Nisha Taneja · Sanjib Pohit *Editors*

India-Pakistan Trade

Strengthening Economic Relations

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Foreword

Over the past few years significant progress has been achieved in economic engagement between India and Pakistan. Notably there is an air of expectation that development will receive more attention from the democratically elected leaders at the helm, heralding a new era of much needed cooperation.

This book brings together research studies conducted under the aegis of ICRIER's project on *Strengthening Research and Promoting Multi-level Dialogue for Trade Normalisation between India and Pakistan*. The project seeks to foster policy oriented research on several aspects of India-Pakistan trade and investment relations and to promote multi-level dialogue platforms between the two countries. Carefully crafted evidence based on rigorous research, including from primary sources, along with regular dialogue can play an instrumental role in removing misconceptions and apprehensions. With this objective, ICRIER is collaborating extensively with academic institutions, think-tanks and business chambers on both sides of the border.

It is my sincere belief that this book will be a valuable addition to the existing literature on India-Pakistan economic relations as well as appeal to readers with a general interest in the overall relationship between the two countries. Besides, the recent warming of Indo-Pak relations also makes publication of the book timely and opportune.

The book focuses on a number of aspects of bilateral economic relations. In addition to the familiar themes of bilateral trade in goods and services, it provides new insights into the potential for bilateral trade and the challenges faced in realizing it. A notable aspect is contributions from both India and Pakistan that for the first time examine the current trends and identify possible sectors for bilateral FDI flows that could help build deeper economic ties. The book also includes hitherto under-researched subjects such as estimating the levels of informal trade, and analysis of a trade perception survey conducted by ICRIER in the two countries.

It is a challenging task to assemble experts and scholars from both countries to dispassionately and objectively assess India-Pakistan trade normalization and

provide suggestions for policymakers. I congratulate Professor Nisha Taneja for leading this effort from the front and express deep gratitude to all the scholars for their contributions and compliment all those associated with the production of this book. I am sure you will enjoy reading this book as much as we did in putting it together.

ICRIER, New Delhi, India Rajat Kathuria

Message

Over the last decade, India and Pakistan, the two largest economies of South Asia, have succeeded in more than doubling their per capita income. Both economies have also managed to sustain a growth trajectory by implementing significant economic reforms that have opened up their economies and brought about rapid growth, more than doubling the size of each economy in the last 10 years. Yet, bilateral trade hovers at a paltry 1 % of the total trade of these two countries. By choosing to take the lead in liberalizing their import regimes, India and Pakistan could set an example for other countries in South Asia. Unofficial trade between India and Pakistan is estimated at approximately US$2 billion per year. This does not include trade via Dubai in which the product's port of origin is often relabeled. Better trade relations between the two countries can directly improve the economic and political environment of the whole South Asian region.

In the last 2 years there has been some progress in normalizing trade between India and Pakistan. In February 2013, Pakistan abolished the more restrictive positive list and replaced it with a negative list which covers only 15 % of the tradable items that cannot be imported from India. It is expected that this list will also be phased out soon and Pakistan will grant Non Discriminatory Market access to India. The two countries also signed agreements addressing three key issues that have long plagued business in the region: standards and testing, custom clearance and dispute resolution. India has removed the restrictions on Indians investing in Pakistan and vice versa. An integrated border check post between Attari and Wagah was inaugurated with modern facilities that will allow many more trucks to cross the border daily. India has reduced the number of items that are prohibited for import from Pakistan by 30 %.

These encouraging developments need to be reinforced by other measures that can help strengthen relations between our two countries.

While the discussion on normalizing economic relations between India and Pakistan has focused on trade liberalization, the potential for business initiatives extends far beyond trade. Quantum change will come when investments begin to flow between the two countries. Cross-border investments could result in joint

ventures accompanied by an exchange of workers and managers. Bilateral relations could then become literally "cemented", as each country makes capital commitments in the other. There remains much more that can be done. Efforts can be made to substitute more neutral policies for the current domestic tax, tariff and subsidy policies that distort incentives for production and trade in both countries. Basic changes that can expedite border crossings, allow more trade through land routes, open new border points for trade and open banking branches in both nations are long overdue. The longstanding shared cultural ethos offers other varied opportunities for viable and revenue generating exchange in the areas of film, entertainment and fashion.

