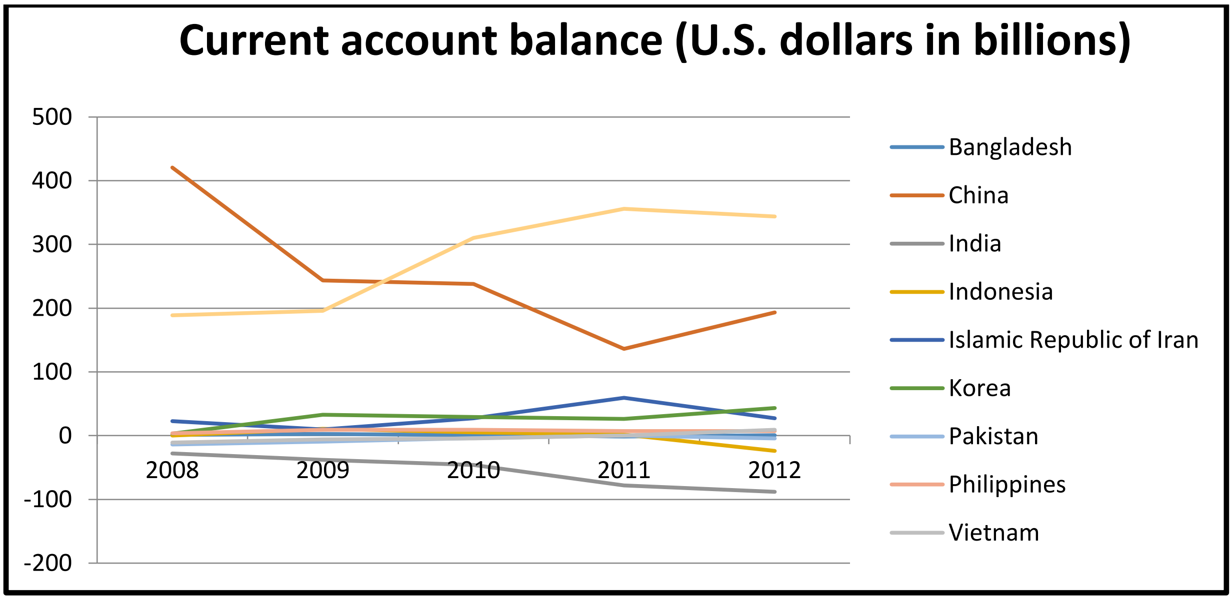
Similar to the year-on-year growth in imports, the growth in exports also did not follow any regular trend. It is evident from the data that the global exports in 2009 have gone into negative zone to the extent of 10.366% (similar to the import trends) reflecting the severe impact of global recession on account of global financial crises. The trend has been quickly reversed in subsequent years. In 2012, almost all the Asian economies had positive export growth. Iran again showed a high negative growth (-27.661) reflecting the impact of sanctions. Only the growth of exports of India, Pakistan and Indonesia was lower than the global growth rate of exports.

Table III: Current Account Balance (in bn US$)

Sr.No.	Country	2008	2009	2010	2011	2012
1	**Bangladesh**	1.182	2.663	0.507	-1.553	0.823
2	**China**	420.569	243.257	237.810	136.097	193.139
3	**India**	-27.913	-38.182	-45.946	-78.154	-88.163

4	**Indonesia**	0.126	10.628	5.145	1.685	-24.074
5	**Islamic Republic of Iran**	22.837	9.473	27.330	59.382	27.156
6	**Korea**	3.198	32.790	29.394	26.068	43.139
7	**Pakistan**	-13.874	-9.261	-3.946	0.214	-4.658
8	**Philippines**	3.627	9.358	8.922	7.125	7.177
9	**Vietnam**	-10.787	-6.116	-4.287	0.233	9.061
10	**World**	188.8	195.603	310.367	355.796	343.631

Source: International Monetary Fund, World Economic Outlook Database, October 2013



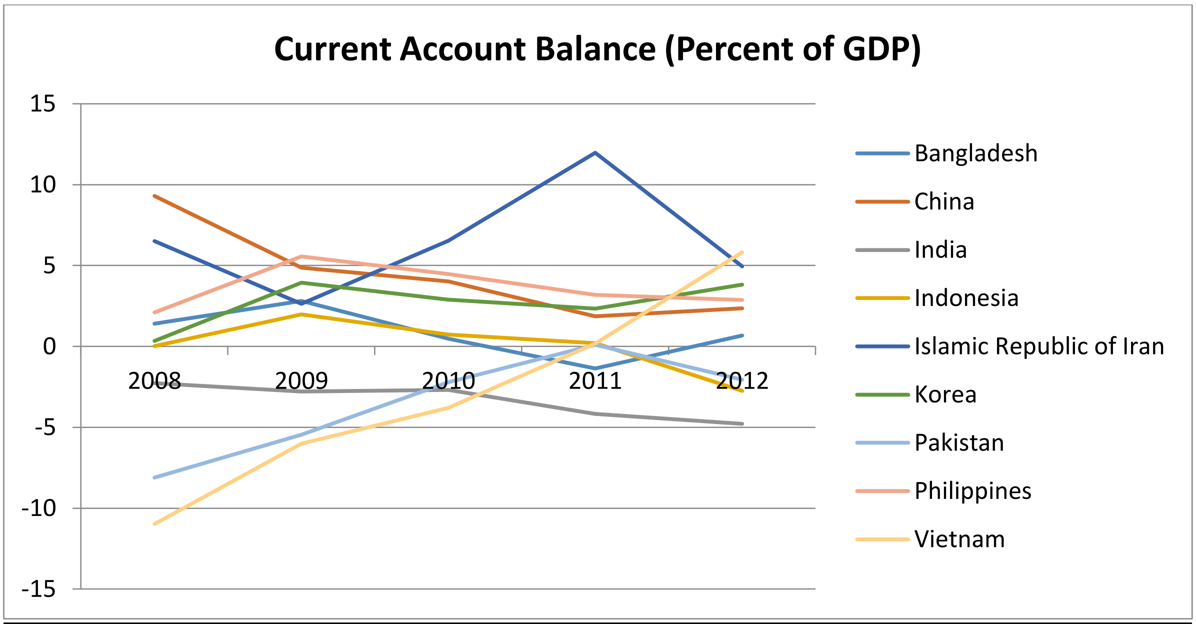
The current account balance of China remained extremely high due to their high exports. It declined significantly from 2009 to 2011 then it picked up again. India was always in deficit which significantly increased year by year due to its high import bills.

Table IV: Current Account Balance (as % of GDP)

Sr.No.	Country	2008	2009	2010	2011	2012
1	**Bangladesh**	1.399	2.807	0.477	-1.361	0.669
2	**China**	9.305	4.874	4.010	1.859	2.349
3	**India**	-2.282	-2.797	-2.685	-4.173	-4.787
4	**Indonesia**	0.025	1.973	0.725	0.199	-2.740
5	**Islamic Republic of Iran**	6.514	2.627	6.521	11.974	4.950
6	**Korea**	0.343	3.931	2.896	2.339	3.819

7	**Pakistan**	-10.977	-6.017	-3.8	0.173	5.825
8	**Philippines**	2.089	5.554	4.470	3.179	2.869
9	**Vietnam**	-10.977	-6.017	-3.8	0.173	5.825

Source: International Monetary Fund, World Economic Outlook Database, October 2013

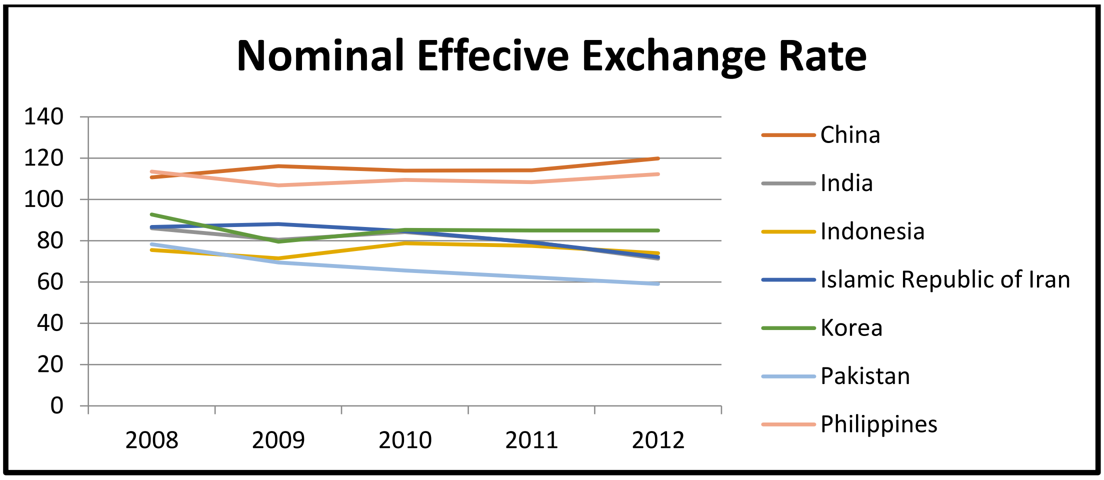


The tolerance level of current account deficit (CAD) is generally determined as the ratio of GDP. Only India and Indonesia had shown the current account deficit. The CAD for India has been a major concern during 2011 and onwards despite of lower import growth.

Table V: Index of Nominal Effective Exchange Rate compared to US$ (NEER)

Sr.No.	Country	2008	2009	2010	2011	2012
1	**Bangladesh**					
2	**China**	110.6134	116.1001	113.8434	113.9926	119.8452
3	**India**	86.0425	80.46436	84.19094	79.26978	71.3241
4	**Indonesia**	75.40711	71.35745	78.71574	77.45712	73.91363
5	**Islamic Republic of Iran**	86.60167	88.06667	84.545	79.16	72.0275
6	**Korea**	92.68922	79.53787	85.29766	84.94439	84.94097
7	**Pakistan**	78.17417	69.375	65.55	62.26083	59.0375
8	**Philippines**	113.5108	106.7483	109.445	108.3083	112.2392
9	**Vietnam**					

Source: World Data Bank, Global Economic Monitor (GEM), The World Bank Group

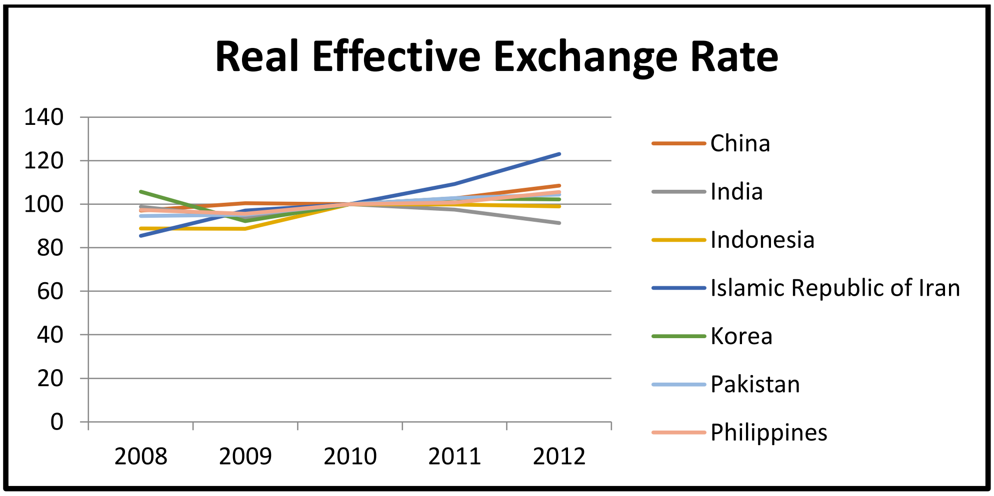


It may be observed that except for China and Philippines, the currency of all other countries have devaluated compared to US$. Pakistani currency has devaluated maximum.

Table VI: Index of Real Effective Exchange Rate (REER)

S.No.	Country	2008	2009	2010	2011	2012
1	**Bangladesh**					
2	**China**	97.10152	100.4022	100	102.6991	108.5487
3	**India**	98.86929	93.61146	100	97.43519	91.30128
4	**Indonesia**	88.79662	88.72622	100	99.833	98.89491
5	**Islamic Republic of Iran**	85.50202	97.0899	100	109.2838	123.044
6	**Korea**	105.7768	92.13786	100	102.6234	102.2548
7	**Pakistan**	94.49387	95.13957	100	102.8283	104.3387
8	**Philippines**	97.33861	95.64247	100	100.6733	105.5187
9	**Vietnam**					

Source: World Data Bank, Global Economic Monitor (GEM), The World Bank Group

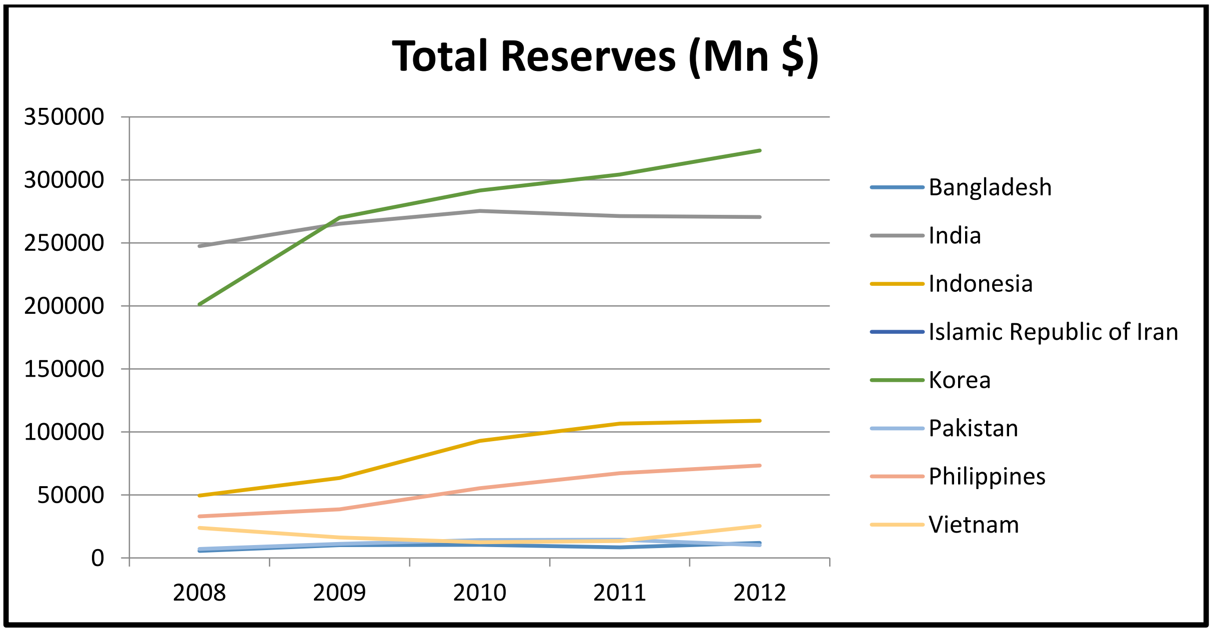


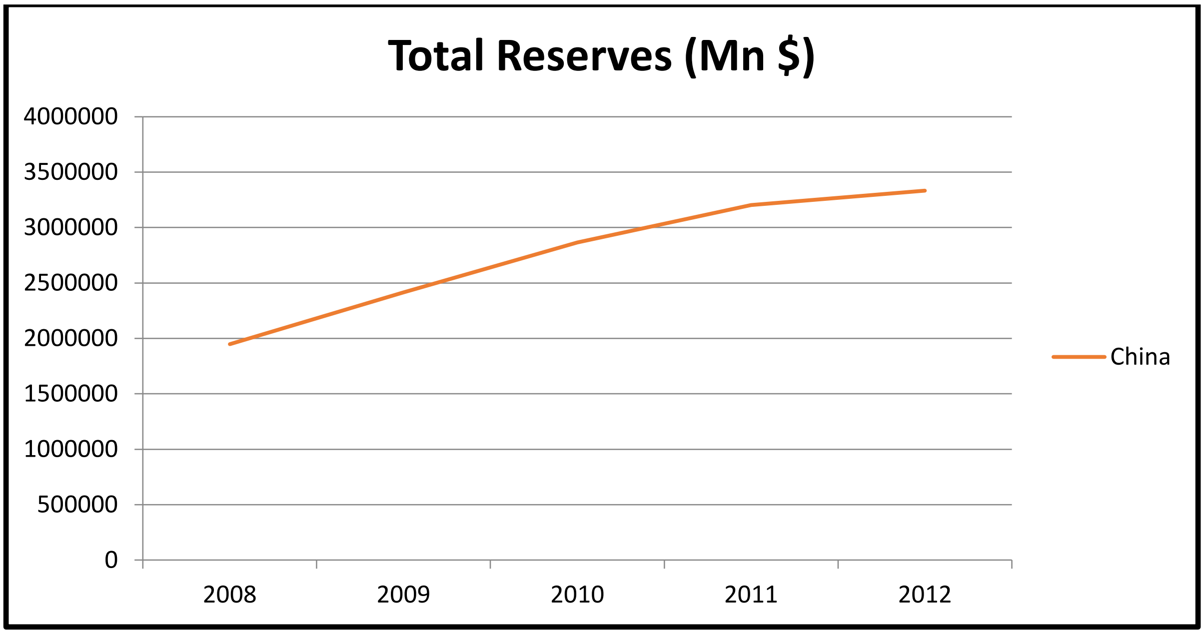
The index of Real Effective Exchange Rate with the base year 2010 has appreciated for all other countries except India and Indonesia. India has faced the higher inflation which has resulted into depreciation of Indian currency in real terms.

Table VII: Total Reserves (in mn US$)

S.No.	Country	2008	2009	2010	2011	2012
1	**Bangladesh**	5689	10219	10564	8510	12031
2	**China**	1949260	2416044	2866079	3202086	3333386
3	**India**	247419	265182	275277	271285	270586
4	**Indonesia**	49597	63563	92908	106539	108837
5	**Islamic Republic of Iran**					
6	**Korea**	201144	269933	291491	304255	323207
7	**Pakistan**	7194	11318	14346	14528	10241
8	**Philippines**	33193	38783	55363	67290	73478
9	**Vietnam**	23890	16447	12467	13539	25573

Source: World Data Bank, Global Economic Monitor (GEM), The World Bank Group





The foreign exchange reserves for China were much higher compared to combined reserve position of all other countries included in the study. It has been consistently growing significantly. India and Korea were also having significantly higher level of reserves compared to other countries.

Summary of Findings and Conclusions

The analysis of data related to external sector developments of Asian countries covered under BRIC and N11 during 2008 to 2012 confirmed that there was not any major setback faced by these countries due the financial crises triggered by US subprime.

There has been some slowdown in the growth of both imports and exports during 2009 but the recovery has taken place quickly in subsequent period. Iran suffered a great setback both in growth of imports and exports mainly due to sanctions imposed by US and other western countries.

The analysis of current account balances revealed that the current account balance of China remained extremely high due to their high exports. It however declined significantly from 2009 to 2011 then it picked up again. Only India and Indonesia had shown the current account deficit India was always in deficit which significantly increased year by year due to its high import bills. The level of current account deficit (CAD) as a ratio of GDP for India has been a major concern during 2011 and onwards despite of lower import growth.

It may be observed that except for China and Philippines, the currency of all other countries have devaluated compared to US$. Pakistani currency has devaluated maximum. The index of Real Effective Exchange Rate with the base year 2010 has appreciated for all other countries except India and Indonesia. India has faced the higher inflation which has resulted into depreciation of Indian currency in real terms.

The foreign exchange reserves for China were very high due to their high exports. It has been consistently growing significantly. India and Korea were also having significantly higher level of reserves compared to other countries.

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China: A threat or opportunity for India

Janardhana A

Abstract

This paper examines threat and opportunity of a rise in Chinese economy in the world market by using trade similarity and complementarity indices. Our findings indicate that India faces tough competition from China in products related to clothing, textile, leather products and capital goods. Further, there is a weak complementarity between India and China. This is due to Chinese markets are still not open for Indian goods but are open to other ASEAN countries like Thailand and Malaysia. Though, India started its comprehensive trade policy reform a decade later than China, the achievement is far below expectations.

Key words

Trade liberalization, Trade Indices, Similarity index, Trade complementarity index, India and China

Introduction

Over the past decade, China has turned out to be one of the key players in global economy. The emergence of China as a competitor in the world market has led both private and public sectors in many countries to pay more attention to its trade and development. The nation has experienced tremendous changes in its economic development, especially significant increases in real income and trade with other countries. At the same time in India both private and public sectors have played crucial role in economic development. The trade between two countries rose reached US$73.9 billion in 2011 from US$ 33.9 million in 1992. China's current share in global exports and imports are 10.5 percent and 9.823 percent, while India's share in global exports and imports are 1.5 percent and 2.645 percent in 2010.[6] This is due to China's proportion of large middle-income group, cheaper labor cost and change production from low technology production to high-tech production. Though, India started its comprehensive trade policy reforms a decade later than China, but the achievement has far below expectations. With unclear evidence on the role of China on Indian economy, it is necessary to assess the rise in the Chinese economy in the world market provides an opportunity or threat to Indian products.

Therefore, this paper investigates the relationship between India and China. Precisely, we would like to ask a key question; would the rise in the Chinese economy in the world market provide an opportunity or threat to Indian products. To answer this question, this paper divides the analysis into two components: The first component is to examine the trade policy in Indian economy, especially after reform period and then briefly look at trade policy reform in China. Trends and patterns of trade at the aggregate level in India and China are presented. The second part is to use quantitative analysis approach to analyze an opportunity and threat of Chinese to Indian economies. Two indices are used with the disaggregate trade data in India and China (i.e. 6 digits-HS level).

Objective

(1) To understand the trade liberalization process in India and its implications on trade in India and China

(2) To examine the threat and opportunity of a rise in Chinese economy in the world market by using trade similarity and complementarity indices, respectively with disaggregated trade data, i.e. 6 digit HS level. (Note that this study also compares trade complemnetarity between India and China with China and other two East Asian economies, i.e. Thailand and Malaysia)

[6] Economic Survey of India

Scope and Limitations

The data used in the paper were from UNCTAD (United Nations Conference on Trade and Development) in the format of Harmonize System 6 digit level in the period of 2003, 2006, and 2009. The similarity index (SI) and trade complementarity index (TCI) will be applied as the methodology in analyzing the similarity and complementarity in each product. Two key export countries Thailand and Malaysia are chosen from ASEAN region to analyze TCI with China.

Though, other Asian countries (such as South Asian and East Asian) have been giving tough competition in world market for India, the study mainly focuses as on India and China only. Another important limitation is that we have not included services sectors in the analysis, though it is large share contributing to the Indian GDP.

Advantage and the Usefulness of this Study

Useful points of this study are as follows: (i) it will help us understand trade liberalization process and policies barriers before liberalization and reduction in policy barriers after liberalization with reference to India and china. (ii) It helps us to understand about trade pattern between two biggest Asian economies in the world market and the proxy of threat between these two countries (through the applying similarity index). (iii) Finally it helps us to understand complementarity between India and China by comparing with other ASEAN economies.

India and China Trade Overview

Currently India and China are the two key players in the global market. With the onset of economic liberalization both countries have benefited from the trade. It has created new opportunities for both the economies in domestic and international markets. Prior to trade reforms China and India contributed to world exports with a share of 1.8 percent and 0.5 percent respectively, whereas, it was 9.7 percent and 1.3 percent in 2009.[7] The trade registered a twelve fold increase, since its economic liberalization, from US$ 45.16 billion in 1992 to US$570.437 billion 2010. The exports and imports have grown at 11 and 14 fold respectively during this period (from US$ 20.711 billion and US$ 24.45 billion to US$ 220.408billion and US$ 350.029 billion). Since Chinese economic reforms occurred a decade earlier to India, the trade has registered an 18 fold increase in 1992 from US$165.52 million to US$2.973 trillion in 2010.

Indian merchandised trade became more diverse in mid 1990s due to increase in exports to developing Asian countries (IMF, 2012). During 2000-2010 the China imports have shown rapid growth compare to exports at annual average growth rate of 22.3 percent compare to 21.9 percent that of exports. A similar pattern has been observed in India as well. China's share in world exports increased between 2000 and 2010 at an annual growth rate of 21.9 percent due to increase in share of trade emerging and developing countries. Similarly, the performance Indian export has been stronger since 2000, the share in world exports increased during 2000 - 2010 at an annual growth rate of 19.72 percent. This is due to Indian exports had moved into dynamic segments such as organic chemicals, petroleum chemical and electrical equipment (IMF, 2006) and diversification in exports among developing countries of Asia and ASEAN countries increased from 38.7 per cent to 56.2 per cent, and decrease in the share of exports in Europe and the USA fell from 46.9 per cent to 30.8 per cent during in 2000 to 2010 (IMF, 2012).

