# KOREA-INDIA

## DEEPENING PARTNERSHIP FOR THE 21ST CENTURY



EDITORS

PARTHASARATHI SHOME & CHOONG YONG AHN

# Korea-India
# Deepening Partnership
# for the 21st Century

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Editors

**PARTHASARATHI SHOME & CHOONG YONG AHN**




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# Contents

*List of Tables and Figures* ..... 7
*About the Editors/Contributors* ..... 13
*Foreword* ..... 24
*Message*
Wook Chae ..... 26
*Message*
Woosang Kim ..... 28
*Opening Remarks*
Joong-Keun Kim ..... 31
*Opening Remarks*
Skand R. Tayal ..... 41
*Speech*
Sung-Joo Han ..... 44
*Speech*
Chulsu Kim ..... 48
*Preface* ..... 53
*Introduction* ..... 57

**Section I**

*Recent Economic Trends*

1. Korean Economy in Transition Toward an Advanced Economy: Prospects and Challenges
Choong Yong Ahn and Kyttack Hong ..... 71

2. The Indian Economy: Recent Trends and Prospects
D.K. Srivastava ..... 103

**Section II**

*Trade Prospects and Non-Tariff Measures*

3. India-Korea Trade and Non-Tariff Barriers
Nisha Taneja, Pallavi Kalita, and Swati Saluja ..... 137

4. Two Years In: Achievements and Challenges in the Trade Sector of the Korea-India CEPA
Choongjae Cho ..... 161

**Section III**

*Foreign Direct Investment*

5. Trends of FDI Flows into India and Korea
Chang-Ho Kwag ..... 185

6. Investment in the Indo-Korea CEPA
Saon Ray and Neetika Kaushal ..... 215

**Section IV**

*Services and Green Energy*

7. Current Status of Indian Green Energy Industry and Cooperation between Korea and India
Hyun Jae Kim and Chankook Park ..... 247

8. The Role of Culture in Economic Activity and Exchange
Parthasarathi Shome ..... 273

**Section V**

*Global Security Issues*

9. Rising Powers and Asia's Stability: Strategic Convergence between India and South Korea
W. Lawrence S. Prabhakar ..... 287

10. India's Changing Relations with the United States and China
Sanjana Joshi ..... 301

11. Four-Layered Security Cooperation between South Korea and India
Cheol Hee Park ..... 323

# List of Tables and Figures

## Tables


1.1 Korea's Economic Growth Indicators and Exchange Rates ..... 75

1.2 Korea's External Sector Performance ..... 76

1.3 Korea's Multi-track FTA or CEPA Roadmap ..... 77

1.4 Korea's Declining Growth Rates of Potential GDP, Factor Stocks, and Stagnant Total Factor Productivity ..... 78

1.5 Korea's Outbound and Inbound FDI ..... 80

1.6 Economic Status of SMEs Compared with Large Enterprises ..... 89

1.7 Korea's 21st Century Industries for New Engine of Growth ..... 99

2.1 Growth of GDP at Factor Cost and Market Prices ..... 105

2.2 Quarterly Growth Rates in Select Countries: From Pre- to Post-Crisis Period ..... 110

2.3 GDP at Factor Cost: Sectoral Growth ..... 117

2.4 Inflation based on Wholesale Price Index: 2011 ..... 119

2.5 Revenue, Fiscal, and Primary Deficits ..... 121

2.6 Centre's Targets for Fiscal Imbalances ..... 122

2.7 FRBM: Rolling Targets: Central Government ..... 123

2.8 Approach to the 12th Plan: Key Parameters ..... 124

2.9 Age-specific Work Participation Rate: Main and Main+Marginal (15–59 years): India ..... 127

3.1 India's concluded Free Trade Agreements (FTAs)/ Preferential Trade Agreements (PTAs) ..... 138

3.2 India's Ongoing FTAs/PTAs Negotiations ..... 139

3.3 India-Korea CEPA ..... 141
3.4 India's Top 10 Exports to Korea at 6 Digit and Tariff Schedule: 2010 ..... 142
3.5 Korea's Top 10 Exports to India at 6 Digit and Tariff Schedule: 2010 ..... 142
3.6 Number of Tariff Lines Subjected to the Negative List ..... 144
3.7 Classification of NTBs ..... 146
4.1 Chronological Developments of the Korea-India CEPA ..... 162
4.2 Korea's Exports by Country ..... 166
4.3 Korea's Imports by Country ..... 168
4.4 India's Top 10 Export Partners ..... 171
4.5 India's Top 10 Import Partners ..... 172
4.6 Comparison between MFN Rate and CEPA Preferential Rate on Korea's Top 50 Export Commodities to India (As of Jan.-Aug. 2011) ..... 173
4.7 Comparison between MFN Rate and CEPA Preferential Rate on Korea's Top 50 Import Commodities from India (As of Jan.-Aug. 2011) ..... 174
4.8 Comparison of Schedules of Concessions between the Korea-India CEPA and Japan-India CEPA ..... 175
4.9 Simulation Result via SMART by World Bank WITS ..... 177
4.10 India's Trade Volume Target by Country ..... 179
4.11 Estimation of Korea-India Trade Volume and Trade Balance ..... 180
5.1 Three Channels through Which BITs Promote FDI Inflows ..... 190
5.1A Host Country Determinant of FDI ..... 210
5.2A Country-wise FDI Inflows into India (1991-2010) ..... 211
5.3A Country-wise FDI Inflows into Korea (1991-2011, Q3) ..... 211
6.1 Foreign Direct Investment Value (at Current Prices) and Annual Growth Rate ..... 220
6.2 FDI Flows by Region ..... 221
6.3 FDI Inflows to Countries ..... 231

6.4 Foreign Direct Investment Inflows by Origin ..... 233
6.5 Foreign Direct Investment Inflows by Economic Activity ..... 233
6.6 Outflows from India to South Korea ..... 238
7.1 Indian Power Supply and Demand Forecast in 2011 and 2012 ..... 251
7.2 The Carbon Emissions of Major Countries ..... 253
7.3 Installed Generating Capacity of India (2010) ..... 254
7.4 Wind Power Potential by State ..... 256
7.5 Roadmap of the Solar Energy Mission ..... 258
7.6 HS Codes by Components & Materials Industry for RCA Analysis ..... 262
7.7 The RCA and RMI of Korea and India in Photovoltaic Components and Materials ..... 265
7.8 The RCA and RMI of Korea and India in Wind Power Components ..... 267
7.9 The RCA and RMI of Korea and India in Goods Related Smart Grid ..... 269
10.1 India's Trade Deficit with China ..... 312
10.2 Destination of India's Exports by Region ..... 315
10.3 Source of Indian Imports by Region ..... 315
10.4 Participation at Milan 1995-2010 ..... 319

## Figures

1.1 Income Inequality; GINI Coefficient ..... 81
1.2 Income Polarization; Wolfson Index, Esterban & Ray Index ..... 82
1.3 Shares of High, Middle, and Low Income Brackets ..... 83
1.4 Household Credit Outstanding ..... 87
1.5 Korea's CDS Premium and Risk Premium on Korea's Foreign Currency Stabilization Bond ..... 91

1.6 Major Currencies' Appreciation against the US Dollar ..... 91
1.7 Forecasts of the Tax Revenue and Tax Expenditure to GDP ..... 95
2.1 GDP and Inflation Rate against Potential and Target ..... 105
2.2 Global Crude Oil Price Movement ..... 108
2.3 Growth in Money Supply: Month-wise Y-o-Y Basis ..... 119
3.1 India-Korea Bilateral Trade: 2000-2010 ..... 140
3.2 Anti-dumping Initiations by Product and Origin between January 2006 and December 2010 ..... 153
4.1 Trends in Korea's Exports to India ..... 164
4.2 Comparison between Growth Rate of Korea's Total Exports and of Korea's Exports to India ..... 164
4.3 India's Share in Korea's Total Exports ..... 165
4.4 Korea's Exports to India by Item ..... 166
4.5 Korea's Imports from India ..... 167
4.6 Comparison between the Growth Rate of Korea's Total Imports and of Korea's Imports from India ..... 168
4.7 India's Share in Korea's Total Imports ..... 169
4.8 Korea's Imports from India by Item ..... 169
4.9 Growth Rate of Exports by Period ..... 170
4.10 Growth Rate of Imports by Period ..... 171
4.11 Trade Balance between Korea and India ..... 176
5.1 FDI Inflows into India and Korea, 1991-2010 ..... 197
5.2 FDI Inflows as a Percentage of Gross Fixed Capital Formation ..... 199
5.3 Bilateral FDI Flows from Korea into India (1991-2010) ..... 201
5.4 Indian FDI Inflows into Korea ..... 203
5.5 Bilateral FDI Intensity between India and Korea ..... 205

5.1A Inward FDI Stock as a Percentage of GDP ..... 212
5.2A Sector-wise Break-up of FDI Inflows into India ..... 212
5.3A Sector-wise Break-up of FDI Inflows into Korea ..... 213
5.4A Trends of Inward and Outward FDI Stocks of both Countries ..... 213
6.1 FDI Flows 1986-2010 ..... 219
6.2 FDI Inflows 2005-2010 ..... 222
6.3 FDI Outflows 2005-2010 ..... 223
6.4 Country Wise FDI Inflows ..... 230
6.5 Country Wise FDI Outflows ..... 232
7.1 Electricity Generation Deficiency in India ..... 250
7.2 The Wind Power Market of India ..... 256
7.3 The Structure of the Photovoltaic Components & Materials Industry ..... 264
10.1 India-United States Trade ..... 304
10.2 FDI (Equity) Inflow into India from United States ..... 305
10.3 India-China Trade ..... 311
10.4 Comparison of Welfare Gains from EAFTA and CEPEA ..... 316

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# Foreword

India and the Republic of Korea (hereafter Korea), two rapidly growing economies, have been making constant efforts to enhance their position in the international arena and are forming strong economic ties between them. These efforts have resulted in the signing of a Comprehensive Economic Partnership Agreement (CEPA) between India and Korea in 2009. The CEPA is considered to be similar to a Free Trade Agreement (FTA), with comprehensive coverage of trade in goods and services and investments, as well as intellectual property rights. This is Korea's first FTA with a BRICS nation while India's first FTA with an Organization for Economic Cooperation and Development (OECD) country. Under the CEPA, it had been agreed that tariffs would be reduced or eliminated on 85 per cent of Korean goods and on 90 per cent of Indian goods over a period of eight years.

Despite a shift in the composition of imports to India from Korea and an impressive improvement in Indo-Korean trade volumes, the figures are still less than ten percent of Korea's trade with China. Therefore, even though the Indo-Korea CEPA has resulted in trade, investment and human development in both the economies; there are several trade complementarities that need to be further identified. Also, for the future, it is generally argued that both the countries should gear and equip themselves to protect themselves individually as well as the newly established bilateral association in light of greater competition from China.

To further strengthen relations and to pursue the 'Look East Policy', the Indian defence minister visited Korea in 2010 to boost military ties between the two countries. Following this visit, a civil nuclear cooperation

agreement was signed between India and South Korea in 2011. In a recent joint statement, Indian Prime Minister Manmohan Singh and Korean President Lee Myung-Bak agreed to have greater collaboration in space activities and maritime security and deepen the Korean investment in Indian infrastructure sector over the next five years.

The Indo-Korea dialogue, initiated in the year 1996, is now being organized on an annual basis. The basic objective behind arranging these dialogues on a consistent basis has been to improve the mutual understanding through different rounds of discussions to deal with relevant political, economic and strategic issues that both countries face as members of the dynamic Asian economy and add to the process of strengthening Indo-Korean relations. The main theme of the 10th dialogue organised in November 2011, at Chennai, India was to critically analyze the prospects and challenges of India-Korea CEPA.

This volume edited by Parthasarathi Shome and Choong Yong Ahn brings together papers and speeches presented at the 10th dialogue. It analyses the Indo-Korea CEPA in terms of the flow of goods, services and investment as well as discussions for collaboration on other sectors that are under consideration between these two economies. It also identifies the possibility to improve the relationship between the two countries through a revision of a number of existing tariffs, non-tariff barriers related to trade and investment linked policies. We hope that this volume will enrich our understanding of Indo-Korea relations and contribute to more significant relations between the two countries.

**Ku-hyun Jung**
President
Seoul Forum for International Affairs

**Parthasarathi Shome**
Director and Chief Executive
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International Economic Relations

# Message

*by* Wook Chae

President, Korea Institute For
International Economic Policy (KIEP)

I begin with genuine congratulations on the publication of the second book, which represents fruition in the ongoing Korea-India Dialogue. I am also delighted that the second book has come out in 2012, following the publication of the first edition in India in 2011, just as the 11th Korea-India Dialogue is about to begin. What's more, I am thrilled that the Korea Institute for International Economic Policy (KIEP) was given the chance to sponsor this meaningful publication.

KIEP is a government-funded research organization established in December of 1989 to help Korea overcome external challenges brought about by changes in the global economic environment and to reaffirm the enhanced international role and status of the Korean economy in the 21st century. More than 110 researchers with master's degrees and doctorates are engaged in research in many areas including international trade & investment, international finance, development cooperation, major world economies and economic cooperation. Through research efforts, KIEP makes a vital contribution to the formulation of Korea's economic policies.

For those of us at KIEP, India represents a valuable subject for research along with China and several emerging economies. We are aware that India is now the third-largest economy in the world after the U.S. and China, having surpassed Japan in total GDP (PPP adjusted) in 2011. The fact that we accepted the publication request from The Seoul Forum for

International Affairs in early 2012 without any reservations attests to the importance of India as one of the world's emerging economic powers and Korea-India economic cooperation.

Looking back on our recent histories, it's clear that Korea-India relations have made rapid progress. Korea and India established formal relations relatively late in 1973 and economic cooperation between our two countries only began in earnest after the mid-1990s. However, the speed of advancements in Korea-India relations made up for past delays, with trade increasing nine-fold from USD 2.3 billion in 2000 to USD 20.6 billion in 2011. The near exponential growth in just 11 years has made India the ninth-largest destination for Korea's exports. In January of 2010, the Comprehensive Economic Partnership Agreement signed between the two countries went into effect. Korea thus became India's first FTA partner in the OECD, while India became the first BRIC country to become Korea's FTA partner. This has raised the relationship between the two countries to a strategic partnership.

This leads me to believe that Korea-India relations will develop even further and become deeper and stronger, as there is already a firm base of cooperation that underlies our two countries. Aside from long-standing historical and cultural exchanges, Korea and India also share two things in common: experience with democracy and the free market and acknowledgement of their values.

It is my hope to witness even greater progress in friendly relations between Korea and India, and I thank the Korea-India Dialogue for its contribution. I am also grateful to the organizers of the dialogue, the Seoul International Forum, the Indian Council for Research on International Economic Relations and especially the co-editors, Dr. Parthasarathi Shome and Prof. Choong Yong Ahn for their efforts to publish this highly insightful book. I would like to end by offering my congratulations once again on the publication of the Korea-India Dialogue.

# Message

*by* Woosang Kim

President of the Korea Foundation

It is my great honor and pleasure to have a chance to congratulate the publication of *Korea-India: Deepening Partnership for the 21st Century*, which is an outcome of the 10th India-Korea Dialogue held in Chennai, India in November 2011. This book is a sequel to *India-Korea: Dialogue for a 21st Century Partnership*, which was also an output of the 9th Korea-India Dialogue held in Seoul in May 2010 and published early this year in India. Particularly notable in this newer sequel, in comparison to the previous volume, is the important expansion of the horizon of bilateral collaboration to cultural realms, as well as post-indusrial cooperation, between Korea and India.

Recently, we have witnessed a phenomenal leap in Korea-India relationship. Just to cite a few symbolic events: Presidents of the two countries, H.E. Lee Myung-bak of Korea and H.E. Pratibha Patil of India, agreed in their summit meeting in 2010 to elevate the two countries' relationship to "Strategic Partnership." And in just two years after the Comprehensive Economic Partnership Agreement (CEPA) was taken effect in the same year, bilateral trade volume between the two countries was boosted by 70 percent. I believe this is only the outset of intensifying relationship between the two countries with further developmental potential in the coming years being even larger and spreading into broader sectors beyond the economic realm.

Korea Foundation has been at the forefront of facilitating bilateral exchanges between Korea and India. Not only has the Foundation been a solid Korean sponsor of the Korea-India Dialogue for almost a decade since

2003, but also supported Korean Studies programs at the institutes of higher education in India, that include the University of Delhi, University of Madras, and Jawaharlal Nehru University. We have also been firmly behind numerous cultural exchanges between our two countries and have invited leading experts and opinion leaders from diverse sectors of India. I am confident that the Korea-India Dialogue, as well as other exchange programs at the civilian level, has played a pivotal role for the past one and a half decades in making the Korea-India relationship blossom now and for the coming years. As the Dialogue itself has been held alternately in Korea and India since its launching, the two sequel volumes are published also alternately in Korea and India. This simple fact reflects the true nature of reciprocal bilateral exchanges, which will be a crucial stepping stone towards making together friends with the entire international community.

Korea Foundation has recently been diversifying its focus towards the middle powers, both in terms of hard power capacity and strategic status, based on the belief that Korea's future strategic partners in the international community should not be confined to the neighboring "Four Great Powers" as before, but further extended to the emerging market countries in general, and the like-minded middle power countries in particular. This is so particularly because a new era is opening in front of us, where hard power alone can no longer prevail, and where the like-minded nations gather together to pursue common goals of peace and prosperity based on their shared values. No doubt that India is a prime example of Korea's strategic middle power partners in the 21st century, given her political and economic potential, as well as cultural richness, demonstrated and recognized by the international community for the past decades. Korea Foundation is so proud of the publication of the two sequel volumes as they not only embody the past development of Korea-India bilateral relationship, but further will set important agendas for the many years to come to deepen our strategic partnership.

Last but not least, my heartfelt appreciation goes to the Seoul Forum for International Affairs for its devotion to the Korea-India Dialogue for the past one and a half decades, and Dr. Choong Yong Ahn and Dr. Parthasarathi Shome in particular, who endeavored to bring this excellent volume to publication.

# Opening Remarks

*by* Joong-Keun Kim

Ambassador of The Republic of Korea
at The 10th India-Korea Dialogue

It is my great honor and pleasure to take part in the 10th Korea-India Forum with eminent participants from Korea and India. Let me first extend my warm welcome and hearty greetings to all the participants, especially to those who have come all the way from Korea to join the event. My sincere thanks also go to the hosts - Indian Council for Research on International Economic Relations (ICRIER) and Seoul Forum for International Affairs (SFIA) for organizing this dialogue.

The Korea-India Forum has evolved over time as an important bilateral mechanism and today, it stands out among the numerous bilateral mechanisms that our two countries have set up. Since its inception in 1996, the forum has played a key role in promoting bilateral relations by presenting policy recommendations for the development of our relations. The forum's commitment in deepening Korea-India relations deserves well-merited acclaim.

I am particularly delighted that the organizers have chosen Chennai as the venue of this dialogue this time. Certainly there could be no better venue for a bilateral economic dialogue than the state of Tamil Nadu, which symbolizes the vibrancy and dynamism of Korea-India economic cooperation.

We are meeting at a time when there is renewed uncertainty about global economy recovery and the world economy appears to be heading towards yet another economic crisis. There are unmistakable signs of economic

and financial weaknesses in Europe and the U.S. which have created fresh doubts about the continuance of even weak and fragile global recovery. Even though the economies of Korea and India have continued to be strong and resilient thus far, there are lurking fears, nevertheless, that a threatened global slowdown will adversely affect the growth prospects of our two economies.

At this juncture, it is important that experts and policy makers of our two countries have come together to deliberate on an issue which represents our shared vision in times of global economic uncertainty. Therefore, I believe, the forum is very timely, and the theme, "Korea-India CEPA: Prospects and Challenges" is apt and relevant.

**Past Developments of Korea-India Relations**

May I say that the present day Korea-India relationship has blossomed through distinct stages, each stage contributing significantly to shore up the varied facets of our bilateral relations. I would like to identify three distinct stages in the evolution of Korea-India present-day relations.

***1st stage: Budding Period***

The first stage, which I prefer to call as 'budding period', starts with the establishment of diplomatic ties in 1973 and covers the period until early 1990s.

In this period of two decades, our two countries started diplomatic and other bilateral interactions and put themselves on course to realize full potentials of their cooperation. But they could not do so because of their inherent ideological incongruity and differences in their policy orientations.

The main reason was that India adopted a socialist, secular, democratic government at home and spearheaded Non-Aligned Movement as the leading nation of third world in international affairs. Korea, on the other hand, maintained the US-Korea alliance to defend its democracy against external security threat. So, our two countries saw each other as a member of

the 'different camps' and were blinded by the blinkers of the global block politics of the time.

In the economic policy perspective, India adopted inward-looking import substitution model of development, whereas Korea consistently pursued an outward-looking export oriented development path and opened its market to the world. This prevented the growth of economic ties between the two countries. Therefore, diplomatic ties and other bilateral interactions notwithstanding, relations between the two countries did not make much headway.

### *2nd stage: Economic and Commercial Cooperation*

The subsequent stage, which I would like to call as phase of 'economic and commercial cooperation', covers the period between 1991 and 2009. This was the phase in which our bilateral relations grew steadily and significantly in real sense. In this period, India took two important policy initiatives and two other important developments took place in the international arena. The combination of these changes in India's policy and in the global scene contributed to the development of our bilateral relations.

### India's policy initiatives

First, India adopted the New Economic Policy in 1991 and liberalized its economy. This change of policy from a state controlled mixed economy to a market economy further bolstered our bilateral relations, especially in the sphere of economic relations. Both Seoul and New Delhi recognized the overwhelming need to deepen the process of economic engagement with each other and expanded the frontiers of business to bring prosperity to both our countries and people.

Korean investors were quick to recognize the innate strength of Indian economy, the forward-looking economic policies of the Indian government and the vast genius of the Indian people.

In the early years of India's economic reforms, while many foreign companies were skeptical about the strength and efficacy of India's business environment, Korean companies with their unique dynamism and adventurism showed confidence in the fundamentals of Indian economy and filled the vacuum that other foreign companies left.

I would like to take this opportunity to commend the Korean companies for playing a pivotal role in strengthening our bilateral economic ties.

The second policy change on India's part was the announcement of its Look East Policy in 1991 with the aim to seek greater engagement with East Asian countries. But, for the entire period of the 1990s, India only looked at east but mostly went towards west. It is only recently, perhaps around 2005 that India actually started not only looking at the east but also moving in the east direction and intensified its diplomatic outreach to its eastern neighbors, including Korea. The initiation of CEPA negotiations with Korea in 2005 and with Japan in 2006 does indicate a change in India's policy from 'look east' to 'engage east.'

**Developments in the international arena**

Besides the India's policy changes, there were two other significant developments at the international level.

The first was the end of the Cold War. With the end of the Cold War, India was no longer seen by Koreans as a member of 'other bloc' and two countries found some common ground to work on and cooperate with each other in the economic and trade fields for reaping mutual benefit.

Another positive change in the international environment which acted as catalyst to the development of our bilateral relations was the improvement in the relations between India and the US.

The improvement in Indo-US ties did not only changed the dynamics of their bilateral relations, but also significantly impacted the contents and

contour of our regional security and economic environment.

The US, by having a civil nuclear cooperation agreement signed with India, ended the global nuclear apartheid against India, and prepared ground for greater engagement with India. The improvement in Indo-US relations could provide the opportunity for Korea and India to expand their sphere of cooperation, including cooperation in regional security issues and non-traditional security issues.

### *3rd stage: Strategic Partnership*

The Korea-India relationship has now evolved into Strategic Partnership. The establishment of strategic partnership between our two countries could be the result of convergence of India's Look East Policy and Korea's New Asia Diplomatic Initiative. I would like to describe it as policy rendezvous.

President Lee Myung-bak's New Asia Diplomatic Initiative announced in 2008 represents a shift in Korea's foreign policy from focusing on the four major powers to expanding its partnership with other neighboring countries. It seeks to expand South Korea' diplomatic horizon in two new directions. First, it expands Seoul' traditional foreign policy focus from Northeast Asia to the entire Asian region. Second, it is intended to widen the scope of cooperation from economy to security, culture, energy and other sectors. The vision incorporates Korea's entering into FTAs and strengthening its security ties with more Asian nations. The main aim of the new diplomatic initiative is to diversify Korea's diplomatic activities with more friends in the region.

As a part of his New Asia Initiative, President Lee paid a historic State Visit to India in January 2010 and upgraded our bilateral relations to a 'Strategic Partnership'. Korea and India also implemented CEPA at the same time to realize the full potential of their economic cooperation. With these two landmark developments, the two nations laid down the ground for future development of our bilateral relations.

**Current State of Korea-India Bilateral Relations**

Today, Korea-India relations are in the best shape ever. The exchange of high-level visits has become regular and more frequent. Bilateral trade and investment is surging ahead and people to people contacts are expanding. The CEPA has given a much needed impetus to our bilateral relations.

Over the past one year, a number of ministerial delegations have exchanged visits, including the important visits by Indian Ministers of External Affairs and Defence to Korea. As you know, President Patil paid a State Visit to Korea this July which further strengthened our Strategic Partnership. We are expecting visits by Korean Defence Minister and Foreign Minister to India towards the beginning of next year. We also look forward to welcoming Prime Minister Manmohan Singh in Korea as our Official Guest in March next year, which would again strengthen our strategic partnership.

The CEPA in its first year of operation has unleashed the economic growth impulses and as a result, the two-way trade surged from 12 billion US dollars in 2009 to 17 billion US dollars in 2010, which is a good 41 percent increase over the last year. This growth rate in Korea-India trade is significantly higher than that in both Korea's total trade and its trade with China. During the first eight months of this year, bilateral trade has touched 14 billion US dollars, which is a 30% increase over the same period last year. The trade volume is expected to cross 21 billion US dollars, this year.

It is now quite evident that the CEPA has opened up new pathways of upgrading our bilateral economic engagement to a much higher level. We are committed to sustain this growth momentum over the next 8 to 10 years as our two countries progressively reduce or eliminate the tariffs on imports from each other.

There are now enhanced people to people contacts and cultural exchanges between the two countries. As you know, our two countries are

celebrating the year 2011 as the 'Year of Korea in India' and 'Year of India in Korea'. Both our nations have successfully hosted a number of cultural events in each other's country so far to mark the special year. These celebrations have presented the sublime facets of each other's culture to the people of our two countries and elevated mutual understanding and friendship between our two peoples to a higher level.

**Future Policy Orientation for Bilateral Cooperation**

As regards to future policy orientation for long term bilateral cooperation, I think the two countries will focus on developing comprehensive, mutually beneficial and enduring bilateral relations beyond trade and investment.

The long-term development of our relations critically hinges on introducing and promoting soft power of our respective countries to our two peoples. I sincerely hope that we should push forward closer people to people contacts, besides ensuring deeper cultural interactions between our two countries.

Although our relations in the field of culture have been picking up, we still need to develop closer cultural ties in order to build the bridges of mutual understanding and friendship between our two peoples. This calls for intensified people to people contacts and cultural exchanges. And I do hope that the efforts we are making to enhance our mutual understanding and knowledge will produce desirable results in the near future.

Security is another area in which our two countries should be looking forward for closer cooperation. As you may agree, our region is home to a number of potential causes for conflict. Both our countries live in difficult neighborhoods and face constant challenge to their security. As two countries are heavily dependent upon imported energy, we have common interest in ensuring the security of sea lanes of communications. Thus, we have huge stakes in maintaining stability and security in the region. And this

calls for our greater cooperation in security matters. For this, we need to establish a framework for security cooperation.

**Security & Trilateral Dialogue**

One of the common goals of the 'India-Korea Special Partnership' is to secure and promote stability in the East Asia region.

Since India maintains a 'Global and Strategic Partnership' with Japan, and Korea has a 'Future Oriented Mature Relationship' with Japan, so the three countries have a common ground to build trilateral cooperation in security matters. More importantly, the three countries share the common values of democracy and market economy as their fundamental ideology.

Therefore, the building blocks for trilateral cooperation involving Korea, India and Japan in security matters are already in place. And the three nations can complement the existing bilateral cooperation by formalizing the trilateral cooperation. Trilateral cooperation will surely contribute to maintaining stability and security in the region. Furthermore, the trilateral security cooperation will also give us leverage which we don't have now in dealing with other major powers in the region.

As a first step in this direction, diplomats from three countries in New Delhi have discussed for the last six months the framework of trilateral security cooperation and have agreed to launch a trilateral dialogue between Korea, India and Japan at Track II level. The Institute of Foreign Affairs and International Security (IFANS) has been designated as Korea's focal point, while the Institute for Defence Studies and Analyses (IDSA) will serve as India's focal point for the Track II dialogue. The first meeting of this dialogue is likely to be held in the first half of 2012 in New Delhi.

The agenda of the dialogue may include regional security issues and non-conventional security concerns like maritime security, energy security, piracy, etc. We do expect that this dialogue at non-governmental level will gradually evolve into a dialogue at the governmental level.

**Prospects of Bilateral Relations & Areas of Cooperation**

I am confident that the prospects of our medium and long-term bilateral relations are bright. The strategic partnership between India and Korea offers vast scope for strengthening our cooperation in regional affairs. Though Korea is not a major regional power, but through cooperation with India, it can serve its strategic interests in the Indian Ocean areas. Similarly, it can help India to secure a foothold in the Northeast Asia region.

In the field of economic relations, the sectors that have potentials to enhance the already existing bilateral trade and investment relations are automobile, construction and infrastructure, nuclear and renewable energy, ICT industry, shipbuilding, defence, chemical and petrochemicals, etc.

Here, I would particularly like to talk about the prospects of cooperation in the field of civil nuclear energy.

As you all know, with the signing of Korea-India civil nuclear energy cooperation agreement, civil nuclear energy has now opened up as a new sector for enhancing our economic cooperation. The agreement has unlocked India's vast civil nuclear energy market to Korean companies.

Korea is the world's fifth largest nuclear energy producer. The country has a total of 20 nuclear power plants which accounts for 32% of its energy need. It is expected that Korea will derive 60 percent of its energy from nuclear power by 2030.

Korea has been building nuclear power plants for the last four decades, so it has latest and proven cutting edge technology in nuclear power plant construction, management, maintenance and safety practices. Korea is eagerly looking forward to mutually beneficial civil nuclear cooperation with India. And you may recall that last year a South Korean led consortium secured contracts worth 20 billion US dollars to build and operate four nuclear reactors in UAE by 2020.

India aims to reach 60, 000 MW of installed capacity by 2032 from the

current level of 4,780 MW, for which it is seeking international cooperation. For India, a civil nuclear cooperation with Korea will be cost effective, reliable and equipped with world-class safety measures. For Korea, it will give a major boost to its nuclear industry.

**Conclusion**

I am sure the distinguished participants present here will deliberate on all the aspects of Korea-India relations and enlighten us with their perspective.

Finally, I would like to reiterate that we attach great importance to developing strongest possible ties with India. I look forward to hearing your views and suggestions in this regard. I am sure, at the end of the day, there will be some concrete proposals and recommendations for our future policy initiatives. On my part, I assure you of continued support of the government of the Republic of Korea, as peoples of both countries strive together to realize the full potential of our partnership.

# Opening Remarks

*by* Skand R. Tayal

Ambassador of India to The Republic of Korea,
at The 10th India-Korea Dialogue

I convey my congratulations to the Seoul Forum for International Affairs (SFIA) as well as the Indian Council for Research on International Economic Relations (ICRIER) for organizing the 10th India-Korea Dialogue in Chennai. This Dialogue has brought the strategic thinkers as well as academics of the two countries together. The Dialogue is unique as it is the only '*Track 2*' interaction between our two countries.

I have gone through the presentations and conclusions of previous Dialogues and have found them both informative and productive. The recommendations of previous Dialogues have, in many ways, contributed to the blossoming of bilateral relations and have also offered a roadmap for the future.

I would be completing my tenure as the Ambassador of India to the Republic of Korea next month. As I leave office, I would like to share my thoughts with you on two issues: one, some emerging imbalances in our relationship, and the second, some suggestions to give greater content to our *Strategic Partnership*.

One noticeable imbalance is in the Minister-level visits between our two countries. Since 2009, 18 Ministers, Ministers of State and Chief Ministers and 18 Vice Ministers from India have visited Korea whereas only 5 Ministers and 5 Vice Ministers have travelled the other way. For greater

interaction among the policy makers, we need more high level visits from Korea.

Another recent development is a large number of study tours and training visits by our officials and executives to Korea. The IAS Phase IV training for 3 weeks is now regularly held in Korea with the participation of Korea Development Institute (KDI). Several Indian management institutes send large groups of students to Korea as part of their executive MBA programme. We have also had groups of senior officers from the armed forces from India's National Defence College and for senior management courses. I would very much encourage a similar flow of officials and executives from Korea to India to enhance mutual understanding and knowledge about each other. The experience of India would be relevant to Korean officials in areas such as information technology, management and technical education, agricultural research, women's empowerment as well as promotion of harmony in a multi-lingual and multi-religious society.

There is a notable imbalance in trade which needs to be addressed. Last year, Korean exports to India were worth $11.5 billion where Indian exports to Korea were only worth $5.6 billion. We need to examine and address the impediments to India's exports including delays in phyto-sanitary approvals for our agricultural products, pricing policy of generics in pharmaceuticals, etc.

I am happy that there is a two-way flow of capital. However, the official figures vary and it is difficult to estimate the actual investments as often corporations invest via countries like Mauritius, Netherlands or tax havens like Cayman Islands. I would request Director Mr. Parthasarathi Shome to look at this issue and perhaps undertake a study in ICRIER with the investments attributed to the country where the headquarters of the parent company are located.

In January 2010, our bilateral relationship was raised to the highest level of Strategic Partnership. The challenge before us is to give it more strategic content to add to the ongoing contacts between our Navies and Coast

Guards. It is important that both our countries share a world view and follow a largely similar economic system. Our polities are based on liberal democratic principles and we are basically status quo powers. Both our countries have friendly relations with the US.

In this background, this Dialogue could consider possibilities of collaboration in economic development of Afghanistan. India has committed almost $2 billion for the social and economic development of Afghanistan. Korea is also committed to assist in this process and has a presence in the Parwan province of Afghanistan. Perhaps we could collaborate in the development of mining sector in Afghanistan as well as for training and education of Afghan officials and skilled technicians.

The Dialogue may also explore the possibility of a closer defence partnership, particularly through joint development of new weapons platforms and defence systems. The Defence Acquisition and Procurement Agency (DAPA) and our Department of Defence Production have had several meetings and have identified some areas for joint work in the future. In my view, this has considerable potential and should be pursued vigorously.

In conclusion, the two governments are committed to a strong bilateral relationship; the peoples of our two countries have friendly sentiments towards each other; fortunately, there is no adverse historical baggage in our relationship; and our foreign policy objectives are broadly similar: to have an external environment conducive to economic growth and regional stability.

In this background our bilateral relations are poised to grow and the contribution of this Tenth Dialogue would be important for us all to move forward.

# Speech

## on China, North Korea and Northeast Asia

*by* Sung-Joo Han

Former Minister of Foreign Affairs,
Republic of Korea

There seems to be a seminar or debate about China virtually every day. The discussion usually revolves around the question of when China will become the world's No. 1 economy and subsequently what impact this shift will have on the global economic order.

I recently participated in several forums in Beijing and debated with intellectuals and policymakers from around the world about China and the changing global landscape. A wide range of opinions and ideas were exchanged, but nobody denied that China had already overtaken Japan as the world's No. 2 economy in 2010, in terms of GDP. Moreover, there also appeared to be tacit agreement that China will become the largest economy in the world between 2025 and 2030. What impact will this have on other countries in the region and how should we prepare for the changes in the world order?

China's increasing economic power offers the rest of Asia huge opportunities, but it is also cause for concern and trepidation from a geopolitical standpoint. In this context, we should ask ourselves the following questions: Is the rest of the world overly dependent on China's economy? What if China attempts to use its economic leverage to force other countries to bend to its will for political and diplomatic purposes? At the same time,

what would happen if the Chinese economic bubble burst, as some predict, in the next couple of years? What will happen if China becomes embroiled in an earnest competition for hegemony with the United States, regionally if not globally, as some analysts such as Steve Mersheimer have argued will inevitably happen? Whether China and the United States decide to strengthen their mutual cooperation and create a formal G2 structure or intensify their conflict and competition, it cannot be a comforting prospect for other regional states.

However, depending on our methods of approach and responses to the changing environment, I believe that China's ascendancy could benefit other countries for the following reasons:

First, as it takes strides to become a superpower, China's basic position is to promote progressive and peaceful reforms while still maintaining the present global order, unlike Nazi Germany and Soviet Russia, which tried to overthrow the existing power structure. China's "peaceful rise" appears aimed at supporting a "multi-polar" world order, rather than seeking to replace the U.S. as a hegemonic superpower. China and the U.S. may continue their arms race and look over their shoulders, but a clash between the two superpowers is highly unlikely given their heavy inter-dependency.

Second, we should not be concerned that Beijing will use the economic dependence of other countries to achieve its diplomatic goals. As the saying goes, China trades for profit and invests only for strategic reasons such as securing resources. When Beijing assists or makes loans to other countries it is seeking to fulfill China's diplomatic and national self-interests. China is willing to back efforts to tackle the Eurozone's debt crisis, such as measures that will contribute to the creation of a European Financial Stabilization Fund, in order to prevent the collapse of the Eurozone since it is aware that this could lead to the collapse of the world economy. Furthermore, Beijing is not likely to invest a significant amount into money-losing ventures simply to boost its control over another country such as North Korea.

In the case of its diplomatic spat with Japan over the Diaoyutai or Senkaku Islands earlier this year, China used its economic influence as a tool to exert diplomatic pressure on Tokyo. By regulating exports of rare earth elements to Japan, Beijing prodded Tokyo to release the captain of a Chinese vessel who had been detained. But China's heavy-handed approach drew global criticism and prompted Beijing to curb such tactics. The incident probably reminded China of the importance of soft power and flexible diplomacy.

Third, in the case of China's position on the Korean Peninsula, while China has not been as firm with North Korea as South Korea had hoped in dealing with the sinking of the Navy corvette, the *Cheonan*, and the shelling of Yeonpyeong Island, nonetheless, it should be given some credit for striving to restrain the North. Furthermore, the North's possession of nuclear weapons does not benefit China, so Seoul can assume that Beijing is looking for ways to get Pyongyang to denuclearize. But China does not want to see regime collapse in North Korea and needs to offer the North some degree of support to maintain its influence. As a result, it probably feels that other countries should refrain from pressuring or criticizing North Korea.

There are still many potential sources of conflict between China and the U.S., including Taiwan, human rights and disputes in the South China Sea, but both sides appear to share the view that they need to cooperate and maintain amicable ties for their mutual benefit. Circumstances that may deepen understanding and cooperation between Washington and Beijing may prove to more readily available than expected when it comes to the North Korean nuclear threat, and China and South Korea also share a much wider set of common interests than appear on the surface.

When I was visiting Taipei a month ago for the annual IPI (International Press Institute) Conference, I came across an interesting and ironic situation. At that time, China was vehemently protesting the U.S. sale of F-16 C&D models to Taiwan worth some 5.8 billion U.S. dollars.

Interestingly, however, Beijing lodged no complaints against the Nationalist government of Ma Ying-jou in Taipei. The reason was, it turned out, that Beijing did not wish to embarrass President Ma who has been successful in promoting good and expanded relations with Mainland China.

All this demonstrates how practical, pragmatic, and self-interest oriented China can be. Needless to say there are competing viewpoints within China: one side advocating the active pursuit of China's hegemonic position by converting its economic might into political and military power; the other advocating the development and use of soft-power while building up hard power to back up the soft-power approach. Which view will prevail and when will depend very much upon the response of the rest of the world and the evolution of the political system and policies within China.

## Speech

### on The Future of Korean-Indian Economic Relations

*by* Chulsu Kim

Former Minister of Trade, Industry and Energy,
Republic of Korea

I am very pleased to take part in the India-Korea Dialogue and to say a few words about the economic relations between our two countries today. Although I have been to India quite a number of times in the past, this is my first visit to Chennai and just a couple of days' stay in this bustling city has been sufficient for me to get a strong impression about the dynamic economic growth taking place in India as well as the growing economic ties between our two countries.

In recent years, trade and investment ties between Korea and India have grown very rapidly. Bilateral trade has expanded seven fold in the last ten years and the accumulated two-way investment has surpassed the $3.5 billion mark. This has been mainly due to strong economic growth in India and to growing opportunities for trade and investment by Korean firms in this country, particularly in the automotive, steel and electronic industries, as well as in the development of infrastructure. There are now more than 500 Korean companies doing business in India.

Two thousand and ten was a landmark year for Indian-Korean economic relations. The Comprehensive Economic Partnership Agreement (CEPA) was implemented on January 1 after four years of negotiations. This agreement provides the institutional framework under which our two

countries will be able to further expand trade and investment relations. Not surprisingly, bilateral trade grew nearly 40 percent in 2010 over the previous year to register $17.1 billion. This growth trend is continuing this year with both Korean exports to India and Indian exports to Korea rising by substantial margins.

While the trade and investment ties between our two countries have developed dramatically in recent years, it is not difficult to see that the present level of economic exchange falls short of the potential. With the Indian economy destined to enjoy continued rapid growth, opportunities for trade and investment by Korean firms in India are likely to expand. And given the complementary elements of the two economies, there is also a considerable scope for collaboration between Korean and Indian firms. What can be done to accelerate cooperation to the mutual benefit of our countries? We discussed some issues in our meeting yesterday and I also have several ideas and suggestions to make today.

First of all, I hope that the POSCO's investment project in Orissa for integrated steel mill will see the light of day as soon as possible. As you know, this $12 billion mega-project has been delayed for several years due to regulatory hurdles. As the largest foreign investment project in India, the POSCO project, if implemented, will have a huge economic impact in terms of regional development, employment, technological advancement, and exports, among others. The project is also likely to be deemed a symbol of Korean-Indian economic cooperation as a flagship venture having the effect of substantially boosting trade and investment. I hope that the regulatory procedures are expedited so that land acquisition and mining right issues are resolved soon.

Another important task in Korean-Indian economic relations is ensuring that the institutional cooperation framework remains viable, relevant and strong. Here, I refer to the CEPA and the need to upgrade the agreement. As you know, this agreement was negotiated between 2006 and

2009, and some of its provisions have been superseded by recent events. For example, some of the tariff concessions contained in the agreement have been rendered meaningless today due to the recent Indian reduction of most-favored-nation (MFN) tariff rates. It has been pointed out that nearly 62 percent of the Indian CEPA tariff rates for 2010 are higher than MFN rates. Under the circumstances, I believe the time has come for our two governments to sit down and review this and other relevant issues to determine whether the present agreement needs to be improved to better reflect the present realities and to make it a more trade enhancing document. I understand that the CEPA itself anticipates the possibility of such an amendment by mutual consent. In this regard, it is encouraging to note that, in last September, the two countries have begun official consultation on possible upgrading of the CEPA. It is hoped that the authorities will quickly move to amend CEPA where necessary with a view to further enhancing trade and investment between the two countries.

Removing impediments to trade and investment is another important challenge in our future economic relationship. With respect to trade, anti-dumping is one such issue. India is known to be one of the most active users of anti-dumping measures in the world. After China, Korea has been the second most frequently targeted country by India, with 48 anti-dumping investigations since 1995. While no country's right to use trade remedy actions against unfair trade practices can be questioned pursuant to the WTO, it is important to ensure that such actions and practices do not become a hidden form of protectionism. It would be an irony if the CEPA opens up trade with respect to certain goods, while anti-dumping actions close trade in those same goods. It will be important for both countries to exercise restraint in introducing trade remedy measures with respect to each other's goods whenever possible.

In the field of investment, the CEPA has opened up some mutual possibilities for both countries beyond what the WTO offers. As a result, the

CEPA is likely to contribute to greater cooperation in the services field. However, there are sectors that still are not open, yet important to the future of our economic relations. On the Korean side, banking, and retailing are two such areas, and Korean banks and trading companies will be greatly appreciative of any measures on the part of India to further open these sectors. Related to the liberalization of service sectors is the issue of visa policy for businessmen of both countries. Ensuring easy and simple process for issuance of visas would greatly facilitate investment between the two countries. In this regard, it is encouraging to note that the authorities are close to signing and implementing the bilateral visa simplification agreement.

Exploring and forging industrial cooperation will also be of utmost importance to the future of our two countries' economic relationship. Such cooperation would open up new business opportunities for our mutual benefit, and we should encourage both Korean and Indian industries to actively promote such cooperation and to collaborate with each other wherever possible. For example, one promising area is in the information technology field, where Korea's strength in IT hardware and India's strong software capabilities could combine to produce globally competitive joint ventures regardless of where they are located.

Finally, another promising area of cooperation is in infrastructural development, especially in the field of power-generation. A number of Korean companies are already active in the construction of large-scale power plants in India. As Korean firms are global leaders in this field, I am hopeful that there will be additional opportunities for such companies to further participate in India's power development programs in the future. Another possibility lies in atomic power generation. Based on Korea's long history of safe atomic power management and the recently concluded contract for the construction of four atomic power plants in the UAE, Korean industry hopes to participate in the development of atomic power in India in the future. It is encouraging to note that a bilateral civil nuclear power

cooperation pact was signed last July, laying the foundation for mutual cooperation in this important area.

Let me conclude my remarks here. Today, I have raised some issues and made suggestions on improving and augmenting the already strong and vigorous economic ties between Korea and India. These issues and suggestions are by no means exhaustive. But I offer them as possible strategies for removing impediments and further expanding the growing economic relations between our two countries. I hasten to add, however, that on the basis of the strengths and good prospects for our two economies, I firmly believe that trade and investment relations are bound to be strengthened further in the years to come to the mutual benefit of our two countries and peoples.

# Preface

The process of globalisation gained momentum primarily in the 1990s. In the globalised world, trade arrangements have emerged as a key mechanism to build strategic alliances amongst countries. The objectives with which countries enter into trade agreements have evolved over time with a widening of the scope of these agreements, which initially was confined to trade in goods, to include investment and services trade. For instance, India has started to emphasise non-tariff barriers besides tariffs and on services together with goods.

India and Republic of Korea (hereafter Korea), two rapidly growing economies, are among the countries that have sought to improve their international standing through greater engagement in world trade. To this end, both countries have entered into bilateral trade agreements with several countries, including each other. In 2009, India and Korea singed a Comprehensive Economic Partnership Agreement. The CEPA is considered similar to a Free Trade Agreement (FTA) with comprehensive coverage of trade in goods and services and investments as well as intellectual property rights. This is Korea's first FTA with a BRICS nation and India's first FTA with an Organization for Economic Cooperation and Development (OECD) country. Under the CEPA, it has been agreed that tariffs would be reduced or eliminated on 85 per cent of Korean goods and on 90 per cent of Indian goods over a period of eight years.

The Indo-Korea strategic relationship, based on common values related to humanity, democracy and open society, has evolved in stages. The period from the year 1973 to the early 1990s, referred to as the modern period, saw

the first steps towards establishing bilateral diplomatic relations. But the association was limited since the two countries viewed each other as members of separate global economic groups. Moreover, the different growth models pursued by India and Korea, with India's emphasis on import substitution and Korea's emphasis on outward export orientation, were a key constraint in building bilateral ties. The launching of the 'Economic Reforms Programme' in 1991, which transformed the Indian economy from a state controlled to a market based economy, provided a vital boost to sustained collaboration between India and Korea placing them on the same platform for an economic engagement.

For Korean companies, the opening up of the Indian market provided the opportunity needed to realise the potential offered by the huge size of the Indian market. The Indo-Korean relationship also received a fillip from the improvement in Indo-US relationship, which had implications for regional security and the economic environment. The bilateral association is considered to have benefited both countries–Korea by enabling diversification of diplomatic ties with other economies in East Asia and India by enabling it to increase its presence in Northeast Asia.

The Indo-Korea Track II dialogue, supported by the Ministry of External Affairs in India and the Ministry of External Affairs in the Republic of Korea initiated in the year 1996, is now organised on an annual basis. The objective behind arranging these dialogues on a consistent basis is to improve mutual understanding through different rounds of discussions to deal with the political, economic and strategic issues that both countries face as members of the dynamic Asian economy and to add to the process of strengthening Indo-Korean relations. The main theme of the 10th dialogue organised in November 2011 at Chennai India, was to critically analyse the prospects and challenges of the India-Korea CEPA.

The Indo-Korean agreement has started to exhibit its potential in the form of enhanced bilateral trade and investment flows between the two

countries. In 2011, India became the 9th biggest source of imports for Korea. The main Indian exports were petroleum products (mainly naphtha), cotton yarn, ferro-alloys, unwrought aluminium, unwrought zinc, metal scrap, oil cakes, iron-ore, sesame seeds and marine products. Major Korean export items included automobile parts and accessories, telecommunication equipment, ships, petroleum products and hot rolled products of iron.

To strengthen relations further and in conformity with the Indian government's 'Look East Policy', the Indian defence minister visited the Republic of Korea in 2010 to boost military ties between the two countries. Following this visit, a civil nuclear co-operation agreement was signed between India and Korea in 2011. In a joint statement released recently, Indian Prime Minister Manmohan Singh and Korean President Lee Myung-Bak agreed a) to greater collaboration in space activities and maritime security; and b) to deepen Korean investment in the Indian infrastructure sector over the next five years. Apart from this, discussions on collaboration in many other sectors, particularly the defence sector, are under consideration. Both countries could collaborate in the defence sector, specifically in the joint military and naval exercises. As mentioned in the 10th Indo-Korean dialogue, India being one of the leading players in sectors like IT, textiles and leather, these sectors could be possible areas for future collaborations between the two countries. Besides, the possibility of improving the relationship through revisions of existing tariffs and reducing non-tariff barriers related to trade and investment linked policies are also part of the discussion agenda.

Despite a shift in the composition of imports to India from Korea and impressive improvement in Indo-Korean trade volumes, the figures are still less than ten percent of Korea's trade with China. Therefore, even though the Indo-Korea CEPA has resulted in increased trade, investment and human development in both economies, there are several trade complementarities that remain to be identified and exploited. Further, for the future, the two countries need to gear and equip themselves to withstand

greater competition from China, which could adversely impact both their individual economies and their bilateral relations. The co-editors would like to thank Dr. Ku-hyun Jung, President of SFIA, and Dr. Rajat Kathuria, Director of ICRIER, for their encouragement of the book's publication. We would also like to express our deep appreciation for those who contributed papers for this volume, the keynote speakers, discussants, and other participants of the 10th India- Korea Dialogue held in Chennai.

Last but not least, while preparing this sequel to the Korea-India partnership dialogues, the editors would like to extend their appreciation to Ms. Seo Hyewon and Ms. Chang Young for their excellent editorial assistance.

Parthasarathi Shome and Choong Yong Ahn

# Introduction

*by* Parthasarathi Shome and Choong Yong Ahn

India, globally the second fastest growing economy, and South Korea, one of the Four Asian Tigers, are two of the most significant economies in Asia and the world. Despite apparent differences in the growth pattern followed by the two economies in terms of political and economic structures, both countries have developed into successful market democracies today. By adopting market-oriented policies and a reduced role for government, South Korea has become one of the most advanced and globally integrated economies at present. India, on the other hand, gradually opened up its economy in 1991 after launching an 'Economic Reforms Programme'.

To sustain the growth momentum and intensify economic relations with other East Asian countries under the Comprehensive Economic Partnership for East Asia (CEPEA), India and South Korea have constantly made efforts to diversify and establish new associations to sustain their comparative advantage globally. Following this path, to further strengthen and intensify bilateral co-operation, a Comprehensive Economic Partnership Agreement (CEPA) was signed between the two countries on August 7, 2009, in Seoul after twelve rounds of negotiation, heralding a new era of greater economic exchange.

The impact of the CEPA, which became effective from January 1, 2010, on bilateral trade and investment figures has been quite remarkable. There has been a spike in total trade figures, which grew to US$20.57 billion in

2011, compared to US$2.52 billion in 2001. India has become the thirteenth largest trading partner of the Republic of Korea. Total Korean investment in India constitutes 1.24 percent of its total investment worldwide while Indian investment in the Republic of Korea is estimated to be about $1 billion up to 2011. Furthermore, an ambitious target of crossing $40 billion in bilateral trade by 2015 has been set by the Indian Prime Minister, Mr. Manmohan Singh, through further reduction in duties and removal of non-tariff trade barriers under the CEPA.

The annual dialogues conducted over a decade jointly by Indian Council for Research on International Economic Relations (ICRIER) and the Seoul Forum for International Affairs (SFIA) has contributed to the process of strengthening mutual co-operation between India and the Republic of Korea.

There have been several agreements, which either are under negotiations or have been signed by the two economies after the conclusion of the CEPA. Immediately after the CEPA was signed, the European Union-South Korea Free Trade Agreement was signed on October 15, 2009. Another FTA, KORUS, a free trade agreement between the United States and the Republic of Korea, came into effect in March 2012, after several rounds of negotiations. The South Korea-Peru Free Trade Agreement was signed on March 21, 2011 in Seoul, Korea. Apart from these, FTA's amongst South Korea, Japan and China and between South Korea and China are under negotiation. For India, there are several dialogues that are under consideration with various countries like Australia, Thailand, Pakistan, etc. Besides, both India and South Korea are considered prospective key partners of the United States in the future.

The present volume is a compilation of papers presented at the Tenth India-Korea dialogue. The book covers a broad range of key issues associated with the two economies. The book is divided into six sections. Section I discusses the 2008 debt crisis in detail and its impact, together with the economic restructuring undertaken by India and South Korea to tackle the

crisis in the best possible way. Section II analyses trade prospects and non-tariff barriers in the light of the CEPA; Section III highlights the FDI policies of both countries in detail. Section IV explores the prospects of collaboration in the services sector and in Green Energy. Section V examines the global security concerns for both economies and Section VI focuses on the influence of culture on economic activity and exchange between the two economies.

# Section I

## Recent Economic Trends

The world economy is headed for another crisis, though of a different nature, after a partial recovery from the 2008 debt crises. The 2008 crisis was caused by a "balance of imbalances". The US economy and Europe ran large current account deficits, reflecting low domestic savings. These deficits were matched by surpluses emanating mainly from three sources – the emerging economies, particularly China, oil exporting countries and, to a lesser extent, metal exporting countries. As these surpluses could not be absorbed domestically, it flowed to developed economies like the US. These surpluses were used to invest in innovative financial instruments, which finally led to the crisis.

The re-emergence of the crisis in the US is linked to the large bail out and stimulus packages, which implied the shifting of private liability to the government. This, in turn, has resulted in the government incurring huge debt and resulted in a credit rating downgrade. Coupled with this, the country's low fiscal capacity has resulted in low growth prospects for the economy. Similarly, in Europe, weaker countries, which had spent huge amounts on bailing out financial institutions, face major debt crises. These developments are likely to result in weak growth prospects for the region.

This crisis is now likely to affect economies like India in terms of rising

global prices of food and crude oil, both of which have a considerable bearing on the Indian economy. Crude oil and food prices reflect the vulnerability of the Indian economy on the inflation front. India has remained focused on monetary policies to control inflation as fiscal policies have failed to achieve this objective. Growth rates have declined due to high inflation, high revenue deficit and a growing current account deficit. Inflation management in India will depend largely on how the fiscal deficit and the revenue deficit are managed.

The demographic dividend for India could be an important growth driver. The demographic dividend can provide labour, capital and opportunity for absorption of technology. However, the industry and services sectors will be able to absorb the working population only if skill levels are adequate. Fiscal capacity would be required for the training and skill upgradation needed to realise the demographic dividend. .

Since the Asian financial crisis, Korea has restructured many of its sectors including the banking and corporate sectors, and its public enterprises. It is now an upper middle-income country and hence, faces many of the problems faced by such economies. The two main problems facing the country are those of inequity in income distribution and the rising age of its population. Inequality has been on the rise since the Asian financial crisis mainly because of two reasons. First, the manufacturing sector is not creating enough jobs. Second, Korean companies have been hiring non-regular workers. Korea is also faced with an aging population. Together with, its low birth rate, the lowest birth rate among the OECD countries, these factors could lead to a decline in potential growth rates, which is the main challenge that Korea faces in the coming years.

# Section II

## Trade Prospects and Non-Tariff Measures

India and Korea entered into a Comprehensive Economic Partnership Agreement (CEPA) in 2009. Preferential tariffs are a key feature of the agreement. These preferential tariff rates were accorded on the 2006 base line tariffs. In the last five years, India has reduced its MFN tariffs considerably. As a result, in 2010-11, India's MFN tariffs were lower than those committed to Korea under the bilateral free trade agreement. This has raised concerns about the utilisation of preferential tariffs under the CEPA. Such an anomaly needs to be rectified. However, the CEPA does not have any clause that would permit a review of the tariff liberalisation program. The two countries should revise the agreement to include a clause that will allow countries to review their tariff commitments. Another step that India can take to avoid a similar situation from occurring in other FTAs is to have a co-ordinated approach between the Ministry of Commerce, responsible for negotiating FTAs, and the Ministry of Finance, which is responsible for setting the MFN tariffs.

Korean traders face several market access barriers. In particular, anti-dumping measures imposed by India have been a key concern. The CEPA should include a provision that would allow a consultative mechanism between the two countries before filing a petition. Other barriers that Korean businesses face are related to cumbersome procedures and complex tax structures. There are severe infrastructure constraints, particularly those related to roads and ports. Inadequate power is another problem faced by foreign investors in India.

Rules of origin requirements are also increasingly being used as non-tariff barriers (NTBs) and sometimes, domestic industry comes up with rules that are very onerous. Paperwork involved in adhering to these rules is enormous Due to these problems, the utilisation of preferences is limited. It

is a challenge to simplify the rules of origin. Increased automation can make it easier for firms to comply with the rules of origin requirements.

## Section III

### Foreign Direct Investment

Comprehensive Economic Partnership agreements are being used increasingly by countries to reduce barriers in cross-border investment flows. Investment-related provisions under the India-Korea CEPA on coverage, non-discrimination, standard of treatment, investor protection, movement of personnel and dispute settlement suggest that deep integration is possible through this agreement. Even though Korean investment in India has been quite significant since the early 1990s, FDI inflows from Korea have not increased much since the signing of the agreement. By contrast, since the signing of the India Singapore CECA, there has been a significant increase in FDI from Singapore to India. Investment from Singapore has been mainly in the services sector.

India's FDI policy has been one of gradual opening up. Much of the increase in FDI inflows is in the services sector. However, FDI inflows from South Korea have been mostly in manufacturing industries.

The India-Korea CEPA is the first agreement for India with a negative list for investment. Korean investors are allowed to enter overall manufacturing but not the primary sector that includes the agriculture, fishery and the mining sub-sectors. Similarly, Indian firms are allowed to invest in all sectors except rice and barley cropping in the agricultural sector.

Recently, Indian firms, particularly automobile firms, have started entering the Korean market through mergers and acquisitions with Korean firms. The two prominent ventures are Tata-Daewoo and Mahindra-Ssangyong. A key feature of the Tata-Daewoo venture is that it has successfully involved local managers in the decision making process.

The government has taken several initiatives to attract FDI in India. The development of the Delhi-Mumbai Industrial Corridor (DMIC) is one such initiative. This project aims to develop futuristic industrial cities in India, which can compete with the best manufacturing and investment destinations in the world. It is expected to attract huge FDI inflows. Such opportunities for Korean investors will also help them to diversify investments into other areas. However, no special incentives are being offered to foreign investors under the DMIC initiative. This is unlike the incentives offered earlier to investors in the Special Economic Zones.

Recognising that there are huge transaction costs incurred due to the time taken in getting clearances and the complex procedural requirements, the Government of India is in the process of developing an e-biz program that will enable investors to obtain clearances from a single point. This will transform the business environment in the country by providing efficient and transparent electronic services to investors.

## Section IV

## Services and Green Energy

The services sector is important for both economies. There are trade complementarities between the two countries in several service sectors. While India has a comparative advantage in software and information services, Korea has an advantage in transportation services. Unavailability of bilateral trade data makes it difficult to analyse bilateral flows. Trade associations in the two countries can play an important role in making available to governments such country wise trade data on different service sectors.

India and Korea have undertaken commitments to liberalise their services sector both under the GATS framework and under CEPA. India has made more liberal commitments in cross-border trade while it has been more restrictive in permitting commercial presence under the CEPA as compared

to its offer under GATS. On the other hand, Korea has more liberal commitments in commercial presence than under cross-border trade. An important feature of the CEPA is that the two countries have exchanged a large list of professionals who would be permitted to work in each other's markets.

India and Korea have been co-operating with each other to realise the advantages of their complementary comparative advantage in the information technology sector. Korea is a major manufacturer of electronic hardware while India has a comparative advantage in software. South Korea is expanding investments in the IT sector in order to facilitate the growth of domestic IT services. India can play a major role in achieving this. Opportunities for collaboration between the two countries exist in areas such as green IT and sustainable energy, digitising of reading material, cloud computing and mobility, security and unified communication.

Co-operation between the two countries can also be envisaged in the green energy sector. While Korea has a comparative advantage in the production of photovoltaic cells, the trade between the two countries is low. India can gain considerably by collaborating with Korea in this sector. On the other hand, India is competitive in towers for the wind power sector and the two countries can co-operate to promote domestic offshore wind power projects and expand into the overseas market in future. In the case of smart grids, while Korea has a comparative advantage in terms of hardware, it can strengthen its software capability by taking advantage of India's strength in this sector.

# Section V

## Global Security Issues

The rise of China and the growing relations between India and the United States underline the strategic complexity in Asia today. In the case of

China, uncertainty prevails over its long-term intentions wherein 'hedging' is the response of the other countries in the region. While countries Asian countries have scaled up their economic interaction with China, most are wary of China's military modernisation programme and its tendency to escalate tensions by flexing its new military prowess.

In this context, there is growing regional attention towards India. India's impressive economic growth and the deepening relations between India and the United States have led to India moving to the category of "likeminded partners" for countries like South Korea. The areas of strategic partnership between South Korea and India as likeminded countries in the global order, as middle powers in the hierarchy of nations and as collaborators in the geography of peace are global security, regional security, Korean peninsula security and non-traditional human security.

The two countries share the goals of preserving and developing a liberal and international order. The bilateral CEPA is, in this sense, more than just a free trade agreement. It is the manifestation of the common strategic vision of the two countries.

A Track II trilateral dialogue between India, the Republic of Korea and Japan would strengthen the bilateral initiatives already underway between these 'likeminded' countries.

## Section VI

## The Role of Culture in Economic Activity and Exchange

India and Korea are ancient cultures whose influence has important ramifications on their societies and economic activity. Any overarching comparative treatise on India and Korea, therefore, should touch upon their cultural aspects, ideally from three perspectives. This chapter examines, first, how culture is to be defined, in particular from an inter-cultural communication perspective since many Korean professionals are increasingly

placed in India. Second, reflecting their heritage based in Hinduism, Buddhism and Christianity, what similarities can be found in terms of the role of that heritage in organizing society, and its norms and outcomes. Third, based on the available literature, what are the cultural patterns that can be observed in their practice of business ethics? The conclusion is that there are significant similarities in the two cultures, given commonalities in the underlying heritage of the two countries and they spill over into practices in the form of ethical norms and practices in the workplace.

Certainly, with the spread of globalisation, East Asia and South Asia have tended to become increasingly similar, with common economic interests, willingness to enter into mutually beneficial trade, and demonstration of comparable behaviour in business ethics, reflecting their ancient common cultural roots and an evolving common set of values.