The election of two pro business, development oriented, and reform minded leaders in India and Pakistan offers an excellent opportunity not only to liberalize the domestic economies but also the bilateral economic relations between the two countries.

IBA, Karachi, Pakistan Ishrat Husain

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Abbreviations

ADB	Asian Development Bank
AFTA	ASEAN Free Trade Area
AGE	Applied General Equilibrium
AIA	ASEAN Investment Area
AICO	ASEAN Industrial Cooperation
AMP	Automotive Mission Plan
API	Active Pharmaceutical Ingredients
APIBM	Afghanistan Pakistan India Bangladesh Myanmar
APTTA	Afghanistan-Pakistan Transit Trade Agreement
ASA	Air Services Agreement
ASEAN	Association of Southeast Asian Nations
ASSOCHAM	Associated Chambers of Commerce and Industry of India
ATNF	Apollo Telemedicine Networking Foundation
ATT	Afghan Transit Trade
BASA	Bilateral Air Services Agreement
bcm	billion cubic meters
BFSI	Banking and Financial Services Industries
BIMSTEC	Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation
BIS	Bureau of Indian Standards
BIT	Bilateral Investment Treaty
BOO	Build Own Operate
BOOT	Build Own Operate Transfer
BP	British Petroleum
BPDB	Bangladesh Power Development Board
BPO	Business Process Outsourcing
BRICS	Brazil, Russia, India, China and South Africa
BSF	Border Security Force
BUET	Bangladesh University of Engineering and Technology
CAGR	Compounded Annual Growth Rate

CAR	Central Asian Region
CASAC	Coalition for Action on South Asian Cooperation
CASAREM	Central Asia South Asia Regional Energy Markets
CEA	Central Electricity Authority
CEPII	Centre d'Etudes Prospectives et d'Informations Internationales
CERC	Central Electricity Regulatory Commission
CES	Constant Elasticity of Substitution
CGE	Computable General Equilibrium
CII	Confederation of Indian Industry
CKD	Completely Knocked Down
CMNAPP	Common Minimum Action Plan for Power
CRF	Central Research Fund
CST	Central Sales Tax
CT	Computed Tomography
DG Health	Director General Health
DGFT	Directorate General of Foreign Trade
DIPP	Department of Industrial Policy and Promotion
DISCO	Distribution Company
DPCO	Drug Price Control Order
DVD	Digital Versatile Disc
EDI	Electronic Data Interchange
EIA	Economic Integrated Agreements
EPS	Electric Power Survey
ERC	Electricity Regulatory Commission
EU	European Union
EV	Equivalent Variation
FA	Framework Agreement
FBR	Federal Board of Revenue
FDA	Food and Drug Administration
FDI	Foreign Direct Investment
FEMA	Foreign Exchange Management Act
FICCI	Federation of Indian Chambers of Commerce and Industry
FIPB	Foreign Investment Promotion Board
FRRO	Foreigner Regional Registration Office
FTA	Free Trade Agreement
GATS	General Agreement on Trade in Services
GCC	Gulf Cooperation Council
GDP	Gross Domestic Product
GENCO	Generation Company
GI	Gastro-intenstinal
GNP	Gross National Product
GTAP	Global Trade Analysis Project
HS	Harmonized System of product classification
HVDC	High-Voltage Double Circuit