[7] Economic survey of India

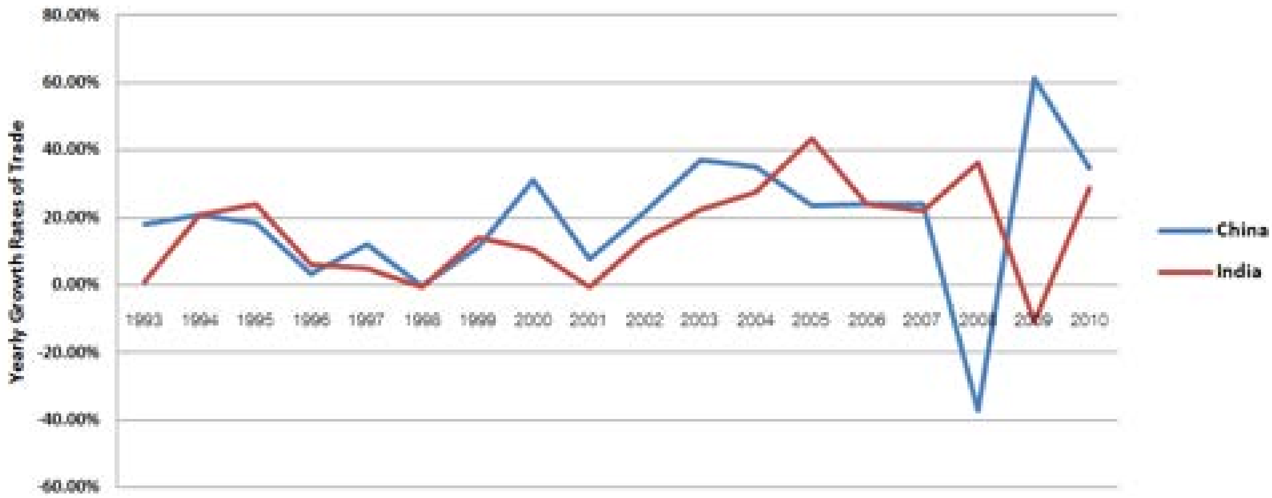

Figure 2: India and China trade in world market
Source: UNCTAD

In the current scenario (2010), the world merchandise trade growth rate is 21.79 percent, but China and India stood at staggering figure of 34.73 percent and 28.72 percent[8]. However, India's growth in trade was higher than world trade particularly in two periods, first just following 1990 reforms and second after 2003[9]. Overall, Indian export growth is making 24.51 percent plus growth since 1992-2010, but the contribution in world trade is still limited. This is because the market penetration has been slower than China and other ASEAN countries due to poor infrastructure and regulation burden, which has increased transportation cost and cumbersome and procedures on imports and exports, Non agriculture tariff and Non trade barriers (NTB) is higher than South Asian countries, developing countries of Asia and ASEAN countries and ease of trade (IMF, 2006), (IMF, 2012).

Bilateral Trade between China and India

The bilateral trade between India and China has reached US$73.9 billion in 2011 from US$ 33.9 million in 1992, the increase in the trade more than 200 percent during this period. During, 1993 - 2010 the annual growth rate of trade between these two countries stood at about 31.55 percent. In fact, 2002-04 Indian exports (57.17 percent) performance was dominated over Chinese

[8] Economic Survey of India
[9] Economic Survey of India

imports (48.53 percent). Thereafter, since 2005, there has been a constant increase in trade gap between the two countries and it is growing at a faster rate. The trade gap between these two countries has grown from just over $4 billion in 2006 to just under $20 billion in 2010. In 2009, the bilateral trade was worth $43.38 billion of that, Indian exports were a mere $13.714 billion, compared to China's exports of $29.66 billion. This is because of Chinese non tariff trade barriers for Indian goods, where India has a competitive advantage. Further, India exports low value raw materials and intermediate products and imports high value capital goods from China.

In the current scenario Chinese imports are characterized by primary products, raw material and intermediate products. Table 1 shows that Chinese import of principal commodities from India 1992 to 2011; during this period the trade structure underwent several changes. The import structure was dominated by manufactured goods classified chiefly by material crude materials, inedible, fuels Chemicals and related products and food and lives animals; whereas, from 2002 to 2010, crude materials such as iron ore dominated major portion of the trade, and trend has been increasing over the years. Since, 1992-2001, food and live animals have also shared major portion of the import. Between, 1996-1998 it stood at 25.54 percent of total trade but later it gradually dropped to 6.26 percent in 2001 and 2.31 percent in 2011. This is due to agriculture sector has been controlled by government over imports and exports in this sector through State-Trading Enterprises and non tariff barriers on Indian agricultural products in China (RBI, 2013).

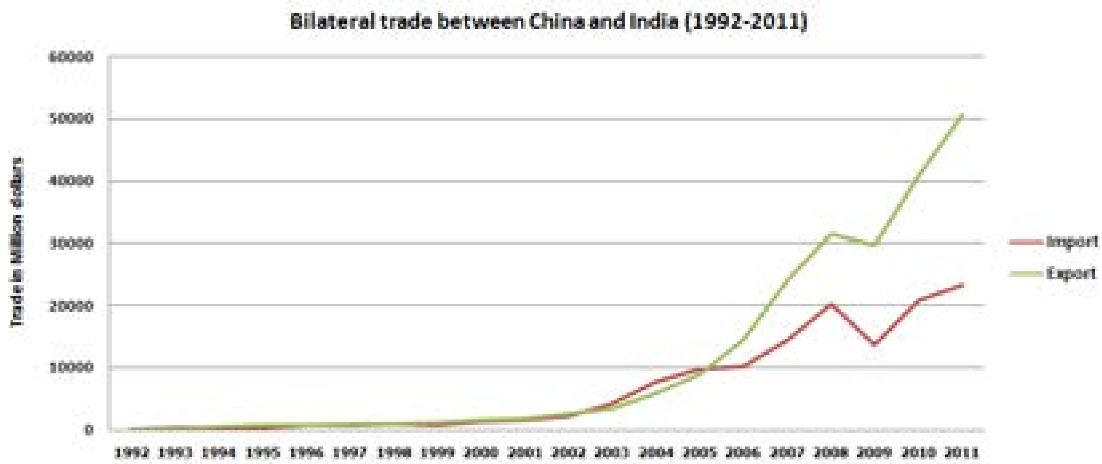

Figure 3: Bilateral trade between China and India (1992-2011)
Source: UNCTAD

Table 1 shows Chinese exports of principal commodities to India from 1992 to 2011. In 1992 the export of crude materials dominated with 37.18% of total trade, but thereafter it gradually it dropped from 12.39% in 2001 to 1.33% in 2011 respectively. Other than crude materials, the following commodities shared a large portion of trade, such as mineral fuels, lubricants and related materials, chemicals and related products, manufactured goods classified chiefly by material, machinery and transport equipment. Currently Chinese export basket contains major portion of chemicals and related products, manufactured goods classified chiefly by material, machinery and transport equipment and miscellaneous manufactured articles. This is because Chinese export to India relies strongly on manufactured items, meeting the demand of fast expanding sectors like telecom and power sector in India. Chinese companies supply relevant equipments at competitive prices due to favorable macroeconomic policies.

The trade deficit has grown bigger for India over a decade, though it is the fastest-growing exporter among world's top 10 economies. During 2000 to 2010, Indian and Chinese exports have grown at an average growth rate of 18.3 percent and 21.9 percent respectively, whereas, world trade growth rate stood at 9 percent. The trade figures spoiled due to Indian reliance on imported oil, gas and coal. Energy accounts for more than 65 percent of the trade deficit. The key trade challenge for India is to solve its rapidly growing need for energy coupled with the rapidly increasing price of energy resources. Therefore, India should expand exports in the sectors like manufacturing (textiles and clothing), since is China moving from labor intensive products to more advanced technology oriented products, automobile manufacturing through joint ventures and pharmaceuticals where China lack in producing generic branded pharmaceuticals products to reduce the trade gap. (RBI, 2013).

Table 1: China trade with India by commodity in selected years

SITC code	Description (Imports)	1992	1995	2000	2005	2010	2011
0	Food and live animals	9.62%	7.06%	9.23%	1.58%	1.93%	2.31%
1	Beverages and tobacco	0.86%	NA	0.00%	0.00%	0.00%	0.00%
2	Crude materials, inedible, except fuels	61.73%	44.46%	37.99%	65.25%	68.06%	59.66%
3	Mineral fuels, lubricants and related materials	2.14%	2.38%	2.09%	0.58%	1.63%	0.41%
4	Animal and vegetable oils, fats and waxes	0.18%	7.22%	2.06%	0.57%	1.25%	1.41%
5	Chemicals and related products, n.e.s	6.04%	11.64%	17.15%	10.63%	6.73%	8.79%
6	Manufactured goods classified chiefly by material	17.38%	21.81%	25.67%	16.40%	14.82%	20.89%
7	Machinery and transport equipment	0.91%	3.95%	3.69%	3.85%	4.11%	4.41%
8	Miscellaneous manufactured articles	0.90%	1.17%	2.12%	0.88%	1.41%	2.11%
9	Commodities and transactions not classified elsewhere in the SITC	0.23%	0.32%	NA	0.26%	0.06%	0.00%
		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

SITC code	Description (Exports)	1992	1995	2000	2005	2010	2011
0	Food and live animals	3.17%	3.83%	2.15%	0.52%	0.53%	0.46%
1	Beverages and tobacco	NA	NA	0.04%	0.00%	0.01%	0.01%
2	Crude materials, inedible, except fuels	37.18%	14.72%	14.14%	3.15%	1.27%	1.33%
3	Mineral fuels, lubricants and related materials	11.23%	14.06%	17.15%	5.70%	1.08%	1.32%
4	Animal and vegetable oils, fats and waxes	0.18%	0.42%	0.06%	0.02%	0.01%	0.01%
5	Chemicals and related products, n.e.s	27.53%	36.58%	26.21%	19.42%	19.32%	20.76%
6	Manufactured goods classified chiefly by material	10.62%	11.45%	13.73%	26.20%	20.64%	20.32%
7	Machinery and transport equipment	6.94%	15.24%	20.89%	38.90%	49.56%	48.10%
8	Miscellaneous manufactured articles	3.16%	3.71%	5.62%	5.97%	7.48%	7.58%
9	Commodities and transactions not classified elsewhere in the SITC	NA	NA	0.01%	0.11%	0.10%	0.11%
		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Source: UNCTAD

Literature Review

Finger and Kreinin,(1979) says if exports are dissimilar – subject to little or no ‘commodity overlap', there is little scope for trade diversion and similarity of exports between any two countries or groups of countries can be used as a criterion to assess the degree to which their economic structure is becoming more similar or more divergent.

Kosekshyaoghu, (2001) explains similarity of exports between Turkey and the EU12 in world market and compares similarity of exports from Turkey with that of southern European members of the EU; Spain, Portugal and Greece, in terms of similarity of their factor endowments during 1975-1990. The indices calculated for sixty-five commodities; twenty-four of which defined as agricultural (SITC 0, 1, 2 and 4) and forty-one as manufactured (SITC 5-9), at two-digit level.

Quereshi, (2006) assesses the international competitive effect of both Asian drivers on different regions of the world such as Africa, Asia, Europe, Latin America and North America in the world market. The competitiveness and complementarity between China and India using trade indices such as similarity index (SI) and complementarity indices and using export and import data disaggregated at the three digit Standard International Trade Classification (SITC) level for period of 2000-04.

Bernadette, (2008) discusses structural complementarity between EU and Korea in the context of regional integration. It measures whether economic structural complementarity in the case of free trade agreement (FTA) of these two countries is more desirable or not. Author emphasizes that the way these two countries specialize in different industries is a useful tool for the analysis of the likely impact of trade liberalization. On the other hand, similarity index is calculated to measure commodity distribution of the EU's and Korea's exports to the rest of the world. The TCI & SI indices calculated for the same time period (1996, 2000 and 2006) and levels of aggregation is 2-digit.

India Trade Policy Pre Reforms Period

Trade policy reforms in India have been substantial since late 1980s and early1990s. Prior to the reform period, trade policies were classified as import-substitution regime while the 1990s saw more liberalized and an improved business environment relating to trade. This section reviews trade policies in India by focusing on the policy during the post-reform period (1991 onwards). Comparisons of trade policies between pre- and post-reform phases have also been included in this section.

Import policy

The Import policy of the GOI during pre-reform period had two components i.e. (i) import restrictions and (ii) Import Substitution (IS). The main objective of import substitution was to find a solution to the inadequate foreign transaction for the import of more essential commodities and achieve self reliance in manufacturing. Similarly, the objective of developing import restrictions was to encourage large industrialization and overcome severe shortage of foreign exchange. Quantitative restrictions (import ceiling) and import licenses were used as the key instruments, but varied from industry to industry.

The strategy of import substitution was enforced in three phases: (i) import substitution in domestic manufacturing of consumer goods, (ii) the change of import substitution towards capital goods, and (iii) the policy shift towards decreasing the reliance on imported knowledge by developing and encouraging the use of native skills. The policy of import substitution helped save foreign exchange and structure of imports. Many products, which were imported earlier, could be produced within the country. Import substitution occurred during the period of 1950–51 to 1956–66. This policy accounted for 1/4th of the whole growth of output and almost half of the growth of the capital goods.

The export policy

Export policy during the pre-reform period was classified into three phases: Phase 1 from (1952 - 66) up to (1966-1973) the commencement of planning to the period of oil shock, Phase 2 – the period from 1973 –1983, and Phase 3 – during the latter half of the sixth plan (1983–1985) and duration of the entire seventh plan (1985–1990).

The period of the first phase is again divided into two sub - periods, i.e. (i) 1952–66 (ii) 1966–73. The year 1952–66 was characterized as a passive export policy with the objective of increasing exports. During this period the policies were, “Export policies which were started during the second world war and carried over for much of the early part of the decade in the case of important foreign exchange earning commodities like jute, tea, cotton textiles, oilseeds and vegetable oil, raw cotton, hides and skins etc.; Export duties which affected several export commodities through most of the decade; and The growing strength of domestic demand accentuated during some periods by GOI promotional activities (Bhagwati, Jagdish and Padma Desai, 1970)”.

During 1966–73 the GOI made devaluation of rupee by 36.5 in terms of gold in June 1965. Main objectives behind this devaluation were “to lead to expansion in export earnings since Indian goods would be cheaper in international market, to decrease in the import from abroad, and attract more tourists from abroad and discourage Indian tourists aboard”.

During 1973–1983, GOI took several initiatives in order to increase exports. One such measure was the devaluation of Indian currency (NEER) continually during 1970s. The focal point of the devaluation was to offer cheaper Indian goods in international market. Given the lower rate of inflation at home compared to the outside world, this also meant a sharper downward movement in the real effective exchange rate (REER). This resulted in an increase in relative profitability from exports (Deepak Nayyar).

The pace of trade reforms picked up significantly only in 1985, the major changes were made during 1985-98. As result, exports, registered a healthy annual growth of 14.4 percent during 1985-90 compare to 1.2 percent growth rate during 1980–85. Hence, the performance of external sector to GDP improved considerably and impact of these changes led to GDP grew at annual rate of 7.6 percent from 1988–89 to 1990–91.

The reforms during this period were (i) The Open Grant License (OGL) list was steadily expanded for capital and intermediate inputs, during 1976 – 1990. This initiative led to increase in productivity, (ii) the decline in the share of canalized imports (from 67 to 27 percent between 1981 and 1987) gave an opportunity for entrepreneurs to import of machinery and raw materials, (iii) Replenishment (REP) licenses helped to expand imports, (iv) Relaxation of industrial controls and related reforms (v) Industrial delicensing between 1985 to 1990 gave major boost to import machinery and raw-material without any restrictions, as result improvement in production capacity (vi) Correcting the overvaluation of the real exchange rate by nominal depreciation of the rupee (IMF,1997).

Overall during 1983 to 1990 witnessed the policy implementation with an objective of higher export promotion strategy. While incentives for export production were enhanced, export themselves were now being viewed as an essential element of industrial with development policies. During this period, policies emphasized more on technology upgradation, increase in plant size, freer imports, and domestic and international competition in the entire industrial sector as being essential for export promotion. It is also possible to distinguish this duration as the beginning of a new long term perspective of about trade policies and industrialization, which provided a contrast with the approach of the earlier planning.

Trade Liberalization

The initiative of trade policy liberalization was meant to increase export production and modernization of native industry and promote international trade. Trade liberalization would, in turn, encourage Indian exporters in foreign market by enhancing their competitiveness. The import policies were aimed at helping Indian exporters with critical inputs and necessary capital goods to improve their production along with technology up gradation. Therefore, import and export liberalization focused on long term stable policies to facilitate smoother planning of their international businesses.

GOI took trade liberalization initiatives with the objective of (i) providing easy access to inputs for maximizing the exports, (ii) up gradation of technology through Open General License (OGL), (iii) improving the quality to compete in world market, and (iv) fresh momentum provided for export promotion by providing incentives and improving the quality of administration. Hence, in principle, we can say that GOI allowed importing capital goods (which has high export potential and not available in the country) to help growth of export production for prioritized industries. Therefore with this initiative, new capacities for the export sector, up gradation technology and products were created. The above objectives were made by considering the facts and constraints of domestic and external resources.

Post Reform Period

During the pre - reform period, trade policy systems were complicated and involved complex administration processes. There were several categories of importers; various sorts of permits and alternate mechanism of importing etc were provided to these importers. These complex processes came to an end during the reform period.

In 1991, the trade reforms allowed trading groups or houses to trade in a wide range of goods. In order to promote exports, GOI allowed trading houses to setup with 51% foreign equity. Under the 1992–97 trade policy, trading houses and export houses were provided the benefit of self-certification under the advance license systems that permitted duty free imports for exports. GOI brought Special Economic Zones (SEZs) policy by 2005, but it came into effect only in 2006. The major objective of the SEZs were promotion of exports, endorsement of exports of commodities and services, overseas sources, creation of more activity, endorsement of investment from domestic and Creation of employment opportunities and expansion in infrastructure services.

In 1999 GOI planned to replace export processing zones (EPZs) to free trading zones (FTZs). FTZs were authorized to make any manufacturing or trading activities, and these zones were not restricted with regular norms such as pre-determined obligation, value addition etc. In order to create trade related infrastructure to make easy for import and export of goods and services with any transaction cost.

The Exim policy 2001 introduced the concept of Agriculture Export Zones (AEZs), to give primacy to the promotion of agriculture exports and affect recognition of exports efforts on the basis of specific products and specific geographical areas. Market access initiative scheme was launched in 2001–02 with the objective of market access and marketing promotion efforts abroad. Features of this scheme were in-depth market study for selected goods in specific regions to produce data for endorsement of exports from India, and assist promotion of Indian goods. Exhibition of Indian products and Indian brands in the international market through showrooms and warehouses setup in rental premises by identification of exporters, display in identified leading departmental stores/total exhibition/trade fairs etc. were the goals, this scheme also allowed certain quality of product up gradation activities based on the market type.

The FTP (2004–09) announced a number of ‘rationalization procedures’ for decreasing transaction costs and simplifying procedures. These included (1) exemption of small exporters (minimum turnover at least 5 crore) who incur high transactional cost from furnishing bank guarantee, (2) import of capital goods (second hand) without any large depreciation obligation, (3) exemption from service tax for all exports including exports from DTA (domestic tariff area), (4) slashed number of returns and forms to be filed etc.

Further, it has identified sectors to provide thrust that having prospects for export expansion and potential for employment generation. These thrust sectors include agriculture, handlooms and handicrafts, gems & jewellery and leather and footwear sectors. Introduced new export promotion schemes such as Target Plus to accelerate growth of exports, to boost exports of agriculture related and other value added products under Vishesh Krishi Upaj Yojana, Free Trade and Warehousing Zone to create trade-related infrastructure to facilitate trade with freedom to carry out trade transactions in convertible currencies.

The objective of the current (2009–14) foreign trade policies (FTP) are as follows: (i) short term priority: help those sectors which are badly affected due to global financial crisis and stop the declining trend of exports (ii) Long term policy: aim of this policy is to increase India’s share in global trade twice or twofold by 2020.

In order to increase the export growth after the global financial crisis, FTP added more markets in its portfolio. These markets include 16 new markets from Latin America, 10 from Asia Oceania and comparatively larger markets in South Africa.

With a goal of increasing diversification of partners and products, GOI introduced special incentives for those who provided for exports under the scheme of Focus Market Scheme (FMS) and Focus Product Scheme (FPS). Increased scope of Market linked Focus Product Scheme (MLFPS) by

including products related to 153ITC (HS) code at 4 digit level. Technology up gradation for export sector under EPCG scheme at zero duty, towns of export excellence for handicrafts, leather products and horticulture products has been introduced.
In order to reduce transaction and handling cost for unpreserved agriculture products, a single window system has been introduced to facilitate exports.

Foreign policy trade 2009–14 allowed zero duty on capital goods, in which India has a comparative advantage, on items like labor intensive apparels and textiles, handicraft and leather. The New FTP policies have taken several measures and rationalized procedures to decrease the transaction costs exports including (i) application procedures and redemption forms for EPCG (Export Promotion Capital Goods Scheme) being liberalized, (ii) slashed import License fee (iii) permission for exporters to carry with them merchandise worth $5 million against the $2 million allowed earlier.

China foreign trade policy

Introduction

Several studies have been undertaken on China trade policies and its development (S.Bhalla, 1995; Weiguo Lu, 1995 and Francoise Lemonie, 1996). Prior to reform in China, trade accounted for $21 billion and foreign direct investment was nil. The trade policies during pre reform period were based on self sufficiency, import substitution, and direct administrative intervention. The imports restriction were subjected to high tariffs, import quotas, licensing and import monopolies. During this period foreign trade was meant for making up domestic shortages by imports and to smoothen out excessive goods in economy. The foreign trade was totally controlled by the central government with a few foreign trading corporations (FTCs). During pre-reform period Chinese export firms had little or no incentives on exports; whether the goods are sold in foreign or domestic markets, the price received the same price. As a result firms suffered with no gain in foreign exchange and firms were indirectly discouraged with respect to exports.

In the late 1970s China took initiation of opening up of the economy with the motivation of economic development and modernization. The emphasis was more on decentralization of foreign trade decisions and therefore implemented export promotion activities, though import liberalizations were much slower than the exports. Export promotion was the core strategy with motivation towards constructing a competitive export sector. This plan was made by using a competitive comparative advantage of labor intensive production. The external international environment and the internal regional background provided this country with particular prospects and limitations that influenced their strategies. These economic reforms resulted in increased productivity (with a better allocation of resources and increase in efficiency) and higher growth rate of the Chinese economy.

Trade liberalization

The main objective of the Chinese trade liberalization was to achieve growth in export, changes in commodity structure and geographical distribution, and integration into the world economy for future growth and trade prospects. There were two key components of trade liberalization – decentralization of economic decision making power and rationalization of prices based on market forces (as a result now market plays a significant role in influencing prices of both producer and consumer goods).

Decentralization of trading rights

In the Chinese economy, due to size of the country central planning was incomplete, and its level of growth, and policies relating to decentralization. Therefore, Chinese started their trade reforms with the introduction of decentralizing trade rights to respective ministries, local administration and producing firms. In 1984, as a result of progressively relaxed monopoly foreign trade, the number monopolized foreign trade corporations (FTCs) decreased and FTCs became an independent entity with respect to financial operation, and each state allowed creation of its own FTC. As a result the numbers of FTCs were improved from 12 to 1000 during 1986 to 1994. Other than this they introduced tariff reductions and concessions for increasing export-oriented activities. Furthermore, in the late 1980s, they created production-oriented networks for exports to achieve enhanced performance of firms for selected industrial sectors by using financing and supplying inputs for production.

This made competition in upstream suppliers and downstream distributors (FTCs now has to compete in foreign market as well as supply in domestic market) stiffer. Besides, joint ventures with foreign companies made production and exports bigger, and privileges were given to perform foreign trade operations directly. In the process of decentralization, Chinese government strengthened its macroeconomic control over foreign trade and improved the governing system for foreign trade. The process also included rational approach towards regulation of foreign trade by effective management of exchanges rates, customs duties, taxes and credits.

In 1995, China made major reforms which included substantial reduction in tariff, the average tariff decreased by 24–25%, along with elimination of quotas and licenses, and a major decrease in quantitative restriction on commodities. Now the view towards trade policies were more inclined towards FDI. As a result, decrease in the bias for exports related activities and whereas imports were readjustment according to domestic demand.

Foreign exchange system

An outcome of trade liberalizations was the foreign exchange policies becoming an important aspect of trade policies. Chinese exchange rate regime was implemented in three phases – a) Retention and adjustment of Foreign exchange system within development framework from 1979 to 1986,

b) Planning market double track system from 1987 to 1993, and c) After 1994 amalgamation of foreign trade exchange rates.

From a period of 1979 to 1986 foreign exchange system was within the planning framework. Under this framework they introduced foreign exchange retention system and devaluation of Chinese currency for trade related transactions, and allowed exporting firms and government administration to retain and use some portion of foreign exchange they earned beyond or above level made by the plan, though these earning were limited and heavily regulated. During this period the foreign trade saw very small growth due to continuous devaluation of Chinese currency. The main reason for this slow growth was the whole economic system and planning being in its early stages. And a lack of well-developed secondary market played a role, which destabilized effectiveness of the incentive system. Retention plans were highly characterized based on type of industry and geographic locations.

After 1994 foreign exchange reforms retention scheme was terminated based on foreign exchange policies. As a result exporters suppose to change their currency earnings, which made imports easier.

During 1987–93, this phase was more of a market oriented regime compared to that of the planned exchange rate regime. After introduction of swap market, by 1993 80 percent of foreign exchange earnings were priced at the swap rate, clearly indicating how market forces dominated in determining foreign exchange rate. The characteristic of this phase was an overvalued official rate and an undervalued swap rate. An undervalued official rate led an implicit tax on exports and undervalued swap rate an implicit duty on imports.

In 1994 China took another initiative with respect to foreign exchange regime. The main objectives of this regime are as follows: (i) Merging of official and market exchange rate (ii) RMB settlement system was used instead of foreign exchange retention system for all export earnings. (iii) Removal of constraints for using of foreign exchanges in current account transactions for acquiring and (iv) Usage of Inter-bank foreign exchange market via a system of managing float instead of swap system.