At the specific level of business culture, the chapter reviews how business culture is reflected in particular business environments. For example, Christie *et al.* (2003) select five cultural dimensions, individualism, power distance, uncertainty avoidance, masculinity, and long-term orientation, to study their relationship to business managers' ethical attitudes. They use primary data from 345 business manager participants of Executive MBA programmes in India, Korea, and the United States. The systematic sampling procedure based on which the countries were selected emphasises representation of different values and cultural dimensions. The authors measure their attitudes toward business ethics and toward 12 common questionable practices. They find that business ethics are strongly linked to 'national' culture. The concept of nation relates to nation-state, but the concept of culture goes beyond a nation, and covers personal integrity, external environment, and gender. There is a relationship between the cultural dimensions of individualism and power distance, and respondents' ethical attitudes toward certain questionable practices. The major conclusions of the study were the following:

- Culture influences business ethics
- Managers' attitudes toward business ethics are related to personal integrity
- How they feel about questionable practices depends on personal integrity, the external environment, and gender
- Attitudes toward questionable business practices reflect societal individualism and power distance and
- The influence of masculinity, uncertainty avoidance, and long-term orientation on attitudes toward questionable business practices is more tenuous

By constructing national value systems through the questionnaire results, it was found that "the United States scored the highest value on individualism, masculinity and long-term orientation, while India scored the highest value on power distance, and Korea scored the highest value on uncertainty avoidance" (Christie *et al.*, 2003, p. 274). The study evaluated the cultural characteristics leading to unethical decisions and came to the following conclusions:

- Greed and desire for personal gain and lack of personal integrity top the list for India and the United States and
- The political climate has the strongest influence on Koreans, closely followed by greed and desire for personal gain

The main findings on differences in ethical attitudes of businesses among the countries were the following:

- India and Korea are similar and are less individualistic than the United States
- India has greater power distance than Korea or the US. Americans consider the practice of complying with a superior's order that is perceived to be unethical to be more unethical than Indians or

Koreans

- There is no wide variance in the masculinity factor across countries and
- India and Korea consider the practice of injury to the environment to be more unethical than the US.

Thus, there are many similarities as well as some differences between India and Korea in terms of cultural characteristics that are likely to influence business behaviour. It is this exciting finding that bodes well for future collaboration between the two economies, one developed, and one emerging, in the areas of investment, mutual economic growth and prosperity.

The chapter concludes by quoting an early paper by Hofstede and Bond (1988) in which they pointed out that:

- Culture in the form of certain dominant values is a necessary condition for economic growth; however, culture alone is not sufficient for such growth to occur. Two other necessary conditions are the existence of a market and a political context that allows development (p. 18).
- The neo-Confucian hypothesis is that the countries of East Asia have common cultural roots going far back in history, and that under the world market conditions of the past 30 years, this cultural inheritance has constituted a competitive advantage for successful business activity (pp. 6-7).

# Section I

## Recent Economic Trends

# 1 Korean Economy in Transition Toward an Advanced Economy: *Prospects and Challenges*[*]

*by* Choong Yong Ahn and Kyttack Hong[**]

## *Abstract*

*Although it has rather successfully weathered the recent global economic crisis and is on the verge of entering an advanced economy group, Korea, as one of "East Asia's miracle economies," currently faces many significant challenges due to "upper-middle income syndromes" ranging from a systematic trend of declining potential growth rates, acute income polarization and increasingly popular demand for a broad social welfare spectrum. The Korean economy, in transition toward an advanced economy, must address the matter of optimum balancing between shared prosperity through inclusive growth and competitive entrepreneurial inertia in formulating fiscal and monetary policies while searching for a new paradigm for a knowledge-based market economy relevant in the 21st century. In an increasingly globalizing world economy, Korea should also maintain an outward-looking orientation to take advantage of globalization while mitigating its negative impacts by*

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*making the Korean economy more resilient to external shocks. In particular, Korea must expand partnerships with emerging economies as likeminded countries that share the values of political democracy and the market economic system.*

## Introduction

During the Asian financial crisis in 1997/8, South Korea (hereafter Korea) surprised the world twice: First, having experienced a serious shortage of international liquidity, Korea, as the representative high performer among the four Asian tiger economies, had no choice but to seek the largest financial bailout package from the IMF, which amounted to $54 billion, under its highly stringent borrowing conditionality; second, Korea was able to graduate from the IMF bailout programs far earlier than scheduled after paying back the IMF loans by accumulating a huge trade surplus in the years that immediately followed while carrying on major structural reforms as promised to the IMF.

Though it was painful to carry out the IMF reform mandates on four sectors - namely banking, corporate, public enterprises, and labor (Ahn, 2001), Korea's restructuring has proven to be a blessing in disguise as Korea has rather successfully weathered the global financial crisis and subsequent economic downturn in 2008 and onward. Korea's V-shaped recovery in 2010 from the global recession that began in 2009 was among the fastest in the world. With solid economic prospects viewed early in 2011, the main short-term policy response seemed to ensure a soft landing to a sustainable medium-term growth path and contain emerging inflation pressure. However, Korea was hit severely again by the fiscal stress of the excessive sovereign debt of Greece and some other Southern European countries.

Despite Korea's continued restructuring efforts to overcome external shocks due to an excessive outward orientation in finance and trade and some embedded structural weaknesses in the long high-growth period,

Korea's per capita income has remained at about US$20,000 plus in recent years. Furthermore, Korea has started to show structural symptoms of an "upper middle income syndrome," ranging from slow growth and widening social conflicts. In development literature, it is well established that as an economy nears the maturity stage, its growth rate tends to slow down.

Therefore, one cannot expect to see, with an annual 8 percent average at the maturing stage, the high growth performance the Korean economy showed until the early 1990s as the representative performer among the four East Asian tiger economies. In order to enter the group of advanced economies in the early 21st century as formulated in government policy objectives, Korea must escape from a "threshold trap" and cross over the "last bridge" toward a sustainable high-income economy.

The purpose of this paper is basically threefold: first, it attempts to address structural problems as related to a rapidly declining potential growth rate; second, it also attempts to explain how and to what extent Korea has been affected by her deepening external linkages as the world economy suffers from economic turmoil and setbacks due to a global economic downturn we haven't seen the likes of since the great depression in the 1930s and the recent fiscal crisis of some Southern European countries; third, this paper draws policy implications from Korean experience for sustainable growth toward an advanced economy and toward Korea-India economic cooperation.

## Korea's Recent Economic Performance

In the past half century, Korea has dramatically transformed from a vicious circle of poverty in the early 1960s to a near-advanced economy. This is clearly reflected by the fact that Korea became the first country since World War II to go from being an ODA recipient to an ODA provider by joining the DAC of the OECD in 2010. Korea's rise in the international community is also evident in its hosting of the G20 summit in 2010 to design

a new financial architecture after the global financial crisis.

Before the Asian financial crisis, Korea registered 8 percent growth per annum over two decades or so as eloquently described in the World Bank's East Asian Miracle study[1]. The major development features of Korea can be summarized as 1) an export-oriented, outward-looking development strategy, 2) a large conglomerate-led development model with heavy government intervention during the 1970s and 1980s, which resulted in shallow financial sector development, 3) relatively high growth-cum equity development at least until Korea was hit by the Asian financial crisis in 1997/98.

Like most economies in the recent global economic crisis triggered by the collapse of Lehman Brothers and some major global investment banks in 2008, Korea also experienced economic setbacks. However, among the OECD economies, Korea has rather successfully weathered the financial crisis. In 2009, right after the collapse of Lehman Brothers, Korea was one of only two OECD member countries that managed to experience positive growth. Indeed, Korea's rapid recovery from the global downturn in 2008 stood out among OECD economies.

Earlier this year, the Korean government targeted 5 percent growth in 2011. But the Eurozone debt crisis and the looming double-dip recession in the U.S. have slowed the Korean economy through a spillover effect on international trade. The IMF lowered its growth outlook for the 2011 global economy from 4.3 percent to 4 percent. It also revised the projection for Korea down to 4 percent this year from 4.5 percent. More worrisome is that the global slowdown may persist longer than expected.

In the past 10 years, Korea's annual economic growth rate has fluctuated considerably. In 2007, Korea's GDP surpassed the $1 trillion mark but dropped substantially due to a sharp depreciation of the won, the Korean currency. The global economic downturn hit the Korean economy to slow

1. World Bank(1993), *The East Asian Miracle,* pp.11-26.

the growth of its GDP but dropped further when measured in U.S. dollar terms due to a sharp decline in the value of the Korean currency (Table 1.1). Korea's per capita GNI exceeded substantially for the first time the US$20,000 level in 2007 but fell to the US$19,000 and US$17,000 level in 2008 and 2009, respectively, after the Lehman Brothers' shock. It bounced back above US$20,000 in 2010. Looking at the volatility of the nominal exchange rate in the past 10 years, Korea's external sector performance has depended greatly on the movement of the local currency value.

Even during a period of regional and global economic setback, Korea's trade performance has been remarkable, as shown in Table 1.2. In the past 10 turbulent years, Korea's export sector has been the growth engine as the country's trade volume has risen from US$290 billion to US$887 billion in 2010. In the middle of global recessions, Korea's large conglomerates have

**Table 1.1**

*Korea's Economic Growth Indicators and Exchange Rates*

*(Unit: %)*

| | *GDP (100 million USD)* | *GDP (trillion won)* | *Annual Growth Rate of GDP (won)* | *Growth Rate by Sector* | | | *Nominal Exchange Rate* (won/USD)* | *Per Capita GNI (USD)* |
|---|---|---|---|---|---|---|---|---|
| | | | | *Agriculture* | *Manuf. & Mining* | *Service* | | |
| 2001 | 5,046 | 651.4 | 4.0 | 1.6 | 2.4 | 4.7 | 1,326 | 10,631 |
| 2002 | 5,759 | 720.5 | 7.2 | 2.2 | 8.4 | 7.7 | 1,200 | 12,100 |
| 2003 | 6,436 | 767.1 | 2.8 | 5.4 | 5.4 | 1.7 | 1,198 | 13,460 |
| 2004 | 7,224 | 826.9 | 4.6 | 9.1 | 9.9 | 2.4 | 1,043 | 15,082 |
| 2005 | 8,447 | 865.2 | 4.0 | 1.3 | 6.1 | 3.5 | 1,013 | 17,531 |
| 2006 | 9,511 | 908.7 | 5.2 | 1.5 | 8.0 | 4.4 | 930 | 19,722 |
| 2007 | 10,493 | 975.0 | 5.1 | 4.0 | 7.1 | 5.1 | 938 | 21,695 |
| 2008 | 9,309 | 1,026.5 | 2.3 | 5.6 | 2.8 | 2.8 | 1,258 | 19,296 |
| 2009 | 8,344 | 1,065.0 | 0.3 | 3.2 | 1.5 | 1.2 | 1,168 | 17,193 |
| 2010 | 10,143 | 1,172.8 | 6.2 | 4.3 | 14.6 | 3.5 | 1,139 | 20,759 |

*Note:* * Nominal exchange rate at the end of the year

*Source:* The Ministry of Strategy and Finance(2011), Korea's Current Economic Situation. (September)

**Table 1.2**

*Korea's External Sector Performance*

*(Unit: USD million)*

| | *Export (US$ million)* | *Import (US$ million)* | *Trade Balance (US$ million)* | *Foreign Exchange Reserves (US$ 100 million)* |
|---|---|---|---|---|
| 2001 | 151,172 | 138,143 | 13,029 | 1,028.2 |
| 2002 | 164,190 | 148,987 | 15,203 | 1,214.1 |
| 2003 | 199,692 | 175,664 | 24,028 | 1,553.5 |
| 2004 | 260,143 | 220,482 | 39,661 | 1,990.7 |
| 2005 | 289,873 | 257,016 | 32,857 | 2,103.9 |
| 2006 | 336,494 | 305,061 | 31,433 | 2,389.6 |
| 2007 | 389,569 | 352,439 | 37,129 | 2,622.2 |
| 2008 | 434,652 | 429,481 | 5,170 | 2,012.2 |
| 2009 | 358,190 | 320,324 | 37,866 | 2,699.9 |
| 2010 | 464,289 | 422,383 | 41,904 | 2,915.7 |

*Source:* The Ministry of Strategy and Finance(2011), Economic Situation Report. (September)

led the phenomenal surge in exports by manufacturing globally competitive brands ranging from automobiles and semiconductors to electronic products. In 2011, the total trade volume might surpass a historic benchmark of US$1 trillion, making Korea the 9th country to be a US$1 trillion trade performer in world trade history. As a result of the continued trade surplus, Korea's foreign exchange reserves swelled from US$1.028 billion in 2001 to US$2.916 billion in 2010, which served as a critical indicator reflecting Korea's ability to service its short-term debt even after the rapid withdrawal of short-term hedge funds from Korea.

Another significant development in Korea's external economic relations is found in Korea's multi-track FTA and CEPA roadmap, as seen in Table 1.3. Although Korea was a latecomer pursuing regional FTAs while emphasizing multilateral free trade under the WTO, the country aggressively pursued a multi-track FTA beginning with Chile and gradually expanding to big economies such as India, the EU, and the U.S. Once Korea's National

**Table 1.3**

*Korea's Multi-track FTA or CEPA Roadmap*

| *FTA Partner Nations* | *FTA Status* |
|---|---|
| Chile | April 2004, effectuation |
| Singapore | March 2006, effectuation |
| ASEAN | June 2007, effectuation |
| EFTA (Switzerland, Norway, Iceland, Liechtenstein) | September 2006, effectuation |
| Japan | Negotiations suspended |
| GCC (Gulf Cooperation Council) | 3rd round negotiations in July 2009 |
| Canada, Mexico | Aim to conclude within one-two years |
| India | Effective January 2010 |
| USA | Awaiting Korea's ratification |
| EU | July 2011, effectuation |
| China | Formal FTA impact study underway |

Assembly ratifies the Korea-U.S. FTA, Korea will become the first country to have FTAs with the two largest economic blocs in the world, namely, the EU and the U.S. At the height of the global downturn and with rising protectionism in the post-Lehman shock period, Korea had negotiated an FTA with the EU while calling for a standstill against any protectionist measures and a rollback to a free trade regime in existence prior to the global crisis to speed up economic recovery amid an unprecedented global recession.

## Korea's Declining Potential Growth Rates

Despite its relative robustness in terms of growth, fiscal balance and foreign exchange reserves in the past decade, Korea has begun to show serious symptoms of an "upper middle income syndrome" as summed up in the declining trend of Korea's potential growth rate. Table 1.4 shows that Korea's potential growth rate dramatically declined from 7.9 percent in the 1980-1989 years to 3.8 percent in the 2008-2009 period.

Both the growth rate of capital stock and that of labor stock have sharply declined. This trend has been caused by a set of serious socio-economic structural problems. Korea's population growth rate was 2.3 percent

**Table 1.4**

*Korea's Declining Growth Rates of Potential GDP, Factor Stocks, and Stagnant Total Factor Productivity*

| | *1980-1989 (Annual average)* | *1990-1997 (Annual average)* | *1998-2007 (Annual average)* | *2008-2009 (Annual average)* |
|---|---|---|---|---|
| Potential GDP | 7.9 | 7.0 | 4.5 | 3.8 |
| Capital stock | 5.1 | 4.6 | 2.6 | 2.1 |
| Labor stock | 1.4 | 0.9 | 0.2 | 0.0 |
| Total factor productivity | 1.4 | 1.5 | 1.7 | 1.7 |

*Source:* Samsung Economic Research Institute.

in the 1960's but has now dropped to 0.3 percent, having the lowest fertility rate among OECD member countries. As the life expectancy of Koreans has been extended along with the low birth rate, Korea's population structure is rapidly aging. Korean firms have also curtailed their domestic investments, as they have difficulty finding a profitable business model due to a rapid rise in domestic wages and a rampant labor movement. One of the main factors causing a declining rate of domestic capital stock is related to the foreign direct investment behavior of Korean firms. Korea's outward FDI has surged greatly, especially to China and Southeast Asian countries. Even if the growth rates of labor and capital stock were to decline together, the economic growth rate could increase if Korea's total factor productivity could pick up more than labor and capital stock trends were to decline.

Perhaps one of the most alarming factors regarding the health of Korea's economy is the rising unemployment rate. Although Korea's official unemployment rate is still very low, at 3 percent, a broader unemployment statistic is reported to be 11.8 percent higher if those preparing for job entry tests only and irregular employees working part-time, 4-5 hours a week, are counted as unemployed. Youth unemployment in particular is becoming serious. Given Korea's rapidly rising domestic wages, many Korean job seekers avoid low-paid job opportunities with "three D" characteristics, the D's standing

for difficult, dangerous, and dirty jobs. In recent years, 3D job positions have been filled mainly by migrant workers, who number about 700,000 at present. As the economic structure shifts to high value-added service industries from conventional ones while massive unemployment remains unabated, salary and compensation scales from high paid to low paid jobs have widened. As a result, Korea's income polarization is becoming very acute.

Against this backdrop, Korea has begun to show social disharmony due to income group polarization and prolonged conflicts in labor relations, especially since the Asian financial crisis in 1997/98. It has become further aggravated by the unprecedented global economic downturn in 2008 and uncertainty due to the most recent fiscal crisis in some Southern European countries. Like the economic woes experienced in major advanced economies, Korea's unemployment rate, especially youth unemployment, has also become serious in recent years. Korea's passage toward a high-income economy group appears to demand as a prerequisite a societal consensus on how to deal with diverse, often conflicting demands from various stakeholders for widely sharing the fruits of economic growth.

During the regional and global financial crisis period, Korea suffered a great deal from external economic shocks in terms of its exchange rate volatility and reduction of exports in overseas markets. As a result, proper balancing between domestic macroeconomic management and external shocks or the appropriate insulation of the domestic economy from the external shocks have become important and challenging issues. Of course, the two broad issues of the declining potential growth rate and Korea's vulnerability to external shocks are not separate, but closely related to explain Korea's "upper middle income trap."

During the Asian and global crisis that occurred successively in the past 14 years, Korea's large conglomerates have performed relatively well in terms of exports and outbound foreign direct investment activities. At the moment, Korea's 14 large conglomerates are listed among the Fortune 500 companies.

They have succeeded in producing global brand names in electronic products, semiconductors, automobiles, shipbuilding, iron and steel to significantly increase Korea's exports. Korea's conglomerates are increasingly becoming multinational in their business operations, joining in global supply chains and outsourcing through vigorous cross-border investments.

A unique feature of the investment behavior of Korean companies is found in the widening gap between inbound and outbound foreign direct investment. Table 1.5 shows that Korea's outbound FDI has been far greater than inbound FDI in recent years. In 2010, Korea's outbound FDI was almost four times that of inbound FDI. To face rising domestic wages and increasingly militant labor union activities, many Korean firms, big and medium-size firms, have chosen China and other Asian countries for their manufacturing sites to take advantage of cheap wages and attractive incentives.

**Table 1.5**

*Korea's Outbound and Inbound FDI*

*(Unit: USD 100 million)*

| | *2002* | *2003* | *2004* | *2005* | *2006* | *2007* | *2008* | *2009* | *2010* |
|---|---|---|---|---|---|---|---|---|---|
| Outbound FDI (actual) | 40.2 | 48.3 | 67.7 | 72.9 | 117.0 | 226.1 | 239.9 | 201.6 | 230.9 |
| Inbound FDI (arrival) | 38.1 | 51.4 | 92.9 | 96.2 | 91.2 | 78.5 | 83.8 | 67.3 | 53.0 |
| Inbound FDI (notification) | 90.9 | 64.7 | 128.0 | 115.7 | 112.5 | 105.1 | 117.1 | 114.8 | 130.7 |

*Source:* Korea Trade-Investment Promotion Agency, Office of Foreign Investment Ombudsman Annual Report 2011.

## Emerging Issues After Double Financial Crises: Upper Middle Income Syndrome

### Income Polarization

Polarization has become a subject of heated debates in Korea in recent

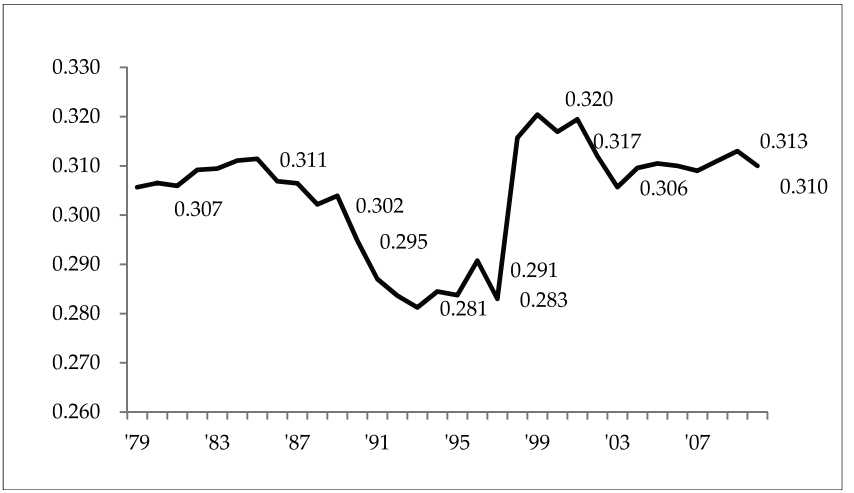
years. The term has been used to indicate a continually widening gap across all sectors of the economy, including households, companies, and industries. As performance differences in each of these sectors usually lead to an income gap, we need to know what income polarization really means. Above all, income polarization must be distinguished from income inequality. Income polarization refers to a phenomenon in which the middle class decreases in size whereas income inequality indicates a situation of uneven income distribution. Widening income polarization does not necessarily aggravate income inequality.

## *Income Inequality and Income Polarization*

Figure 1.1 illustrates income distribution trends, as measured by the Gini coefficient for urban working households. Though a large proportion of the population is excluded, the trend demonstrated in Figure 1.1 highlights a basic pattern, one that illustrates a gradual increase in income distribution until the mid-1990s and a sharp decrease in the financial crisis years.

**Figure 1.1**

*Income Inequality; GINI Coefficient*

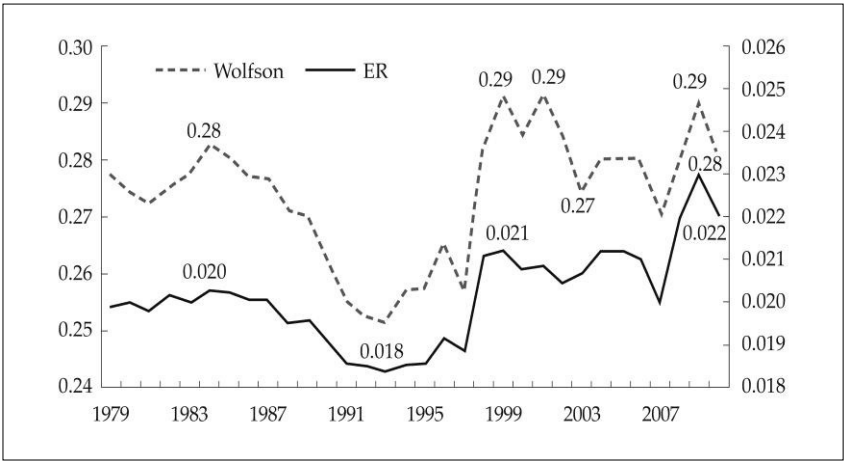



*Source: KOSIS DB, Bureau of Statistics of Korea.*

In the early 1990s, Korea experienced unusual economic growth with a decrease in income inequality. This contradicts Simon Kuznet's hypothesis, which suggests that beginning from low levels of income per capita, inequality would increase with rising incomes and start to diminish only in the later stages of economic development. In the mid-1990s, Korea also had a low unemployment rate and relatively low poverty rates. However, this income gap narrowing within the household sector began to slow down and was even reversed in the years immediately before the 1997/98 financial crisis. Income inequality was greatly exacerbated during the financial crisis years due to job opportunity loss for those with low income. In the years following the financial crisis, income distribution returned to the distribution level of the early 1980s. In other words, economic recovery after the crisis and aggressive efforts to improve and expand the public welfare system did not restore the level of income inequality of the early 1990s (An and Bosworth, 2011). Figure 1.2 exhibits the income polarization trend measured by the Wolfson Index and Esterban & Ray Index for urban working households.

**Figure 1.2**

*Income Polarization; Wolfson Index, Esterban & Ray Index*




*Source:* KOSIS DB, Bureau of Statistics of Korea.

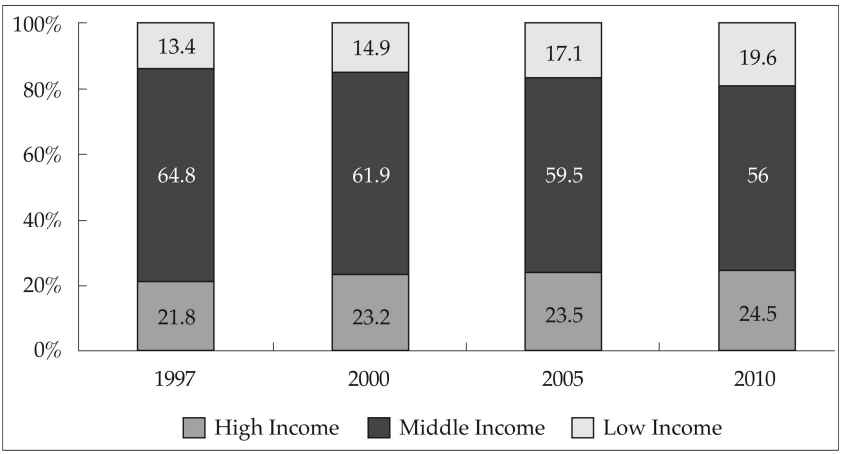
Income inequality simply refers to uneven income distribution. Income polarization, on the other hand, specifically refers to income distribution in which the proportion of middle-class shrinks and the distribution shifts heavily to two extreme poles of the income spectrum. The income inequality index, the Gini coefficient, only reflects how far a certain income group is from the average income level. It does not show how and how much a certain income proportion has disappeared in a certain group or category.

From the mid-1980s to the 1997 financial crisis, there was some improvement in income polarization. Both the Wolfson index and Esterban & Ray index went down as much as to 0.25 and 0.018, respectively, in 1993. Even with a mild recession in 1994/95, the indices remained low. However, it began to rise after the financial crisis. Income polarization worsened severely in the late 1990s. After that, the polarization indices remained stable from 2001 to 2007. However in 2008, they began to increase once again due to the global financial crisis.

**Figure 1.3**

*Shares of High, Middle, and Low Income Brackets*

*(Unit: %)*




*Source:* KOSIS DB, Bureau of Statistics of Korea.

As shown in Figure 1.3, the proportion of the middle-income bracket decreased while the proportion of the low-income bracket increased. From 1997 to 2005, the share of the middle-income bracket decreased from 64.8% to 59.5% (a 5.3% point decrease), while there was a 3.7% point increase in the share of the low-income bracket and 1.7% point increase in the share of the high-income bracket. 1.747 million people from the middle-income bracket were shifted to the low-income bracket. On the other hand, 0.945 million people from the middle-income bracket laddered upward to the high-income bracket.

## *Causes of Income Polarization*

Korea's economy has experienced a pattern of improvement in income polarization during times of economic growth but aggravation during periods of recession. Income polarization, until the mid-1980s, worsened when the economy slowed due to external shocks such as soaring oil prices. However, after the mid-1980s, polarization improved, as there was rapid economic growth and an increase in the middle-class segment. When there is growth in both the economy and middle-class, policies aimed at income redistribution are ineffective in resolving the polarization problem. Efforts to resolve such problems should be directed at restoring economic growth potential.

In Korea, income polarization worsens as domestic demand slows. The proportion of sectors driven by domestic demand in Korean GDP decreased from 76.1% in the 1990s to 45.9% in 2005, with the market opening. However, the proportion of workers and businesses in the domestic sector in the total workforce and businesses increased during the same period. This illustrates that there is a compelling relationship between domestic demand growth and income polarization.

The causes of aggravated polarization can also be found in the weakened link between exports and domestic demand. In the past, growing exports led to an increase in investment and employment, which then

accelerated consumption. However, such growth had little influence on domestic demand due to labor-saving corporate restructuring and increased risk due to the financial crisis and weakened economy.

The previous statement can be supported by the reduced correlation between exports and domestic demands since the financial crisis. Recently, exports have rarely contributed to creating job opportunities and increasing value added because exports have rather concentrated on info-tech items mainly made of imported parts and components.

In the labor market, a growing number of Korean companies are taking advantage of non-regular workers to enhance labor flexibility and cut costs. A sharp increase in the share of non-regular workers in Korea's total workforce has aggravated income polarization. More worryingly, small- and medium-sized enterprises have preferred to hire non-regular workers because of their low wage rates and flexibility in hiring and firing. Non-regular workers account for 19.7% of the total workforce in companies with more than 300 workers, but they account for 50.4% in tiny companies with up to just four workers (Min, 2006).

Corporate restructuring has also been found to be worsening income polarization. A substantial number of laid-off workers have set up their own businesses, with the effect of intensifying competition. The number of self-employed people has increased from 4.2 million in 1998 to about 5 million in 2010. However, a number of them have been seriously hit by the two-time financial and global economic meltdown.

### *Reducing Income Polarization*

Income polarization poses a serious threat to maintaining social stability, creating social conflicts among different income classes. This hinders society from achieving satisfying economic growth. Inequality in opportunities eventually leads to political anxiety and dissatisfaction, which then intensifies sentiments in populism, protectionism, and anti-globalism. This also creates a

bias that leads people to believe that only a small group with profits keeps becoming more affluent.

To prevent such a problem, income polarization needs to be alleviated by restoring the middle-class sector. The middle class can be restored by creating "more and decent jobs." Growth of the middle class will help increase confidence in the economy. The government is not necessarily restricted to choose either growth or distribution. It can improve both. In order to do so, the government should help companies invest and create more jobs by providing a business-friendly environment. To this end, the government must embark on reforming relevant sectors in the economy. It should specifically focus on the labor and financial systems and corporate governance to minimize their failings.

Korea also needs to reform its education system. Education is the only route for children in low-income families to escape the poverty trap. Better education should be available to them because they will not benefit from social mobility unless they receive a better-quality education. Concurrently, the government should establish an effective welfare system that ensures a social safety network for the low-income bracket without diminishing incentives to work (Min, 2006).

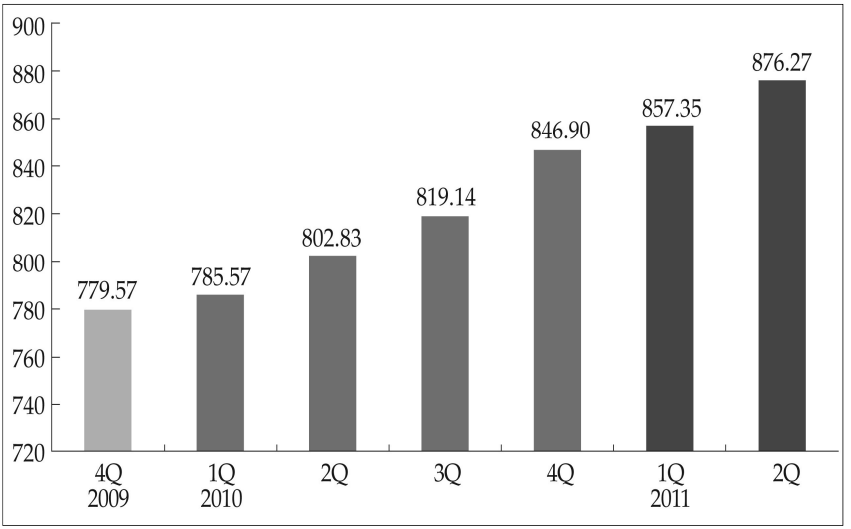
Income inequality caused by progress in technology and globalization is inevitable. Coping with such progress and globalization, the government should increase market efficiency and equity by correcting its fair trade policies. Recently in Korea, issues with equity, economic democracy, balanced growth between large conglomerates and SMEs, and so forth have been evolving. Effects on income inequality and poverty differ depending on which policies and regulations the government adopts on globalization and technological progress. Thus, it is only natural for people to expect the government to make correct decisions on and take action for fair market trade competition.

## National and Household Debt

Although Korea's national debt is lower than that of major OECD economies, the rapidly rising national debt should be regarded as an early warning signal against macroeconomic management. According to the Ministry of Strategy and Finance, Korean government debt is estimated to reach 448.2 trillion won (about 380 billion USD) in 2012, up 25.5 trillion won from an estimated 422.7 trillion won in 2011. Perhaps the bigger problem is the rapidly growing household debt, which, at almost 1,000 trillion won, matches an entire year's GDP. About 222 trillion won of government debt, which accounts for 49.5 percent of the total national debt, is to be repaid with taxpayer money, up from this year's 48.5 percent to represent the highest level ever. The outstanding amount of government-guaranteed debt will likely reach a record high of 38 trillion won next year.

**Figure 1.4**

*Household Credit Outstanding*




*Note:* Figures are as of end-period.

*Source:* Bank of Korea.

As of the end of June 2011, Korea's household credit (i.e., household loans and sales credit) reached 876.3 trillion won. Furthermore, financial liabilities held by households including micro-scale individual businesses and private non-profit organizations in the domestic sector totaled 1,050 trillion won. Figure 4 illustrates a household credit increase of almost 100 trillion won, which shows a 14% growth rate in the last 18 months.

Rising household debt has increased the debt-servicing burden. In the second quarter of 2011, the average Korean household spent 74,083 won on monthly interest rate costs. This is a 13.7% increase from average costs in the second quarter of the previous year. Interest payment accounted for 2.23% of total household income, marking the highest proportion since 2003, when the relevant data were beginning to be collected. The amount that the lowest income quintile had to pay increased by 40.8% year-on-year to 31,880 won. This amount accounts for 2.75% of the total income in the second quarter.

Overall, Korea's household debt levels are increasing too fast in a short span of time. Unserviceable household debt undermines the national economy through denting private consumption, particularly as interest rates rise. This in turn leads to contracting corporate investment and increased difficulties for banks that may experience an increase in non-performing loans. In addition to declining exports resulting from the European economic crisis, the household debt problem acts as another threat to sustained economic growth in Korea.

## Dualistic Structure Between Large Conglomerates and SMEs

Korea's enterprises have long maintained a dualistic structure, sharply divided by large conglomerates and SMEs defined as having less than 300 employees. Although Korea's large conglomerates share only 1 percent of total business establishments and 23 percent of total employment respectively, their shares in total production and value added are very high, 52.4 percent and 49.5 percent, respectively, in 2009 (Table 1.6). In export performance,

**Table 1.6**

*Economic Status of SMEs Compared with Large Enterprises*

| | *2006* | *2007* | *2008* | *2009* |
|---|---|---|---|---|
| Total Establishments in Manufacturing | 118,240 | 119,132 | 112,576 | 111,722 |
| SMEs (%) | 99.4 | 99.5 | 99.5 | 99.5 |
| Large Firms (%) | 0.6 | 0.5 | 0.5 | 0.5 |
| Total Employers in Manufacturing | 289,204 | 2,861,934 | 2,796,038 | 2,798,297 |
| SMEs (%) | 75.9 | 76.9 | 76.3 | 76.8 |
| Large Firms (%) | 24.1 | 23.1 | 23.7 | 23.2 |
| Total Production (100 million won) | 9,063,813 | 9,890,622 | 11,675,967 | 11,648,402 |
| SMEs (%) | 49.4 | 48.7 | 46.4 | 47.6 |
| Large Firms (%) | 50.6 | 51.3 | 53.6 | 52.4 |
| Total Value Added (100 million won) | 3,249,104 | 3,449,638 | 3,848,731 | 3,926,600 |
| SMEs (%) | 51.1 | 50.6 | 49.2 | 50.5 |
| Large Firms (%) | 48.9 | 49.4 | 50.8 | 49.5 |
| Total Establishments in Entire Industries | 2,940,345 | 3,049,345 | 3,046,958 | 3,069,400 |
| SMEs (%) | 99.9 | 99.9 | 99.9 | 99.9 |
| Large Firms (%) | 0.1 | 0.1 | 0.1 | 0.1 |
| Total Exports (US$100 million) | 325,465 | 371,489 | 422,007 | 363,534 |
| SMEs (%) | 32.0 | 30.6 | 30.9 | 32.3 |
| Large Firms (%) | 68.0 | 69.4 | 69.1 | 67.7 |

*Source:* National Statistical Office of Korea(NSO), Report on the Census on Basic Characteristics of Establishment and Report on Mining and Manufacturing Survey. (each year)

the relative performance of large enterprises is highly visible, contributing 68 percent of total exports in 2009. In fact, Korea's large enterprises have ensured the country's export-led growth in the middle of two regional and global crises while enhancing global competitiveness, especially in sectors like semiconductors and digital products, automobiles, shipbuilding, iron, and steel. On the other hand, Korea's SME sectors are largely inclined to either domestic consumption especially in the service sectors or supplying parts and components to large export-oriented enterprises.

In the past decade, Korea's exchange rate regime, especially after the external economic crises, has been favorable for exporters to maintain their global market competitiveness. Given the unabated competitiveness of Korea's

export sector, the wage income of the large conglomerates tends to be substantially higher than that of SMEs. As a result, Korean job seekers of higher education prefer landing positions at large enterprises rather than SMEs.

Given this dualistic structure of Korean businesses, large firms have typically been playing the upper hand in negotiating inter-firm transactions. Whenever the import prices of energy and other raw materials go up, large firms tend to cut the purchasing price of intermediate goods delivered by the SMEs to ensure their own profit margin. Once the government abolished the entry barrier of large firms into those domestic consumer product markets, the large enterprises exerted their business expansion to encroach on the small business markets, which used to be classified as SME-exclusive areas.

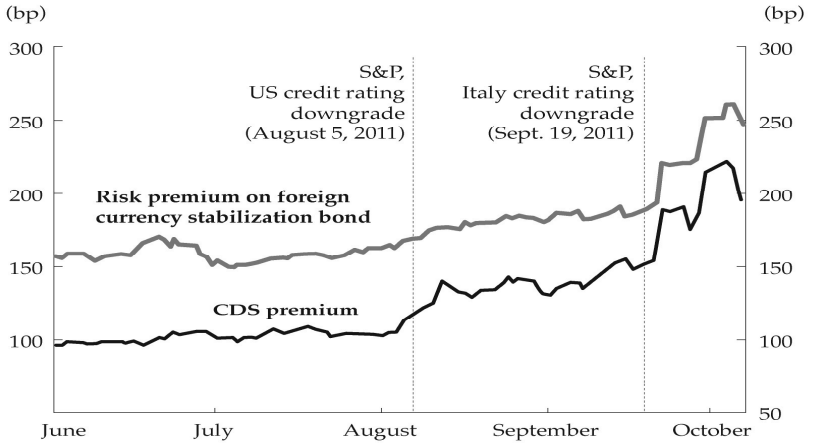
## Vulnerability Due to External Shocks: Liquidity Crisis and Exchange Rate Volatility

The global financial crisis and recent Greek debt problems brought a significant downfall in Korean stock markets and the value of the Korean won, which experienced its biggest monthly loss since February 2009. Korea's heavy dependence on exports, which account for half of its economy, and the openness of its capital markets make it particularly vulnerable to external factors.

As the European sovereign bonds problem intensifies, foreign investors have reduced their equity positions from the Korean market. Major banks have to pay higher costs in borrowing money from overseas. Korea's credit default swap (CDS) premium on its five-year foreign currency stabilization bond reached 201.5 basis points on October 6, 2011, a nearly 100-point spike from 103.0 basis points in late July (Figure 1.5). And the won has depreciated against the dollar at the third-highest rate among 20 major currencies (Figure 1.6). Furthermore, there are signs that the financial uncertainties at home and abroad are spilling into the real economy, slowing down economic growth.

## Figure 1.5

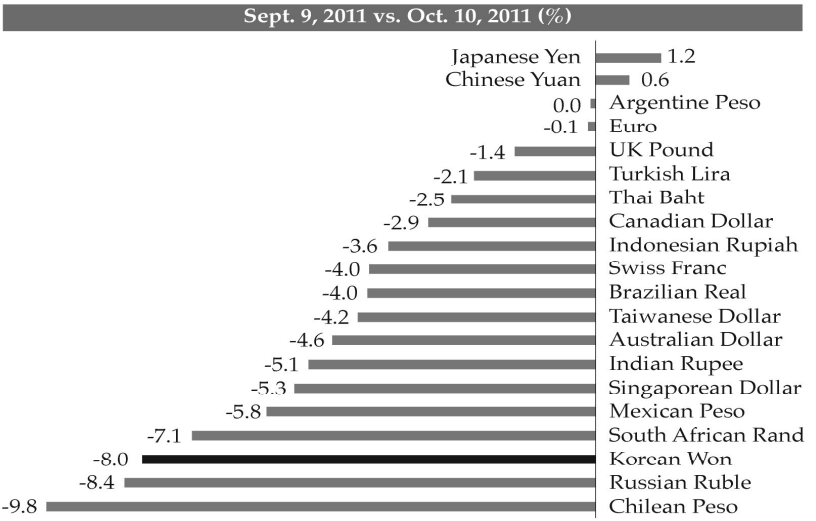
*Korea's CDS Premium and Risk Premium on Korea's Foreign Currency Stabilization Bond*




*Source:* Samsung Economic Research Institute, SERI Economic Report 2011.

## Figure 1.6

*Major Currencies' Appreciation against the US Dollar*




*Source:* Samsung Economic Research Institute, SERI Economic Report 2011.

A financial crisis similar to the one seen in 2008 is not likely to occur in Korea given the country's robust macroeconomic fundamentals. The low likelihood of another financial crisis is based on Korea's enlarged foreign exchange reserves due to a continuing current account surplus, significant currency swap arrangements and the banking sector's financial health as evident in a reduced share of short-term foreign debt, and lower loan-to-deposit ratio. In addition, some measures to discourage frequent foreign capital movement will help mitigate significant external shocks on Korea's financial markets.

However, Korea is likely to see financial market volatility due to its high external dependence. Korea's external trade on a custom-cleared basis to nominal GDP ratio is the world's highest level, at 87.9% in 2010. The proportion of foreign investment in domestic stocks based on KOSPI, market capitalization is also high, at 32.8% as of October 11, 2011. From August to September in 2011, Korea saw a net foreign capital outflow of 7.2 trillion won from its stock markets and a net foreign capital inflow of 0.1 trillion won from its bond market. Net outflow of Europe-based capital was 4.4 trillion won and 3.2 trillion won in the stock and bond markets, respectively.

Though the chances of a financial crisis recurring are slim, Korea should be prepared to navigate its growth strategy in this increasingly uncertain global economy. In the near term, Korea should try to secure sufficient foreign currency liquidity to calm worries of another liquidity crisis and possible sovereign rating downgrading. The central bank should expand its currency swap arrangements with foreign monetary authorities in major trading partner countries while financial institutions in the private sector pursue the diversification of their sources of foreign currency funding from the U.S. and Europe to the Middle East and Asia (Jeong 2011).

## Challenges for Korea's Rise to Advanced Economies

### Shared Prosperity Beyond the Growth-Led Trickle-Down Effect

Given Korea's upper middle income syndrome, Korea must search for a sustainable development paradigm to become an advanced economy by addressing a set of upper middle income syndromes. An increasingly polarized country has given rise recently to varied tumult in society. Social disharmony due to income polarization with the shrinking middle class has been calling up a shift to distribution priority from a single-minded growth policy. Seriously divided in political ideology, Korea's political parties have been competitively proposing social welfare policies to take care of people who are unemployed and in the low-income bracket.

At present, Korea is in the middle of a policy debate on policy choices to provide a social safety net as well as broader social welfare policies. Tax reform and "free social welfare programs" are gaining popular support. Growth-cum-equity used to be a characteristic of Korea's economic performance. Now a big question is whether Korea can push broad social welfare programs without damaging entrepreneurial spirit and without intolerable fiscal stress. Given the current turbulent world economy, Korea's even middle income families continue to see their living standards acutely squeezed by inflation, stagnant income, and crippling indebtedness. The Korean economy must be in search of shared prosperity while enhancing the competitiveness of its export-oriented development model in a sustainable framework.

### Balancing National Debt and Social Welfare Programs

Korean government spending has increased rapidly since the late 1990s. This spending growth rate is predicted to accelerate. From 1998 to 2010, government spending to GDP ratio on average was 26.4%, which is a 5%

increase from the average ratio from 1990 to 1997. As a result, since 1997, the fiscal balance (consolidated budget minus social security) has aggravated with a budget deficit that accounts for 1.3-5.1% of GDP annually.

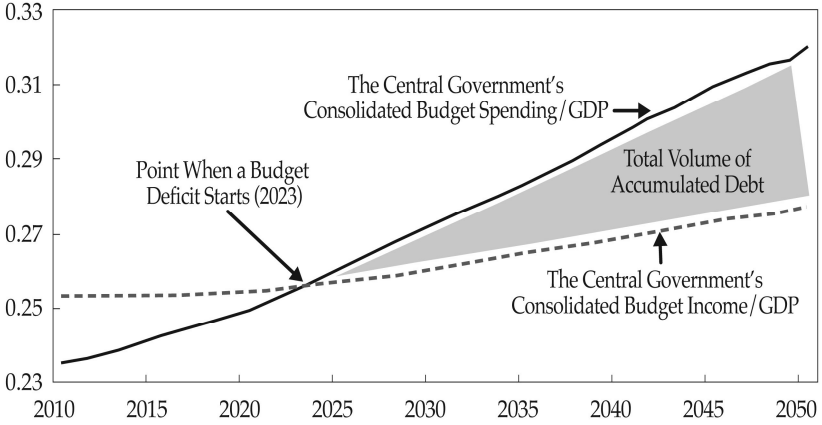
As a result of emphasis on income distribution, welfare spending (i.e., social welfare and health-related spending) has increased rapidly. In 2006, welfare spending reached 42.5 trillion won, tripling the 15.1 trillion won in 1997. In 2004-06, welfare spending took up 18.7% of the consolidated budget, an increase from 14.3% in the period of 1999-2003 and 10.5% in 1994-98. Given the country's ageing population, health-related expenditures and national pension payments are expected to increase tremendously. Senior citizens' medical expenses per capita are more than four times greater than those of the other younger age groups. Hence, the forecast amount of expenditures by the National Health Insurance Corporation will be 359.1 trillion won in 2050, which is almost four times larger than 2004's 92.2 trillion won.

Furthermore, during the 40th anniversary of the National Pension System in 2028, retirees enrolled since the foundation of the system will receive 40% of their average income. This is the highest rate of payments under the pension plan and is known to be higher than retirement pension schemes of most other countries. The increasing health care and retirement payments will strain expenditures in public administration, education, defense, and social infrastructures (e.g., roads and bridges). Priorities in these sectors have been strongly entrenched since the nation experienced double-digit economic growth in the 1960 and 1970s. Any suggestion for significant and constant cutbacks in this spending will be strongly opposed by various interest groups who have long benefited from this government largesse.

Korea's fiscal management can be described as "lots of leakage factors without securing enough tax revenues." Making things much worse, Korea's tax base is decreasing due to generous tax credits and exemptions enacted mostly for political reasons. Some studies predict that the aging demographic

**Figure 1.7**

*Forecasts of the Tax Revenue and Tax Expenditure to GDP*




*Source:* Samsung Economic Research Institute, SERI Management Report 2007.

profile will lower Korea's potential economic growth rate to 1-2% by 2040. If the prediction is correct, the tax base will not increase enough to ensure sufficient tax revenue in the mid-to long-term. Insufficient tax revenue against rising government spending is expected to cause a budget deficit. Hence, Korea will likely face a reverse of the fiscal balance from the current surplus to a deficit in 2023 with a record deficit of 4.3% of the GDP in 2050 (Figure 7). Consequently, the national debt to GDP ratio is expected to reach 46.8% of the GDP in 2050. This may lead Korea into a vicious cycle of high interest rates, leading to even bigger government spending.

To escape this vicious cycle of insufficient tax revenue and increased spending, the government must devise a scheme to hold down the fiscal spending. It needs to curb runaway government expenditure. This requires the following tasks: First, the government should reduce the scope of its intervention in the private sector by revamping the operations of government agencies to make them more market friendly. Second, to resolve problems

with the aging population, the welfare system should be restructured. Specifically, there should be partial privatization in the national pension scheme by introducing a personal retirement account. The national health insurance scheme should narrow its plan from overall to serious illnesses, so that health care spending is contained. Moreover, agricultural subsidies and SME subsidies need to be reorganized to become more productive (Kim 2007).

The government should be able to secure stable tax revenues. To this end, institutional reform that enlarges the tax base is necessary. One method for doing this is reducing complex tax credit and exemptions. It is necessary to curtail tax reduction and exemption on personal income tax, corporate income tax, and VAT. Specifically, reducing deductions on personal income tax along with a lower exemption limit will expand the tax base. Most importantly, the government should devise a scheme to bring underground economic activities to the surface in order to broaden the tax base.

## Fair Trading Between Large Conglomerates and SMEs for Shared Growth

Recently, the Korean government has campaigned to achieve shared and inclusive growth between large conglomerates and SMEs to mitigate social conflicts arising from income polarization and widespread unemployment. In this regard, inter-firm transactions between large conglomerates and SMEs need to be placed on equal footing. The government has established a presidential Shared Growth Committee to monitor intra-firm transfer pricing and outsource pricing between large conglomerates and SMEs for intermediate goods delivered by SMEs. On the part of large conglomerates, there exists an implicit campaign not to enter micro-type businesses and to commit to social goods creation as a part of corporate social responsibility. It is a positive sign that Korea's large firms have begun to increase the number of new hires who are not necessarily college graduates.

## Reducing External Vulnerability and New Regulations

Aggravating the structural issues as described above, the Korean economy has been repeatedly and helplessly hit to a great extent by unprecedented global economic downturns. Although Korea weathered these serious external shocks under significant collective actions for an increase in fiscal and monetary expansion by G20 members during the recent crisis, the country must maintain robust macro-fundamentals. Again, Korea's recovery path this time faces a host of serious challenges due to ongoing financial and fiscal stress in Europe and weaker demand for Korean exports in developed markets as well as in emerging markets, as Chinese economic growth is also slowing.

Undoubtedly, Korea should continue its financial liberalization to upgrade its shallow financial system. However, Korea's financial globalization needs to be effectively managed so that capital flows do not become a source of instability. For example, the value of the Korean won tumbled by more than 9 percent in September to close at 1,178.10 against the dollar as investors continued to sell the risk-sensitive local currency. When the global economy is in a stable growth period, the fundamentals of the domestic economy will greatly influence movement in the foreign currency market. However, in these times of global turbulence and uncertainty, external factors will dominate the movement in currency markets, as seen by the movement in won-dollar exchange rates after the collapse of Lehman Brothers in 2008, the Dubai turmoil in 2009, and the blow-up of the Greek fiscal debt crisis last June.

The global financial crisis of 2008 was a turning point in Korea's policy on financial regulations. In the years prior to the crisis, Korea had been benefiting from massive capital inflows by foreign investors, which was quickly reversed during the financial crisis. The sudden capital outflows from Korea's liquid market had devastating effects on its financial system, which had not been ready for such destabilizing actions. After the crisis, the Korean

government adopted several measures in addition to the existing safety nets to stabilize the financial system.

Measures introduced by the Korean government focused on reducing vulnerabilities created by overseas borrowing by banks and building up leverages. Three major steps were taken. First, in June of 2010, the government introduced ceilings on the forward market foreign exchange derivatives positions of banks as a ratio to their capital. The objective was to reduce the short-term external debt that resulted from banks' provision of forward contracts to export firms, preventing the possibility of a sudden and massive withdrawal of capital, especially by foreign bank branches. Second, in January of 2011, the government re-introduced a withholding tax on foreign purchases of treasury and monetary stabilization bonds, so that foreign corporations and nonresidents are also subject to the withholding tax, which was previously applicable only to resident purchases of bonds. Third, from August 1, 2011, the government imposed a macro-prudential stability levy on banks' non-deposit foreign exchange liabilities. These measures appear to have succeeded in preventing banks' external debt from returning to pre-crisis levels; it is believed that the limits on forward contracts, as well as ratios on derivatives to bank capital, have helped significantly reduce the outstanding external short-term debt of banks. However, the measures, through an increase in transaction fees, are imposing a burden on the counterpart of the forward contract.

When necessary, the Bank of Korea purchases foreign exchange reserves to build an adequate cushion from a precautionary perspective. However, excessive reserve holdings are associated with diminishing marginal benefits and rising costs. Therefore, it makes sense to have a financial safety net to complement the reserve accumulation. Regional financing arrangements — such as the Chiang Mai initiative — can play an important role. On the global level, the IMF can provide an additional foreign exchange safety net when reforming IMF organizations and their functions.

## In Search of a New Engine of Growth for Job Creation

Given the continuously turbulent and uncertain world economy, it is absolutely mandatory that Korea upgrade its industrial structure and enhance its industrial competitiveness in the global market while creating new jobs for the massive number of job seekers. The government identified 15 areas for this purpose. An increase in total factor productivity requires the development of base technologies, which demand tripartite R&D collaborations among academia, industries, and research institutes. The fusion effects of amalgamating Korea's conventional industries with current comparative advantages and IT, BT, and NT must be realized for Korea's main industries to remain competitive in the global market. Korea's automobiles, shipbuilding, iron and steels, electronics, and semiconductors, which are presently Korea's cash cows in global markets, are cases in point.

In order to overcome the shortcomings of jobless growth in the manufacturing of large firms, the promotion of knowledge-based service industries should be emphasized, as listed in the table about Korea's new growth engines (Table 1.7). Above all, Korea's financial sector must be pursued alongside manufacturing development. Korea also needs to pay due attention to tourism development to attract the rapidly rising number of tourists from China and elsewhere in Asia. It should be recognized that cross-regional low-cost carriers under a regional open sky agreement must be worked out to improve intra-regional air passenger traffic and their connectivity in East Asia.

**Table 1.7**

*Korea's 21st Century Industries for New Engine of Growth*

| | |
|---|---|
| *Main Industries (7)* | Semiconductors, display, automobiles, shipbuilding, textiles, production systems, chemical process materials, metals |
| *Prospective Industries (4)* | Bio, robots, digital convergence, medical devices |
| *Base Technologies (4)* | Nano technology, production base, eco-friendly technology, knowledge-based services |

### Providing Active Leadership in Designing New Global Economic Architecture

Korea successfully chaired the G20 Summit, being the first non G-7 country to host a G20 Summit, in November of 2010 to strengthen its concerted policy actions toward post-crisis global recovery. The G20, which accounts for 85 percent of the global GDP and two-thirds of the world's population, has emerged as the informal premier forum, reflecting more adequately today's global economic reality. In an effort to prevent the recurrence of a similar crisis, G20 leaders also committed themselves to reforming the international financial architecture and to strengthening international economic cooperation toward a framework for strong, sustainable, and balanced growth.

Korea provided a leadership role to push through a standstill of protectionist measures in the middle of a crisis and roll back to pre-crisis levels, a financial safety net, and the sharing of development knowledge to reach out to non-G20 members. Korea needs to work as an active member of the G20 process for sustainable and balanced growth.

## Policy Implications

Recently, Korea has been feeling pressure from deteriorating global economic conditions, as it is heavily dependent on foreign trade. The nation's current account surplus also declined to a seven-month low of $410.3 million in August. The setback was attributed to sluggish exports, as fiscal and financial turmoil has already started to contract demand in major economies such as the European Union and United States. Korea must shift its export focus to emerging markets. They accounted for 45 percent of total Korean exports from the 2000-2005 period and fully 54 percent in 2006-2007. In the post-Lehman Brothers years of 2008-2009, the emerging market share of

Korean exports soared to 59 percent. Roach and Lam[2] argue that "in retrospect, the pre-emptive shift in the mix of Korean exports may well have been the most important factor behind the economy's remarkable resilience during the recent crisis."

Internally, Korea should address the issues arising from income polarization and increasing demand for social welfare programs. Optimum balancing between shared prosperity and competitive entrepreneurial inertia must be pursued in formulating fiscal and monetary policies. In this regard, Korea is now searching for a new paradigm for a market economy version 4, as has recently appeared in some advanced capitalist economies.

Externally, in an increasingly globalizing world economy, Korea should maintain an outward-looking orientation to take advantage of globalization while mitigating its negative impacts by making the Korean economy more resilient to external shocks. In particular, Korea must expand partnerships with emerging economies. In this context, India and Korea can develop a variety of win-win projects beyond the bilateral CEPA while sharing common values on political democracy and the market economic system. The two economies are the most politically democratic and economically dynamic in Asia. Given the differential factor endowment of India and Korea, mutual learning between the countries is bound to produce mutually beneficial results. The two countries have great potential to develop a "continental knowledge platform" for a new set of fusion industries utilizing IT while deepening their bilateral trade. Furthermore, India and Korea can work together in the G20 process to play an honest broker between advanced and emerging economies in designing a more sustainable and prosperous world economic system.

2. See Stephen S. Roach and Sharon Lam, "Korea outperforms rivals in post crisis era", *The Korea Times*, May 11, 2010

# References

Ahn, Choong Yong. 2010a. "Weathering the Storm: The Impact of the Global Financial Crisis on Asia." *Global Asia,* Vol. 5, No. 1. (Spring)

_____. 2010b. "To Remain Relevant. The G-20 Needs Seoul's Development Agenda." *Global Asia,* Vol. 5, No. 3, pp. 34-41. (Fall)

_____. 2001. "Financial and Corporate Sector Restructuring in South Korea: Accomplishments and Unfinished Agenda." *Japanese Economic Review*, Vol. 52, No. 4 pp. 452-470.

An, Chong-Bum and Barry Bosworth. 2011. "Income Inequality in Korea: An Analysis of Trends, Causes and Answers." Conference in Commemoration of the KDI's 40th Anniversary. (October 25)

An, Chong-Bum, Sang-Hoon Ahn and Seung-Hoon Jeon. 2010. "A Study on the Balanced Combination of Welfare Expenditure and Tax Burden." *Korea Social Security Review*, Vol. 26, No. 4, pp. 293-324. (November)

Bergesten, C. Fred. 2011. "Overview of Macroeconomics Issues: Korea and the World Economy." *Korea's Economy*, Vol. 27. Washington D.C.: Korea Economics Institute.

Jeonge, Young-Sik. 2011. "Eurozone Debt Crisis and Korea's Response." *SERI Economic Repor.* Samsung Research Institute. (October 17)

Kim, Sun-Bin. 2007. "Korea's Fiscal Tasks to Enhance Its Economic Vitality." *SERI Management Report.* Samsung Research Institute. (October 22)

Lall, Subir and Meral Karasulu. 2011. "Korea: Economic Prospects and Challenges after the Global Recession." *Korea's Economy*, Vol. 27. Washington D.C.: Korea Economics Institute.

Min, Seung-Kyu. 2006. "Income Polarization in Korea." *SERI Economic Report.* Samsung Research Institute. (April 10)

Roach, Stephen S. and Sharon Lam. 2010. "Korea Outperforms Rivals in Post-Crisis Era." *The Korea Times.* (May 11)

World Bank. 1993. *The East Asian Miracle.* Oxford University Press.

# 2 The Indian Economy: Recent Trends and Prospects

*by* D.K. Srivastava*

## *Abstract*

*The performance of the Indian economy since 2001-01 has been characterized by an uplifting of the trend growth rate to 9 percent plus, interlaced with cyclical swings, growing vulnerability to global imbalances, slippage in fiscal consolidation, and elevated and stubborn inflation levels. There are growing concerns that India's potential growth has slipped below 9 percent in the wake of large fiscal and current account imbalances. The Indian economy is particularly vulnerable to global crude oil price movements. The way out is to reduce fiscal and current account imbalances and lay the foundations for taking advantage of the demographic dividend.*

## Introduction

In this study, we look at the performance of the Indian economy since 2000–01 and examine its prospects in the Twelfth Plan period (2012–2017) and beyond. The key features characterizing the recent economic trends are: (1) uplift of the trend growth rate to 9 percent plus levels interlaced with cyclical swings; (2) growing vulnerability to global imbalances; (3) slippage in

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fiscal consolidation; (4) elevated and stubborn inflation levels; and (5) growing concerns that India's potential growth has been driven below 9 percent at least for a few years in the wake of large fiscal and current account imbalances. We then examine strategies to reverse these trends to take full advantage of the unfolding demographic dividend to realize higher and stable growth in India in the coming years. Section 1 looks at the pattern of growth including the cyclical movements around trend growth since 2000–01. Section 2 looks at key aspects of the vulnerability of the Indian economy to global economic changes. Section 3 examines the two main current economic problems in greater detail, namely, growth and inflation, highlighting the role of domestic economic conditions and policy challenges. Section 4 discusses the policy challenges from a longer-term perspective. Section 5 provides concluding observations.

## Economic Growth: Trend Growth and Cyclical Swings

The preceding decade started with a major drought and economic slowdown in India. For the period from 2001–02 to 2002–03, the growth of GDP at factor cost at 2004–05 prices was in the range of 4 to 6 percent. From then on, it rose progressively to reach peak levels averaging about 9.5 percent during the 3 years from 2005–06 to 2007–08. The peak growth of GDP at factor cost was in 2006–07 at 9.6 percent. Since then, in the wake of the 2008 global financial and economic crisis, growth fell to 6.7 percent in 2008–09. It was followed by a major drought in 2009–10. Some recovery occurred in 2010–11 but a second global economic crisis surfaced in 2011. The Indian economy has to cope with both domestic and global challenges, which happen to be significantly inter-linked. Table 2.1 gives the annual growth in GDP at factor cost and at market prices at 2004–05 prices.

Both the 2008–09 dip at 6.7 percent and the subsequent weakening of growth to 6.9 percent in 2011–12, according to advance estimates of the Central Statistical Organisation (CSO), largely reflect the vulnerability of the

## Table 2.1

*Growth of GDP at Factor Cost and Market Prices*

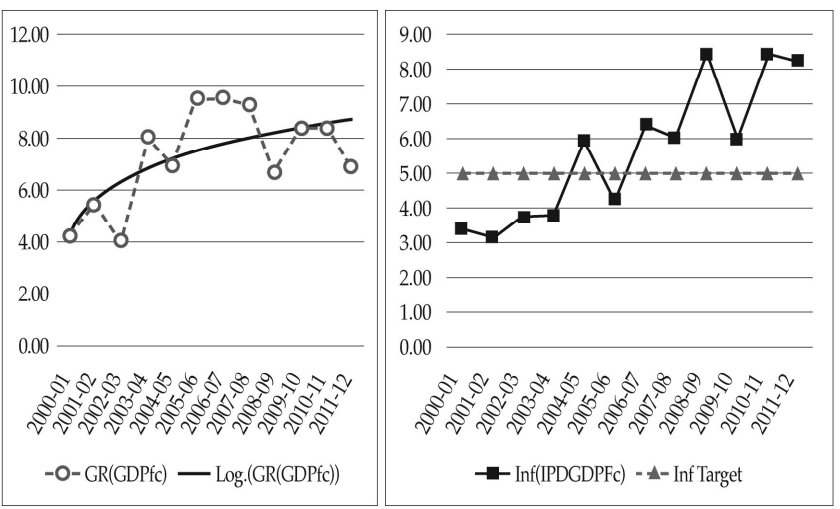
*(Unit: % per annum)*

| *Years* | *GDP at factor cost* | *GDP at market prices* |
|---|---|---|
| 2000–01 | 4.30 | 3.98 |
| 2001–02 | 5.52 | 4.94 |
| 2002–03 | 3.99 | 3.91 |
| 2003–04 | 8.06 | 7.94 |
| 2004–05 | 6.97 | 7.85 |
| 2005–06 | 9.48 | 9.32 |
| 2006–07 | 9.57 | 9.27 |
| 2007–08 | 9.32 | 9.82 |
| 2008–09 | 6.72 | 4.93 |
| 2009–10 | 8.39 | 7.11 |
| 2010–11 | 8.39 | 9.55 |
| 2011–12 | 6.88 | 7.46 |

*Source (Basic Data):* National Income Accounts, CSO.

## Figure 2.1

*GDP and Inflation Rate against Potential and Target*



Indian economy to global economic movements. In 2012–13, there is an expected improvement in growth performance but by a small margin.

Figure 2.1 highlights the cyclical swings in GDP growth in the previous decade: starting with the trough during 2001–03, reaching a peak in 2005–08, and declining to lows in 2008–09 and again in 2011–12. The left segment indicates the periods when the economy was operating below potential growth. The right segment indicates the years when inflation, measured by the implicit price deflator of GDP at factor cost, was above a bench mark level of 5 percent per annum. This is particularly noticeable for 2009–10 onwards. These movements reflect the influence of both global and domestic factors. We first analyze global factors .

## Indian Economy: Vulnerability to Global Forces

The Indian economy has progressively become more vulnerable to global economic forces for three reasons. First, the Indian economy, being highly dependent on crude oil imports, is particularly vulnerable to global crude oil price movements. Second, cyclical movements affect global demand for Indian exports as also capital inflows. Third, global imbalances translate into economic imbalances in India, although by itself India does not contribute much to global imbalances. We discuss below important aspects of these inter-linked issues.