IBEF	India Brand Equity Foundation
ICP	Integrated Check Posts
ICRIER	Indian Council for Research on International Economic Relations
ICT	Information and Communications Technology
IEX	Indian Energy Exchange
IIT	Intra Industry Trade
ILAC	International Laboratory Accreditation Cooperation
IPN	International Production Network
IPP	Independent Power Producer
IT	Information Technology
JNNSM	Jawaharlal Nehru National Solar Mission
JV	Joint Venture
KESC	Karachi Electric Supply Company
KPK	Khyber Pakhtunkhwa
LCS	Land Customs Station
LDC	Least Developed Country
LoC	Line of Control
LPAI	Land Ports Authority of India
MFN	Most Favoured Nation
MIGA	Multilateral Investment Guarantee Agency
MNC	Multi National Corporation
MNRE	Ministry of New and Renewable Energy
MT	Million Tons
MToe	Million Tons oil equivalent
MW	Mega Watt
NAFTA	North American Free Trade Agreement
NEPRA	National Electric Power Regulatory Authority
NEPS	North-East Power System
NER	Northeast Region
NGC	National Grid Company plc
NGO	Non-Government Organization
NLDC	Non Least Developed Country
NTB	Non-Tariff Barrier
NTDC	National Transmission and Dispatch Company
NTM	Non-Tariff Measures
NTPC	National Thermal Power Corporation
O&M	Operation and Maintenance
OTC	Over the counter
OECD	Organization for Economic Cooperation and Development
OLS	Ordinary Least Squares
PASHA	Pakistan Software Houses Association
PBT	Profit before tax
PCRET	Pakistan Council of Renewable Energy Technologies

PEPCO	Pakistan Electric Power Company Ltd.
PGCIL	Power Grid Corporation of India Limited
PHDCCI	Punjab, Haryana and Delhi Chambers of Commerce and Industry
PLF	Plant Load Factor
PPA	Pakistan Pharmacist Association
PPA	Power Purchase Agreement
PPC	Private Power Cell
PPIB	Private Power and Infrastructure Board
PPMA	Pakistan Pharmaceutical Manufacturers Association
PSA	Preferential System of Arrangements
PSEDF	Private Sector Energy Development Fund
PSQCA	Pakistan Standard and Quality Control Authority
PTA	Preferential Trade Agreement
PTC	Power Trading Corporation
R&D	Research and Development
RBI	Reserve Bank of India
RCA	Revealed Comparative Advantage
RTA	Regional Trade Agreement
SAARC	South Asian Association for Regional Cooperation
SACEP	South Asian Centre of Policy Studies
SAFTA	South Asian Free Trade Agreement
SANEI	South Asia Network of Economic Research Institutes
SAPP	South African Power Pool
SAPTA	South Asian Preferential Trade Agreement
SARIE	South Asia Regional Initiative on Energy
SATIS	SAARC Agreement on Trade in Services
SBP	State Bank of Pakistan
SEBI	Securities and Exchange Board of India
SECP	Securities and Exchange Commission of Pakistan
SERC	State Electricity Regulatory Commission
SEZ	Special Economic Zone
SIM	Subscriber Identity Module
SKD	Semi-knocked down
SPS	Sanitary and Phytosanitary
SRO	Statutory Regulatory Order
SRPTC	Sub-Regional Power Trading Corporation
STP	Software Technology Park
T&D	Transmission and Distribution
TAPI	Turkmenistan-Afghanistan-Pakistan-India
TBT	Technical Barriers to Trade
TCI	Trade Concentration Index
TDAP	Trade Development Authority of Pakistan
ToT	Terms of Trade
TRDD	Pakistan Tourism and Resorts Development Department

UN COMTRADE	United Nations Commodity Trade Statistics Database
UN ITC	United Nations International Trade Centre
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UNSD	United Nations Statistics Division
USAID	U.S. Agency for International Development
USTR	United States Trade Representative
WAPDA	Water and Power Development Authority
WDI	World Development Indicators
WEC	World Energy Council
WHO	World Health Organization
WITS	World Integrated Trade Solution
WOS	Wholly Owned Subsidiary
WTO	World Trade Organization