An important implication these new policies was that foreign exchange control instrument was no longer used to control imports. The future trade of China became more dependent on market forces, responsiveness of firms to price signals, and other measures such as tariff and quota.

In the end, Open-door policy in China was initiated in the late 1970s, and gained great momentum in the late 1980s and early 1990s, along with overall economic reforms. Though they introduced new FDI measures to enhance the export oriented activities, import liberalization was lagging behind exports. FTCs are still under administrative control of both central and local. In order to obtain WTO membership China decreased barriers on imports. Though some of the import restriction and administrative control were eased, most of the import activities remained the same. The administrative control was maintained through FTCs (called “Canalisation”). Unlike other developing countries China put higher tariff on consumer and producer goods. The tariff is high, and sometime they became unaffordable.

Methodology

Two indices are adopted in this chapter are the Similarity index (SI) (Kreinin and Finger 1979) and Trade Complementarity Index (TCI) (Michaley, 1996). In order to calculate the similarity of the exports between any two countries to a third market, SI is used. The objective of SI is to assess similarity or patterns of exports across product categories between any two countries, from which an assessment of the degree to which their trade structure becomes more similar or more divergent, can be accomplished. By contrast, TCI is used to assess structural complementarity of trade between two countries, whether these two countries complement to each other.

Similarity Index (SI)

Our primary interest is to identify the trade linkages between India and China, with both cross-sectional and time series analyses. Our objective is to assess '*how similar are India and China exports*?' and '*How competitive are India and China exports in third market*?' *Finally*, *'Are the export similarities between India and China divergent or convergent? And what are the driving forces behind these trends?*. Thus, we need to apply similarity index.

Assessment of similarity of the export composition or patterns between any two countries or group of groups is given by the equation (1).

$S(xy, z) = \{\sum \text{Minimum} [X_i (xz), X_i (yz)]\}\ 100$ -------------- (1)
(Or)
$S(xy, z) = \{\text{Mini} (xz) + \text{Mini} (yz)\}\ 100$ -------------- (1)
'x' (India) and 'y' (China) to market 'z' (world),
X_i (xz) is the share of commodity *i* in *x*'s exports to *z*.
Similarly X_i (yz) is the share of commodity *i* in y's exports to *z*.

If the commodity distribution of *a*'s and *b*'s exports are identical (X_i (ac) = X_i (bc) for each *i*), the index will take on a value of 100. Suppose *a*'s and *b*'s export patterns are totally dissimilar (for each X_i (ac) >0, X_i (bc) = 0, or vice versa), the index will take on a value of zero. Finally, one can observe changes over time in the similarity of exports between any two countries or groups of countries, and thereby assess the degree to which their economic structure becomes more similar or divergent.

While measuring SI, in order to eliminate the influence of relative sizes or scales of total exports, the exports of, say '*a*', must be rescaled so that they are equal in total to those of '*b*'.

An advantage of such an index over other measures is that it requires only international trade data, and these are available on a standardized basis for all countries. In what follows we present and explain an index of export similarity.

Limitations of Similarity Index

Disaggregation is needed to ensure that the similarity index can provide more accurate measures. The high similarity index could occur from using an aggregate trade data. In addition, size of exports from each exporting country does matter and it is not taken into account by this index. Results from this index include impacts of trade, investment and exchange rate policies from these two countries.

Trade Complementatrity Index (TCI)

The 'structural complementarity of trade' between regions A and B is measured by TCI. The low level of TCI indicates that limited access of region B into A. However, such dissimilarity in structure between the two regions could provide an opportunity for trade expansion in the future between the two economies. In other words, this may increase chances for a more successful FTA between these two countries. The TCI is represented as follows (TCI: Michaley, 1996)

$$\boldsymbol{TCI_{(xy)} = 100 * \left[1 - \sum_{i=1}^{n}\left|\frac{Imports_{ix} - Exports_{iy}}{2}\right|\right]}$$

Where **x**=China
y=India
i=common good (e.g. manufacturing goods, electronic goods)
| |= absolute value (i.e., Negative sign is neglected)
Import $_{\mathbf{ix}}$ = China total import of good i from World
Export $_{\mathbf{iy}}$ = India total export of good i to China

The TCI is a measure of potential trade between two partners by comparing the export portfolio of country x to the import portfolio of country. If TCI is low, then it indicates that no goods exported by one country or imported by the other (i.e. TCI = 0, means there is no complementarity), and if TCI is high then, the export and import structure exactly complements each other between two countries (i.e. TCI = 100, means there is high complementarity). Intuitively, the index indicates whether there is a complementarity between the demand by one country and the supply by the other. In the index logic, trade complementarity between two partners is considered to be high when the products imported by country x are the same as the ones exported by country y. *(Note: However, the TCI has an inherent size bias, i.e. a sub region whose export portfolio is limited (or smaller than other sub regions) will end up with having a lower TCI value.*)

Data for Analysis

The data were obtained from UNCTAD in Harmonize System at 6 digit level for the period of 2003, 2006, and 2009. The Similarity Index (SI) and Trade Complementarity Index (TCI) are calculated from 6 digits and then summarized into 2 digits in order to analyze the SI and TCI of India according to product categories. The country chosen to compare similarity and complementarity in trade with India is China. For assessing trade complementarity (TCI) in addition to comparing India with China, we also compare two ASEAN countries, i.e. Thailand and Malaysia, with China. Comparing India with other ASEAN countries in Chinese market would help us to clearly reveal opportunity of India trade within the Chinese market.

Findings and Analysis

Similarity Index (SI)

The result of Similarity Index for 2003, 2006 and 2009 is 24.5%, 24.47% and 26.0% respectively. Hence, there is a moderately low degree of similarity between India and China, there has been a slow progress in their similarity in export structure. According to Table appendix A-1, disaggregate data show that the export structures of products between India and China were not similar over the period for 2003, 2006 and 2009. Though similarities in export structure are quite insignificant, India is facing competition in world market for certain products. According to Table 5.1, products related to mineral intensive goods (HS Code- 27 and HS Code-29), labor intensive articles of apparel and clothing accessories with both finished and unfinished goods (HS Code-61 and HS Code-62) and capital intensive goods (HS Code-72, HS Code-73, HS Code-84, HS Code-85, HS Code-87) face high competition from China. There is a constant increase in demand for goods such as HS Code-84 and HS Code-85 during 2003-2009. In summary, India and China are not competing with each other in the world market.

Table 5.1. Results of Similarity Index

HS-code	Products	2003	2006	2009
H1-27	MINERAL FUELS, MINERAL OILS AND PRODUCTS OF THEIR DISTILLATION; BITUMINOUS SUBSTANCES; MINERAL WAXES	0.93%	0.84%	1.10%
H1-29	ORGANIC CHEMICALS	0.86%	0.96%	1.11%
H1-61	ARTICLES OF APPAREL AND CLOTHING ACCESSORIES, KNITTED OR CROCHETED	1.67%	1.64%	1.45%
H1-62	ARTICLES OF APPAREL AND CLOTHING ACCESSORIES NOT KNITTED OR CROCHTED	2.59%	2.06%	1.66%
H1-72	IRON AND STEEL	0.38%	1.22%	0.62%
H1-73	ARTICLES OF IRON OR STEEL	1.26%	1.28%	1.11%
H1-84	MISCELLANEOUS ARTICLES OF BASE METAL	2.18%	2.52%	3.19%
H1-85	NUCLEAR REACTORS, BOILERS, MACHINERY AND MECHANICAL APPLIANCES; PARTS THEREOF	1.85%	2.12%	4.77%
H1-87	RAILWAY OR TRAMWAY LOCOMOTIVES, ROLLINGSTOCK AND PARTS THEREOF; RAILWAY OR TRAMWAY TRACK FIXTURES AND FITTINGS AND PARTS THEREOF; MECHANICAL (INCLUDING ELECTROMECHANICAL) TRAFFIC SIGNALLING EQUIPMENT OF ALL KINDS	0.79%	1.10%	0.99%

Note: Only the products with values of SI > 1.00% is reported in this table.

Table 5.2: Results of Spearmen Rank Correlation Coefficient

Spearman rank correlation coefficient		
Year	**Rho**	**In percentage**
2003 and 2006	0.8457	84.57%
2006 and 2009	0.8125	81.25%
2009 and 2003	0.9069	90.69%

While there are a number of export products in our calculation (See Appendix, table A-1), in order to ensure that the similarity value attached to each product does not change substantially over the period, we apply Spearman rank correlation. From Table 3.2 Spearman rank correlation between 2003 and 2006 is deduced to be 84.57%, which means that the rank of products, i.e. 84.57% of all goods, is the same, i.e., structure or pattern of exporting goods are not changed significantly. And between 2006 and 2009 it has decreased slightly to 81.25%. The structure of exports in 2009 tends to be similar to that of 2003 as shown by the high value of Spearman rank correlation between these two years, i.e. 90%.

Trade Complementarity Index (TCI)

The objective of this section is to analyze TCI by focusing on trade complementarity between India and China, which are the rising economies in the current scenario, compared with other part of the ASEAN group of countries, i.e. Thailand and Malaysia. Table 3.3 shows complementarity between India and China to be 17.656%, while for Thailand and China it is 38.056%, for Malaysia and China it is 38.250%. Table 4 lists out products that have highest complementarity from each country with China for the period of 2003, 2006 and 2009 respectively.

Table 5.3: Results of Trade Complementarity Index

Trade Complementarily Index (TCI)			
TCI	**2003**	**2006**	**2009**
India vs. China	15.736%	14.534%	17.656%
Thailand vs. China	41.953%	40.867%	38.056%
Malaysia vs. China	40.500%	38.292%	38.250%

Table 3.3 shows that between India and China there is a weak match between the demand in China and Indian exports. Therefore, China market does not open up much for Indian goods compared to other ASEAN countries like Thailand and Malaysia. But this situation has changed, rather increased over a period of time (especially after the global financial crisis) due to increase in the bilateral imports of uncompetitive products in the medium and high technology segments during 2007-09 (RBI, 2013). By contrast, trade complementarity indices between Thailand vs. China, and Malaysia vs. China is declining, implying that China has lately opened more doors to India.

The reasons for low complementarity between India and China compared to Thailand and Malaysia are as follows: (i) the possibility of FTA being signed between India and China is still under observation, while Thailand (2003), Malaysia and ASEAN region (2002) signed FTA in the early 2000s (ii) decrease in average tariff over time from 128 percent in 1991 to 11.4 percent in 2009 (reducing tariff was much slower than Malaysia and Thailand) whereas ASEAN countries reduced the barrier of tariff to 0 percent and 15.5 percent for agriculture goods and non-agriculture goods respectively (iii) due to the lack of infrastructure development, manufacturing development in India has a slow progress compared to other Southeast Asian countries (Donghyun Park, Innwon Park, Gemma Esther B.Estrada, 2008).

Table 5.4 shows the trade complementarity at the disaggregate levels for India, Thailand and Malaysia with China (See Appendix Table (A-2) for the overall results of the trade complementarity index). The TCI for India indicates a low degree of trade complementarity, but the volume of trade in mineral intensive goods and capital intensive goods are high compared to Thailand and Malaysia. With the scenario focusing on Indian capital and mineral intensive goods such as HS code 25 (salt, sulphur, earth and stone, plastering materials, lime and cement), HS code 26 (ores, slag and ash), HS code 27 (mineral fuels, mineral oils and products of their distillation, bituminous substances, mineral waxes) and HS code 28 (inorganic chemical, organic or inorganic compounds of precious metals, rare earth metals or radioactive elements or isotopes), and capital intensive goods such as HS code 72 (iron and steel), HS code 74 (copper and articles), HS code 83 (base metals), HS code 84 (nuclear reactors, boilers, machinery and mechanical appliances), HS code 85 (electrical machinery and equipment and parts), HS code 86 (rolling stock and parts, railway locomotives), HS code 87 (vehicles other than railways) and HS code 90 (surgical instruments and apparatus, parts and accessories) are dominating, in comparison to Malaysia and Thailand. In summary, for India, it shows a high level of complementarity in the mineral goods (HS code 25, HS code 26, HS code 27, HS code 28) and capital intensive goods (HS code 72, HS code 74, HS code 83, HS code 84, HS code 85, HS code 87, HS code 86, HS code 90), and it is steadily improving between (2003 to 2009) compared to Thailand and Malaysia.

All in all, both similarity and complemntarity indices show that India and China are still not in competition in the world market, and the threat of China to India in the world market is relatively limited. However, based on TCI, the Chinese market is not open to most Indian products, except mineral intensive products and capital intensive goods. Other Asian countries, especially east and southeast ssia are still key trading partners with China. However, it seems that the complementarity between India and China has increased to 17.656% in 2009 since 15.736% in 2003, implying China's open door for more Indian products, i.e. more opportunity for Indian products in Chinese market. Simultaneously, exports from other important partners such as Thailand and Malaysia have decreased in the Chinese market, especially after the global financial crisis. Thus, more opportunities have opened for Indian products in the Chinese market.

Table 5.4: Trade Complementarily Index (TCI)

HS-code	Products	India			Thailand			Malaysia		
		2003	2006	2009	2003	2006	2009	2003	2006	2009
HS-07	EDIBLE VEGETABLES AND CERTAIN ROOTS AND TUBERS	0.12 %	0.17 %	0.12 %	0.84 %	1.31 %	1.13 %	0.03 %	0.05 %	0.05 %
HS-12	OIL SEED OLEAGINOUS FRUIT; MISCELLANEOUS GRAIN, SEEDS AND FRUIT; INDUSTRIAL OR MEDICINAL PLANTS; STRAW AND FODDER	1.06 %	0.55 %	1.09 %	0.69 %	0.52 %	1.05 %	0.69 %	0.51 %	1.04 %
HS-15	ANIMAL OR VEGETABLE FATS AND OILS AND THEIR CLEAVAGE PRODUCTS; PREPARED EDIBLE FATS; ANIMAL OR VEGETABLE WAXES	0.53 %	0.54 %	0.85 %	0.33 %	0.23 %	0.40 %	3.92 %	3.37 %	4.19 %
HS-25	SALT; SULPHUR; EARTH AND STONE; PLASTERING MATERIALS, LIME AND CEMENT	15.42 %	1.18 %	1.06 %	0.16 %	0.14 %	0.15 %	0.13 %	0.13 %	0.12 %
HS-26	ORES, SLAG AND ASH		24.55 %	26.71 %	0.87 %	2.00 %	3.25 %	0.85 %	1.97 %	3.26 %
HS-27	MINERAL FUELS, MINERAL OILS AND PRODUCTS OF THEIR DISTILLATION; BITUMINOUS SUBSTANCES; MINERAL WAXES	3.37 %	5.34 %	6.01 %	1.59 %	3.80 %	5.60 %	1.42 %	4.83 %	4.72 %
HS-28	INORGANIC CHEMICAL; ORGANIC OR INORGANIC COMPOUNDS OF PRECIOUS METALS, OF RARE EARTH METALS, OF RADIOACTIVE ELEMENTS OR OF ISOTOPES	1.50 %	1.43 %	0.47 %	0.34 %	0.39 %	0.31 %		0.46 %	0.32 %
HS-29	ORGANIC CHEMICALS	3.65 %	3.68 %	3.15 %	2.41 %	3.62 %	2.55 %	2.25 %	2.24 %	1.81 %

HS-39	PLASTICS AND ARTICLES THEREOF	4.69 %	3.46 %	2.44 %	4.07 %	3.51 %	2.66 %	1.98 %	1.79 %	1.81 %
HS-40	RUBBER AND ARTICLES THEREOF	0.46 %	0.62 %	0.50 %	4.50 %	4.39 %	4.65 %	1.18 %	2.57 %	2.05 %
HS-44	WOOD AND ARTICLES OF WOOD; WOOL CHARCOAL	0.55 %	0.40 %	0.36 %	1.41 %	0.94 %	1.02 %	2.08 %	0.87 %	0.45 %
HS-52	COTTON	1.49 %	4.06 %	2.17 %	0.56 %	0.50 %	0.27 %	0.54 %	0.56 %	0.30 %
HS-71	NATURAL OR CULTURED PEARLS, PRECIOUS OR SEMIPRECIOUS STONES, PRECIOUS METALS, METALS CLAD WITH PRECIOUS METAL, AND ARTICLES THERE OF ; IMITATION JEWELLERY; COINS	2.02 %	1.50 %	1.91 %	0.29 %	0.42 %	0.51 %	0.22 %	0.28 %	0.33 %
HS-72	IRON AND STEEL	12.00 %	2.29 %	2.26 %	2.15 %	1.09 %	1.26 %	2.33 %	1.20 %	1.25 %
HS-74	COPPER AND ARTICLES THEREOF	0.60 %	1.93 %	1.29 %	0.83 %	1.06 %	1.42 %	0.72 %	0.94 %	1.46 %
HS-83	MISCELLANEOUS ARTICLES OF BASE METAL	0.06 %	6.81 %	6.12 %	0.07 %	0.05 %		0.06 %	0.05 %	0.06 %
HS-84	NUCLEAR REACTORS, BOILERS, MACHINERY AND MECHANICAL APPLIANCES; PARTS THEREOF	8.41 %	13.22 %	11.30 %	14.52 %	15.19 %	18.28 %	8.22 %	5.34 %	5.67 %
HS-85	ELECTRICAL MACHINERY AND EQUIPMENT AND PARTS THEREOF; SOUND RECORDERS AND REPRODUCERS, TELEVISION IMAGE AND SOUND RECORDERS AND REPRODUCERS, AND PARTS AND ACCESSORIES OF SUCH ARTICLES	12.19 %	0.07 %	0.08 %	8.24 %	7.13 %	4.55 %	20.44 %	23.31 %	21.20 %
HS-86	RAILWAY OR TRAMWAY LOCOMOTIVES, ROLLINGSTOCK AND PARTS	0.05 %	1.07 %	1.35 %	0.05 %	0.08 %	0.08 %	0.05 %	0.08 %	

	THEREOF; RAILWAY OR TRAMWAY TRACK FIXTURES AND FITTINGS AND PARTS THEREOF; MECHANICAL (INCLUDING ELECTROMECHANICAL) TRAFFIC SIGNALLING EQUIPMENT OF ALL KINDS									
HS- 87	VEHICLES OTHER THAN RALIWAY OR TRAMWAY ROLLINGSTOCK, AND PARTS AND ACCESSORIES THEREOF	1.37 %	0.69 %	0.52 %	1.28 %	0.93 %	1.32 %	1.41 %	1.09 %	
HS- 90	OPTICAL, PHOTOGRAPHIC, CINEMATOGRAPHIC, MEASUREING, CHECKING, PRECISION, MEDICAL OR SURGICAL INSTRUMNTS AND APPARATUS; PARTS AND ACCESSORIES THEREOF	3.19 %	0.08 %	0.08 %	3.06 %	3.65 %	2.97 %	2.59 %	3.52 %	3.28 %

Note: Only products with values of TCI > 1.00% is reported in this table

Concluding Observations

The China and India trade reforms took place in a gradual and sequential manner. Though, India started its comprehensive trade policy reforms a decade later than China, but the achievement has far below expectations. Mainly due to poor performance of industrial growth and declined in the share of agriculture was absorbed by services sector. Market penetration has been slower than China and other ASEAN countries due to poor infrastructure and regulation burden, which has increased transportation cost and cumbersome and procedures on imports and exports. Finally, ease of trade, non agriculture tariff and non trade barriers (NTB) is higher than South Asian countries (SAC), ASEAN and developing countries of Asia.

In the context of bilateral trade between these two countries, there is an increase in trade deficit since 2005, due to China higher tariff on goods where India has competitive advantage. Therefore, India should expand exports in the sectors like manufacturing (textiles and clothing), since is China moving from labor intensive products to more advanced technology oriented products, automobile manufacturing through joint ventures and pharmaceuticals where China lack in producing generic branded pharmaceuticals products to reduce the trade gap.

The results of Similarity Index (SI) and Trade Complementarity Index (TCI) shows that India and China are not competitors in the world market, but India faces tough competition from China in labor intensive products such as textiles and clothing (HS-code 61 and HS-code 62), miscellaneous articles of base metals (HS code-84), and capital intensive goods (HS-code 85 and HS-code 87). This result implies that threat from Chinese products is relatively limited. Further, TCI between India and China indicates that Chinese market is still not open for Indian goods compared to other countries like Thailand and Malaysia. The complementarity between Malaysia and Thailand is higher than India. However, there is an increase in trade complementarity with India after the global financial crisis due to increase in imports uncompetitive products related to medium and high technology segments during 2007-09. Therefore, there is a limited scope for prospective of escalation in trade relations between these two countries.

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Role of India and Asia in the Global Economy

R. Kannan

The Asia's role in Global Economic Development is becoming significant after the recent economic and banking crisis in the world. The global crisis had an impact on the economic performance of all the economies in the world but the countries from Asia were still able to report growth rates which were higher than the growth rates reported in other parts of the world. Asia contributes to more than 50% of incremental economic growth in the world.

Within Asia, India and China continue to have a major contribution to the economic growth. The sheer size of the population of both countries and the continued demand for products and services in two countries continue to sustain the economic growth today and this will be the trend in future.

India and China were playing a major role in the Global Economy before the rise of UK. After the dominance of UK, USA Started playing a major role in the global economic development. After the World War II, Japan was growing very fast and then we saw the rise of countries from ASEAN. From 1980 onwards, the economic growth in China started gaining momentum and the country is still able to sustain the high growth today. From 2001, we heard the concept of BRIC and terms like VISTA, CIVET, MENA and MINT and how they can contribute to the global growth.

India and China are in the process of regaining their prominence in the world and China is already leading the world in terms of Forex reserves with a forex reserves of more than 3.8 trillion dollars. The road to regaining the competitiveness is strewn with both opportunities and risks. To achieve the potential today, both countries have to carefully calibrate their movements in the Economic, Political, Social, Cultural, Technological, Security and Environmental aspects.

India and China have to work very closely in all these areas to realise the full potential of Asia.

Economy: Indian Economy after reporting a good growth for few years saw the rate of growth decline due to both internal and external factors. The potential for growth is still at 8% and the solutions are available to achieve the 8% growth. What is required is the consensus building among the various stake holders in adoption of the policies for achieving the growth. The sectors like manufacturing and agriculture have to be given more importance, going forward. The proposed Industrial corridor projects in India will provide a momentum to the growth and there is an increased interest from various countries in the world to participate in these projects and FDI is likely to come through this route to support these projects. It should be possible to increase the contribution of industry to country's GDP to 25% from the present level of 15% by increasing the alliances with countries like Japan, US, China, UK, etc in the world.

There were concerns regarding the fiscal deficit and current account deficit and it has been proven in the recent past that by adopting innovative policies it should be possible to bring down the deficit. India is inherently strong due to its large informal sector which was one of the main reasons for India weathering the storm during the crisis. This sector can play a major role in sustaining the growth rate and creating employment opportunities in the Indian Economy.

India has been recognized today as an IT Hub, Pharma Hub, R&D Hub, Automotive Hub, Diamond and Jewellery Hub, Leather Hub and global companies in these areas had increased their interest in India and new units are being set up in these areas. Global sourcing companies also had established their offices in India apart from China. These sectors in India will continue to do well going forward.

China's continued Economic growth had helped to gain the global leadership role today and the country has trade balance with many of the countries in the world. The focus on creating large industries with government and bank financing support enabled Chinese companies to emerge as the largest companies in the world in the sectors, they operate today. So far the economic growth was driven by the strategy of exports as well as inflow of FDI. After the recent crisis and reduced demand for exports, there was a need for rebalancing the economy. The need to focus on creating internal demand had become paramount. In the recent past, there were also concerns about the rising inflation and interest rates.

China has to continue the engagement with other counties in the world and apart from focussing on exports, there is also a need to look at reducing the trade balance with other countries in the world. If Yuan, continues to rise, it will erode the competitiveness of exports. The Yuan level could be maintained only by reducing the trade balance with other countries. To ensure the continued availability of resources, the country already had acquired mines and industrial production facilities in many parts of the world. China is the largest foreign investor in US treasury bonds today and because of this reason, there is a need to ensure the stability and strength of the dollar. China's efforts to make Yuan as one of the major currencies for trading will take shape in a few years and Dollar will continue to have its dominance for many more years to come.

China's economic growth was mainly driven by focus on Industrial growth and it has emerged as the power house for manufacturing in the world today. Starting from a strategy of producing low cost goods , there is now a movement towards manufacturing of high quality , high value goods in the manufacturing sector. The country has to liberalise FDI and strengthen the Trade and Patent laws to ensure a benign environment for foreign investors. Going forward, there should be an increased focus on developing the domestic market and increasing the purchasing power of workers in the country.

Society: India is a multicultural society and there is a lot of diversity in Customs, habits and Income levels. In the last few years, the society had gone through a big transformation and the consumers are able to exercise the choice for the products, they prefer. The liberalisation of economy has created hyper competition in many industries. As per the latest classification, the Indian consumer is categorised into twelve income groups and there is a constant upward movement of people from one level to other level. There is a free movement of labour from one city to another city and there is a lot of internal migration whereby people from rural areas move to urban areas. The mobile technology revolution in the country has helped even Semi urban and rural areas to look at aspects relating to urbanisation and the government's schemes on providing employment for minimum number of days work in rural areas have created employment opportunities for people. The services as a sector is also developing well in rural areas . There is a movement away from Joint family system to nuclear family system. These trends create a huge demand for consumer products of various categories at different price points. This has attracted the attention of global marketers to India.