### Vulnerability to Global Crude Oil Prices

Global crude oil prices have been subject to trend increases overlaid by periodic large shocks. The movement of global crude oil prices affects the Indian economy in several interdependent ways. Changes in oil prices affect the overall inflation rate, exchange rate, government revenues, environment, and growth. Oil prices shocks have a stagflationary effect on the macro-economy of an oil-importing country, leading to a slowdown and an increase

in the price level. For the U.S. economy, which is also a net oil importer, as observed by Roubini and Setser (2004 a, in Summary, p.1), "An oil price hike acts like a tax on consumption and, for a net oil importer like the United States, the benefits of the tax go to major oil producers rather than the U.S. government." In India, however, because of administered prices related to important petroleum products accompanied by a large subsidy regime for select oil products, the benefits may not go to oil companies. Rather, considerable distortions are caused that affect prices, consumers, and investors, as well as the profitability and operations of the oil companies and fiscal imbalances.

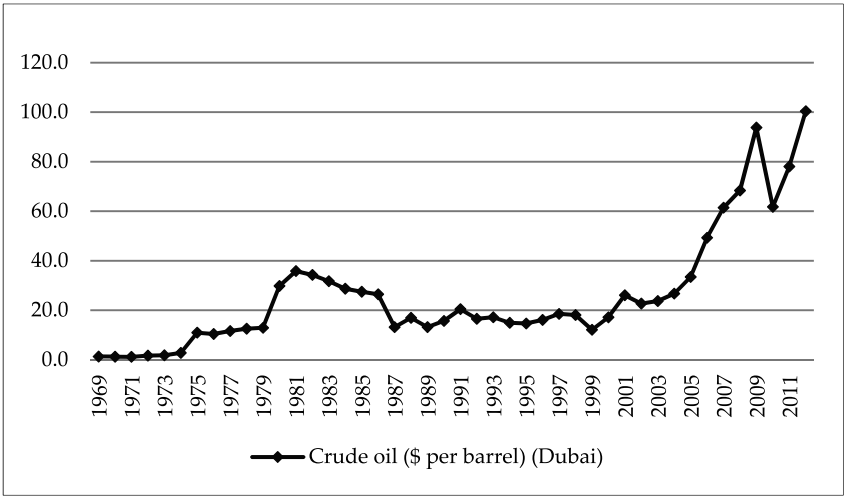
Figure 2.2 indicates how in the past decade crude oil prices rose more than five-fold, from about $20 a barrel in 2001 to more than $100 per barrel by 2011. In more recent months, oil prices have surged further ahead. Such a sharp increase in crude oil prices has affected both the global and Indian economy in significant ways.

There are several important channels through which the effects of changes in global oil prices propagate into the domestic economy. The price channel involves global crude oil prices affecting directly the prices of the 'fuel and energy' group of products and indirectly all other prices through cost-side linkages. The impact on fuel and energy prices is normally filtered through various ad hoc and administrative interventions. Depending on the extent of the pass-through, domestic prices are directly affected by global crude oil price movements through the cost-side. The *tax revenue channel* becomes important as most indirect taxes are ad valorem and prices of petroleum products bear a heavy excise duty and sales taxes that have remained outside the cenvat and statevat mechanisms. Taxes are complemented by subsidies for a variety of petroleum products. As a result, the overall fiscal deficit is also affected, leading to wide-ranging macro-economic implications.

For an economy that is heavily dependent on imported oil, the *exchange rate channel* is also important since oil price upsurges lead to an increase in the

**Figure 2.2**

*Global Crude Oil Price Movement*




current account deficit and exchange rate depreciation. The higher domestic inflation rate relative to inflation rates in other major economies leads to further depreciation of the currency, resulting in a self-perpetuating spiral. Another related channel is the *foreign investment channel*. The surpluses obtained by the oil-producing countries seek investment avenues in other countries and an oil-importing country may attract such investment depending on its growth prospects and other relevant domestic conditions. Further, since the petroleum products are polluting and the environment is impacted, taxation and price regimes need to be designed taking into account the environmental implications of the use of petroleum products. Overall growth is affected through inter-sectoral linkages.

The effects of oil price movements including the periodic shocks depend on external factors like the size, duration, and persistence of the shock and internal factors like the degree of dependence of the economy on oil imports, tax and subsidy regimes.

## Global Economic Crises: 2008 and 2011

The 2008 global financial and economic crisis had a limited but adverse impact on the Indian economy. The re-emergence of that crisis in 2011 and beyond is again impacting the Indian economy.

With respect to the first of these two crises, the US recession has been dated by the National Bureau of Economic Research (NBER) as starting after a peak in December 2007 to a trough in June 2009 while for the euro area, the European Area Business Cycle Dating Committee has dated the last peak in the first quarter of 2008 and the trough in the 2nd quarter of 2009. During the crisis, 10 of the G20 countries experienced negative growth for at least four quarters. These are Canada, Germany, France, the U.K., Italy, Japan, Mexico, Turkey, the U.S., and South Africa. Others experienced negative growth for less than four quarters and some like India and China escaped with limited erosion of their growth rates.

Table 2.2 shows quarterly growth rates (year-on-year) for 10 major world economies. These 10 countries suffered recession, which lasted for four quarters or more. In the U.S., growth started decelerating in the fourth quarter of 2007. The growth rate became negative, indicating a fall in income in absolute terms in the 3rd quarter of 2008. The recession deepened as the magnitude of the negative growth rate continued up to the 2nd quarter of 2009. Growth turned positive in the 4th quarter of 2009. In the U.K. also, growth started decelerating in the fourth quarter of 2007. Here also, it turned negative in the third quarter of 2009. Up to the first quarter of 2010, the quarterly growth rate remained negative. In Germany, deceleration in growth started in the 2nd quarter of 2008. Germany experienced negative growth up to the 4th quarter of 2009. France also experienced deceleration of its growth rate from the 4th quarter of 2007. It experienced negative growth rate from the third quarter of 2008 to the 4th quarter of 2009. Japan witnessed a deceleration in the 3rd quarter of 2007 and experienced negative growth in

the 2nd quarter of 2008, which remained negative up to the 4th quarter of 2009.

**Table 2.2**

*Quarterly Growth Rates in Select Countries: From Pre- to Post-Crisis Period*

*(Unit : %; Y-O-Y)*

| *Quarter* | *Canada* | *Germany* | *France* | *United Kingdom* | *Italy* |
|---|---|---|---|---|---|
| 2007Q3 | 2.63 | 2.64 | 2.58 | 2.91 | 1.51 |
| 2007Q4 | 2.54 | 1.76 | 2.15 | 2.36 | 0.00 |
| 2008Q1 | 1.71 | 2.68 | 1.83 | 1.88 | 0.27 |
| 2008Q2 | 0.87 | 1.65 | 0.68 | 1.04 | –0.45 |
| 2008Q3 | 0.40 | 0.48 | –0.18 | –0.40 | –1.76 |
| 2008Q4 | –0.88 | –1.97 | –1.94 | –2.75 | –3.34 |
| 2009Q1 | –2.51 | –6.62 | –3.86 | –5.38 | –6.52 |
| 2009Q2 | –3.18 | –5.53 | –3.08 | –5.90 | –6.15 |
| 2009Q3 | –3.05 | –4.45 | –2.67 | –5.32 | –4.70 |
| 2009Q4 | –1.10 | –2.00 | –0.54 | –2.84 | –2.78 |
| 2010Q1 | 2.09 | 2.07 | 1.15 | –0.32 | 0.51 |
| 2010Q2 | 3.41 | 3.92 | 1.58 | 1.64 | 1.25 |
| 2010Q3 | 3.44 | 3.93 | 1.72 | 2.66 | 1.10 |
| *Quarter* | *Japan* | *Mexico* | *Turkey* | *United States* | *South Africa* |
| 2006Q1 | 2.07 | 6.17 | 5.95 | 3.05 | 5.45 |
| 2006Q2 | 2.14 | 5.31 | 9.74 | 2.98 | 5.30 |
| 2007Q3 | 1.84 | 3.47 | 3.18 | 2.33 | 5.26 |
| 2007Q4 | 1.80 | 3.69 | 4.19 | 2.32 | 5.23 |
| 2008Q1 | 1.17 | 2.35 | 7.01 | 1.91 | 4.33 |
| 2008Q2 | –0.06 | 2.83 | 2.63 | 1.25 | 4.73 |
| 2008Q3 | –1.09 | 1.69 | 0.86 | –0.34 | 3.66 |
| 2008Q4 | –4.67 | –0.77 | –6.97 | –2.77 | 1.64 |
| 2009Q1 | –10.09 | –7.21 | –14.57 | –3.80 | –0.60 |
| 2009Q2 | –6.96 | –9.57 | –7.65 | –4.11 | –2.44 |
| 2009Q3 | –6.15 | –5.53 | –2.66 | –2.74 | –2.43 |
| 2009Q4 | –1.79 | –2.03 | 6.01 | 0.20 | –1.24 |
| 2010Q1 | 5.54 | 4.58 | 11.84 | 2.39 | 1.39 |
| 2010Q2 | 3.51 | 7.63 | 10.22 | 3.01 | 2.82 |
| 2010Q3 | 4.97 | 5.28 | 5.49 | 3.25 | 3.25 |

*Source (Basic Data):* World Bank Global Economic Monitor.

In the case of other major economies, Canada and Mexico experienced negative growth for 5 quarters, Turkey and South Africa for 4 quarters, and Italy for 7 quarters. Among the major remaining economies in the G20 group, Australia, India, Indonesia, and China escaped with only an economic slowdown, without experiencing an actual decline in income through a negative growth rate.

The effect of this all-round deceleration in growth was experienced in the Indian economy through a dampening of export demand and foreign capital inflows. However, the effects on growth were limited to a reduction of about 2 percentage points from a potential growth level, which is generally considered to be about 9 percent. The effect was limited because India also participated in conjunction with other major countries in providing a strong stimulus package, consisting of tax rate reductions and lowering of interest rates.

## Global Balance of Country Imbalances

Most analysts now consider that while the global economic crisis of 2008 was visibly rooted in the financial crisis, it had deeper structural roots in persistent global economic imbalances. These imbalances set up a vicious and unsustainable cycle and, unless corrected, the global economy will remain vulnerable to frequent shocks. The key features of the global imbalances may be summarized as follows:

a. The US economy, along with other major western economies, runs a large and persistent current account deficit, reflecting deficient domestic savings.

b. These deficits are matched by surpluses emanating from three major channels:

   i) Emerging markets, most importantly China, have excess savings and correspondingly large current account surplus.

   ii) The oil-exporting countries are flush with funds that they cannot

domestically absorb. They also have current account surplus and excess savings.

iii) To a lesser extent, metal-exporting countries are in a similar situation.

The US current account, which measures the balance of investment and saving, has been in deficit since 1992. Until 1997, the annual saving shortfall was modest but it grew steadily thereafter, reaching a peak of nearly 6% of GDP in 2006. The saving ratio in the US steadily fell over these years. The financial system had the job of recycling the money to borrowers. Inevitably, credit became cheaper and savings declined. In the US, savings fell from around 10% of disposable income in the 1970s to 1% after 2005.

There is also a large accompanying demand for foreign exchange reserves. Many of the Asian countries feel that while they have excess savings today, they want to invest in foreign exchange reserves so that they do not have to face a sudden flight of capital as was experienced in the crisis of the 1990s.

The excess saving from China is partly the result of the Chinese exchange-rate policy. Buying large amounts of dollars keeps the domestic currency weak, encouraging exports and lowering domestic spending. The result is a high level of net national saving, much of which ends up in central banks' foreign-exchange reserves. The US, Britain, and other deficit countries have shown a high appetite for cheap credit from abroad.

All countries, whether producing manufactured goods like China, or oil or metals, have excess savings that seek safe and liquid investment avenues abroad since domestic financial instruments are neither large nor adequately developed to absorb these large excess savings. Caballero (2011),[1] and

1. Caballero (2011) builds a stylized model of the workings of a global economy where one of its key driving factors is economic agents' continuous struggle to findassets in which to park financial resources. This struggle naturally comes with euphoria and disappointments, as many of the 'parking lots' are built too quickly or are not of the desired size. There are also global asymmetries, as some countries are endowed with more empty land than others and their growth potential may also differ. Caballero uses this caricature of the world economy to describe several of the main driving

Caballero, Farhi, and Gourinchas (2008) have argued that the emerging countries cannot create enough trustworthy savings vehicles to keep up with the pace of economic growth, because their financial markets are immature. America is still the favored destination with a broad range of liquid markets for securities.

The emerging markets' need for insurance has driven them to export capital to the US. The interaction between the two proved to be fatal. In the wake of a strong external demand for AAA-rated assets, the financial system became creative. Marginal home loans were packaged into supposedly safe securities. That supply of credit lifted house prices and spurred a boom in residential construction, which filled the gap in demand left by sluggish business investment.

These loans turned bad and losses mounted. At the same time banks had set aside too little capital to protect themselves against unexpected losses, leaving the banks crippled when the rush for redemption of financial assets started. The attraction for capital inflows is that the US provides reliable and liquid assets that cannot be found at home. This sets up a dynamic flow where the surpluses of one block of countries finance the deficits of the other. The problem is that persistent and large imbalances raise issues of sustainability and periodic breakdowns.

Because the structural forces behind the global saving glut are unlikely to abate quickly, there is a real risk that the dangerous imbalances will persist, with a good part of the private sector financial imbalances translating into government's fiscal imbalances.

The roots of the 2011 crisis were clearly already seeded in the 2008 crisis. In particular, the large volume and number of bailouts and stimulus measures undertaken by governments of different countries entailed unviable liabilities of private institutions shifting to governments. The volumes

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forces behind recent global macroeconomic events and to discuss 'quantitative' easing policies.

involved were so large that many governments could not absorb the additional liabilities without giving rise to fears that they may default on their obligations. While there may have been different reasons or conditions explaining why some countries proved to be more vulnerable than others, in general, countries faced crisis if characterized by one or more the following; (a) governments had large debt liabilities to begin with; (b) economic growth was weak; and (c) governments were small relative to the financial liabilities of their banks and financial institutions.

The main countries in the forefront of the emerging crisis in the euro zone are Greece, Portugal, Spain, Ireland, Iceland, and Italy. Other European countries are also showing signs of a slowdown and the financial crisis easily propagates from one country to another given the interconnections in the intra-EU as also the global financial system. If one nation defaults on its sovereign debt or enters into recession, it affects the finances of the countries from which it has borrowed.

This crisis has emerged in spite of the EU member countries signing the Maastricht Treaty in 1992 and later a Growth and Stability Pact. The Maastricht Treaty commits each member country to limit their fiscal deficit relative to GDP to 3 percent or less and their debt-GDP ratio to 60 percent or less. Under the Growth and Stability pact, they were allowed to meet these targets over a cycle which permitted a higher than 3 percent fiscal deficit to GDP ratio in recessions. A number of EU member states, including Greece and Italy, were, however, able to circumvent these rules and mask their deficit and debt levels through the use of complex currency and credit derivatives structures.

The structure of the European economies is such that while some economies like Germany have maintained a current account surplus, others within the euro zone have maintained large current account deficits. This necessarily means that the deficit economies owe a large amount of debt to the creditor economies. Partly the crisis has been self-reinforcing, as the weaker economies have to offer higher risk premia to borrow additional

amounts to save themselves from defaulting. Prior to the development of the crisis both regulators and banks assumed that sovereign debt from the Euro zone was safe. Banks had substantial holdings of bonds from weaker economies, such as Greece, which offered a small premium and appeared to be equally sound. As the crisis developed it became obvious that Greek and possibly other countries' bonds offered substantially higher risk.

On December 5, 2011, Standard & Poor (S&P) placed its long-term sovereign ratings on 15 members of the European Economic and Monetary Union (EMU or euro zone) on 'CreditWatch' with negative implications. It cited "systemic stresses" from five interrelated factors: 1) tightening credit conditions across the euro zone; 2) markedly higher risk premiums on a growing number of euro zone sovereigns, including some that are currently rated 'AAA'; 3) continuing disagreements among European policymakers on how to tackle the immediate market confidence crisis and, longer term, how to ensure greater economic, financial, and fiscal convergence among euro zone members; 4) high levels of government and household indebtedness across a large area of the euro zone; and 5) the rising risk of economic recession in the euro zone as a whole in 2012.

In the wake of the 2011 global economic crisis, India has seen a re-emergence of sharp fiscal and current account imbalances and a slowdown of growth again to levels below 7 percent in 2011–12. We review below the performance of the Indian economy in recent years and quarters.

## Indian Economy: Performance in Recent Years and Quarters

Immediately after the 2008 economic and financial crisis, India faced a supply-side shock emanating from the agricultural sector. The 2008 crisis and general elections held in 2009 reversed the path of fiscal consolidation. At the same time an oil price upsurge as the global economy started recovering led to a sharp increase in the current account deficit.

## Sectoral growth

After the dip in growth of GDP at factor cost at 2004–05 prices in 2008–09 at 6.7 percent, there was improvement in 2009–10 and 2010–11 with a growth of 8.4 percent in both years (Table 1.1). As indicated in Table 3, in 2011–12, the first three quarters have shown particularly weak growth in mining and quarrying, manufacturing, and construction. In the second and third quarters, even some of the service sectors showed a fall relative to longer-term quarter-wise performance, notably, trade, hotels, transport, storage, and communications, financial, real estate, and business services. Comparing the quarterly growth rates (Y-o-Y) with the average annual growth rates for the period from 2005–06 to 2010–11, two sectors, viz., mining and quarrying and manufacturing, show noticeably deficient growth in the second and third quarters of 2011–12. In the case of mining and quarrying, the shortfall relative to the average over 2005–11 for the corresponding quarter was 7 and 7.5 percentage points in the second and third quarters, respectively. For manufacturing, the corresponding deficiency in growth was 6.5 and 8.7 percentage points, in these two quarters, respectively.

In coping with the crisis, two types of imbalances have emerged in India. First, while a stimulus package was needed to counter the global recession of 2008, it had to be financed through a higher fiscal deficit. This meant that the targets of the Fiscal Responsibility and Budget Management (FRBM) Act, 2003 for the central government had to be postponed. The state governments also witnessed some slippage in respect of their respective fiscal responsibility legislations but the slippage was limited in most cases.

As soon as the world economy started recovering, crude oil prices shot up. Since India depends heavily on imported crude for its energy requirements, this had a direct impact on the current account deficit as the deficit on the balance of trade ballooned. Alongside crude oil prices, world food prices have also firmed up. This makes India very vulnerable, particularly in years where agricultural output is going through a trough.

**Table 2.3**

*GDP at Factor Cost: Sectoral Growth*

*(Unit: % per annum)*

| *Quarters* | *Agriculture and allied sectors* | *Mining and quarrying* | *Manufacturing* | *Electricity, gas, and water supply* | *Construction* | *Trade, hotels, transport, storage and communications* | *Financial, real estate, and business services* | *Community, social, and personal services* | *GDP at factor cost* |
|---|---|---|---|---|---|---|---|---|---|
| 2010–11Q1 | 3.1 | 6.9 | 9.1 | 2.9 | 8.4 | 12.7 | 10.0 | 4.4 | 8.5 |
| 2010–11Q2 | 4.9 | 7.3 | 6.1 | 0.3 | 6.0 | 10.8 | 10.4 | 4.5 | 7.6 |
| 2010–11Q3 | 11.0 | 6.1 | 7.8 | 3.8 | 8.7 | 9.8 | 11.2 | –0.8 | 8.3 |
| 2010–11Q4 | 7.5 | 1.7 | 5.5 | 7.8 | 8.2 | 9.3 | 9.0 | 7.0 | 7.8 |
| 2011–12Q1 | 3.9 | 1.8 | 7.2 | 7.2 | 1.2 | 12.7 | 9.0 | 5.6 | 7.7 |
| 2011–12Q2 | 3.2 | –2.9 | 2.7 | 9.8 | 4.3 | 9.8 | 10.5 | 6.6 | 6.9 |
| 2011–12Q3 | 2.7 | –3.1 | 0.4 | 9.0 | 7.2 | 9.2 | 9.0 | 7.9 | 6.1 |
| Average growth (2005–11) | | | | | | | | | |
| Q1 | 3.0 | 4.5 | 9.9 | 6.6 | 9.4 | 11.2 | 11.7 | 7.3 | 8.7 |
| Q2 | 3.4 | 4.1 | 9.2 | 6.0 | 8.8 | 10.8 | 11.9 | 8.6 | 8.9 |
| Q3 | 4.6 | 4.5 | 9.1 | 6.2 | 8.9 | 10.0 | 11.7 | 7.6 | 8.3 |
| Q4 | 3.9 | 4.6 | 9.5 | 7.4 | 9.3 | 10.6 | 11.5 | 7.0 | 8.6 |
| Excess of 2011–12 over mean | | | | | | | | | |
| 2011–12Q1 | 0.9 | –2.7 | –2.7 | 0.6 | –8.2 | 1.5 | –2.7 | –1.7 | –1.0 |
| 2011–12Q2 | –0.2 | –7.0 | –6.5 | 3.8 | –4.5 | –0.9 | –1.4 | –2.0 | –2.0 |
| 2011–12Q3 | –1.9 | –7.5 | –8.7 | 2.8 | –1.7 | –0.8 | –2.7 | 0.3 | –2.3 |

*Source:* National Income Accounts, CSO.

The combination of the global economic crisis, followed by a domestic agricultural trough, and pressure on oil and food prices linked to the global recovery resulted in supply-side inflationary pressure in India, forcing policy-makers to sacrifice about 1 percentage point of potential growth to rein in inflation.

The major challenge for macro-economic management in 2011–12 continues to be containing inflation within desirable limits. The WPI all-commodities index showed a fall after April 2011 (Table 2.4). Having fallen to about 9.34 percent up to July 2011, it again registered an increase in August 2011, reflecting mainly an increase in the WPI for the fuel and energy

group. We expect that WPI inflation may have peaked in August 2011 and should progressively moderate.

## Inflation and Monetary Policy

The experience with inflation also shows considerable volatility. The WPI all-commodities index, which showed a year-on-year inflation rate of 1.7 percent in March 2009 and a negative inflation rate in June and July 2009, steadily increased to a peak of nearly 11 percent by April 2010. The corresponding food articles inflation rate had risen to 21.9 percent by February 2010. The WPI fuel and energy group inflation started rising from 2009 December and rose to a peak of nearly 14 percent in June 2010. It has remained above 10 percent since then. This has now spilt over into WPI inflation for manufactured articles, which has been rising consistently since January 2011.

Table 2.4 gives the month-wise, year-on-year, inflation rates for major groups covered under the wholesale price index for some recent months. Inflation, according to the all-commodities wholesale price index, was 9.74 percent in April 2011. After falling for a few months, it again reached a level of 10 percent in September 2011. It is only later that it has shown a steady fall, which continued until January 2012, after which it again rose. This trend was mainly driven by a fall in inflation for primary articles particularly food articles, which fell until January and again rose in February 2012. By November 2011, inflation in the WPI of manufactured articles had not shown a downward trend. From December 2011, a fall is observed and this trend has been maintained until February 2012. The main remaining concern is with respect to WPI-based inflation for the fuel and energy group, which was more than 15 percent in November 2011. It showed some fall after that but it is now the only component of WPI inflation that continues to be in double digits. There are some likely increases in the fuel and energy group prices as the government attempts to pass through a higher portion of the increase in global crude oil prices in an attempt to rein in oil subsidies.

## Table 2.4

*Inflation based on Wholesale Price Index: 2011*

*(Unit: percentage change over corresponding month in the previous year)*

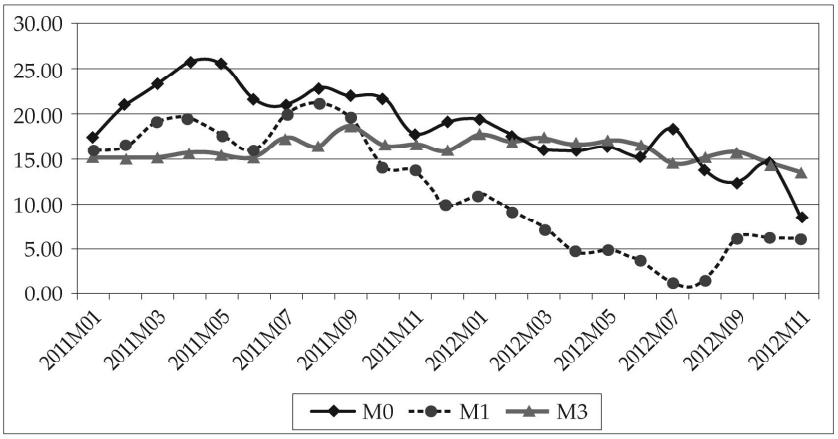
| *Month* | *WPI (all commodities)* | *WPI (primary articles)* | *WPI (food articles)* | *WPI (food grains)* | *WPI (fuel and power)* | *WPI (manufactured articles)* |
|---|---|---|---|---|---|---|
| Apr 2011 | 9.74 | 15.09 | 10.66 | 2.15 | 13.04 | 6.80 |
| May 2011 | 9.56 | 12.92 | 8.25 | 2.61 | 12.32 | 7.43 |
| Jun 2011 | 9.51 | 11.31 | 7.64 | 2.08 | 12.85 | 7.90 |
| Jul 2011 | 9.36 | 11.47 | 8.19 | 2.53 | 12.04 | 7.73 |
| Aug 2011 | 9.78 | 12.46 | 9.62 | 3.33 | 12.91 | 7.87 |
| Sept 2011 | 10.00 | 12.22 | 9.62 | 3.91 | 14.02 | 8.00 |
| Oct 2011 | 9.87 | 10.96 | 10.17 | 5.48 | 14.79 | 8.05 |
| Nov 2011 | 9.46 | 8.90 | 8.32 | 4.59 | 15.48 | 8.17 |
| Dec 2011 | 7.74 | 3.59 | 0.79 | 3.94 | 14.98 | 7.64 |
| Jan 2012 | 6.55 | 2.25 | –0.52 | 4.08 | 14.21 | 6.49 |
| Feb 2012 | 6.95 | 6.28 | 6.07 | 2.92 | 12.83 | 5.75 |

*Source:* Based on data from Office of Economic Advisor, Government of India.

## Figure 2.3

*Growth in Money Supply: Month-wise Y-o-Y Basis*

*(Unit: %)*



In the wake of inflationary pressures, the Reserve Bank of India attempted to tighten monetary policy through periodic lifting of the policy interest rate (Repo rate), leading to a deceleration in money supply as a result of higher interest rates. As shown in Figure 2.3, growth in M1 decelerated far more sharply than M3 growth. Up to December 2010, growth in M3 had continued to increase, reaching a level of nearly 19 percent. After that, it started to fall and by February 2012, it was about 13.5 percent. This may be considered as lower than the desired money supply growth consistent with potential GDP growth, calling for the reversal of the cycle of repo rate increases at a suitable time during 2012–13. Clearly, some potential growth has been sacrificed by following a tight monetary policy to contain inflation.

## Fiscal Imbalances

As shown in Table 2.5, after 2007–08, revenue deficit relative to GDP increased by more than 4 percentage points in 2008–09 and continued to deteriorate the next year. The 2010–11 deficit profile was partially saved by 3G spectrum sales, but the deficit numbers for 2011–12 are likely to deteriorate considerably compared to the budget estimates.

On the whole, there was a definite improvement in the debt and deficit profiles of the central and state governments during 2004–05 to 2007–08. The improvement was sharper for the state governments. This partly reflected the higher growth rates achieved when the saving rates increased, as government dis-savings improved by about 4 percentage points linked to the fall in the revenue deficit relative to GDP linked to the fiscal restructuring program and the implementation of the fiscal responsibility legislations.

Management of fiscal imbalance is going to become progressively more difficult. With an economic slowdown, the tax revenues show lower growth but government expenditures grow more autonomously, calling for financing through higher fiscal deficits. This leads to higher debt than what may be consistent with the desired path of debt-reduction according to the FRBMA

**Table 2.5**

*Revenue, Fiscal, and Primary Deficits*

*(Unit: percent to GDP at current market prices)*

| *Years* | *Revenue Deficit* | *Fiscal Deficit* | *Primary Deficit* |
|---|---|---|---|
| 2000–01 | 6.441 | 9.153 | 3.312 |
| 2001–02 | 6.894 | 9.642 | 3.459 |
| 2002–03 | 6.604 | 9.315 | 3.024 |
| 2003–04 | 5.710 | 8.348 | 1.945 |
| 2004–05 | 3.573 | 7.261 | 1.152 |
| 2005–06 | 2.594 | 6.570 | 0.815 |
| 2006–07 | 1.223 | 5.300 | –0.343 |
| 2007–08 | 0.085 | 4.195 | –0.365 |
| 2008–09 | 4.386 | 8.480 | –0.486 |
| 2009–10 | 5.737 | 9.686 | –0.414 |

*Source:* Based on Indian Public Finance Statistics and National Income Accounts.

and higher revenue deficit and higher government dis-saving. With lower overall saving and investment rates, the growth rate slows down further.

The main challenge in fiscal policy management is to work out in a calibrated way the path of reduction in fiscal deficit of the centre to 3 percent of GDP and that of the consolidated fiscal deficit of the centre and states to 6 percent of GDP. With the recommendations of the Thirteenth Finance Commission, a time path for adjustment was set for the central and state fiscal and revenue deficits. Based on the revised estimates for 2011–12, the main message from the fiscal side is the substantial slippage in key indicators of fiscal imbalances: in fiscal deficit from a budget estimate of 4.6 percent to 5.9 percent of GDP at current market prices, and in revenue deficit, from 3.4 percent to 4.4 percent. The overshooting of revenue deficit (there is also a corresponding overshooting of the effective[2] revenue deficit target) has affected

2. Effective revenue deficit is calculated with reference to revenue expenditure net of fiscal transfers to states meant to be used for creation of capital assets.

**Table 2.6**

*Centre's Targets for Fiscal Imbalances*

*(Unit: in Rs. crore and percentage to GDP at market prices)*

| *Indicators* | *2010–2011 Actuals* | *2011–2012 BE* | *2011–2012 RE* | *2012–2013 BE* |
|---|---|---|---|---|
| Revenue Deficit | 252252 | 307270 | 394951 | 350424 |
| | –3.3 | –3.4 | –4.4 | –3.4 |
| Effective Revenue Deficit | 164765 | 160417 | 257446 | 185752 |
| | –2.1 | –1.8 | –2.9 | –1.8 |
| Fiscal Deficit | 373591 | 412817 | 521980 | 513590 |
| | –4.9 | –4.6 | –5.9 | –5.1 |
| Primary Deficit | 139569 | 144831 | 246362 | 193831 |
| | –1.8 | –1.6 | –2.8 | –1.9 |

*Source:* Union Budget 2012–13, Government of India.

public sector saving, largely accounting for the conditions leading to adversely a slowdown in growth. The suggested correction in 2012–13 (Table 2.6) with a budget estimate of 5.1 percent of GDP for fiscal deficit and 3.4 percent of GDP for revenue deficit would significantly depend on the central government's ability to pass on to consumers any oil price increase, with a view to controlling oil-related subsidies as also covering part of the backlog in the pass-through.

As part of the FRBM requirements, the Union Governments have also placed before Parliament, their own projections of key deficit and other fiscal indicators for the period up to 2014–15 (Table 2.7).

Throughout the period up to 2014–15, the fiscal deficit target relative to GDP is higher than the path recommended by the 13th Finance Commission. Even by 2014–15, the FRBM target of 3 percent of GDP will not be reached. This, by and large, implies that reaching potential growth of 9 percent or above will be delayed and we will regain these levels only around 2014–15 or beyond.

**Table 2.7**

*FRBM: Rolling Targets: Central Government*

| *Indicators* | *Revised estimates 2011–12* | *Budget estimates 2012–13* | *Target 2013–14* | *Target 2014–15* |
|---|---|---|---|---|
| Effective revenue deficit | 2.9 | 1.8 | 1.0 | 0.0 |
| Revenue deficit | 4.4 | 3.4 | 2.8 | 2.0 |
| Fiscal deficit | 5.9 | 5.1 | 4.5 | 3.9 |
| Gross tax revenue | 10.1 | 10.6 | 11.1 | 11.7 |
| Outstanding liabilities (end-year) | 45.7 | 45.5 | 44.0 | 41.9 |

*Source:* Union Budget, 2012–12, Medium Term Fiscal Policy Statement.

An important part of the government's strategy for fiscal correction depends on higher buoyancy from indirect taxes. Gross tax revenue as a percentage of GDP has been estimated to increase to 10.6 percent of GDP in BE 2012–13. This is predicated on 19.5 percent growth in tax revenues over RE 2011–12, mainly coming from the indirect taxes side. The specific proposals in the Budget 2012–13 to enhance tax revenues include:

a. Shift from a 'positive' list approach to a 'negative' list approach in taxing services;

b. Review and withdrawal of several exemptions from service tax;

c. Enhancing the standard rate of Service Tax from 10% to 12%;

d. Increasing the standard rate of excise duty from 10% to 12% by way of partial rollback of the fiscal stimulus (provided in 2008–09);

e. Increasing the merit rate of excise duty from 5% to 6% and lowering the merit rate from 1% to 2% (except for coal, fertilizers and precious metal jewelry);

f. Increasing the excise duty on cars – both small and large, MUVs, SUVs, etc.;

g. Increasing the excise duty on 'demerit' goods such as cigarettes, bidis, and other tobacco products;

h. Rationalizing the scheme of levy/rate structure applicable to precious metal, jewelry and chassis for automobiles;

i. Increasing the rate of cess on indigenously produced crude petroleum from Rs. 2,500 per tonne to Rs. 4,500 per tonne.

Some of these measures may increase indirect tax buoyancy. But the main vehicle of reforms in indirect taxes will the implementation of the Goods and Services Tax, which seems to have been stalled for lack of agreement from the side of the states. At the same time, achieving the FRBMA targets without expenditure-side reforms seems extremely difficult.

## Longer-Term Prospects

The potential growth of the Indian economy in the Twelfth Plan period and subsequent years will be linked to the so-called demographic dividend.

**Table 2.8**

*Approach to the 12th Plan: Key Parameters*

| Growth | |
|---|---|
| GDP | 9.0 |
| Agriculture | 4.0 |
| Industry | 9.6 |
| Services | 10.0 |
| WPI Inflation rate | 5.0 |
| Resources | |
| Saving rate | 36.2 |
| Fixed investment | 33.2 |
| Current account balance | –2.4 |
| Fiscal Resources: Centre | |
| Net tax revenue to centre | 8.68 |
| Non-tax revenue | 1.01 |
| Non-debt capital receipts | 0.41 |
| Fiscal deficit | 3.25 |

Table 2.8 captures the key magnitudes of the Approach to the Twelfth Five-Year Plan recently brought out by the Planning Commission.

For the long term, taking advantage of the demographic dividend seems crucial. The sectoral composition of growth is also critical. To formulate a suitable strategy, it is useful to look at features of the Indian economy, not only at present but the way the economy is likely to emerge in future. Looking to the key structural changes in the Indian economy for the next two decades, three features stand out, namely, (a) the demographic dividend, (b) the growing share of the services sector, and (c) the increasing globalization of the Indian economy.

The term 'demographic dividend' refers to the economic potential that can be unleashed for a period encompassing a few decades when the share of the working age population in total population increases well above 50 percent. The working age population can be taken as ranging from 15 to 59 years or 15 to 64 years. This change has the twin effects of potentially increasing the saving rate and therefore capital formation in the economy as well as the labor force in the economy. This potential augmentation of both capital and labor supply, the two critical factors for determining output in the economy as two sides of the same phenomenon, is a rare combination and lasts for a limited period of time. That is why one refers to this as a 'window' of opportunity. The saving rate increases because of a falling dependency ratio; and the labor supply increases because the working age population relative to the total population increases.

The projected share of the working age population (in the age group 15 years to 60 years) to total population in India is based on UN country-wise population projections. The minimum of this ratio at about 54 percent was in 1970 and the highest of the ratio at about 64 percent is projected to occur around 2033. There is a noticeable acceleration of this ratio soon after 2000. Although it continues to rise, there is deceleration after 2007. The window from now to up to 2035 is the critical growth window for India with the

growing availability of a labor force and a falling dependency ratio. It benefits growth from the output side both by a larger size of the working population and by increasing the saving rate and therefore the supply of investible resources. If we use long-term population projections given by the Population Foundation of India and the Population Reference Bureau (2007), and take the larger 15–64 years age group, the percentage of working age population to total population peaks around 1931 at about 66 percent (Basu, 2011).

Sustaining growth in the range of 9 to 10 percent for another 25 years or more requires building into the analytical framework considerations of environment and finite natural resources and dependence on global supplies. The central driver of India's growth potential is the demographic dividend. But the working age population, whose share is expected to steadily increase, needs to productively participate in the growth process.

What matters, however, is not the age-dependence ratio but the economic dependence ratio. Here the gender dimension of the demographic dividend should also be recognized. The work participation ratio for persons is at 61 percent and for females it is at only 40 percent according to the 2001 census. For productive employment this growing work force has to be educated and skilled. The 2001 census figures indicate that barely 24 percent of the non-working population and 9 percent of total population in the 15–59 age group are listed as students. Bloom (2011) suggests that the demographic dividend consists of a composite of five distinct forces:

a. Swelling of the labor force as the baby boomers reach working age.
b. Ability to divert social resources from investing in children to investing in physical capital, job training, and technological progress.
c. Rise in women's workforce activity that naturally accompanies a decline in fertility.
d. Increase in saving (a) because of the lower dependency ratio since the working ages also happen to be the prime years for savings, which is key to the accumulation of physical and human capital and

technological innovation and (b) incentive to save more because of anticipated greater longevity.

There are three trends that need to be taken note of. First, there is a fall in the gender ratio for the younger age groups, a tendency that has become noticeable in recent census years. Second, in the growing share of the working age population, women will be seeking paid employment far more actively than has been the case as their time is freed up with the decline in fertility and lower number of children in the family to be looked after. Third, with higher life expectancy, the share of women in the aged population of 65-plus will progressively increase, calling for higher allocation for women's healthcare in the higher age groups. But to take advantage of this window, while it is open, the critical pre-condition is that the working-age population is productively employed. Current employment shows considerable discrepancy in age-specific work participation rates between the male and female populations. Table 2.9 indicates the relevant figures both for categories of 'main' and 'main+ marginal work' according to the 2001 census.

The implied weights for male and female population are about 52:48. Clearly, the demographic window will be missed, even if the male work participation rate increases from 81 percent to, say, 90 percent if the female work participation rate remains stuck at about 40 percent, because the weighted average cannot go much beyond 65 percent. To achieve an overall

**Table 2.9**

*Age-specific Work Participation Rate: Main and Main + Marginal (15–59 years): India*

*(Unit: %)*

| *Main* | | | *Main + Marginal* | | |
|---|---|---|---|---|---|
| *Person* | *Male* | *Female* | *Person* | *Male* | *Female* |
| 48.1 | 71.2 | 23.3 | 61 | 80.6 | 40 |

*Source:* 2001 census.

work participation rate of nearly 80 percent, the female participation rate has to be increased at least to 70 percent from the present 40 percent for the main plus marginal work categories. In other words, while the male participation rate with considerable effort may increase by 10 percentage points, the female participation rate will have to increase by a much larger margin, i.e., by nearly 30–40 percentage points. What is important is not the age-dependency ratio, but the economic dependence ratio (EDR) (Basu, 2011).

Macro-economic policy will have to be asymmetric in favor of the female population to correct for the initial imbalances in their training and work participation rates. To take advantage of the demographic dividend, macro-economic policy, mainly fiscal policy, has to ensure that the working-age population, male and female taken together, will be absorbed in the growing sectors of the economy. As the share of agriculture shrinks, this population can only be absorbed in the manufacturing and largely the service sectors. Apart from the construction and to some extent trade and transport sectors, most of these sectors will require a progressively larger share of the skilled and educated work force. Fiscal policy will have to massively increase expenditure on education and heath for this purpose. A relatively larger share of this increased expenditure will have to aim at the training and education of the female population.

Basu (2011) observes that it is not the case that the 30% of the non-working male and 70% of the non-working female population of working age is busy acquiring marketable skills. According to the 2001 Census figures, 9% of males and 52% of females aged 15–59 were neither students nor workers (main or marginal). Second, while EDRs did indeed fall between 1981 and 1991 and that this was probably at least partly an expression of the demographic dividend (DD), between 1991 and 2001, while the DD has continued to work in our favor, EDRs have, in fact, worsened (Basu, 2011).

A 2007 update entitled BRICS and Beyond (Goldman Sachs, 2007), before the onset of the global economic crisis, noted that India can sustain an 8%

plus growth rate up to 2020, revising its earlier 2003 projection of an average 5.7 percent growth. It estimated that India will surpass the US economy before 2050 and will become the second largest economy of the world. It would have surpassed the G6 countries much earlier. Our own forecasting exercise (Srivastava, 2011) suggests that India can sustain a 9 percent plus growth on average throughout the period up to about 2030, subject to certain conditions. As discussed earlier, achieving the potential of 9 percent plus growth rate has been delayed due to the current economic situation and we expect that by 2014–15 the required corrections in fiscal imbalances may take place. This implies that it will surpass every economy other than China ahead of the projections made by the BRICS 2007 Report. The main condition on which this prosperity will depend is taking advantage of the bulge in the working age population from now until about 2033 by educating and imparting skills to them and ensuring that they remain healthy so that they can productively participate and contribute to enhancing productivity.

We have developed a long-term model to examine the economic prospects of the Indian economy for the period up to 2029–30. The model predicts a potential growth on average in the range of 9 to 10 percent up to 2029–30, subject to certain policy pre-requisites.

Long-term growth is conditioned by a suitable policy environment. Management of policies, both monetary policy and fiscal policy, requires to be aimed at providing a stable economic environment and addressing issues of sustainability rather than short-term policy calibration. In the Indian context, the impact of demographic changes, such as the slowing down of population growth, changes in the age structure, and consequently on the availability of the work force and the dependency ratio, have been endogenized.

The policy environment focuses on sustainability and support for a long-term high-growth profile for the Indian economy. In the fiscal sector, consistent with the central and state fiscal responsibility legislations, policy is

geared towards achieving balance on the revenue account and reducing government debt to sustainable levels. As government debt falls, interest payments relative to GDP also fall, creating space for additional primary expenditure geared towards supporting the education and health sectors. For this purpose, fiscal deficit broadly follows a rule consistent with the fiscal responsibility legislations of the central and state governments and the recommendations of the Twelfth and Thirteenth Finance Commissions.

Monetary policy is geared towards a long-term target of reducing the inflation rate to about 5 percent per annum. Broad money (M3) is generated by a rule such that the annual growth rate of M3 is kept at 17 percent per annum. It has been shown that this progressively reduces the inflation rate to reach a 4 percent level on a sustained basis. With respect to the external sector, the long-term target is to bring the current account in balance. This is kept as a target but introduced in incremental steps. The current account deficit to GDP ratio is taken as exogenous and its time path provides for a gradual reduction in the current account deficit to GDP ratio.

The model projects that private consumption expenditure registers a decline, but it is matched with a corresponding rise in private investment spending. The domestic economy, therefore, does not face any deficiency in aggregate demand. The share of government investment expenditure falls steadily, while that of the private sector increases. Further, projections reveal that India will get increasingly integrated with the world economy, as the market share of exports and imports as a percentage of GDP increases to almost 40 percent by 2029–30.

The main features of the macro-projections may be summarized as follows:

a. The share of the agriculture sector falls to about 7 percent of GDP and that of the service sector increases to nearly 80 percent.
b. The tax-GDP ratio increases to about 22 percent of GDP by 2029–30.

c. The Indian economy becomes more globalized; the market share of exports as a percentage of GDP increases to more than 35 percent of GDP by 2029–30.

d. Domestic consumption demand falls, but it is largely compensated by an increase in domestic investment demand.

The key feature of the Indian economy in the next two decades will be the increasing role of private investment. Clearly, there are important risk factors associated with slippage in the required policy interventions. The essence of managing the demographic dividend is to find the necessary additional fiscal capacity to expand education and health facilities in the economy so that the growing working age population can be absorbed in the growing sectors of the economy. This is also the key to making growth income-inclusive. Failure to do so is fraught with serious risk of social unrest from the young population, if it remains untrained, uneducated, and unemployable. Similarly, growth unaccompanied by suitable environmental outcomes will be unsustainable. Not only will there be tremendous resistance to products that are pollution-intensive globally, but dependence on coal and petroleum for our energy requirements will subject the achievable growth to a ceiling because as global supply keeps depleting relative to demand for these inputs, their prices will become prohibitively high. We must invest heavily in research and technological innovation.

## Concluding Observations

While we are currently engaged in discussing growth prospects during the 12th Plan period, this paper takes a longer-term view to examine the prospects of growth in terms of its four essential attributes: level, inclusiveness, stability, and sustainability. The recent growth experience suggests that we may be missing on all counts compared to our potential. However, suitable policy changes can reshape the Indian economy to achieve

and sustain high-quality growth for two or more decades. The key attributes of such growth may be summarized as follows:

Growth should be inclusive for which it will need to be employment-intensive, absorbing most of the younger population in the fast-growing sectors of the economy, by progressively increasing public investment in education and health. India's binding constraint on growth is deficiency in energy and infrastructure. Removing this will also require additional fiscal capacity. Growth should be relatively clean, accompanied by falling pollution- and carbon-load per unit of output. Growth should be stable, minimizing the fluctuations of actual growth from potential or trend growth and inflation should steadily fall to around 5 percent or less. Growth should be sustained at a high level for about three decades by progressively reducing our dependence on fossil fuels with finite supply by heavy investment in research and development.

1. To achieve this high-level and high-quality growth, the policy configuration has certain pre-requisites:
2. To relax the constraint on energy and infrastructure and to take advantage of the demographic dividend, we require additional fiscal capacity to the extent of 7 to 8 percentage points of GDP. This implies growth in the size of the government's primary expenditure on the combined account of the centre and states to about 27 percent of GDP.
3. Additional fiscal capacity can be created by maintaining a higher-than-unity buoyancy in tax revenues for more than two decades. The proposed direct and indirect tax reforms in the form of DTC and GST have the potential for laying the ground for this purpose. Some additional fiscal capacity will be created by reducing the debt-GDP ratio through adhering to the targets of the fiscal responsibility legislation of the central and state governments, respectively.
4. The tax system as a whole and the GST in particular should be cast

with environmental objectives in view. We have to think in terms of a green GST. Further, as India globalizes, the share of exports will increase, and the domestic tax base will shrink. Since exports will be zero-rated in GST, we will have to continue to rely on import duty revenues, whose relative importance has been eroding in recent times.

5. Macro-stabilization requires protection against global instability. This requires strategic stabilization buffers both in kind for items like food and petroleum and in terms of funds to protect against volatility in inflows of foreign funds. This should be accompanied by maintaining stable growth in M3 at about 17 percent.

6. Long-term sustainability requires that policy stances for fiscal, monetary, and trade policies are evolved and sustained over a long period.

## References

Basu, Alka M. 2011. "Demographic Dividend Revisited: The Mismatch between Age and Economic-Activity Based Dependency Ratios." *Economic and Political Weekly*, Vol. XLVI, No. 39, pp. 53-58.

BRICS and Beyond 2007. http://www2.goldmansachs.com/ideas/brics/BRICs-and-Beyond.html, last accessed, May 24, 2011.

Caballero, Ricardo J. and Arvind Krishnamurthy. 2009. "Global Imbalances and Financial Fragility." NBER Working Papers No. 14688. National Bureau of Economic Research.

Government of India. 2001. Press Information Bureau, *Poverty Estimate* Press Releases, February 2001 and March 11, 1997.

_____. 2010. *Report of the 13th Finance Commission.* Ministry of Finance, India.

Obstfeld, Maurice. 2009. "International Finance and Growth in Developing Countries: What Have We Learned?" NBER Working Papers No. 14691. National Bureau of Economic Research Economic Research.

Roubini, N. and B. Setser. 2004a. "The Effects of the Recent Oil Price Shock on the U.S. and Global Economy." http://pages.stern.nyu.edu/~nroubini/papers/OilShockRoubiniSetser.pdf.

_____. 2004b. "The US as a Net Debtor: The Sustainability of the US External Imbalances." http://people.stern.nyu.edu/nroubini/papers/Roubini-Setser-US-External-

Imbalances.pdf.

Srivastava, D.K. 2011. "A Long-term Mmacro-econometric Model of the Indian Economy." *Madras School of Economics*, mimeo.

# Section II

## Trade Prospects and Non-Tariff Measures

# 3 India-Korea Trade and Non-Tariff Barriers

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## *Abstract*

*This paper examines the liberalization program for trade in goods under the India-Korea Comprehensive Economic Partnership Agreement. The issues examined include tariff reduction, negative list, rules of origin and non tariff barriers. The analysis points out that tariff reduction will lead to reorientation of supply chains in the manufacturing sector. India's negative list can be curtailed considerably by removing textiles from the list. Barriers related to Korea's food and agricultural products and India's regulations on standards, and government procurement if addressed could enhance trade.*

## Introduction

In recent years, India has entered into a number of bilateral and regional free trade agreements in Asia and other regions and is in the process of negotiating several others (Table 3.1 and Table 3.2). Among the concluded agreements, the focus on Asia is evident. Agreements with the remaining countries are largely preferential in nature. Within Asia, India has concluded some bilateral agreements in South Asia with Nepal, Bhutan, Afghanistan and Sri Lanka long before the implementation of the South Asia Free Trade Agreement (SAFTA) in 2006. In pursuance of its "Look East" policy, India

signed an FTA with Singapore in 2005 and subsequently with the ASEAN, South Korea, Japan and Malaysia. A distinguishing feature of the East Asian FTAs is that these are comprehensive in nature since they include not only include liberalisation in trade in goods, but also in services, investment and a host of "new issues" such as government procurement, competition policy, intellectual property rights and investment.

This paper focuses on the Indo-Korea Comprehensive Economic Co-operation Partnership Agreement (CEPA), which became operational in January 2010 and examines various aspects of the liberalisation programme

**Table 3.1**

*India's concluded Free Trade Agreements (FTAs)/ Preferential Trade Agreements (PTAs)*

| *FTAs/PTAs* | *Date of Sign* | *Date of Enforcement* | *Area Covered* |
|---|---|---|---|
| Asia Pacific Trade Agreement (APTA) | 1975 | 1976 | Goods |
| India-Singapore Comprehensive Economic Co-operation Agreement (CECA) | 2005 | 2005 | Goods, services, investments, etc. |
| India-ASEAN FTA | 2009 | 2010 | Goods |
| India-Korea Comprehensive Economic Partnership Agreement (CEPA) | 2009 | 2010 | Goods, services, investments, etc. |
| India-Japan CEPA | 2011 | 2011 | Goods, services, investments, etc. |
| India-Malaysia CECA | 2011 | 2011 | Goods, services, investments, etc. |
| South Asia Free Trade Area (SAFTA) FTA | 2004 | 2006 | Goods |
| India-Sri Lanka FTA | 1998 | 2000 | Goods |
| India-Nepal FTA | 1971 | 1971 | Goods |
| India-Afghanistan PTA | 2003 | 2003 | Goods |
| India-Bhutan Trade Agreements | 2006 | 2006 | Goods |
| India-Chile PTA | 2005 | 2007 | Goods |
| India-Mercosur* PTA | 2004 | 2009 | Goods |

*Note:* * Mercosur includes Brazil, Argentina, Paraguay and Uruguay.

*Source:* Ministry of Commerce and Industry and Asia Regional Integration Centre (ARIC).

for trade in goods under the agreement. The issues analysed are the tariff liberalisation programme that includes tariff reduction, negative list and rules of origin and non-tariff barriers.

**Table 3.2**

*India's Ongoing FTAs/PTAs Negotiations*

| *FTAs/PTAs* | *Launch of Negotiations* | *Status* |
|---|---|---|
| India-Mauritius Comprehensive Economic Cooperation and Partnership Agreement | 2005 | Goods, services, investment, etc. |
| India-Gulf Co-operation Council (GCC)* | 2004 | |
| India-EU Broad based Trade and Investment Agreement (BTIA) | 2007 | Goods, services, investment, etc. |
| India-European Union Free Trade Agreement | 2007 | Goods, services, investment, etc. |
| India-European Free Trade Association (EETA) FTA | 2008 | Goods, services, investment, etc. |
| India-New Zealand CECA | 2007 | Goods, services, investment, etc. |
| India-Canada CEPA | 2010 | Goods, services, investment, etc. |
| India-Australia CECA | 2011 | Goods, services, investment, etc. |
| India-Sri Lanka CEPA | 2005 | Goods, services, investment, etc. |
| SAARC Agreement on Trade in Services (SATIS) | 2008 | Text agreement was signed in April 2010. Schedule negotiations will start soon. |
| India-Thailand CECA | 2003 | Goods, services, investment, etc. |
| India- Southern African Customs Union** PTA | 2004 | Goods, services, investment, etc |
| Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) Free Trade Area | 2004 | |
| India- Israel PTA | 2006 | |
| India-Egypt PTA | 2002 | |
| India-Indonesia CECA | 2011 | Goods, services, investment, etc |

*Notes:* * Customs Union of Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and UAE.

** Customs union among five countries of Southern Africa: Botswana, Lesotho, Namibia, South Africa and Swaziland.

*Source:* Ministry of Commerce and Industry and Asia Regional Integration Centre (ARIC).

## Tariff Liberalisation Programme (TLP)

Bilateral trade between India and Korea increased manifold from US$1.3 billion in 2000 to US$13.5 billion in 2010. India's top five exports to Korea include mineral fuels and oils, cotton, organic chemicals, aluminium and iron and steel. These account for 67 percent of total exports. India's imports from Korea are mainly concentrated in three product categories viz., electrical machinery and equipment, nuclear reactors, machinery and mechanical appliances and iron and steel, which account for 47 percent of India's total imports from Korea. Trade balance is in favour of Korea and, in 2010, Korea enjoyed a trade surplus of US$6.3 billion. The CEPA with Korea is expected to boost bilateral trade between the two countries.

Negotiations for the Indo-Korea CEPA commenced in 2006 and the agreement came into effect in 2010. The tariff liberalisation programme (TLP) includes phasing out of tariffs and the negative lists that the two countries maintain. Additionally, the TLP lays down the rules of origin (ROO) to ensure

**Figure 3.1**

*India-Korea Bilateral Trade: 2000-2010*




*Source:* UN COMTRADE Database.

that concessions offered are on products that originate in the member countries.

## Tariff Reduction

The tariff schedules for India and Korea under the Indo-Korea CEPA uses 2006 base rate tariffs. The product classification for the schedules is provided at a very disaggregated level. The schedule and the negative list use the Harmonised System (HS) of classification at the 8-digit level. In accordance with the schedule, Korea will reduce or eliminate tariffs to zero in a period of eight years for 93 percent of tariff lines, while India will do so for 81 percent of tariff lines in a period of eight years, and for 4 percent of tariff lines in ten years. It is noteworthy that Korea will reduce tariffs to zero immediately for 60 percent of the tariff lines, while India will reduce tariffs to zero immediately only for 4 percent of tariff lines.

**Table 3.3**

*India-Korea CEPA*

| | | *E-0* | *E-5* | *E-8* | *Total* | *RED* | *SEN* | *Exclusion* |
|---|---|---|---|---|---|---|---|---|
| India | Number of Items | 202 (3. 9 %) | 180 (3.4%) | **3357 (64.2%)** | 71.50% | 459 (8.8%) | 261 (5%) | 1889 (14.7%) |
| Korea | Number of Items | **6824 (60.6%)** | 2310 (20.5%) | 850 (7.5%) | 88.60% | 34 (0.3%) | 478 (4.2%) | 765 (6.8%) |

*Note:* E-0= eliminated to zero immediately; E-5= eliminated to zero in five equal instalments; E-8= eliminated to zero in eight equal instalments; RED= reduced to 1-5 % in eight instalments; SEN= reduced to 50 % of basic custom duty in ten equal instalments for India and eight equal instalments for Korea.

While it appears that Korea will reduce or eliminate tariffs on a larger number of tariff lines than India would, it is expected that exports from Korea would benefit more than India's exports to Korea as tariff rates in India are higher than those prevailing in Korea. In the case of India's top ten exports to Korea, we find that the base rate ranges from 1 to 8 percent (only one product is 8 percent). Korea's top ten exports to India, however, are subjected to higher tariffs ranging from 5 to 12.5 percent (Table 3.4 and Table 3.5).

**Table 3.4**

*India's Top 10 Exports to Korea at 6 Digit and Tariff Schedule: 2010*

| *Product Code*** | *Product Description* | *Exp US$ Million* | *Base Rate** | *Tariff Type* |
|---|---|---|---|---|
| 271011 | Light petroleum oils & preparations | 961.0 | 1 | E-0 |
| 760110 | Aluminium, not alloyed | 276.0 | 3 | E-0 |
| 271019 | Petroleum oils & oils obtained from | 227.9 | 6.3 | E-5 |
| 720241 | Ferro-chromium | 192.2 | 3 | E-0 |
| 790111 | Zinc, not alloyed | 135.5 | 5 | E-0 |
| 520523 | Cotton yarn | 122.8 | 8 | EXC |
| 711299 | Waste & scrap of precious metal | 105.2 | 2 | E-0 |
| 170310 | Cane molasses | 66.7 | 3 | E-8 |
| 290124 | Buta-1,3-diene & isoprene | 63.5 | 0 | E-0 |
| 120740 | Sesamum seeds | 61.7 | 6.3 | EXC |

*Notes:* * Base rates are taken from the Indo-Korea CEPA.
** 6-digit product classification used as the UN COMTRADE database does not provide data at the 8-digit level.

*Source:* UN COMTRADE Data base.

**Table 3.5**

*Korea's Top 10 Exports to India at 6 Digit and Tariff Schedule: 2010*

| *Product Code*** | *Product Description* | *Exp US$ Million* | *Base Rate** | *Tariff Type* |
|---|---|---|---|---|
| 271019 | Petroleum oils | 444.9 | 10 | SEN |
| 870899 | Other parts & accessories for the machines | 389.6 | 12.5 | RED |
| 851712 | Telephones for cellular networks | 342.5 | 0 | E-0 |
| 999999 | Commodities not specified according | 258.0 | - | - |
| 720836 | Flat-rolled products of iron/non-alloy steel | 232.9 | 5 | E-5 |
| 851770 | Parts of telephone sets | 213.1 | 0 | E-0 |
| 291736 | Terephthalic acid & its salts | 208.5 | 12.5 | SEN |
| 720917 | Flat-rolled products of iron/non-alloy steel | 138.1 | 5 | E-5 |
| 400219 | Styrene-butadiene rubber (SBR) | 134.9 | 12.5 | E-5 |
| 852990 | Other parts suitable for use for radio, television etc | 119.7 | 12.5 | E-0 |

*Notes:* * Base rates are taken from the Indo-Korea CEPA.
** 6-digit product classification used as the UN COMTRADE database does not provide data at the 8-digit level.

*Source:* UN COMTRADE Data base.

## Negative List

India's negative list for Korea includes 1889 items with 21 percent of Korean exports being subjected to the negative list. In comparison, only 764 items are included in Korea's negative list for India and about 10 percent of India's exports to Korea are subjected to the negative list.

Korea's negative list items are concentrated in a few sectors, which include live animals and animal products, vegetable products and prepared food stuff accounting for 90 percent of the total tariff lines in the negative list. India's negative list for Korea, on the other hand, includes products from a number of sectors such as vegetable products, animal or vegetable fats and oils, prepared food stuff, chemical products, plastics, rubber, machinery and mechanical appliances, vehicles and textiles, which together account for 90 percent of the total tariff lines in the negative list. The textile sector has the largest number of tariff lines being subjected to India's negative list. Interestingly, only one tariff line in this sector is included in India's negative list in the Indo-Japan CEPA. Since 2008, India has been liberalising its textile sector. In particular, India has granted duty free access on textile items to Sri Lanka and less developed countries (LDCs) under SAARC, which includes Bangladesh, Nepal, Bhutan, Afghanistan and Maldives. In addition, India has removed specific duties on textile products for all SAARC member countries. This might result in Korea being unable to increase its market share in the textiles sector in India. Korea's export of textile products to the world was US$13.7 billion in 2010, while it was only US$89 million to India. Removal of textile products from the negative list could boost exports in this sector to India.

## Table 3.6

*Number of Tariff Lines Subjected to the Negative List*

| *Sector* | *HS Codes* | *Sector Description* | *India's Negative list : No. of items in each sector* | *Korea's Negative list : No. of items in each sector* |
|---|---|---|---|---|
| I | 01-05 | Live animals; animal products | 33 | 199 |
| II | 06-14 | Vegetable products | 261 | 305 |
| III | 15 | Animal or vegetable fats and oils | 117 | 26 |
| IV | 16-24 | Prepared foodstuff | 172 | 186 |
| V | 25-27 | Mineral products | 22 | 7 |
| VI | 28-38 | Products of the chemical or allied industries | 134 | 13 |
| VII | 39-40 | Plastics, rubber and articles thereof | 250 | |
| VIII | 41-43 | Raw hides and skins, leather, fur skins and articles | 0 | |
| IX | 44-46 | Wood and articles of wood | 9 | 23 |
| X | 47-49 | Paper products | 15 | |
| XI | 50-63 | Textiles and textile articles | 458 | 4 |
| XII | 64-67 | Footwear, headgear, umbrellas, sun umbrellas, walking- sticks, etc | 32 | |
| XIII | 68-70 | Articles of stone, plaster, cement, asbestos, mica or similar materials | 10 | |
| XIV | 71 | Natural or cultured pearls, precious/ semi-precious stones | 0 | |
| XV | 72-83 | Base metals and articles of base metal | 45 | |
| XVI | 84-85 | Machinery and mechanical appliances | 182 | |
| XVII | 86-89 | Vehicles, aircraft, vessels etc | 134 | |
| XVIII | 90-92 | Optical, photographic, cinematographic products | 13 | |
| XIX | 93 | Arms and ammunition | 0 | |
| XX | 94-96 | Miscellaneous manufactured articles | 2 | 1 |
| XXI | 97-98 | Works of art, collectors' pieces and antiques | 0 | |
| XXII | 99 | Miscellaneous goods | 0 | |
| | | Total | 1889 | 764 |

*Source:* Indo-Korea CEPA.

## Rules of Origin

For rules of origin, the India-Korea CEPA has specified that there should be a tariff sub-heading change (HS 6-digit) and the level of local content should be a minimum of 35 percent. But meeting the twin criteria is too onerous as the paperwork required to establish these rules of origin is enormous. Companies have to employ a special accountant just to maintain these records so that they can prove origin. As the cost of compliance to the rules of origin goes up, the competitive edge that the product would have enjoyed otherwise gets reduced. In India, most of the certificates of origin still are issued manually, further adding to delay and costs. There is need to automate it through a web-based system, where the exporter can submit the required information electronically. In addition to ROO, a number of products are also subjected to specific rules, which are quite stringent. The Indo-Korea CEPA has 67 chapters with product specific rules. The chapters with high numbers of product specific rules include preparations of vegetables fruits and nuts, organic and inorganic chemicals, electrical machinery and equipment, machinery and mechanical appliances, plastics and articles of plastic, articles of iron and steel, and copper and articles thereof.

## India–Korea Non-Tariff Barriers

All members of the World Trade Organization (WTO) have the right to adopt non-tariff measures to protect plant, animal and human life. However, in many cases, the measures are applied in a trade restrictive manner, often obstructing trade. Such instances constitute violations of NTM rules and need to be addressed. The United Nations Conference on Trade and Development (UNCTAD) and WTO have a list of NTMs that members are likely to apply. Deardorff and Stern (1997) classify these barriers according to the intent of these measures. For the present analysis, we use WTO's classification of NTBs.