About the Editors

Nisha Taneja is a professor at the Indian Council for Research on International Economic Relations (ICRIER), New Delhi, India. She holds a PhD from Jawaharlal Nehru University, New Delhi. Having a range of experience in policy-oriented research in India, her key areas of research include trade and transport facilitation, nontariff barriers, regional integration, informal trade, institutional economics, and the textile industry. She has also worked on various aspects of India-Pakistan trade, India-Nepal trade, and India-Sri Lanka trade. Dr. Taneja's research work has been a key contributor to the trade negotiations in the South Asian region. She has served on committees set up by the Government of India on informal trade, rules of origin, and nontariff barriers. She has been a consultant to the World Bank and the Asian Development Bank. Dr. Taneja has also conducted research for the Ministry of Commerce, Ministry of Textiles, Ministry of External Affairs, Ministry of Finance, and Ministry of Environment and Forests, Government of India; and for several international agencies such as UNIDO, the London School of Economics, South Asia Network of Economic Research Institutes (SANEI), Department for International Development (DFID), and International Development Research Centre (IDRC). She has published 3 books, about 40 articles in books and journals, and 30 reports/working papers. Her work has been disseminated widely in India and in several other countries including Bangladesh, Nepal, Sri Lanka, Pakistan, Philippines, Thailand, Korea, Japan, USA, UAE, and Germany.

Sanjib Pohit is a Senior Principal Scientist at CSIR–National Institute of Science, Technology and Development Studies (NISTADS), New Delhi. He holds a PhD from the Indian Statistical Institute (ISI), New Delhi. Dr. Pohit has previously held research positions at the National Council for Applied Economic Research(ICRIER) and the ISI, New Delhi. He was also a visiting scholar to the University of Michigan (Ann Arbor, USA) and the Conference Board of Canada. Dr. Pohit has served on various committees set up by the Government of India. He has been a consultant to various national and international bodies, including the World Bank, the Asian Development Bank, The Energy and Resource Institute (TERI), OECD, CUTS,

PricewaterhouseCoopers, Ernst & Young, ICRIER, and RIS (New Delhi). An experienced modeler in the areas of trade and environment, Dr. Pohit has 20 years of economic modeling experience. He has worked in many spheres, including institutional economics, transport economics, input-output models, FDI, informal trade, automobile industry, and South Asian integration. He has coauthored 6 books and has published about 80 articles in journals/books. Dr. Pohit has also presented his research at seminars and conferences in different parts of the world, including Japan, Canada, USA, India, Bangladesh, Switzerland, Netherlands, Singapore, and Finland.

Chapter 1
India-Pakistan Trade Relations: An Introduction

Nisha Taneja, Sanjib Pohit, and Radhika Saini

The past two decades have witnessed a perceptible shift toward increased economic integration across the globe. Economies have adopted several unilateral measures toward this end, such as the deregulation of domestic markets and greater commitment to trade and investment agreements. A crucial feature of this enhanced integration has been its regional focus due to the failure of multilateral negotiations under the WTO, as can be seen from the movement among European nations toward becoming a single economic entity, as well as from the multifaceted economic agreements among members of the MERCOSUR, ASEAN, and GCC regions. The nature of regional economic arrangements has also progressed to encompass not only conventional clauses regarding trade and investment but also the freer flow of technology and information, the harmonization of regulatory regimes, the coordination of cross-border policies, as well as, in a few cases, the cross-border mobility of people. Thus, regional integration and cooperation have deepened over recent years.

South Asia stands in stark contrast to this worldwide trend. While individual South Asian nations show every inclination toward being integrated into the world economy by entering into FTAs/PTAs with their principal trading partners, regional cooperation among these countries remains abysmally low. Although the South Asian Association for Regional Cooperation (SAARC) was founded in 1985, the core issues of trade and investment were only brought into the ambit of regional integration following the establishment of the SAARC Preferential Trading Arrangement in 1991. Member countries of this arrangement envisioned the creation of a South Asian Free Trade Area (SAFTA) by 2001—and finally succeeded

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in making SAFTA operational in January 1, 2006. While the formation of a free trade area was a historic step toward the economic integration of the South Asian nation states, liberalization remained limited and was unable to match the pace of expanding trade and investment in other regions of the world. The fundamental reason for this has been the limited trade and economic engagement against a politically sensitive backdrop between the two largest South Asian economies, namely, India and Pakistan.