In China, the demand for high end products had seen a big rise in demand over the years. The purchasing power of people in urban areas has gone up significantly. System of providing work permits to workers to work in a city has restricted the movement of labour and depressed the wages in the manufacturing sector. Many of the workers at the lower level come to work from far away distances. But the recent trend in increase in wage levels, if it continues, will create different income segments and create new class of customer segments for the products. This will also result in consumer boom, which would partly offset the reduced demand for products from exports. The government has taken measures to increase the population and now people are allowed to have more than one child in a family.

The trends witnessed above, will help to create new products for the local markets, which could be exported at a later stage.

Political and Security Issues: India being the largest democracy in the world, the decisions at the government level have to be taken after taking the consensus of various stake holders in the Economy. There are forces which act against the pro economic growth policies because of which the economic momentum slows down. The country has an approach to keep very cordial relations with others and by itself does not take initiatives which challenges the sovereignty of other nations. India is part of various Economic Alliance forums in the world and considering its contribution, there is an effort to obtain a permanent seat in the UN Security Council.

The country helps the adjacent countries in aspects relating to technology and training aspects. In the last few years, there were lot of internal issues relating to terrorism in various pockets of the country which are creating concerns on maintaining a peaceful atmosphere. There is an increased interest from most of the countries in the world to partner with India in all the growth initiatives and there is a foreign business delegation visiting India every week to identify opportunities for doing business. India has moved ahead in various reforms including passing of RTI act and empowering the Panchayat Institutions in the country. In line with the increase in economic prosperity, the country also increased its defence budget. Multilateral institutions are also supportive of India's growth initiatives and after the recent geo political issues in the Asian region, Japan and US had shown increased interest in enhancing the tie up with India. India has joined the nuclear club now and this should help to increase the power generation from this source. China has emerged as the leading partner for India in trade and China runs a huge trade surplus with India today.

The present government in China will last for 10 years and they had already drawn a plan to maintain the economic growth of China. Since China has gained leading economic status in the world today, in line with the economic status, it is trying to match the political status by increasing its influence on many countries in the world. In terms of its growth ambitions, it is trying to achieve this by acquiring the natural resources from regions like Africa and has allowed its leading companies to take over the ailing MNC's from the developed world. Its economic engagement with many countries are helping China to maintain the growth rate. Since its objective is to increase its political influence, it is facing opposition from the entrenched players in the world. The present form of merit based Government system is likely to continue in China which is good to maintain its economic growth. To gain political influence, China is also giving military aid to countries, low interest loans for equipment purchase from China and various other incentives to obtain political support. But the recent moves on Territorial disputes, have created concerns among US and neighbouring countries.

Going forward, both the countries should use the political dispensation to increase the economic engagement with other countries in Asia including Myanmar, Vietnam, Malaysia, Singapore, etc. The disputes with the neighbouring countries should be brought to an end by announcing ceasefire. Both countries in alliance with Japan should engage in consultation on the matters to be addressed relating to multilateral institutions as well as developing the Asia as the Economic Hub of the world. The political influence over other countries should be exercised through increased economic engagement rather than seeking territorial advances. The recent past indicates that as countries grow in economic might, the number of wars saw a decline. Most of the time, the countries take a posture to threaten other countries without intention to go for a war. Instead of this strategy, the best to way to achieve the political influence is through adopting a strategy of win win and identify action plans for mutual cooperation. There should also be consultations on addressing the internal terrorism issues and sharing the best practices between the countries in addressing this issue.

Technology: The recent developments in communication and mobile technologies had a significant impact on most of the economies and how the business is being done. Both India and China have benefited a lot from the mobile technologies and the social / financial inclusion could be achieved through adopting more applications of this technologies.

In other areas, there is still lot of gap in availability of technologies which is being bridged through creating strategic alliances with the leading players in the world. The leading companies in the world from various sectors are already present in both countries and all of them want to increase their engagement.

India was successful in some of the space initiatives and in the process of developing a robust domestic Defence manufacturing base. China is already advanced in the technologies relating to warfare and it is in the process of manufacturing its own Air craft for commercial purposes. Both countries have their own home grown labour intensive technologies which are in wide use across the country. There is an increased need felt for creating patents for the local products and systems are put in place to create more patents.

The low cost labour intensive technologies in both countries could be transferred to countries where there is a strategy to promote SME's.

Environmental issues: There is a pressure on both countries to reduce the pollution levels. But on per capita basis, the levels are still low. Considering the need for further economic growth and increased level of manufacturing, it would be impossible to meet the global standards. Few more years are required for China and India to move towards to the global standards. In the meanwhile, we have to build a consensus on the need for pursuing the manufacturing strategy and this could be done with the help of emerging environment friendly technologies.

In the coming years, opportunities and Challenges are many for the countries from Asia. India and China are well poised to capitalize on these opportunities. India and China has to co-operate in all the endeavours as partners in progress and the focus of partnership should be based on economic fundamentals and the influence of political considerations should become secondary, while realizing the opportunities. India, China and Japan can take a joint leadership in realizing the full potential of Asia's Economic Growth and let us hope Economic collaboration will take precedence over all other collaborations between these countries.

Capital Markets Development and Economic Growth : An Asian Perspective

Dr. Sarat Kumar Malik & Ms Akriti

Executive Summary

Capital markets play a significant role in the economic development of a nation. Well functioning markets insure that both corporations and investors get or receive fair prices for their securities. The existence of well-developed capital markets augments the efficiency of the allocation of financial resources in an economy. Capital market development is being seen as an essential factor for the long-term growth prospects of the country. Besides stimulating economic growth, a well-developed capital market contributes significantly to the further development of the financial sector. In particular, a well developed capital market will introduce new financial products and incentives for existing financial institutions to become more competitive. In other words, it will enhance market mechanisms in the financial sector with benefits for the economy. Efficient capital markets are important as they contribute to a better pricing and allocation of financial resources. Furthermore, a well-developed domestic capital market attracts foreign investors, which in addition contributes to the growth of the nation. Strong capital markets provide high-quality and easily accessible information that lowers transaction costs, which in turn improves resource allocation and boosts economic growth.

The paper examines the importance of capital markets in facilitating superior economic performance. It studies how the well-developed capital markets generates economic benefits and leads to growth of an economy.

Key Words: Asian economies, Capital markets, SEBI, Economy growth, Developments

Introduction

Across the globe, the financial markets have been a strong determinant in the overall economic growth of any country. Developed, stable and mature capital markets helps in channelizing household savings towards capital formation which indeed leads to economic growth. The objective of economic growth in any country is to promote the well-being and improve the standard of living of its people. Capital market plays an extremely important role in promoting and sustaining the growth of an economy and provides an efficient means of resource mobilization and allocation. Instruments such as bonds, equities, units of mutual funds etc. definitely provides diverse investment avenue for the public. Uncertain outlook of the global economy and sluggish growth in many countries have further augmented the need to raise capital from domestic sources to finance the country's overall growth.

A well-functioning stock market helps the growth process in an economy by increasing savings, allocating investment resources efficiently and ensuring better utilization of the existing resources. It encourages savings by providing the households with an additional instrument which may better meet their risk-return preferences and liquidity needs. It accelerates growth by facilitating the ability to trade ownership of funds without disrupting the production processes within firms and allowing agents/investors to diversify portfolios. It encourages firm investment by increasing the liquidity of investment, reducing productivity risks and improving firm efficiency. The stock market also plays a crucial role in allocating capital to the corporate sector which has beneficial effects for the rest of the economy. Developed capital markets leads to macro-economic benefits like higher economic growth, increased productivity and capital growth, improved employment opportunities, flexible financing for companies and a better developed financial sector.

It is needless to say that the financial markets (banks and the securities markets) finance economic growth. The banks and securities markets are two competing mechanisms to channel savings to investment. The securities markets score over banks in the allocational efficiency, as it allocates savings to those investments which have potential to yield higher returns.

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This inevitably leads to higher returns to savers on their savings and higher productivity on investments to enterprises. Hence, to the extent economic growth depends on the rate of return on investments, securities market promotes economic growth.

The existence of a link between stock market development and economic growth has long been debated and well researched. Indeed, empirical work by early economists produced considerable evidence about the direct relationship between stock markets and growth of an economy. Specifically, Greenwood and Smith (1966) indicated that large stock markets can lower the cost of mobilizing savings and thereby facilitate the investment in the most productive technologies. Luintel and Khan (1999) explored bi-directional causality test between financial development and economic growth; they found that the financial stock market affects economic growth. Obstfeld (1994) shows that international risk sharing through internationally integrated stock markets improves resource allocation and accelerates growth. Bencivenga, et. al. (1996) and Levine (1991) have argued that stock market liquidity --the ability to trade equity easily-- plays a key role in economic growth. Raymond Atje and Jovanovic (1993) in their cross-country study of stock markets and economic growth found that there exists a significant correlation between growth over the period 1980-1988 and the value of stock markets for 40 countries. Sarat Malik (2003) argues that the stock market development remain positively and significantly correlated with economic growth. The World Bank study ("Stock Markets: A spur to economic growth" Ross levine) clearly states that GDP grows faster in economies with more liquid capital. The reason behind this argument is very simple. Liquid markets make investments less risky which in turn allows the savers to acquire and sell assets quickly and cheaply and therefore by making investments less risky and more profitable it leads to more investment, increased productivity and therefore higher economic growth. However, the developments of the capital markets have its own challenges and if it is not managed properly it can lead to frauds, volatility, speculative activities etc. "Financial Structures and Economic Development in India: An Empirical Evaluation" RBI working paper by S Sahoo, empirically evaluates the role of financial structures in economic development of India. An assessment of various indicators of financial development reveals that both the bank-based and market-based intermediation processes have undergone remarkable improvements in the last six decades. While credit disbursement by Indian banks has increased sharply in the past decades, it is still far below the world average level and even below the level in its emerging market and developing economies (EDEs) peers. However, in the recent years, the market capitalization of Indian stock market has increased sharply reflecting more reliance on market-based sources of funding. The analysis revealed that both bank-based and market-based indicators of financial depth have positive impact on economic development in India.

The Indian capital markets have evolved dramatically over the past two decades. However, there is a long way to go when compared to other countries. The total market capitalization at the India's largest stock exchange NSE is nearly 62.2 per cent of the GDP as compared Thailand and Korea 100 per cent, Malaysia 150 per cent. The total Debt Capital Market in India is only 34 per cent of GDP as compared to China 49 per cent and corporate debt market in India is even smaller which accounts to 8 per cent of GDP as compared to 16 per cent of China. India has a very high amount of savings rate along with China. The gross domestic savings as a per cent of GDP increased from 28.72 in 2004-05 to 32.40 in 2012-13. The gross domestic capital formation as a per cent of GDP stood at 32.41 during 2004-05 and increased to 36.82 in the year 2007-08. However, there was a decline in the year 2008-09 and currently (2012-13) it stands at 31.80 per cent of GDP. Thus, we can see that savings and investment have increased considerably which gives an optimistic view of countries economic growth.

This main objective of this paper is to study the importance of capital markets in facilitating superior economic performance. It studies how the well-developed capital markets generates economic benefits and leads to growth of an economy. It tries to study that when household savings are mobilized in capital markets through IPOs, mutual funds units and other investment instruments this money helps in stimulating the overall growth of the economy. When the money flows into capital markets it is then invested in long term projects which leads to increased production, it fosters job creation, enhances infrastructure development etc. and leads to overall development of the nation.

Primary Markets- Resource Mobilization

The primary market is an significant part of capital market, which deals with issuance of new securities. It enables corporate, public sector institutions as well as the government to raise resources (through issuance of debt or equity based securities), to meet their capital requirements. The most widespread way for firms to raise capital in the primary market is through Initial Public Offer (IPO). In an IPO, a company or a group floats new securities for subscription by the public. The issuing company receives cash proceeds from the sale, which are then used to fund operations or expand the business. It is only after an IPO that a security becomes available for trading in the secondary market of the stock exchange platform. When securities are offered solely to the existing shareholders of a company, as opposed to the general public, it is known as the Rights Issue. In addition to domestic market, companies can also raise capital in the international market through the issuance of American Depository Receipts (ADRs), Global Depository Receipts (GDRs) and also by way of External Commercial Borrowings (ECBs).

Table 1 provides statistics on the resources mobilized from the primary markets in India. As can be seen in the table, total resources mobilized in 2012–13 increased to ` 32,455 crore as compared to ` 6,108 crore in 2000-01. This shows that in more than 10 years span a huge amount of household savings are mobilized in the capital market which allows the company to fund both organic growth (modernization and upgrade of production facilities, implementation of capital-intensive projects) and acquisitive expansion which in turn fuels the growth of the economy.

Table 1: Resources Mobilized from the Primary Market (Amt in `crore)

Year	Total		Category - wise				Issuer Type			
			Public		Rights		Listed		IPOs	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount
2000-01	151	6,108	124	5,378	27	729	37	3,385	114	2,722
2001-02	35	7,543	20	6,502	15	1,041	28	6,341	7	1,202
2002-03	26	4,070	14	3,639	12	431	20	3,032	6	1,039
2003-04	57	23,272	35	22,265	22	1,007	36	19,838	21	3,434
2004-05	60	28,256	34	24,640	26	3,616	37	14,507	23	13,749
2005-06	139	27,382	103	23,294	36	4,088	60	16,446	79	10,936
2006-07	124	33,508	85	29,796	39	3,710	47	5,002	77	28,504
2007-08	124	87,029	92	54,511	32	32,518	39	44,434	85	42,595
2008-09	47	16,220	22	3,582	25	12,638	26	14,138	21	2,082
2009-10	76	57,555	47	49,236	29	8,319	37	32,859	39	24,696
2010-11	91	67,609	68	58,105	23	9,503	38	32,049	53	35,559
2011-12	71	48,468	55	46,093	16	2,375	17	6,953	54	41,515
2012-13	69	32,455	53	23,510	16	8,945	36	25,927	33	6,528

Note: Instrument-wise break up may not tally to the total number of issues, as for one issue there could be more than one instruments.

Source: SEBI

Chart 1: Total number of issues in Primary Market

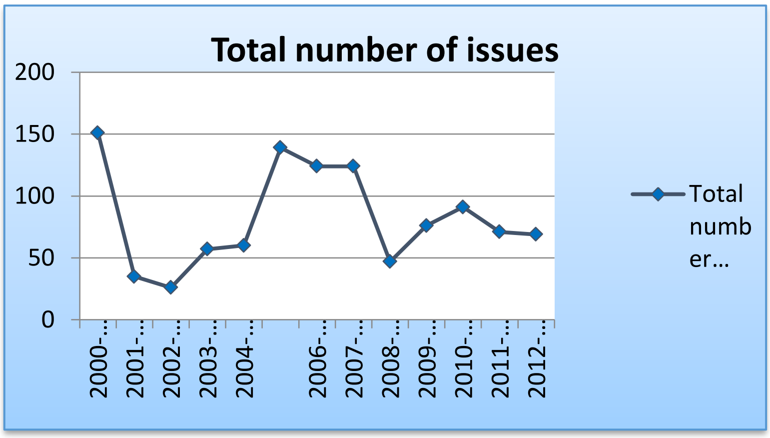
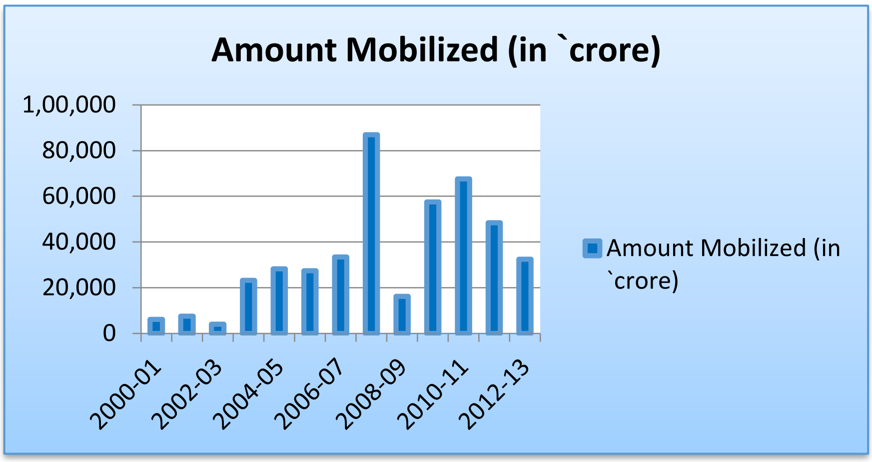


Chart 2 : Total amount mobilized in Primary Market



Stock Market capitalization to GDP

Stock market capitalization to GDP is of importance as it is an indicator of stock market size. It is a notable and important metric regarding stock market valuation and helps in knowing the possible direction of the markets. Investors use this ratio to get some sense of the valuation of an equity market and it is expressed as percentage. It compares market capitalization to the size of the economy and mainly reveals the intensity and depth of the stock markets in an economy. As seen in Table 2, the BSE market capitalization to GDP ratio increased from 27.4 per cent in 2000-01 to 73.2 per cent in 2012-13. The NSE market capitalization to GDP ratio stood at 71.5 per cent in 2012-13 as compared to 31.5 in 2000-01. At the peak of markets in the year 2007-08, the BSE market capitalization to GDP ratio went up to almost 103 per cent. However, there was a sharp fall during 2008-09 but that was primarily due to global crisis. The increased market capitalization to GDP ratio over the years highlights the increased depth of the capital markets in the Indian economy.

Table 2: Indicators of Liquidity (per cent)		
Year	**BSE MCap/GDP**	**NSE MCap/GDP**
2000-01	27.4	31.5
2001-02	26.9	28.0
2002-03	23.3	21.9
2003-04	43.4	40.6
2004-05	52.4	48.9

2005-06	81.8	76.2
2006-07	82.6	78.4
2007-08	103.0	97.4
2008-09	55.3	51.9
2009-10	94.1	91.7
2010-11	94.1	92.2
2011-12	110.4	108.3
2012-13	73.2	71.5
*Advance Estimate of GDP at market prices for 2012-13 (at 2004-05 prices) is considered		

Source: SEBI

Market capitalization

Market capitalization determines the value of a company, and how likely it is to grow. It represents the collective value of a company or stock and is obtained by multiplying the number of shares outstanding by their current price per share. It allows investors to understand the relative size of one company versus another. Market capitalization can also be used to refer to the economic health of a region or a country. The formula for the market capitalization of a region or a country can be found by adding up the market capitalizations of all firms in the region. It measures not only what a company is worth in the open market, but also the market's perception of its future prospects because it reflects what investors are willing to pay for its stock after determining the returns and the risk in the share.

The market capitalization of BSE stood at `63, 87,887 crore and that of NSE at `62,39,035 crore at the end of financial year 2012-13. (Table3) The market capitalization changes with time as a result of factors like company performance, economic factors like inflation, interest rates, etc. In India, you can find companies with market capitalization ranging from a few lakh to as much as few lakh crores. As a result, companies are usually classified as large-cap, mid-cap and small-cap companies. Even though there is not universal agreement on the exact cutoffs small cap companies usually have a market capitalization of between $150 million to $500 million and are relatively risky but have experienced rapid growth. Mid cap companies can have market capitalizations ranging anywhere from $500 million to $5 billion. These companies tend to have achieved a degree of stability while still experiencing growth on their way to large capitalization. Finally, large cap companies have market capitalizations of $5 billion or more. This category includes the big blue chip companies that are household names to most investors. Although investors in stocks in any market capitalization category incur risk, surprises have traditionally been less likely among these blue chip companies. While the categories of market capitalization are fluid and changing, most investors would agree that market capitalization is the most important determinant of a company's size because it reflects market value, and therefore, expectations about a company's future.

Table 3: Annual Averages of Share Price Indices and Market capitalization

Year	BSE Sensex	S&P CNX Nifty	Market capitalization (`crore)	
			BSE	NSE
2000-01	4,270	1,335	5,71,553	6,57,847
2001-02	3,332	1,077	6,12,224	6,36,861
2002-03	3,206	1,037	5,72,198	5,37,133
2003-04	4,492	1,428	12,01,207	11,20,976
2004-05	5,741	1,805	16,98,428	15,85,585
2005-06	8,280	2,513	30,22,191	28,13,201
2006-07	12,277	3,572	35,45,041	33,67,350
2007-08	16,569	4,897	51,38,014	48,58,122
2008-09	12,366	3,731	30,86,075	28,96,194
2009-10	15,585	4,658	61,65,619	60,09,173
2010-11	18,605	5,584	68,39,084	67,02,616
2011-12	17,423	5,243	62,14,941	60,96,518
2012-13	18,836	5,683	63,87,887	62,39,035

Source: BSE,NSE.

As can be seen in Table 4 the market capitalization of various Asian economies also increased over time. Market capitalization of Shenzhen stock exchange increased 762 per cent from 2004 to 2012, followed by Philippines SE 701 per cent, Indonesia SE 484 per cent.

Table 4: International Equity Market (Market capitalization) US $million

Exchange	2004	2005	2006	2007	2008	2009	2010	2011	2012
Australian SE	7,76,403	8,04,015	10,95,858	12,98,315	6,83,872	12,61,909	14,54,491	11,98,187	13,86,874
Bursa Malaysia	1,81,624	1,80,518	2,35,581	3,25,290	1,89,239	2,89,219	4,08,689	3,95,624	4,66,588
Colombo SE	3,657	5,720	7,769	7,553	4,286	9,547	19,924	19,437	16,974
Hong Kong Exchanges	8,61,463	10,54,999	17,14,953	26,54,416	13,28,768	23,05,143	27,11,316	22,58,035	28,31,946

Indonesia SE	73,251	81,428	1,38,886	2,11,693	98,761	2,14,941	3,60,388	3,90,107	4,28,223
Korea Exchange	3,89,473	7,18,011	8,34,404	11,22,606	4,70,798	8,34,597	10,91,911	9,96,140	11,79,419
Philippine SE	28,602	39,818	68,270	1,02,853	52,031	86,349	1,57,321	1,65,066	2,29,317
Shanghai SE	3,14,316	2,86,190	9,17,508	36,94,348	14,25,354	27,04,778	27,16,470	23,57,423	25,47,204
Shenzhen SE	1,33,405	1,15,662	2,27,947	7,84,519	3,53,430	8,68,374	13,11,370	10,54,685	11,50,172
Singapore Exchange	2,17,618	2,57,341	3,84,286	5,39,177	2,64,974	4,81,247	6,47,226	5,98,273	7,65,078
Thailand SE	1,15,390	1,23,885	1,40,161	1,97,129	1,03,128	1,76,956	2,77,732	2,68,489	3,89,756

Source: World Federation of Exchanges

Foreign Institutional Investors (FIIs)

Foreign institutional investors play a very significant role in an economy. These are the big institutions who invest substantial amount of money in the markets. With the buying of securities by these big players, markets trend to move upward and vice-versa. They put forth strong influence on the total inflows coming into the economy. We know the need for foreign capital arises due to shortage of capital domestically. From 1992, Foreign Institutional Investors (FIIs) have been allowed to invest in all securities traded on the primary and secondary markets, including shares, debentures and warrants issued by companies which were listed or were to be listed on the Stock Exchanges in India and in schemes floated by domestic mutual funds. Foreign Institutional Investor refer to outside companies investing in the financial markets of India. Increased inflow of foreign funds leads to lowers cost of capital, access to cheap global credit, enhanced domestic savings and investments and higher asset prices in the Indian market.

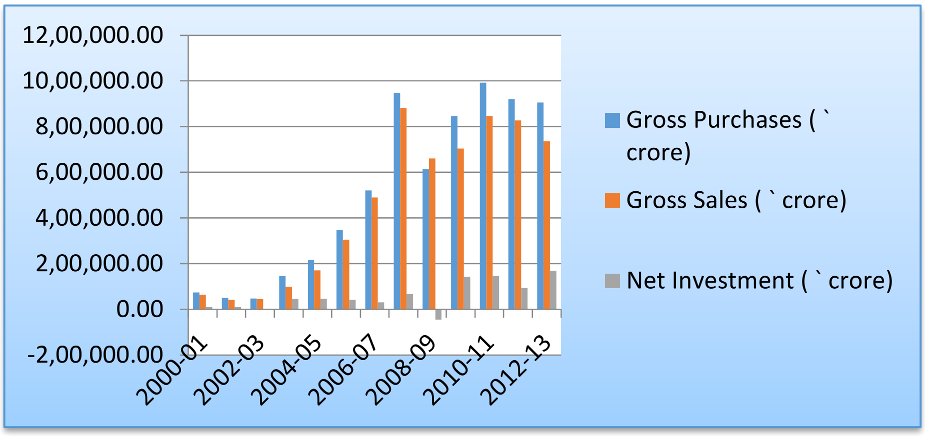
There are more than 1700 foreign institutional investors registered with SEBI as on March 2013. The FIIs are considered an effective channel for the market performance by encouraging investment from all classes of investors which further leads to growth in financial market. Foreign Institutional Investors (FIIs) registered with SEBI are eligible to purchase shares and convertible debentures issued by Indian companies under the Portfolio Investment Scheme (PIS). In the Budget 2011-I2, the Government of India, allowed Qualified Foreign investors (QFIs), who meet the KYC norms, to directly invest in Indian equity mutual fund (MF) schemes and in MF debt schemes that invest in infrastructure. In order to further widen the class of investors, attract more foreign funds, reduce volatility, and deepen the Indian capital markets market, in January 2012, the Government expanded this scheme to allow QFIs to directly invest in Indian equity markets. In the budget 2012-13, Government announced its intention to permit QFIs to invest in corporate bonds in India.