**Table 3.7**

*Classification of NTBs*

| | |
|---|---|
| *Government Participation in Trade and Restrictive Practices Tolerated by Governments* | |
| A | Government aids |
| B | Countervailing duties |
| C | Government. Procurement |
| D | Restrictive Practices Tolerated by Governments |
| E | State Trading, Government Monopoly Practices, etc. |
| *Customs and Administrative Entry Procedures* | |
| A | Anti-dumping duties |
| B | Valuation |
| C | Customs Classification |
| D | Consular Formalities and Documentation |
| E | Samples |
| F | Rules of Origin |
| G | Customs Formalities |
| *Technical Barriers to Trade* | |
| A | General |
| B | Technical Regulation and Subsidies |
| C | Testing and Certification Arrangements |
| *Special Limitation* | |
| A | Quantitative Restriction and Import Licensing |
| B | Embargoes and Other Restrictions of Similar Effect |
| C | Screen time Quotas and Other Mixing Regulations |
| D | Exchange Control |
| E | Discrimination Resulting from Bilateral Agreements |
| F | Discriminatory Sourcing |
| G | Export Restraints |
| H | Measures to Regulate Domestic Prices |
| I | Tariff Quotas |
| J | Export Taxes |
| K | Requirements Concerning Making, Labelling, and Packaging |
| L | Others |
| *Charges on Imports* | |
| A | Prior Import Deposits |
| B | Surcharges, Port Taxes, Statistical Taxes, etc. |
| C | Discriminating Film Taxes, Use Taxes, etc. |
| D | Discriminatory Credit Restrictions |
| E | Border Tax Adjustments |
| F | Emergency Action |

Non-tariff measures can pose barriers if they are not WTO compliant. All measures should meet the twin WTO principles of MFN status and national treatment. If measures lack transparency or involve burdensome procedures, they can be trade restrictive, thereby obstructing potential trade between countries. Sometimes, measures are imposed without any justification, which again are trade restrictive. In such cases, appropriate measures should be taken to address these barriers.

The Indo-Korea CEPA addresses these issues. For instance, the agreement suggests that a joint committee should be set up for technical regulations and sanitary and phyto-sanitary measures. The agreement also has a provision for Mutual Recognition Agreements (MRAs). Similarly, trade remedies (anti-dumping, countervailing and safe guard measures), measures related to transparency and customs procedures have been covered in the CEPA on WTO principles.

There is not much documentation of non-tariff barriers being faced by India and Korea in accessing each other's markets. The only study available, to our knowledge, is the report prepared by the Association of Korean Industries in India (AKII, 2010). Hence, in addition to this report, we have tried to examine those NTBs that have been raised by the EU and the US in accessing the Indian and Korean markets. The EU market access database provides information about specific trade barriers which EU exporters are subjected to while the Office of the United States Trade Representative produces annual reports on significant trade barriers to US exports. Not all of these would be relevant in the context of India-Korea trade; nevertheless, it is important to use these market access databases as a starting point. Some of these could be relevant for India-Korea trade while there may be other non-tariff barriers that are being faced by Indian and Korean businesses in entering each other's markets. Such non-tariff barriers need to be identified and measures have to be adopted to address them.

## NTBs Imposed by India

According to the EU market access database and the US Trade Barriers Report, 2011 (USTR)[1], imported goods entering India are mostly subjected to technical barriers and anti-dumping measures. Import licensing, non-transparent government procurement procedures and complex customs procedures act as additional barriers in accessing the Indian market.

The EU market access database indicates that burdensome technical regulations and conformity assessment procedures hamper market access to India. For instance, in the automotive sector, India's domestic tyre standard and compulsory conformity certification system deviates from internationally recognised technical requirements developed under the framework of the United Nations Economic Commission for Europe.

> *"India first notified a draft proposal for the testing and certification of tyres to the WTO in 2006 (G/TBT/N/IND/20). In May 2009, India notified a modification to this first draft and in March 2010, India re-notified the Quality Control Order (G/TBT(N/IN/40) to the WTO. This Order establishes a "mandatory certification" for radial tyres. The EU has pleaded for direct acceptance by India of EU tyres ("E-marked", approved under UN-ECE Regulations) as equivalent. India refused this request by referring to specific road and climatic conditions that would justify Indian specific requirements and testing."*

Korea's tyre exports to India increased from US$5.2 million in 2005 to US$22 million in 2010 and this barrier identified by the EU could be applicable to Korean exports as well. A close examination of this measure, however, reveals that even though the domestic standard deviates from the international standard, the regulation meets the principle of national treatment. Standard requirements are applicable to domestic industry as well as to imports.

1. Office of the United States Trade Representative annual report on trade barriers to US exports

The EU market access database also provides information on several other technical barriers to trade (TBT) and sanitary and phyto-sanitary (SPS) measures that are trade restrictive. For instance, Indian regulation requires that at the time of import imported edible or food products must have a shelf life of not less than 60 percent of the specified amount mentioned on the packaging. However, there is no such requirement for domestically produced goods, thereby discriminating against foreign goods. A similar problem occurs with the imports of medical devices as well. Some of the sanitary and phyto-sanitary measures go beyond international best practice standards. According to the EU market access database, a notification by the Indian government in September 2007 concerning the import of bovine semen prescribes standards that are higher than those recommended by the World Animal Health Organisation (OIE) without any scientific justification. It is further suggested that for importing bovine semen, India has issued a new import certificate, which is partially aligned to the standards of the OIE, resulting in import restrictions that are not justified.

There are some barriers related to the timing of announcement of measures. Sometimes, BIS certification is introduced suddenly for import of certain goods without sufficient advance notice, giving no time for traders to adjust. In other instances, notices related to standards have been announced and subsequently postponed, penalising those who attempted to adhere to standards in the first instance. For instance, in September 2008, the Ministry of Consumer Affairs, Food and Public Distribution announced that, as of February 12, 2009, only steel and steel products that have obtained BIS Certification would be allowed for domestic sale. The regulation was introduced with an objective of protecting the domestic industry. However, the notice was postponed to February 9, 2010, due to strong resistance by steel consumers in India, as they were not able to provide steady local production of some items. Further, most of the items were excluded from enforcement in 2010. Companies, which hurriedly prepared for BIS certification during this period, incurred a huge loss (AKII, 2010).

The USTR report states that India's government procurement[2] practices and procedures have not been very transparent. Government procurement in India is decentralised, with different procurement agencies at the central level, state level and by public sector agencies and enterprises. India is not yet a signatory to the WTO Agreement on Government Procurement (GPA), but became an observer to the WTO Committee on GPA in February 2010.

The government procurement mechanism in India lacks transparency. Due to the preference being given to Indian state-owned enterprises, foreign firms rarely win Indian government contracts. Coupled with this, the 2006 Micro, Small and Medium Enterprise (MSME) Act authorises the Indian government to provide procurement preferences to MSMEs. For example, India requires purchase of 21 specific goods and services from MSMEs. India provides similar preferences to government-registered "small-scale industry units" for certain products. Additionally, the application of burdensome, sector-specific procurement policies in certain areas dissuades foreign firms from bidding. For instance, India's defence "offsets" programme requires companies to invest 30 percent or more of the value of contracts above US$67 million in Indian-produced parts, equipment, or services (USTR, 2011).

Existing literature corroborates the problems identified by the USTR report related to India's government procurement practices. There are other studies that highlight these problems. The WTO Trade Policy Review report

2. Government procurement, also called public tendering or public procurement, is the procurement of goods and services on behalf of a public authority, such as a government agency. With 10 to 15 percent of GDP in developed countries, and up to 20 percent in developing countries, government procurement accounts for a substantial part of the global economy. To prevent fraud, waste, corruption or local protectionism, the law of most countries regulates government procurement more or less closely. It usually requires the procuring authority to issue public tenders if the value of the procurement exceeds a certain threshold. Government procurement is also the subject of the Agreement on Government Procurement, a plurilateral international treaty under the auspices of the WTO.

(2011) indicates that there is no standardised tender document as different agencies and ministries draw up their own tender document. According to one estimate, there are more than 150 different contract formats used by the government and numerous agencies. The bidding system also lacks transparency. India also follows a two-envelope system. In this system, bidders submit all administrative, qualification-related and technical information in one envelope and the price in another envelope. A transparent procedure would require that technical bids are opened first, followed by the financial bids. However in practise price envelopes are opened first resulting in a set of lowest bidders getting selected. Technical bids are opened later and this increases the probability of good technical bids getting rejected. Further, there is no dispute settlement mechanism in place.[3]

The Indian government is in the process of preparing a public procurement legislation and a draft bill based on the UNCITRAL Model has been put up for discussion. The purpose of the law is to ensure integrity, probity and transparency in public procurement. The draft bill covers principles and methods of procurement, regulatory framework, dispute resolution, standardisation of documents, bid process, investigation and enforcement, offences and penalties and special courts[4].

The USTR report contends that the export subsidy programmes in India that allow for drawbacks in excess of duties levied on imported inputs act as market access barriers. In addition, India continues to allow tax holidays for export-oriented enterprises and exporters in Special Economic Zones (SEZs), besides providing pre-shipment and post-shipment financing to exporters at preferential rates. India offers export subsidies to various sectors like the textiles sector, paper, rubber, toys, leather and wood products.

Another problem identified by the USTR report is related to India's custom procedures. The customs valuation methodologies do not reflect

3. http://trade.ec.europa.eu/doclib/docs/2007/july/tradoc_135349.pdf.
4. http://infrastructure.gov.in/pdf/public-procurment-bill.pdf.

actual transaction values and that raises the cost of exporting to India beyond applied tariff rates. Further, excessive checks and seizures have made the customs procedure cumbersome.

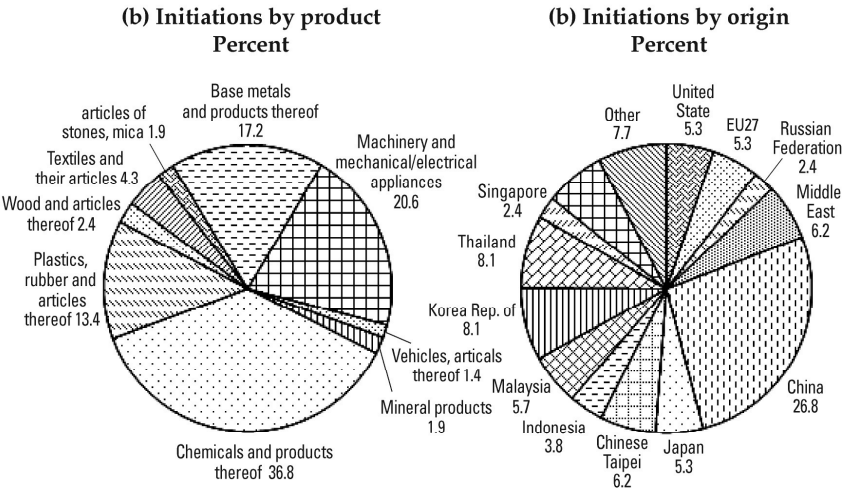
India is one of the countries that have imposed the highest number of anti-dumping duties on exports of other countries. Dumping is said to occur when the goods are exported by a country to another country at a price lower than its normal value. This is an unfair trade practice, which can have a distortive effect on international trade. The anti-dumping agreement under the WTO allows countries to take action against dumping where there is material injury to the competing domestic industry. Anti-dumping measures are permitted to be taken by the WTO as an instrument for ensuring fair trade and not as a measure of protection for domestic industry. It may act as a non-tariff barrier if used as a protectionist measure.

The number of anti-dumping investigations in the recent past has increased manifold. Up to December 2011, India had initiated 656 investigations, of which definitive measures were imposed on 478 cases. The initiations affected mainly China (137), South Korea (47), Chinese Taipei (45), the EU (42), Thailand (36), Japan (30), the United States (29), Indonesia (24), Singapore (23), Malaysia (22) and the Russian Federation (19). The sectors on which the highest number of anti-dumping measures has been implemented include chemicals, plastics and rubber and products, base metals, and textiles (Figure 3.2).

Korea is one of the countries against which the highest number of anti-dumping measures has been initiated in the last few years. Between 1995 and 2011, 49 anti-dumping investigations have been initiated against Korea by India, while definitive anti-dumping measures during this period have been imposed in 36 cases. The sector most affected by anti-dumping measures is the chemical industry.

## Figure 3.2

*Anti-dumping Initiations by Product and Origin between January 2006 and December 2010*




*Source:* WTO Trade Policy Review (2011).

A number of issues have been raised against India's anti-dumping procedures. The AD Agreement specifies that investigations should generally be initiated based on a written request submitted "by or on behalf of" a domestic industry. The application shall be considered to have been made "by or on behalf of the domestic industry" if it is supported by those domestic producers whose collective output constitutes more than 50 percent of the total production of the like product produced by that portion of the domestic industry expressing either support for or opposition to the application. However, no investigation shall be initiated when domestic producers expressly supporting the application account for less than 25 percent of total production of the like product. In practice, however if it is established that the petitioners constitute 25 percent of domestic production, a case is initiated. There is no mechanism in place to ascertain if, at the time of initiation, information regarding the petition was disseminated among all

producers. Further, a number of firms are not in a position to file a case as it involves significant legal costs and expertise. Thus, only dominant firms in concentrated markets tend to file anti-dumping cases (Aggarwal, 2002).

Most anti-dumping duties are initiated on user industries like the chemical industry or on intermediate goods. This results in higher import costs for user industries. For instance, the Ministry of Finance has levied anti-dumping duty on imports of 14 inch cathode ray colour television (CRT) picture tubes from South Korea with the duty being applicable for five years from March 2009. Colour picture tubes account for 40-45 percent of television production cost. Given that the monthly capacity of the domestic tube industry is significantly less than the domestic market size, the high anti-dumping duty might result in higher input cost for domestic manufacturers, irrespective of whether they use the domestic picture tubes or the imported ones. Under these circumstances, it is possible that the colour picture tubes from Korea may not be providing unfair competition to domestic producers (AKII, 2010).

This problem can perhaps be addressed to some extent if a public interest clause is included in the anti-dumping agreement, under which duties would be imposed only if it is in the interest of the community (Aggarwal, 2002). Regions like Canada, Australia and the EU already have this clause in their agreements.

Korea has also raised a number of issues regarding the anti-dumping law and investigation criteria followed by India. In most countries, prior to filing an investigation, pre-examinations are conducted to decide whether to initiate an anti-dumping investigation or not. Filing is dismissed even before initiating an investigation in some cases. But in India, investigations are mostly initiated within a week or two of filing by a petitioner. Once an anti-dumping investigation is initiated, it entails huge official and unofficial costs. As a result, many companies fail to respond in a timely manner and final decisions taken are one sided i.e. decisions are based on the petition made by

a petitioner in many cases.

## NTBs Imposed by Korea

An examination of the EU market access database reveals that in the case of Korea, most of the market access barriers are in the form of stringent standards and conformity assessment procedures, which are burdensome and have a negative effect on imports. It is mostly the agriculture and fisheries sector imports that are subjected to these barriers. Korea, however, does not impose any other non-tariff barrier restricting trade. Compared to India, anti-dumping measures rarely are imposed by Korea. For instance, as of December 2010, definitive anti-dumping measures imposed by Korea were only 28, with 3 of them imposed against India (WT0, 2011). According to USTR, 2011, Korea also does not impose any quantitative restrictions except on rice, which remains subject to import quota restrictions under Korea's WTO minimum market access (MMA) commitments.

Regarding standards and conformity assessment procedures, the EU market access database suggests that there are a number of sanitary and phyto-sanitary barriers pertaining to the agriculture and fisheries, and live animal and animal products sector. One of the issues raised is the excessive quarantine checks by Korea. For instance, food products have to undergo a detailed quarantine inspection every year for the same product manufactured by the same producer and imported by the same importer. In addition, a separate inspection is required when the same product is imported in containers of different sizes. This procedure leads to wastage of both time and money. The EU market access database also has raised the issue of a ban on imports of beef and other products due to bovine spongiform encephalopathy (BSE) related restrictions. Some countries from the EU, which had applied already several years ago for exports of beef to Korea, have not yet received any feedback from Korea on the status of the applications.

Sometimes, a slow application procedure can also hinder free flow of trade. Korea follows a positive list approach in the case of fruit and vegetable imports. Accordingly, imports of a new type/origin of fruits and vegetables are not allowed unless it undergoes a pest risk analysis that certifies that the products are pest free. This involves a 12-step procedure and may take years for completion. The procedure is slowed down further because Korea has a limited capacity to handle applications. In 2010, India's exports to Korea in this sector were about US$4.5 million while that to the world was US$2 billion. Abandoning the positive list approach and simplifying the application procedure could lead to increased exports of edible fruits and vegetables from India to Korea.

Government policy related to government procurement has also hindered access to Korean markets. Korea operates international tendering and other procurement procedures in accordance with its multilateral commitments under the WTO Plurilateral Agreement on Government Procurement (GPA). In 2006, the Korean government procurement market was about 10 percent of GDP (12 percent in 2004). One of the main sectors affected by these difficulties is the construction sector. For procurement of construction services by sub-central and government enterprises covered under the GPA, Korea applies a threshold[5] of over $23 million, which is three times the threshold applied by the United States (USTR, 2011).

## Lessons from the Korea-US FTA (KORUS)

The United States and Korea reached an agreement in December 2010, resolving outstanding issues in the KORUS. Among other issues, the new agreement addresses non-tariff barriers in a wide range of sectors (agriculture, textiles, pharmaceuticals, automotive) with strong provisions on competition

5. Relevant thresholds are specified by each party in an Agreement on Government Procurement. The Agreement applies to any procurement contract of a value of not less than the relevant threshold specified.

policy, labour, environment, and transparency and regulatory process. For instance, in the automotive sector, Korea has ensured increased market access to USA by addressing the barriers caused by Korean automotive safety standards. An automotive working group has also been set up to address the issues related to standards, technical regulations, and conformity assessment procedures.

As regards government procurement, under the KORUS FTA, US suppliers will have rights to bid for procurement by more than 50 Korean central government entities, nine more than are covered under the GPA. The agreement also reduces the threshold applied under the GPA from $203,000 to $100,000, thus expanding the number of procurements to which US suppliers will have access (USTR, 2011).

Issues related to standards and technical regulations have also become much simpler. For instance, United States Trade Barriers (USTR) no longer identifies certain barriers like stringent labelling requirements by the Korean Food and Drug Administration (KFDA), nor does it require pre-approval from KFDA for certain product categories like pharmaceuticals anymore.

The new agreement serves as an example that India and Korea can emulate to resolve issues related to market access barriers, which would result in significant economic benefits for both countries. Non-tariff barriers in major sectors where trade takes place between the two countries should be addressed to further trade ties between the two countries.

## Next Steps

The tariff liberalisation programme will improve market access for Korea and India. Lower tariffs are likely to have an impact on Korean and Indian manufacturing units in India. Korean investments in India were made at a time when Indian tariffs were high. These investments were typically of the tariff-hopping variety. Prior to 1991 when tariffs were high in India, multinational companies could access the Indian market by entering into

joint ventures in India. Most of the Korean investment entered the Indian the Indian market during this time. As tariffs have lowered, it is possible that domestic products will be replaced by imports. This can lead to major changes in the supply chain, particularly in the manufacturing of automobiles with larger dependence on imported inputs. Such changes would require an efficient logistics system so that would ensure timely delivery of inputs and final goods to their destinations. A more in depth study mapping these changes would be useful for policy makers.

Similarly, more in-depth work, based on business surveys in India and Korea, is warranted to identify non-tariff barriers that the two countries are likely to face. The EU and US market access databases provide a starting point but further research is needed to identify barriers at the ground level.

Measures also need to be taken to enter into mutual recognition agreements. Products that are important for India and Korea need to be identified so that both countries can benefit from mutual recognition agreements.

## References

ADB. Asia Regional Integration Centre (ARIC).

Aggarwal, Aradhna. 2002. "Anti Dumping Law and Practice: An Indian Perspective." Indian Council for Research on International Economic Relations Working Paper No. 85. New Delhi.

AKII. 2010. Report on Suggestions for Government of India by Association of Korean Industries in India (AKII).

Deardorff, A. V. and R. M. Stern. 1997. "Measurement of Non Tariff Barriers." OECD Economics Department Working Paper No. 179. Paris: OECD.

Directorate General of Foreign Trade, Ministry of Commerce, Government of India. http://dgft.gov.in.

EU Market access database, Trade barriers database. http://madb.europa.eu/mkaccdb2/indexpubli.htm.

Government of India. Public Procurement Bill-2011, Planning Commission, http://infrastructure.gov.in/pdf/public-procurment-bill.pdf.

India–Japan Comprehensive Economic Partnership Agreement, Department of Commerce, Government if India.

India–Korea Comprehensive Economic Partnership Agreement, Department of Commerce, Government if India.

Michael Gasiorek *et al.* 2007. Annex 4: EU-India FTA - Implementation Issues in the Report "Qualitative Analysis of a Potential Free Trade Agreement between the EU and India." Centre for the Analysis of Regional Integration at Sussex

Office of the United States Trade Representative (USTR). 2011. National Trade Estimate Report on Foreign Trade Barriers (Korea and India).

UN COMTRADE database.

WTO. 2010. *Committee on Anti-Dumping Practices: India*.

_____. 2011. *Trade policy Reviews: India and Korea*.

# 4 Two Years In: Achievements and Challenges in the Trade Sector of the Korea-India CEPA

*by* Choongjae Cho

## *Abstract*

*The effectuation of the Korea-India CEPA has had a very positive impact in terms of increasing the bilateral trade volume. However, there remain urgent policy challenges such as the existence of items for which the CEPA preferential rate is higher than the MFN rate, low concession rates and deteriorating trade imbalances.*

*The most effective measure for addressing these challenges would be accelerating the tariff reduction by negotiating an early upgrade of the Korea-India CEPA. It is expected not only to increase the bilateral trade volume, but also to help address India's trade deficit vis-à-vis Korea. Setting a more ambitious target trade volume would further enhance Korea-India trade relations.*

## Recent Developments Since the Effectuation of the Korea-India CEPA

As of June 2012, it has been two years and six months since the Korea-India CEPA went into effect in January 2010. The Korea-India CEPA was completed when it was signed on August 7, 2009, three years and six months after Korea and India embarked on negotiations in March 2006.

**Table 4.1**

*Chronological Developments of the Korea-India CEPA*

| *Time* | *Contents* | *Remarks* |
|---|---|---|
| May 2004 | Decision made to pursue FTA with India | Roadmap on FTA formulated |
| January - June 1, 2005 | Four meetings held by Korea-India Joint Study Group | Public hearing held (Dec. 2005) |
| January 2006 | Decision to begin negotiations on Korea-India CEPA | Trade Ministers' meeting |
| March 2006~August 2009 | 12 rounds of negotiations held | Agreement reached on final version of agreement (Sept. 2008) |
| October-November 2008 | Review meeting held on legal nature of Korea-India CEPA | Negotiated wording of agreement |
| February 2009 | Preliminary agreement signed | General elections in India (April-May 2009) |
| August 7, 2009 | Korea-India CEPA signed | Approval from Indian cabinet obtained (July 2009) |
| August 26, 2009 | Bill on FTA ratification submitted to the Korean National Assembly | |
| November 2009 | Approval obtained from Korean National Assembly | Agreement ratified |
| January 1, 2010 | Effectuation of Korea-India CEPA | Bilateral summit held in Delhi, India |
| January 2011 | First meeting of Korea-India Joint Committee | Held in Delhi, India |
| 2012 | 2nd meeting of Korea-India Joint Committee | Scheduled to be held in Seoul, Korea |

*Source:* Ministry of Foreign Affairs and Trade, Republic of Korea, and Related Press Releases (as of June 2012).

The agreement went into effect in January 2010, after being ratified by the Korean National Assembly in November 2009.

The first meeting of the Korea-India Joint Committee at the ministerial level was held in Delhi, India in January 2011, a year after the CEPA went into effect. Through the Korea-India Joint Committee, Korea and India agreed to improve the Agreement by increasing trade volume, maximizing use of the CEPA, and expanding trade liberalization. They also agreed to begin negotiations for an agreement on an MOU for simplifying the visa

issuance procedure and co-production of broadcast programs. Korea requested an MOU on the expansion of the multi-entry visa category to better support Korean companies doing business in India, streamlining of visa extension procedures, and simplification of required documentation for visa issuance.[1] Both countries decided to work on an agreement at the working level for the co-production of broadcast programs, movies, and animated cartoons to further promote the Korean Wave in India. In addition, Korea called for India's cooperation for i) further openings of branches of Korean banks to better accommodate Korean companies entering India, and ii) the resolution of POSCO's delayed establishment of steel plants in India. The second meeting of the Korea-India Joint Committee is scheduled to take place in Seoul in 2012.[2]

## Issues and Achievements in Bilateral Trade Since the Korea-India CEPA

### Korea's Trade with India

#### *Exports*

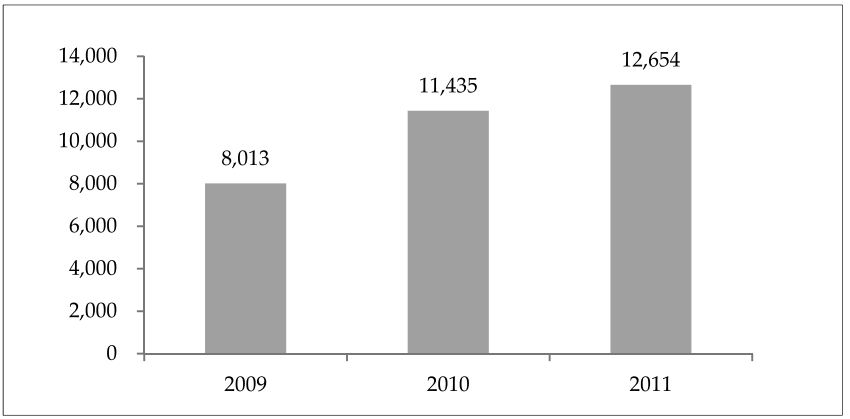
Since the effectuation of the Korea-India CEPA, Korea's trade volume with India has increased at a faster rate than that of Korea's total trade volume. Korea's exports to India in 2010 amounted to about USD 11.4 billion, a 42.7% increase from the same period in 2009, which is much higher than the rate of increase of Korea's total exports (28%). Korea's exports to India in 2011 reached about 12.7 billion, a 10.7% increase from 2010, which is lower than 19%, the growth rate of Korea's total exports. The lower rate of increase of Korea's exports to India is attributable to the base effect of the sharp rise in these exports in 2010.

1. A new visa regime went into effect in March 2012, which simplified the procedure and extended validity.
2. The meeting has yet to be held as of June 2012.

**Figure 4.1**

*Trends in Korea's Exports to India*

*(Unit: USD million)*

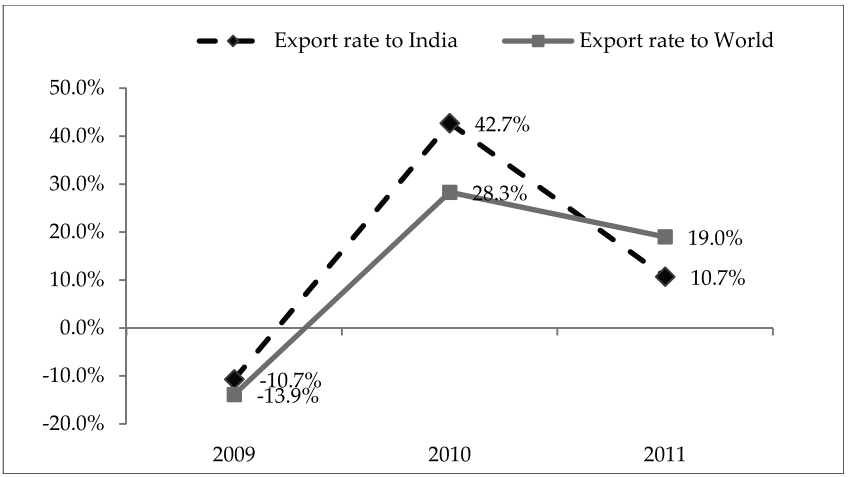



*Source:* KITA, Trade Statistics DB.

**Figure 4.2**

*Comparison between Growth Rate of Korea's Total Exports and of Korea's Exports to India*

*(Unit: %)*

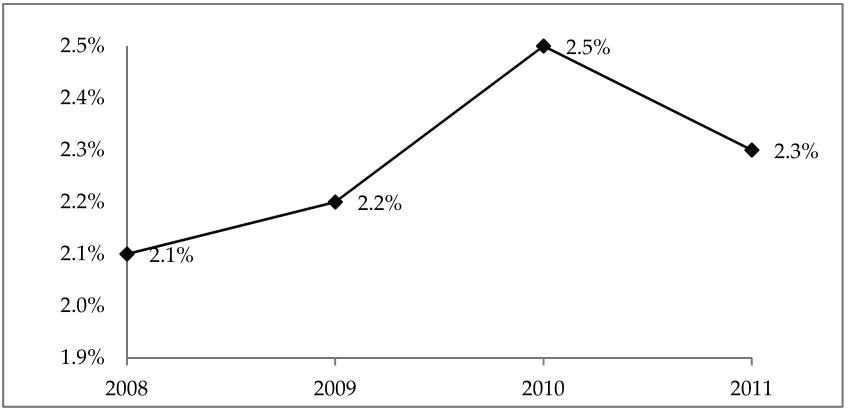



*Source:* KITA, Trade Statistics DB.

**Figure 4.3**

*India's Share in Korea's Total Exports*

*(Unit: %)*




*Source:* KITA, Trade Statistics DB.

India became Korea's 7th largest export partner in 2010, rising from being 9th in 2009 and overtaking Germany. With regard to bilateral trade volume in real terms, India could rank as high as No.5, ruling out Hong Kong and Singapore, where most of the trade is undertaken in the form of entrepot trade. As for India's share in Korea's total exports, it was 2.1% in 2008, 2.2% in 2009 and rose to 2.5% in 2010. Currently, it stands at 2.3%, making India Korea's 9th largest export partner in 2011.

Korea's exports to India have been increasing primarily in boilers and machinery, electric equipment, steel, and auto parts. The exports of boilers and machinery including their parts, the largest export items of 2010, totaled USD 1.8 billion, representing a 55.6% increase from 2009. In addition, the exports of electric equipment (32.8%), steel (41.2%), auto parts (30.6%) and organic chemicals (86%) rose significantly compared with 2009. The exports of boilers and machinery including their parts (2.8%), electric equipment (4.2%), steel (13.7%), auto parts (13.5%) and mineral fuels (33.1%) in 2011 increased compared with the same period in 2010.

## Table 4.2

*Korea's Exports by Country*

*(Unit: %)*

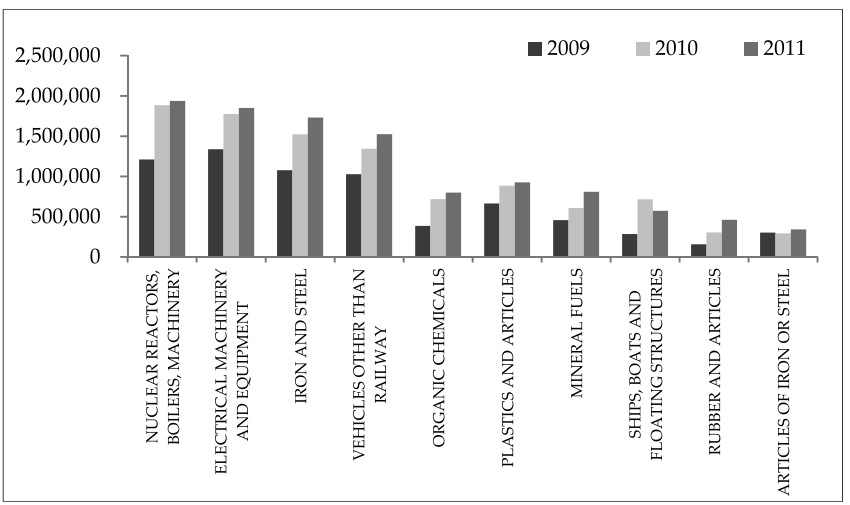
| Rank | 2009 | | 2010 | | 2011 | |
|---|---|---|---|---|---|---|
| | Country | Share | Country | Share | Country | Share |
| 1 | China | 23.9 | China | 25.1 | China | 24.2 |
| 2 | USA | 10.4 | USA | 10.7 | USA | 10.2 |
| 3 | Japan | 6.0 | Japan | 6.0 | Japan | 7.7 |
| 4 | Hong Kong | 5.4 | Hong Kong | 5.4 | Hong Kong | 5.6 |
| 5 | Singapore | 3.7 | Singapore | 3.3 | Singapore | 3.8 |
| 6 | Marshall Islands | 2.7 | Taiwan | 3.2 | Taiwan | 3.3 |
| 7 | Taiwan | 2.6 | India | 2.5 | Vietnam | 2.4 |
| 8 | Germany | 2.4 | Vietnam | 2.1 | Indonesia | 2.4 |
| 9 | India | 2.2 | Indonesia | 1.9 | India | 2.3 |
| 10 | Vietnam | 2.0 | Brazil | 1.7 | Brazil | 2.1 |

*Source:* KITA, Trade Statistics DB.

## Figure 4.4

*Korea's Exports to India by Item*

*(Unit: HS 2, USD thousand)*




*Source:* KITA, Trade Statistics DB.

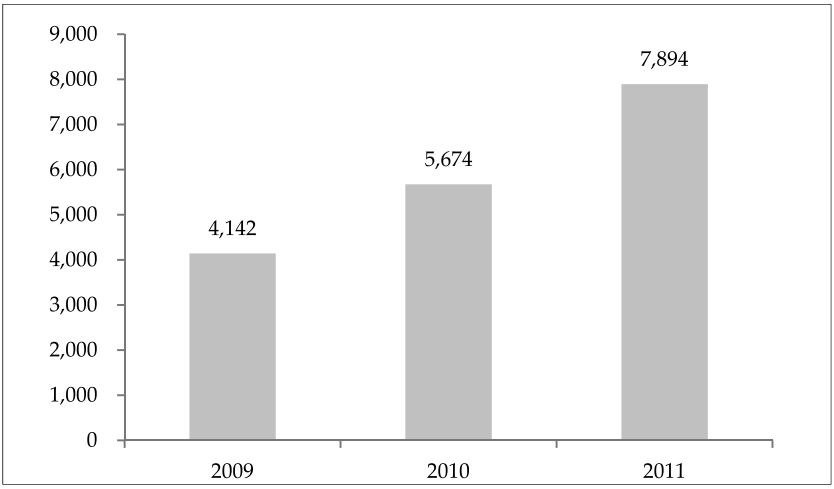
## *Imports*

Since the Korea-India CEPA went into effect, Korea's imports from India have risen sharply compared with that of Korea's total imports during the same period. Korea's imports from India in 2010 amounted to about USD 5.6 billion, increased by 37% from 2009, which is higher than 31.6%, the rate of increase of Korea's total imports during the same period. Korea's imports from India in 2011 rose to USD 7.9 billion, a 39.1% increase from the same period in 2010, which is higher than 23.3%, the rate of increase of Korea's total imports.

**Figure 4.5**

*Korea's Imports from India*

*(Unit: USD million)*



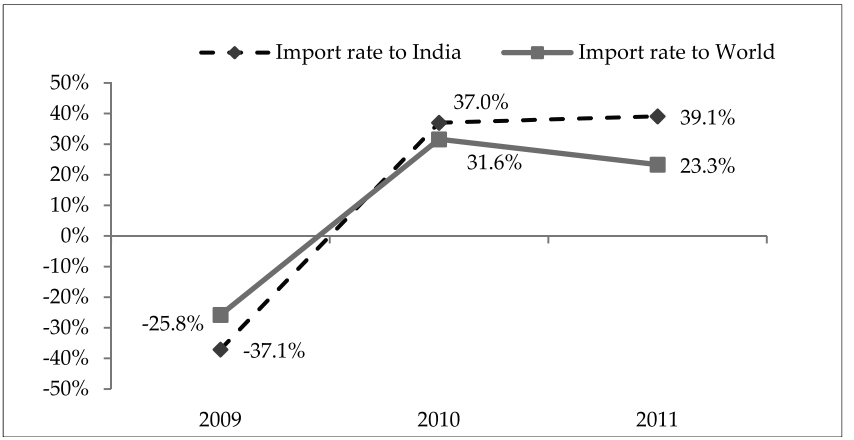

*Source:* KITA, Trade Statistics DB.

India's share of Korea's total imports was 1.5% in 2008 and 1.3% in 2009 and 2010, after which it rose to 1.5% in 2011. Although Korea's imports from India saw an increase, India has remained Korea's 16th or 17th largest import partner since 2008.

## Figure 4.6

*Comparison between the Growth Rate of Korea's Total Imports and of Korea's Imports from India*

*(Unit: %)*




*Source:* KITA, Trade Statistics DB.

## Table 4.3

*Korea's Imports by Country*

*(Unit: %)*

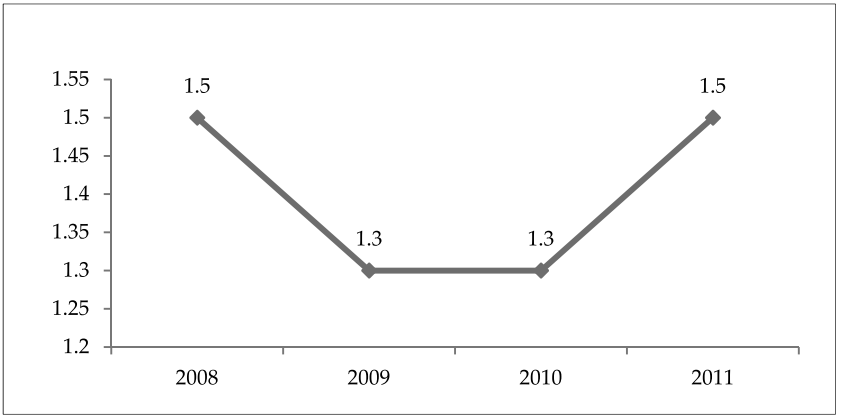
| Rank | 2009 | | 2010 | | 2011 | |
|---|---|---|---|---|---|---|
| | Country | Share | Country | Share | Country | Share |
| 1 | China | 16.8 | China | 16.8 | China | 16.5 |
| 2 | Japan | 15.3 | Japan | 15.1 | Japan | 13.0 |
| 3 | USA | 9.0 | USA | 9.5 | USA | 8.5 |
| 4 | Saudi Arabia | 6.1 | Saudi Arabia | 6.3 | Saudi Arabia | 7.1 |
| 5 | Australia | 4.6 | Australia | 4.8 | Australia | 5.0 |
| 6 | Germany | 3.8 | Germany | 3.4 | Qatar | 4.0 |
| 7 | Taiwan | 3.0 | Indonesia | 3.3 | Indonesia | 3.3 |
| 8 | UAE | 2.9 | Taiwan | 3.2 | Germany | 3.2 |
| 9 | Indonesia | 2.9 | UAE | 2.9 | Kuwait | 3.2 |
| 10 | Qatar | 2.6 | Qatar | 2.8 | UAE | 2.8 |
| | India (Rank 16) | 1.3 | India (Rank 16) | 1.3 | India (Rank 17) | 1.5 |

*Source:* KITA, Trade Statistics DB.

## Figure 4.7

*India's Share in Korea's Total Imports*

*(Unit: %)*

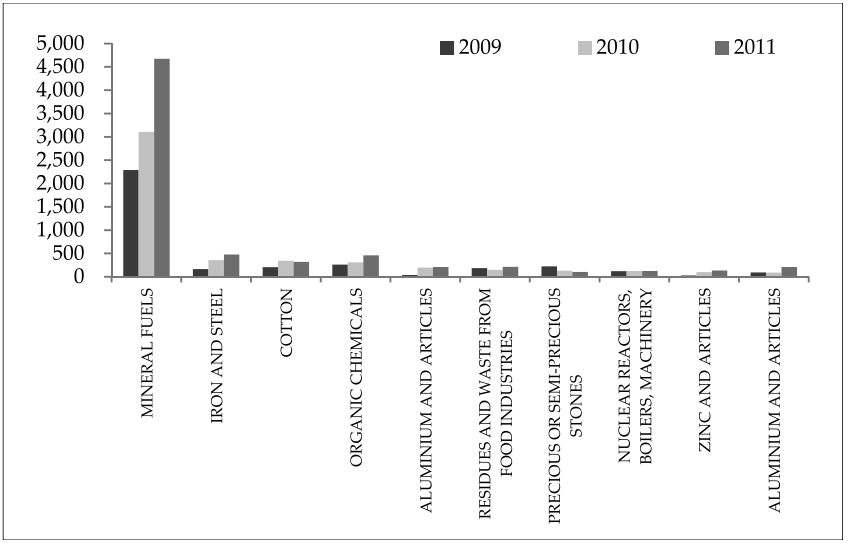



*Source:* KITA, Trade Statistics DB

## Figure 4.8

*Korea's Imports from India by Item*

*(Unit: HS 2, USD million)*




*Source:* KITA, Trade Statistics DB.

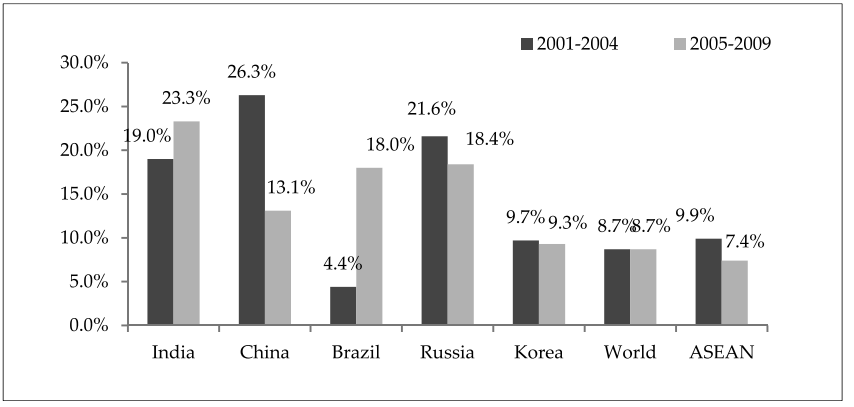
Korea's imports from India have seen an increase primarily in steel, mineral fuels, cotton, aluminum and zinc. The imports of mineral fuels, the largest import item in 2010, totaled USD 3.1 billion, increased by 35.6% from 2009. Also, imports of steel (118%), cotton (66.6%), aluminum (431%), and zinc (268%) have substantially increased compared with 2009. In 2011 as well, the imports of mineral fuels (50.4%), steel (33.6%), organic chemicals (49.8%), residues and waste from food (44.2%), and ores (138.2%) have increased significantly compared with the same period in 2010.

## India's Trade with Korea

India is one of the fastest growing countries in terms of trade along with China. India's rate of increase of exports and imports over the past 5 years has been higher than that of the emerging economies of Asia and the world. India's rate of increase of exports was 18% in 2005-2009, which was higher than that of China (16.5%), and the growth rate of imports during the same period was 23.3%, higher than that of Russia (18.4%). In particular, India's total trade volume in 2010 was USD 577.4 billion, reaching the USD 500 billion mark in 8 years after achieving USD 100 billion in 2002.

**Figure 4.9**

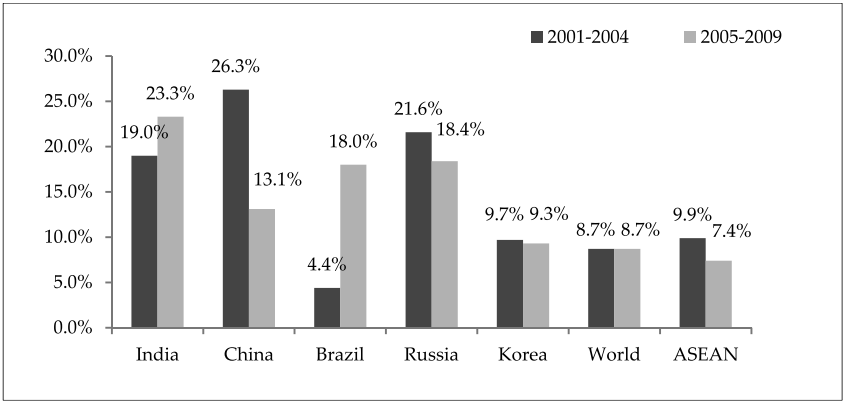
*Growth Rate of Exports by Period*




*Source:* IMF, Direction of Trade Statistics (DOTS).

**Figure 4.10**

*Growth Rate of Imports by Period*




*Source:* IMF, Direction of Trade Statistics (DOTS).

Since the effectuation of the Korea-India CEPA, Korea's share and rank in India's exports and imports in 2010 and 2011 declined. Korea's share in India's total exports was 2.3% in 2009, 1.6% in 2010, and 2.0% in 2011, while Korea's share in total imports recorded 3.0% in 2009 and 2.8% in 2010 and 2011.

**Table 4.4**

*India's Top 10 Export Partners*

| *Rank* | *2009* | | *2010* | | *2011* | |
|---|---|---|---|---|---|---|
| | *Country* | *Share* | *Country* | *Share* | *Country* | *Share* |
| 1 | UAE | 12.5% | UAE | 13.7% | UAE | 13.0% |
| 2 | USA | 11.1% | USA | 10.2% | USA | 11.4% |
| 3 | China | 6.1% | China | 7.8% | China | 6.3% |
| 4 | Hong Kong | 4.2% | Hong Kong | 4.1% | Singapore | 5.3% |
| 5 | Singapore | 4.1% | Singapore | 4.1% | Germany | 2.8% |
| 6 | Netherlands | 3.9% | Germany | 2.7% | U.K. | 2.8% |
| 7 | U.K. | 3.7% | Belgium | 2.5% | Netherlands | 2.7% |
| 8 | Germany | 3.3% | Indonesia | 2.5% | Belgium | 2.5% |
| 9 | Korea | 2.3% | Saudi Arabia | 2.1% | Brazil | 2.1% |
| 10 | Saudi Arabia | 2.3% | Japan | 2.0% | Indonesia | 2.1% |
| | | | Korea (Rank 16) | 1.6% | Korea (Rank 19) | 2.0% |

*Source:* KITA, Trade Statistics DB.

**Table 4.5**

*India's Top 10 Import Partners*

| Rank | 2009 | | 2010 | | 2011 | |
|---|---|---|---|---|---|---|
| | Country | Share | Country | Share | Country | Share |
| 1 | China | 11.2% | China | 12.1% | China | 11.8% |
| 2 | USA | 6.5% | UAE | 8.3% | UAE | 8.8% |
| 3 | UAE | 6.0% | Saudi Arabia | 5.8% | Switzerland | 6.4% |
| 4 | Saudi Arabia | 5.7% | USA | 5.1% | Saudi Arabia | 5.8% |
| 5 | Australia | 4.2% | Switzerland | 4.7% | USA | 5.5% |
| 6 | Germany | 4.2% | Germany | 3.4% | Australia | 3.4% |
| 7 | Iran | 4.1% | Australia | 3.3% | Germany | 3.3% |
| 8 | Switzerland | 4.0% | Iraq | 3.2% | Iran | 3.2% |
| 9 | Indonesia | 3.0% | Nigeria | 3.2% | Nigeria | 2.9% |
| 10 | Korea | 3.0% | Iran | 3.1% | Korea | 2.8% |
| | | | Korea (Rank 12) | 2.8% | | |

*Source:* KITA, Trade Statistics DB.

## Problems and Challenges With the Korea-India CEPA

### Items for CEPA Preferential Rates to Be Increased

At the time of the Korea-India CEPA effectuation in 2010, there were quite a few items for which the CEPA preferential rates were higher than the MFN rate. This was largely due to the time lag, as negotiations took more than three years. Korea and India began negotiations based on the MFN rate of April 1, 2006, and after that, India continued to lower the MFN rate. India's average tariff rate for non-agricultural products was 16.4% in 2006, and it fell to 10.1% in 2009.[3]

In effect, as of 2011, the CEPA preferential rate for 7 of the top 50 export commodities to India (HS 6) is still the same as or higher than the MFN rate, and exports of these items amount to about USD 1.6 billion in

3. WTO(2011), WTO Tariff Profiles.

2011 (January-August), accounting for about 17% of the total. The top 50 export items to India account for about 64% of total exports. On the other hand, among the top 50 import commodities from India, there are only 3 items for which the CEPA preferential rate is either the same as, or higher than, the MFN rate as of 2011. Imports from India during the same period amount to about USD 90 million, which accounts for about 1.5% of total imports.

**Table 4.6**

*Comparison between MFN Rate and CEPA Preferential Rate on Korea's Top 50 Export Commodities to India (As of Jan.-Aug. 2011)*

*(Unit: %)*

| *HS* | | *Commodity* | *CEPA Concession Type* | *Import Share* | *Tariff Rates* | |
|---|---|---|---|---|---|---|
| | | | | | *MFN Rate of 2011* | *CEPA Preferential Rate of 2011* |
| Organic Chemicals | 291736 | Terephthalic acid and its salts | SEN | 3.37 | **10** | **11.3** |
| Nuclear Reactors, Boilers and Machinery and Their Parts | 840290 | Of steam and other vapor-generating boilers | E-5 | 0.63 | 7.5 | 7.5 |
| | 842952 | Machinery with a 360° revolving superstructure | E-8 | 0.86 | **7.5** | **9.4** |
| | 843149 | Of derricks<br>Of road rollers, mechanically propelled<br>Of ships derricks and cranes<br>Of other excavating, leveling<br>Of pile driver, etc. | E-5 | 1.06 | 7.5 | 7.5 |
| Electric Equipment and its Parts | 850423 | Having a power-handling capacity exceeding 10,000kVA | E-8 | 0.63 | **7.5** | **9.4** |
| Motor Vehicles | 870840 | Gear boxes | SEN | 0.45 | **10** | **11.3** |
| | 870899 | Other parts | RED | 10.27 | **10** | **10.6** |

Notes: 1) E-5 (to be abolished within 5 years), E-8 (to be abolished within 8 years), SEN (to be reduced by 50% within 10 years), RED (to be reduced to 1-5% within 8 years).

2) The share of the aforementioned commodities in total exports is 17%. Korea's exports to India from Jan. to Aug. of 2011 totaled about USD 8.6 billion.

*Source:* KITA, Trade Statistics DB, Tariff Concessions in the Korea-India CEPA, tariff rates from the Customs Offices of Korea and India.

**Table 4.7**

*Comparison between MFN Rate and CEPA Preferential Rate on Korea's Top 50 Import Commodities from India (As of Jan.-Aug. 2011)*

*(Unit: %)*

| *HS* | | *Commodity* | *CEPA Concession Type* | *Import Share* | *Tariff Rates* | |
|---|---|---|---|---|---|---|
| | | | | | *MFN Rate of 2011* | *CEPA Preferential Rate of 2011* |
| Feeds | 230690 | Of sesamum seeds | SEN | 0.5 | 55.10 | 55.13 |
| Organic Compounds | 292421 | Ureines and their derivatives; salts thereof | E-5 | 0.2 | 2.0 | 5.2 |
| Steel | 720230 | Ferro-silico-manganese | E-8 | 0.8 | 5.0 | 6.0 |

Note: The share of the aforementioned commodities in total imports is 1.6%. Total imports from India amounted to about USD 5.5 billion from Jan. to Aug. 2011.

*Source:* KITA, Trade Statistics DB, Tariff Concessions in the Korea-India CEPA, tariff rates from the Customs Offices of Korea and India.

However, as such discrepancy is not likely to be addressed in any significant manner in 2012, there is a need to further reduce the CEPA preferential rate between the two countries to further increase the trade volume. As for two (840290, 843149) of Korea's export items to India (Table 6), the CEPA preferential rate in 2012 is likely to be lower than the MFN rate. However, they account for only 1.7% of total exports. In the case of India, there will not be any item for which the CEPA preferential rate will be lower than the MFN rate from 2012, yet their share in exports is 1.5% during the January–August period of 2011.

## *Trade Concessions to be Increased*

Despite the effectuation of the Korea-India CEPA, the aforementioned discrepancy has led to an expansion of items outside the list of concessions, thus undermining the impact of the CEPA. At the time of CEPA's effectuation in 2010, the concessional rate vis-à-vis the bilateral trade volume was 89.7% for Korea and 85.5% for India. Especially in the case of Korea,

the CEPA preferential rate is higher than the MFN rate on items accounting for at least 17% of the trade volume. Therefore, India's actual concessions based on the trade volume fall to less than 68.3% from 85.5% as it stood initially. It is lower than the concessional rate India offered Japan in the Japan-India CEPA, which went into effect in August 2011. The concessions between Korea and India are smaller in scale than those between Japan and India, but the tariff rates are being reduced at a faster rate.

**Table 4.8**

*Comparison of Schedules of Concessions between the Korea-India CEPA and Japan-India CEPA*

| *Category* | *Schedule of Concessions* | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| India → Korea | To be abolished immediately | E-5 | Sub-total | E-8 | Sub-total | RED | SEN | Total | Outside of Concessions List |
| | 34.8% | 14% | 52.4% | 22.1% | 74.5% | 8.5% | 2.4% | 85.5% | 14.5% |
| India → Japan | To be abolished immediately | B5 | Sub-total | B7 | Sub-total | B10 | | Total | Outside of Concessions List |
| | About 7.6% | About 10.0% | About 17.6% | About 0.1% | About 17.7% | About 72.0% | | About 90% | About 10% |

*Notes:* 1) This table was prepared according to the schedule of concessions of the concerned countries.

2) E-5 and E-8 of Korea mean "to be abolished within 5 and 8 years," respectively. RED indicates "to be reduced to 1-5% within 8 years," and SEN means "to be reduced by 50% within 10 years."

3) B5, B7 and B10 indicate "to be abolished within 5, 7 and 10 years," respectively.

4) Tariff reductions differ between the two FTAs in that in the case of the Korea-India CEPA, it will be 1/n, meaning, E-5 would indicate 1/5 reduction, while in the case of the Japan-India CEPA, it will be 1/(n+1), thus, B5 would mean 1/6 reduction.

*Source:* KITA(2011), Impact and Implications of the Japan-India CEPA for Korean Business.

## *Trade Imbalance to be Addressed*

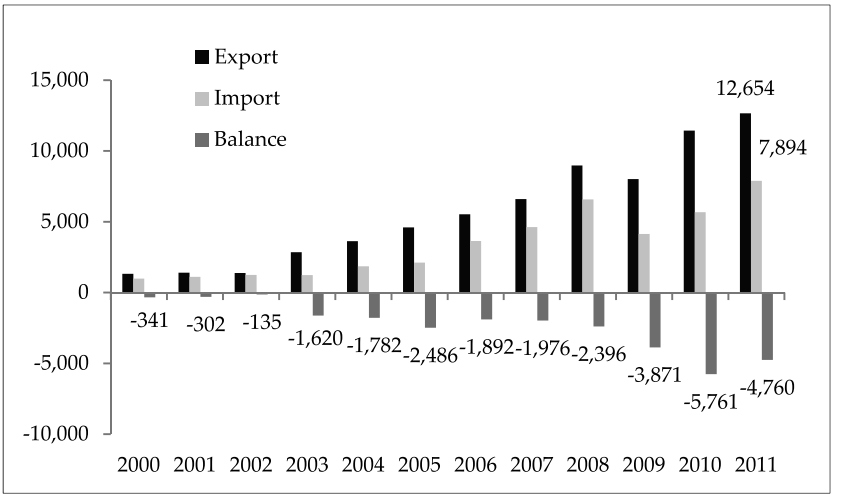
Despite the steadily increasing trade volume, trade imbalances are growing. In particular, India's trade deficit vis-à-vis Korea has been increasing sharply since 2003. It was about USD 300 million in 2000 and rose

rapidly from 2003, surpassing USD 5.7 billion in 2010. Genuine efforts by both Korea and India are needed to address these trade imbalances.

**Figure 4.11**

*Trade Balance between Korea and India*

*(Unit: USD million)*




*Note:* The trade balance is based on Korea's exports/imports with India.

*Source:* KITA, Trade Statistics DB.

## Policy Recommendations and Implications

### Early Upgrading of the Korea-India CEPA Preferential Rates

To address the aforementioned problems and challenges with the Korea-India CEPA, CEPA preferential rates are to be upgraded in the near future by accelerating tariff reduction. If both Korea and India reduce the CEPA preferential rates to the same level, the number of items for which the CEPA preferential rate would be higher than the MFN rate is expected to be reduced considerably, leading to greater concessions and an increase in India's exports to Korea. In particular, it is expected that the lower the CEPA

preferential rates are adjusted, the better it will be in terms of addressing India's trade deficit.

The simulation of an increase in trade volume and welfare in relation to tariff reduction through the "SMART" program offered by the World Bank's WITS (World Integrated Trade Solution) revealed that the effect of India's tariff reduction vis-à-vis Korea's exports would be greater than that of Korea's tariff reduction vis-à-vis India's exports. While a 10% tariff reduction on all items except for agricultural and fishery products will increase Korea's exports to India by USD 180 million, it will lead to an increase of USD 600 million in the case of India. Whereas the welfare effect accruing to India from the dead weight loss[4] will increase by USD 55 million, it will result in an increase of USD 18 million in the case of Korea.

**Table 4.9**

*Simulation Result via SMART by World Bank WITS*
*(All items except for agricultural and fishery products)*

| *India's Import Commodities from Korea (With Tariff Reduction)* | | |
|---|---|---|
| Tariff Reduction | Trade Effect (Increase in Korea's Exports) | Welfare Effect (Indian Consumers) |
| 10% | $175,932,111 | $55,141,591 |
| 20% | $351,864,221 | $106,131,026 |
| 50% | $879,660,584 | $229,026,764 |
| *Korea's Import Commodities from India (With Tariff Reduction)* | | |
| Tariff Reduction | Trade Effect (Increase in India's Exports) | Welfare Effect (Korean Consumers) |
| 10% | $558,383,268 | $17,770,726 |
| 20% | $1,116,766,536 | $34,956,796 |
| 50% | $2,791,914,284 | $81,773,964 |

*Note:* The simulation result has been obtained on all items except for the agricultural and fishery products of both Korea and India as of 2009. As the Korea-India CEPA went into effect in 2010, the tariff reduction effect has been simulated as of 2009.

4. A deadweight loss is a loss of economic efficiency that can occur when equilibrium for a good or service is not optimal. In other words, it is a loss of a consumer or producer's surplus compared to (against) an optimal point (equilibrium). In this context, a dead weight loss is caused by imposing tariffs, which distorts the market price.

Korea's weaker tariff reduction effect relative to that of India is attributable to the different nature of trade on both sides. In the case of Korea's export items to India, the majority consist of auto parts, parts of wireless telephones and electric and electronic products, ships, and steel products, which account for 35.3% of total exports to India. As these items are supplied to Korean companies operating in India, they are more sensitive to local demand than tariff rates. On the other hand, India's top export items to Korea, namely, light oils and related products, and cotton products that account for 60.2% of total exports, have high price elasticity.

Acceleration in tariff reduction is expected to help address India's trade deficit and improve the welfare effect for both Korea and India. A 20% tariff reduction on all items except for agricultural and fishery products will result in an increase in terms of trade effect to the tune of USD 350 million and USD 1.1 billion for Korea and India, respectively, which would help cut India's trade deficit by USD 750 million. A 50% tariff reduction would accrue, in terms of trade effect, USD 880 million and USD 2.8 billion for Korea and India, respectively, which would lead to a fall of USD 1.92 billion in India's trade deficit. A 20% tariff reduction will yield a welfare effect worth USD 35 million to Korean consumers and USD 106 million to Indian consumers. A 50% tariff reduction will considerably increase the welfare effect to the tune of USD 82 million and USD 230 million for Korean and Indian consumers, respectively.

## Target Trade Volume to be Raised

A higher target in trade volume needs to be set, taking into account the effectuation of the Korea-India CEPA, and an early upgrading of the CEPA preferential rates (accelerated tariff reduction). Korea and India will need to make efforts to achieve the target.

Korea and India set the target of achieving USD 30 billion by 2014 when the Korea-India CEPA went into effect in January 2010. The target is

relatively low, given the trade potential of Korea and India and an expected increase in trade resulting from the tariff reduction. In effect, the bilateral trade volume has been rising rapidly since 1993 (14.5% from 1993 to 2010), and the rise has been particularly sharp since 2003 (28.45% from 2003 to 2010). Moreover, India has lately been setting higher targets in FTAs with other countries (Table 4.6).

**Table 4.10**

*India's Trade Volume Target by Country*

| *Country* | *Trade Volume Targeted* |
|---|---|
| ASEAN* | To achieve USD 70 billion by 2012 (About USD 50 billion as of 2010) |
| EU** | To achieve USD 200 billion by 2014 (About USD 80 billion as of 2010) |
| Singapore* | To achieve USD 32 billion by 2015 (About USD 16 billion as of 2010) |
| China** | To achieve USD 100 billion by 2015 (About USD 60 billion as of 2010) |
| Korea* | To achieve USD 30 billion by 2014 (About USD 15 billion as of 2010) |
| Malaysia** | To achieve USD 15 billion by 2015 (About USD 8 billion as of 2010) |
| USA | To achieve USD 100 billion by 2015 (About USD 60 billion as of 2010) |
| Germany | To achieve USD 20 billion by 2012 (About USD 13 billion as of 2010) |
| Russia | To achieve USD 20 billion by 2015 (About USD 5 billion as of 2010) |
| Africa | To achieve USD 70 billion by 2015 (About USD 45 billion as of 2010) |

*Notes:* *Already signed FTA with India.
** Currently in FTA negotiations.

*Source:* Local press in India.

Therefore, Korea and India should wholeheartedly look into raising the target trade volume to a higher level. A forecast based on the average growth rate of trade volume (14.5%) over the past 13 years (1993-2010) puts the bilateral trade volume at approximately USD 34 billion by 2015, and USD 68 billion by 2020. However, the projected figures are based solely on the average growth rate excluding the tariff reduction effect of CEPA. Doubling the current CEPA preferential tariff reduction would have the bilateral trade volume increase to about USD 48 billion by 2015. The projection has factored in an increase in trade volume resulting from a 50% reduction in the MFN rate of 2009, which was before CEPA took effect. Therefore, doubling

the CEPA preferential tariff reduction would further increase bilateral trade.

Accelerating the tariff reduction to increase the target trade volume is expected to help address the trade imbalance. A 10% tariff reduction would put India's trade deficit vis-à-vis Korea at USD 11 billion by 2015 and USD 22.5 billion by 2020, and a 50% tariff reduction would further reduce it to USD 7.3 billion by 2015 and USD 15.4 billion by 2020.

**Table 4.11**

*Estimation of Korea-India Trade Volume and Trade Balance*

*(Unit: USD million)*

| Year | *Estimation based on average growth rate* | | *Estimation with 10% tariff reduction* | | *Estimation with 20% tariff reduction* | | *Estimation with 50% tariff reduction* | |
|---|---|---|---|---|---|---|---|---|
| | *Trade Volume* | *Trade Balance* | *Trade Volume* | *Trade Balance* | *Trade Volume* | *Trade Balance* | *Trade Volume* | *Trade Balance* |
| 2011 | 19,647 | 6,653 | 20,613 | 6,144 | 21,637 | 5,578 | 27,780 | 3,994 |
| 2012 | 22,562 | 7,683 | 23,669 | 7,101 | 24,842 | 6,455 | 31,943 | 4,645 |
| 2013 | 25,909 | 8,873 | 27,178 | 8,208 | 28,522 | 7,469 | 36,730 | 5,400 |
| 2014 | 29,752 | 10,246 | 31,208 | 9,486 | 32,748 | 8,642 | 42,234 | 6,278 |
| 2015 | 34,166 | 11,832 | 35,834 | 10,964 | 37,600 | 9,998 | 48,564 | 7,297 |
| 2016 | 39,236 | 13,662 | 41,147 | 12,670 | 43,171 | 11,567 | 55,841 | 8,480 |
| 2017 | 45,057 | 15,776 | 47,248 | 14,642 | 49,567 | 13,381 | 64,210 | 9,853 |
| 2018 | 51,742 | 18,215 | 54,254 | 16,920 | 56,912 | 15,479 | 73,832 | 11,447 |
| 2019 | 59,420 | 21,031 | 62,299 | 19,551 | 65,345 | 17,904 | 84,897 | 13,297 |
| 2020 | 68,237 | 24,282 | 71,537 | 22,591 | 75,028 | 20,708 | 97,619 | 15,444 |

*Note:* Estimations of trade volume and trade balance with tariff reduction (10%, 20%, and 50%) have factored in not only the average growth rate, but also the tariff reduction effect from the simulation via SMART of World Bank WITS based on the MFN rate.

## Implications

The effectuation of the Korea-India CEPA has had a very positive impact in terms of increasing bilateral trade volume. However, there remain urgent policy challenges such as the existence of items for which the CEPA preferential rate is higher than the MFN rate even after the effectuation of

CEPA, low concession rates, and deteriorating trade imbalances.