Trade between India and Pakistan has always been inextricably linked to the political relations between the two countries, rather than being governed merely by economic factors. Following independence and partition in 1947, India-Pakistan trade fell drastically and came to a standstill for almost 9 years in the aftermath of the war in 1965. A protocol on resuming trade relations was signed in 1974 on a list of mutually agreed items. In 1996, India accorded Most Favored Nation (MFN) status to Pakistan, thereby offering Pakistan the same trading regime that it offers to any other country in the world. Pakistan, on the other hand, continued to allow imports of a limited number of items from India, collectively known as the positive list, although the number of items on the list has increased gradually; Pakistan linked the granting of MFN status to resolution on the Kashmir issue. Following the attack on the Indian parliament in December 2001, India halted trade via the air and land routes between 2001 and 2004. In 2013, cross-border trade was completely halted after incidents of cross-border firing, but trade resumed within a few days. There have been restrictions on trade on other counts as well, with the major ones being (a) a restrictive maritime protocol until 2005 that allowed only Indian- and Pakistani-flagged vessels to carry cargo between the two countries and did not permit these vessels to carry consignments to a third country from the ports of either country, (b) the presence of only one rail route for cargo movement between the two countries, and (c) the absence of a road-based trade route until 2005. This restrictive trade environment resulted in large informal trade flows between India and Pakistan, with most of the trade taking place via third-country ports such as Dubai.

The process of trade normalization was set in motion in 2004 during talks at the Commerce Secretary level on commercial and economic cooperation between India and Pakistan. In this comprehensive dialogue, trade negotiations were discussed along with other issues. This was the first step toward delinking trade negotiations from political issues. Since 2004, any major political event between India and Pakistan has neither had any major impact on trade relations nor led to the imposition of a ban on trade. Rather, bilateral trade has been rising over the years (Fig. 1.1).

In 2004, India and Pakistan, both members of SAARC, signed the South Asian Free Trade Agreement. The members of this agreement include four least developed countries (LDCs), Nepal, Bhutan, the Maldives, and Bangladesh, and three non-least developed countries (NLDCs), India, Pakistan, and Sri Lanka. As with all other regional agreements under the WTO, this agreement also required members to offer MFN treatment to each other. However, even after its ratification in 2006, Pakistan did not accord MFN status to India and continued to trade on the positive list, allowing imports of only 137 items from India via road, thereby making the route more restrictive. Thus, with the two largest SAARC countries not trading

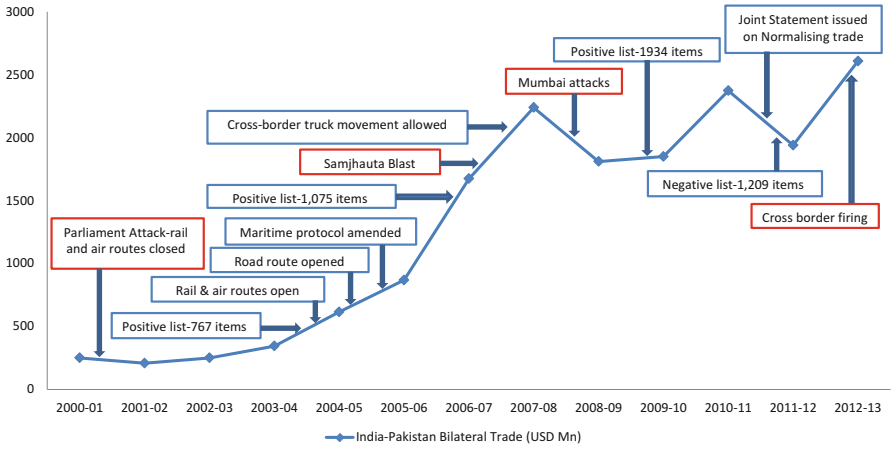

Fig. 1.1 Impact of political relations between India and Pakistan on trade

under MFN rules, SAFTA has failed to help normalize trade relations between India and Pakistan.