Table 5: Trends in FII Investment for Portfolio Investment				
Year	**Gross Purchases (` crore)**	**Gross Sales (` crore)**	**Net Investment (` crore)**	**Net Investment** (US $ mn.)**
2000-01	74,051	64,118	9,933	2,160
2001-02	50,071	41,308	8,763	1,839
2002-03	47,062	44,372	2,689	566
2003-04	1,44,855	99,091	45,764	10,005
2004-05	2,16,951	1,71,071	45,880	10,352
2005-06	3,46,976	3,05,509	41,467	9,363
2006-07	5,20,506	4,89,665	30,841	6,821
2007-08	9,48,018	8,81,839	66,179	16,442
2008-09	6,14,576	6,60,386	-45,811	-9,837
2009-10	8,46,433	7,03,776	1,42,658	30,252
2010-11	9,92,596	8,46,158	1,46,438	32,226
2011-12	9,21,285	8,27,562	93,725	18,923
2012-13	9,04,845	7,36,481	1,68,367	31,047

Source: SEBI

Net investment flows have increased from `9,933 crore in 2000-01 to `1,68,367 crore in 2012-13. However, there was a huge outflow witnessed in the year 2008-09 reflecting the peak of the global financial crises.(Table 5)

Chart 3: FII Net Investment



FIIs have been investing more in equities as compared to debt. The inflows in equities stands `1,40,033 crore as compared to `28,334 crore in debt during 2012-13. (Table 6)

Table 6: FII Investment - Financial Year `crore			
Financial Year	**Equity**	**Debt**	**Total**
2000-01	10,207	-273	9,933
2001-02	8,072	690	8,763
2002-03	2,527	162	2,689
2003-04	39,960	5,805	45,765
2004-05	44,123	1,759	45,881
2005-06	48,801	-7,334	41,467
2006-07	25,236	5,605	30,840
2007-08	53,404	12,775	66,179
2008-09	-47,706	1,895	-45,811
2009-10	110,221	32,438	142,658
2010-11	110,121	36,317	146,438
2011-12	43,738	49,988	93,726
2012-13	140,033	28,334	168,367
Total	588,737	168,161	756,895

Source: SEBI

Mutual Funds

Mutual Funds play a very important role in the growth of the financial system and economy at large. A mutual fund is a professionally managed firm of collective investments that pools money from many investors and invests it in stocks, bonds, shares, etc. It pools the savings of a number of investors with common financial goals. Small investors face a lot of problem in the share market because of limited resources, lack of professional knowledge and information etc. Mutual funds have come as a much needed help to these kinds of investors. It is a special type of investment vehicle which collects funds of number of investors and under the guidance of a team of experts it invests that amount in wide variety of portfolio's in such a way, so as to minimize risk, while ensuring safety and steady returns on investment. In respect of mutual funds, SEBI has taken several steps to re-energize mutual fund industry to increase product penetration especially in smaller cities/towns, regulation of distributors and issues concerning investor protection, develop a long-term policy for the sustainable growth of the industry and mobilization of household savings for the growth of the economy and increase household savings through mutual funds. The comprehensive guidelines for registration and supervision of mutual funds are issued by SEBI by way of SEBI (Mutual Fund) Regulations, 1996 and circulars issued there under. The supervision system of mutual funds is a two-tier system, i.e., supervision by trustees on one hand and SEBI on the other hand.

As on March 31, 2013, the number of MFs registered with the SEBI are 52. The total assets under management by mutual funds accounted to `7,01,443 crore as compared to `90,587 crore in the year 2000-01. This shows that a large amount of funds have flown into mutual funds industry. Further, during 2012-13 the gross mobilization was ` 72,67,885 crore and redemption amounted to ` 71,91,346 crore. (Table 7)

Table 7 Trends in Resource Mobilization by Mutual Funds (` crore)

Year	Gross Mobilization	Redemption*	Net Inflow/Outflow	Assets at the End of Period
1	2	3	4	5
2000-01	92,957	83,829	9,128	90,587
2001-02	1,64,523	1,57,348	7,175	1,00,594
2002-03	3,14,706	3,10,510	4,196	1,09,299
2003-04	5,90,190	5,43,381	46,808	1,39,616
2004-05	8,39,708	8,37,508	2,200	1,49,600
2005-06	10,98,149	10,45,370	52,779	2,31,862
2006-07	19,38,493	18,44,508	93,985	3,26,292
2007-08	44,64,377	43,10,575	1,53,802	5,05,152
2008-09	54,26,353	54,54,650	-28,296	4,17,300
2009-10	1,00,19,023	99,35,942	83,080	6,13,979
2010-11	88,59,515	89,08,921	-49,406	5,92,250
2011-12	68,19,679	68,41,702	-22,024	5,87,217
2012-13	72,67,885	71,91,346	76,539	7,01,443

* Includes repurchases as well as redemption.
Notes: 1. Erstwhile UTI has been divided into UTI Mutual Fund (registered with SEBI) and the Specified Undertaking of UTI (not registered with SEBI). Above data contain information only of UTI Mutual Fund.

Source: SEBI

Table 8 compares number of mutual fund schemes in various Asian countries. Korea tops the list at total 9443 mutual fund schemes followed by Japan total 4351 schemes during 2012. Net assets under management in Australia increased from US $ million 5,18,411 to US $ million 16,10,190 from 2003 to 2013 followed by Philippines from US $ million 792 to US $ million 3210 during the same period.(Table 9)

Table 8: Worldwide Number of Mutual Funds/Schemes										
Country	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
China	NA	NA	NA	NA	341	429	547	660	831	994
Hong Kong	963	1,013	1,009	1,099	1,162	NA	NA	NA	NA	NA
Japan	2,617	2,552	2,640	2,753	2,997	3,333	3,656	3,905	4,196	4,351
Korea	6,726	6,636	7,279	8,030	8,609	9,384	8,703	8,687	9,064	9,443
New Zealand	563	553	563	613	623	643	702	700	709	711
Pakistan	NA	NA	NA	31	64	83	96	125	137	140
Philippines	21	24	32	38	40	43	41	43	47	48
Taiwan	401	445	459	447	456	443	460	487	534	554

Note: Data are as of September 2012.

The data has revised as per latest available information.

Source: SEBI

Table 9: Total Net Assets of Mutual Funds US$ million										
Country	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Australia	5,18,411	6,35,073	7,00,068	8,64,234	11,92,988	8,41,133	11,98,838	14,55,850	14,40,128	16,10,190
Japan	3,49,148	3,99,462	4,70,044	5,78,883	7,13,998	5,75,327	6,60,666	7,85,504	7,45,383	7,53,552
Korea, Rep	1,21,663	1,77,417	1,98,994	2,51,930	3,29,979	2,21,992	2,64,573	2,66,495	2,26,716	2,55,419
New Zealand	9,641	11,171	10,332	12,892	14,925	10,612	17,657	19,562	23,709	30,020
Philippines	792	952	1,449	1,544	2,090	1,263	1,488	2,184	2,363	3,210

Data are as of September 2012

Source: SEBI

Conclusion

The development of an efficient and deep capital market is essential for sustained growth in an emerging market economy like India. The capital market fosters economic growth by channeling real savings to capital formation, and can help raise the productivity of investment by improving the allocation of investable funds. It also allocates risks to those who can best bear it. However, the quality of the market determines its effectiveness in meeting these objectives. Accordingly, to improve the quality of the market in terms of market efficiency, transparency, price discovery, preventing unfair trade practices, etc. and bringing it at par with international standards, a package of reforms comprising measures to liberalize, regulate and develop the Indian capital market have been implemented since the early 1990s. As a result of these initiatives, capital markets in India have emerged as an important source of funds for Indian companies and also as an avenue for the small and retail investors to productively channelizing their savings. The development of the capital markets also provides significant benefits to the average citizen. Most importantly, it has led to more jobs and higher wages leading to overall escalation of the nation.

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INTEGRATING INDIA INTO THE ASEAN : AN INFRASTRUCTURAL PERSPECTIVE[10]

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Abstract

For the past two decades APEC & ASEAN have been working to promote regional economic integration in Asia. The vision & mission of both the organisations are more or less similar. Both aims to strengthen regional economic integration through trade & investment liberalisation. Both the bodies try to cooperate with the initiatives of APEC 2015 on lowering trade and business cost and ASEAN's initiative on regional connectivity. Connectivity is chosen as a focal issue since ASEAN, in 2010, adopted the Master Plan of ASEAN Connectivity (MPAC) focusing on physical, institutional and people to people connectivity. This conceptual review paper highlights the ASEAN's objective of physical connectivity with respect to ASEAN – India integration in the perspective of enhanced trade and commerce through cross border road transportation infrastructure. Since Jan, 2010 as India entered into Free Trade Agreement (AIFTA) with ASEAN the immediate need which has been felt to strengthen this regional economic integration is to build proper infrastructure. Infrastructure is such a critical factor which not only removes trade & investment impediments but also enhances supply chain connectivity and improve business environment on a sustainable basis across the border. This paper attempts to describe a conceptual framework designed to predict the direct & indirect economic impacts of a road infrastructure project connecting three economies (India-Myanmar- Thailand) toward a designated freight corridor on the Trilateral Highway route.

Keywords: Trilateral Highway; ASEAN; APEC-2015; Economic integration; CBTI

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INTRODUCTION

Background

For most of the past 30 years, no region of the world has been more economically dynamic than Asia. While much of the developing world failed to keep pace with economic growth in the advanced industrial countries over this period, the nations of East Asia grew at historically unprecedented rates. This economic growth transformed the patterns of world trade, lifted millions out of absolute poverty, and so captivated the attention of Western economists and business leaders that it was commonplace by the early 1990s to refer to economic achievements of these countries as the “East Asian miracle (Lee, 2014). But this dynamism in growth was somewhat skewed, like the growth trajectory of South East Asian (ASEAN) economies excluding Singapore was lying behind that of East Asian (China and NICs like Hong Kong, Taiwan & S.Korea). To create Asian continent as an Engine of growth for the global economy some *“Flying Geese”* pattern of economic development is required for ASEAN economies where the number of states differ in terms of their size & the level of development. In late 20th century the need has been felt and the Asian economies have been moving towards deeper regional integration to enjoy self generating growth, share prosperity, increasing self-reliance and thereby reducing the dependence on Western economies.

It has been identified that infrastructure can play the role of a key contributing factor behind generating growth in ASEAN economy. It is only infrastructure which not only raises GDP which are mere in numbers but also increases productivity and efficiency of the factors which generates the GDP. In this context Prof Krugman can be quoted “Asian growth….. seems to be driven by extraordinary growth in inputs like labour and capital rather than gains in efficiency”. So to achieve a growth which is sustainable, the productivity has to be risen and that can be attained through trade (cross-border trade). And this *Gains from Trade* can only be realized by building required infrastructure, both hard and soft.

Connectivity promotes trade, brings people closer, and integrates the economies. Openness or globalization is potentially beneficial to all but require appropriate policy designs to realize it. Improving connectivity is essential for the region's prosperity, continued growth and, most importantly, poverty reduction.

Literature review

Roads & highways are seen as being the quintessential infrastructure investment in much of the theoretical literature on economic growth (Barro, 1995)**.** Several studies have found out that there is a positive effect of interstate highways on productivity growth (T.E & J.S, 1988). In the similar lines Carlino et al,1987 found that greater interstate highway density was associated with higher levels of manufacturing employment and total employment in counties overall. Aschauer (1993) also argues that the public infrastructure such as streets and highways, mass transit, water and sewer systems, and the like should be considered as a factor of production, along with labour and private capital, in the private sector production process. Therefore, to raise productivity growth countries must boost the rate of capital accumulation on the tangible capital such as plant and equipment, or intangible capital such as that generated by research and development expenditures.

According to Asacheur's (1989) pioneered research on the impact of the infrastructure investment on output and productivity growth, it has been seen that relatively slower growth in public capital accumulation in the United States during the 1970s and 80s was largely responsible for the private sector productivity slowdown and at that time the private output elasticity with respect to public capital was about 0.42 indicating a sizable level of sensitivity.

Lynde and Richmond (1993) investigated the causes for the decline in the US output and productivity growth since the early 1970s. They found that the services of the public capital are an important part of the production process and that about 40% of the productivity decline in the United States was explained by the fall in public capital-labour ratio. Furthermore, Ford and Poret (1991) suggest that cross-country differences in productivity growth might also be explained partly by differences in levels of infrastructure spending.

Asian Economies have grown rapidly over the last few decades. Several scholars have noted its economic success as the *Rise of Asia* particularly led by seven economies; China, India, Indonesia, Japan, Republic of Korea, Malaysia and Thailand. These leading economies have combined total population of 3.1 billion (78 percent of Asia) and a GDP of USD 14.2 trillion (87 percent of Asia) in 2010 (Htun et al., 2011). While those countries have achieved high growth rates and caught up with wealthier countries, some others, however, have achieved little or no growth. Since the 1990s, Asian economies have been moving towards deeper regional integration to enjoy growth together and to share prosperity. Although size of the economy and level of development in the region are quite diverse, it does not matter to such integration.

Barriers to cross border trade are one of the biggest impediments toward growth of ASEAN economies. This is more applicable in case of land locked countries, without access to major sea ports. The problem becomes more acute when we review India's integration with ASEAN economies, which has been largely remain insulated from each other as a result of physical bottleneck in cross – country logistics or geo-political concerns. As Asia becomes the engine of growth for the global economy, the ASEAN and India must capitalize on their partnership through enhanced connectivity to reap the benefits" (Htun, et al., 2011). In the above perspective of connectivity between ASEAN and India, in 2010, the East Asia Summit (EAS) countries adopted a comprehensive strategy for smart, sustainable and inclusive growth. At the 17th ASEAN Summit in 2010, the leaders adopted the *Master Plan on ASEAN Connectivity(MPAC)*, which identifies key strategies and actions to enhance the region's connectivity in three dimensions: physical, institutional, and "people-to-people" (op. cit.,2011). It shows the way ahead for Asia in regional integration. The Asia's aim to single market would depend on the existence of a seamless, flexible and efficient logistics and transportation system. ASEAN has become India's one of the largest trading partners in recent years. India's trade with ASEAN has increased from US$ 7.13 billion in 2000 to US$ 41.32 billion in 2009. Grown at 22 percent in the last decade, India's trade with ASEAN presently shares about 10 percent of India's global trade, compared to 8 percent of 2000. India's export to ASEAN has been growing faster than her imports from ASEAN. In 2009, India's import from ASEAN was US$ 24 billion and the export to the region was US$ 17billion. Total bilateral trade between ASEAN and India reached $75.6 billion in 2012, surpassing the target of $70 billion. Now, with the implementation of the India-ASEAN comprehensive economic partnership, the target for two-way trade has been set at $100 billion by 2015, for which an integrated transport network would be the key (Basu, 2014).

However, the growth momentum initiated in the ASEAN economies have been able to generate sufficient impetus toward forging international freight corridors like rail or road networks for medium to long – distance transportation hauls. In this direction, the establishment of a 1360 kms long Trilateral Highway from Moreh (India)/ Tamu (Myanmar) to Myawaddy (Myanmar)/ Mae Sot (Thailand) via Myanmar was agreed by the three Governments in April 2002. The India – Myanmar and Thailand Joint Task Force on Trilateral Highway met in New Delhi on September 10 – 11, 2012. It was agreed to work towards completion of the Trilateral Connectivity by 2016.

This is a conceptual review paper relating cross border transport infrastructure based on the case of Trilateral Highway Project connecting three countries- India, Myanmar and Thailand.

APEC AND ASEAN COOPERATION:

APEC

APEC has consistently focused on the trade and investment liberalisation process of eliminating tariff and non-tariff barriers (NTBs), as articulated in the Bogor Goals in 1994. However, with rapid economic growth and changing global dynamics, it began addressing new issues such as behind-the-border trade restrictions, including common standards on certain aspects of trade, customs and e-commerce, and promoting business mobility (Das, Thao, & James, 2013).

APEC's "Supply Chain Connectivity Framework/ Action Plan (SCFAP 2010-2015)" includes trade logistics in the trade facilitation agenda because as per World Bank's study in 2002 APEC countries differ substantially in the quality of their logistics and trade facilitation across a broad range of measures. Therefore to enhance trade APEC should atleast bring economically lagging countries upto median performance levels. Consequently SCFAP aims to reduce trade time, cost and uncertainty by 10% by 2015. In order to achieve this target SCFAP 2009 counteracts the eight critical supply chains 'CHOKEPOINTS', discussed in the table below.

Table 1: SCFAP – The Chokepoints

Chokepoints (CP)	Examples of initiatives
CP1: Lack of transparency/awareness of full scope of regulatory issues affecting logistics; Lack of awareness and coordination among government agencies on policies affecting logistics sector.	• Advance rulings • Compendium of Best Practices of national Logistics Associations • Survey among industry to better understand the various services involved in the logistics industry
CP2: Inefficient or inadequate transport infrastructure; Lack of cross border physical linkages (e.g. roads, bridges).	• Assess best practice in PPP markets and prioritize reform measures • Examine individual transportation/trade policies that use a gateway or trade corridor approach
CP3: Lack of capacity of local/regional logistics sub-providers.	• Review constraints affecting engagement of Small and Medium Enterprises • Help raise the quality of APEC economies' logistics services and management
CP4: Inefficient clearance of goods at the border; Lack of coordination among border agencies, especially relating to clearance of regulated goods 'at the border'.	• Implementation of Single Window system • Conduct Time Release Survey (TRS) to measure the effect of simplifying and facilitating cargo clearance at border.
CP5: Burdensome procedures for customs documentation and other procedures (including for preferential trade).	• Self-Certification of Origin Capacity Building Program • Simplification and harmonisation of customs procedures on the basis of revised Kyoto Convention • Explore the possibility of adopting electronic certificates related to customs procedures
CP6: Underdeveloped multi-modal transport capabilities; inefficient air, land, and multimodal connectivity	• Introduce the Secure and Smart Container (SSC) concept for intermodal transport • enhancing "supply chain visibility" to determine the feasibility of constructing an information network to share cargo status information in the multi-modal logistics
CP7: Variations in cross-border standards and regulations for movements of goods, services and business travelers.	• Improving Submarine Cable Protection • Reducing International Mobile Roaming charges • Improving 'Road Safety Measures for Heavy Vehicles in the Transport Supply Chain Sector in APEC'
CP8: Lack of regional cross-border customs-transit arrangements.	• Examine and identify issues relating to transport and customs-transit • Identify specific issues and impediments relating to cross-border customs-transit arrangements for logistics companies

Source: Adapted from Bayhaqi, 2013 (APEC Secretariat)[11]

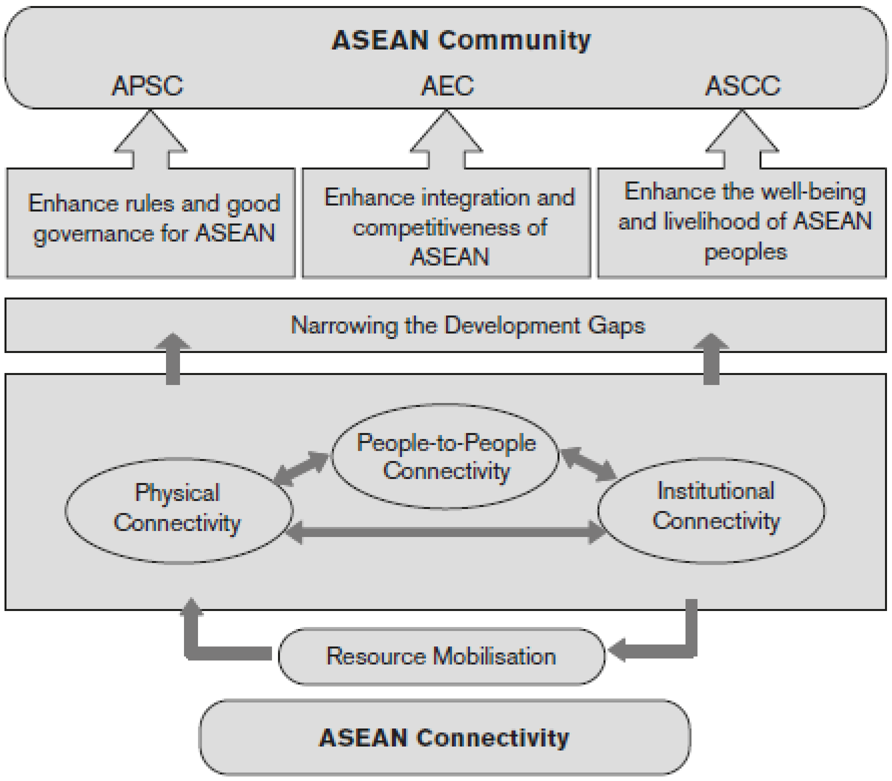
In 2009 the body realized that under current economic environment business seek short transit times, reliable delivery schedules, careful handling of goods, certification of product quality and security from theft.

[11] 'APEC Supply-Chain Connectivity Action Plan', By Akhmad Bayhaqi, at the ISEAS Symposium on 3 April 2013 in Singapore. (*http://www.iseas.edu.sg/ISEAS/upload/files/Akhmad-Bayhaqi%282%29.pdf)*

ASEAN INITIATIVES

In the above perspective of connectivity between ASEAN and India, in 2010, the East Asia Summit (EAS) countries adopted a comprehensive strategy for smart, sustainable and inclusive growth. At the 17th ASEAN Summit in 2010, the leaders adopted the *Master Plan on ASEAN Connectivity*, which identifies key strategies and actions to enhance the region's connectivity in three dimensions: physical, institutional, and "people-to-people" (Htun, Lwin, Naing, & Tun, December 2011). It shows the way ahead for Asia in regional integration. The Asia's aim to single market would depend on the existence of a seamless, flexible and efficient logistics and transportation system. Today, it is fragmented, and often it is an obstacle to free flow of goods and services, because of the administrative or technical barriers resulting in expensive mobility within Asia.

Figure 1: Interaction between ASEAN Connectivity and ASEAN Community



APEC AND ASEAN: MUTUAL COOPOERATION

Seven broad areas of collaboration have been identified as possible to initiate APEC and ASEAN collaboration:

- **Customs procedures.**
- **Risk management methodologies.**
- **Single window procedures.**
- **Aviation and multimodal transport.**
- **Mutual recognition agreements and**
- **Harmonization of devices.**

INTEGRATING INDIA

The strong growth of the Indian economy has already made a significant impact on the Asian economy. A considerable part of Asia's supply of primary goods originates from India. India sources intermediate goods and natural resources from Asia. Therefore, growth is strong, and the netex port values are very important for Indian as well as Asian economy. Asia's supply of strategic resources and goods is a vital issue and, therefore, should be given greater attention.

India's trade, primarily due to FTAs, is expected to increase manifolds in the coming years. ASEAN-India FTA is central to India's growing engagement with her eastern neighbours. Accompanying this growth will be an increase in the demand of both national and international infrastructure, for both production and consumption, and international trade purposes. Undoubtedly, failure to respond to this demand will slow down India's trade and hamper the growth process.

In order to deepen economic integration among East Asian countries, the Economic Research Institute of ASEAN and East Asia (ERIA) conducted a series of research projects in 2009 to develop a Comprehensive Asia Development Plan (CADP) in response to the request from the East Asia Summit (EAS) (Htun, Lwin, Naing, & Tun, December 2011). The CADP provides;

(i) A grand spatial design for infrastructure development in East Asia armed with a consistent conceptual framework based on new waves of international trade theory such as the fragmentation theory and new economic geography,

(ii) Simulation analyses on the impacts of logistic enhancement to the region, using the Geographical Simulation Model (ERIA/IDE-GSM), and

(iii) A list of prospective infrastructure projects in consistence with the aforementioned conceptual framework.

Although the CADP has successfully fulfilled the initial mission, there still remain a number of issues which require further studies. Out of these outstanding issues, a study to develop a basic strategy to enhance the ASEAN-India connectivity is selected as one of the sub-project under phase 2 of the CADP. As explicitly stated in the Master Plan on ASEAN Connectivity, ASEAN put an emphasis on connectivity with the neighbouring countries, including China, India, and other EAS countries. While both China and India are the emerging economic superpowers in the region and the immediate neighbours to ASEAN, the extents of the connectivity with ASEAN differ significantly.

The feasibility of this type of regional integration between India and ASEAN not only depends on robust and improved infrastructure between the two but it should be complemented by appropriate policies and regulations, and participation of the private sector. At the same time, we also need policies and regulations to foster an effective cross-border movement of goods, services, and people. Harmonizing and simplifying the customs procedures, information sharing, customs modernization, establishing transparent transit rules, and improving logistics in general are also critical to infrastructure expansion.

At this very initial stage, the emerging regional physical connectivity architecture between India and ASEAN is showing two important features – first, the national connectivity having regional implications such as Delhi–Mumbai Industrial Corridor (DMIC), and second, the regional connectivity showing regional (or international) implications such as Mekong–India Economic Corridor (MIEC), Trilateral Highway (TH) between India, Myanmar, and Thailand along the Asian Highway (AH) No.1, and Kaladan Multimodal Transit Transport Project (KMTTP), to mention a few (ASEAN-India Connectivity Report-India country study, 2012).

To start with, India has proposed extending the Trilateral Highway project connecting India, Myanmar and Thailand to neighbouring Cambodia and Vietnam. The idea is to set up special economic zones along this highway and provide seamless connectivity through these countries by 2016, by when the projects are expected to become operational. Right now, work is on to repair and strengthen 71 bridges that link this stretch (Basu, 2014).