The most effective measure for addressing these challenges would be accelerating the tariff reduction by negotiating an early upgrade of the Korea-India CEPA and increasing items for trade concessions. The acceleration of tariff reduction is expected not only to increase the bilateral trade volume, but also to help address India's trade deficit vis-à-vis Korea. (Table 11)

Increasing trade concessions through an expansion of items on the list of concessions would also have to be considered. In the case of the India-Singapore FTA, after it went into effect in 2005, India gave additional concessions to Singapore by adding 275 items to the list of concessions through re-negotiations in 2007.

Setting a more ambitious target trade volume would further enhance Korea-India trade relations. In view of the analysis given in Table 4.11, it is recommended that Korea and India increase the target trade volume to be achieved by 2015 to USD 45 billion.[5]

## References

Comprehensive Economic Partnership Agreement between the Republic of Korea and the Republic of India. 2009. (August)

Customs Offices of Korea and India.

IMF. *Direction of Trade Statistics* (DOTS).

Local Press Releases in Korea and India.

Ministry of Foreign Affairs and Trade, Korea. Released Materials.

Korea International Trade Association. Trade Statistics DB.

_____. 2011. "Impact and Implications of the Japan-India CEPA for Korean Business."

WTO. 2011. *WTO Tariff Profile*.

5. The trade volume target was raised to USD 40 billion, to be achieved by 2015, at the Korea-India Summit in March 2012, and bilateral negotiations are underway to upgrade the CEPA preferential rates.

# Section III

## Foreign Direct Investment

# 5 Trends of FDI Flows into India and Korea

*by* Chang-Ho Kwag

## *Abstract*

*The Comprehensive Economic Partnership Agreement (CEPA) between India and Korea came into effect in January of 2010. Theory and empirical literature tell us that this kind of bilateral agreement has an impact on FDI flows between the two party countries.*

*As less than two years have passed since CEPA went into effect, it is premature to evaluate its full impacts on FDI flows. However, an analysis of the trends of FDI between Korea and India shows that FDI flows seem to have become more active and that investment activities are occurring over a much broader range of sectors after CEPA.*

*One policy suggestion to realize the full potential of CEPA is that both governments need to dispatch their own government personnel to one another and let them work together to understand each other, exchange information, and remove obstacles to pave the way for further FDI flows and a more intimate relationship.*

**Key Words**: India, Korea, CEPA, FDI, Singapore, CECA

## Introduction

In an era of economic globalization, economic cooperation among countries has been enhanced in many respects. Countries are engaging in bilateral and multilateral economic relationships with other countries through Free Trade Agreements (FTAs) and/or Regional Trade Agreements (RTAs). And even in bilateral agreements, there is a tendency to cover a wider range of fields, including service trade and investment relationships, as Korea and India did when they concluded CEPA.

Going for CEPA, which is a wider version of an FTA, seems to be a right decision when we take into consideration the important role of foreign direct investment (FDI) in a host country's economic development. FDI inflows play a crucial role for economic growth in the modern international economy. For developing countries, FDI inflows from advanced countries are a major source of long-term financing and advanced technology (Aitken and Harrison, 1999). Furthermore, companies in developing countries can enhance global market access through the acquisition of firms in developed countries. Multinational companies (MNCs) from developed countries can find a new market through FDI as their home market is becoming saturated and they can reduce production costs by establishing production platforms in developing countries with lower labor costs.

Therefore, from 1980 to 2010, world FDI has increased by 21 times, while world trade and GDP have increased by six and four times, respectively[1] (Urata and Sasuya, 2007). Nowadays, every country is trying hard to establish a favorable investment climate to attract more FDI, relaxing the entry norms of foreign companies (UNCTAD, 2002).

It has been 38 years since Korea and India established formal diplomatic ties. The economic relationship between the two countries has strengthened since India started opening its economy to the world in 1991. Korean

1. Author's calculations based on the UNCTAD Stat (http://unctadstat.unctad.org).

companies started entering India in the mid-1990s and their stunning performances have become well known globally, giving other competitors strong motives to enter the Indian market. Recently, Indian firms, particularly carmakers, have also entered the Korean market through the M&A route. Now with the Korea-India CEPA, the trade volume and investment flows between the two countries are expected to increase sharply, which would lead to a more intimate economic relationship between them.

As it has been less than two years since the conclusion of the CEPA between Korea and India, it is premature to evaluate the full impacts of CEPA on the economic growth of both countries. However, an analysis of the trends in FDI flows and a comparison of their performances before and after CEPA allow us to see the important role CEPA has played in improving investment relationships and to draw future policy implications for a more intimate and promising relationship between the two countries. Furthermore, a brief look at the impacts of the Comprehensive Economic Cooperation Agreement (CECA) between India and Singapore, which went into effect in 2005, also gives us a good reference and provides useful implications.

This paper is organized as follows. Section II explains the determinants of FDI and the role of bilateral investment agreements in attracting foreign investments with findings of empirical literature, followed by a case study of the CECA between India and Singapore in Section III. Section IV presents a brief overview of CEPA, focusing on investment-related issues. In Section V, performances of Korea and India in attracting FDI are illustrated and analysed in detail. General trends of FDI inflows into both countries and bilateral FDI trends before and after CEPA are also discussed. A summary and policy implications are discussed in the last section.

## Determinants of FDI and the role of investment agreements

UNCTAD (2009) made a conceptual framework for analysing host country determinants of FDI. Their framework shows that the host country FDI determinants can be classified into three categories: economic determinants, policy framework, and business facilitation. Economic determinants are again classified into three sub-groups depending on type of FDI: market-seeking, efficiency-seeking, and resourcing-seeking. However, in reality, FDI flows are usually determined by the interaction of a variety of determinants above. Some of them play main roles while others take supporting roles (Table 5.1A).

Over the years, literature on this topic has confirmed that the economic determinants of FDI are the primary factors in influencing FDI flows. UNCTAD (2009) and Nunnenkamp and Spatz (2002) showed that the recent global FDI boom has largely taken place in the non-tradable services sector, which is, by definition, of market-seeking type. Thus, the host country's market-size variables have been the dominant factors for FDI attraction, and market-seeking FDI has been the main type of FDI. The determinants of efficiency-seeking FDI constitute the second most important economic determinants of inward FDI, particularly in developing countries.

But for these economic determinants to be fully effective, they had to work in various combinations with other policy frameworks or business facilitation measures, which are, by nature, supporting and necessary but not sufficient conditions. Apart from economic determinants, macroeconomic conditions and political stability have been found to be other most important FDI determinants (UNCTAD, 2007).

Furthermore, for a policy framework, UNCTAD (1998) shows that as FDI becomes one of the most important sources of economic growth, most countries try to attract more of it. As a result, the general policy frameworks (rules and regulations) are converging. So the policy framework is nowadays

taken for granted and becomes a less important determinant. The focus must now shift to improving business environments, such as human resources, infrastructure, market access, and created assets (technology, etc). The McKinsey Quarterly survey (2004) also tells us that, regardless of the policy regime, industry, and period studied, FDI can be a great benefit to developing nations. So, to make the most of FDI, developing countries should abandon their incentives and regulations (local contents, joint-venture requirements) and, instead, concentrate on strengthening their economic foundations, in particular, to stabilize the economy and promote competitive markets.

With all these conceptual framework and empirical findings, we can easily recognize that the role of international investment agreements, such as CEPA, for the attraction of FDI is limited. Bilateral or multinational investment treaties (BIT or MIT) are only one form of policy frameworks. BITs do not change the key economic determinants of FDI. They stimulate FDI through the improvement of policy and institutional frameworks. And the policy frameworks themselves play only a supporting role, in most cases, combined with economic determinants.

Being aware of the limited role of BITs for attracting FDI, significant efforts were made to determine whether BITs affect FDI attraction, and if they do, through what channels. Previous studies tell us there are three channels through which BITs promote foreign investment inflows, and bilateral investment treaties do have some effects on FDI inflows to host countries, albeit to a limited extent. UNCTAD (2009) summarises the three channels as: commitment, signalling, and substituting channels.

This implies that when a developing country concludes and proclaims a BIT with another developed or developing country, the BIT will increase FDI from the partner country through commitment channels and also from all countries through indirect signaling and substituting effects.

**Table 5.1**

*Three Channels through Which BITs Promote FDI Inflows*

| | |
|---|---|
| *Commitment* | A binding international commitment to investment protection and treatment of foreign investor will reduce risk and increase FDI from home partner countries. |
| *Signaling* | BITs signal seriousness about improved property rights in the host country and thus may stimulate FDI from all countries, not only from BIT contracting parties. |
| *Substituting* | BITs may be considered a substitute to improved institutional quality and thus stimulate FDI inflows from all countries, not only from BIT contracting parties. |

As for empirical studies on the effects of BITs on FDI inflows into host developing countries, the findings of early empirical literature were ambiguous. But recent studies show that BITs do have an impact on FDI inflows into developing countries. Recent investor surveys also show that BITs are important to MNCs in terms of investment protection and enhancing the stability and predictability of FDI projects, and thus BITs are taken into account when deciding where to invest (UNCTAD survey on 602 MNCs in 2007).

## A Case Study of the CECA between India and Singapore

India and Singapore have long maintained cultural and economic relations. About 9% of the Singaporean population is of Indian origin and Tamil (the official language in the State of Tamil Nadu, India) is accepted as an official language in Singapore. The relationship between the two countries has become more intimate through the India-Singapore CECA, which went into effect in 2005.

One peculiar feature in CECA is its asymmetric National Treatment clause. It is only subject to those sectors that have been committed to by India and those which are not reserved by Singapore. Thus when

Singaporean investments come into India, a positive list applies. On the other hand, when Indian investments come into Singapore, a negative list applies. The Indian positive list includes only 55 sectors according to the International Standard Industry Classification (ISIC) 1998, including the manufacturing of food products, beverages, textiles, printing products, petroleum products, chemicals, metals, rubber, electronics, machinery, vehicles, and the real estate sector. In the case of the banking sector, Singaporean banks (DBS, Overseas Chinese Banking Corporation, and United Overseas Bank) were allowed to establish 15 branches within four years of the effective date of CECA.

In contrast, Singapore's negative list specifies only six groups: beer, cigars, drawn steel products, chewing gum or any like substance, cigarettes, and matches (Garg, 2009). Furthermore, three Indian banks were given the Qualifying Full Banking Status (QFB) in Singapore.

Singaporean FDI inflows into India have shown completely different trends before and after the CECA of 2005, implying that there was structural change. During the decade and a half before CECA, FDI inflows from Singapore into India remained at a very low level. In the 1990s, total FDI inflows from Singapore were only 41.598 billion rupees for one decade, and during the first half of the 2000s, 28.532 billion rupees flowed in from Singapore. However, after the CECA between the two countries went into effect in 2005, Singaporean FDI into India grew sharply and recorded 58.306 billion rupees in 2007 alone, and reached 157.759 billion rupees in 2008. The sum total of Singaporean FDI into India between 1991 and 2010 was 558.803 billion rupees and ranked 3rd in the top 10 country list, accounting for 7.3% of the total FDI inflows into India as of the end of 2010 (Table 5.2A).

A sector-wise break-up of Singapore's FDI into India shows that the largest portion of Singaporean investments, 33% of the total, came into the service sector, followed by the sectors of petroleum & natural gas, and computer software & hardware, accounting for 14% and 10%, respectively.

This is a natural and expected result if we consider the fact that Singapore obtained a big concession in the financial service sector and an entry permit in the real estate sector when they concluded the CECA with India. In India, foreign banks are allowed to open up to 20 branches a year. Even under this restriction, a Singaporean bank, DBS, expanded its branch offices from two to 12 across India. Now, though the presence of DBS is relatively small in India compared to indigenous Indian players, they were selected "India's Best Foreign Bank" and "India's Best Small Bank" last year. Furthermore, it has been trying to expand its presence through aggressive retail banking services for Indian customers. For the real estate sector, where Singapore is allowed, the Singaporean real estate company Keppel Land developed townships in Bangalore through a joint venture with an Indian company.

Singapore has been one of the most preferred destinations of Indian outbound FDI. According to the latest figures released by the Government of India, Singapore was the third most popular destination for Indian investments during the first quarter of 2011 (April to June), with USD 157.31 million of investment flow. Mauritius, with USD 548.54 million, was the top destination, followed by the USA with USD 185 million.

According to data released by the Singaporean government, the share of India in total FDI inflows into Singapore was less than one percent, but after CECA that figure rose sharply to 3.7% in 2009.

Indian investments in Singapore are mainly in the service sector, such as IT and construction. For example, Tata Communication established its international headquarters in May of 2011 in Singapore. The number of Indian companies in Singapore is expected to increase from 4,000 as of now to 6,000 over the next two to three years. Investment from India to Singapore is expected to soon improve in various sectors beyond the IT industry since Indian firms can enjoy tax incentives through the Double Taxation Avoidance Agreement (DTAA) when they come to Singapore.

## A Brief Introduction to Investment-Related Clauses in CEPA[2]

After an examination by the JSG (Joint Study Group) in 2005, the Korean and Indian governments started CEPA negotiations from 2006. In August of 2009, both sides signed the agreements and CEPA has been effective since January 1, 2010. As it is clearly identified in the agreement, CEPA aims to liberalize and facilitate trade in goods and services, and expand investment between the two countries, leading to the strengthening and enhancing of economic relationships between the two countries (Ahmed, 2011). In this section, a brief introduction to investment-related contents in CEPA is described with a focus on the important investment clauses specified in Chapter 10. Composed of four sections and 22 articles, Chapter 10 illustrates all important matters regarding bilateral investment relationships, including national treatment, performance requirements, transparency, transfers, expropriation and compensation, and settlement of disputes.

The Korea-India CEPA is the first of its kind on the Indian side that allows a negative list approach with regard to investment. A negative list approach specifies all the sectors in which Korean investments are not allowed, while all other sectors are supposed to open to Korean investments. Korean investors are thus allowed to enter the overall manufacturing sector with exceptions for only a small number of sectors, such as the agriculture, fishery, and mining industries. This means Korean FDI into India can even enter the sectors of food and beverage, textile, clothing, chemical goods, machinery, metallic mineral, automobiles, electrical goods, etc. Likewise, Indian investors can also enter the overall Korean manufacturing sector and even the agricultural sector, with exception to rice and barley cropping. However, the shareholdings of Korea Electric Power Corporation and Korea Gas Corporation are limited to 40% and 30%, respectively.

2. In this chapter, the articles are directly quoted from the original CEPA agreement.

In the service sector, Korea and India agreed to open beyond the scope of the Doha Development Agenda (DDA) negotiations. Both countries now open a wide range of service sectors, such as communications, business services (accounting, real estate, medical treatment, energy distribution, etc.), construction distribution, distribution (excluding retail), advertising, leisure/culture, and transport services. Particularly, in the case of the banking sector, the Indian government renders favorable consideration to Korea. Korean banks are allowed to establish up to 10 branches within four years of the year in which the agreement went into effect. This can be interpreted as an important favor given by Indian authorities when we consider the typical practice of Indian financial authorities in granting approval of the establishment of only about 20 foreign bank's branches each year.

Furthermore, when the Joint Committee was held in January of 2011 to review the implementation of the Korea-India CEPA, they agreed on the co-production of audio-visual programs with a special emphasis on the game industry. Korean companies are now allowed to acquire up to 74% of stakes in the Internet and infrastructure service.

With regard to National Treatment, both countries agreed: "Each Party shall accord to investors/investments of the other Party treatment no less favourable than that it accords, in like circumstances, to its own investors with respect to the establishment, acquisition, expansion, management, conduct, operation, and sale or other disposition of investment in its territory." And Article 10.9 says that if, after the date this agreement goes into effect, a party enters into any agreement on investment with a non-party, it shall give consideration to a request by the other party for the incorporation herein of treatment no less favorable than that provided under the aforesaid agreement.

About performance requirements, it specifies: "Neither Party may impose or enforce any of the following requirements, or enforce any commitment or undertaking, in connection with the investment of the other

Party in its territory

- to export a given level or percentage of goods and services; to achieve a given level or percentage of domestic content;
- to purchase, use or accord a preference to goods produced or services provided in its territory, or
- to purchase goods or services from natural or legal persons or any other entity in its territory;
- to relate the volume or value of imports to the volume or value of exports or to the amount of foreign exchange inflows associated with investments of that investor;
- to restrict sales of goods or services in its territory that an investment of that investor produces or provides by relating such sales to the volume or value of its exports or foreign exchange earnings;
- to transfer technology, a production process or other proprietary knowledge to a natural or legal person or any other entity in is territory; and to supply exclusively from the territory of the Party the goods that such investment produces or the services that it supplies to a specific regional market or to the world market ."

Furthermore, Each Party shall allow all transfers relating to an investment in its territory of an investor of the other Party to be made freely and without delay. Such transfers include the initial capital and additional amounts to maintain or increase the investment; profits, dividends, interest, capital gains, royalty payments, management fees, technical assistance fees and other fees, return in kind and other amounts derived from the investment; proceeds from the sale or liquidation of all or any party of the investment; payment made under a contract including payments made pursuant to a loan agreement; payments arising out of the settlement of a dispute; and earnings of nationals of the other Party who work in connection with an investment in the territory of that Party.

Neither Party may, directly or indirectly, nationalize or expropriate an investment of an investor of the other Party in its territory except for a public purpose on a non-discriminatory basis. The payment of compensation shall be equivalent to the fair market value of the expropriated investment immediately before the expropriation took place and compensation shall be paid without delay.

For settlement of investment disputes, the parties involved shall initially seek to resolve the dispute by consultations and negotiations, which may include the use of non-binding third-party procedures. Any such dispute not settled within a period of six months from the date of request for consultations and negotiations may be submitted to the courts or administrative tribunals of the Party concerned or to arbitration. In the latter event, the investor has the choice of the International Centre for the Settlement of Investment Disputes (ICSID) Convention, the ICSID Additional Facility Rules, the UNCITRAL Arbitration Rules or any other arbitral institution or in accordance with any other arbitral rules.

## Performances of India and Korea in Attracting FDI

### Performances in Attracting FDI

According to estimates of international institutes and consulting firms, India has been recognized as one of the most desirable investment destinations in the world along with China and the United States. India has two key merits: a high economic growth rate and big potential market with the world's second largest population. AT Kearney publishes the FDI Confidence Index every year, wherein India has emerged as one of the top 10 preferred FDI destinations since the early 2000s. From 2005 to 2009, India ranked as the second most favored country for FDI after China. India has also been included in the top ranking of favorable FDI countries published by UNCTAD and Ernst & Young.

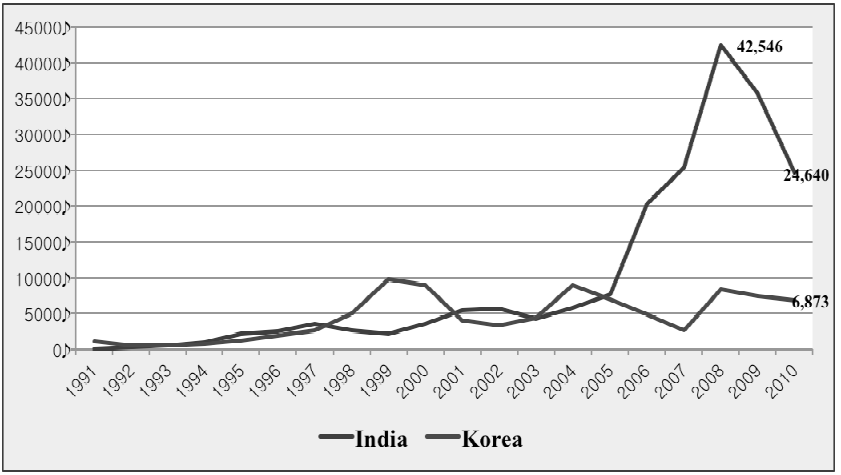
In contrast, Korea is a small, open economy with a population of only 50 million. With this market size, Korea has not been able to be an attractive and favorable FDI destination. In addition, historical data about long-term foreign capital inflows into Korea tells us that Korea preferred loan-based investments to FDI. Therefore, Korea has not been so successful in inviting FDI.

If we look at historical trends of FDI inflows into Korea and India, a decent level of FDI inflows did not occur until 1995. Between 1995 and 2005, on average, about USD 5–6 billion in FDI flowed into both countries each year except the sell-out period (1999-2000) in Korea. However, since 2006, FDI inflow into India has increased to reach about USD 40 billion in 2007, while inflow into Korea has remained stagnant at about USD 5 billion. In 2008, FDI inflows into India peaked at USD 42.5 billion while that into Korea remained at only USD 8.4 billion. In 2010, even under a global economic crisis, India attracted USD 24.6 billion in FDI while Korea drew only USD 6.9 billion.

**Figure 5.1**

*FDI Inflows into India and Korea, 1991-2010*

*(Unit: USD million)*




*Source:* UNCTAD, World Investment Report 2011.

The performance gap in attracting FDI made a big difference in the resulting FDI stocks of both countries. Until 2005, the level of FDI stock in Korea had always been higher than that of India. The FDI stock in Korea was USD 104.9 billion while that of India was only USD 43.2 billion. However, since then, FDI stocks in India have accumulated very fast with the inflow of huge amounts of FDI. FDI stock in India surpassed the level of Korea in 2007 and reached USD 197.9 billion in 2010. In contrast, the FDI stock in Korea remained at about USD 100-130 billion.

If we look at other indicators, we can see and evaluate how India has been successful in attracting foreign investment in recent years. The ratio of FDI inflow over gross fixed capital formation (GFCF) shows the contribution and importance of foreign investment to the gross fixed capital formation. The ratio of India has been increasing while that of Korea has been on a downward path after its peak at 7.5% in 1999. The ratio of India has continuously increased until it reached 9.7% in 2008. In 2010, in the middle of the global economic recession, the ratio of India was 5.7% while that of Korea remained at 2.8%. As for comparison with the global average, the global ratio has shown a fluctuating trajectory after its peak at 20.1% in 2000. In the recent economic recession, it decreased to 10% in 2010.

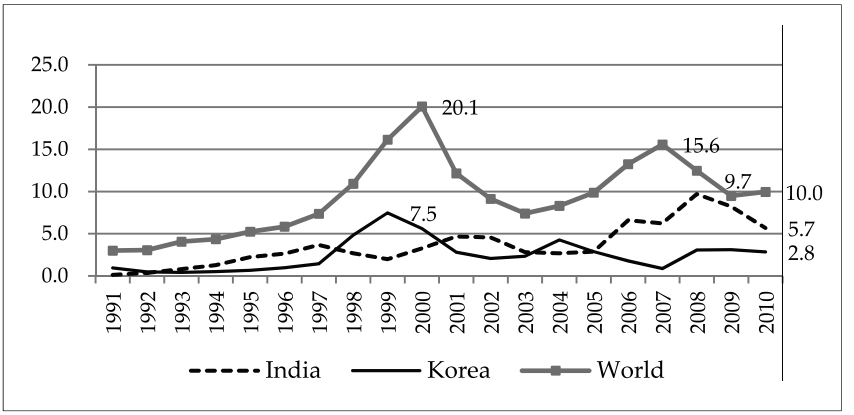
In section II, a BIT contained in CEPA is supposed to have some impact, albeit to a limited extent, on FDI inflows into the contracting countries. The amount of actual FDI inflows into the two countries in 2010 decreased. However, it is not easy to say that the effects of CEPA on FDI inflows are negligible because the global economy was in a crisis in 2010 and thus the impacts of the economic crisis may have been the dominant factor overwhelming the effects of CEPA.

Another indicator is the ratio of FDI stock over GDP, which explains the role of foreign investment in generating GDP. This indicator tells a similar but slightly different story. In the case of India, the ratio showed an increasing pattern until 2005 and then a sharp increase since 2006, reaching

**Figure 5.2**

*FDI Inflows as a Percentage of Gross Fixed Capital Formation*

*(Unit: %)*




*Source:* UNCTAD, World Investment Report 2011.

12.2% in 2010. In the case of Korea, though the ratio is showing an upward trend, the slope is very flat and the level is almost the same as that of India in 2010. As for comparison, the ratio of global average was 30.3%, way above those of both countries (Figure 5.1A).

Analyses of the two indicators show that India has been relatively successful in drawing FDI in recent years while Korea has not. However, figures for both economies still remain far below the global average, indicating that there is still much room for both countries to make more efforts to draw larger amounts of FDI for their economic development.

We can see another challenge of the Indian government when we break up the FDI inflows in sectors. The underdeveloped manufacturing sector has been well known as one of the Indian government's major challenges. The government is thus definitely eager to invite a large amount of FDI in the manufacturing sector. However, data on FDI inflow from April of 2000 to

June of 2011 shows that a large portion of foreign investments came into the service and infrastructure sectors. More than 30% of total foreign investments flowed into the service sector and 18% went into the housing and real estate, construction activities, and power sectors while only 4.4% went into the automobile sector, 2.9% into the metallurgical industry, and 2.7% into the petroleum and natural gas sector (Figure 5.2A).

In contrast, in the case of Korea, the sector-wise break-up of FDI inflows shows that 55% of total inflows came into the service sector and 40% into the manufacturing sector, indicating the structure of FDI inflows is pretty sound. A bigger portion of FDI flowed into the weaker service sector while the manufacturing sector also drew a decent portion of foreign investments. However, a big challenge for the Korean government is the fact that FDI inflow stays at a very low level compared to that of India and the global average (Figure 5.3A).

## Bilateral FDI Trends Between Korea and India

As for the bilateral relationship between Korea and India, FDI inflows of Korean origin into India in the 1990s were about 9.7 billion rupees, accounting for 4.6% of the total FDI inflows into India. Korea was the fourth largest investor to India after the USA, Mauritius, and the UK. That was mostly due to huge investments in the mid 1990s by three major Korean conglomerates – LG Electronics, Samsung Electronics, and Hyundai Motor.

However, in the first decade of the new century, inflows of Korean FDI into India have not been so large compared to those of other countries, though there was another wave of Korean FDI during the second half of the decade. Cumulative Korean FDI into India from April of 2000 to May of 2011 was USD 803.64 million, accounting for only 0.58% of the total FDI inflows into India. The second wave of Korean FDI during the last five years was mainly attributed to the capacity expansions of the three big Korean players and partly to new investments made by POSCO, Shinhan Bank, and

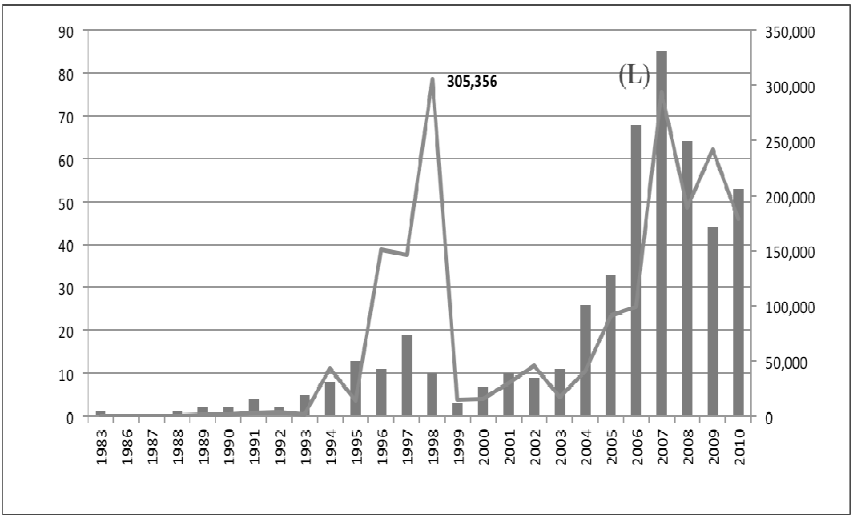
Mirae Asset Management.

In 2005, POSCO and the State of Orissa signed a Memorandum of Understanding (MoU) for the largest amount of FDI for India. For several reasons, including environmental clearance and land acquisition, POSCO has not yet made significant progress in the project. However, it is carrying out several other projects to establish downstream mills in the State of Maharashtra and running three processing centres in India. FDI inflows from Korea to India are expected to increase significantly when POSCO starts full-fledged investments in Orissa.

**Figure 5.3**

*Bilateral FDI Flows from Korea into India (1991-2010)*

*(Unit: USD, thousand)*




*Source:* Korea Eximbank, Foreign Investment Statistics.

The sector-wise break-up of Korean FDI into India shows that most Korean FDI has been in the manufacturing sector. The main reasons for Korean manufacturers to come to India are to secure production bases and marketing platforms. The Korean market is already saturated and thus highly

competitive, driving Korean firms out to find new markets. In addition, increasing labor costs in Korea lead Korean firms to find new production bases in countries with lower labor costs like China and India. India, located between Asia, Europe, and Africa, has very favorable geographical conditions. When Hyundai Motor, Korea's largest automotive manufacturer, decided to come to Chennai, India, this geographical condition and export potential and opportunity played an important role along with its huge domestic market. Hyundai Motor India is now the largest car exporter in India, exporting more than 200,000 cars to the EU, Africa, the Middle East, and Latin America.

The sector attracting the second largest Korean investments is the wholesale and retail trade sector. It is still under debate whether the Indian government should deregulate FDI in the retail sector, in which foreign investors are keenly interested. It seems that Korean wholesale and retail companies have invested in India and are waiting for the deregulation.

A report on Korean FDI into India published by Korea Eximbank tells us that Korean FDI has gone into more diversified sectors in recent years. In 1990, Korean FDI in India was in the manufacturing sector only. However, in 2010, Korean companies invested in 14 sectors, including the financial and retail sectors. In recent years, Korean firms have expanded their business areas in various sectors, such as a home-shopping TV channel (CJ O Shopping), a courier (CJ GLS), a dental hospital for children (CDC Networks), online games (Funizen), etc. In 2010, the shares of Korean FDI in wholesale and retail trade and construction increased to 11% and 7%, respectively, while that of the manufacturing sector decreased to 74%. In the case of the dental hospital and the online game sector, they were able to enter the Indian market thanks to CEPA, which allows their service in India.

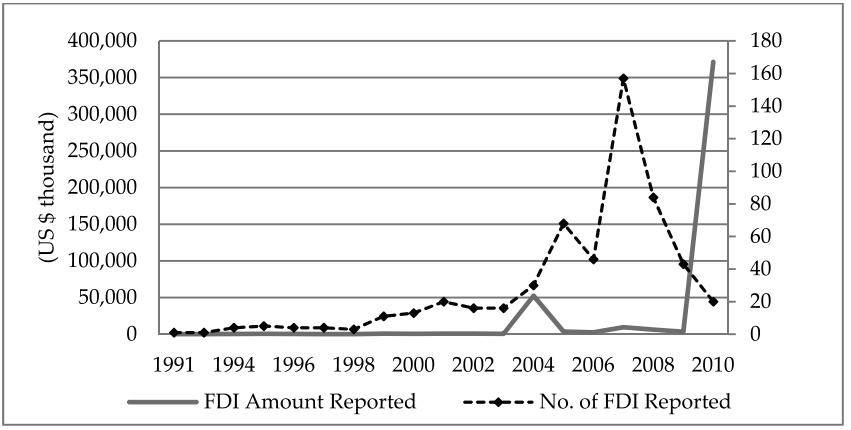
When it comes to bilateral investment flows from India into Korea, a main fact is that the performance of Indian FDI into Korea has not been so substantial. The major foreign investors into Korea are developed countries, such as the EU, USA, and Japan, accounting for 80% of the total FDI inflow

into Korea. Nowadays, Korea is trying to diversify its partners in economic activities, encouraging FDI inflow from non-traditional trading partners like India.

Indian investors had not made any significant investments in Korea until the mid-2000s. However, since then, Indian companies have started investing in foreign countries, including Korea, mainly due to the increasing confidence of Indian companies in the global market and their Look East Policy.

**Figure 5.4**

*Indian FDI Inflows into Korea*




*Source:* Ministry of Knowledge Economy, Government of Korea.

Indian FDI inflows into Korea have mainly gone into the service and manufacturing sectors. The Indian firms that have established their presence in the Korean market are Tata Motors, L&T Infotech, Mahindra Satyam, Indian Overseas Bank, Tata Consultancy Services, Jindal Stainless Steel, Nucleus Software Solution, and Wipro Technologies.

Among those investments, it is noteworthy that Indian automobile firms acquired Korean firms through M&As in 2004 and 2010. Therefore, Indian investments into Korea significantly increased in 2004 and 2010, as shown in (Figure 5.4). In February of 2004, Tata Motors signed an agreement

to acquire Daewoo Commercial Vehicles.

With these FDI relations between two economies, we can analyze bilateral FDI intensities. Bilateral intensity is a ratio that compares the actual value of the FDI stock of country 'i' in country 'j' with what might be expected, given the world position of each of them as home and host economies, respectively. Thus, the bilateral FDI intensity from country 'i' to country 'j' can be denoted as:

FDI intensity ratio(R) = $FDI_{ij}$ / $ExpFDI_{ij}$

$FDI_{ij}$ = Actual amount of FDI stock from country *i* to country *j*.

$ExpFDI_{ij}$ = Expected value of FDI stock from country *i* to country *j*.

$$= \frac{FDI_{wj}}{FDI_{ww}} * \frac{FDI_{iw}}{FDI_{ww}} * FDI_{ww} \quad (1)$$

*Where,* $FDI_{wj}$ = Total inward stock in the j country; $FDI_{iw}$ = Total outward FDI stock of country *i* in the world; and $FDI_{ww}$ = Worldwide inward or outward FDI stock.

If the intensity ratio is greater than one, the FDI relationship is stronger than expected based on the relative importance of the two economies as home and host; if it is less than one, it is weaker than expected.

To calculate bilateral intensity, we first need to evaluate both countries' positions in the global FDI market. For India, inward FDI stock has always been higher than outward stock for the period of 2007 and 2010. Inward FDI stock increased from USD 105.8 billion in 2007 to USD 197.9 billion in 2010. During the same period, the outward FDI stock of India increased from USD 44.1 billion to USD 92.4 billion. In 2010, the gap between inward and outward stock exceeded USD 100 billion, implying that India received much more FDI than it invested in foreign countries. In comparison, Korean data tells a different story. Up to 2007, inward FDI stock had been greater than outward stock. However, from 2008 outward FDI stock became larger

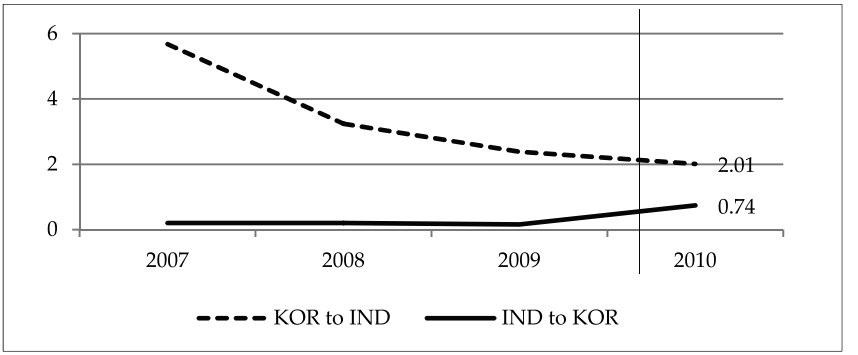
than inward stock, as outgoing Korean FDI exceeded FDI coming into Korea. In 2010, the inward FDI stock was USD 139 billion while outward Korean FDI stock was USD 127 billion. Thus, considering their positions in the global FDI market, the expected Korean FDI stock in India was calculated as USD 433 million in 2007 and USD 1.437 billion in 2010, while Indian FDI stock in Korea was USD 69 and USD 459 million, respectively (Figure 5.4).

Then we need actual data on the bilateral FDI stock of both countries. But since the actual data is not available, the cumulative sum data on FDI inflow and outflow is used as proxies for those stock variables.

The results of the bilateral FDI intensity are almost what was expected. The intensity of FDI from India to Korea was almost zero up to 2009 and went up to 0.74 in 2010. In contrast, the intensity of FDI from Korea to India was 5.7 in 2007 and it showed a downward trend until it reached 2.01 in 2010. This implies that Korean investments into India have been greater than the supposed-to-be level, while Indian investments into Korea have been much less than the supposed-to-be level on its part.[3]

**Figure 5.5**

*Bilateral FDI Intensity between India and Korea*




3. In the previous study conducted in 2010 (Kwag, 2012), the bilateral intensities for both India and Korea are miscalculated due to data collection errors.

As it has been less than two years since the Korea-India CEPA came into effect, it is too early to investigate the impacts of CEPA on bilateral FDI between the two parties. However, in 2010, Korean firms invested 9.878 billion rupees in India, which is far higher than the 3.709 billion rupees of the previous four years average. And as discussed above, Korean FDI into India flows into a broader range of sectors, including the services sector like dental clinics and online games (Table 5.2A).

In the case of Indian FDI into Korea, the biggest-ever investment that any Indian company brought into Korea occurred in 2010. That was the investment made by Mahindra & Mahindra to acquire Ssangyong Motors. That investment alone was worth USD 371 million, which was an astonishing amount compared to the cumulative sum of FDI inflows of USD 84 million from India until 2009 (Table 5.3A).

Based on the findings above and the result of the CECA between India and Singapore, we may cautiously expect that the Korea-India CEPA has opened a new chapter for bigger and stronger FDI relations between the two countries in a broader range of sectors.

## Summary and Policy Implications

The main findings of the discussions and analyses in the above sections can be summarized as follows. First, investment agreements such as BITs or CEPA have some impacts on FDI flows, even though economic determinants are the primary factors in attracting FDI inflows. Concluding a BIT with another country will not only increase bilateral investments from the partner country, but also investments from other countries through indirect signalling and substituting effects.

Second, an analysis of the effect of the CECA between India and Singapore on bilateral FDI shows that the FDI relationships between the two countries became much more intimate. Bilateral FDI flows increased greatly after CECA in 2005, leading us to believe that there was a structural

change in their FDI relationships. Other recent empirical literature also suggests that BITs do have an impact on FDI inflows into developing countries.

Third, India has been much more successful in attracting FDI than Korea, especially in recent years. With such a huge population and big potential market, it is expected that India would beat Korea in attracting FDI. However, one big challenge for both countries is that the indicators showing relative FDI achievements with respect to their GDP or GFCF remain far below the global average. The analysis of bilateral FDI intensities implies that India has not been so active in investing in Korea. These results suggest that there is still much room for both countries to make more efforts to draw larger amounts of FDI.

Fourth, the trend of FDI flows between the two countries after CEPA in 2010 shows us that FDI flows seem to become more active, and their investment activities are occurring over a much broader range of sectors. However, it is too early to evaluate the effects of CEPA, with less than two years of results. But with all the previous empirical literature, a case study of CECA, and our analysis, we can cautiously expect that the Korea-India CEPA will continue to have positive effects on investment relationships between the two countries.

With all these findings, what must the countries do to attract more FDI inflows to enhance economic developments? Previous literature also tells us that nowadays, every country competes to attract more FDI, therefore the policy frameworks of each country converge. So to make a major difference in FDI inflows, we need to improve business facilitation.

Fortunately, on this matter, the World Bank releases a "Doing Business Index (DBI)" each year. This index surveys 183 countries and ranks them accordingly based on measures in 10 regulatory areas. Singapore ranked at the top with its most favorable business environment for FDI. In the DBI 2012, Korea and India ranked 8$^{th}$ and 132$^{nd}$, respectively. These figures say

that Korea provides fairly good business environments while those of India remain substandard.

In the case of India, the categories in which it ranks at low levels are "starting a business," "dealing a license," "paying taxes," and "enforcing contracts." It shows, for instance, that there are too many procedures and it costs too much to get a license from the Indian government. It also informs us that it takes around five years on average to resolve a business conflict through courts, implying that India needs to reform its legal system to make it more business friendly.

However, in the case of Korea, there is one misleading fact. In the DBI 2010, Korea ranked 19th. However, Korea jumped to the top 10 in 2012. Does this mean Korea has done a lot to improve its business environment? One of the notable features of Korea's business climate is that it has a bad reputation in the labor market. In the DBI 2010, Korea ranked 150th in the "hires and fires" category, showing the rigidity of the Korean job market. The 2010 survey shows that when a company wants to lay off a worker in Korea, it has to pay 91 weeks of salary on average.

The World Bank has suddenly replaced "hires and fires" with "getting electricity." Korea is well known for providing very good and a stable quality of electricity at a low price level. This change is the key to Korea's boosted ranking on the ease of doing business survey in 2012. So, on the Korean side, it may be said that the challenge to ease rigidity in the labor market remains.

One final policy suggestion to realize the full potential of CEPA is that both governments have to cooperate in promoting FDI flows by dispatching their own government personnel to each country and letting them work together to first understand each other, exchange information, and remove any obstacles. This will pave the way for a better relationship and larger FDI flows.

# References

Ahmed, Shahid. 2010. "India-Korea CEPA: Potentials & Realities." *MPRA (Munich Personal RePEc Archive) Paper* No. 26206.

_____. 2011. "India-Korea CEPA: An Assessment." *Korea and the World Economy*, 12(1), pp. 45-98.

Aitken, Brian J. and E. Harrison. 1999. "Do Domestic Firms Benefit from Direct Investment? Evidence from Venezuela." *American Economic Review*, 89(3), pp. 605-618.

Garg, Rahul. 2009. "India-Singapore CECA: An Evaluation." *Centre for Civil Society Working Paper* No. 234.

Jung, Mu-Sup. 2011. "The Emerge of the Indian Market and the Business Strategy of Korea Companies (in Korea)." *CEO Information.* Samsung Economic Research Institute. (March 2)

Kwag, Changho. 2012. "Cooperation between India and Korea in FDI and Services." *India–Korea Dialogue for a 21st Century Partnership*, pp. 239-261.

Mckinsey. 2004. *Quarterly Survey.*

Nunnenkamp, P. and Spatz, J. 2002. "Determinants of FDI in Developing Countries: Has Globalization Changed the Rules of the Game?" *Transnational Corporations*, Vol. 11, No. 2, pp. 1-34. (August)

Sahoo, Pravakar, Durgesh Kumar Rai and Rajiv Kumar. 2009. "India-Korea Trade and Investment Relations." *ICRIER Working Paper* No. 242, Indian Council for Research on International Economic Relations.

UNCTAD. 1998. *World Investment Report 198: Trends and Determinants*.

_____. 1999. *World Investment Report*: *Foreign Direct Investment and the Challenge of Development.* New York: United Nations.

_____. 2002. *World Investment Report*: *Transnational Corporations and Export Competitiveness*. New York: United Nations.

_____. 2007. *Worldwide Survey of Foreign Affiliates.* Occasional Note, Geneva.

_____. 2009. *The Role of International Investment Agreements in Attracting Foreign Direct Investment to Developing Countries*, pp. 11-12.

Utara, Shujiro and John Sasuya. 2007. "An Analysis of the Restrictions on Foreign Direct Investment in Foreign Trade Agreements." *RIETI Discussion Paper Series* 07-E 018. Research Institute of Economy, Trade & Development.

World Bank. 2005. *Global Development Finance 2005*: *Mobilizing Finance and Managing Vulnerability.* Washington D.C.: World Bank.

## Appendix Table 5.1A

*Host Country Determinant of FDI*

*I. Economic determinants*

| | |
|---|---|
| A. Market-seeking | · market size and per capita income |
| | · market growth |
| | · access to regional and global markets |
| | · country-specific consumer preferences |
| | · structure of market |
| B. Efficiency-seeking | · cost difference (of resources and assets, adjusted for productivity for labour resources) |
| | · quality of infrastructure |
| | · ease of doing business |
| | · availability of skill |
| | · availability of complementary local factors of production |
| C. Resource-seeking | · raw materials |

*II. Policy framework for FDI*

· economic, political and social stability
· rule regarding entry and operations
· standards of treatment of foreign affiliates
· policies on functioning and structure of markets (especially competition and M&A policies)
· international agreements on FDI
· privatization policy
· trade policy (tariffs and NTBs) and coherence of FDI and trade policies
· tax policy

*III. Business facilitation*

· investment promotion (including image-building and investment-generating activities and investment-facilitation services)
· investment incentives
· hassle costs (related to corruption, administrative efficiency, etc.)
· social amenities (bilingual schools, quality of life, etc.)
· post-investment services

*Source:* UNCTAD(1998), modified.

## Appendix Table 5.2A

*Country-wise FDI Inflows into India (1991-2010)*

*(Unit: Rupees million)*

| | *1991-99* | *2000-05* | *2006* | *2007* | *2008* | *2009* | *2010* | *SUM* |
|---|---|---|---|---|---|---|---|---|
| Mauritius | 221,983 | 349,667 | 222,208 | 319,437 | 598,586 | 560,129 | 329,400 | 2,601,410 |
| USA | 461,845 | 117,639 | 33,204 | 36,384 | 75,420 | 98,731 | 64,824 | 888,046 |
| Singapore | 41,598 | 27,589 | 28,532 | 58,306 | 157,759 | 148,262 | 96,758 | 558,803 |
| U.K. | 159,767 | 57,436 | 78,247 | 19,671 | 70,085 | 22,594 | 34,244 | 442,044 |
| Japan | 91,077 | 56,758 | 5,229 | 27,752 | 16,976 | 60,943 | 58,579 | 317,313 |
| Netherlands | 46,955 | 62,935 | 22,457 | 27,986 | 42,814 | 40,057 | 52,061 | 295,264 |
| Germany | 79,033 | 30,914 | 13,972 | 14,155 | 33,289 | 28,813 | 9,035 | 209,210 |
| France | 50,354 | 22,889 | 3,877 | 5,208 | 20,445 | 14,360 | 34,063 | 151,196 |
| ***Korea*** | ***96,901*** | ***8,078*** | ***2,935*** | ***2,806*** | ***6,214*** | ***3,207*** | ***9,878*** | ***130,020*** |
| Switzerland | 27,395 | 17,285 | 3,151 | 9,017 | 6,269 | 6,984 | 40,527 | 110,629 |
| Total | 2,097,581 | 856,739 | 503,573 | 654,950 | 1,397,255 | 1,309,799 | 869,215 | 7,689,110 |

*Note:* * Sum: Cumulative Inflows: 1991– 2010.

*Source:* DIPP, SIA Newsletters.

## Appendix Table 5.3A

*Country-wise FDI Inflows into Korea (1991-2011, Q3)*

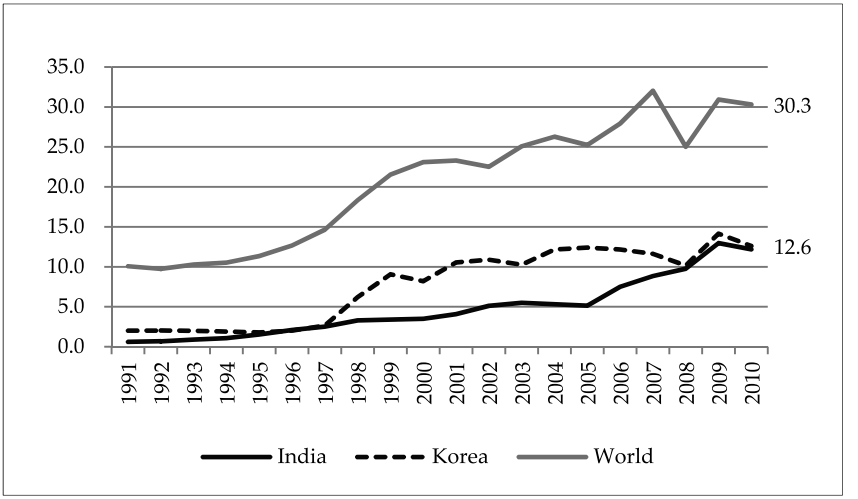
*(Unit: USD million)*

| | *1991~99* | *2000~05* | *2006~09* | *2010* | *2011, 3Q* | *SUM* |
|---|---|---|---|---|---|---|
| USA | 12,765 | 19,944 | 8,546 | 19,744 | 12,970 | 42,836 |
| Japan | 4,315 | 9,319 | 6,460 | 2,083 | 1,433 | 23,608 |
| Netherlands | 6,692 | 6,071 | 5,883 | 1,185 | 621 | 20,451 |
| U.K. | 1,103 | 4,464 | 4,256 | 649 | 621 | 11,093 |
| Germany | 2,567 | 3,932 | 2,178 | 268 | 1,066 | 10,010 |
| Malaysia | 3,674 | 3,093 | 278 | 106 | 84 | 7,235 |
| Singapore | 1,796 | 1,636 | 2,425 | 773 | 415 | 7,045 |
| France | 1,811 | 1,568 | 2,260 | 160 | 132 | 5,930 |
| Canada | 617 | 2,775 | 527 | 480 | 142 | 4,541 |
| Hong Kong | 1,008 | 1,489 | 1,313 | 93 | 369 | 4,271 |
| ***India*** | ***3*** | ***59*** | ***22*** | ***371*** | ***4*** | ***459*** |
| Total | 41,200 | 66,479 | 44,959 | 13,071 | 7,585 | 173,295 |

*Source:* The Ministry of Knowledge Economy, Government of Korea.

## Appendix Figure 5.1A

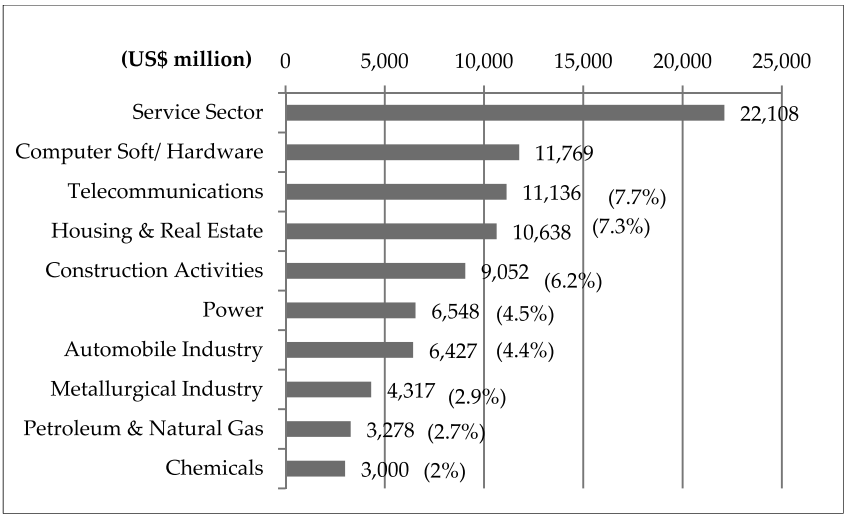
*Inward FDI Stock as a Percentage of GDP*




*Source:* UNCTAD, World Investment Report 2011.

## Appendix Figure 5.2A

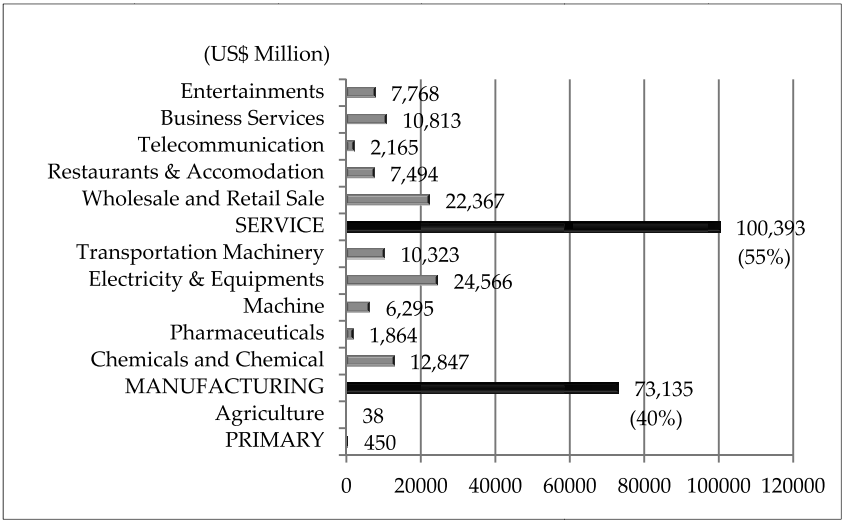
*Sector-wise Break-up of FDI Inflows into India (2000. 4~2011. 6)*




*Source:* DIPP, Govt. of India.

## Appendix Figure 5.3A

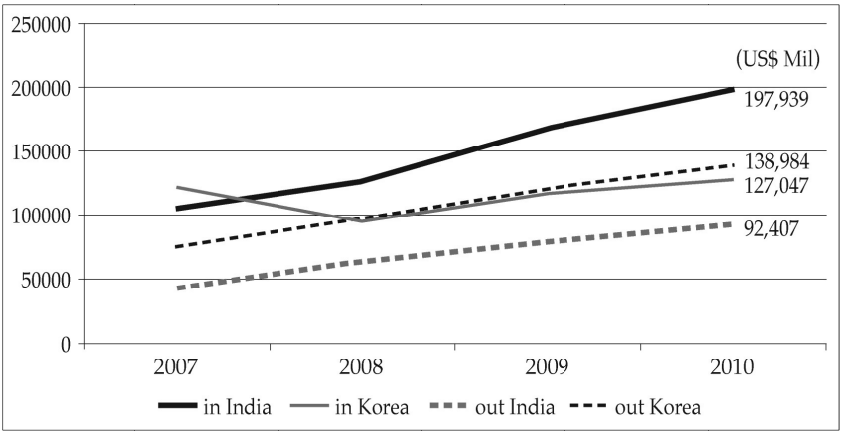
*Sector-wise Break-up of FDI Inflows into Korea (1962~2011, Q3)*




*Source:* The Ministry of Knowledge Economy, Govt. of Korea.

## Appendix Figure 5.4A

*Trends of Inward and Outward FDI Stocks of both Countries*




*Note:* inindia= inward FDI stocks into India, outindia=outward FDI stocks of India, inkorea=inward FDI stocks into Korea, outkorea=outward FDI stocks of Korea.

*Source:* UNCTAD, World Investment Report.

# 6 Investment in the Indo-Korea CEPA

*by* Saon Ray and Neetika Kaushal

## *Abstract*

*PTAs are being used by countries to reduce barriers to trade and investment. Developing countries are also using PTAs to attract investment. We have examined the India-Korea investment agreement in light of these considerations. Examining the trends in FDI flows from South Korea we observe that such investment have come mainly into the manufacturing industries. This presents an opportunity for India to learn from the infusions of technology that followed the investments. Investment into such sectors can also help India integrate with global value chains.*

## Introduction

Preferential trade agreements (PTAs) are increasingly being used by countries to reduce barriers to trade and investment. Another instrument that is growing in importance is bilateral investment treaties (BITs) (Vandevelde, 1998). BITs and PTAs are increasingly converging as preferential agreements include BIT-equivalent chapters while BITs negotiated by countries e.g. the US include steps to the liberalization of investment rules (Manger, 2008). While PTAs and BITs are not the most important measure that reduce trade and investment barriers, developing countries are increasingly using these to

maintain open FDI regimes in services. As suggested by Neumayer and Spess (2005), countries are using international agreements to signal that they are pursuing liberal economic policies. This may help in attracting foreign direct investment (FDI) in lieu of regulatory freedom. Developing countries deal with two fundamental challenges when trying to attract FDI: first, they must signal that property rights will be respected. This is particularly important for agreements with developed countries since the objective of such agreements (from the point of view of developing countries) is to attract investment and not tariff concessions (Ethier, 1998; 2001). Second, developing countries are competing with each other in attracting FDI (Shadlen, 2005). However, while the above arguments may be true in the case of North-South PTAs, it may not be relevant in the case of all PTAs. This brings forth the question: what should be the provisions in PTAs that encourage that lead to the transfer of the intangible assets of transnational corporations (TNCs) and lead to more FDI flows? We examine this issue in the context of the India-Korea Comprehensive Economic Partnership Agreement (CEPA) which is India's first trade agreement with an OECD country. This paper examines the issue from India's point of view. The organization of the paper is as follows: we first examine the trends in FDI flows, followed by India's policy towards FDI, the flows between India and the world. We examine the investment provisions of the Indo-Korea CEPA and find that these provisions can lead to 'deep integration' that go beyond reducing tariffs between the two countries. Finally, we discuss the nature of the flows between India and South Korea. We note that the flows of FDI from South Korea to India have been in manufacturing rather than in services, which is contrary to the recent trend followed by investment in India and the world. Flows in manufacturing are also observed in the outward investment by India to South Korea. The final section concludes with policy implications.

## Trends in FDI flows

Capital flows are of six distinctive types – foreign direct investment, portfolio investment, and other investments, remittances, aid, and income. While the first three appear in financial account of the balance of payments, the last three appear in the current account. FDI is long term investment by a non resident but with 10 percent or more control. FDI is one of the leading modes for reaching international markets; however it is less liquid then portfolio investment. The stock of global FDI capital is 21 percent of global GDP. Foreign affiliates make up 33 percent of global exports. According to the World Investment Report 2006 (UNCTAD, 2006) inward FDI stock has grown on an average at 13.5 percent each year between the years 1986 and 2005.

There are many types of FDI – Greenfield investment (GF) and Mergers and Acquisitions (M&As). Greenfield investment involves building new facilities or expansion of existing facilities. M&As involves the taking over an existing foreign firm and may involve capacity building. FDI could be horizontal or vertical - either in the same stage of production or either in the backward or forward stage of production. FDI can involve the creation of a 100 percent subsidiary (wholly foreign owned enterprise WFOE), which could be either Greenfield or M&A. It can also take the form of international joint ventures (IJVs), which could also either be Greenfield or M&As. Since the late 1980s, FDI has increasingly taken the form of cross border merger and acquisitions (M&As) rather than green field investment (UNCTAD, 2000). In this section we look at global outlook for FDI along with the trends in the last few years.

FDI flows have increased since 2001: they peaked in 2007 which was followed by a downturn since then. In 2007, FDI flows continued to rise due to high economic growth in many parts of the world and increased corporate profit. In fact, reinvested earnings contributed to 30 percent of the total FDI flows in 2007. There was higher growth of FDI inflows to developed countries than to developing countries and this has led to a reduction in the

share to developing countries. The share of outflows from developing countries also declined. Outflows from the developed countries grew faster than inflows due to increased financial resources from high corporate profit. However, a large part of the profit was generated in the developing countries (UNCTAD, 2008). It must be noted in this context that the dollar value and the growth in FDI in 2007 were greater than actual due to the dollar depreciation against all major currencies. This was particularly pronounced in the Euro zone given that the dollar hit a new low against the euro.[1]

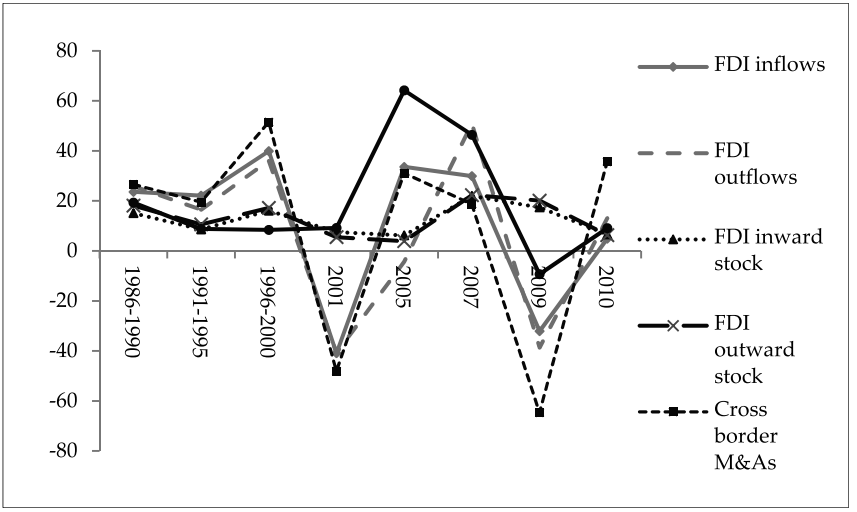
According to the World Investment Report 2003, there have been four major downturns in FDI flows in the world since the 1970s. These were in 1976, 1982-83, 1991 and 2001. Each period was correlated with periods of recession in the principal host countries. Only once before has the downturn lasted more than a year. FDI flows rose modestly in 2010, compared to the large declines in 2008 and 2009. However, FDI flows in 2010 still remain 15 percent below the pre-crisis average and about 40 percent below the 2007 peak though the world industrial production and trade flows are back to the pre-crisis levels (UNCTAD, 2011). The following figure shows the FDI inflows, outflows as well as the stock of FDI inflows and outflows for the period 1986 to 2010.

Global FDI in 2010 reached an estimated $1244 billion which was a small increase over the 2009 figure of $1185 billion (UNCTAD, 2011). While M&As have rebounded, Greenfield projects fell in number and value continuing the trend of 2007. The number of deals completed as cross-border was a record high of 2050. Developing and transition countries tend

1. The data in the World Investment Report 2008 is strictly not comparable with the earlier data as there was a change in the definition of FDI. Data on cross border FDI in WIR 2008 has been modified to include all cases for which at least one of the four entities (immediate acquiring company, immediate target company, ultimate acquiring company, and an ultimate target company) is located in an economy other than that of the other entities. Previously, cross border M&As were defined to include only those deals in which the target company was not located in the same country as the ultimate acquiring company.

**Figure 6.1**

*FDI Flows 1986-2010*




to host Greenfield investment rather than cross border M&As: only 25 percent of M&As are hosted there while attracting over two-third of the value of Greenfield investment (total value). Developing countries are increasingly becoming important players in cross-border M&As. Increased profits of foreign affiliates boosted reinvested earnings (again especially in developing countries), while uncertainty regarding the debt crisis in Europe and in global currency markets has led to negative intra-company loans and equity investments. The increase in reinvested earning compensated for the decline in equity flows. The depressed level of equity investments was the key factor keeping FDI flows low. FDI by private equity firms regained while that from sovereign wealth funds (SWFs) fell in 2010. In 2010, FDI by SWFs based in the Gulf region was absent and Asian and Canadian SWFs were the main investors in the year. FDI inward stock rose by 7 percent in 2010, reaching $19 trillion due to improved performance of the global capital markets, higher profitability and growth in developing countries. The following table shows the FDI inflows and outflows growth rate for the period 1986 to 2010.

**Table 6.1**

*Foreign Direct Investment Value (at Current Prices) and Annual Growth Rate*

*(Unit: %)*

| | *FDI value at current prices (billions of dollars)* | | *FDI annual growth rate (percent)* | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *1990* | *2010* | *1986-1990* | *1991-1995* | *1996-2000* | *2001* | *2005* | *2007* | *2009* | *2010* |
| FDI inflows | 207 | 1244 | 23.6 | 22.1 | 39.9 | -40.9 | 33.6 | 29.9 | -32.1 | 4.9 |
| FDI outflows | 241 | 1911 | 25.9 | 16.5 | 36.1 | -40.8 | -4.3 | 50.9 | -38.7 | 13.1 |
| FDI inward stock | 2081 | 19141 | 15.1 | 8.6 | 16.1 | 7.5 | 6.2 | 22.0 | 17.4 | 6.6 |
| FDI outward stock | 2094 | 20408 | 18.1 | 10.6 | 17.2 | 5.5 | 3.9 | 22.3 | 20.1 | 6.3 |
| Cross border M&As | 99 | 339 | 26.6 | 19.5 | 51.5 | -48.1 | 31.1 | 18.7 | -64.7 | 35.7 |
| Sales of foreign affiliates | 5105 | 32960 | 19.3 | 8.8 | 8.4 | 9.2 | 64.2 | 46.4 | -9.3 | 9.1 |

*Source:* UNCTAD(2008, 2011).

FDI inflows to developed and transition countries fell in 2010, while flows to developing countries rose. The developing countries along with the transition countries absorbed more than half the FDI flows for the first time. FDI inflows to developed countries fell, reflecting uncertainties arising of the sovereign debt crisis. 31 percent of FDI by private equity was directed to developing and transition economies, up from 26 percent in 2009. FDI outflows in 2010 were $1323 billion and though, were an increase over the previous year, were still 11 percent lower than the pre-crisis average. The following table shows the FDI inflows and outflows to developed and developing countries from the period 2002 to 2010.