The bilateral trade dialogue that started in 2004 continued for four more rounds of talks until 2007 and resulted in three major outcomes—the expansion of the positive list, the opening of the road route in 2005, and an amendment of the restrictive maritime protocol. As part of the confidence building measures, in October 2008, the two governments permitted trade and travel across the Line of Control (LoC) along Jammu and Kashmir.

Following the Mumbai attacks in November 2008, the composite dialogue stalled and resumed after a hiatus of 3 years. However, during these 3 years, no proactive measures were taken to block trade such as those initiated in response to the parliament attack in 2001.

The fifth round of talks in April 2011 laid down the blueprint for normalizing trade between India and Pakistan. Perhaps what set the tone for the talks was the recognition of a need to promote bilateral trade to "build confidence, dispel misunderstandings, and allay misapprehensions." While the agenda was very detailed (covering, inter alia, the MFN issue, nontariff barriers, border infrastructure, customs liaison, harmonization of customs procedures, trade in electricity and petroleum products, cooperation in information technology, visas, bilateral investments, and opening of bank branches), the two negotiating points revolved around Pakistan granting MFN status to India and India addressing nontariff barriers faced by Pakistan in accessing the Indian market.

The Joint Statement issued in November 2011 laid down the sequence and timelines for full phasing in of MFN status for India. In the first phase, Pakistan would graduate from the positive list to a small negative list that specified banned rather than permitted items. In the second stage, the negative list would be phased out—overall, as well as for the road route on which trade takes place for only a fraction of the items on the positive list. These changes would usher in the full phasing in of MFN that forms an essential part of the trade normalization process.

Adhering to the Joint Statement, in March 2012, Pakistan made a transition from the positive list approach to a small negative list of 1,209 items; however, it continued to restrict road trade by allowing only 137 items to be imported from India via road. India addressed Pakistan's concerns by taking several steps to address nontariff barriers (NTBs). Since then, trade negotiations on MFN have changed stance one more time. During the 7th round of talks held in September 2012, India and Pakistan agreed to further deepen the preferential arrangements under SAFTA, with India offering concessions to Pakistan in exchange for Pakistan granting MFN status to India. In a major step, India pruned its sensitive list to 614 items (from 884 items). As of July 2013, the status is that India would bring down its SAFTA sensitive list to 100 tariff lines; simultaneously, Pakistan would grant MFN status to India, phase out the negative lists, and remove restrictions on items traded by road.

In the context of this rapid progress in the economic relations of India and Pakistan, this book analyzes multiple facets of the economic relations between the two countries in order to provide recommendations for policymakers, academics, and industries. The book encompasses three broad areas. Part I (Chaps. 1, 2, 3, and 4) quantifies the potential for trade in goods between India and Pakistan. This section uses primary and secondary sources to assess current trends and opportunities in the formal and informal sectors of India and Pakistan. Part II (Chaps. 5, 6, and 7) expands the analysis to include trade in services between the two countries, as well as bilateral investment flows. Chapter 5 investigates current trends in the services sectors of both economies, identifies avenues where there is potential for further trade, and provides recommendations for removing the current constraints to trade in services. Chapters 6 and 7 are complementary chapters that analyze cross-border investment flows between India and Pakistan. Finally, Part III (Chaps. 8, 9, 10, and 11) provides analyses of specific sectors—health, sports goods, and energy—in India and Pakistan. These chapters reflect the disparity between the current levels of trade and cooperation in the selected industries versus their potential. Chapter 12 concludes the book and presents policy lessons as well as possibilities for the way forward.

Chapter 2, "Normalizing India-Pakistan Trade," examines the trade potential between India and Pakistan using two different approaches—the Trade Possibility Approach and the Revealed Comparative Advantage (RCA) Approach. The analysis reveals that potential largely lies in sectors where trade is currently limited due to the existing restrictive bilateral trade policies between India and Pakistan. Within this realm, this chapter examines issues surrounding nontariff barriers, the visa regime, foreign direct investment flows, and transport and transit routes. Due to the restrictions imposed by these factors, trade between India and Pakistan has been taking place via different informal channels. Therefore, along with simplifying and normalizing trade procedures, one major task in furthering India-Pakistan trade is to shift informal trade to formal channels.