To ensure greater success of this highway project, Prime Minister Manmohan Singh proposed an ASEAN-India Transit Transport Agreement (AITTA) at the India-ASEAN Summit in Brunei Darussalam in October 2013. Once the agreement comes into force -likely by 2015- vehicles from association countries will be able to cross international borders without much documentation (Basu, 2014).

CONCEPTUAL FRAMEWORK

The conceptual framework of the Comprehensive Asia Development Plan (CADP) is based on fragmentation theory and new economic geography. It is more efficient to produce goods through fragmentation by relocating each production process to the best place to make the best use of the location advantage than to locate whole production processes with different factor intensities in one place. This explains the benefits of fragmentation.

New economic geography claims that it is required to properly control agglomeration effects and dispersion effects which have influence between industrial agglomerations and surrounding areas . Once an industrial agglomeration is formed, many more firms will approach to the industrial agglomeration, seeking convenience of component procurement and accessibility to a large market. This is an agglomeration effect. On the other hand, if an industrial agglomeration is developed, production costs, such as wages and rents, will increase and some firms will try to leave the industrial agglomeration. This is a dispersion effect. If the service link cost is reduced by infrastructure development, trade liberalization and/or facilitation, and other policy measures, the dispersion effect could be relatively increased, as the disadvantage to locate in a remote area could be mitigated by improved business environment. Furthermore, to promote relocation of production processes to areas with low wage levels, basic economic infrastructures, such as electricity and water, need to be improved in the areas.(ASEAN-India Connectivity Report-India country study, 2012).

ASEAN INDIA TRADE RELATIONSHIP

Merchandise trade between ASEAN and India also recorded a significant increase from US$ 7.1 billion in 2000 to US$ 41.3 billion in 2009, with a CAGR of 21.6%. For ASEAN, India's share as the destination of merchandise export and as the origin of merchandise import doubled from 1.6% and 1.0% in 2000 to 3.3% and 2.1% in 2009, respectively. For India, ASEAN's share as the destination of merchandise export increased rapidly from 6.5% in 2000 to 10.6% in 2009, whereas ASEAN's share as the origin of merchandise import recorded a slight decline from 11.0% in 2000 to 9.1% in 2009, indicating the slow progress of ASEAN in penetrating into Indian market. Meanwhile, the proportion of machinery in ASEAN's total imports from India has doubled during the 5 years to 2009, from 9.8% to 19.3%, though not to the level of the machinery's share for the ASEAN's export side, which has been more than 30% since 2000. In relative terms, ASEAN Member States tend to export more machinery parts to and import more finished machinery products from India, compared to two decades. In the ASEAN's machinery exports to India, computer parts and accessories and electric integrated circuits are the top two goods, constituting more than 10% shares in major exporters, namely Singapore, Malaysia, and Thailand (ASEAN-India Connectivity Report-India country study, 2012).

Although Myanmar's share in the regional trade is still limited, Myanmar has steadily increased its international trade since the introduction of an open door policy in 1988 under the military government. During the last two decades, Myanmar's export increased from US$ 466 million in FY1991/92 to US$ 8,864 million in FY2010/11 with a CAGR of 16.8%, and Myanmar's import increased from US$ 851 million in FY1991/92 to US$ 6,415 million in FY2010/11 with a CAGR of 11.2%. The high export growth was not severely affected by the import ban imposed by the United States in 2003, mainly because of the rapid expansion of trade with two neighbouring countries, Thailand and China7. The share of Thailand in Myanmar's trade (export + import) doubled from 15.2% in FY2000/01 to 30.4% in FY2009/10, reflecting the increase of Myanmar's export of natural gas to Thailand through pipelines.

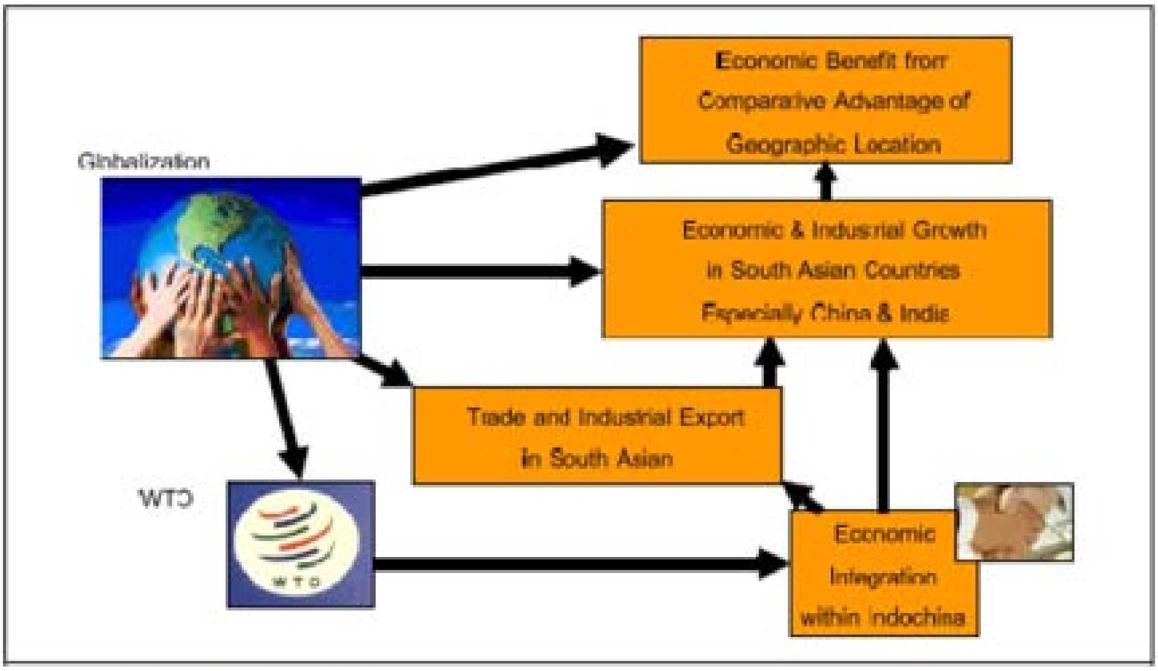
The comparable figures for China expanded more than a double from 12.0% to 24.2%, and this figure is likely to grow further once natural gas export the gas pipeline to China is completed in 2013. In contrast, Myanmar's trade with other neighbouring countries has been sluggish during the last decade. The share of India in Myanmar's trade marked a rather slow expansion from 8.9% in FY2000/01 to 10.3% in FY2009/10.

Globalization has made, at present and in the future, the Asian Region as the main area for trading and economic growth that is derived from the driving force coming from countries such as China and India. Increased consumers' demand in both countries is the driving force for the regional economic growth. Thailand is a country with natural geographic comparative advantage and is strategically positioned between India and China.

The geographical location of Thailand enables the country to be the connectivity hub for economic and trade linkages to new markets such as China and India. The characteristics of the country's location between the Indian Ocean and the Pacific Ocean also places it on the main crude oil transport routes between the producing countries in the Middle East and the important consuming countries such as China, Japan and South Korea. Therefore, the western seashore (Andaman) has high potential for being the new economic route between the main global energy source and the major energy consumers.

Freight transport networks and international trading routes especially between China and India and the major markets of the world that passes through Thailand can save transport cost and time for both countries.

Figure 2: New Trade Lane and Economic Benefit for Thailand



Source: Thai Ministry of Commerce.

CROSS BORDER TRANSPORT INFRASTRUCTURE

CBTI is defined as the infrastructure required for transportation that crosses multiple national borders. It comprehensively includes physical “hard infrastructure” such as ports, railways, highways, cargo Trans shipment facilities, international border facilities, weighbridges (truck scales), and inland container depots (ICDs), as well as “soft infrastructure” such as transport laws/regulations related to border crossing (e.g., customs clearance, quarantine), and organizational systems and resources for smoothly operating and maintaining the hard infrastructure (The Research on Cross Border Trasport Infrastructure, 2009).

Our working research paper concentrates only on Hard Infrastructure with respect to regional integration of India and its two ASEAN neighbours viz. Myanmar and Thailand. In this context we attempt to describe a conceptual framework designed to predict the direct and indirect economic impacts of a road infrastructure project- **“The Trilateral Highway”** connecting the three economies.

COUNTRY SPECIFIC ANALYSIS

Macro Economic Indicators	**India**	**Myanmar**	**Thailand**
Year	**2012-13**	**2012-13**	**2012-13**
Total Population (in million)	1213	61.0	64.36
GDP (In billion USD)	1842.7	82.72	366
GDP Growth Rate	4.90%	6.50%	2.90%
Export (% of GDP at current Market Prices)	16.9	11.53	61.7
Import (% of GDP at current Market Prices)	26.5	6.64	59.3

Source: Researchers’ own table using *ADB Statistical Database and World Bank Database.*

India–Myanmar–Thailand Trilateral Highway (IMTTH) is a cross-border transportation network being financed by the Governments of India, Myanmar and Thailand.41 Tri-lateral highway shall ensure connectivity from Moreh in India to Mae Sot in Thailand via Myanmar. Substantial progress had been achieved in preparation of Detailed Project Report (DPR) for roads and causeways in Myanmar.

Two routes are under consideration, one through Mandalay and another not through Mandalay. Myanmar has requested route through Mandalay to be accepted by India. As Imphal-Mandalay bus service will start, it is desirable that Tri-lateral Highway route passes through Mandalay which is an important commercial city. The two routes are:

- Moreh (India) – Tamu-Kalewa-Chaungma-Yinmabin-Pale-Kyadet-Lingadaw-Pakokku-Bagan-Kyaukpadaung-Meiktila bypass-Taungoo-Oktwin-Payagyi-Theinzayat-Thaton-Hpaan Kawareik-Myawaddy-Mae Sot (Thailand) (not through Mandalay)

- Moreh (India) – Tamu-Kalewa-Yagyi-Chaungma-Monywa – Mandalay – Meiktila bypass-Taungoo-Oktwin-Payagyi-Theinzayat-Thaton-Hpaan Kawkareik-Myawaddy-Mae Sot (through Mandalay)

Stretch between Kalewa-Yagyi-Chaungma-Monywa is not well developed. A tabulated position of the Trilateral Highway (Mandalay alignment) from available information after discussion with MEA officials and note circulated by ASEAN Multilateral Division is given below:

Myanmar – India		
Sl.No.	**Stretch**	**Remarks**
1.	Tamu-Kalewa	Part of the Friendship Road. Good condition.
2.	Kalewa-Yagyi	Myanmar wants India to construct the Kalewa-Yagyi stretch.

3.	Yagyi-Chaungma-Monywa	India wants Myanmar to construct the Yagyi-Chaungma-Monywa stretch. It is understood that section Yagyi-Chaungma-Monywa is under construction on BOT basis.
4.	Monywa-Mandalay	Monywa-Mandalay stretch is already developed.
5.	**Mandalay**-Meiktila bypass	MEA to tell status.
6.	Meiktila bypass-Taungoo-Oktwin-Payagyi	The section between Meiktila and Payagyi is part of the Yangon-Mandalay highway that has been constructed.
7.	Payagyi-Theinzayat-Thaton	MEA to tell status.
8.	Thaton-Mawlamyine-Kawkareik	It is understood that for the Thaton-Mawlamyine - Kawkareik sector, the Government of Myanmar has apparently sought a loan from ADB.
9.	Kawkareik-Myawaddy	It appears that the Myanmar Government shall be completing the road construction between Myawaddy-Kawkareik out of its own resources soon.
10.	Myawaddy-Mae Sot	MEA to tell status.

Table 1: Project Status of the Tri-lateral Highway (Source: Ministry of Development of North Eastern Region, Government of India, accessed from http://mdoner.gov.in/content/myanmar on 13 January 2014)

It is expected that agreement between India and Myanmar on this issue will be arrived soon. Ministry of External Affairs (MEA), Government of India stresses the need to pursue further on route alignments for extending this Highway to Cambodia, Lao PDR and Vietnam. These infrastructure projects demand enormous finances. Indian Ambassador to Thailand Mr. Anil Wadhwa, while speaking at the Symposium: “Towards Realization of the

ASEAN Connectivity plus: Moving Forward With Asean-India Connectivity" on 27 November 2013 at Bangkok, observed that "We should think of innovative ways of financing and executing these projects, which draw upon the expertise and resources of the private sector."

Methodology and Data Sources

Planning reports from Ministry of Development of North Eastern Region, Government of India and Ministry of External Affairs, Government of India would be crucial inputs in the initial stages of the project feasibility analysis. International literatures contains specifics about the methodological approaches for studies in road corridor infrastructure projects, however, we came across very few studies focusing on inter – country road corridor studies spanning three different government administrations at varying levels of socio-economic development.

Data Sources

The analysis would be driven by secondary data sourced from the published reports, including the Detailed Project Reports (DPR) published by Ministry of Development of North Eastern Region and Ministry of External Affairs, Government of India. Also Reports on India – ASEAN integration would be obtained from Ministry of Foreign Affairs (MOFA), Republic of the Union of Myanmar and Ministry of Foreign Affairs, Kingdom of Thailand. Additionally, Internal Reports from Asian Development Bank (ADB) would be accessed to get the project details and statements of project finance. Other data like time required for point to point communication across nodes on the tri-lateral highway and economic impact on the region interspersed across the highway would be obtained from Economic Research Institute for ASEAN and East Asia (ERIA).

Methodology

We would like to base most of our research on legitimate sources of information as stated in the data sources above. This paper shall attempt to describe a conceptual framework designed to predict the direct and indirect economic impacts of a road infrastructure project connecting three economies toward a designated freight corridor on the trilateral highway route. Meta-Analysis would be used to pool together the results of the best evidences from economic impact analysis of similar cross – country road transport infrastructure projects and applying them in the context of Tri-lateral Highway Project.

Conclusion:

In view of the potential benefits for both ASEAN and India it is highly important to develop an appropriate strategy to enhance the connectivity between them. At the same time enhancing connectivity requires regional institution to build and manage the cross border infrastructure.

Our paper highlights one such cross border highway infrastructure project such as the Trilateral Highway Project which aims at establishing an economic integration resulting in mutual regional trade benefits between the countries India, Myanmar and Thailand.

One of the major obstacles to the expansion of trade between India and ASEAN is the high cost of moving goods across the borders. Improved connectivity would reduce trade costs, raise country's comparative advantage and trade flows, expand markets, and reduce poverty, and increase country's welfare and quality of life of its citizens. Multiple effective cross border and national transport projects mean stronger ASEAN–India connectivity. An integrated connectivity would also provide substantial benefits to landlocked and small island countries of the region as well as to poor and small countries by giving them low-cost access to world market.

Better connectivity between India and ASEAN can infuse new dynamism in the region's production network. Stronger production network would enhance trade and investment, and thereby deepen the East Asian integration process. To sustain the regional production network, we need to improve the trade costs and country's comparative advantage in trade. The catalyst to regional production network is the lowering trade costs. ASEAN–India connectivity would help unlock the tremendous potential of the region by removing constraints and bottlenecks to growth.

Our paper is a case study which takes into account the proposed Trilateral Highway as a means for integrating India with ASEAN on the basis of gains from trade and inter and intra regional economic integration. This is a working paper which would take such land locked countries as its model and will attempt to depict the comparative increase in economic, trade and cultural integration between the countries involved.

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Strategic and Economic Dimensions of Indo – Myanmar Relations

Mohinder Pal Singh

Introduction

The Indo-Myanmar relationship is witnessing an unprecedented upswing in the last two decades. The recent pace of reforms have brought this erstwhile pariah state back into the main stream of world politics. As a result of the reforms most countries have not only lifted the sanctions but also started engaging with the government. Though the present regime under President Thein Sein seems to be moving in the right direction by the reformation process, yet there are spots of skepticism which is making the government and private investors tread cautiously. The prime concern being the sustenance of basic tenets of democracy and its constitutional governance. The increasing interests of nations and multinational companies have not only accelerated the rejuvenation of Myanmar's dwindling economy but also the reform movements. Undoubtedly, the strategic cross roads on which Myanmar lies and its mammoth untapped energy reserves are some of the reasons being talked about . Both India and China have long boundaries with Myanmar and thus have their interest in the region. China made an early foray in the nineties when the rest of the world had severed their ties with the military repressive regime, it made huge investments in infrastructure and supply of military hardware. Realising the strategic importance of the country India launched its 'Look East Policy' and changed its stance from ' indifference' to 'engagement' with the military regime. . In order to study the past, present and future of Indo-Myanmar relations it becomes imperative to see it through the prism of the Chinese and US interests and the huge investments made in that country. With the two decade old pro-China tilt in Myanmar's history, India has set its goal to consolidate its growing trade and diplomatic links.

With a total area of 678,500 sq km , Myanmar is the largest state among the Southeast Asian mainland states[1]. Its 5876 kilometer land border is shared by five countries namely China , India, Thailand, Laos and Bangladesh. The country is pleated by a number of perennial rivers which flow from north to south . Some of these rivers like Irrawaddy are large bodies of water and being used for good inland water transportation and trade. Salween, Chindwin, Sittang are some of the other important rivers which apart from providing a livelihood for thousands of locals living along the banks, these rivers are a major source of water for irrigation and lately for hydroelectric power generation. The rail and road infrastructure is poor and most of the transport corridors are along the rivers in the North-South direction. The country has only 3440 kilometres of paved roads including highways. The population of Myanmar is 56 million with an average of 73.5 people per sq km. Most of the population in the central Irrawaddy plains and the density is scarce among the ethnic population residing in the rugged mountain ranges towards the north, west and east. Yangon , Mandalay and Moulmein are the only few cities which have developed into big cities. And about 70% of the total population still resides in the rural areas which consist of small towns and villages. A large expanse of the country stays covered by forests and hence large reserves of teak.

The aim of this paper is to delve into the strategic importance of Myanmar in the region and and predict a pragmatic road ahead for both countries to engage strategically and economically. However, any assessment of the relations would be incomplete without examining the historical developments followed by the political and strategic perspectives. As far as Indo-Myanmar relations are concerned, apart from examining the historical ties between the nations, in the present set up it becomes imperative to understand the 'China Factor' and the 'US factor' whose interests too collide in Myanmar.

Historical Overview

Whilst the British were making inroads into the Indian sub continent in the eighteenth century Myanmar was also annexed into the British empire and treated as a province of India. Myanmar was later separated from India in 1937[2]. According to Martin Smith, the British preferred the ethnic minorities like Chin, Kachin and Karen for recruitment into the colonial Army. Andrew Selth felt that British considered these tribals as 'martial races'. The British believed that the Burmans were not good soldiers. Hence, the army remained predominantly non-Burmese.

In the late 1930s, seeds of independence struggle were seen in the country with the rise of some nationalist leaders , prominent among them was Gen Aung San. However , by 1941 the Japanese ousted the British and established their regime. The Japanese ruled Myanmar till 1945. It was during this time they exploited the anti-British sentiments of the people and promised them self-rule. The Burmese looked forward to the Japanese for fulfilling their promise of granting them independence. But this did not happen. By 1943, frustration began to set in the Burmese people. In a haste, the Japanese appointed a Burmese Government but that too was subservient to the Japanese Army Commander in Burma. With Ne Win was appointed as Commander-in-Chief of Burmese National Army(BNA) and Gen Aung San as Defence Minister in the Burmese adhoc government. The Japanese thought that the Burmese would be pleased, but the ground reality was otherwise. In 1944 the tables had turned against the Axis powers in Europe and the return of the Britishers was imminent, the BNA inwardly was supporting the British. In March 1945 , Gen Aung San and his BNA took up arms alongside the British and ousted the Japanese.[3]

However, the impact of these four years of Japanese rule was immense on the situation in Burma. The Burmese had got a feeling of semi-independence and after the return of the British, the same was conveyed in very serious terms. It also coincided with the formation of United Nations which was promoting the de-colonisation drive. In 1948 , after a giving a hastily prepared constitution and elections the British granted Myanmar independence. Before this, the ethnic tribal areas or the frontier areas having ethnic groups like Karens, Chin, Shan, Kachins were called to participate in talks in the formation of the new nation. This historic Conference was held in **Panglong** in 1948, where various ethnic groups signed to be members of the union but with a clause that their autonomy will be maintained[4].

The British left a constitutional government under U Nu. What U Nu had inherited was a strife-striken country which was replete with political and ethnic disputes. The Burmese enigmatic leader Aung San was instrumental in binding the ethnic groups together. However, after his assassination the fissiparous tendencies re-surfaced which U Nu was unable to bind effectively. By 1949 a number of serious insurgencies had started by these ethnic groups. Nu's regime was popular but weak in controlling the rising disputes. In a coup d' etet Gen Ne Win took over the reins of the nation in 1962 . He set aside the the 1948 constitution and formed a Revolutionary Council under his own leadership. He subsequently established what is generally referred to as ' Burmese Way of Socialism" by establishing a one-party rule of Burma Socialist Programme Party (BSPP) , which he headed. This period saw a serious economic decline of the already suffering economy[5].

The 1988 Uprising. In 1988 was a epoch-making era in the history of Burma. A student unrest which started from Rangoon became volatile and spread into a massive country wide protest. Ne Win stepped down, but he was believed to still retain influence in the national politics . At first, the unrest was put down with the use of force on the demonstrators as the military attempted to maintain its position. The regime's control came under increasingly serious threat , prompting efforts to resolve the problems peacefully. When these proved to be unsuccessful, the BSPP's decided to hold free elections and to bar the military from direct involvement in politics.

However, the armed forces again staged a coup in September 1988 and took over the control of the country(the third in the history of Myanmar). According to Aung Maung it was not clear whether the whole episode had been an internal power struggle between the party and the military, or a grand strategy to perpetuate their joint influence.[6]

The military regime set up State Law and Order Restoration Council (SLORC) to run the country, renamed Myanmar, until elections could be held. Elections took place in 1990 and the opposition National League for Democracy (NLD), led by Aung San Suu Kyi, the daughter of independence hero General Aung San, won absolute majority of votes and seats. The SLORC refused to recognise the results of the election, and instead it continued its repressive rule. There were wide spread protests by pro-democracy groups and NLD supporters across the country and appeals from US and European Union countries . The regime did not budge and instead held Ms Suu Kyi under house arrest and imprisoned all important leaders of the NLD. The world called these elections a ‘sham’. What followed was a almost unanimous international boycott in terms of economic sanctions.

In a subtle move in 1997 the SLORC was replaced by a State Peace and Development Council (SPDC), but without any change in their leadership nor in the nature of the regime. Political prisoners were still held, and Ms Suu Kyi was placed under house arrest again from 2000 to 2002 and from 2003 till 2010. This period also saw a reframing of a new Constitution(formed in 2008) for the country. The Constitution was highly skewed towards the military regime which gave them 25% of the seats in both houses of the parliament . As per this constitution elections could only be held for 75% of the seats in *Pyithu Hluttaw*(lower house) and Amyotha Hluttaw(Upper House) of a bicarmal parliament.[7]

2010 Elections. The 2010 election were held as per the new constitution. The new law annulled the 1990 elections and also prevented the main opposition leader Aung San Suu Kyi of NLD from running for President's office[8]. NLD boycotted the elections. It was a big setback for the regime but they still carried on without NLD. Foreign media was not allowed and own media was always under a check so the world called it a sham again. Military backed USDP won the elections and formed the government. However, the new government soon showed signs of bringing in serious reforms.

The Indo-Myanmar Strategic Ties

India-Myanmar ties are rooted in shared historical, ethnic, cultural and religious ties. India and Myanmar share a long land border of over 1600 kilometers touching India'a four eastern states Mizoram, Manipur, Nagaland and Arunachal Pradesh . A large population of Indian origin (according to some estimates about 2.5 million) had settled in Myanmar during the British rule. On 4 January 1948, when Myanmar attained independence from the colonial rule India was its natural partner as both the nations had been a part of the same British rule for over hundred years. Prime Minister Jawaharlal Nehru referred to the shared future awaiting both countries. "*As in the past, so in the future, the people of India will stand shoulder to shoulder with the people of Burma, and whether we have to share good fortune or ill fortune, we shall share it together. This is a great and solemn day not only for Burma, but for India, and for the whole of* ***Asia***". India and Myanmar signed a 'treaty of friendship in 1951 and for the next decade or so under the U Nu regime the relations between India and Myanmar were cordial[9].

As both countries emerged as sovereign nation-states from the British empire , India and Burma adhered to the five principles of peaceful co-existence which was formulated at Bandung Conference in 1954 as the core of their foreign policies towards each other.. These were: (1) Mutual respect for each other's territorial integrity and sovereignty; (2) Mutual non-aggression; (3) Mutual non-interference in each other's internal affairs; (4) Equality and mutual benefit; and (5) Peaceful co-existence[10]. Both countries were also active in the non-aligned movement. However, the military takeover and isolationist policies of the Gen Ne Win's regime brought the relations to turbulence. This period saw large scale nationalization of industries, and repression of minorities. During the decade of sixties a large number of Indian settlers were even expelled from Myanmar. By 1964 this figure had reached over 10000 refugees which did not go well with the Indian government [11].