Investment activity by the 100 largest TNCs in the world has shifted to developing and transition economies. The number of international Green-field projects targeting these economies increased by 23 percent in 2009-10 compared to only 4 percent increase for developed countries. While the flows to developing countries rose significantly in 2010, in some cases the FDI was not accompanied by investment in fixed assets or cross-border acquisitions (UNCTAD, 2011). A part of the money may have entered these countries for short-term capital gains, since in some instances the FDI inflows

**Table 6.2**

*FDI Flows by Region*

*(Unit: billions of dollars and percent)*

| Region | FDI inflows | | | | | | FDI outflows | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *2005* | *2006* | *2007* | *2008* | *2009* | *2010* | *2005* | *2006* | *2007* | *2008* | *2009* | *2010* |
| World | 983 | 1462 | 1971 | 1744 | 1185 | 1244 | 882 | 1405 | 2175 | 1910 | 1170 | 1323 |
| Developed countries | 619 (63) | 978 (67) | 1307 (66) | 965 (55) | 603 (51) | 602 (48) | 746 (85) | 1155 (82) | 1829 (84) | 1541 (81) | 851 (73) | 935 (71) |
| Developing countries | 332 (34) | 429 (29) | 500 (29) | 658 (38) | 510 (43) | 573 (46) | 122 (14) | 227 (16) | 294 (14) | 309 (16) | 271 (23) | 327 (25) |
| Africa | 38 (4) | 46 (3) | 63 (3) | 73 (4) | 60 (5) | 55 (4) | 2 (0) | 7 (0) | 11 (1) | 8 (0) | 6 (1) | 7 (1) |
| Latin America and the Caribbean | 78 (8.0) | 98 (7) | 169 (9) | 207 (12) | 141 (12) | 159 (13) | 34 (4) | 68 (5) | 62 (3) | 80 (4) | 45 (4) | 76 (6) |
| Asia | 216 (22) | 283 (19) | 339 (17) | 376 (22) | 307 (26) | 358 (29) | 86 (10) | 151 (11) | 222 (10) | 218 (11) | 219 (19) | 244 (18) |
| Transition economies (South East Europe and CIS) | 31 (3) | 54 (4) | 91 (5) | 121 (7) | 72 (6) | 68 (5) | 14 (2) | 24 (2) | 51 (2) | 60 (3) | 49 (4) | 60 (5) |

*Note:* Figure in parentheses show percent.

*Source:* UNCTAD(2011).

exceed the capital expenditure of foreign affiliates. The share of outflows from developing countries also increased. The crisis also drew attention to the importance of developing and transition economies especially the markets of Brazil, India, China and Russia (BRICs) as key destinations for efficiency and market seeking investors.

TNCs may have several motives behind FDI – resource motive: to exploit cheap labor or other natural resources. It can be market seeking to avoid the high transportation costs and trade restrictions, or efficiency seeking to exploit the economies of scale. Historically, British and Japanese multinational activity started with the resource motive while American and German multinational activity arose from technological advantages and to exploit economies of scale (Wilkins, 1993). From the perspective of a multinational firm, the choice between a cross border merger or acquisition and Greenfield entry is motivated by characteristics of firms (UNCTAD,

2000). Some of these characteristics include good organizational and managerial skills, high advertising intensity. The prospect of speedy market entry is more conducive to M&A while technological advantage works in favor of Greenfield investment. More efficient firms are likely to FDI than export and more efficient firms are likely to do M&A rather than Greenfield investment. More efficient firms are also likely to go to the advanced countries rather than developing countries. The following figures show the inflows and outflows in the period 2005-2010.

Explanations of why FDI occur range from advantages arising firm specific assets that allow firms to remain competitive in a foreign country (Hymer, 1976 and Caves, 1971). These advantages stem from advanced technology, superior management skills, and marketing abilities. The positive theory of FDI highlights the role of market access, trade and factor costs, factor endowments and scale economies in the location of TNCs (Markusen, 2002 and Barba Navaretti and Venables, 2004). The Transactions Costs Analysis (TCA) focuses on the choices and entry mode into foreign markets. It views the decision of firms to enter foreign markets and is contingent on the level of control on foreign investments which minimizes the transactions

**Figure 6.2**

*FDI Inflows 2005-2010*

*(Unit: US$ billion)*

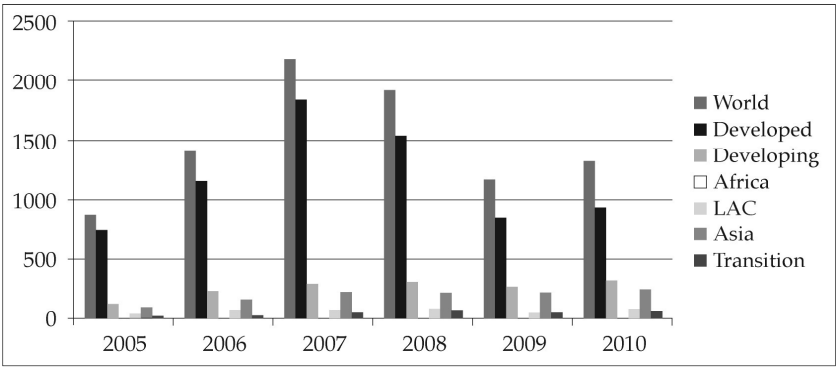
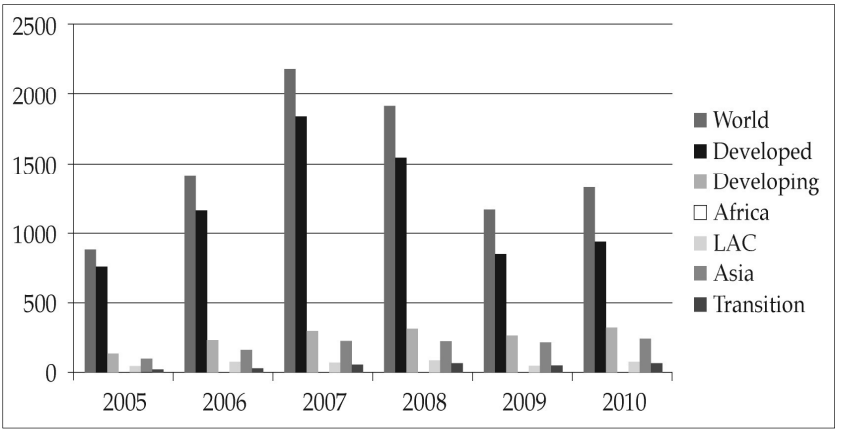


**Figure 6.3**

*FDI Outflows 2005-2010*

*(Unit: US$ billion)*




cost and maximizes efficiency in the long run (Anderson and Gatignon, 1986 and Erramilli and Rao, 1993). Some of the factors discussed by the TCA include factors that are country specific, industry specific and product and firm specific (Zhao and Decker, 2004).

Domestic investment still accounts for the majority of the total investment in developing and transition economies. However, in the development process each form of investment plays a distinct role. In the context of the recent crisis, the nature and volatility of investment flows are a concern to developing countries. This makes the role of the official development assistance (ODA) very important since it is less prone to fluctuations. From the view of the host country, FDI has an employment creation effect and also help establish export linkages. FDI may provide commodities that are not produced in the host country and technology spillovers from FDI may have a productivity enhancing effect in the host country. Host country governments favour Greenfield investment as it increases competition by adding productive capacity to the market. Also,

Greenfield investment is more conducive to transfer of technology (Ray, 2000). Raff *et al.* (2009) show that a multinational prefers a merger to Greenfield investment if the fixed cost of Greenfield investment is sufficiently large. The profitability of Greenfield investment vis-à-vis exporting has an effect on the choice of joint venture or merger: if the Greenfield investment is more profitable than exporting then this reduces the price the multinational has to offer to acquire the local firm and hence prefer M&A. A joint venture may be preferred by the local firm as well as the multinational if there are low fixed costs associated with Green-field investment.

The policies followed by countries in attracting FDI include favorable tax rates, lax regulations and other promotional measures. An important determinant of TNC location is international differences in corporate taxation (Gordon and Hines, 2002). FDI flows are relatively liquid ex ante but are immobile ex post and thus involved in a long lasting relationship with the host country. Thus apart from cost and quality of inputs, proximity and size of final markets, firms' perception about host country's social and economic environment are important for decisions about location. However, competition between governments for international investment may be less than envisaged by the tax competition hypothesis. Gorg *et al.* (2009) feel that corporate tax may not act as a deterrent to FDI if the revenue is used to provide public goods that improve the environment in which TNCs operate. Liberalization of various economic activities also works towards attracting FDI (UNCTAD, 1997).

## India's Policy towards FDI

India's policy towards FDI has undergone several changes since her independence in 1947. Initially, the policy was more liberal towards FDI. However, with the 1973 Foreign Exchange Regulation Act (FERA) a ceiling of 40 percent in foreign investment was imposed. Thereafter, till the mid

1980s India maintained controls on foreign investment. But with the liberalization in 1991, changes were announced in the industrial and investment policy and furthered the changes that began in the mid 1980s.[2] The Foreign Exchange Management Act (FEMA) of 1999 replaced FERA and removed restrictions on foreign corporations.[3] The FDI policy framework is contained in the consolidated FDI Policy which is built on the legal edifice of the notifications issued by RBI under FEMA. In 2010, all prior policies,

2. FDI policy is closely linked with industrial policy as investment promotion can be used to build productive capacity in developing countries particularly with the capital, know-how and technology brought in by the MNC. UNCTAD (2011) notes the proactive industrial policies followed by both India and South Korea.
3. The FEMA does not implement regulations, which is primarily established through public notices or press notes issued for each sector. The press notes are the policy announcements on FDI of the Department of Industrial Policy and Promotion (DIPP) in the Ministry of Commerce and are notified by the Reserve Bank of India as amendment to the Foreign Exchange Management Regulations, 2000. The press notes lay down whether the investment in a sector requires government approval or fall under the automatic route and hence does not require government approval. Some sectors have additional restrictions and approvals as laid down by the Industries (Development and Regulation) Act 1951. This requires industrial licenses for several sectors, including alcoholic drinks, tobacco, electronic aerospace and defense equipment, industrial explosives, and hazardous chemicals. An industrial license is also required for a manufacturing plant with capital more than 10 million rupees to produce any of the items reserved under the small scale sector. Recently the items reserved under the small scale sector have been reduced from 114 to 35. Investment in these sectors must acquire an industrial license in addition to approval from Foreign Investment Promotion Board (FIPB).
   Any investment would require government approval if the activity requires an industrial license, if the investment is in the financial sector, if the investor has an existing joint venture in the country in the same field or if the investment falls outside the ownership cap or in sectors in which foreign investment is prohibited. This is in addition to approval required in sectors listed in the press notes. The press notes establish the percentage of a company that can be owned by a foreign investor in each sector. Foreign investment is prohibited in retail trade, atomic energy, lotteries, gambling and betting, housing and real estate business and certain types of agriculture. Foreign investment is limited to 26 percent in defense industries, print media, and insurance. There are investment caps in broadcasting, domestic airlines, infrastructure and service sectors, establishment and operation of satellites, atomic minerals, exploration and mining of coal. Ownership caps are independent of government approval requirements – a sector open to 100 percent foreign ownership may require government approval. There are no monetary thresholds that can trigger a review of foreign investment except for certain currency transactions, which is reviewed by Reserve Bank of India (RBI) at various thresholds.

regulations, contained in FEMA 1999, RBI regulations under FEMA, 1999 and Press Notes/Press Releases/Clarifications/Circulars issued by DIPP have been subsumed in the consolidated FDI Policy which has come into effect from April 1, 2011.[4] The three main institutions that handle FDI related issues in India are the Foreign Investment Promotion Board (FIPB)[5], the Foreign Investment Implementation Authority (FIIA), and the Secretariat for Industrial Assistance (SIA)[6]. Investment in Indian companies can be made by both non-resident as well as resident Indian entities. Any non-resident investment in an Indian company is direct foreign investment.[7] There are two routes through which investment can be made by non residents in the equity shares/fully, compulsorily and mandatorily convertible debentures or convertible preference shares. These are the automatic route and the government route. Under the automatic route the investor or the Indian company are required to notify the RBI within thirty days of completing the transaction. Prior approval of the government is required under the Government Route through the Foreign Investment Promotion Board (FIPB)[8] in Department of Economic Affairs (DEA), Ministry of

4. Department of Industrial Policy and Promotion, Circular No. 1 of 2011 (Consolidated FDI Policy), 31 March 2011.
5. The FIPB was reconstituted vide OM No. 1/3//2003-FIU dated 18 February, 2003 and transferred to the Department of Economic Affairs (DEA), Ministry of Finance. The members of the Board are Secretary, DEA (Chairman) and comprises of Secretaries, Department of Industrial Policy and Promotion (DIPP), Department of Commerce (DoC), Economic Relations in the Ministry of External Affairs (MEA), and Ministry of Overseas Indian Affairs (MOIA). The Secretary, Ministry of Small and Medium Enterprises and Department of Revenue have been co-opted as members of the Board. The policy related to direct foreign investment is looked after by DIPP (www.fipbindia.com).
6. SIA acts as the secretariat of the FIIA and is the single window for investors.
7. For the purpose of calculation of total foreign investment both the direct and the indirect foreign investment is taken. The indirect foreign investment includes all types of foreign investment: FDI, investment by FIIs, NRIs, ADRs, GDRs, Foreign Currency Convertible Bonds, and fully, compulsorily, and mandatorily convertible preference shares and debentures.
8. The FIPB has been set up by the Government of India for the expeditious clearance of foreign investment proposals that require government approval (do not qualify for automatic approval by the RBI) or are outside the parameters of the existing FDI policy (Foreign Investment Promotion Board 2010 Review). Proposals over Rs. 1200

Finance. Such approvals would be required in all cases in sectors/activities with caps which include defense production, air transport services, ground handling services, asset reconstruction companies, private sector banking, broadcasting, commodity exchanges, credit information companies, insurance, print media, and telecommunications and satellites.[9]

India and China, have till recently allowed investment in the form of IJVs. The share of IJVs in FDI has been 51.7 percent in 2000 and about 35.8 percent in 2003. M&As were the main force behind rise of FDI in the period between 1990 and 2000. The total number of M&As cross border and domestic has grown at 42 percent annually between 1980 and 1999. The value of all M&As has risen from 0.3 percent of world GDP in 1980 to 8 percent in 1999 (UNTCAD, 2000).

Given that M&As were the major force behind the rise of FDI flows since 2000, the government policy measures towards M&As need also to be highlighted. The regulation of unfair competitive strategies pursued by merging firms and export cartels need to be discussed. For the regulations of mergers, India has recently enacted the Competition Act 2008 which replaces

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crores require the approval of the Cabinet Committee on Foreign Investment (CCFI) while those less than Rs. 1200 crores are cleared by the Finance Minister. All applications put before FIPB will be examined on the basis of priority: items in the infrastructure sector, items having export potential, items which have large scale employment potential especially for rural people, items that have direct or backward linkage with agro business/farm sector, items which have social relevance such as hospitals, human resource development, life saving drugs and equipment, and proposals which result in induction of technology or infusion of capital. The FIPB has the authority to reject an investment transaction based upon factors according to the FIPB guidelines. The broad objective of a FIPB review is whether any investment is compliant with the Indian system such as sector equity caps, joint venture approval requirements and industrial licensing requirements.

9. FDI is prohibited in retail trading (except single brand product retailing), lottery business including government/private lottery, gambling and betting including casinos, business of chit fund, nidhi company, trading in transferable development rights, real estate business or construction of farm houses, manufacturing of cigars, cheroots etc., activities sectors not opened to private sector including atomic energy and railway transport (other than Mass Rapid Transport System). Foreign technology collaboration in any form is prohibited in lottery business, gambling and betting activities (WTO, 2011a).

earlier the Monopolies and Restrictive Trade Practices Act (MRTP). The objective of the Competition Act is to prevent practices that have an adverse effect on competition. It prohibits anticompetitive agreements which adversely affect or may affect competition, abuse of dominant position and provides for regulation of combinations which may have an appreciable adverse effect on competition.[10] Section 5 of the Act defines combinations and prescribes thresholds for combinations that would come within the purview of the Competition Act. Section 6 (1) prohibits combinations which are likely to have an appreciable adverse effect on competition within the relevant market. This establishes what kind or mergers or amalgamation would be allowed in India and the prescribed limit for such combination in terms of the turnover or assets of the companies involved. The problem that arises in this context is that domestic laws cannot often address these issues adequately as the entities involved are international (Bhattacharjea, 2004).

In the international context, the Trade Related Investment Measures (TRIM) agreement of the WTO is based on the GATT principles on trade in goods and regulates foreign investment but does not govern the entry and treatment regulations of FDI.

UNCTAD annually surveys changes in the national laws and regulations of FDI and which influences the entry and operations of TNCs. The World Investment Report, 2008 finds that of the 98 changes enacted in 2007, only 24 were less favorable to FDI. Most of these changes were related to concerns of national security in the country enacting the change and in the extractive industries. Traditionally the extractive industries have been where initially most FDI was concentrated. However, due to certain policies

10. Any agreement which causes or is likely to cause an appreciable adverse effect on competition within India is prohibited (section 3). Certain agreements as defined in section 3 (3) are presumed to be anti-competitive. Section 4 prohibits an enterprise from abusing its dominant position. Abuse of dominant position presumed if an enterprise adopts the practices listed in section 4 (2). Dominant position defined as a position of strength which enables an enterprise to operate independently of competition forces in the relevant market or affect its competitors or consumers in the relevant market.

followed by TNCs in the fifties led to stricter regulations in the host countries (Ray, 2000). The US Government Accountability Office (GAO) reviewed other changes that were not favorable to FDI in 2008, in their survey of the FDI policies of ten countries including India and China. They conclude that countries have enacted laws regulating foreign investment usually to address national security concerns. Security concerns vary from country to country but there are a core set of issues that all countries target, which include defense, energy and investment by state owned enterprises. Most countries have set time frames for review and place conditions on selected transactions prior to approval. For most countries the review is mandatory if the investment amount reaches a certain threshold.

In the next section we review the flows of FDI to India.

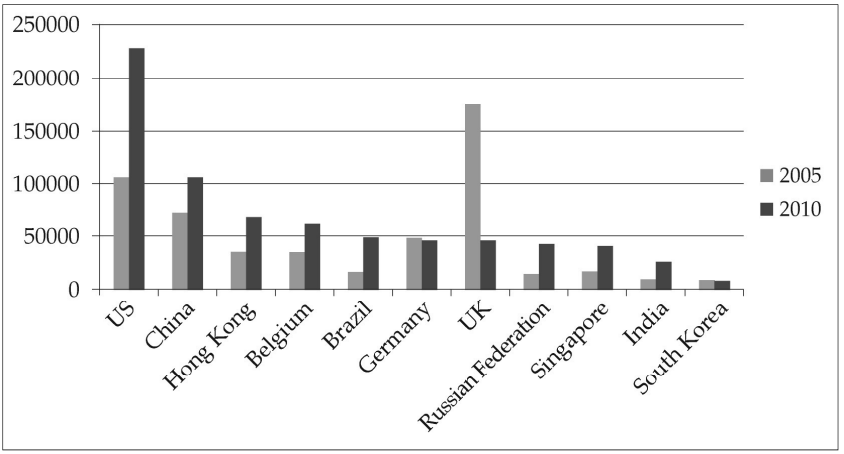
## FDI to India

Although relaxation of restrictions on FDI into India began in 1991, FDI inflows remained at moderate levels in the 1990s and early 2000s. The FDI inflows, however, have become substantial in the last two years. There are two official sources of FDI data for India: (1) Ministry of Commerce & Industry, Department of Industrial Policy & Promotion (DIPP) and (2) the Reserve Bank of India (RBI). The RBI data since 2000-01 is structured as per international practice and includes equity capital of unincorporated bodies and re-invested earnings and other capital. This, therefore, shows higher FDI amounts than those given by DIPP. According to the RBI data, FDI inflows were US$ 6.1 billion in 2004-05 and 9 billion in 2005-06. They jumped to US$ 22.1 billion in 2006-07 and further to US$ 32.4 billion in 2007-08. The DIPP data show FDI inflows at US$ 3.8 billion in 2004-05 and US$ 5.5 billion in 2006-07, rising to US$ 15.7 billion in 2006-07 and US$ 24.6 billion in 2007-08. The recent rapid growth in FDI inflows into India indicates that India has finally become an important destination for investment and production for multinational companies.

**Figure 6.4**

*Country Wise FDI Inflows*

*(Unit: US$ million)*




How does India compare with other countries and regions in the receipt of FDI? As table 6.3 and figure 6.4 shows, FDI flows to India are still very small.

The amount of FDI inflows received by China all along has been substantially larger than those received by India. However, the gap is narrowing: in the 1990s, FDI inflows into China had been 18 times larger than those into India; in 2004 they had been 10 times higher; and in 2006 only 4 times higher. In the more recent period, FDI inflows into China are just two to three times higher. More interestingly, in 2006, India's receipt of FDI inflows as percent of gross fixed capital formation at 8.7 percent was higher than that of China's at 8 percent.

Table 6.3 also reveals details of the FDI outflows: we notice the importance of the US, Germany and France in such outflows. From the table we note that inflows into South Korea have stagnated: while the inflows to South Korea and India was comparable in 2005, in 2010 while flows to India

**Table 6.3**

*FDI Inflows to Countries*

*(Unit: US$ million)*

| | *FDI inflows* | | *FDI outflows* | |
|---|---|---|---|---|
| | *2005* | *2010* | *2005* | *2010* |
| USA | 104773 | 228249 | 15369 | 328905 |
| China | 72406 | 105735 | 12261 | 68000[a] |
| Hong Kong, China | 33625 | 68904 | 27196 | 76077 |
| Belgium | 34370 | 61714 | 32658 | 37735 |
| Brazil | 15066 | 48438 | 2517 | 11519 |
| Germany | 47439 | 46134 | 75893 | 104857 |
| UK | 176006 | 45908 | 80833 | 11020 |
| Russian Federation | 12886 | 41194 | 12767 | 51697 |
| Singapore | 15460 | 38638 | 11218 | 19739 |
| France | 84949 | 33905 | 114798 | 84112 |
| Australia | -24246 | 32472 | -31137 | 26431 |
| Saudi Arabia | 12097 | 28105 | -350 | 3907 |
| Ireland | -31689 | 26330 | 14313 | 17802 |
| India | 7622 | 24640 | 2985 | 14626 |
| Spain | 25020 | 24547 | 41829 | 21598 |
| Canada | 25692 | 23413 | 27538 | 38585 |
| Luxembourg | 6564 | 20350 | 9932 | 18293 |
| Mexico | 24122 | 18679 | 6474 | 14345 |
| Chile | 6984 | 15095 | 2183 | 8744 |
| Indonesia | 8336 | 13304 | 3065 | 2664 |
| South Korea | 7055 | 6873 | 6359 | 19230 |
| Japan | 2775 | -1251 | 45781 | 56263 |
| World | 982593 | 1243671 | 882132 | 1323337 |

*Note:* [a] Estimate.

*Source:* World Investment Report 2011, UNCTAD.

has trebled the flows to South Korea has remained the same. However, the outflows from South Korea are higher than India's in both the years. Figure 6.5 shows the outflows of FDI from several countries: we again note the relative positions of both India and South Korea.

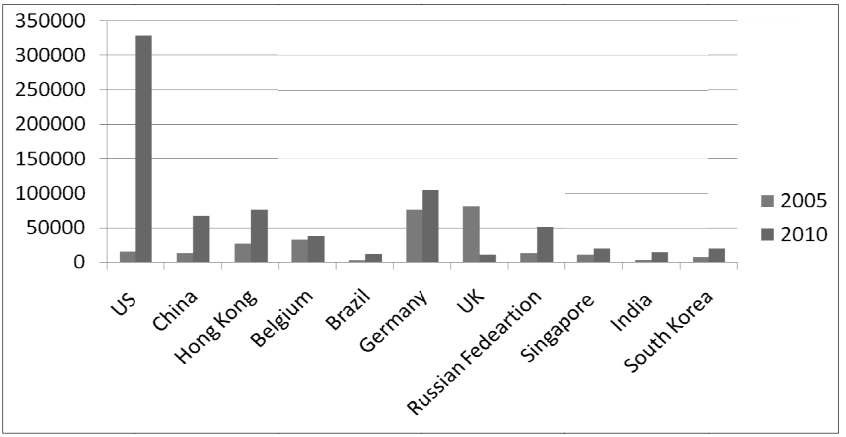
## *Source-wise FDI Inflows*

A large part of FDI inflows into India is sourced from Mauritius. This is due to tax exemptions enjoyed by enterprises incorporated in Mauritius,

**Figure 6.5**

*Country Wise FDI Outflows*

*(Unit: US$ million)*




so that companies from around the world have set up units there for investing in India. The bulk of FDI from Mauritius is in fact from subsidiaries of companies from other counties. It appears that a large proportion of FDI inflows from Mauritius are from the US subsidiaries. Adjusting for this, we can see that the US is the most important source of FDI for India. Thus the FDI inflows shown in the table for Mauritius are huge overestimates and those from other countries underestimates.

The other countries which are significant sources of FDI for India are Singapore, the United Kingdom and Netherlands. While South Korea was an important source of FDI for India in the period 1991 to 1999, accounting for nearly 4 percent of the total inflows (NCAER, 2009) and its position has slipped in recent times.

## *Sector-wise FDI Inflows*

What are the sectors in which India is attracting FDI? Table 6.5 provides FDI inflows into major sectors for years 2006-07 to 20010-11. The major

## Table 6.4

*Foreign Direct Investment Inflows by Origin*

*(Unit: US$ million)*

| | *2006-07* | *2007-08* | *2008-09* | *2009-10* | *2010-11[a]* |
|---|---|---|---|---|---|
| Mauritius* | 6363 | 11096 | 11229 | 10376 | 5746 |
| Singapore* | 578 | 3073 | 3454 | 2379 | 1449 |
| USA* | 856 | 1089 | 1802 | 1943 | 1055 |
| U.K.* | 1878 | 1177 | 864 | 657 | 475 |
| Netherlands* | 644 | 695 | 883 | 899 | 1016 |
| Japan* | 85 | 815 | 405 | 1183 | 1192 |
| Cyprus* | 58 | 834 | 1287 | 1627 | 633 |
| Germany* | 120 | 514 | 629 | 626 | 111 |
| France* | 117 | 145 | 467 | 303 | 685 |
| UAE* | 260 | 258 | 257 | 629 | 321 |
| South Korea* | 71 | 99 | 115 | 167 | 123 |
| Total inflows, based on equity capital components | 12492 | 24575 | 27330 | 25834 | 18355 |
| **Total inflows, net** | **22826** | **34835** | **37838** | **37763** | **25949** |

*Note:* [a] Data up to February 2011.

* Equity inflows.

*Source:* RBI and Ministry of Finance, Economic Survey 2010-11.

## Table 6.5

*Foreign Direct Investment Inflows by Economic Activity*

*(Unit: US$ million)*

| | *2006-07* | *2007-08* | *2008-09* | *2009-10* | *2010-11[a]* |
|---|---|---|---|---|---|
| Services, other than telecommunications | 4698 | 6614 | 6150 | 4324 | 3274 |
| Computer software and hardware | 2618 | 1425 | 1724 | 919 | 766 |
| Telecommunications | 478 | 1261 | 2558 | 2554 | 1410 |
| Housing and real estate | 467 | 2233 | 2801 | 2939 | 1109 |
| Construction | 985 | 1743 | 2028 | 2862 | 1072 |
| Automobile | 276 | 675 | 1152 | 1208 | 1320 |
| Power | 157 | 974 | 999 | 1437 | 1237 |
| Metallurgical industries | 173 | 1177 | 961 | 407 | 1044 |
| Petroleum and natural gas | 89 | 1405 | 350 | 271 | 562 |
| Chemicals (other than fertilizers) | 205 | 229 | 749 | 362 | 384 |
| Other | 2346 | 6842 | 7858 | 8551 | 6177 |
| Total outflows, net | 10447 | 18442 | 16235 | 12270 | 14246 |
| Total inflows, based on equity capital components | 12492 | 24575 | 27330 | 25834 | 18355 |
| **Total inflows, net** | **22826** | **34835** | **37838** | **37763** | **25949** |

*Notes:* [a] Data up to February 2011.

* Equity inflows.

*Source:* RBI and Ministry of Finance, Economic Survey 2010-11.

sectors to which FDI has been flowing into India in the last two years of surge in FDI include services (other than telecommunications), housing and real estate etc. The automobile sector and power has also been attracting large investments.

## Investment in India-Korea CEPA

The India-Korea Comprehensive Economic Partnership Agreement (CEPA) came into effect in January, 2010. The CEPA came into effect after four years and twelve rounds of negotiations between the two countries. While the goods and services agreements have been the focus of other papers, this paper focuses on the investment agreement in the CEPA. This is the second comprehensive agreement that India has signed, the first is with Singapore.

Kotschwar (2009) identifies the key elements in the investment provisions of PTAs – these are: coverage, non-discrimination, standards of treatment, investor protection, temporary movement of senior personnel, and dispute settlement. The coverage of the investment chapter depends on how the investment is defined and what disciplines are contained in the chapter. Investment may be defined either in broad asset based way or using an enterprise based approach. Investment disciplines may be divided between the investment and services chapter of an agreement and interaction between them are more prevalent and governed by either chapter (Houde *et al.,* 2007). In the context of the Indo-Korea CEPA, the coverage of investment is through a separate chapter on investment and hence reflects the NAFTA style of agreement rather than the GATS style.[11]

The principle of non–discrimination is the key mechanism for opening up investment opportunities in a PTA. The extent of opening up depends on how broadly the investment is defined in the agreement, whether the

11. The services agreement is discussed separately in another chapter.

principle is applied to the entire lifetime of the investment and the number of reservations. There are two broad approaches for determining reservations: the negative list and the positive list approach. The Indo-Korea CEPA has followed the negative list approach. In general, a negative list approach is likely to yield greater investment opportunities (WTO, 2011b).

Standard of treatment include treatment of investment provisions as fair and equitable under international law and freedom in transferring payments abroad. These provisions are present in the Indo-Korea CEPA. Investor protection is provided by the articles related to National Treatment and the protection of investors is provided before and after establishment of business activities. There are provisions for protection of investors from government policy changes.

Other provisions included in the investment chapter are that investors are protected and will be compensated in the event that the host country nationalizes or expropriates an investment. These provisions are also present in the Indo-Korea CEPA. Temporary entry of managers and key personnel is provided in some PTAs. The Indo-Korea CEPA allows for such movement of personnel.[12] This is the first bilateral agreement through which Korea is allowing entry of professionals.

Finally dispute settlement is a key provision of an investment chapter in PTAs. Some PTAs provide for the settlement of disputes through coordination and negotiation, while others contain provisions only for state-to state settlement of disputes. Some PTAs like NAFTA allow for investor-state settlement of disputes. The Indo-Korea CEPA contains provisions for settlement of disputes through coordination and negotiations. If the dispute is not settled within six months, intentional arbitration may be sought.

The Indo-Korea CEPA can, hence be classified as one containing provisions that could lead to deep integration (WTO, 2011b). Such

12. Other chapters deal with this aspect and the number of personnel categories that have been mutually agreed upon by the two countries.

agreements can also lead to greater integration between countries through production networks. However, as noted earlier investment provisions in PTAs are not the sole avenue for making international commitments in investment. Countries are also using BITs and the number of BITs has dwarfed the number of PTAs in recent years (WTO, 2011b). Trade and investment have been regulated by different treaties, due to the different objectives of BITs and PTAs (DiMascio and Pauwelyn, 2008). Baldwin (2010) argues that the explosion of BITs in 1990s led to the attraction of manufacturing jobs and factories in emerging markets. Thus BITs and investment chapters in PTAs play a similar role in the spread of international production networks (WTO, 2011b).

In the next section we examine the FDI flows between the two countries and examine the extent of integration between them.

## FDI from South Korea and to South Korea

We examine the trends in FDI inflows from South Korea and whether it has been following the trend of other countries. The cumulative FDI equity inflows for the period April 2000 to February 2011 was US$ 128.64 billion (while the cumulative FDI inflows which include equity, reinvested earnings and other capital for the same period was US$ 193.74 billion). The rank of South Korea was sixteenth with a share of 0.59 percent or US$ 0.75 billion in the total equity inflows between April 2000 and February 2011. In the mid 1990s, a wave of investment flowed from Korea to India due to the infusion from LG Electronics, Samsung Electronics, and Hyundai Motors (Kwag, 2011). There was another wave of Korean investment in the period 2006-09. It is noteworthy that Korean investment has been mostly in manufacturing.

Table 6.4 has shown the FDI equity inflows from South Korea for the period 2006-07 to 2010-201. South Korean FDI to India seems to be concentrated in a few locations and industries as noted in Appendix A. There

is thus a huge potential for South Korean investment to India.

The sectors that attracted the maximum FDI equity inflows from South Korea were metallurgical industries (19 percent), Automobile industry (12 percent), Industrial Machinery (10 percent), Electronics (9 percent) and Electrical equipment (7 percent). Appendix A shows the details of the FDI inflows received from South Korea. The prominent examples of Korean investment include Posco, Hyundai and Samsung. It is important to note that South Korean investment has mostly been in manufacturing industries, and not in services as has generally been observed from the FDI inflows to India. The scope of these investments leading to integration of production networks is hence, not ruled out.[13] FDI in the services sector can have four effects (Fernandes and Paunov, 2012): price reductions, quality improvements, increase variety and spillover effects. However, the effect of vertical linkages from the openness of producer services to FDI has not been widely documented (Hoekman, 2006).[14] However, FDI in manufacturing through creation of jobs and integration into production networks can have even greater consequences for integration and impact on each other's economies.

There is very little information on outward FDI prior to July 2007. Some outflows of USD 0.45 million occurred in the period 1996-2002, USD 1.55 million in 2004-05 and USD 0.7 million in 2006-07. In 2004, Tata Motors signed an agreement to acquire Daewoo Commercial Vehicles, Kunsan, South Korea for USD 52.6 million (Kwag, 2011; Sahoo, et al. 2011). Recent data from RBI (which is now available monthly) reveals the following on India's actual outward FDI to South Korea in the period July 2007 to April 2012. However, the flows are quite small: about 1 percent of the total

13. Park (2004) examines the case of Hyundai Motor Industries (HMI), which set up production base in Chennai. The objective of setting up the Indian plant was that it acts as a global hub for its small car. Many Koran investors engaged with Indian firms through joint ventures to manufacture various parts of the car. Also body panels, engine, and transmission components for the Hyundai Motors' Ulsan plant was exported from India.
14. Korean investment in the banking sector will be discussed in the services chapter.

outflows for equity and less than 0.5 percent for loan and total outflows.

The major investment was by Mahindra and Mahindra which took over the automobile company, Ssangyong.

To conclude, it is too early to see the effect of the Indo-Korea CEPA on the investment flows between the two countries. Some studies like Dee (2008) and Berger *et al.* (2010) have documented that FDI flows respond to provisions in the investment chapters in PTAs. In the case of India and Korea, this may be the case though it is too early to say anything conclusive.

**Table 6.6**

*Outflows from India to South Korea*

*(Unit: US$ Million)*

| *Time period* | *Name of the Indian party* | *Name of the JV/WOS* | *WOS/ JV* | *Major activity* | *Equity* | *Loan* | *Total* |
|---|---|---|---|---|---|---|---|
| Jul 2009 | NAKODA TEXTILE INDUSTRIES LTD | INDO KOREAN PETROCHEM LTD | WOS | Manufacturing | 0.076 | 0 | 0.076 |
| Jul 2009 | TT ENTERPRISES PVT LTD | T T SERVICES KOREA CO. LTD. | JV | Miscellaneous | 0.0692 | 0 | 0.0692 |
| Nov 2010 | CACTUS COMMUNICATIONS PVT LTD | CACTUS COMMUNICATIONS KOREA CO. LTD | WOS | Community, Social And Personal Services | 0.045 | 0 | 0.045 |
| Jan 2011 | ENRIIHMENT GLOBAL EDUCATION PVT. LTD | ENRICHMENT GLOBAL EDUCATION KOREA INC. | JV | Community, Social And Personal Services | 0.005 | 0 | 0.005 |
| Jan 2011 | VIRGO VALVES & CONTROLS LTD. | VIRGO VALVES & CONTROLS KOREA LTD. | WOS | Manufacturing | 0.05 | 0 | 0.05 |
| Mar 2011 | MAHINDRA & MAHINDRA LTD. | SSANGYONG MOTOR CO LTD. | JV | Manufacturing | 377.96 | 84.429 | 462.39 |
| May 2011 | TRANSPOLE LOGISTICS PVT LTD. | TRANSPOLE LOGISTICS CO LTD. | WOS | Transport, Storage And Communication Services | 0.5 | 0 | 0.5 |
| Sep 2011 | VIRGO VALVES & CONTROLS LTD. | VIRGO VALVES & CONTROLS KOREA LTD | WOS | Manufacturing | 0 | 0.03 | 0.03 |
| Jan 2012 | GOVIND RUBBER LIMITED | GK COMPANY LIMITED | JV | Manufacturing | 0.1 | 0 | 0.1 |
| Total | | | | | | | |

*Source:* Reserve Bank of India, Data on Overseas Investment.

## Conclusion and policy implications

As has been said earlier, PTAs are being used by countries to reduce barriers to trade and investment. Developing countries are also using PTAs to attract investment. We have examined the India-Korea investment agreement in light of these considerations. This agreement is India's first trade agreement with an OECD country. Examining the trends in FDI flows from South Korea we observe that such investment have come mainly into the manufacturing industries. This presents an opportunity for India to learn from the infusions of technology that followed the investments. Investment into such sectors can help India integrate with global value chains. India also needs medium and long term capital inflows into the infrastructure sectors to support its growth momentum. Policies that encourage such flows need to be pursued in the future. Channels of collaboration between the two countries that have been established through the Korea-India Association of Investment Promotion and Korea-India Economy Collaborations Committee can help in achieving this aim (Cho, 2011).

## References

Anderson, Erin and Hubert Gatignon. 1986. "Modes of Entry: A Transactions Cost Analysis and Proposition." *Journal of International Business Studies,* Vol. 17, No. 3, pp. 1-26.

Baldwin, Richard. 2010. "21st Century Regionalism: Filling the Gap between 21st Century Trade and 20th Century Trade Rules." Working Paper No. 2010-31. Geneva: Geneva Graduate Institute.

Berger, Axel, Mathias Busse, Peter Nunnenkamp and Martin Roy. 2010. "Do Trade and Investment Agreements lead to More FDI? Accounting for Key Provisions Inside the Black Box." WTO Working Paper No. 2010-13. Geneva: World Trade Organization.

Bhattacharjea, Aditya. 2004. "Trade and Competition Policy." Working Paper No. 146. New Delhi: ICRIER.

Caves, Richard E. 1971. "International Corporations: The Industrial Economics of Foreign Investment." *Economica,* Vol. 38, No. 149, pp. 1-27.

Cho, Choongjae. 2011. "Trade Promotion after the Korea-India CEPA." Choong Yong Ahn and Pravakar Sahoo eds. *India-Korea: Dialogue for a 21st Century Partnership.* New Delhi:

Academic Foundation.

Competition Act. 2008. Government of India.

Dee, Philippa. 2008. *Multinational Corporations and the Emerging Network Economy in Asia and the Pacific*, pp. 232-266. London and New York: Routledge.

Department of Industrial Policy and Promotion. 2010. Consolidated FDI Policy, Ministry of Commerce and Industry, Government of India.

DiMascio, Nicholas and Joost Pauwelyn. 2008. "Nondiscrimination in Trade and Investment Treaties: Worlds Apart or Two Sides of the Same Coin?" *American Journal of International Law,* Vol. 102, No. 1, pp. 48-89.

Erramilli, M Krishna and Chatrathi P Rao. 1993. "Service Firms' International Entry Mode Choice: A Modified Transactions Cost Analysis Approach." *Journal of Marketing,* Vol. 57, pp. 19-38. (July)

Ethier, Wilfred J. 1998. "Regionalism in a Multilateral World." *Journal of Political Economy,* Vol. 106, No. 6, pp. 1214-1245.

_____. 2001. "The New Regionalism in the Americas: A Theoretical Framework." *The North American Journal of Economics and Finance,* Vol. 12, No. 2, pp. 197-220.

Fernandes, Anna M. and Caroline Paunov. 2012. "Foreign Direct Investment in Services and Manufacturing Productivity: Evidence for Chile." *Journal of Development Economics,* Vol. 97, pp. 305-21.

Foreign Investment Promotion Board. 2010. "FIPB 2010 Review." Department of Economic Affairs, Ministry of Finance, Government of India.

Gordon, Roger and James R. Hines. 2002. "International Taxation." NBER Working Paper No. 8854.

Gorg, Holger, Hassan Molana and Catia Montagna. 2009. "Foreign Direct Investment, Tax Competition and Social Expenditure." *International Review of Economics and Finance,* Vol. 18, pp. 31-37.

Hoekman, Bernard. 2006. "Liberalizing Trade in Services: A Survey." World Bank Policy Research Working Paper No. 4030.

Houde, Marie-France, Akshay Kolse-Patil and Sebastien Mirodout. 2007. "The Interaction between Investment and Services Chapters in Selected Regional Trade Agreements." Trade Policy Working Paper No. 55. Paris: OECD.

Hymer, Stephen H. 1976. *The International Operations of National Firms: A Study of Direct Foreign Investment.* Cambridge, M.A.: MIT Press.

Kotschwar, Barbara. 2009. "Mapping Investment Provisions in Regional Trade Agreements: Towards an International Investment Regime?" Antoni Estevadeordal, Kati Suominen and Robert Teh eds. *Regional Rules in the Global Trading System*, 7, pp. 365-417. Cambridge University Press.

Kwag, Chang Ho. 2011. "Cooperation between India and Korea in FDI and Service." Choong Yong Ahn and Pravakar Sahoo eds. *India-Korea: Dialogue for a 21st Century Partnership.* New Delhi: Academic Foundation.

Manger, Mark. 2008. "International investment Agreements and Services Markets: Locking in Market Failure?" *World Development,* Vol. 36, No. 11, pp. 2456-2469.

Markusen, James R. 2002. *Multinational Firms and the Theory of International Trade* Cambridge. Cambridge University Press.

Ministry of Commerce and Industry. 2009. Indo-Korea CEPA 2009. Government of India.

Mira, Wilkins, M. 1993. "Europeans and North American Multinationals 1870-1914: Comparisons and Contrasts." Geoffrey Jones ed. *Transnational Corporations: A Historical Perspective*. London and New York: Routledge.

National Council of Applied Economic Research. 2009. FDI in India and its Growth Linkages, Report Submitted to DIPP.

Navaretti, Giorgio Barba and Anthony J. Venables. 2004. "Multinational Firms in the World Economy." Princeton University Press.

Neumayer, Eric and Laura Spess. 2005. "Do Bilateral Investment Treaties Increase Foreign Direct Investment to Developing Countries?" *World Development,* Vol. 33, No. 10, pp. 1567-1585.

Park, Jongsoo. 2004. "Korean Perspective on FDI in India: Hyundai Motors' Industrial Cluster." *Economic and Political Weekly,* pp. 3551-3555. (July 31)

Raff, Horst, Michael Ryan and Frank Stahler. 2009. "The Choice of Market Entry Mode: Greenfield Investment, M&A and Joint Venture." *International Review of Economics and Finance*, Vol. 18, pp. 3-10.

Ray, Saon. 2000, "Some Aspects of Gains from Technology Transfer." Unpublished Ph.D. dissertation. New Delhi: Jawaharlal Nehru University.

Sahoo, Pravakar, Durgesh K. Rai and Rajiv Kumar. 2011. "Indo-Korea Trade and Investment Relations." Choong Yong Ahn and Pravakar Sahoo eds. *India-Korea: Dialogue for a 21st Century Partnership.* New Delhi: Academic Foundation,

Shadlen, Kenneth C. 2005. "Exchanging Development for Market Access? Deep Integration and Industrial Policy under Multilateral and Regional-bilateral Trade Agreements." *Review of International Political Economy,* Vol. 12, No. 5, pp. 750-775.

SIA Newsletter. "Secretariat for Industrial Assistance," Department of Industry Policy and Promotion, Government of India.

UNCTAD. 1997. *World Investment Report 1997: Transnational Corporations, Market Structure and Competition Policy*. Geneva: Unite Nations.

_____. 2000. *World Investment Report 2000: Cross Border Mergers and Acquisitions and Development*. Geneva: United Nations.

_____. 2003. *World Investment Report 2003: FDI policies for Development: National and International Perspectives*. New York and Geneva: United Nations.

_____. 2006. *World Investment Report 2006: FDI from Developing and Transition Economies: Implications for Development*. Geneva: United Nations.

_____. 2008. *World Investment Report 2008: Transnational Corporations, and the Infrastructure Challenge*. Geneva: United Nations.

_____. 2011. *World Investment Report 2011: Non-equity Modes of Production and Development*. Geneva: United Nations.

United States Government Accountability Office. 2008. GAO-08-320. Washington D. C. (February)

Vandevelde, Kenneth J. 1998. "Investment Liberalization and Economic Development: The Role of Bilateral Investment Treaties." *Columbia Journal of Transnational Law,* Vol. 36, No. 3, pp. 501-27.

World Trade Organization. 2011a. "Trade Policy Review: India, Report by the Secretariat." WT/TPR/S/249. Geneva: WTO.

_____. 2011b. *World Trade Report, The WTO and Preferential Trade Agreements: From Co-existence to Coherence*. Geneva: WTO.

Zhao, Xuemin M. and Reinhold Decker. 2004. "Choice of Foreign Entry Mode: Cognitions from Empirical and Theoretical Studies." Discussion Paper No. 512. Department of Business Administration and Economics, University of Bielefeld.

## Appendix Table 6.1A

| Sl. No | Name of Indian Company | FDI Route | Name of Foreign Collaborator | RBI Regional Office | Item of Manufacture | Amount of FDI Inflows (In Rs crore) | Amount of FDI Inflows (In US$ million) |
|---|---|---|---|---|---|---|---|
| 1 | POSCO MAHARASHTRA STEELS PVT LTD | RBI | POSCO | MUMBAI | MANUFACTURE OF IRON & STEEL IN PRIMARY FORMS NEC | 240.79 | 52.56 |
| 2 | POSCO INDIA PVT LTD | RBI | POSCO | BHUBANESHWAR | OTHER MANUFACTURING INDUSTRIES | 225.00 | 48.96 |
| 3 | POSCO INDIA P LTD., | RBI | TAE HYUN JEONGL & POSCO | BHUBANESHWAR | SEMI FINISHED IRON & STEEL PRODUCTS NEC., | 225.00 | 50.20 |
| 4 | MOBIS (I) LTD. | RBI | HYUNDAI MOBIS CO. LTD. | CHENNAI | MFR. OF INTERNAL COMBUSTION PISTON ENGINES AND OTHER PARTS & ACCESSORIES | 160.92 | 34.74 |
| 5 | MIRAE ASSEST GLOBAL INVESTMENT MGT.I.P.L | RBI | MIRAE ASSET INVESTMENT MANAGEMENT CO LTD | MUMBAI | REAL ESTATE ACTIVITES | 119.23 | 27.77 |
| 6 | SAMSUNG INDIA ELECTRONICS LTD., | FIPB | SAMSUNG ELECTRONICS CO. LTD., | REGION NOT INDICATED | | 114.77 | 23.91 |
| 7 | HYUNDAI CONSTRUCTION EQUIPMENT INDIA P.L | RBI | HUNDAI HEAVY INDUSTRIES CO LTD | MUMBAI | CONSTRUCTION MACHINERY NEC | 86.02 | 21.32 |
| 8 | MIRAE ASSET GLOBAL INVESTMENT MGT (I) P. | RBI | MIRAE ASSET INVESTMENT MGT CO. LTD.; | MUMBAI | REAL ESTATE ACTIVITIES | 69.91 | 17.47 |
| 9 | POSCO MAHARASHTRA STEELS PVT. LTD. | RBI | POSCO | MUMBAI | MANUFACTURE OF IRON & STEEL IN PRIMARY FORMS N.E.C. | 66.69 | 14.77 |
| 10 | PARRY CONFECTINERY LTD. | FIPB | LOTTE CONFEC-TIONERY CO LTD. | REGION NOT INDICATED | BUY, SELL, IMPORT/ EXPORT OF CONFECTIONERIES | 64.48 | 14.02 |
| 11 | SAMSUNG INDIA ELECTRONICS LTD | FIPB | | NEW DELHI | ELECTRONICS | 57.75 | 12.55 |
| 12 | SAMSUNG | FIPB | | NEW DELHI | | 48.82 | 10.17 |

| Sl. No | Name of Indian Company | FDI Route | Name of Foreign Collaborator | RBI Regional Office | Item of Manufacture | Amount of FDI Inflows | |
|---|---|---|---|---|---|---|---|
| | | | | | | (In Rs crore) | (In US$ million) |
| 13 | LANCO. | RBI | LANCO INTRATECH LTD. | REGION NOT INDICATED | GENERATION OF POWER | 47.50 | 9.83 |
| 14 | SAMSUNG TELECOMMUNI-CATIONS (I) P. LTD. | RBI | SAMSUNG ELECTRO-NICS CO. LTD. | NEW DELHI | TELEPHONE COMMUNICATION SERVICES | 44.00 | 9.54 |
| 15 | POSS DELHI STEEL PROCESSING CENTRE P.LTD | RBI | PASCO CO.LTD | NEW DELHI | PARTS AND ACCESSORIES NEC FOR MACHINERY & EQUIPMENT USED BY CONSTRUCTION AND MINING INDUS. | 42.52 | 10.43 |
| 16 | HYUNDAI CONSTRUCTION EQUIPMENT (I) P. LT | RBI | HYUNDAI HEAVY INDUSTRIES CO. LTD. | MUMBAI | MANUFACTURE OF CONSTRUCTION MACHINERY | 39.59 | 9.89 |
| 17 | SAMSUNG INDIA ELECTRONICS LTD | FIPB | SAMSUNG ELECTRO-NIC CO.LTD | NEW DELHI | OTHER ELECTRONIC COMPINENTS NEC | 37.56 | 8.59 |
| 18 | LEADING SOLUTION CABLE INDIA PVT LTD | RBI | LS CABLE LTD | NEW DELHI | MANUFACTURE OF INSULATED WIRES AND CABLES,INCLUDING MANUFACTURE OF OPTICAL FIBRE CABLES | 35.67 | 7.84 |
| 19 | KRISHNA FILAMENTS LTD., | FIPB | | MUMBAI | | 35.00 | 8.14 |
| 20 | YANDO BRAKE SYSTEMS (I) LTD. | RBI | MANDO CORPN. | CHENNAI | MANUFACTURE OF MACHINE TOOLS, THEIR PARTS & ACCESSORES | 34.70 | 7.77 |
| 21 | SAMSUNG INDIA SOFTWARE OPERATIONS | RBI | SAMSUNG ELECTRO-NICS COMPANY | BANGALORE | DATA PROCESSING, SOFTWARE DEVELOPMENT | 32.60 | 8.28 |
| 22 | MOBIS (I) LTD. | FIPB | HYUNDAI MOBIS . | CHENNAI | MANUFACTURE OF OTHER TRANSPORT EQUIPMENT NEC | 32.54 | 7.26 |
| 23 | MOBIS (I) LTD. | FIPB | HYUNDAI MOBIS | CHENNAI | MANUFACTURE OF OTHER TRANSPORT EQULIPMENT NEC | 30.90 | 7.58 |
| 24 | SUNGWOO GESTAMP HITECH (CHENNAI) LTD | RBI | SUNGWOO HITECH CO LTD | CHENNAI | FORGING,PRESSING, STAMPING & ROLL FORMING OF METAL, POWDER METALLURGY (INCLUDES WIDE VARIETY OF FINIS | 22.50 | 4.95 |
| 25 | LOTTEE FOODS INDIA PVT. LTD. | RBI | LOTTEE CONFECTION ARY CO | NEW DELHI | MANUFACTURE OF COCOA PRODUCTS & SUGAR CONFECTIONARY | 22.50 | 4.66 |
| Grand Total | | | | | | 1,936.97 | 433.18 |

*Source:* DIPP, Ministry of Commerce and Industry.

# Section IV

## Services and Green Energy

# 7 Current Status of Indian Green Energy Industry and Cooperation between Korea and India

*by* Hyun Jae Kim and Chankook Park

## *Abstract*

*This study compares the competitiveness of the renewable energy and smart grid sectors of Korea and India, and suggests the appropriate direction of cooperation based on the results. Using the United Nations Development Business (UNDB) Commodity Trade Statistics Database (COMTRADE), we calculate indices for revealed comparative advantage (RCA) and relative market intensity (RMI) for both countries. We suggest a direction of cooperation between both countries in the field of green energy. Within the smart grid sector, Korea needs to enhance the intelligence of smart grid applications and services, and strengthen domestic software competence with the aid of India's software capabilities.*

## Introduction

Global investment in the green energy sector as a means to address climate change and future energy needs is growing every year, especially since the 2008 financial crisis. The green energy sector is considered to have high potential to promote economic growth and create jobs. The green energy sector includes natural energy such as solar, wind, geothermal, hydro, tidal,

and wave power; new energy such as biomass and hydrogen energy; and technologies to increase energy efficiency.

Korea established Strategies for Renewable Energy Development in October 2010, aiming to make a leap to the world's top eight renewable energy powers by 2012 and the top five by 2015. Considering the level of the technologies, marketability, and export-industrialization, Korea plans to invest 1.5 trillion won by 2015, focusing on the development of top ten core technologies to lead the world market in renewable energy technologies (KETEP, 2011). In addition, Korea blueprinted the National Roadmap for Smart Grid in January 2010, presenting plans for the big five areas of Electric Power Grid, Consumer, Transportation, Renewable Energy, and Power Service, with the goal to deploy a world's-first nationwide smart grid by 2030.

India, one of the world's fastest growing economies, is also focusing on green energy development. Against the background of rapid economic growth, India currently has to deal with rapidly increasing energy consumption, and experiences frequent power outages in many different regions. In addition, since approximately 40% of India's total energy consumption is met by coal, the proportion of greenhouse gas emissions to energy consumption is relatively high.

India is actively promoting the expansion of renewable energy capacity in order to increase domestic energy security, and is reducing greenhouse gas emissions within the electricity sector. India has the potential to produce approximately 500,000 MW of solar energy by utilizing only 1% of the total land area for photovoltaic power generation. Furthermore, India's greatest potential source of renewable energy is wind power, as it is ranked the fourth-biggest wind-power generating country in the world. Compared to other renewable energy sources, the wind power industry shows the fastest growth and has potential to establish a capacity of 25,000 MW by 2020 (CSTEP, 2010).

Meanwhile, India's effort to expand its smart grid capacity is also

remarkable. Smart grid projects have been promoted in many other countries around the world, and priorities therefore differ according to domestic needs. India's biggest problem within the electricity sector is high transmission and distribution losses, and insufficiency of power supply. The development of a smart grid will help reduce a wide range of electricity theft as well as the transmission and distribution losses occurring within the Indian power system. In addition, it will contribute to reducing power shortages by enabling peak-load management and demand response. The peak load shortfall in India officially amounts to 12.9%, but the actual deficit is thought to be higher. Smart grid technology also helps to significantly integrate renewable energy technologies (Tongia, R., 2011). The Indian regions with a high proportion of wind power, such as Tamil Nadu, experience operational problems in their power systems due to the uncertainty and variability of wind generation. Smart grid management is central to overcoming this instability of power systems, which resulted from the expansion of renewable energy.

In this study, we examine recent trends in India, which is developing its green energy industry as actively as Korea, and analyze the two countries' competitiveness in each part of the green energy sector via revealed comparative advantage (RCA). Furthermore, we examine opportunities for cooperation within the green energy industry by examining the relative market intensity (RMI).

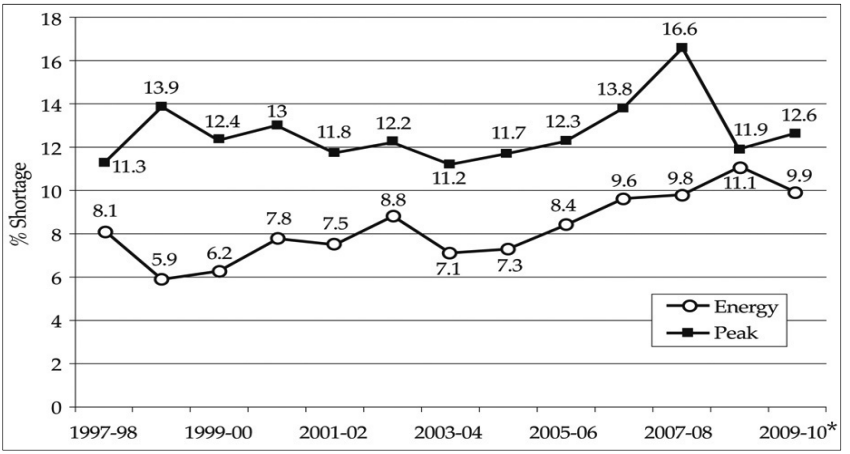
## The Main Agenda in the Energy Sector

### Chronic Instability of Supply and Demand of Electricity

As of June 2010, the installed energy capacity of India, excluding self-generation facilities, was 162 GW. However, demand is typically much greater than supply. Despite the Indian government's continuous effort to expand generating capacity, India has been struggling to fulfill the increasing peak load and energy demand. India's deficiencies in power supply in April

**Figure 7.1**

*Electricity Generation Deficiency in India*




*Note:* * Estimated.

*Source:* Min. of Power Annual Report 2009-10.

and May 2010 were 13.8% and 12.1%, respectively, of the demand for power generation; and for the fiscal year 2009 to 2010, it was 12.6% of peak demand and 9.9% of the demand for power generation (CSTEP, 2010).

Analysis by the Center for Study of Science, Technology and Policy (CSTEP, 2010), however, estimated much higher actual power deficiency, and state government agencies recorded the energy shortfall as being up to 30% of demand. This means that India is unable to meet the electricity power reserve rate, which is an average of 15–20% in most countries.

The IEA (International Energy Agency) forecasts that India will need 327 GW of power generating capacity by 2020. In order to fulfill this, the installed capacity must be expanded annually by 16 GW. The 11th Five-Year Development Plan (2007–2012) of the Indian government presents the goal to increase capacity by 78.7 GW, of which 50.5 GW is to be generated by

**Table 7.1**

*Indian Power Supply and Demand Forecast in 2011 and 2012*

| | *Energy (GWh)* | *Peak (MW)* |
|---|---|---|
| Requirement | 933,741 | 136,193 |
| Availability | 837,374 | 118,676 |
| Surplus (+) / Shortage (-) | -96,367 | -17,517 |
| Surplus (+) / Shortage (-) % | -10.3% | -12.9% |

*Source:* CEA(2011).

coal. The CSTEP analysis (2010), however, expected the actual additional capacity to be at most 10 GW. Ongoing projects may have achieved some successes, but they seem unlikely to be implemented smoothly. The more important issue is that the power shortage is not just a supply-side problem. In other words, there needs to be simultaneous improvement in load- and demand management through both energy efficiency and smart grid technology.

Meanwhile, the CEA (Central Electricity Authority) predicts a 10.3% shortage of electricity and 12.9% deficiency in peak demand from 2011 to 2012. In terms of electric power, while the demand is 933,741 GWh, that available for supply is 837,374 GWh. Thus, the deficiency is 96,367 GWh. Furthermore, while the peak demand is expected to be 136,193 MW, the generating capacity is just 118,676 MW, so a further 17,517 MW is required to meet the predicted need.

## Response to Climate Change

Coal is a dominant domestic energy source for India, as it accounted for more than 50% of the generating sources. In India, as in other countries, the issue of carbon dioxide emissions in the power sector has emerged as a major obstacle in coping with climate change.

The Planning Commission of India estimates that the country's coal reserves are approximately 267.2 billion tons, which would last only for 40 to 50 years under the predicted growth rate of power generation. Coal is expected to increase up to between 190 GW and 200 GW for annual energy production by 2020, which is 2.5 times larger than the present capacity, with at least one billion tons of coal required annually.

However, coal faces a number of challenges as India's primary energy source. As shown in Table 7.2, India has high overall carbon emissions. According to the IEA (2009), India had the fourth-highest carbon dioxide emissions, after the United States, China, and Japan. Indian coal typically contains very high proportions of lime, of up to 30%. In addition, the country's coal reserves are geographically concentrated in central and eastern regions, so that its development may require significant time and cost investments in railway infrastructure to transport coal and electrical lines to transmit power. For those reasons, the Indian government is committed to the continued use of imported coal, which is widely used in southern and coastal power plants.

As all Indian coal-fired power plants utilize below-the-threshold combustion technology, their energy efficiency is relatively low. Integrated gasification combined cycle (IGCC) is a promising technology that not only delivers higher energy efficiency and lower carbon emissions compared to coal-firing, but also has the advantage of producing synthetic fuels such as diesel and hydrogen. However, the high lime content of Indian coal reserves causes greater power consumption and much lower efficiency.

Natural-gas-fired power generation is a popular option because it involves lower capital costs, and produces 0.4 kg/kWh of carbon emissions. In terms of generation cost, however, natural gas costs more than coal per unit generation, has great uncertainty about the amount available for power generation, and is sometimes used for other purposes such as producing fertilizers. For those reasons, it is difficult to guarantee that natural gas will make a significant contribution to the Indian power sector (CSTEP, 2010).

**Table 7.2**

*The Carbon Emissions of Major Countries*

| *Region/ Country Economy* | *Population (million)* | *GDP (billion 2000 US$)* | *GDP[PPP] (billion 2000 US$)* | *Energy Cons. (MTOE)* | *Co2 emissions Mt of Co2* | *Per Capita Energy Cons.(kgOE)* | *Energy Intensity kg OE/$GDP ppp* | *Per Capita Electricity Cons.(kwh)* | *Per-Capita Co2 emission (tonnes)* | *kg co2 /$GDP ppp* |
|---|---|---|---|---|---|---|---|---|---|---|
| World | 6,609 | 39,493 | 61,428 | 12,029 | 28,962 | 1.82 | 0.20 | 2,752 | 4.38 | 0.47 |
| Brazil | 192 | 809 | 1,561 | 236 | 347 | 1.23 | 0.15 | 2,154 | 1.80 | 0.22 |
| China | 1,327 | 2,623 | 10,156 | 1,970 | 6,071 | 1.48 | 0.19 | 2,346 | 4.58 | 0.60 |
| France | 64 | 1,506 | 1,738 | 264 | 369 | 4.15 | 0.15 | 7,573 | 5.81 | 0.21 |
| Germany | 82 | 2,065 | 2,315 | 331 | 798 | 4.03 | 0.14 | 7,185 | 9.71 | 0.34 |
| India | 1,123 | 771 | 4,025 | 421 | 1,146 | 0.53 | 0.10 | 543 | 1.18 | 0.28 |
| Japan | 128 | 5,205 | 3,620 | 513.5 | 1,236 | 4.02 | 0.14 | 8,475 | 9.68 | 0.34 |
| S. Africa | 48 | 178 | 517 | 134 | 346 | 2.82 | 0.26 | 5,013 | 7.27 | 0.67 |
| Thailand | 64 | 173 | 548 | 104 | 226 | 1.63 | 0.19 | 2,157 | 3.54 | 0.41 |
| Turkey | 74 | 372 | 821 | 100 | 265 | 1.35 | 0.12 | 2,210 | 3.59 | 0.32 |
| UK | 61 | 1,766 | 1,833 | 211 | 523 | 3.48 | 0.12 | 6,142 | 8.60 | 0.29 |
| USA | 302 | 11,468 | 11,468 | 2,340 | 5,769 | 7.75 | 0.20 | 13,616 | 19.10 | 0.50 |

*Source:* International Energy Agency(2009).

## Trends in Promoting Green Energy

This study will examine renewable energy sources with a focus on photovoltaic and wind power, and smart grid technology. Although there is a variety of renewable energy sources, our discussion concentrates on wind power, which accounted for the largest proportion of renewable energy in India; and photovoltaic, which shows considerable potential. This study will also discuss smart grid technology, which is emerging as a strategic approach to tackling India's chronic power shortages.

### Trends by Renewable Energy Source

The renewable energy supply in India was 176.4 million TOE in 2009, accounting for 26.1% of total energy supply (OECD/IEA, 2011). The installed capacity of renewable energy generation showed a high annual growth rate of about 23.4%, reaching 18,655 MW as of December 2010 compared to 3,475 MW in 2002. The installed capacity increased from 2.0% in 2002 to 11.0% in 2010, and represented 4.1% of total power generation in 2010, which is about four times greater than that of Korea. When including hydropower, the total installed capacity of renewable energies was 56,022 MW, representing 33.2% of total power generating capacity.