The study estimates an overall bilateral trade potential of US$10.9 billion. Of this, export potential accounts for US$7.9 billion and import potential US$3 billion. The estimated potential values will apply when there is a free flow of goods between India and Pakistan. However, along with a large number of items on the sensitive

lists of India and Pakistan under the SAFTA agreement, Pakistan also maintains a negative list of 1,209 items that cannot be imported from India. A substantial proportion of India's export potential (56 %) is found to lie in products that are on Pakistan's negative list for India or on Pakistan's sensitive list under SAFTA. Similarly, 22 % of India's import potential from Pakistan is found to lie in items on the sensitive list for Pakistan under SAFTA. The authors find that the textiles sector is highly protected according to the sensitive lists issued by both India and Pakistan, and the largest number of items in the negative list belongs to the automobile sector.

Similarity in culture, language, and traditions makes trade in services a lucrative opportunity especially in the entertainment industry including films, television, and music. Trade possibilities in fields such as information technology, business process outsourcing, and healthcare also hold enormous gains for India and Pakistan considering that the services sector accounts for the largest proportion of their respective gross domestic products (GDPs). Along with a holistic analysis of trade potential calculations and identifying trade possibilities in different sectors, this chapter delves into the physical and regulatory impediments that must be addressed to help achieve trade levels commensurate with their potential.

In *Chap. 3*, "Informal Flow of Merchandise from India: The Case of Pakistan," Vaqar Ahmed, Abdul Wahab, Abid Q. Suleri, and Asif Javed provide an assessment of the volume and composition of the informal flow of goods from India to Pakistan. The numerous tariff and nontariff barriers constraining the cross-border exchange of goods between India and Pakistan have restricted the current level of trade to US$1.9 billion, which is far below its potential of US$15–20 billion. Given that bilateral exchanges do not meet their economic optimality, traders on both sides have identified the need to circumvent these regulatory constraints, resulting in the use of multiple informal mechanisms of trade. This chapter examines the product-specific characteristics, nature of transit, and customs issues with regard to such trade. Since informal exchanges are largely undocumented, the authors primarily rely on a comprehensive survey of targeted importers, exporters, wholesale retailers, transporters, customs clearing agents, smugglers, Khepias, and frequent family travelers for their analysis. The survey was canvassed in leading markets in Pakistan's key cities and undertakes a product-based assessment to estimate the total volume of informal exports from India to Pakistan and its components.

Based on the survey, the commodities traded informally between India and Pakistan include textiles, pharmaceuticals, spices and herbs, tobacco items, automobile parts, tires, cosmetics, jewelry, and herbal products. Aggregating across the survey's estimates of informal trade in each of these sectors, it is estimated that the current inflow of informally traded goods from India to Pakistan amounts to US$4.2 billion annually. The survey results further show that textiles constituted the majority (87.5 %) of the informal imports into Pakistan from India, followed by tires (4 %), automobile parts (2.3 %), and pharmaceuticals (1.4 %). Among textile items, raw silk, cotton, Banarasi saris, muslin, and ready-made bridal dresses are extremely popular in Pakistan, while commodities such as fancy Indian suits are gaining a market owing to the influence of the Indian media. These items are often exported directly to Pakistan through visitors, travelers, and Khepias, although the Afghan

Transit Trade Channel is also a common route for these items. On the other hand, in the automobile industry, major vehicle engine parts are imported through China, while gearboxes are often imported through the Attari-Wagah border. Close to 30 % of the deficiency in the Pakistani market is met by Indian auto parts—especially in the case of gears, differentials, tires, and windscreens. With respect to pharmaceuticals, medicines of Indian origin are often locally available in Pakistani markets because of their lower prices. However, since a large number of these drugs are on Pakistan's negative list, these informal pharmaceutical imports are often not adequately tested in laboratories or packaged according to prescribed standards. The survey respondents were of the view that the best view to deal with this gray market would be to formalize pharmaceutical imports from India. Having examined informal trade in the identified sectors, the authors elaborate on the transit routes used for informal imports from India into Pakistan.