The student unrest in Aug 1988, brought this suppressant regime to an end. However the strong military did not let the opportunity go and once again took over the reins of the nation. In order to quell the unrest they promised elections which were held in 1990. Aung San Suu Kyi popularity brought the National League of Democracy(NLD) to win the elections but the military junta refused to hand over the power to them. The complete world was watching the developments very closely . When National League for Democracy (NLD) workers protested they were arrested and put behind bars. The rampant human right abuse prompted the USA,UK and European union to impose economic sanctions. India too did not engage with the military regime and supported **Aung San Suu Kyi**. India's former Foreign Secretary, J. N. Dixit wrote, "Indo-Myanmar relations went into a negative spin in 1990, when the military authorities of Myanmar refused to accept the 1990 electoral verdict of the Burmese people in which Aung San Suu Kyi, the leader of the NLD, emerged victorious[12]" . However , seeing the sudden forays made by China in Myanmar made India to seriously re-think of its foreign policy from idealism to pragmatism[13] . This policy shift was mainly due to five factors; economic development of India's eastern states, India's increased interest in trade with ASEAN of which Myanmar was a member, India's quest for energy security, and increased China's influence near its eastern borders and unlikelihood of a change in the military in the foreseeable future of Myanmar[14]. In 1996 India began engaging with the military regime and opened bilateral trade. This shift to *realpolitik* towards Yangon was mainly seen in the period of Mr Narsimha Rao and Mr Vajpayee regime[15]. Today China is a key player in Myanmar's economy and their defence ties are in solid footing . For China, friendly Myanmar meant two things, one a closer approach to the Indian Ocean and less dependence on Strait of Malacca for oil transportation and two, tapping of large energy reserves in Irrawaddy basin.

India's Look East Policy.

In early nineties India made a major strategic shift by adopting its famous 'Look East Policy'. The policy involved engaging with the countries of Southeast Asia. The next few years saw a number of visits of dignitaries from India and Myanmar exchange visits. India whilst still supportive of the pro-democracy movement, began to actively engage with the military junta and tried to revive the old ties. However, the road was not easy now as the China had already made huge investments in almost every sector in Myanmar. Shyam Saran, the former Indian Ambassador to Myanmar in 1997 said that, "the relations were still frigid".[16] In November 2000, Gen Maung Aye, the second-most prominent leader of Myanmar's military junta, brought a high-powered delegation including Deputy Prime Minister Lt. Gen. Tin Hla along with a team ministers to New Delhi. The then India's Home Minister, L.K. Advani, tried to break the frigidity and talked about warming up of ties between the two countries. This visit was followed by a six day visit of Gen Than Shwe to New Delhi in 2004 and in 2006 President Abdul Kalam visit to Yangon. During these visits, a number of bilateral treaties were signed relating from sharing of cultural , social ties to technology and military cooperation. Subsequent years saw the Government of India's active involvement in over a dozen projects in Myanmar, both in infrastructural and non-infrastructural areas. These include upgradation and resurfacing of the 160 km. long Tamu-Kalewa-Kalemyo road; construction and upgradation of the Rhi-Tiddim Road in Myanmar; the Mega Rs 1500 Crore Kaladan Multimodal Transport Project, which is going to link the north-eastern states via the Bay of Bengal and Myanmar route[17]. An ADSL project for high speed data link in 32 Myanmar cities has been completed by TCIL, ONGC, GAIL and ESSAR are participants in the energy sector in Myanmar. M/s RITES is involved in development of the rail transportation system and in supply of railway coaches, locos and parts. In September 2008, NHPC signed an agreement for development of the Tamanthi and Shwezaye Hydro-Electric Power project in Chindwin River . A heavy turbo-truck assembly plant set up in Myanmar by TATA Motors with GOI financial assistance was inaugurated on December 31, 2010.

Other projects include revamping of the Ananda Temple in Bagan, upgradation of the Yangon Children's Hospital and Sittwe General Hospital. India has also assisted in the reconstruction of 1 high school and 6 primary schools in Tarlay township, the area worst affected by the severe earthquake that struck north-eastern Myanmar in March 2011.[18]

However what needs to be kept in mind by the Indian Industry and the Government is the wider interest of the north eastern states so that the dividends of growth are seen on both sides of the border areas. A proper roadmap of Govt-Industry plan should include such sectors which not only gives inclusive growth to Myanmar but also regional growth for our eastern states. The invitation to invest in Oil and Energy sector by President Thein Sein must be utilized by the Government keeping in mind that China has already commissioned the Shwe Gas pipeline and pumping Natural Gas from Shwe to Kunming . We too must think in terms of harnessing the energy reserves in Myanmar and may be creating some energy-processing hubs in the eastern states for subsequent usage in the development of the adjoining areas. Setting up of ancillary industry for supply to specific projects in Myanmar can also be planned and some economic zones can be specified for such purpose. The proposals must also stress upon the development of road and communication infrastructure to support the projects undertaken through the land route. A proper planning of the projects can have a long term impact of development for both the economies; Myanmar and the North East India. Its time for us to reframe our 'Look-East' Policy to make it into 'Look-East through North-East'.

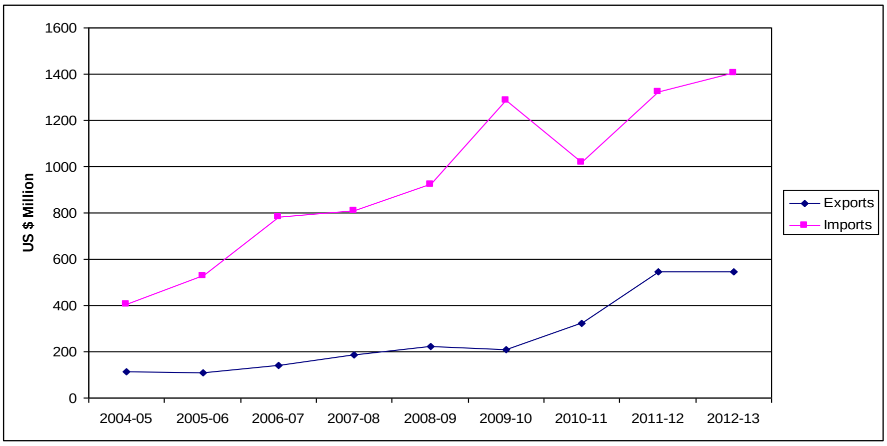
After the new government came to power in 2010 high level visits have been a regular feature of India-Myanmar relations which have given a further fillip to the strategic and economic relations. President Thein Sein paid a State visit to India on October 12-15, 2011 and had a meeting with the Prime Minister of India, Dr. Manmohan Singh, which was followed by delegation level talks. President Thein Sein was accompanied by Chief of General Staff Lt Gen Hla Htay Win and 11 Union Ministers and one Union Deputy Minister and senior officials. In December 2011 Speaker of Pyithu Hluttaw (Lower House) Thura U Shwe Mann led a high level parliamentary delegation to India.The objective of the visit was to share India's experience in parliamentary practices and procedures with the visiting Myanmar delegation. Myanmar Foreign Minister U Wunna Maung Lwin paid an official visit to India from January 22-26, 2012. These visits were finally followed by Prime Minister of India Dr. Manmohan Singh's visit to Myanmar in May 2012 [18]. This was the first visit of and Indian PM in 25 years. During the visit, several new initiatives were announced and signed 12 MoUs and agreements including extension of a new line of credit worth US$500 million .

Economic Ties and Bilateral Trade

Owing to the opening of Myanmar's economy in the last three years, the economic condition of Myanmar has shown improvement. Its Real GDP growth has shown reasonable improvement of 4.7% in 2008 to 5.5% in 2013 and likely to touch 6.2% in 2014[19]. Its overall exports too have grown from US$ 8.11 bn in 2011-12 to 8.9 bn in 2012-13. The Indian industry is showing increasing interest in Myanmar. As per Ministry of External Affairs (MEA) report, India-Myanmar trade has grown exponentially in the last few years. From a meagre US$ 12.4 million in 1980-81 to US$ 1070.88 million in 2010-11, $1.87 billion in 2011-12 and US$ 1.98 bn in 2012-13, it is likely to touch $3bn by 2015. India accounted for 15 percent of Myanmar's global exports in 2012 and ranked as the second largest export market after Thailand which is at 41% and China was at 14 percent. However as far as Myanmar's imports were concerned

India’s share was a meagre 3 percent with China at 37% and Thailand at 20%. India generally maintains a trade deficit with Myanmar which also has increased form $293 mn in 2001 to US$ 860 in 2012-13. India's imports from Myanmar are dominated by agricultural items (beans, pulses and forest based products form 90% of our imports). India’s main exports to Myanmar are primary and semi-finished steel and pharmaceuticals, machinery, electrical and electronic equipment etc[20]..

In December 2012 President Thein Sein special visit to India and his closed door meeting with the members of CII(along with representatives of the government) at Mumbai assumes significance in terms of investment opportunities and also for India’s strategic interests in the region. The President invited India’s industry captains to invest in agriculture, energy and infrastructure. The CII has reciprocated Thein Sein’s gesture by proposing five points of connectivity between the two countries in culture and commerce; promoting integration and synergy in power and railway sectors; appropriate banking arrangements to foster trade and investment; enhancing bilateral engagement in trade protection, and co-operation and collaboration in industries like tourism and software. In June 2013 India and Myanmar have agreed to take the ambit of trade to include textiles, infrastructure, oil and gas. India’s Commerce and Industry Minister Mr Anand Sharma visited Myanmar in Jun 2013 and offered India’s commitment to help Myanmar in strengthening the banking system as we inherit common banking laws[21]. At present India is the fourth largest trade partner of Myanmar after China, Thailand, and Singapore.



(source-CII)

After the reforms initiated by the government, Myanmar's economy is fast showing rejuvenation. Many new opportunities for bilateral trade and investment has emerged and as a result Myanmar's GDP is expected to increase from 5.5% in 2013 to 6.2% in 2014. Myanmar's Global Trade has also seen a almost four fold rise from US$5.6bn in 2003 to US$ 25 bn in 2012. [22]

Recent large projects bagged by Indian Companies-
(a) Punj Lloyd – US$ 475 million (Oil and gas pipeline)
(b) L&T (Zawtika) – US$ 250 million (wellhead platforms pipelines)
(c) Jubilant Energy – PSC -I Block)
(d) L&T (Yetagun) – US$ 112 million (Wellhead platform & pipelines)
(e) Nipha Exports – US$ 20 million (Multiple vegetable oil processing complex)
(f) Vihan Networks Ltd. – US$ 5 million (Mobile telecom)

(Source- India-Myanmar Strategic Partnership Seminar by RIS, 4 Feb 2013)

Table 1: India's trade with Myanmar (in US $ Million)

	2004-05	2005-06	2006- 07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Exports	113.15	110.68	139.96	185.44	221.64	207.70	320.62	545.38	544.53
Imports	405.75	525.89	782.01	809.96	923.51	1288.32	1017.67	1324.82	1404.76
Trade Balance	- 292.60	- 415.21	- 642.05	- 624.52	- 701.87	- 1080.62	- 697.25	-779.44	-860.23

Source: Based on data from India Trades database of CII

Border Trade

A very important part of the relationship between the two countries is the commencement of the border trade. The border trade started with the **border trade agreement of 1994 between India and Myanmar[23]**. The trade actually commenced from April 1995 at one border post Moreh in Manipur. Under this agreement, trade is currently carried out through three designated border points one each in Manipur, Mizoram and Nagaland. The agreement accords a formal sanction to informal border trade between the two countries. It holds importance in promoting economic ties between the two countries. Initially the agreement provided for cross border trade in 22 products, mainly agricultural products, increased to 40 commodities in 2008 and the list was further augmented to 62 items in 2012. The latest items includes Agricultural machinery, bicycles, coal, electric appliances, fabricated steel products etc[24].

The Border trade
reached US $ 13.73 million in 2009-10, which is much less as compared wit Myanmar-China and Myanmar-Thailand Border Trades.
Two border trade points, Moreh-Tamu
(1995) and Zowkhathar-Rhi (2004) have been operationalized so far with an agreement on a third trade point, Avakhung-Leshi concluded recently. However lack of infrastructure on both sides of the border remains a major limitation to augment border trade.

In 2011-12, Myanmar recorded a 58 percent hike in its overall border trade with USD 3.367 billion; However India-Myanmar border trade in that period amounted to USD 15.409 million only . Subsequently due to the efforts made by Government of India , in 2012-13 this border trade grew to more than double at USD 36.2 million.

The External Parameters

The China Factor. Looking at Myanmar from the Indian perspective whether strategically or economically, it is important to study the 'China Factor' which is playing a vital role in the present day scenario. Historically Myanmar and China were never close allies. After independence, the Sino-Myanmar relations did not proceed well as the countries had different ideologies: China had just established its communist government after 22 years of struggle, and British had left Myanmar with a democratic set up akin to India. However, the Burma Communist Party(BCP) got a fillip in its activity in the late fifties. The BCP activism was soon evident in the streets of Yangon where students were seen to be wearing Mao Badges. As a result of this apathy , anti-Chinese riots broke out in Rangoon on 26 June 1967[25]. This resulted in a large scale exudus of Chinese from Myanmar ,which led to the deterioration of Sino-Burmese relations for a long time. From 1970 till 1990 the relations remained luke-warm and there was no major activities undertaken .

The Chinese factor became evident after the 1990 isolation of Myanmar due to militarsed set up and human rights violation by the military regime. China seized the opportunity and made diplomatic inroads inspite of the chagrin by rest of the world. Myanmar's hapless regime welcomed the olive branch shown by China. The ruling Military junta first needed to upgrade its defence forces with modern weapons and equipment. China supplied Myanmar with numerous modern weapons systems and equipment worth millions of dollars since 1990 and also provided the training to pilots[26].

This initially weapon supply included wide range of tanks, armoured cars, towed and self-propelled artillery guns in addition to naval vassals and communication equipment. Some analyst construed the proximity of Sino-Burmese collaboration, when Indian Coast Guard captured three Chinese Trawlers in Indian waters. These vessels were flying Burmese flag and had electronic surveillance on board[27]. It was also reported that China was helping Myanmar build a naval base with some surveillance equipment at Coco Islands in the Bay of Bengal. Coco islands form a group is islands about 30 kilometers from the Andamans group of Islands. The Myanmar government have denied any such reports[28].

In geo-strategic and geo economic dimensions, Myanmar is important to China. Myanmar has tremendous oil and gas reserves. It can yield a 'landbridge' between under developed Yunnan province and Indian ocean. With Myanmar , Laos and Thailand China can form a sub-regional grouping[29]. Since 1988 China has provided Myanmar with considerable amount of aid, preferential loans and even cancelled some debts. By 2005 the total aid from China had reached US$ 100 million. By 2002 Chinese companies had invested in 800 projects worth US $2 billion. The best example of how a strategic move and yield economic dividends was evident in 2007. On January 12,2007 , China wielded its veto at the United Nations Security Council over a draft resolution on Human Rights abuse by Myanmar regime tabled by the US and UK, on the ground that the issues faced by Myanmar were internal[30]

Soon afterwards , China clinched up a 800 kilometer pipeline project linking Kunming , Capital of Yunnan province to Bay of Bengal. Rail and road route is likely to follow. This route to the Indian Ocean begins to solve what Hu Jintao , the former President called China's "Malacca Dilemma" It is worth mentioning here that 80% of China's oil import passes through the 200 kilometer wide strait between Malaysia and Sumatra(Indonesia) , which is known to be under US navy control. [31]

This was followed by Chinese huge investment on Myitsone project of $ 3.6 bn. By 2010 the Chinese influence over Myanmar was visible beyond doubt to the complete world. A US senator Jim Webb once commented ' Burma is risking being a province of China'. The new Government headed by Thein Sein and emergence of the main opposition leader on the scene. The new government showed signs of serious reforms and this brought the liquidation of sanctions by the USA and the EU. However, the pipeline was commissioned in May, 2013. Though the US and the EU have opened its door to Myanmar reforms yet China's influence does not seem to waning in the near future. Myanmar has constantly denied any Chinese military presence within its borders. For China Myanmar is an important window opening into the Indian Ocean. The Chinese and Myanmarese governments have negotiated to build a highway and a railway along the pipelines to connect Kunming with the new deep-sea port and the industrial zone at Kyaukpyu. This is expected to be completed by 2015. Its completion will fuel progress for entire populations in the pipeline region, and further enhance connectivity and long-term economic links between Kunming and Kyaukpyu. For China, this project will bring opportunities to its economically underdeveloped Yunnan and Sichuan provinces[32]. Currently, southeast China is the only region in the country that lacks oil refineries. It is expected that the pipelines will not only alleviate Yunnan Province's oil shortages but also diversify its economic activities. This oil pipeline will give Myanmar US $ 900 million annually as tariff and in turn China Saves it's the Malacca strait for its oil tanker ships[33]. This is how the pipeline project becomes a win-win situation for both the countries.

Strategically, the use of Myanmar as a 'landbridge' to the Indian Ocean and its establishment of regional hegemonic relations with other littoral states sometimes referred to as 'string of pearls' will remain top priority for the Chinese[34]. To India ,this is cause of serious concern in the times to come. Though India has tried to break this string by establishment of strong bilateral ties with Vietnam and Myanmar yet the China Factor will remain an important part of India's foreign policy imperatives towards Myanmar[35].

The US Factor. The US interest in Myanmar's affairs has not been a recent one . Infact during the cold war period for almost two decades of 60s and 70s, US was probably Myanmar's best friend. The Myanmar military regime's President Gen Ne Win visited USA in Sep, 1966[36]. During this period there was a notable Chinese support to the Communist party in Myanmar. The US-Myanmar relations only plummeted after the 1988 uprising and non adherence to the 1990 election results. For over 20 years after the 1990 military takeover, US had imposed strong economic and trade sanctions and cut off all diplomatic relations. The U.S. sanctions on Burma were imposed due to what the U.S. government saw the ruling military junta, the State Peace and Development Council's (SPDC), disregarding for human rights and civil liberties of the people there. These sanctions included visa bans, restrictions on financial services, prohibitions of Burmese imported goods, a ban on new investments in Burma, and constraints on U.S. assistance to Burma[37]. The easing of US sanctions began from May 2012 . It also named its first ambassador to Myanmar in 22 years[39] . Myanmar is important to the U.S. for a number of reasons, particularly “location, location, location,” said Karl D. Jackson, a professor at Johns Hopkins University’s Paul H. Nitze School of Advanced International Studies in Washington, D.C., during testimony before a Senate subcommittee last year.“It is strategically situated below China, between the emerging mega-nations of Asia — India and China,” Nitze said. If Myanmar were to become a full-fledge client state of China, this would change the regional strategic balance.[38]

The reasons for the move is generally believed to be two folds, one, China’s arrival till the Indian Ocean via Myanmar through construction of a pipeline and two, the signs of return of Democratic values by the regime as evident in the election of the erstwhile imprisoned leader Daw Suu Kyi.

The second half of 2012 saw the historic visits of Aung San Suu Kyi and President Thein Sein to Washington and this was followed by a short reciprocal visit by President Barak Obama at Yangon on November 19, 2012. This historic visit not only endorsed US acceptence but opened flood gates for further reforms and aid. Speaking to Students at Yangon University during his six hour tour, he said,” *"Today I've come to keep my promise and extend the hand of friendship. "Reforms launched from the top of society must meet the aspirations of citizens who form its foundation. The flickers of progress that we have seen must not be extinguished.*” He later met President Thein Sein and main opposition leader Aung San Suu Kyi[39]. Shortly afterwards the US Aid was launched for Myanmar with a initial allotment of USD 170 Million. This visit was shortly followed by suspension of work at a mega $3.6 billion Myitsone Hydro Project being done by a Chinese conglomerate. The Myanmar government sited environmental reasons for this move.

The Road Ahead to Bolster Ties

The recent developments in Myanmar has brought in plethora of democratic and economic reforms, which could probably transform the country. According to McKinsey Global Institute, Myanmar's economy could quadruple in size to $200bn, with annual growth of 8 percent by 2030. Till now, China has already invested $14bn in energy and infrastructure projects and now India and other countries are also wanting to move in. These mind boggling figures of opportunity brings Myanmar to the centre stage of world politics where countries around the world seem to be vying to push their companies into making new investments. Myanmar is welcoming this phase in its history. The second issue is of course the rising influence of China in the region in general and Myanmar in particular. Till the 2010 elections, question in everyone's mind was , has Myanmar become China's pawn? And this questions seemed to worry not only western powers but surprisingly Myanmar too, whose people were becoming vary of 'unfriendly ways' of Chinese companies operating some large projects in the country. Last but not the least, fast paced development in the last two years in Myanmar have totally changed the shape of things. The sudden pledging of unflinching support of Japan and US only goes to prove this point.

Amidst these concentric circles of international interests and diplomacy , India has to tread on its chosen path of harmonic relations. India is neither a economic giant like China, or a monolith power like USA , nor a rich economy like Japan which can wave of a billion dollar loan. India is simply a big democratic power in the region and what India can offer is 'strong democratic values' and economic support. It is a well known that India occupies a important role in the regional dynamics of Myanmar. India is not only seeing a responsible democratic nation on its eastern border but also is helping it to become one. On the day of Myanmar independence, Indian Prime Minister Jawaharlal Nehru said, "***As in the past, so in the future, the people of India will stand shoulder to shoulder with the people of Burma, and whether we have to share***

good fortune or ill fortune, we shall share it together. This is a great and solemn day not only for Burma, but for India, and for the whole of Asia." The day does not seem too far when both the countries would fulfill their dream. With a number of reforms already in place all eyes are on 2015 elections which is likely to be held under close world scrutiny. It is hoped that people of Myanmar will opt for a new democratic setup. India should not lose opportunity an supporting the democratic setup so that both the countries can collaborate adequately in cultural, economic and strategic fields.

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A review of Corporate Social Responsibility in Asia with special reference to China, India and Japan

Prerna Goyal Ramuka[12] | *Kusum Pawar*[13]

Abstract

As Asia is increasingly the "factory" as well as an important world market, businesses have increased their Asian presence. Many supply chains now have start and end points in Asia.

Asia's economic development is giving rise to new challenges for local and overseas corporations. Levels of pollution and toxicity have risen while health concerns such as obesity and diabetes have intensified. The growing middle class across Asia is well-educated, well-informed and empowered to express their interests more clearly.[14] Meanwhile, Asian businesses abroad have been challenged for their employment practices and influence over governments.[15] In this era of growing Asian economies and corporate ventures becoming increasingly multinational, big challenges are emerging in the form of corporate social responsibility and business ethics. The paper reviews the evolution and importance of Corporate Social Responsibility (CSR) and its rise in Asia. It also examines the state of CSR in China, Japan and India; the fastest emerging economies of Asia.

Key words: Corporate Social Responsibility, Asia, China, India, Japan

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1. Introduction

Major developments in the flow of funding, growing but often untapped philanthropic resources, and a shift in the role of government, as well as new social investment models and impact measurement tools, are significant changes occurring in the social sector. More companies are entering a reformed, competitive field of social change with new entrepreneurial models, established traditional organizations, and innovative funding strategies fueling widespread success. Rangan et al. (2008) note that the sector remains on the brink of several possible futures, including consolidation, entrepreneurial growth, and expressive experimentation. But the scenario that unfolds over the next 20 years will depend largely on the ability of emerging social sector leaders to make a leap forward in thought and action to capitalize on the abundant potential for social change.

A rich historical account of the evolution of organizations' approach to societal responsibilities over the last fifty years has been provided by Carroll (2006). A study by Wing et al. (2008) shows that today, the United States has more than 1.4 million non-profit organizations, and they account for 5 percent of GDP while individual charitable giving alone has reached a high of $300 billion. They estimate that by 2052, $6 trillion will flow directly to social enterprise organizations. Concurrently, a new generation of business leaders and philanthropists are experimenting with hybrid forms of social enterprises. Over the past two decades, the traditional concept and practice of philanthropy has undergone a significant evolution into a variety of labels, such as social consciousness, corporate citizenship, triple bottom line, and strategic philanthropy (Zadek 2001; Carroll 2006; Visser et al. 2007; Googins and Rochlin 2007). While significant progress is being made in involving organizations in social causes, a national survey (Center for Corporate Citizenship 2004) in the USA revealed that most firms have not been able to significantly integrate Social Responsibility into their organizations. Googins and Rochlin (2006) state: “What is clear is the widespread agreement on the need for a more active and strategic citizenship," and they also note that there is no dominant framework or model for bringing that about. The required change will not come about from doing more of the same or making incremental changes. This study aims at analyzing the present state of corporate social responsibility in Asia. It further overviews the state of CSR in the three superpowers of Asia; China, India and Japan.

2. The Evolution of the Social Sector

The study of literature helps to identify a smooth movement of social/welfare services from government to the private (voluntary/nonprofit) sector to the corporate sector. Austin et al. (2007) observe a constant blurring of boundaries (figure 1) among sectors leading to the emergence of a fourth sector (Fourth Sector Network. 1997-2008).