India's goals for increasing renewable energy are presented in the *Economic Development Plan*, the master plan for the national economy. In the

**Table 7.3**

*Installed Generating Capacity of India (2010)*

| | *Hydro* | *Natural Gas* | *Renewable* | *Nuclear* | *Coal* | *Total* |
|---|---|---|---|---|---|---|
| Installed Capacity(MW) | 37,367 | 17,385 | 18,655 | 4,560 | 90,978 | 168,945 |
| Share (%) | 22.12 | 10.29 | 11.04 | 2.70 | 53.85 | 100 |

*Source:* MNRE(2011).

current *11th Economic Development Plan* (2007–2012), the goal for installation of grid-connected renewable energy generation facilities is 12,230 MW, which is about a two-fold increase compared with that of the 10th Plan (6,761 MW). By energy source, wind power accounts for 9,000 MW, which represents 73.6% of renewable energy resources, and solar energy just 50 MW. The goal for grid-connected renewable power-generating capacity achieved a total of 8,377 MW or 68%.

## *Wind Power*

As India is the world's fourth-largest wind-power generating country, wind power is its best renewable energy source. Wind energy shows the fastest growth among renewable energy sectors, and is expected to build capacity of 25,000 MW by 2020. According to CSTEP, the utilization of wind power plants is relatively low (17~18%), but wind farms have the advantage of more rapid construction than other types of renewable energy infrastructure.

The Centre for Wind Energy Technology (C-WET) estimated that India has wind power potential of 48.5 GW. According to the World Institute for Sustainable Energy (WISE) of India, the wind power potential could be enhanced up to 100 GW through improved turbine technology and the development of more efficient systems, as well as the selection of the best sites across the country, excluding wind power generation in undeveloped coastal areas. As the target sites for measurement of wind generation were only made in nine states, including Andhra Pradesh, and the measurements were taken at relatively low elevations (50m), India's wind power potential is suggested to be much higher than present estimates.

Wind power technologies have developed rapidly over approximately the last decade, with the introduction of large-capacity and high-efficiency wind turbines, and wind turbines specifically designed for areas with poor wind conditions. In particular, the market has recently expanded with the

**Table 7.4**

*Wind Power Potential by State*

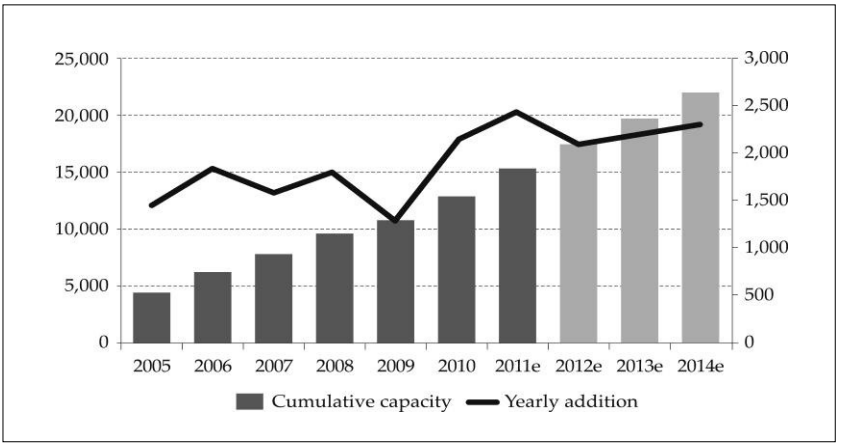
| *State* | *Potential (MW)* |
|---|---|
| Andhra Pradesh | 8,968 |
| Gujarat | 10,645 |
| Karnataka | 11,531 |
| Kerala | 1,171 |
| Madhya Pradesh | 1,091 |
| Maharashtra | 4,584 |
| Orissa | 255 |
| Rajasthan | 4,858 |
| Tamil Nadu | 5,530 |
| Total | 48,561 |

*Source:* KOTRA(2010).

entrance of new turbine manufacturers and independent power producers (IPP). Wind generation capacity increased by 2.1 GW in 2010, and at least 2.4 GW in 2011. By the end of 2012, the cumulative installed capacity is expected to reach 15.5 GW.

**Figure 7.2**

*The Wind Power Market of India*




*Source:* BNEF(2011).

The sites for installation of wind turbines are concentrated in southern states, including Tamil Nadu, but they are expanding to a variety of states due to the recently increased interest in wind power. The Indian wind power industry has been fostered by RPS (Renewable Portfolio Standard) and FIT (Feed-in-Tariff) mechanisms, which are being conducted in each state, and in recent years, the technology has been further promoted with the introduction of GBI (Generation Based Incentive) by the federal government.

### *Photovoltaic and Solar Thermal Energy*

As most parts of India have abundant sunshine for approximately 300 days per year, the solar energy potential is high. Regions such as Rajasthan and Ladakh are regarded as typical, with generation potential of more than 6 kWh per square foot per day, of which 15% can be converted to electricity by using efficient photovoltaic (PV) modules. If India utilizes 1% of the total land area for PV, it would be possible to produce 500,000 MW of solar energy. However, price competitiveness is a major barrier to adoption, as PV modules presently cost at least four to five times more than coal-fired generation.

In addition, solar energy can be used in solar–thermal power generation systems, which heat fluids to operate a steam turbine. These technologies are used to store heat for power generation during the evening peak hours, and to improve load distribution across the network.

In India, despite the favorable natural conditions, solar energy use is insufficient. The installed capacity of grid-connected PVs in India was only 18 MW in 2010, and the installed capacity of distributed PVs was very small, at 3 MW.

Recently, policy makers have shown increased interest in the solar energy industry, and India's solar energy projects are mainly implemented under the Jawaharlal Nehru National Solar Mission and Gujarat's solar policy, which were established in November 2009. This has the primary goal to install 20 GW of facilities by 2022, with a supporting budget of 18 billion

**Table 7.5**

*Roadmap of the Solar Energy Mission*

| | *Phase I (2010–2013)* | *Phase II (cumulative) (2013–2017)* | *Phase III (cumulative) (2017–2022)* |
|---|---|---|---|
| Grid-connected solar energy facilities (MW) | 1,100 | 4,000 | 20,000 |
| Independent/Distributed solar energy facilities (MW) | 200 | 1,000 | 2,000 |
| Solar collectors ($km^2$) | 7 | 15 | 20 |

*Source:* MNRE.

dollars. Its sub-goals include the introduction of grid-connected solar energy facilities and independent/distributed solar energy facilities, installation of solar collectors, support for technology development, and fostering of a proposed Solar Valley.

Following the first round of public bidding, the installed capacity by 2010 was 17.8 MW, and projects already assigned from 2010 onwards will provide a total capacity of 1,761 MW. By March 2011, the installed capacity had been increased to 37.6 MW, but it is still much lower than the allocated volume. In order to achieve the proposed capacity increase, the Indian government has made use of various support programs such as feed-in-tariff (FIT), incentives utilizing GBI, and demonstration/pilot projects; however, despite the government's ambitious plans, achieving the policy objectives is expected to be difficult due to a range of problems, including financing.

## The Promotion of the Smart Grid

The use of smart grid technology has been fully promoted since 2008, with the implementation of the Re-Structured Accelerated Power Development and Reforms Program (R-APDRP). The R-APDR program took three to five years to design the roadmap. In order to expand generating capacity, it

will first incorporate ICT (Information & Communication Technology) into the existing power grid; second, it will invigorate investment in the electricity infrastructure; third, it will optimize energy efficiency. The main goal of this program is to minimize energy losses and to induce reasonable consumption through IT-based interactive real-time exchange of electric power information.

India selected a power distribution company, BESCOM (Bangalore Electricity Supply Company) and a research organization, CPRI (Central Power Research Institute) as participants in the first smart grid pilot project in November 2010. The pilot project forms part of the Electronic City in Bangalore, which is a district designated as a hub for large IT companies, comprising 17,409 consumers with differing load profiles. The pilot project is intended to address the reduction of peak demand, the provision of time-of-use (TOU), the improvement of power quality and the self-healing of grid, and the improvement of customer service. Along with the pilot project, a national level of comprehensive smart grid technology standards will be developed.

In July 2011, India announced the launch of the first renewable energy-based mini-grid (smart mini-grid, SMG) in the Retreat of The Energy and Resources Institute (TERI) in Gurgaon. TERI developed the first renewable energy-based smart mini-grid system for India, which utilizes advanced digital control technologies in order to generate, manage, distribute, and consume electric power more intelligently and effectively at a local level. These applications not only promote the effective linkage and utilization of different renewable energy resources, but also facilitate energy access over "the last mile" by improving the overall efficiency of the system. A smart mini-grid is an intelligent electricity distribution network operating at 11 kV or less. Across the grid, the energy demand is intelligently managed with distributed energy resources such as photovoltaic, micro-hydropower, wind power, biomass, and small-scale diesel generation. Such smart micro-grid systems have high applicability in commercial and industrial complexes as well as

hospitals, shopping malls, apartments, residential areas, educational institutions, and even remote areas with no access to the main electricity network. By building an extensive network of smart mini-grid systems, India can easily integrate them with existing programs, including the Jawaharlal Nehru National Solar Mission and the National Rural Electrification Programme.

## Analysis of Competitiveness and Market Intensity

In this section, we apply the comparative advantage concept to set the scope of possible cooperation within the green energy industry between India and Korea. Comparative advantage is a well-established concept in the analysis of international trade. A country possesses a comparative advantage when it is able to produce a good at lower cost, relative to the costs of other goods, than is the case in other countries. The key aspect of this concept is the relative cost for different goods within a country rather than the absolute production costs between countries (Ernst & Young, 2008). While there are different methods to estimate comparative advantage, we examine comparative advantage through the calculation of revealed comparative advantage (RCA).

The RCA index, which was devised by Balassa (1965), is one of the most widely used comparative advantage analysis techniques to determine export competitiveness by industry sector. In general, when making comparisons between countries with economies of different scales, it is not appropriate to make a simple comparison of their market shares in the international market. To overcome these limitations, the RCA index includes the market share by item, divided by the market share by country, thereby making it possible to compare the relative competitiveness of an industrial sector between different size economies (Lee & Lee, 2010).

$$Rij = (Xij/Xwj)/(Xi/Xw)$$

Xij: country i's exports of goods j
Xwj: world's exports of goods j

Xi: country i's total exports

Xw: world's total exports

For example, if the RCA value for industry sector j of country i is greater than 1, it is interpreted that the sector has a comparative advantage compared to the other industry sectors; a value of less than 1 indicates the sector has a comparative disadvantage. This approach is based on the fact that if a certain good produced within a country has a relatively large share of the international market, the international competitiveness of the producer country has been enhanced, even though one does not exactly know the critical factors of the international competitiveness and their effects.

In this study, we will examine the relative market intensity (RMI) along with the RCA index. RMI is a measurement of bias in a certain country or region, based on the relative market share of a certain industry sector within the specific country or region (Seolho Park, 2000).

$$RMI^{k}_{ij} = (X^{k}_{ij}/I^{k}_{j})/(X_i/I_w)$$

$X^{k}_{ij}$: goods k of country i's exports to country j

$I^{k}_{j}$: total imports of goods k of country j

$X_i$: total exports of country i

$I_w$: world's total exports

If the RMI value is greater than 1, the market share of good k in a certain region is greater than the market share in the world market. If it is 1, the market share in the specific region is the same as that in the world market, and if less than 1, it means that the market share in the region is smaller than in the world market. By examining the RMI in combination with the RCA index, it is possible to determine whether a particular good with a comparative advantage also has a relative market intensity in a given country or region. We can therefore determine the feasibility of trade in certain goods

according to comparative advantage, while at the same time comparing the current status of market entrance by country and region.

## Data for Analysis

The calculation of RCA and RMI values requires import and export data by country and by item, listed according to the same industry sectors. This study made use of data from the United Nations Development Business (UNDB) Commodity Trade Statistics Database (COMTRADE), which is constructed in accordance with the harmonized system (HS) classified by the International Centre for Trade and Sustainable Development (ICTSD). However, not all of the data is sufficiently detailed to specifically evaluate the comparative advantages of the green energy industry. For example, the HS

**Table 7.6**

*HS Codes by Components & Materials Industry for RCA Analysis*

| *Sector* | *Item* | | *HS code* | *Category* |
|---|---|---|---|---|
| Photovoltaic Solar | Polysilicon | | 280461 | Material |
| | PV module | | 854140 | Material |
| | Storage battery | | 8507 | Component |
| | Wafer | | 381800 | Component |
| Wind Power | Tower | | 730820 | Component |
| | Gearbox | | 848340 | Component |
| Smart Grid | Converter | | 850440 | Component |
| | Transformer | <500 kV | 850431<br>850432<br>850433 | Component |
| | | >500 kV | 850434 | Component |
| | Storage battery | | 8507 | Component |
| | Electrical apparatus for switching or protecting electrical circuit (>1 kV) | | 8535 | Component |
| | Electrical control and distribution board | | 8537 | Component |
| | Software | | - | Service |

code 280461 for polysilicon used in PV modules includes all forms of silicon, and the relevant category for wind turbine towers includes not just towers for wind power generation, but also import and export data for all steel towers. Thus, in this study, we assume that when we select the HS Code directly linked to a specific green energy good, the resulting comparative advantage does not differ significantly from that of the given green energy products.

## Analysis Results

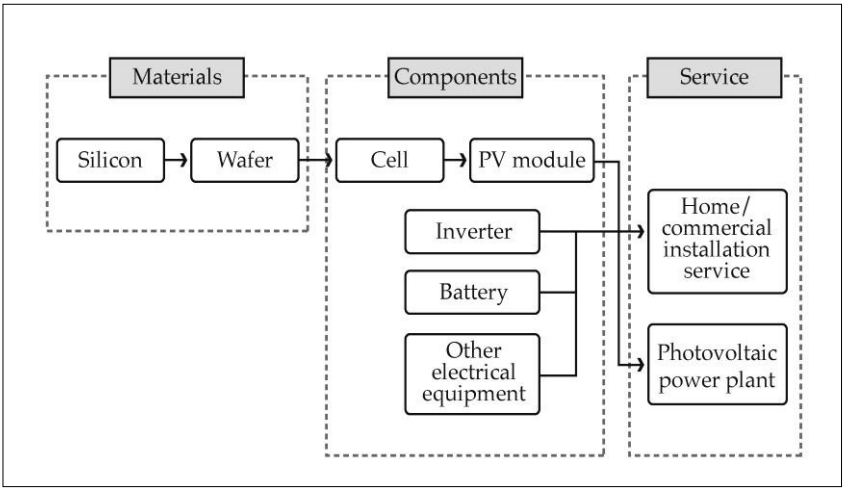
### *Photovoltaic*

Among different renewable energy sources — such as for the photovoltaic industry, which has already grown significantly to enter the stage of industrialization—the industrial structure is divided into "material industry ⇒component industry ⇒ service industry." The major material industry can be divided into silicon manufacturing and wafer manufacturing. In the case of silicon, which is extracted from silica, the mineral raw material is divided into uses for semiconductors (11 nine) and for solar cells (6 nine). Silicon for solar cells is processed from ingots and sliced thinly into wafers. The wafer is next transferred to the component stage, which is the core sector of the photovoltaic industry, where it is processed into a PV module after the step of solar cells. In addition to these stages, the wider photovoltaic industry also incorporates major component sectors, including electric equipment such as storage batteries; and inverters, which convert direct current (DC) solar power into alternating current (AC) (Lee & Lee, 2010).

As shown in Table 7.7, the RCA indices for the photovoltaic material and component segments show that Korea generally has comparative advantages over India, particularly in polysilicon, wafers, and battery technologies. In terms of exports, Korea's polysilicon, wafer, and PV module industries have entered the global top five. In the battery segment, Korea's RCA indices continue to be higher than India's, and the gaps continue to widen, with

**Figure 7.3**

*The Structure of the Photovoltaic Components & Materials Industry*




*Source:* Lee & Lee(2010).

stronger tangible outcomes of the aggressive investments of LG Chemical and Samsung SDI in the Korean battery segment. Korea has high technological competitiveness within the photovoltaic sector, including semiconductors and silicon, and the growth potential of the photovoltaic industry is relatively high in comparison with other renewable energy industry sectors. Although remarkable interest and investments in the photovoltaic industry began in 2003, rapid annual growth has continued, based on the global competitiveness and innovation of related industries and the pre-existing domestic infrastructure.

The analysis shows that Korea generally has comparative advantages over India in the photovoltaic sector, but trade between Korea and India in the sector remains relatively low, as indicated by the RMI indices. For example, for polysilicon, the RMI indices of both countries within the other country are much less than 1. The PV module and battery sectors show almost the same situation. However, in the case of silicon wafer, Indian

products previously accounted for a relatively high proportion of the Korean market but the market share has decreased dramatically in recent years.[1] This suggests that the two countries need to expand mutual trade within the photovoltaic sector according to their respective comparative advantages.

**Table 7.7**

*The RCA and RMI of Korea and India in Photovoltaic Components and Materials*

| *Year* | *Item* | *RCA* | | *RMI** | |
|---|---|---|---|---|---|
| | | *Korea* | *India* | *Ko-In* | *In-Ko* |
| 2005 | Polysilicon | 0.581 | 0.010 | - | - |
| 2006 | | 0.952 | 0.001 | 0.023 | - |
| 2007 | | 1.331 | 0.004 | 0.082 | - |
| 2008 | | 4.327 | 0.006 | 0.000 | - |
| 2009 | | 4.835 | 0.003 | 0.010 | 0.001 |
| 2005 | PV module | 0.715 | 0.602 | 0.221 | 0.233 |
| 2006 | | 0.753 | 0.641 | 0.441 | 0.003 |
| 2007 | | 0.745 | 0.717 | 0.297 | 0.002 |
| 2008 | | 0.665 | 1.014 | 0.194 | 0.589 |
| 2009 | | 1.079 | 0.754 | 0.144 | 0.006 |
| 2005 | Battery | 2.212 | 0.222 | 0.483 | 0.637 |
| 2006 | | 2.513 | 0.279 | 0.131 | 0.901 |
| 2007 | | 3.019 | 0.275 | 0.309 | 0.853 |
| 2008 | | 3.381 | 0.282 | 0.241 | 0.188 |
| 2009 | | 3.048 | 0.203 | 0.122 | 0.337 |
| 2005 | Wafer | 1.214 | 0.028 | 3.078 | 3.337 |
| 2006 | | 1.363 | 0.044 | 2.096 | 3.023 |
| 2007 | | 1.407 | 0.032 | 0.981 | 3.004 |
| 2008 | | 1.278 | 0.195 | 0.141 | 0.448 |
| 2009 | | 1.852 | 0.009 | 1.070 | 0.012 |

*Note:* * "Ko-In" means Korea's RMI in India's market, and "In-Ko" means India's RMI in Korea's market.

1. The wafer industry in India is a new industry in its early stage of development. India is importing almost all necessary wafers now. India's RMI in Korea's market is higher from 2005 to 2007 because wafer-related components as well as the wafer itself are included in UNDB COMTRADE.

To sum up, Korea has achieved global competitiveness in the overall photovoltaic sector, but does not have a large role in the Indian market. As India has huge potential within the photovoltaic industry, and is showing national commitment to supporting the industry, India needs to boost its own photovoltaic industry by taking advantage of Korea's industrial capacity in terms of the comparative advantage.

### *Wind Power*

We compared the RCAs of Korea and India in terms of wind turbine tower and gearbox assemblies, which are major components with relatively high prime costs of 27.8% and 12.9%, respectively. Wind turbine blades represent 22.2% of prime costs, but were excluded from the comparison because of the difficulty in data collection. As shown in Table 8, India has relatively high comparative advantages in wind turbine towers. India has the world's fifth-largest company, Suzlon, which has expanded rapidly, based on a monopolistic position in the Indian domestic market and cheap labor. The majority of wind turbine components, including gearboxes and blades, depend on imports, but the turbine towers are 100% domestically produced. Therefore, India has a strong comparative advantage in the tower industry (Lee & Lee, 2010). In contrast, Korea does not have any unique advantages in the wind power sector. Although Korea has Dong-gook S&C, a specialist tower company with world-recognized technology, the export volume is very small. The Korean wind power component industry shows strong bias towards parts manufactured using forging techniques, for components such as main shafts and tower flanges. Forged components comprise a relatively small proportion of the overall turbine cost, but accounted for 90% of South Korean production in 2008 (valued at approximately 1,120 billion won KRW; KIET, 2009). Only Korean gearboxes have a slight advantage over Indian ones.

Although the RMI indices show that in terms of tower components there are remarkable differences in comparative advantage, both countries

**Table 7.8**

*The RCA and RMI of Korea and India in Wind Power Components*

| Year | Item | RCA | | RMI* | | Item | RCA | | RMI | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Korea | India | Ko-In | In-Ko | | Korea | India | Ko-In | In-Ko |
| 2005 | Tower | 0.524 | 6.082 | - | - | Gear-box | 0.351 | 0.225 | 1.345 | 0.311 |
| 2006 | | 0.296 | 7.671 | 0.537 | - | | 0.385 | 0.314 | 0.834 | 0.208 |
| 2007 | | 0.062 | 8.043 | 0.003 | 0.018 | | 0.483 | 0.308 | 1.074 | 0.373 |
| 2008 | | 0.128 | 5.816 | - | - | | 0.506 | 0.291 | 1.568 | 0.219 |
| 2009 | | 0.100 | 4.053 | 0.005 | - | | 0.491 | 0.208 | 0.883 | 0.152 |

*Note:* * "Ko-In" means Korea's RMI in India's market, and "In-Ko" means India's RMI in Korea's market.

have very low market intensity in the other country, meaning that the market share in the counterpart country is lower than the average share in the global market. The RCA of the Korean gearbox sector is somewhat higher than that of India, and the market intensity is also slightly higher.

Comparing just towers and gearboxes in the wind energy sector is a narrow range of analysis, but it should be noted that these sub-assemblies account for approximately 40% of overall turbine costs. In terms of turbine towers, India has strong international competitiveness, so Korea needs to consider cooperation with Indian companies when promoting domestic offshore wind power projects and future expansion into overseas markets. Since there has been relatively little trade between the two countries to date, it is necessary to identify the reasons for this situation and find ways to exchange each other's competencies.

## *Smart Grid*

A smart grid represents a convergence of electricity infrastructure and information technology, and is quite a broad sector. As the industry is relatively new, it is difficult to obtain specific data on the smart grid sector. In this study, to compare the RCAs and RMIs of Korea and India in the smart

grid sector, we selected heavy electrical components that are essential to the reliability of a grid operation. We also chose batteries, which are a critical factor for the diffusion of renewable energy and constructing a micro-grid; and software, which is indispensable in creating a wide range of applications that are central to managing the electricity network. Because import and export data for the software sector are not included in the COMTRADE database, we made use of data provided by government agencies with responsibility for the software industry in both countries.

First, for RCAs, in heavy electrical components, Korea has a general comparative advantage over India. However, as Korea's comparative advantage does not exceed 1, it is difficult to assert that the target items have a high comparative advantage compared to other Korean products. In contrast, as mentioned in the solar power sector, the battery segment of Korea has a high comparative advantage. However, the software segment of Korea has lower comparative advantage than other products. From the Indian perspective, except for software, the general RCA indices do not exceed 1. In 2005 and 2006, transformers (>500 kV), electrical apparatus for switching or protecting electrical circuits (>1 kV), and converters had RCA values of more than 1, but have recently lost their competitive edge.

In terms of RMIs, both countries have relatively active trade in electrical control and distribution boards. In this product segment, India's RMI index within the Korean market has recently exceeded that of Korea within the Indian market. Meanwhile, in the example of high-voltage transformers (>500 kV), Korea's RMI index in the Indian market appears higher. In 2008, the RMI index for Korea was up to 21. At that time, 16% of Korean exports of high-voltage transformers (>500 kV) were destined for India. In addition, for electrical apparatus for switching or protecting electrical circuits (>1 kV), Korea's RMI in the Indian market is also high.

The smart grid industry is a field in which both countries place emphasis, along with the renewable energy industry. In order for the two countries

**Table 7.9**

*The RCA and RMI of Korea and India in Goods Related Smart Grid*

| Year | Item | RCA | | RMI* | |
|---|---|---|---|---|---|
| | | Korea | India | Ko-In | In-Ko |
| 2005 | Electrical control and distribution boards | 0.374 | 0.172 | 1.774 | 0.443 |
| 2006 | | 0.425 | 0.273 | 0.841 | 0.846 |
| 2007 | | 0.480 | 0.328 | 0.937 | 2.542 |
| 2008 | | 0.536 | 0.474 | 0.646 | 3.444 |
| 2009 | | 0.475 | 0.279 | 1.159 | 5.933 |
| 2005 | Transformers (<500 kV) | 4.706 | 1.553 | 1.887 | 0.071 |
| 2006 | | 4.727 | 0.659 | 0.629 | 0.025 |
| 2007 | | 0.841 | 0.296 | 1.012 | 1.866 |
| 2008 | | 0.168 | 0.548 | 0.874 | 0.021 |
| 2009 | | 0.781 | 0.332 | 0.714 | 0.051 |
| 2005 | Transformers (>500 kV) | 0.771 | 0.421 | 0.020 | - |
| 2006 | | 0.822 | 0.336 | 3.194 | - |
| 2007 | | 0.644 | 0.254 | 3.923 | - |
| 2008 | | 0.545 | 0.526 | 21.062 | 0.001 |
| 2009 | | 0.419 | 0.339 | 5.389 | 0.129 |
| 2005 | Electrical apparatus for switching or protecting electrical circuits (>1 kV) | 0.682 | 1.224 | 0.469 | 0.436 |
| 2006 | | 0.678 | 1.214 | 1.007 | 0.444 |
| 2007 | | 0.935 | 0.945 | 3.470 | 0.009 |
| 2008 | | 0.868 | 0.860 | 4.973 | 0.071 |
| 2009 | | 0.975 | 0.459 | 2.196 | 0.433 |
| 2005 | Converters | 0.656 | 0.731 | 1.021 | 0.400 |
| 2006 | | 0.757 | 1.222 | 1.064 | 0.324 |
| 2007 | | 0.655 | 0.942 | 0.555 | 0.403 |
| 2008 | | 0.540 | 0.973 | 0.457 | 0.661 |
| 2009 | | 0.576 | 0.542 | 0.345 | 0.577 |
| 2005 | Storage batteries | 2.212 | 0.222 | 0.483 | 0.637 |
| 2006 | | 2.513 | 0.279 | 0.131 | 0.901 |
| 2007 | | 3.019 | 0.275 | 0.309 | 0.853 |
| 2008 | | 3.381 | 0.282 | 0.241 | 0.188 |
| 2009 | | 3.048 | 0.203 | 0.122 | 0.337 |
| 2010 | Software** | 0.130 | 1.542 | - | |

*Notes:* * "Ko-In" means Korea's RMI in India's market, and "In-Ko" means India's RMI in Korea's market.

** Data derived from Ministry of Knowledge Economy(2011) and State for Commerce and Industry(2011).

to pursue cooperation in the smart grid sector, it is necessary to take advantage of each country's strengths, and to identify areas of collaboration after examining the current state of cooperation. Comparison of the RMI and RCA indices shows that, in heavy electrical components, Korea has a slight comparative advantage, and Korea's RMI in the Indian market is slightly higher than India's RMI in the Korean market. However, Korea has not fully exploited its comparative advantage in battery technologies within the Indian market and needs to take full advantage of these strengths when promoting smart grid projects that utilize batteries. In the software segment, India certainly has a comparative advantage. Although Korea has comparative advantages over India in terms of hardware, a competitive smart grid is heavily dependent upon software. The "smart" of smart grid is ultimately derived from software capabilities. Therefore, it is desirable that Korea enhance the intelligence of smart grid applications and services, and strengthen domestic software competence by taking advantage of the software capabilities available from India.

## Conclusion

The purpose of this study was to compare the export competitiveness of photovoltaic, wind power, and smart grid technologies between Korea and India, and to present the direction of cooperation based on the comparison. The UNDB COMTRADE database was used to derive the RCA and RMI indices representing each country's comparative advantage and market intensity, respectively. Data on import and export activities within the software sector were provided by the appropriate government agency in each country.

The results of the analysis can be summarized as follows. Korea generally has comparative advantages over India in the photovoltaic sector, but the trade between Korea and India in the sector is relatively insignificant. In the cases of polysilicon, PV modules, and battery technologies, both

countries have RMIs of much less than 1 in the other country. However, in the case of silicon wafer, Indian products accounted for a relatively high proportion of the Korean market, but this share has been shrinking rapidly in recent years.

Within the wind power sector, India shows distinct comparative advantages in turbine tower components, but both countries have quite low market intensity in the other country, meaning that their market share in the counterpart country is lower than the average share in the global market. The RCA of the turbine gearbox segment in Korea is somewhat higher than India, and the market intensity is also slightly higher.

In terms of heavy electrical components in the smart grid sector, Korea generally has comparative advantages over India. Furthermore, Korea's battery sector shows higher comparative advantage, but India's software sector has much higher comparative advantage. In the field of smart grids, there is little active trade between the two countries except for electrical control and distribution boards.

Based on the above analyses, we suggest the direction of cooperation of both countries in the field of green energy as follows.

First, in the photovoltaic sector as a whole, Korea has strong global competitiveness, but does not have a large presence in the Indian market. As India has huge potential in the photovoltaic industry and is showing national commitment to fostering the industry, it would be advisable for India to boost its photovoltaic industry by taking advantage of Korea's industrial capacity.

Second, in the wind power sector, as India is highly competitive in the production of turbine towers, Korea needs to consider cooperation with Indian companies when promoting domestic offshore wind power projects and planning future expansion into overseas markets.

Finally, when the two countries seek cooperation in the smart grid sector, they need to identify the scope of collaboration regarding each

country's advantages, and the current state of cooperation. Although Korea has comparative advantages over India in terms of hardware, a competitive smart grid requires an innovative software platform. Therefore, it is desirable that Korea enhance the intelligence of smart grid applications and services, and strengthen domestic software competence by taking advantage of the software capabilities available from India.

## References

Balassa, B. 1965. "Trade Liberalization and Revealed Comparative Advantage." *Manchester School of Economic and Social Studies*, Vol. 33, No. 2, pp. 99-123.

BNEF. 2011. *Indian Wind Market Outlook*, quarterly 1.

Central Electricity Authority. 2011. *Load Generation Balance Report 2011-12*.

CSTEP. 2010. 8. "Indian Power Supply Position 2010." CSTEP Working Paper No. 1.

Ernst & Young. 2008. 6. *Comparative Advantage and Green Business*.

KETEP. 2011. *Green Energy Technology Roadmap* (in Korean).

Korea Institute for Industrial Economics and Trade. 2009. *The Promotion Strategy of Environment-friendly Parts and Materials for Green Growth* (in Korean).

KOTRA. 2010. *Current Trends of Indian Wind Market* (in Korean).

Lee, C. Y. and Lee, S. Y. 2010. "Study on an Export Strategy to Foster New and Renewable Energies' Parts Sector. (in Korean)" Korea Energy Economics Institute.

Park, S. H. 2000. "A Study on the International Competitiveness Improvement of Korea Automobile Industry." Doctoral Thesis (in Korean). Hoseo University.

Tongia, R. 2011. 7. "What the Smart Grid Means and Doesn't Mean for India." smartgrid.ieee.org.

UNDB. 2011. Commodity Trade Statistics Database.

# 8 The Role of Culture in Economic Activity and Exchange

*by* Parthasarathi Shome*

## *Abstract*

*India and Korea are ancient cultures whose influence has important ramifications on their societies and economic activity. This paper addresses cultural issues from three perspectives. First, how is culture to be defined, in particular, from an inter-cultural communication perspective since many Korean professionals are increasingly placed in India. Second, reflecting their heritage based in Hinduism, Buddhism and Christianity, what similarities can be found in terms of their role in organizing society, and its norms and outcomes. Third, based on an available study, what cultural patterns can be observed in their practice of business ethics. The conclusion is that indeed there are significant similarities in the two cultures given their underlying common heritage and they spill over into practices in the form of ethical norms and practices in the workplace.*

## Introduction

In a discourse on culture, a citizen usually focuses on its components such as art, theater and, perhaps, tradition. However, these are only

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manifestations of culture whose very basis is more fundamental. It is therefore important to consider in some depth and detail what culture is, how it is perceived in different societies, the Indian heritage of culture(s) as an example, and how culture plays a crucial role in an increasing incidence of cross-cultural interface with the rise in international migration — temporary and permanent — of labor. In the context of this volume, with many Korean businesses and, in particular, manufacturing units having been established in India, and more continuing to be established, the issue of cross-cultural interface assumes crucial importance.

In this paper, we first conceptualize culture in the broader context and attempt to link it to the Indo-Korean context. By drawing from India's ancient culture, we then consider what lessons we might have from our past when we ourselves participate in inter-cultural communication. Finally, we examine existing studies on cross-cultural comparisons of ethical attitudes of business managers in Korea and India to arrive at conclusions regarding different approaches to business practices and the possible challenges in inter- and cross-cultural business interactions.

## Conceptualization in the broader and Indo-Korean cultural context

In India, cultural matters take center stage if we are to keep in mind the comfort of temporary Korean immigrants and the ease with which they can co-exist in India during their stay. On their part, it is also the set of cultural behaviors and attitudes that they integrate into the daily life of an enterprise or agency that enables the workers to function effectively in India, in turn, contributing toward their productivity and well being. In a broader sense, this may be achieved through translating and integrating knowledge about individuals and groups of people into specific practices and policies applied in appropriate cultural settings.

According to Samovar and Porter (1991), where they cite various definitions, culture is our invisible teacher. They cite Hoebel and Frost, who called it an "integrated system of learned behaviour patterns which are characteristic of the members of a society and which are not the result of biological inheritance". Further, Hofstede's opinion was that "it is the collective programming of the mind which distinguishes the members of one category of people from another". Samover and Porter themselves indicate that culture is "the complex combination of common symbols, knowledge, folklore conventions, language, information-processing patterns, rules, rituals, habits, life styles, and attitudes that link and give a common identity to a particular group of people at a particular point in time". Finally, Moreno-Leguizamon and Spigner (2009) define culture as "the inherited, shared, and learned set of guidelines through which human beings come to make sense of the world they inhabit, their behaviors and emotions" (p. 31).

What then could we term the characteristics of culture? Culture is not innate; it is always a learned activity. Terms that are often used in this context include enculturation or socialization through interaction, observation, and imitation. It is also said that some of it could be conscious, some of it unconscious. In fact one of its powerful forces is that it works very much unconsciously. The dissemination of culture could be perceived to be transmissible from person to person, group to group, or generation to generation. Thus culture is not time-bound and, instead, is a dynamic system that changes continuously over time and space. From another perspective, culture must embrace language, religion, values and attitudes, education, social organization, material culture and technology, politics, and law and, usually, also extends to the realm and practice of religion.

Cultural proficiency is a contemporary training tool developed by organizations in order to increase harmonious relations and minimize tensions when peoples from different cultures have to interact daily. It is a tool that seeks to facilitate individuals and organizations to interact effectively

with people who differ from them – in other words, 'the other'. Thus, cultural proficiency is the umbrella under which diversity about the other falls. Diversity includes others such as race, ethnicity, gender, sexual orientation, socio-economic status, social class, age, physical abilities, religious beliefs, language, friends, geography, political views, and social organization. The principles of cultural proficiency bear upon the values and attitudes, communication styles, and policies and procedures that represent an organization or a society.

As a practical, key performance indicator (KPI), a short, yet comprehensive, checklist for success could be specified for cultural proficiency. Thus, cultural competence should:

- ✓ Make the environment more welcoming and attractive based on the client's cultural mores;
- ✓ Avoid stereotyping and misapplications of scientific knowledge;
- ✓ Include community input at the planning and development stage as well as when providing services; and
- ✓ Use educational approaches and materials that will capture the attention of the intended audience(s).

The KPIs are important when cultures meet newly such as India and Korea in recent times. With effective and successful KPIs, the next stage of the relationship should relate to the expected acculturation. This is a process that occurs when two distinct cultural groups have continuous first-hand contact, resulting in subsequent changes in the original cultural patterns of either or both groups. The degree to which acculturation takes place is influenced by differences at both the cultural and individual levels.

## Illustrations of India and Korea's Ancient Cultures

As already y indicated, culture is not only dance, music, arts, cuisine or tradition with which culture is widely identified and known. It is also an

approach to governance and manner of behavior that, in selected societies, have evolved from past moments. To quote from Muniapan and Satpathy (2010) on the *Ramayana*, India's ancient text:

> Rama to his brother, Bharata, the king who reigned in Rama's absence: O, Bharata! I hope you pursue wealth, religion and the delights of the senses, dividing them according to time. I hope your income is abundant and your expenditure, minimum... I hope you do not eat by yourself ... and share it with your friends... I hope your treasure does not reach undeserving people.
>
> I hope you are regularly giving your army the daily provisions and suitable salary without any delay... I hope that you seek to conciliate by gifts, a loving mind and polite words, the aged, the children and the foremost physicians... I hope you are not honouring the materialistic *brahmanas,* my dear brother! Thinking themselves to be learned and reaching to their logical acumen, these men of perverted intellect preach meaninglessly... Are you cherishing all those who live by agriculture and cattle rearing, O, dear brother, ... providing them what they need and abstaining from what they fear? All the citizens are indeed to be protected by the king through his righteousness.

Similarly, to quote Niaz (2008) on Kautilya's *Arthshastra* written around 500 B.C.:

> Although taxes on land were the largest source of revenue, the efficient operation of state-owned businesses, the promotion of domestic and international trade, anti-corruption measures, and strict accounting procedures merited the sovereign's attention.
>
> They must also have the means to punish violations of taxation discipline with fines, confiscations and imprisonment. This discipline extended to a host of indirect taxes on leisure activities, such as liquor and gambling, as well as service charges for irrigation,

> transport and technical support. Royal monopolies over mines were particularly critical.
>
> Financial discipline was to be maintained through budgeting, accounting, auditing and espionage, with senior officers held personally liable for any major discrepancies... The ruler [should] reward upright financial administrators who increase the revenues without resorting to heavy-handed or arbitrary measures... A country can indefinitely sustain a moderate level of taxation... An overly high level of taxation destroys the basis of future productivity, deprives people of their subsistence and provokes rebellion, thereby making the state vulnerable to external pressure. (Thus) laxity in financial administration breeds chaos and disintegration of the country.

We can give many examples but this is enough to demonstrate that India is an ancient culture that imbibes from others. South Korea embraced Buddhism, and India today, the birthplace of the Buddha, can learn a lot from the Buddhist philosophical and practical style that has become the hallmark of South Korea. To quote Cho (2002):

> Buddhism in Korea has contributed to development and improvement of culture and ideas in Korea(p. 49)... Buddhism was well mixed with the ancient Korean culture and created a new phase of Korean culture (p. 42)... we can find out that Buddhist ethics have been adapting to the trends of the times, society and region (p. 49)... Buddhism in the Three Kingdoms was transformed into a social form for the maintenance of official discipline (p. 42).

And the role of Buddhism in transforming the political economy of society is observable clearly from Cho's folllowing statements:

> The kings ... changed Buddhism from its original form into Buddhism for the king and the country. (p. 44)... Buddhism... had a purpose to protect king and country. Whenever there (was) a national danger, they always rose and fought to protect the country and led an order.

> This is loyalty, filial duty, perfect virtue, courtesy, knowledge and faith (p. 46).

Indeed this seems reminiscent of the period during the 1998 East Asian crisis when Korean women were found to contribute their jewelry to enable their country to repay its debt, as if 'rising to protect the country'. And, just as Rama's advice to Bharata, his brother, the epitaph on a monument for King Chinhung-wang proclaims:

> For the safety of my people, I have to discipline myself. Therefore since I have agreed on monarchy, I have been trying to be true and follow the ways of Heaven (p. 47).

The similarities between the dictums of the two ancient cultures are striking, based on similar principles of royal responsibility complemented by the response of the citizenry.

Interestingly, both India and Korea also have a significant presence of Christianity that entered with missionary zeal and effectiveness. Perhaps the early lecture by Starr (1918) at All Souls' College, Oxford best describes the tussle of Buddhism and Christianity in Korea. Yet he praises profusely, the efforts of a young man in inter-cultural communication after having been brought up with exposure to multiple cultural variations:

> The young man himself was educated in Catholic schools in the city of Seoul; his whole education came from foreigners, and he himself now has a double employment; he is official interpreter for the Belgian consul in the city of Seoul, but he finds his pleasure and devotion in his magazine for the advancement of Korean Buddhism. Son of a Presbyterian elder, trained in Catholic schools, speaking French, Korean, Chinese and Japanese, professionally engaged at a foreign consulate, he is the editor of a magazine whose object is to revive, strengthen and carry on Korean Buddhism (p. 83).

India proudly represents most of the major and minor religions present in the world today, resulting in a crucible of experimentation and variation in

cultural practices and challenges. It is this complex mix that sometimes clears the path for easy cultural interaction, yet, on occasion, also poses formidable barriers to cross-cultural presence and participation in a business-like fashion that would easily generate economic growth and rise in productivity. We turn next to selected such factors.

## Cultural Attributes and Economic Behavior

In a sample study by Christie *et al.* (2003), the authors select five cultural dimensions[1] — individualism,[2] power distance,[3] uncertainty avoidance,[4] masculinity,[5] and long-term orientation[6] — to study their relationship to business managers' ethical attitudes. They use primary data from 345 business manager participants of Executive MBA programs in India, Korea, and the United States. A systematic sampling procedure based on which the countries were selected emphasizes representation of different values and cultural dimensions. The authors measure their attitudes toward business ethics and toward 12 common questionable practices. They find that business ethics are strongly linked to 'national' culture; the concept of nation relates to nation-state and the concept of culture goes beyond the borders of a nation, as well as personal integrity, external environment, and gender. There is a relationship between cultural dimensions of individualism and power distance, and respondents' ethical attitudes toward certain questionable practices.

1. They use Hofstede's (1980) conception of cultural dimensions.
2. Individualism pertains to societies in which ties between individuals are loose: society is atomistic.
3. It is the extent to which the members of institutions — family, school and community — and organizations — places of work — within a country expect and accept that power is distributed unequally.
4. This is the extent to which members of a society feel threatened by uncertain and unknown situations.
5. In a masculine society, gender roles are sharply differentiated. Thus men are assigned to be assertive, tough, and success-oriented.
6. Termed Confucian dynamism, dynamic cultures emphasize values associated with future orientation.

At an overarching cultural level, the major broad conclusions of the study were:

- Culture influences business ethics;
- Managers' attitudes oward business ethics are also related to personal integrity;
- How they feel about questionable practices depends on personal integrity, the external environment, and gender;
- Attitudes toward questionable business practices also reflect societal individualism and power distance; and
- The influence of masculinity, uncertainty avoidance, and long-term orientation on attitudes toward questionable business practices is more tenuous.

Focusing more narrowly at individual countries, interestingly, in constructing the national value systems through questionnaire results, "the United States scored the highest value on individualism, masculinity and long-term orientation, while India scored the highest value on power distance, and Korea scored the highest value on uncertainty avoidance" (Christie *et al*, 2003, p. 274).

Working out the mean and standard deviation of cultural characteristics in making unethical decisions:

- Greed and desire for personal gain and lack of personal integrity top the list for India and the United States; and
- Political climate had the strongest influence on Koreans, closely followed by greed and desire for personal gain.

The main findings on differences in ethical attitudes of businesses among the countries found:

India and Korea were similar and were less individualistic than the United States;

- India had greater power distance than Korea or the US. On complying with the superior's order that was perceived to be unethical, Americans consider this practice to be more unethical than Indians or Koreans;
- There is no wide variance in the masculinity factor across the countries; and
- On long-term perception, India and Korea consider the practice of injury to the environment to be more unethical than the US.

Thus there were many similarities between India and Korea in their cultural characteristics that are likely to influence business behavior, as well as some differences. It is this exciting finding that bodes well for the future collaboration in investment and mutual economic growth and prosperity of the two economies — one developed, and one emerging.

## Conclusion

It would be fitting to conclude with a quotation from an early paper by Hofstede and Bond (1988) in which they pointed out that:

> Culture in the form of certain dominant values is a necessary condition for economic growth; however, culture alone is not sufficient for such growth to occur. Two other necessary conditions are the existence of a market and a political context that allows development (p. 18).
>
> Kahn's neo-Confucian hypothesis is that the countries of East Asia have common cultural roots going far back into history, and that under the world market conditions of the past 30 years this cultural inheritance has constituted a competitive advantage for successful business activity. Yet there also are differences (pp. 6-7).

Certainly with the spread of globalization, East Asia and South Asia have also emerged to be increasingly similar, with common economic

interests, willingness to enter into mutually beneficial trade, and demonstration of comparable behavior in business ethics, reflecting their ancient common cultural roots and an evolving common set of values.

## References

Cho, Yong-kil. 2002. "Introduction of Buddhist Ethics into the Korean Peninsula." *International Journal of Buddhist Thought and Culture,* Vol. 1, No. 3, pp. 39-52.

Hofstede, Geert. 1980. *Culture's Consequences: International Differences in Work-related Values.* California: Sage, Beverly Hills.

Hofstede, Geert and Michael Harris Bond. 1988. "The Confucius Connection: From Cultural Roots to Economic Growth." *Organizational Dynamics,* Vol. 16, No. 4, pp. 5-21.

Muniapan, Balakrishnan and Biswajit Satpathy. 2010. "Ancient Indian Wisdom for Managers: The Relevance of Valmiki Ramayana in Developing Managerial Effectiveness." *International Journal of Indian Culture and Business Management,* Vol. 3, No. 6, pp. 645-668.

Moreno-Leguizamon, Carlos, Spigner, Clarence and McNaught, Allan. 2009. "Equality, Equity, Diversity and Culture." J. Stewart and Y. Cornish eds. *Professional Practice in Public Health.* Reflect Press Ltd, United Kingdom

Niaz, Ilhan. 2008. "Kautilya's *Arthashastra* and Governance as an Element of State Power." *Strategic Studies,* Vol. 28, No. 2, pp. 1-16

Samovar, L. and R. Porter. 1991. *Communication between Cultures.* Wadsworth Publishing Company, Belmont, California.

Christie, P. Maria Joseph, Ik-Whan G. Kwon, Philipp A. Stoeberl and Raymond Baumhart. 2003. "A Cross-Cultural Comparison of Ethical Attitudes of Business Managers: India, Korea and the United States." *Journal of Business Ethics,* Vol. 46, No. 3, pp. 263-287.

Starr, Frederick. 1918. "Korean Buddhism." *The Journal of Race Development,* Vol. 9, No. 1, pp. 71-84.

# Section V

## Global Security Issues

# 9 Rising Powers and Asia's Stability:

## *Strategic Convergence between India and South Korea*

*by* W. Lawrence S. Prabhakar

## *Abstract*

*The rise of Asia has been the dominant theme in geopolitics and geo-economics in the late twentieth and early twenty-first centuries. Asia's rise or resurgence could be viewed as a critical phase in contemporary geopolitics, even as the energies of human knowledge-led innovation, critical demographic mass, trade, capital, and technology are transforming the Asian landscape. India and South Korea have emerged as Rising Powers with a high degree of compatibility and convergence that has drawn the two economic giants of Asia into a closer economic partnership and a concert that has vital stakes for Asia's stability and democratic order*

## Introduction

As the first decade of the twenty-first century draws to a close, the global security architecture and the Asian theatre have to contend with changes and power shifts that have resulted in substantive transformation. In the Asian region, economic growth and strategic competition are intertwined. Given the high rates of economic growth and the increasing shift to high-

technology manufacturing featuring rapid patterns of industrialization, Asia is gearing up for a 'concert of rising powers' – China, India, and South Korea, besides Japan.

The Asian century has been ushered in with several geopolitical and geo-economic changes that have witnessed the globalization of trade, capital, and technology and the rise of Asian markets that are now emerging as pivotal catalysts and hubs of global economic development (Ikenberry and Mastunduno, 2003).

The transformation of the Asian region from a predominantly agrarian economic system to a burgeoning industrial system has been one of the pivotal aspects of change. In this process, the tremendous human capital has been catalytic in the changes that these countries have gone through. The Asian states have had to deal with war and internal conflict, as well as poverty and deprivation, but they have been able to harness their human capital and draw on their social and cultural resilience to meet the formidable challenges of the twentieth century. Northeast Asia and South Asia have been theaters of high-intensity and low-intensity conflicts since 1945, yet South Korea and India have been able to meet these challenges and to catalyze the necessary economic, demographic, and strategic transformations (Muthiah, 2003).

What will Asia's emerging security order be? Will it be highly competitive among the rising Asian powers that are predominantly civilization states unlike the nation-states of the Westphalian order (Acharya, 2003/2004; Tow, 2009)?

Will the liberal international economic order augur for peace and stability in the Asian region or Is Asia different in its ideational norms and values? Do Asian values espouse cooperative relations or do they bring ancient rivalries to the contemporary order?

This paper intends to highlight the following: a) the salience of the rise of Asia and the dynamics of its rising powers; b) the impact of strategic competition and war through the attendant consequences of militarization

and proliferation of weapons of mass destruction, and c) the strategic convergence that India and South Korea share in the transforming Asian security order.

An analysis of the salience of Asia's Rising Powers and an assessment of their strategic impact on the international system would help us understand the Indian and Korean perspectives of the emergent global security order and the pertinent issues.

## Salience of Asia's Rise and the Rising Powers in Asia

Asia's rise has been in momentum since the 1960s when the Second World War ravaged the economies of South Korea and Japan had been recovering. The post-1945 period international order in the Asia-Pacific had been overwhelmingly steered and anchored by the stabilization of US economic aid, investments, technology transfers, and above all a robust forward military presence that was 'stabilizing' in terms of strategic deterrence as well as enhanced stability.

The Asian power rise has been characterized by several features. The earlier wave of Japan's economic rise and the South Korean economic miracle were peaceful and provided a vital denting influence on the surges of Soviet and Chinese communism that were threatening to swamp Korea and Southeast Asia during the Korean War and later the expanding war in Indo-China. The robustness of democracy and liberal economic order injected the counter-campaign against communism. In the aftermath of the Indo-China war, the shifting global geopolitics and geo-economics witnessed the first signs of exhaustion of the Soviet Union and China, initial defaults in the economic resilience of socialism, and the inability to sustain the monstrous arms race of the Cold War.

India is among the countries that experimented with a mixed economic system, in which the state and the public sector held the predominant share and were viewed as the 'commanding heights of the economy'. With the

goals of economic self-reliance and achieving a subsistence economy, several Asian countries have been content with modest growth rates, with greater accent on development. However the objectives of development did not prove to be fulfilling even as the contradictions within the system were evident. Besides, Asia had been through a spate of external wars and internal conflicts that took their toll on human security and human development.

The shift in China's growth with accents of modernization and economic growth spurred the Asian engine of growth. The shifts in the Chinese paradigm of growth and development from Maoism to Modernity (capitalism with Chinese characteristics) had a cascading impact throughout the Asian region.

Five trends narrate the Rising Powers paradigm of Asia:

One, the economic and strategic transformation of Asia has been propelled by the templates of the new wave economic growth and technologies after the 1970s, even as Europe and the US were in strategic competition with the Soviet Union. The second half of the 1970s saw the shift of the Cold War to Asia and it also saw the enhanced commitment of the United States and the West in economic interdependence with Asia as a means to contain Soviet Communism. China immensely benefitted from this shift since the US opened up to China. Asia's rise and the new globalization of the late twentieth century featuring the new dynamism of the Asian workforce, technology adaptability, enormous social resilience, and the catalytic motivation to move out of poverty have combined with the strong sense of Asian values and norms (Ross, 2006).

Two, the rising powers of Asia have a long historical and civilizational cycle of being preeminent powers. China, India, Korea, and Japan have all been dominant powers. Asian civilizational powers have not only been economic powers but have sparred with each other in strategic competition. China and India have been dominant naval powers that had domains of trade and left cultural footprints in the region and in Southeast Asia. Maritime

power also brought about disputes among China, Korea, and Japan (Cha, 2010).

Three, India's footprint in Southeast Asia has been through both trade and conquest, but primarily through the former. The Indian system was a conglomeration of states and kingdoms that constituted an 'international system' in the subcontinent until the arrival of British imperialism and colonialism. It is pertinent that India and China were dominant economic powers until the onset of colonial rule. It is therefore surmised that the rise of China and India were inevitable in the new patterns of economic interdependence, diffusion of technology, and robustness of growth;

Four, Asia's economic rise and the diffusion of technology have spurred strategic rivalry and military modernization. Taking the cue from China, all Asian rising powers are now propelled to high rates of defense expenditure. The dual use of technology has been a catalytic force that had brought about a revolution in military affairs from civilian derivatives in high technology, nuclear science and technology, space, etc. Therefore it could be said that economic transformation through the diffusion of technology and robust Asian assimilation has catalyzed the military modernization process that is now sustained by high growth rates. The fear is that these would impact strategic competition among the rising powers. Prominent in the templates of strategic modernization are the fast-growing naval and air forces of the Asian powers and they are also marked by a strong penchant to build ballistic and cruise missiles and with strong motivations to exploit the nuclear weapons option.

Five, multilateralism and economic integration are intrinsic features of the Asian rising powers. Economic cooperation and comprehensive economic and trade ties have now become a salient feature of the rising Asian powers through the aegis of the ASEAN Regional Forum (ARF), East Asia Summit (EAS) and Asia-Pacific Economic Council (APEC) (Denoon, 2009). Multilateralism and comprehensive economic cooperation among

Asia's rising powers have been the best insurance against conflict and the spirals of conflict escalation. Economic interdependence and cooperation are also augmented by cooperation over transnational challenges and perils like global warming, climate change, disaster management, and cooperative measures in the maritime commons. Similar cooperation over food, health, and development issues has been a vital benchmark of cooperation.

## The Templates of Strategic Competition

Military modernization is the direct consequence of the prevalent political differences and strategic interests of Asia's rising powers (Pyle, 2011). China, India, Japan, and South Korea are all important military powers that have a sustained military industrial base and defense production. Japan and South Korea are treaty-bound with the United States that provides the extended nuclear deterrence of the US strategic forces as well as robust forward-deployed naval, air, marine, and land forces that defend the two economic powers.

China has been in the throes of an impressive and secretive military modernization that is now propelling the Asia-Pacific into a comprehensive military and strategic modernization. Even as the 'power-shift' is being discussed, the surge of Chinese economic power through its much-advertised 'peaceful rise', which had earlier been the 'charm offensive', now has an ambitious and aggressive intent of assertive rise that has serious implications in the South China Sea, with Japan and the Asia-Pacific region (Ikenberry, 2008/09).

India and China have been great economic partners, but this economic partnership is matched by an aggressive Chinese military modernization and the prosecution of a military-strategic partnership with Pakistan that abets asymmetric and nuclear missile threats through collusion. While patterns of India-China trade are benign, the nuances of the trade reveal the extent of the Chinese intent to dent India.

## The India-Korea specs on Global Security

From the perspective of an India-South Korea worldview of the global security challenges, four issues are pertinent.

One, India and South Korea have to contend with hostile brinkmanship nuclear states (Pakistan and North Korea) that are bent on leveraging their "nuclear sword" and have often used it as a means to ratchet regional crisis. The histories of the conflict pathways that India and South Korea have faced have been long and checkered and often the regional crisis has escalated, inviting extra-regional intervention.

Pakistan and North Korea have been failed economic states. They have been solely leveraging the military option of building conventional military power, exporting weapons of mass destruction, in the case of Pakistan exporting radicalism and terrorism, and in the case of North Korea proliferating light weapons and small arms that support terrorists and insurgencies globally.

Two, India and South Korea have often been most magnanimous in accommodating their hostile neighbors. Given the common ethnic heritage and the common cultural plank, India and South Korea have been most considerate about the people of the two hostile powers and have often extended magnanimous humanitarian assistance to the respective populations even when the regimes were intensely hostile and have acted on the brinkmanship tenor. Often such gestures have resulted in acrimonious assaults in the form of cross-border terrorism for India and North Korean acts of subversion against the South and even artillery barrages from the North.

Interestingly the anchor state that Pakistan and North Korea rely on is China. Beijing has been propping Islamabad and Pyongyang with economic largesse, military aid, and extended nuclear deterrence and has used the two states in global and regional ballistic and cruise missile proliferation.

Coincidently, Beijing maintains robust economic and trade relations and multilateral linkages with New Delhi and Seoul bilaterally, immensely benefitting from economic partnership, while offsetting the same with the military-denting capacities of its partners by promoting Pakistan and North Korea as 'client states'.

Three, India and South Korea have to contend with the economic consequences of the global economic crisis and its impact on national and regional security. India and South Korea share a common theater of humanitarian operation, viz., Afghanistan. Even as India invests in civilian infrastructure build-up and capacity building, Pakistan has been relentlessly pursuing a strategy of accelerating the collapse of the present government in Kabul. The US forward engagement in Afghanistan has been stabilizing the country for long. But recent years have seen intense Pakistan involvement in the 'creation of its own strategic space' in the region. Taliban kidnappings and killings have affected Indians and South Koreans. Prosecuting a war of attrition in the region is Pakistan that is propped up by China with a view to expanding its domain in the region at the expense of an disengaging United States.

Four, Pakistan and North Korea are 'rank-proliferators' of nuclear weapons technology and ballistic and cruise missiles in barter trade. The single critical factor that threatens India and South Korea has been nuclear weapons and ballistic missiles that the two client states of China have exchanged and sustained with each other over the years. India and South Korea thus have to contend with 'an imperiled future' even as the hostile brinkmanship states of Pakistan and North Korea continue unabated nuclear and missile proliferation, adding to the various technological enhancements of the respective nuclear-missile arsenals through covert technology transfers and collaborative buildups.

The Asian strategic environment thus represents the twin attributes of burgeoning economic growth and a spiraling strategic competition that

negate each other but are a clear and present reality.

The specter of US disengagement or reduced strategic footprint would have highly critical destabilizing consequences. Should the effects of a reduced US footprint be evident, it could trigger a cascade of regional and trans-regional consequences.

Could it prompt a full-scale resort to nuclearization and ballistic missile development in Japan and South Korea to check the North Korean aggressiveness? Could it simultaneously heighten Chinese strategic modernization fearing a "Korean unification" that could also affect Japan in view of how nuclear weapons and ballistic missiles are synced with the region's power balance?

Would Japan's nuclear option along with its missile deployments heighten the templates of Sino-Japanese rivalry and could it have implications for Korea?

China's cascading impact of nuclear and missile expansion would inevitably trigger India into a response that would catalyze an increased Chinese collusion with Pakistan to ramp up a nuclear-missile siege of India.

The East Asian nuclear missile cascade would imperil Southeast Asia even as Chinese assertiveness and naval expansion would trigger an all-out conventional naval and air competition. These hypothetical scenarios have potent and toxic consequences for India and South Korea even as the global economic and strategic transformation is in a momentum that would affect Asia's rising economies and rising powers. China's intent and actions would be pivotal in how these issues are addressed.

Asia's rising powers have thus varied and complex futures. The multiple economic and strategic dynamics between China, Japan, India, and South Korea along with the new focus of growth and technology development and the spread of Asian capital would have a critical impact on the global economic system. With Asia's rise, would Asian values and norms emerge as the primary discourse in global institutions? What would Asia's

capacity be to craft ideas for the global order and how would they influence the evolving geopolitics? These are some of the pertinent issues that rising powers in Asia pose for the power shift in geo-economics and geosecurity (Acharya, 2009).

Asia's rising powers also have vital stakes in how the global order evolves. In an age when increasing geopolitical and geo-economic turbulence and transformations are on the anvil, the need for effective governance structures and mechanisms is seen as vital. The long-sustaining period of the western liberal democratic order is now changing and has shown signs of attrition due to the economic turbulence and the slackening political will to pursue. This symptom raises the need to identify stakeholders who would invest in governance of the regional and global orders. Do Asia's rising powers have the vision and capacity to envisage global governance (Acharya, 2011)?

It is in this context, that the India-Korea convergence emerges as crucial. India and Korea have been 'civilizational states' with long historical and cultural memories. As maritime powers in the past, the two states like China and Japan have sustained regional economic preeminence in the historical past.

## The India-South Korea Convergence

India and South Korea thus have vital stakes in the transforming Asia-Pacific economic order and security architecture (Il-Young and Singh, 2002). The templates of globalization and economic interdependence augur well for greater interdependence and regional integration, but the discontents of the security order evident in symmetric threats and asymmetric perils necessitate greater cooperation between the two free societies. As democracies in the Asia-Pacific region, India and South Korea have to stay engaged and have to be focused in understanding, influencing, and shaping the transformation of the region (Brewster, 2010).

The economic interdependence of the two rising powers is indeed the

bedrock of the strategic partnership that would augur better salience in the change in the order (Gallagher, 2010).

The India-South Korean convergence could be well-established and enhanced in the following areas:

*Strengthening Nuclear Security* is a vital priority for India and South Korea. The signing of the nuclear agreement for peaceful uses of nuclear energy between the two rising Asian powers would bring in the synergies of South Korean technological strengths in nuclear engineering and nuclear safety. With the 2012 Nuclear Security summit in Seoul, India and South Korea have the vital tasks of securing the region against covert proliferation and the security of fissile materials. The two powers have immense operational and intelligence capital that would have to be harnessed for the global commons of nuclear energy.

*Enhancing Maritime Security* is a significant task for India and South Korea. The imperative to collaborate in ship-building would bring to bear South Korea's technological advantage in this area. Building capacities in civilian shipping and the South Korean partnership in Indian defense production and procurement would strengthen India's technological prowess. It would also necessitate the enhancement of maritime security ties through the spectrum of benign, constabulary, and humanitarian sectors of the two navies to be forged in strong partnership so as to establish order in the maritime commons of the Asia-Pacific.

*Establishing Space Partnerships* would be a new frontier even as India and South Korea engage in transformative technologies and the build-up of space capabilities in satellites and space launches. Joint space exploration and the joint commitment to ensure the peaceful uses of outer space are vital for both powers, even as brinkmanship states would leverage the militarization of outer space as a means to attrite the two powers.

*Endeavoring High Technology cooperation* is an important priority that would harness the scientific and technological capital of India and South Korea

towards the development and expansion of high-technology. Critical in the Asian power rise is the salience of technological innovation and its transformative effectiveness. Harnessing the technological dividend and investing in the development of dual-use technologies and its salience in industry would be highly important even as the two powers grow.

*Engaging in Military interoperability* is of strategic consequence. India and South Korea should expand into areas of joint warfare doctrine, counter-insurgency, counter-terrorism, special operations forces training and exercises, joint army, navy and air forces, and, most importantly, intelligence cooperation.

In summation, the bilateral specs of the global security issues of the two Asian democracies whose joint stakes in augmenting regional stability provide crucial convergence. Even as the Asia-Pacific economic and strategic order transforms, the essence of concert among democratic powers in the region provides a framework of cooperation. India and South Korea have signed the Comprehensive Economic Partnership Agreement, which augurs well for the two powers to establish enduring ties and interdependence.

Although India and South Korea have their respective national challenges and regional threats, their emphasis on the economics-first approach would enhance their ability to forge better relations that would have an enduring impact (Panda, 2011).

It is imperative that this partnership has a transformative impact on the evolution of a consensus between the two powers to elucidate a common strategic vision that is focused on mitigating the ill consequences of the regional transformation and augmenting greater Asia-Pacific stability.

# References

Acharya, Amitav. 2003/04. "Will Asia's Past Be Its Future?" *International Security,* Vol. 28, No. 3, pp. 149-164.

_____. 2009. *Whose Ideas Matter? Agency and Power in Asian Regionalism*. Ithaca: Cornell University Press.

_____. 2011. "Can Asia Lead? Power Ambitions and Global Governance in the 21st Century." *International Affairs* , Vol. 87, No. 4, pp. 851-886.

Brewster, David. 2010. "India's Developing Relationship with South Korea: A Useful Friend in East Asia." *Asian Survey,* Vol. 50, No. 2, p. 407.

Cha, Victor D. 2010. "The New Geometry of Asian Architecture: What Works and What Does Not." *Center for Strategic and International Studies.*

Denoon, David B. H. 2009. *The Economic and Strategic Rise of China and India: Asian Realignments after the 1997 Financial Crisis.* New York: Palgrave Macmillan.