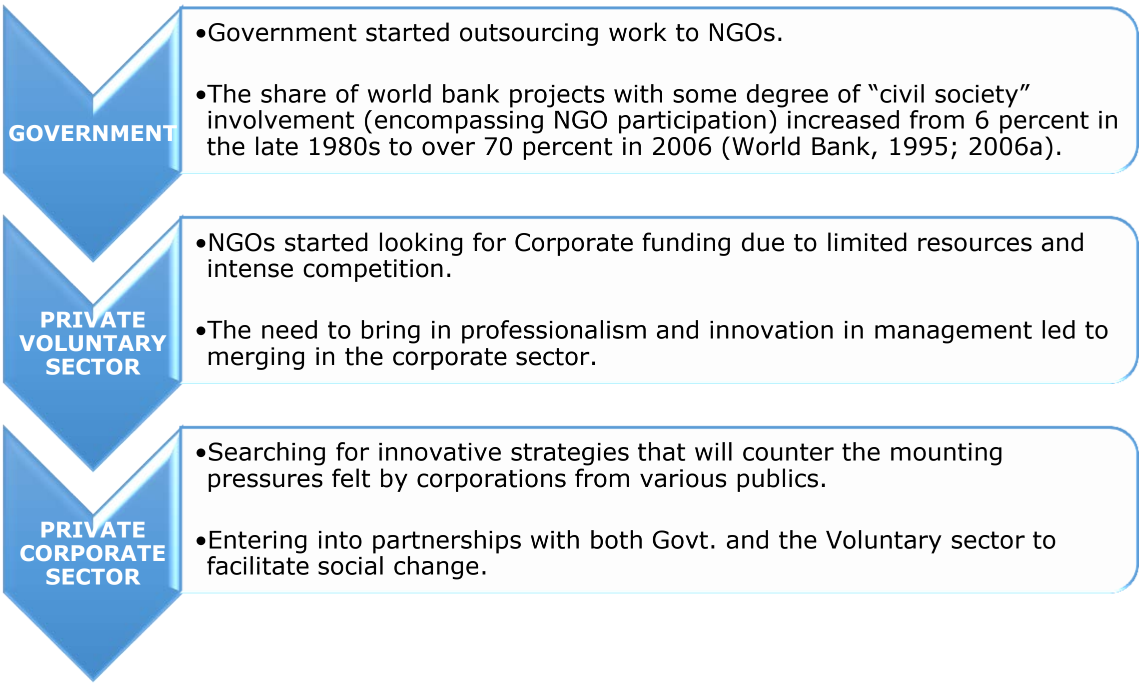

Figure 1: Blurring of Boundaries among Sectors

The traditional functions of the state have been law, justice and order. A *welfare state* has a much-expanded role ensuring its citizens, *public utilities* like road, power and water supply. The state also provides *merit goods* such as education and health services that have *positive externalities.* Most of these services have been traditionally provided through in-house facilities of governments, financed and managed directly by them.

But then a new wave of Public-private- partnership (PPP), an approach under which services are delivered by the private sector (non-profit/for-profit organizations) while the responsibility for providing the service rests with the government, was seen. This partnership takes two major forms (figure 2 & 3).

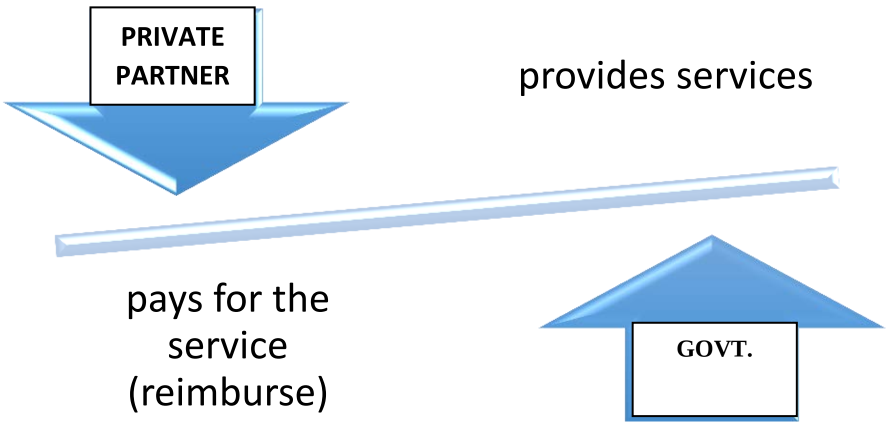

Figure 2: Reimbursement Model of Providing Services

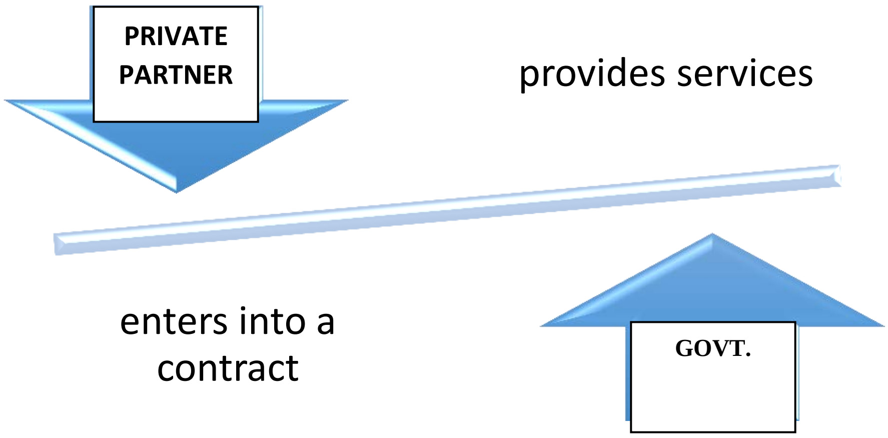

Figure 3: Contractual Model of Providing Services

In the developing world, 'classical philanthropy' such as building schools, hospitals and cultural institutions, far from being an add-on, is driven by social necessity. In order to effectively operate amidst inadequate state welfare, healthcare, education and infrastructure, business has had to step in. In post-colonial and post-conflict countries business has had to contribute to nation-building, thereby innovatively redefining the parameters of what constitutes CSR.

A Brief Guide to Understanding the Social Sector (2003); developed by the Center for the Advancement of Social Entrepreneurship at Duke University's Fuqua School of Business; brings to light that the social sector, also known as the fourth sector, traditionally is divided into various sub-sectors and has different forms like **nonprofits, for-profit, hybrid, or cooperative organizations** etc. with the primary mission of creating social value, not economic value for their owners or employees or consumption value for their customers. Harvard Business School professor Jane Wei-Skillem, says that " Without question, the social sector has contributed in significant ways to addressing major societal problems, yet traditional approaches are still falling short, especially as the intensity and complexity of social problems has grown."

3. Corporate Social Responsibility

Corporate Social Responsibility (CSR) has been defined by Enderle and Tavis (1998) as "the policy and practice of a corporation's social involvement over and beyond its legal obligations for the benefit of the society at large". Chapple and Moon (2005) define Corporate Social Responsibility (CSR) as 'the social involvement, responsiveness, and accountability of companies apart from their core profit activities and beyond the requirements of the law and what is otherwise required by government'. According to McIntosh et al. (1998), being socially responsible has been a concern very much related to the rationale that businesses are more likely to do well in a flourishing society than in one that is falling apart. Over the past decades both the concept and the practice have evolved as a reflection of the challenges created from an ever-changing society. Bronn and Vrioni (2001) believe that in today's competitive marketplace, altruistic intentions alone can no longer justify charitable giving and expenditures related to philanthropic activities. Sophisticated customers and stakeholders are looking at the behavior of the firm; are they donating just to gain good will or are they truly concerned about particular issues?

4. CSR in Asia

According to Sharma (2010), Asian corporate philanthropy has always existed in one form or another. "The national institutional structures of philanthropy and community involvement in many of today's leading economies in Asia are only just catching up with what has long existed in the West for well over a century. In most Asian countries philanthropy has, until recently, been a communitarian effort. Asian philanthropists have preferred to be personally involved in the grant-making process, in contrast to the more formalized approaches of the West." [16]

[16] Bindu Sharma, *"Discovering the Asian Form of Corporate Social Responsibility"*, Lien Centre for Social Innovation, 2010

Though the Asian companies are adopting the concept of corporate social responsibility (CSR) from the Western principles of liberal democracy, justice and social equity, many of these western principles may not apply to them. This is because the Asian firms, operating in fast-growing economies with different environmental and labor standards, face unique issues. One such important issue is that there is a significant wealth gap in many Asian countries which contains some of the world's fastest-growing economies alongside slowly developing legal and corporate-governance systems. Investors who have a focus on CSR need to assess regional CSR through a set of "Asian lenses".[17]

Bendell and Ng (2009)[18], in their study observe that contemporary Asian CSR is familial, governmental, practical, informal, religious and non-global, in comparison to the West. They believe that an overarching sense of compliance-style management can hinder the practice and development of business ethics. Looking at Asia's status as an economic powerhouse in the world economy, it might be reasonable to assume that the level of Corporate Social Responsibility (CSR) activity would be proportionate. However, in frequent comparisons of CSR across countries, Asia seems to fall short. Although CSR is not unknown in Asia, the understanding and its importance has tended to lag behind developments in Europe and North America.[19] The understanding of CSR has not kept pace with the expectations and demands placed on business by the various stakeholders, including consumers and governments. It would thus be worthwhile to understand the present state and the opportunities and challenges that CSR poses on Asian companies.

Amongst these challenges, CSR can be viewed as an opportunity as well. In the twenty-first century, in tandem with developments in advanced economies in North America and Europe, CSR has acquired renewed vigor in

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[17] CLSA Asia-Pacific Markets, *"Ethical Asia"*, 2009

[18] Jem Bendell and Chew Ng, *"Characteristics of Asian CSR"*, Lien Centre for Social Innovation, 2009

[19] David B. Montgomery, "*Asian Management Education: Some Twenty-First Century Issues,"* Journal of Public Policy and Marketing, 24 no. 1 (2005); Richard Welford, *"Corporate Social Responsibility in Europe and Asia: Critical Elements and Best Practice,"* Journal of Corporate Citizenship, 13 (2004).

the corporate landscape in Asia, in which the notion of corporate credibility, linked with how a company conducts its business and makes its profits, is of growing importance.[20] CSR reporting in Asia is rising fast. The CLSA "Ethical Asia" report (2010) shows that the region now accounts for more than 20% of global CSR reports versus 12% just five years ago. Many Asian countries are now setting up philanthropic foundations, as a way of implementing CSR, along the lines of Western corporate foundations.

5. Emerging need for CSR in Asia

5.1. Changing Dynamics of the Business World

Pressure from Various Publics

In the current scenario any choice an organization makes has a direct influence on the survival of large parts of society, the environment and the world at large. The bottom line is: Organizations individually and collectively determine the future and do affect all of us.

Climate change, economic and financial crises, environmental disasters, nuclear risks etc. – are triggering important questions like *how we behave, consume and lead our lives - and how we do business?* There is an increasing pressure on companies to transform current practices towards a more sustainable paradigm. There is an expanding consciousness among business leaders, consumers, activists and policy makers across Asia. The "winds of change" are requiring not only NGOs and NPOs, but businesses to address the urgent issues on environmental sustainability, social justice and broad-based prosperity. Various stakeholders are standing up for their rights. The World Economic Forum Survey Report 2003 concludes that "People have started to view large companies as too powerful, and as

[20] Patrick L.Smith *"Asians Demanding Greater Corporate Responsiveness,"* International Herald Tribune, October 25, 2006; Jedrej George Frynas, "*Corporate Social Responsibility in Emerging Economies*," Journal of Corporate Citizenship, 24 (2006).

untruthful, unfair, and unethical." This is creating an immense pressure on Asian organizations to rethink and fostering new ways of working in a more socially relevant manner.

Value Based Organizations

Previous research (Austin and Reficco, 2009) shows that corporations are continually applying values to everything they do, from a marketing standpoint, from a product development standpoint, who they hire, how they hire and how they treat their people.

A Timberland Human Resources manager notes, “The awareness of values is what we are trying to raise with folks. It’s no longer going to be acceptable just to get the business result.”

Bill Gates, Microsoft founder and philanthropist believes that *"We are living in a phenomenal age... finding approaches that meet the needs of the poor in ways that generate profits and recognition for business, we will have found a sustainable way to reduce poverty in the world."*

As Asian economies grow and corporate ventures become increasingly multinational, big challenges are emerging for corporate social responsibility and business ethics.

5.2. Sustainability Requirements

The sustainability threats posed to corporations across countries in Asia require them to migrate from one of maximizing returns to investors to optimizing returns to stakeholders. The underlying premise is that serving such a broader constituency will make the company more sustainable. This amplified purpose means that the company is producing both economic and social value, which some have referred to as a double or triple (if one breaks out environmental value as a separate category) bottom line (Austin and

Reficco, 2009), or “blended value” (Emerson 2000, 2003, March 2006; Emerson and Bonini 2003). An increasing need, for companies to discover ways to make these returns complementary and synergistic rather than competing (Paine 2003), has been observed. Various studies show the emergence of a multitude of indicators, standards, and codes that report performance to the internal and external stakeholders across Asia. Asian companies are being pushed to integrate business and sustainability in innovative ways.

5.3. Need for Disruptive Social Innovation

The penetration of the social realm into corporate strategy of Asian companies has gathered momentum in the last years. The movement for CSR has “won the battle of ideas” (Crook 2005). By now, most well managed companies have adopted the practices and certifications *de rigueur* in their industries, having gone through what Zadek (2004) calls the “defensive” and the “compliance” stages of CSR. Managing the social and environmental footprint of economic activity is generally accepted as part of the cost of doing business. But much remains to be done. If organizations are to move their social activities from satisfying behaviour and take their commitment to society and the environment to the next level, they will need to rethink their current approaches and innovate, tapping into the creativity of every individual. Companies need to look ahead of mere compliance and have to create disruptive change in the pursuit of new opportunities.

Research shows (Austin and Reficco, 2009) that a social change is happening but that is all about simply applying existing business expertise and market-based skills to nonprofits. The opportunities and challenges in the social sector require social transformation i.e. not only the creative combination and adaptation of social and commercial approaches, but also the development of new conceptual frameworks and strategies tailored specifically to social value creation.

6. CSR in India

In India CSR has evolved in four phases:

Phase 1 - Pre Industrialization period: (upto 1850): The rich and wealthy merchants shared a part of their wealth with the society by setting up temples, helping the poor population during times of Famine and Epidemics spread. Their intention, however, was to gain goodwill and fame in the society. With the advent of Colonial rule in India the approach towards CSR changed and it was governed by caste groups and political inclinations of the industrial families like Tata, Godrej, Bajaj, Modi, etc.

Phase 2 - During Independence Movement (from 1900 to 1947): During the Independence movement the concept of "Trusteeship" evolved as introduced by Mahatma Gandhi. He stressed that Indian companies should be like "Temples of Modern India" and work dedicatedly towards socio-economic development of the country. This philosophy influenced establishment of schools and colleges set up and run by business owned trusts.

Phase 3 - The Era of Command and Control (1960-1980): This was the era of Mixed Economy and emergence of Public Sector Undertakings (PSUs). Private sector was surrounded by stringent rules and regulations, high taxes and restrictions. The objective of PSUs was to ensure equal distribution of wealth and resources but they were only effective to a limited extent. This resulted in shift of focus from public to private sector. A national workshop involving academicians, politicians and business men was set up to reconcile CSR. The emphasis was put on transparency, Social accountability and regular communication with Stakeholders.

Phase 4 - Era of Liberalization (from 1980 till date): This era marked advent of LPG. Control and licensing were relaxed. Many Local and Global private players entered Indian Markets. This era earmarked rapid growth of economy and the companies operating in India. This growth had positive impact on their willingness to contribute more towards the society. The companies in this era abandoned the traditional forms of CSR and adopted novel practices to integrate CSR into a sustainable growth strategy. Around 64% of the companies started CSR programs between 1991 and 2005.[21]

Current State of CSR in India: As already established CSR is not a new concept in India. Corporate like Tata, Birla and IOC have been involved in CSR activities since their very inception. The current wave of CSR, however, differs from the past trend. The social responsibility is no longer focused on social concerns only; it takes into focus the environmental issues as well. Many large companies are a part of "**multi-stakeholder initiatives"** and **"public-private partnerships".** CSR practices are now a comprehensive part of business strategy and processes. Indian companies have realized that CSR is not just an indirect expense but is a lucrative strategy to gain and protect reputation, create a positive brand image, improve the morale of employees, project goodwill and desirable public perception of the company. The companies have dedicated CSR teams to formulate strategies and policies for their CSR initiatives. The various methods and initiatives run by Indian companies can be clubbed into two categories, namely *Comprehensive Initiatives* like medical and sanitation facilities, building schools and houses, village empowerment, making the rural population self-reliant through vocation training and knowledge of business operations, and *Sporadic Initiatives* like health camps for free check up, treatment and awareness, collaboration with NGOs, education camps, sabbatical to employees for offering voluntary services etc.

In the recent mandate under the Companies Act, 2013, any company having a net worth of rupees 500 crore or more or a turnover of rupees 1,000 crore or more or a net profit of rupees 5 crore or more should mandatorily spend

[21] Bindu Sharma, *"Discovering the Asian Form of Corporate Social Responsibility",* Lien Centre for Social Innovation, 2010

2% of their net profits per fiscal on CSR activities. The rules will come into effect from 1 April 2014.[22]

Still there some companies who are reluctant to share the budget allocation to CSR. Many CSR initiatives are a "green wash". Around 40% companies run CSR initiative for tax exemption and because they feel it is mandatory.[23] India is facing many problems viz. unclear, unpractical and poorly monitored regulations, poor infrastructure, a complicated tax system, and too much bureaucracy. These issues should be arrested to take the CSR interventions to another level. We must develop broad frameworks on corporate governance and penalties for non-compliance should be strictly implemented. As per the recent surveys CSR is fast gaining momentum in India and will continue in coming future.

7. CSR in China

In 1970s Chinese Communist Party (CCP) identified that China lagged behind many developed countries as far as energy efficiency and pollution control was concerned. They made efforts to achieve sustainable development through social responsibilities.

In 1995 **eco-construction program** was initiated in China to manage and promote development of sustainable communities. This program includes development of **Eco-Provinces, Eco-communities and Environmental-Protection Model Cities.** However, instead of an improvement researchers have noticed a decline in the results of the projects initiated by the MEP Liu (2008, 2009).

Since 2004 CSR has become a prominent issue in China and it is apparent in the Five Year Plans of China. This is also evident from the fact that in 2006 State Grid was the only company in China to file a CSR report. In

[22] *"The Flag Off of CSR Rules: India Inc.'s To-Do List for Compliance to Section -135"*, Forbes. 4 March 2014. Retrieved 7 March 2014
[23] Bindu Sharma, *"Discovering the Asian Form of Corporate Social Responsibility"*, Lien Centre for Social Innovation, 2010

2012, 1,722 Chinese companies filed CSR reports, according to a study by Syntao, a sustainability consultant. Indeed, almost a quarter of large state-owned enterprises in China filed CSR reports in 2012. CSR has gained more weight age in Chinese economic, political and academic arena. The stimulation for CSR in China has come from both global and domestic forces.

This trend has emerged due to China's entry into the World Trade Organization (WTO), its economic integration into the world market and rise in awareness levels of Chinese citizens. International customers increasingly demand companies to undergo CSR audit and to fulfill this demand, Chinese government has backed initiatives like introduction of the **Labor Contract Law, Taida Environmental Index (in Shenzhen Stock Exchange) and SASAC initiative by State Council.** Another powerful example of Chinese government's commitment to CSR becomes evident from **Article 5 of the 2006 Chinese Company Law**, which requires companies to "undertake social responsibility" during the course of business.

CSR measures undertaken in China include offering reliable, eco-friendly and safe products, labor protection and welfare plans, corporate philanthropy and charitable activities and community development projects. One such example is direct monetary donation given by Chinese companies to the earthquake affected area of Southwest China, following the Sichuan Earthquake. Many Chinese corporations have established CSR guidelines which are incorporated into their sustainable business strategy. Another prominent practice is called **Creating Shared Value (CSV)**, which means greater joint value in collaboration with communities. The prerequisite for an effective corporation is healthy and educated workforce, sustainable resources, and agile government.

Some private initiatives include **Responsible Supply Chain Association's CSC9000T** and the Chinese industrial associations' joint declaration of the **Chinese CSR Industrial Principles.**

However, unlike western countries, in China, CSR is still the prerogative of government and is more prominent in state-owned enterprise (SOE). Chan and Ma (2004) believe that China keeps continue to push for rapid economic growth at the costs of the environment, which is being supported by economic growth theories. This has created imbalance between implementation of CSR in private sector and SOEs. Another imbalance in China is between Rural and Urban communities. The challenge is green washing by many Chinese companies. Although some Chinese companies are internationally recognized for their CSR interventions, it's not clear whether the same has been converted into genuine social and environmental concern.

8. CSR in Japan

CSR in Japan is strongly rooted in Keizai Doyukai's 1956 Revolution. The resolution of introducing CSR in Japan was also based on a book by Howard R. Bowen called *"Social Responsibilities of the Businessman"*. The book was published in the U.S.in 1953 and was translated into Japanese in 1960. During 1960s Japan was struggling with numerous pollution problems which led to distrust and antagonism of the public towards the companies perceived as contributing to this issue. These issues were resolved case-by-case and basic laws regulating the pollution levels were introduced. This was the first phase of CSR in Japan. In the second phase during 1970s there was huge criticism and outcry for supremacy of corporate profits in post-oil shock era. As of result of public outrage anti-pollution departments and foundations to return profits were set up by the companies. Phase three (1980s) was demarcated by excess liquidity, bubble economy expand, soaring land prices, low standard of living-"rabbit-hutch" dwellings, long work hours, unequal treatment of men and women. As of result of this, the concept of *"good corporate citizen"* was developed. Companies initiated philanthropic activities by means of contribution in academics, art, welfare, and international exchange. Phase four (1990s) witnessed series of blow to Japanese companies due to Bubble collapse. Other issues were business ethics, global warming. To address these issues Keidanren formulated **Charter for Good Corporate Behaviour** and Companies set up global environment departments to engage in social contribution. A new era of CSR began in Phase five. Corporate scandals surfaced leading to crisis of stakeholders. This led to extension of CSR to corporate ethics, compliance, accountability and disclosure. **Socially Responsible Investment (SRI)** funds emerged, CSR ratings became widespread and companies established CSR departments. The year 2003 is recognized as start of CSR management era. Currently the level of CSR is good in some areas and needs improvement in few others. Japan has actively participated in numerous environmental groups such as the *Intergovernmental Panel on Climate Change, United Nations Environmental Program, United Nations Population Fund and the Global Environment Facilities*. All in all, since the environment has received so much attention since the late 1960s, Japan now occupies a leading position among high-density populated countries in terms of environmental sustainability (Hasegawa & Noronha, 2009).

Some aspects that need further development are tendency of Japanese companies to cover up major issues and problems, limited opportunities for minority, privacy policy for customers, CSR standards for suppliers, opportunities for women, improving employability of personnel, work life balance, equitable working conditions and transparent business practices etc

9. Findings and Conclusions

Japan was the first of the three countries to officially recognize the need for active CSR. 21,779 Japanese companies have received an ISO14001 certification, which is the highest amount in the world being thus better than 19000 companies in China and much better than 1500 companies in India (Peglau, 2010). In addition, according to the Organizations Using the

Guidelines, 2010, there are currently 95 Japanese companies that have reported their organizational performance to the GRI, which puts Japan ahead of both China (48) and India (9). But when it comes to improving the employability of personnel, the opportunities for women and the opportunities for minorities, Japan is lacking with a significantly low number of 2 Japanese facilities certified with the SA8000, compared to 316 in China and even 508 in India (SA8000 Certified Facilities, 2010).

These findings set Japanese CSR apart from that found in other Asian countries (Fukukawa & Moon 2008). China is doing very well in the ISO14001 standard and average in the GRI, while India comes out best according to the SA8000 standard but is doing not so good in the ISO14001 and GRI.

Conclusion

The rapid economic expansion in Asia, which coincides with the latest CSR evolution, provides a unique opportunity for Asian companies. CSR in Asia is now becoming recognized as a means of addressing a spectrum of stakeholder expectations that has a direct impact on improving profit and increasing shareholder value. Asian companies are being pushed to integrate business and sustainability in innovative ways. Nonetheless, there is still need for greater improvement on environmental and social issues. For companies to succeed in China, India and Japan; one of the most dynamic sites in Asia for developing new products, processes, and business models; it will increasingly be about competing to create sustainable value in an uncertain and environmentally constrained world. As Asia's influence in international markets and on the global policy stage increases, active engagement in CSR offers an opportunity to influence one of the most powerful forces shaping the landscape for global business and sustainable development.

This paper has a range of implications for policy, practice and research arising from opportunities and challenges of CSR in Asia.

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Author Index

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1	Sreedharan Chakravarthy and Arindam Bandyopadhyay	9820107379	shreedharan_c@yahoo.com ; arindam.by@gmail.com	Determining the Feasibility of Optimum Currency Area for SAARC Region
2	Sneha Srinivasan and Syed A A Farhan	91 881 404 9251 91 805 952 5751	13jsia-ssrinivasan@jgu.edu.in ; 13jsia-safarhan@jgu.edu.in	A Roadmap to Regional Integration: Micro-financing Clean Energy for Sustainable Livelihood across Asia
3	Dr. Sharad Kumar & Dinesh Rajput	9820409406	sharad.kumar@dsims.org.in dinesh.rajput@dsims.org.in	A Comperitive Study of external sector developments in select Asian Countries
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7	Sumana Chudhri & Rusha Das & Sharmila Bonnerjee		sumana.chaudhuri@dsims.org.in; rusha.das@dsims.org.in Sharmila.Bonnerjee@dsims.org.in	Integrating India into ASEAN: An Infrastructural Perspective
8	Col M P Singh	8009584404	colmpsingh@gmail.com	Strategic and Economic Dimensions of Indo-Myanmar Relations
9	Prerna Ramuka and Kusum Pawar		prerna.ramuka@dsims.org.in, kusum.pawar@dsims.org.in	A review of Corporate Social Responsibility in Asia with special reference to China, India and Japan
10	**Dr. Liu Youfa, Consul General of China**		chinaconsul_mum_in@mfa.gov.cn	