Gallagher, Michael G. 2010. "Future Indian-South Korean Ties: Can Seoul use India to Balance China?" *The Korean Journal of Defense Studies,* Vol. 22, No. 1.

Ikenberry, John. 2008. "The Rise of China and the Future of the West: Can the Liberal System Survive?" *Foreign Affairs.* (January/February)

Ikenberry, John G. and Michael Mastanduno eds. 2003. *International Relations Theory and the Asia-Pacific*. New York: Columbia University Press.

Kim, Il-Young and Lakhvinder Singh. 2002. "Asian Security and India-Korea Strategic Cooperation." *The Korea Journal of Defense Analysis,* Vol. 14, No. 1.

Muthiah, Alagappa ed. 2003. *Asian Security Order: Instrumental and Normative Features*. Stanford: Stanford University Press.

Panda, Rajaram. 2011. "India-Republic of Korea Military Diplomacy: Past and Future Projections." *Journal of Defence Studies,* Vol. 5, No. 1, pp. 16-38.

Pyle, Kenneth B. 2011. "International Order and the Rise of Asia: History and Theory." Ashley J. Tellis, Travis Tanner and Jessica Keough eds. *Strategic Asia, 2011-12: Asia Responds to Its Rising Powers - China and India.* Seattle: WA: National Bureau of Asian Research.

Ross, Robert S. 2006. "Balance of Power Politics and the Rise of China: Accommodation and Balancing in East Asia." *Security Studies,* Vol. 15, No. 3.

Sunohara, Tsuyoshi. 2010. "The Anatomy of Japan's Shifting Security Orientation." *The Washington Quarterly,* Vol. 33, No. 4, pp. 39-57. Accessed at http://www.twq.com/10october/docs/10oct_sunohara.pdf.

Tow, William T. ed. 2009. *Security Politics in the Asia-Pacific: A Regional Global Nexus?* Cambridge: Cambridge University Press.

# 10 India's Changing Relations with the United States and China

*by* Sanjana Joshi


## *Abstract*

*Relations with the United States and China are the two key concerns in Indian diplomacy today and will determine how India's global role evolves. East Asia is where the politico-military and economic interests of these three countries increasingly intersect and, therefore, how the regional order in East Asia evolves will to a large extent determine the shape of the global order. The two issues which elucidate the strategic complexity in the region are regional economic integration and maritime security. This paper presents an Indian perspective on the country's changing relations with the United States and China and their bearing on India's Look East Policy.*


## Introduction

The rise of the Indian economy has been one of the important global developments in recent times. A per the PwC report 'The World in 2050' India is poised to overtake the USA and emerge as the world's second largest economy on purchasing power parity basis by 2050 and has the potential to supersede China to the top spot. In a recent paper Kaushik Basu[1] presented

1. See "The evolving dynamics of global economic power in the post-crisis world: Revelations from a new Index of Government Economic Power" by Kaushik Basu, Supriyo De, Rangeet Ghosh and Shweta.

an index for measuring the economic power of governments viewed as entities in themselves. The index attempts to encapsulate the economic representative power of a nation's government in the international arena and is composed of four variables: government revenues, foreign currency reserves, export of goods and services, and human capital. According to Basu these variables broadly reflect aspects that contribute to a government's economic clout, voice and negotiating leverage. The index values are tracked over 10 years (2000-2009) covering 100 economies and show India's rise from 8th position in 2000 to 5th in 2009. Indeed, over the last decade India's economic growth has also had tremendous impact on the country's strategic relations. India's emergence as a rising economic power has significantly shaped its relations with the United States and China.

## Indo-US Relations

It has almost become the norm to speak of India and the United States as 'natural allies' as bilateral relations have undergone significant transformation over the past decade. In the past, Indo-US relations were marked by divergent worldviews. Since the advent of the second Bush administration, however, there has been a warming in relations between the two countries. As President Bush's 2002 *National Security Strategy of the United States* stated "U.S. interests require a strong relationship with India." In the words of Nicholas Burns, US Under-Secretary of State for Political Affairs[2] - *As we Americans consider our future role in the world, the rise of a democratic and increasingly powerful India represents a singularly positive opportunity to advance our global interests. There is a tremendous strategic upside to our growing engagement with India. That is why building a close U.S.-India partnership should be one of the United States' highest priorities for the future. It is a unique opportunity with real promise for the global balance of power.*

The reappraisal of India's position emanated from the realization by the

2. R. Nicholas Burns(2007), "America's Strategic Opportunity With India", *Foreign Affairs*, November/December.

US that China was increasingly a strategic competitor in Asia. Particularly after the April 2001 collision and forced landing of the US navy PC-3 surveillance aircraft by the Chinese Air Force the view gained credence that the United States has to "strengthen political, economic and military-to-military relations with those Asian states that share our democratic values and national interests. That spells India"[3]. The geopolitical importance of a liberal, democratic and economically rising India thus underlines most contemporary US global strategic formulations.

Since 2004, Washington and New Delhi have been pursuing a "strategic partnership". In 2005, the United States and India signed a ten-year defense framework agreement to expanding bilateral security cooperation. The high point of the last decade of course has been the 2008 peaceful nuclear cooperation agreement between the two countries that dramatically reversed three decades of US nonproliferation policy. India's nuclear test in 1998 was the catalyst; and India's impressive economic growth created the context for the present phase of engagement in Indo-US relations.

Today the geopolitical importance of a liberal, democratic and economically rising India underlines most contemporary US global strategic formulations. At the highest level has been the statement of US President Barack Obama when he visited India in November 2010 that *"The United States does not just believe, as some people say, that India is a rising power; we believe that India has already risen. India is taking its rightful place in Asia and on the global stage. And we see India's emergence as good for the United States and good for the world."* Along similar lines, in May 2011, US Assistant Secretary of State Robert Blake summarized U.S.-India relations under the rubric of four major "agendas"[4]:

3. Statement by the U.S. ambassador to India, Robert Blackwell cited in "U.S. and India consider Asian NATO", http://archive.newsmax.com/archives/articles/2003/5/29/162032.shtml.
4. Robert O. Blake, Jr. Assistant Secretary, Bureau of South and Central Asian Affairs "The Current State of U.S.-India Cooperation and Prospects for the Future" http://www.state.gov/p/sca/rls/rmks/2011/163312.htm.

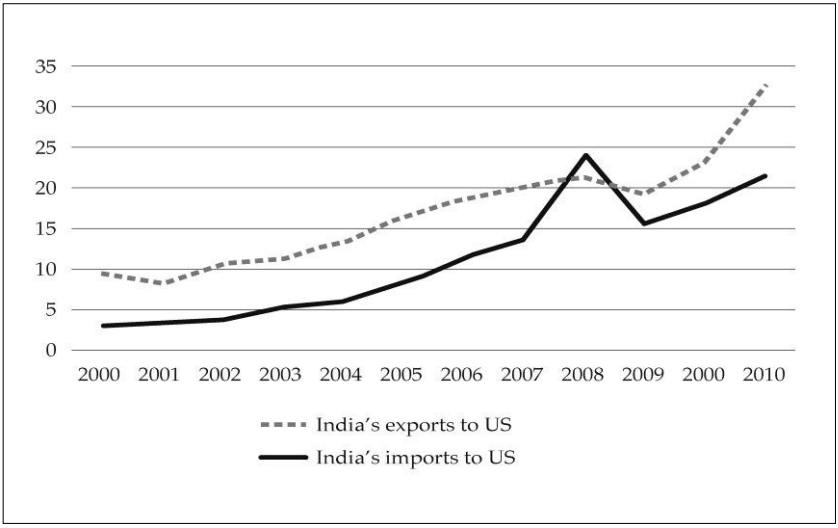
- an *innovation* agenda that includes collaboration on energy security, civil nuclear cooperation, agriculture, space, climate, and other sciences;
- a *security* agenda that includes military-to-military relations, arms sales, and nonproliferation;
- a *people-to-people* agenda that encourages civic engagement, and open governance and democracy initiatives; and
- a *growth* agenda focused on increasing bilateral trade and investment by removing barriers to both.

The United States is also one of India's leading trade and investment partners. Currently the share of Indian exports to the US is approx 10 percent of India's total exports and approx 6 percent of FDI (Equity) inflow into India is coming from the United States.

**Figure 10.1**

*India-United States Trade*

*(Unit: US$ billion)*

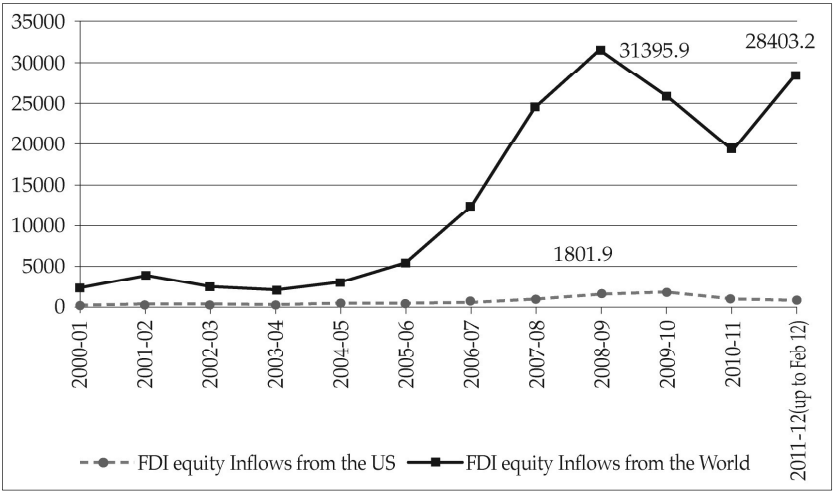



*Source:* UN COMTRADE WITS Database.

**Figure 10.2**

*FDI (Equity) Inflow into India from United States*

*(Unit: US$ million)*




*Source:* Ministry of Commerce and Industry, India.

However the upswing in Indo-US relations is relatively recent and the dynamics of Indo-US strategic partnership are complex. The points of disagreement between the two will have to be addressed before we can talk about an Indo-US strategic partnership really in concrete terms.

The crafting of a common approach to peace and stability in South Asia remains the foremost issue in Indo-US strategic partnership. United States has "de-hyphenated" India and Pakistan in its approach to South Asia. However as Christine Fair points out India continues to watch with concern American military assistance to Pakistan while remaining unable or unwilling to compel Pakistan to abandon militancy as a tool of foreign policy and to dismantle the terrorist infrastructure in Pakistan.[5] The current stress in US-

5. Christine Fair, "India in Afghanistan, part II: Indo-U.S. relations in the lengthening AfPak shadow", http://afpak.foreignpolicy.com/posts/2010/10/27/india_in_afghanistan_part_ii_indo_us_relations_in_the_lengthening_afpak_shadow.

Pakistan relations notwithstanding, Pakistan remains a key front line ally for the United States in the global war on terrorism, particularly in Afghanistan.

There are other issues of divergence too. From India's perspective, Iran is an important neighbor - Iran is the world's third-largest net oil exporter along with the world's second-largest natural-gas reserves; it is a strategically located gateway to other energy suppliers in Central Asia and the Middle East; both countries are uneasy about the Pakistan-backed Taliban returning to power in Afghanistan; and India has a substantial domestic Shia population. India has consistently said that Iran must co-operate with the International Atomic Energy Agency (IAEA) to address and resolve all outstanding issues about its nuclear program that continue to raise doubts in the minds of the international community. In this context India has supported the United Nations resolutions on Iran and adhered to UN sanctions on the country.

The United States, on the other hand, has described Iran, along with North Korea and Iraq as an "axis of evil" and its nuclear program has emerged as a top priority for President Obama's administration. With the result India has had to walk a tightrope between its energy import diversification strategy and the increasingly internationalized American containment strategy against Iran. Already by voting against Iran at the IAEA's governing board meetings in 2005 and 2006, India invited Iranian reprisal in the form of cancellation of a highly favorable 25-year, US$22 billion liquefied-natural-gas deal. Under diplomatic pressure from the United States India has said it will cut imports of Iranian oil by 11 percent in the current financial year. However, there is little enthusiasm in the Indian policy establishment for unilateral use of force against Iran. India also wants to expedite the development of Iran's Chabahar port, which would give India direct access to Afghanistan and Central Asia without relying on transit routes through Pakistan.

Moreover in line with the idea of "strategic autonomy" India's record of voting on issues of importance to the United States at the UN is mixed.

For example India abstained from the March 2010 resolution authorizing a no-fly zone over Libya and in March 2011 officially opposed NATO military action in Libya. India has also been not very forthcoming in endorsing the US position on the various uprisings and peoples' movements that have been taking place in the middle-east, the so-called Arab spring. India has taken a very cautious approach to these saying that it supports them but it is eventually up to the people of those countries to determine how their countries ought to be governed.

Even at the bilateral level there remain issues that strain Indo-US relations. The nuclear deal, meant to symbolize the new partnership, has been at a standstill over an Indian law on disaster liability. Negotiations on a bilateral investment treaty (BIT) to foster FDI flows have not made much headway. India wants greater access to the US services market but United States continues to limit the number of people who can work in the country under its H1-B visa program for certain high-skilled workers. Neither have the efforts to increase defense cooperation been very successful with India recently deciding to rejected bids by US companies for a US$12 billion fighter jet contract. The deal for 126 fighters had been considered a key component of the growing defense partnership between India and the United States, and President Obama had personally advocated on behalf of U.S. companies while visiting India in November 2010.

## India-China Relations

China is definitely, as for most other countries in the region, a challenge for India. There is a "multiplicity of roles" that China plays vis-à-vis India. The long-standing boundary dispute between the two countries remains unresolved; China's relationship with Pakistan remains strong; its military modernization efforts are a potential military threat; and, it is steadily increasing influence in neighbouring Nepal, Bangladesh, Sri Lanka and Myanmar. In 1998 the Indian government officially cited the Chinese threat

as a rationale for its nuclear tests. On the other hand China is today India's largest trading partner and often the diplomatic positions of the two countries converge in the global arena. Thus bilateral relations are a mixed bag of competition and cooperation.

Although India and China have held several rounds of talks since 1988 to resolve their territorial boundary dispute a resolution has remained elusive and border relations remain a serious source of friction. In fact the India-China boundary dispute is the only territorial issue that China has not resolved. Particularly in the last couple of years China has frequently and aggressively asserted its territorial claims with intrusions across the line of actual control, denial of visas to Indian citizens of the state of Arunachal Pradesh and even protesting against the Indian prime minister's visit to Arunachal Pradesh. China's rapid expansion and modernization of its transport infrastructure across the border along with the militarization of Tibet adds to India's concerns. Examples include the build-up of infrastructure in Tibet and Chinese plans to extend the Beijing-Lhasa railway line to Yatung just a few miles from Sikkim's Nathu La and subsequently extend this to Nyingchi, north of Arunachal Pradesh, at the tri-junction with Myanmar.[6] China has deployed advanced aircraft including SU-27 along with Surface-to-Air anti-aircraft missiles in Tibet and conducts regular military exercises in the region. According to Indian government estimates China now possesses the capability to move more than 10,000 troops to the Indian border in twenty to twenty-five days compared to three to six months a decade back.[7]

Sino-Pakistan ties gained particular momentum after the 1962 Sino-Indian war, when China and Pakistan signed a boundary agreement recognizing Chinese control over portions of the disputed Kashmir territory. Since then, strong bilateral relations between them have remained a priority for both countries and Beijing has provided extensive economic, military, and

6. Harsh V. Pant, "China and India: A Rivalry Takes Shape", http://www.eurasiareview.com/15062011-china-and-india-a-rivalry-takes-shape-analysis.
7. Ibid.

technical assistance to Pakistan over the years. China is Pakistan's largest defense supplier and Pakistan's military modernization is critically dependent on Chinese assistance as evident in China supplying Pakistan with short-range M-11 missiles and helping Pakistan develop the Shaheen-1 ballistic missile.[8] Indeed, notwithstanding Chinese restraint in the 1999 Kargil conflict the widely held view in India is that, in the context of continued Chinese provision of civilian and military resources to Pakistan to balance Indian power in South Asia, India must be prepared for a potential two-front war theater.

In addition the Kashmir dispute between India and Pakistan has overtly appeared as an issue in India-China relations. A major diplomatic row concerns the Chinese decision to provide stapled visas for Indians from the State of Jammu and Kashmir. This appears an attempt by China to assert that in line with Pakistan's position it considers the state to be disputed territory. India has also noted with concern China's role in the infrastructure development in Pakistan occupied Kashmir where China is actively involved in hydro projects and building roads and bridges.

China's influence in neighbouring Nepal, Bangladesh, Sri Lanka and Myanmar is also substantial with steadily increasing military ties and economic interaction. Chinese arms supplies to these countries and its involvement in infrastructure projects of strategic significance are extremely sensitive issues for India. As Kanwal Sibal points out China's economic relations with India's neighbors are essentially strategic in nature.[9] The focus is on building strategic infrastructure and not so much on assistance aid or direct investment and the balance of trade is also in favor of China. The active Chinese participation in the development of deep-sea ports in the littoral states in India's neighborhood – Myanmar, Bangladesh, Sri Lanka and Pakistan is viewed by Indian analysts as a "string of pearls" strategy of China

8. Nuclear Threat Initiative(2011. 2), "Pakistan Profile", http://www.nti.org/e_research/profiles/Pakistan/index.html.
9. Kanwal Sibal, "String of Pearls or A Garrotte", http://www.vifindia.org/article/2012/august/06/string-of-pearls-or-a-garrotte.

to encircle and contain India.

The Indian response has been to scale up border infrastructure and bolster military deployment on its side. According to Defense Minister Mr. A.K. Anthony the government has identified strategically important border roads for development along the India-China border and steps are being taken for infrastructure development. India has re-deployed elements army divisions to the 30-km-wide Siliguri corridor, which links India with the rest of its Northeastern states. India has taken a critical strategic decision to deploy the *Brahmos* supersonic cruise missile, which has a flight range of 290 km, in the eastern sector to strengthen its defense posture. A five year expansion plan to induct 90,000 more troops and deploy four more divisions in the eastern sector is also underway. Already, there are 120, 000 Indian troops stationed in the eastern sector, supported by two Sukhoi 30 MKI squadrons.

The China factor is also a consideration in India's bid to improve relations, provide aid and bolster trade relations with the neighboring countries. Increasingly India is providing asymmetrical economic incentives to its South Asian neighbors. Despite the ups and downs, the India-Pakistan trade normalization has been moving forward with India recently allowing FDI from Pakistan into India. In the case of Bangladesh the relationship has entered a new phase with Prime Minister Manmohan Singh's visit in September 2011. Of particular significance was India's decision to allow the duty-free import of 46 textile items (subsequently expanded to all items, except 25) from Bangladesh. India continues to be Nepal's largest trade partner, source of foreign investment and tourist arrivals. It is contributing considerably to Nepal's developments efforts through grant assistance in the areas of infrastructure, health, rural and community development, education, etc. Sri Lanka is currently the largest trading partner of India in South Asia. India has also emerged as the number one source country as far as FDI and tourist arrivals are concerned. Negotiations are underway for concluding a

Comprehensive Economic Partnership Agreement (CEPA) with a view to widen the ambit of the bilateral FTA and include services and investment. High level visits have been a regular feature of India-Myanmar relations for some years now. Bilateral trade has expanded to US$1070.88 million in 2010-11 and India is engaged in several infrastructure projects in Myanmar. Indian companies like ONGC Videsh Ltd., GAIL and ESSAR are participants in the energy sector in Myanmar.

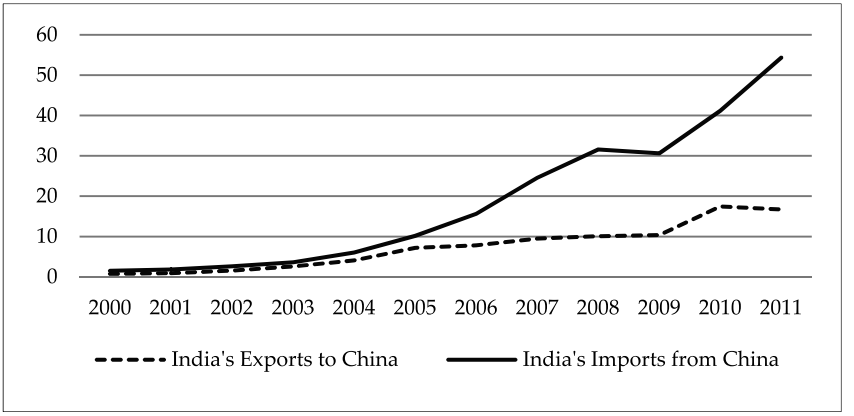
Thus India-China relations have become extremely complicated in recent years. And the negatives have far outweighed the positive elements in the relationship such as the consolidation of the BRICS forum, diplomatic convergence on climate change or at the G-20 meetings on the global economy. Even bilateral economic relations are beginning to see friction between the two countries.

In the first eight months of 2011, India-China bilateral trade reached US$48.17 billion and was 19.47 percent higher over the same period in the previous year. India's total exports to China for this period were US$15.68

**Figure 10.3**

*India-China Trade*

*(Unit: US$ billion)*




*Source:* UN COMTRADE WITS Database.

billion (increase of 7.37 percent) and China's exports to India reached US$32.49 billion (increase of 26.33 percent). Not only is China currently India's largest trading partner it is also India's single-largest source of imports, with a share of over 10 percent of India's total imports. Both the sides have targeted US$100 billion bilateral trade by 2015.

However the growing trade deficit is beginning to worry the Indian policy establishment with concerns about the country's over-dependence on its neighbor. The trade deficit with China in 2011-12 touched almost US$40 billion, which is more than a fifth of India's total trade deficit and reinforces concerns about the country's over-dependence on its neighbor. Also challenging from India's point of view is that the bilateral trade framework that has emerged has India primarily exporting iron ore and other raw materials while China's exports are mainly finished goods and machinery. India wants to diversify its export basket to China with manufactured goods, pharmaceuticals and IT.

Indeed, the overall strategic confidence deficit between India and China has spilled over to the realm of economic relations. Many in India are beginning to argue that the growing economic ties are an attempt to complicate Indo-US strategic cooperation by China. Others say that China is pursuing a two-

**Table 10.1**

*India's Trade Deficit with China*

*(Unit: US$ billion)*

| | *Trade Deficit in US$ billion* |
|---|---|
| 2006-07 | 9.15 |
| 2007-08 | 16.27 |
| 2008-09 | 23.14 |
| 2009-10 | 19.20 |
| 2010-11 | 23.86 |
| 2011-12 | 39.65 |

*Source:* DGCIS, Ministry of Commerce and Industry, India.

pronged strategy of lulling India into complacency with greater economic interaction while taking steps to encircle India and undermine its security.[10] Strategic concerns also impact the extent of Chinese foreign direct investment (FDI) in India. As per the latest available figures FDI from China is less than 0.5 percent in India. There have been very visible cases of Chinese firms wanting to invest in telecom etc which were prevented from doing so. There is also strong domestic opposition on pursuing a bilateral free trade agreement (FTA) with China. Energy also is increasingly becoming a source of friction between China and India. They are two of the world's fastest-growing energy consumers, with China importing about 50 percent of its energy needs and India importing 70 percent. There are several examples in recent years of bidding wars between the two in the competition for energy sources.

It therefore, appears that intense strategic, economic, and diplomatic competition, both bilaterally and regionally is going to overshadow the cooperative aspects of India-China relations in the near to medium term.

## India-United States-China Triangle in East Asia

The one region where contemporary politico-military and economic interests of India, United States and China are increasingly interacting and intersecting is East Asia and a sort of great game is unfolding here between these three countries. The most visible manifestations of this strategic complexity have been the competing regional economic integration moves and the expansion of India's maritime presence in the east.

It is a widely envisaged that if the present demographic and economic trends persist the twenty first century will be the Asian Century. Despite the 2008 global financial crises and the subsequent global economic downturn countries in East Asia have continued to grow albeit at a slower pace. The

10. Venu Rajamony(2002), "India-China-U.S. Triangle: A 'Soft' Balance of Power System in the Making," Center for Strategic and International Studies. (March 15)

contribution of East Asian economies to global gross domestic product (GDP) has grown from 16.3 percent in 1980 to almost 27 percent in 2011. However, there is an imbalance in what the region produces and consumes. Future East Asian growth requires greater regional demand for final goods and therefore the focus needs to be on creating a larger regional market. This is the motivation for accelerating East Asian economic integration. The rationale for a region wide FTA is based on the expectation that it will lead to:

- Political gains – the ASEAN experience has shown the usefulness of economic cooperation in reducing geo-political tensions and conflicts. Large Asian grouping would also increase voice in reform of international governance.
- Welfare gains – various modeling results show that a larger FTA would result in more economic benefits.
- Investment effect – lowered investment barriers would improve intra regional investment flows.
- Counter the "noodle bowl effect" – avoid fragmentation of markets, lower transaction costs.

From India's perspective the region has emerged as a critical destination for exports as well as a significant source of imports. It's interest in being an integral part of East Asian integration in thus obvious. However in this regard China has been and continues to be a major obstacle.

After the 1997-1998 East Asian Financial Crisis, China adopted a proactive stance towards East Asian regionalism and its economic strength enabled it to play a central role. In the year 2000 China called for a China-ASEAN free trade agreement and established an Early Harvest Program to win support for the initiative. Analysts suggest that this move was a tactic to ease ASEAN countries' concerns over China's rise and the negative impact of the inflow of cheap products from China after its WTO accession and further

**Table 10.2**

*Destination of India's Exports by Region*

*(Unit: % share)*

| *Region* | *2004-05* | *2010-11* |
|---|---|---|
| North America | 17.8 | 10.7 |
| EU (27) | 22.0 | 18.6 |
| Asia | 47.7 | 54.1 |
| Northeast Asia | 15.2 | 16.6 |
| ASEAN | 10.08 | 10.2 |

*Source:* Ministry of Commerce and Industry, India.

**Table 10.3**

*Source of Indian Imports by Region*

*(Unit: % share)*

| *Region* | *2004-05* | *2010-11* |
|---|---|---|
| North America | 7.0 | 6.0 |
| EU (27) | 17.5 | 12.1 |
| Asia | 52.9 | 56.6 |
| Northeast Asia | 14.9 | 20.5 |
| ASEAN | 8.1 | 8.2 |

*Source:* Ministry of Commerce and Industry, India.

linked to China's eagerness to secure a regional leadership role.[11] Thus China's FTA policies have both economic motivations and geo political considerations.

The result has been competitive regionalism and a regional leadership struggle between China and Japan. Two main regional economic integration formulations have been proposed in this regard – the East Asian Free Trade Agreement (EAFTA) comprising ASEAN+3 (China, Japan and South

11. Mochizuki, Mike M, "Poltiical-Security Competition and the FTA Movement: Motivations and Consequences," *Competitive Regionalism: FTA Diffusion in the Pacific Rim.* Mireya Solis, Barbara Stallings, and Saori N. Katada eds. (2009), New York, NY: Palgrave Macmillan.

Korea) which is supported by China and the Comprehensive Economic Partnership for East Asia (CEPEA) comprising ASEAN+6 (China, Japan and South Korea, India, Australia, New Zealand) which is supported by Japan.

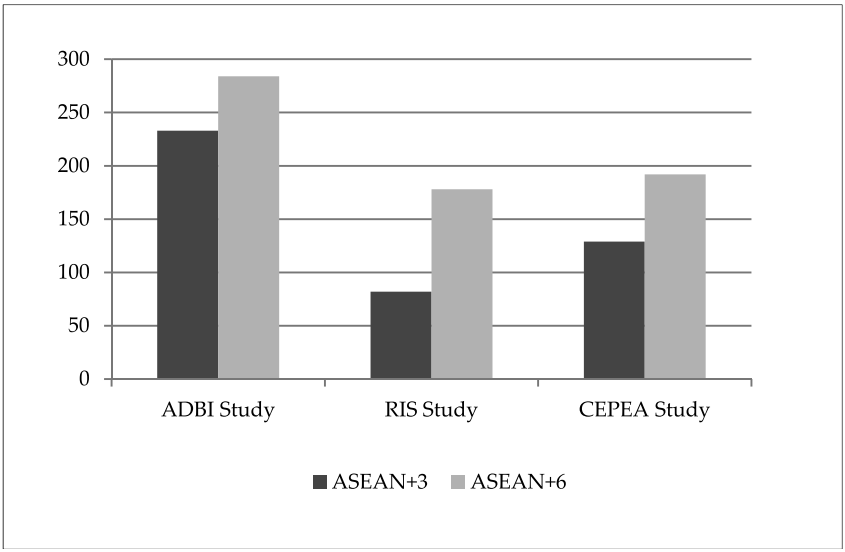
The Japanese led CEPEA proposal has been a significant boost for India's efforts to garner support in favour of its membership of the region integration process. As several studies have shown that the welfare gains from CEPEA vis-à-vis the EAFTA are greater. Not just in consolidated terms but also for individual countries.

Yet China supports ASEAN+3 process as "the main vehicle" and "the main channel for East Asian cooperation". While not overtly opposing India the Chinese intention is obvious in the assertion that the sequencing of FTA

**Figure 10.4**

*Comparison of Welfare Gains from EAFTA and CEPEA*

*(Unit: US$ billion)*




*Source:* Nagesh Kumar, "India and Broader Asian Economic Integration", www.icrier.org/pdf/Nagesh%20Kumar.pdf.

consolidation in East Asia should be in the form of the EAFTA "before opening up to other countries" and that it would be open to participation by other members of East Asia Summit (Australia, New Zealand and India) in an "appropriate time".[12] Not only does this position postpone India's participation in East Asian economic integration, an ASEAN+3 FTA is bound to put pressure on India to negotiate a bilateral FTA with China.

On the other hand, there has been vocal support of US President Barack Obama's administration for the Trans-Pacific Partnership (TPP). The TPP was initially conceived in 2003 by Singapore, New Zealand, and Chile as a path to trade liberalization in the Asia-Pacific region. The United States joined negotiations in 2008 and in November 2009, President Obama committed the United States to engage with the TPP countries "with the goal of shaping a regional agreement that will have broad-based membership and the high standards worthy of a 21st century trade agreement." Presenting the move as US 'rebalancing' towards the region President Obama stated – *I know that the United States has been disengaged from these organizations in recent years. So let me be clear, those days have passed. As an Asia-Pacific nation, the United States expects to be involved in the discussions that shape the future of this region and to participate fully in appropriate organizations as they are established and evolve.*[13]

With both China and India not invited to join the TPP negotiations the current situation is quite ironical. It was the upward trajectory in Indo-US relations that considerably influenced Japan seeing the Indian economy as a useful ally in its competition with China for leadership in regional economic integration wherein it proposed the CEPEA initiative. Whereas China, excluded from TPP, may now aggressively push for the ASEAN+3 framework for regional economic integration. The recent announcement that China, Japan and South Korea have agreed to begin negotiations for a

12. Zhang Yunling, "How to Realize EAFTA: Views from Joint Expert Group", http://www.powershow.com/view/12875f-NjBhM/How_to_Realize_EAFTA_Views_from _Joint_Expert_Group_flash_ppt_presentation.
13. Remarks of President Obama at Suntory Hall(2009), Tokyo, Japan. (November 14)

trilateral FTA appears to be a step in this direction.

The second issue that relates to the India, US and China triangle in East Asia in that of India's maritime moves to the East of Malacca Straits. This is the region where the United States clearly desires India to play a "burden sharing" role. In the words of US secretary of state Hillary Clinton "We encourage India not just to look East, but to engage East and act East." Similarly the new strategic guidance for the US Department of Defense[14] that was released earlier this year clearly states that "The United States is investing in a long-term strategic partnership with India to support its ability to serve as a regional economic anchor and provider of security in the broader Indian Ocean region."

For India the 'Look East Policy' initiated in the early 1990s has always had a naval dimension. In pursuit of better economic relations with countries in Southeast Asia India used naval exercises as confidence building measures and show itself as a responsible power with interest in peace and stability in the region. In this regard India started holding periodic joint naval exercises with Indonesia, Malaysia and Singapore way back in 1991. India has also been conducting joint naval exercises with South Korea since late 1990s. In 1995 India started hosting an annual congregation of Indian Ocean navies called the *Milan* near the Andamans with the objective of building friendship and mutual understanding between the participating navies.

However rising concerns with China's "string of pearls" strategy in the Indian Ocean have led to a more aggressive Indian naval posture. India-US military exercises have grown dramatically in size, scope and sophistication. Since 1992 MALABAR is the premier annual bilateral maritime exercise conducted to reinforce maritime tactics, techniques, and procedures of both countries. In alternate years, MALABAR has been a multinational exercise including the navies of Japan, Australia, and Singapore. The two countries have

14. Text available at http://www.defense.gov/news/Defense_Strategic_Guidance.pdf.

**Table 10.4**

*Participation at Milan 1995-2010*

| *1995* | *2010* |
|---|---|
| Thailand | New Zealand |
| Indonesia | Vietnam |
| Singapore | Brunei |
| Sri Lanka | Myanmar |
| | Malaysia |
| | Australia |
| | Bangladesh |
| | Thailand |
| | Indonesia |
| | Singapore |
| | Sri Lanka |

agreed in 2006 the Indo-US Framework for Maritime Security Cooperation signaling intent to cooperate against a wide range of maritime threats, including transnational crime (piracy, smuggling, and trafficking); maritime proliferation of weapons of mass destruction; threats to safety of ships, crew, and property (safety of navigation, search and rescue); environmental degradation; and natural disasters. Additionally, the two navies have cooperated operationally on four separate occasions: security by the Indian Navy for U.S. ships transiting the Strait of Malacca after 9/11; disaster relief efforts after the Indian Ocean tsunami in 2004-2005; noncombatant evacuation operations in Lebanon in 2006; and counter-piracy operations in the Gulf of Aden since 2008.

Significantly India has taken to dispatching its ships on forward presence missions designed to "show the flag" in the South China Sea, a maritime domain that China claims exclusively as its own. Bilateral exercises have been undertaken in the South China Sea with the navies of Singapore, Vietnam, and the Philippines. To facilitate power projection into the Asia-Pacific, the navy is upgrading its base network. The Indian navy has also initiated plans to bolster its forces deployed in the east. In 2005, a Far

Eastern Naval Command was established at Port Blair in the Andaman Islands, located midway between the Bay of Bengal and the Straits of Malacca, a key chokepoint linking the Indian Ocean to the South China Sea. Airfields in the Andamans bring the straits, as well as much of the South China Sea, within the operational radius of India's frontline fighter aircraft.

The formulations that have come out from the Indian strategic community have been very clear that the Indian maritime role is not confined to just the Indian ocean which is adjacent to its territory but that Indian maritime area of interest extends to the north of the Arabian sea all the way to the South China Sea. The idea is to simply iterate with confidence that India is a power with substantial interests and objectives in East Asia and that India has a legitimate right to be in that region. In fact the Prime Minister of India, Prime Minister Manmohan Singh himself has asserted that India's strategic footprint covers southeast Asia and beyond. In the words of Raja Mohan "the navy's new eastward orientation enables India "to be a significant player in the emerging Asian balance of power."

India's overall naval diplomacy in East Asia certainly has convergence with US strategic interests in that region. At the same time, however, India's main objective is to emerge as a clear indispensable element and an independent variable in the balance of power in the region without antagonizing China. The pursuit of special relationships with key regional states and greater coordination with other naval powers does not imply being part of a coalition or containment strategy against China. Notable examples include the recent decision by ONGC Videsh to stop drilling in one of the offshore blocks it had acquired from Vietnam amidst protests by China and the Indian navy's port call in China on its return from the first joint exercise ever between the Indian and Japanese navies.

## Conclusion

The high-level pronouncements of cooperation notwithstanding Indian perceptions of China are largely negative. As the NBR publication ***Strategic Asia 2011–12*** points out - *In India a consensus is evolving that China's rise is problematic for Indian global and regional interests. There is also a growing perception that, among the major powers, China is the only one that does not accept India as a rising player that should be accommodated into the global political order.* Close Indo-US relations provide "New Delhi crucial strategic room to maneuver vis-à-vis China" and India's *Look East Policy* has brought into sharp focus complementary strategic interests with the United States. At the same time, however India remains cautious about burden sharing with the United States. India is attempting to follow its own course and therein is more inclined to align itself with US policies on a case by case basis. The evolving dynamics of India's relations with the United States and China are greatly influenced by the Indian growth story. Rising economic strength has also given India the confidence to assert its own interests. The launch of a trilateral dialogue with Japan and South Korea is a notable case in point. The idea is not to introduce another strategic formulation into an already crowded regional landscape. Rather the attempt has to be to create a platform for dialogue for the three major economies of Asia which are also playing an increasing role in the reform of global governance.

# 11 Four-Layered Security Cooperation between South Korea and India

*by* Cheol Hee Park

## *Abstract*

*South Korea is turning more of its attention to India these days due to India's growing economic potential, reassured partnership with the United States, reassured importance of sea lanes of communication, and nuclear non-proliferation. Considering that both India and Korea belong to a club of middle powers in the hierarchy of nations, the two countries have widening areas of cooperation. This article suggests four-layered security cooperation between Korea and India: global security cooperation, regional security cooperation, Korean peninsula security cooperation, and non-traditional human security cooperation.*

## South Korea's Growing Attention to India

South Korea and India normalized diplomatic relations in 1973. However, despite long-term friendly ties, India remained a country remotely related to Korea in the eyes of average Koreans. Geographic distance was not the only reason India was regarded as not being within close diplomatic parameters. Though India is a large country that exerts immense influence in global affairs, Korea has long held the perception that it is surrounded by four major powers – the U.S., China, Japan, and Russia. These four major powers are either immediate geographic neighbors or friendly strategic allies. They are also the countries that directly affect the fate of Korean strategies in

the sense that they are deeply involved in deciding the future of the Korean peninsula. Koreans have been most concerned about issues related to North Korea. The peninsula has been divided into two, and the two Koreas have long confronted each other militarily, especially along the demilitarized zone. As a result, when it comes to the issue of the Korean peninsula, major countries that handle security architecture on the peninsula are located within the shortest range of attention from the Korean public. The structure of the Six Party Talks that deal with the North Korean nuclear issue attests to this very well. In addition to the two Koreas, the United States, Japan, China, and Russia have been called as regular participants of the six party talks. In other words, these major countries have been pivotal in handling Korean peninsula issues.

Compared to these four powers, India has not been high among Korea's diplomatic priorities. This does not mean Korea neglected India as a diplomatic partner. It simply suggests that India's role in the Korean peninsula issue remained secondary or indirect. Also, in terms of economic transactions, the United States, Japan, China, and the European Union have been considered important partners, as export and import volumes with them ranked very high until recently.

However, Korea has been developing thoroughgoing interest in India in recent years, especially in the 21st century. Several factors contributed to this.

First, Korea has followed the path that other advanced countries have pursued. A number of think tanks and research institutions pinpointed India as a country with immense potential to grow rapidly in the 21st century. In a 2003 report, Goldman Sachs designated Brazil, Russia, India, and China, which they call BRICS, as countries that could become a much larger force in the world economy.[1] Together with China, India has also been categorized

1. The term BRICs is known to be named by Jim O'Neil in his paper "Building Better Economic BRICs" (2001). The Goldman Sachs paper made this term famous. Global Economic Paper No. 99. "Dealing With BRICs: The Path to 2050" (October 1, 2003).

as CHINDIA, as the countries of greatest growth potential in the 21st century.[2] Korea is no exception in that it began turning its attention to India as a newly emerging center of global economic growth.

A number of Korean firms have set their eyes on India not only for its economic potential, but also for India's strategic location and ability to serve as a bridge between Asia and Europe. Combined with relatively cheap, efficient labor, vast land, and population, India can be a platform and springboard for reaching Europe, the Middle East, and Africa. English-speaking personnel in India provide additional incentives for the creation of a melting pot for a number of business connections. Therefore, it is not surprising that POSCO and Hyundai, two major global companies, have already invested significantly in the Indian market. For example, the Hyundai factory in Chennai produces 630,000 cars and exports to 104 countries. India works as a pivotal link between the Asian and European markets.

In addition to India's economic potential, India's geostrategic location and role also contribute to growing strategic importance. With the rapid rise of China, India, which has established democratic political traditions for an extended period of time, has been highlighted more as a partner for the United States and other advanced democratic countries. In particular, considering the strategic competition with China, both India and the United States have reasons to cooperate as a check-and-balance system against rising China.[3] This does not necessarily imply that India and the U.S. have agreed to form an alliance against China. However, rising China definitely plays a part in the mindset of both countries' strategic thinkers. Unlike when India played a vital role in the non-alignment movement in the bipolar world, the country is now more willing to work with the United States. Thus, Korea, an ally with the United States, has more room to maneuver, because India is

2. Jairam Ramesh, an Indian member of Parliament, is reported to have coined the term CHINDIA.
3. As for American strategies to deal with China, refer to Daniel Twining(2007), "America's Grand Design in Asia," *The Washington Quarterly* 30:3 (Summer), pp. 79-94.

ready to work with the United States.

Furthermore, Korea associates India with Pakistan. It has been alleged that Pakistan, Syria, Iran, and North Korea are mutually intertwined in developing, testing, and spreading nuclear and missile technology. They are thought to be collaborating in an attempt to develop nuclear weapons and long-range missile technology. Considering Pakistan is a strategic competitor to India in the military field and that North Korea poses a formidable security challenge to South Korea, especially after the development of the North's own nuclear program, there is no doubt that India and South Korea have shared incentives to work together to deter the proliferation of nuclear technology either by Pakistan or North Korea. Increasing military provocations and missile tests by North Korea, which may be directly associated with Pakistan and Iran, lead South Korea to turn its attention to India's role in the field of nuclear non-proliferation.

Last but not least, the Indian Ocean is gaining importance for its sea lanes of communication (SLOC). Korea relies heavily on oils imported from the Middle East.[4] Oil tankers should navigate through the Indian Ocean to pass through the Malacca Straits and reach Korea's ports. Increasing instances of pirate activity in the seas around East Africa and the South Indian Sea serve as a warning for the Korean business community and government. For example, a Korean commercial ship called Samho Jewelry was abducted by Somalia pirates in January of 2011. The Korean navy dispatched the battleship Choi Young to the gulf of Aden to rescue kidnapped sailors.[5]

Before the end of the Cold War, India had been regarded as a leader of the non-alignment movement or the third world. However, India's fast growing economy, reassured partnership with the United States, increasing importance in sea lanes of communication, and nuclear non-proliferation grow India's strategic importance to Koreans.

4. As of 2010, 81.8% of South Korea's total oil imports are from the Middle Eastern countries. http://www.knoc.co.kr (search date: September 1, 2012).
5. Yonhap News (January 20, 2011).

## Why a Strategic Partnership between India and South Korea?

Then, why do India and Korea have incentives to develop a strategic partnership in the changing global political and economic order?

Both countries have reasons to support liberal international order. As a democratic country that develops the market economy, the two countries have benefited greatly from free trade, free communication, and free navigation, which are propped up by the liberal international order. Any country that threatens or tries to revise the existing liberal international order may be a hindrance to world peace, development, and prosperity. The free trade agreement concluded between India and Korea, the Comprehensive Economic Partnership Agreement (CEPA), exemplifies the spirit of working in the framework of liberal international order.

India is a great country with a large population and much land, and one that is likely to lead to greater potential to become a leading world economy. However, at this moment, India should be categorized as a middle power rather than a great power. Korea, though small in size, has developed a resilient economy that is ranked about 10$^{th}$ or 11$^{th}$ globally. It is truly a middle power in East Asia. Both India and Korea are qualified to be categorized as middle powers in the hierarchy of nations. At the moment, they do not command all dimensions of power. India is large geographically and in population and has equipped itself with a sizable military, including nuclear weapons. But in terms of per capita GDP, India has not yet reached the status of advanced countries. Korea is economically resilient at present and its military has sound defense capability. But, Korea has limited regional or global power projection capability. Also, both India and Korea are proactive participants in international institutions and regimes. Rather than attempting to revise the rules of the game in global society, the two countries are adapting to existing international institutions and cooperatively participating

in the existing mechanism of managing global affairs. Furthermore, neither India nor Korea poses a threat to other countries independently. If combined with the United States, they could play a pivotal role in regional security architecture. But on their own, both countries lack independent capability to threaten other countries in the region. In this sense, together with other middle powers, India and Korea have diplomatic incentives to proactively participate in the institutions of global management.

It is ironic that what facilitates Indian and Korean cooperation may be geographical distance. It is not unusual that geographically close neighbors should have troublesome ties. Though its overall relationships are going well, Korea engages in disputes and controversies with Japan due to its past colonial experience.[6] India has strained ties with Pakistan, with which it shares borders but is religiously variegated. India and Korea are partners without any territorial, historical, and emotional controversies. Without any territorial ambition, India can play a mediating role between South and North Korea. This is different from the Chinese position. Though China may not have territorial ambitions over the Korean peninsula, it may have core strategic interests in managing the peninsula question to its advantage because China shares borders along the northern part of the Korean peninsula. The stakes are higher for China than for India, especially in times of contingencies on the peninsula. On the other hand, as India and Korea are tightly interlinked in terms of trade and commerce, both are deeply interested in defending sea lanes of communication.

Thus, India and Korea can work as long-distance collaborators to promote global peace and prosperity.

6. As for the historical controversies that never sleep, refer to Tsuyoshi Hasegawa and Kazuhiko Togo, eds. *East Asia's Haunted Present: Historical Memories and the Resurgence of Nationalism* (New York: Praeger Security International, 2008).

# Where Can India and South Korea Work Together?: Four-Layered Security Cooperation between India and South Korea

If there are growing interests between India and Korea, and if they have reason to strengthen cooperation, what can they do to serve mutually shared interests? Four dimensions of security cooperation can be suggested as possible areas of cooperation.

## Global Security Cooperation

India and Korea have shared interests in preserving and further developing liberal international order, as the two countries can maximize benefit from the existing international order rather than changing it.

Anti-terrorism is a common concern for the two countries. India has kept a distance from the Islamic fundamentalism that attempts to disrupt the current status quo of nations. Korea has been relatively safe from terrorist attacks. However, Korea has a history of being exposed to terrorist attacks from North Korea, including several attempts to assassinate Korean presidents. Though North Korea is not an Islamic country, it was repeatedly tempted to rely on terrorist tactics. Terrorism should be rejected not only by moral standards. It is also a crime against humanitarian concerns. Killing innocent citizens for the purpose of realizing political aims designed for small groups of terrorists serves nobody's interest. We should endeavor not only to isolate and corner terrorist groups to protect innocent citizens, but also to cut ties between terrorist groups across national borders, especially when terrorist groups try to obtain weapons of mass destruction. An Iran-Pakistan-North Korea triangular collaboration for missile and nuclear development is an immediate concern of India and Korea, for these two countries have reason to prevent secret nuclear weapons development programs as well as nuclear proliferation. Nuclear security, nuclear safety, and nuclear non-proliferation

are at the top of the list for global security cooperation between Korea and India, for they face direct threats from nuclear blackmail from Pakistan and North Korea.

Preserving the universal rights of nations for free navigation, free trade, and free communication also serves the interests of the two countries. The importance of the Indian Ocean for free navigation is becoming immensely important. Exports and imports to and from Asian countries are increasingly passing through the Indian Ocean. Maintaining sea lanes of communication in the Indian Ocean and beyond is directly connected to global security issues. With the increasing importance of obtaining natural resources – oil and gas from the Middle East and African countries – it is not only Western powers but also Southeast Asian and East Asian countries that have a keen interest in safe and free navigation in the Indian Ocean. Even a closed country like North Korea is attempting to keep its trading ships from being attacked by pirates. As trade and investment volumes between India and Korea grow, maintaining safer navigation in the Indian Ocean and the Strait of Malacca takes on greater weight for global security. Korea and India may have more room for naval cooperation to secure sea lanes of communication as time goes by.

Korea has established itself as a champion of free trade agreements (FTA) in East Asia by concluding FTAs with major trading partners like the United States, European Union, and India. Standing firmly against any kind of protectionism may serve the interests of the two countries, especially considering the growing trade potential of India.

Contributing to the maintenance and development of international regimes and organizations also benefits both India and Korea. As a country with growing economic potential, India may feel tempted to challenge international regimes in several issue areas, but the existing international set up has not prohibited India and Korea from making economic progress. In a few international organizations, the two countries can open a new window of

opportunity by collaborating together. In the United Nations, led by Korean Secretary General Ban Ki Moon, there are several voices for reforming the organization to reflect the changing power configuration of the nations. Japan, Germany, India, South Africa, Brazil and other countries are proponents of reforming the United Nations. Their interests are not at all the same, but they are in a similar position in that these countries ask for a long-term readjustment of the status of nations in the organization. Korea and India can develop a more elaborate mechanism of consultation for United Nations reform, though this does not necessarily mean that Korea buys the Indian concept of UN reform as it is. Also, as countries shifting from a poor nation to a member of a global governance mechanism, Korea and India can share a balanced perspective in managing global affairs. Both countries can be more sympathetic to newly developing countries and less developed countries, for they have experienced being in a lower status in the global economic hierarchy.

## Regional Security Collaboration

In addition to working for the betterment of global commons, India and Korea can cooperate together to maintain a stable regional environment in East and Southeast Asia.

Pundits used to say that the world is turning toward a G2 era, in which the United States and China are the two nations managing global and regional affairs. Whether the United States and China will be leading nations remains to be seen.[7] However, there is no denying that China is rapidly growing its global presence in many issue areas not confined to the economic arena.

For India and Korea, the rise of China is both an opportunity and a

7. Ian Bremmer suggests that the G-2 era may not be stable. See, Ian Bremmer and Nouriel Roubini(2011), "A G-Zero World: The New Economic Club Will Produce Conflict, not Cooperation," *Foreign Affairs* (Mar/April).

challenge. Economically rising China creates unprecedented opportunities to cultivate more market and investment potential in China. A number of Korean firms like Hyundai, Samsung, SK and others strive to enter the Chinese market. Also Chinese consumers get more opportunities to sell Korean products to China. For example, in the past few decades, the biggest foreign buyers at Korean duty free shops at major department stores have been the Japanese. Now it is Chinese tourists who buy more duty free goods in Korea. Jeju Island, a tourist spot in Korea, has long been a tourist resort spot for the Japanese in addition to Koreans. These days, more Chinese tourists visit Jeju Island than do the Japanese.[8] This may also be the case for Indian businessmen and investors.

At the same time, however, rising China poses a significant security challenge to both India and Korea. Though India and China are separated by natural environments like the Himalayan Mountains, China has remained a long-time security challenge to India. China, equipped with nuclear arsenals and ICBM, could pose a direct security threat to India. Considering China endeavors consistently to access the Indian Ocean either through Myanmar or other regional neighbors of India, it is reasonable that India should take a defensive position against the rise of China. India and China have long been in a position to emulate each other to influence Southeast Asian neighbors. China is actively approaching Southeast Asian neighbors, especially among the countries sharing borders. India has also developed good ties with Indonesia, Australia, and southern partners of Southeast Asian countries. This does not imply that India and Korea should gang up against rising China. Trying to exclude China from a newly changing regional order in East Asia is not at all realistic. Also, in terms of capability, the two nations possess limited capability to contain China. Furthermore, there is nothing to gain

8. In 2011, 570,247 Chinese travelers visited Jeju Island. In 2012, 573,342 Chinese visited Jeju Island from January to July. In the same period, a total of 899,211 foreigners visited the island. This date shows that the Chinese make up the vast majority of foreign travelers to Jeju Island. *Jeju Daily* (August 3, 2012).

from getting sidelined by the rise of China. Rather, it is in the interest of both India and Korea to engage China in a productive manner.

What do we mean by productive engagement? This should be differentiated from engagement for engagement's sake. First of all, Korea and India should be willing to work with open and reform-oriented China while the two countries are willing to take the position that militarily assertive and peace-breaking China is not acceptable at all.[9] A primary stance of India and Korea toward China should remain open-minded and more than willing and ready to collaborate to accommodate China in a new regional architecture. But, at the same time, Korea and India should be cautious about blindly stepping in Chinese soil. In case China refuses to act according to the international rules of the game, India and Korea, with other regional neighbors, may work together to deliver the voice of discontent to China. This is not necessarily against the principle of engagement. Second, India and Korea can constantly work together to design and implement a new regional security architecture based on a concept of convergent security, not competitive security.[10] In East Asia, it is not easy to construct a regional security posture based on collective or convergent security. However, convergent security should remain an ideal goal for regional powers, for diverging the competitive arms race among nations may not serve the interests of any countries in the region. Furthermore, a hegemonic China should not be embraced as future security architecture in East Asia. Some assert that hegemonic China and the hierarchically ordered East Asia on which China stands may stabilize the region.[11] But this is historically groundless in that peace was obtained by the domination of China combined

9. New York Times columnist David Sanger points out that China does not have a single face but multiple faces. David Sanger(2010), "Three Faces of China," *New York Times*. (September 25)
10. As for the concept of convergent security, refer to, William Tow, *Asia-Pacific Strategic Relations: Seeking Convergent Security* (Cambridge: Cambridge University Press, 2002).
11. David Kang(2003), "Hierarchy, Balancing and Empirical Puzzles in Asian International Relations," *International Security,* 28:3. (Winter)

with the subordination of China's neighbors. Simply speaking, this was an order based not on voluntary will but that based on force and domination. Therefore, India and Korea can together develop a collaborative and desirable state of Asian security architecture that basically stands on voluntary participation and convergent security.

The United States is a pivotal security provider to the East Asian region.[12] Without U.S. security presence, East Asian regional order would be substantially transformed to the extent that the whole region would be destabilized. The recent rise of China gives more weight to American military presence as a lynchpin that stabilizes regional security.

Though the United States is an off-shore balancer and a stabilizer in the region, avoiding American unilateralism is another challenge regional powers have to address. In the name of promoting democracy and spreading human rights, the United States did not hesitate to engage in military intervention in other countries, especially Middle Eastern Islamic nations.[13] Therefore, deterring American unilateral temptation can be a source of regional stability.

## Korean Peninsula Security Cooperation

Needless to say, North Korea poses an immediate danger to South Korean national security. On the other hand, North Korea does not pose a direct security threat to India.

However, when it comes to a nuclear weapons development program, North Korea is a troublesome security challenger not only to South Korea but also to regional and global security. North Korea began its secret nuclear weapons development program in 1989 and continues its nuclear ambition. It has already conducted nuclear tests twice and claims to be a nuclear-armed

12. G. John Ikenberry(2011), *Liberal Leviathan: The Origins, Crisis, and Transformation of the American World Order,* Princeton: Princeton University Press.
13. Jonathan Morten(2005), "The Roots of the Bush Doctrine: Power, Nationalism and Democracy Promotion in US Strategy," *International Security,* 29:4. (Spring)

country, though the United States, South Korea, and other countries do not officially accept this. Together with nuclear weapons, North Korea never stops repeating missile tests to upgrade the range and accuracy of missile launches. Though the North failed in its April 13, 2012 missile test, it is rumored to have tried to test long-range ballistic missiles.[14]

If nuclear arsenals are combined with a long-range delivery system, it would be a formidable security challenge not only to South Korea but also to Japan and the United States.

First of all, North Korea completely ignores the international rules of the game in the use of nuclear power in that it has repeatedly violated the Non-Proliferation Treaty as well as regulations related to the International Atomic Energy Agency. They expelled all IAEA inspectors and continued to develop weapons-grade nuclear materials. Also, North Korea went against a number of United Nations resolutions and sanctions without any intention to comply with the rules. This is a serious challenge to the national security of South Korea as well as a violation of the consensus among countries. If we condone North Korea's behavior, it is highly likely that global society will witness a second or third country to behave like North Korea. Accordingly, to keep the NPT regime, the IAEA rules intact, and to facilitate the implementation of U.N. sanctions, India and South Korea should tightly coordinate actions and behaviors related to nuclear non-proliferation.

Second, it goes without saying that South Korea and India should work together to speed up the denuclearization of North Korea. Though the Six Party Talks have been set up to resolve the North Korean nuclear issue, they have been stagnant since North Korea's nuclear tests and claims of nuclear power status. The dilemma we face at present is that nuclear club members do not want to acknowledge North Korea's nuclear development for fear of dismantling the status quo in the nuclear order, but we do not know how to denuclearize the North's nuclear weapons program. As long as countries in

14. Yonhap News(April 13, 2012).

the region fail to denuclearize North Korea, South Korea and Japan may feel tempted to ultimately arm themselves with nuclear weapons as a defensive measure. Then Taiwan would also be tempted to develop its own. The so-called "nuclear domino" may arrive in the East Asian security landscape, which could further destabilize the region. Hence, as a member of nuclear club countries, India should come up with a much more realistic proposal to denuclearize North Korea to keep other nations from developing nuclear weapons. Separating civilian use of nuclear energy from the nuclear weapons program issue may be the first step. This is closely linked to the nuclear issues of other potential developers like Iran. Safe, free, but internationally inspected civilian use of nuclear energy may be a reasonable alternative to a nuclear weapons development program.

Third, India dispatched a medical team composed of a total of 627 staff members during the Korean War. Though the War ended in 1953, South and North Korea are still in the state of armistice, which means they are technically at war. Though full-scale contingencies are not expected, small-scale military provocations and physical contacts are frequently witnessed. For example, North Korea sank the South Korean battleship Cheonan with a torpedo in March 2011. Also in November of 2011, the North Korean military conducted an artillery attack on Yeonpyeong Island, killing 17 South Koreans, including two civilians. In order to maintain peace and stability on the Korean peninsula, all concerned parties should make their utmost effort to stand against any kind of military provocations against each other. India, as a country that has diplomatic ties with North Korea, can play a positive role in urging the North not to violate the rules of conduct codified in the armistice treaty.

Furthermore, to enhance the peaceful environment on the Korean peninsula, it is essential to promote dialogue among the countries concerned, especially between South and North Korea. India, as a neutral arbitrator, could play the role of a mediator and facilitator of communication between the two Koreas.

## Non-Traditional Human Security Cooperation

Human security cooperation in the area of non-traditional security is limitless. We should get beyond the notion that security is confined to a military arena. Also, going beyond national security concerns is a trend of the times in an age of globalization. A number of areas that have been regarded as being unconnected to security virtually define the nature of peaceful and prosperous human life conditions.

Climate change and global environmental protection seriously affect living conditions. Fish and animals move around to adapt to changing weathers. Global warming affects the production of crops, water, and the need for energy. Unexpected natural disasters are increasing around the world. In the past, global warming and climate change have been issues of concern for certain designated areas in the world or for a few countries. They are not issues in other countries. How to manage the global environment for the next generation is in the interest of every country, including India and Korea. In that regard, how to promote green growth strategies together in the coming years and decades is an important challenge for both countries.

Korea has long viewed piracy and cross-national crimes as fires across the banks. However, pirates in the East African sea and Indian Ocean hinder Korean traders from freely exporting and importing items. Freedom of navigation is a global common good that India and Korea should defend together. The Indian Ocean and Strait of Malacca are critical pathways for Korean traders and investors. The Samho Jewelry incident reminded Koreans of the critical importance of fighting against pirates and international crimes in the open sea. India and Korea could work together to deter pirate activity in the Indian Ocean and in other seas.

Fighting epidemics and transmitted diseases is another area of closer human security cooperation. Korea has gained credit in the medical sphere with its highly skilled professionals and devoted patient care. India has long

been famous for developing new medicines and Indian doctors are extending global activities. In the area of medical and health care, India and Korea could collaborate to enhance medical safety and comfortable living in any part of the world.

Peace-keeping operations is definitely another area of human security cooperation that India and Korea could work on together. There are many areas and countries in the Middle East, Africa, Southeast Asia, and Latin America inflicted with civil wars, terrorism, and internal disputes. These countries need aid for the poor and weak in normal times, rehabilitation and reconstruction after the war, and health care and food and water supplies for locals. India and Korea could be frontier countries in leading peace-keeping operations in those areas. PKO activities and ODAs from both countries could be designed together, well coordinated in advance, and implemented together with the spirit of promoting global peace.

There could be more areas of human security cooperation, such as food production, natural disaster relief, the development of new energy sources, etc.

## Concluding Remarks

Since diplomatic normalization in 1973, Korea and India have maintained a sound relationship. However, the ties between the two countries have not reached a peak because of Korea's preoccupation with issues related to the Korean peninsula. India entered diplomatic parameters only when it played a role in North Korea-related activities, either in the non-alignment movement or the third world.

However, going into the 21st century, the bilateral relationship between Korea and India leapt forward. Korea has increased its global presence, as the term "global Korea" suggests. The entire world began highlighting the rapidly developing economic potential of India in the context of a globalizing economy. The Korean business community also found new potential in

India as a strategic link between Asia, Europe, the Middle East, and Africa. Hyundai, LG, and POSCO may be pioneering companies that rushed into the Indian market, best taking advantage of India's manpower, market potential, global production network, and platform base for exporting goods and services. With the conclusion of CEPA, Korea and India are rapidly developing trade and commerce ties.

However, cooperation between Korea and India does not end with economic cooperation. This article points out that Korea and India can develop multi-layered security cooperation in the changing global order. Global security cooperation, especially in the area of anti-terrorism and nuclear non-proliferation, could be a sound step toward furthering collaboration in other fields of security cooperation. In the East Asian setting, Korea and India could be cornerstone countries that produce chains of collaboration with China while deterring threats from it, possibly together with the United States. The Korean peninsula question is an immediate concern of Korea. In this area, India could be a facilitator of dialogue and communication between the two Koreas. At the same time, India could urge North Korea not to provoke militarily, following the international rules of the game. As a member of the nuclear club, India has an incentive to prevent North Korea from developing nuclear weapons and spreading nuclear technology to other countries. Hence, Korean peninsula security cooperation is deeply intertwined with the global security issue. Non-traditional human security cooperation is an endless frontier for producing positive outcomes for the two countries as well as global community.

Korea and India may share the perception that they are middle powers in the hierarchy of nations. Also, Korea and India are democratic countries that constantly develop a market mechanism. Therefore, the two countries have more to lose if they fail to collaborate. Security cooperation is not a luxury field of cooperation. Cooperation in the field of security is an ultimate and essential part of bilateral cooperation from which the two nations can benefit immensely in the future.

# References

Bremmer, Ian and Nouriel Roubini. 2011. "A G-Zero World: The New Economic Club Will Produce Conflict, not Cooperation." *Foreign Affairs.* (March/April)

Global Economic Paper. 2003. "Dealing With BRICs: The Path to 2050." Global Economic Paper No. 99. (October 1)

Hasegawa, Tsuyoshi and Kazuhiko Togo. 2008. *East Asia's Haunted Present: Historical Memories and the Resurgence of Nationalism.* New York: Praeger Security International.

Ikenberry, G. John. 2011. *Liberal Leviathan: The Origins, Crisis, and Transformation of the American World Order.* Princeton: Princeton University Press.

Kang, David. 2003. "Hierarchy, Balancing and Empirical Puzzles in Asian International Relations." *International Security,* 28: 3. (Winter)

Morten, Jonathan. 2005. "The Roots of the Bush Doctrine: Power, Nationalism and Democracy Promotion in US Strategy." *International Security,* 29: 4. (Spring)

Tow, William. 2002. *Asia-Pacific Strategic Relations: Seeking Convergent Security.* Cambridge: Cambridge University Press.

Twining, Daniel. 2007. "America's Grand Design in Asia." *The Washington Quarterly,* 30: 3. (Summer)

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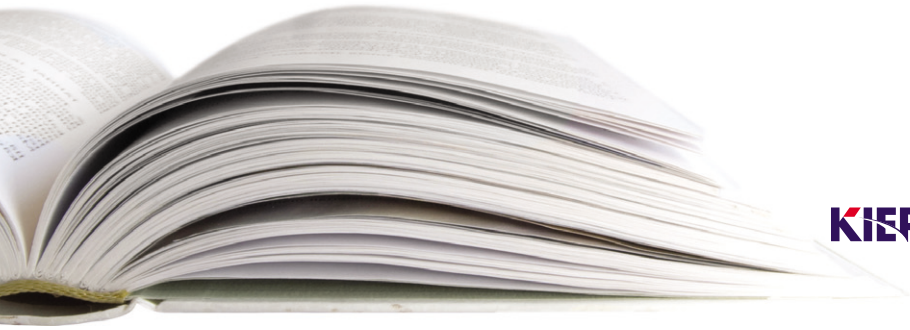
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