Chapter 4, "India-Pakistan: Trade Perception Survey," by Sanjib Pohit, Nisha Taneja, Mishita Mehra, and Prithvijit Mukherjee, analyzes the perceptions of traders and businessmen from India and Pakistan about the policies and procedures involved in India-Pakistan trade. Traders were asked to rank their perceptions on various indicators such as awareness of India-Pakistan trade policies, product quality standards, market access, business facilitation, customs and documentation, and infrastructure at ports. The average level of awareness on specific India-Pakistan trade policies was found to be significantly higher among Indian respondents than Pakistani respondents, with awareness on MFN status and the presence of a negative list for imports from India being the highest in both countries. The authors found that the traders surveyed lacked awareness of SAFTA concessions and the permitted items for trade via the road route. To maintain the quality of imports, both India and Pakistan impose standards for the import of agricultural/food items (Sanitary and Phytosanitary [SPS] standards) and manufactured commodities (Technical Barriers to Trade [TBT] standards). Though no difficulty was found between traders from India and Pakistan in meeting TBT requirements, the latter expressed greater difficulty in meeting the SPS standards set by Indian authorities.

On a positive note, the respondents generally perceived trade relations to be delinked from the political events between India and Pakistan, with any negative impact felt only momentarily. Made in India-Pakistan labels, too, were perceived to have a negligible impact on market access, which indicates increasing acceptability of Indian/Pakistani goods produced across the border. With the visa regime still being restrictive, very few traders found it easy to obtain visas, but Indian traders found the process simpler than Pakistani traders.

The infrastructure at ports and customs procedures is instrumental in facilitating trade. The survey results show that the land ports for rail and road that are specific to trade between India and Pakistan are more backward than the sea- and airports that are also used for trade with other countries in the world. Customs procedures, too, are perceived to be more effective at the sea- and airports than at the land ports. Not only do the road and rail ports face higher levels of congestion, delays in testing, and lack of warehousing, but they are also expected to suffer from higher congestion in the coming years until reforms are introduced. Making an adequate number of wagons available for exports from India to Pakistan also needs immediate attention.

On the perception results, India-Pakistan trade is expected to exceed the average annual growth of exports and imports of the past 3 years, with a large proportion of traders expressing an expectation of a 25 % rise in trade levels in the coming year. Port infrastructure capacity would need to be built in proportion, because an equivalent rise in trade volumes is expected in all modes of transport.

In *Chap. 5*, "India-Pakistan Trade Liberalization: A CGE Modeling Approach," Sanjib Pohit and Radhika Saini use a computable general equilibrium model to quantify the benefits to India and Pakistan under simulations of multiple trade liberalization scenarios. At present, the abysmally low economic engagement among the South Asian countries stands out as an anomaly in the setting of an extremely globalized and integrated world economy, and at the heart of this regional problem lie the weak economic relations between India and Pakistan. While it is intuitive that trade liberalization between India and Pakistan would bring economic benefits to these two countries, the study estimates the magnitude of this welfare for the two nations, as well as assesses the impact on other South Asian economies. This chapter contextualizes its endeavor to identify bilateral trade potential by providing a backdrop of trade policy in both India and Pakistan. The authors begin with a discussion on the numerous bilateral and multilateral trade agreements among the South Asian economies, thus throwing light on areas where these agreements need to be made more comprehensive. They contrast India's slowly liberalizing trade regime with the more restrictive one in Pakistan and deliver an assessment of the policies in both countries that hinder their economic engagement. Most significantly, this expansive view of the status of formal and informal trade between India and Pakistan highlights the inefficiencies in the existing logistical and infrastructural arrangements for trade between the two nations. This sets the stage for the general equilibrium analysis undertaken in the rest of this chapter.

The economic impact of bilateral trade liberalization between India and Pakistan has been examined under three different policy simulations: (1) full liberalization, (2) full liberalization as well as 50 % productivity improvements in all modes of transportation, and (3) full liberalization, 50 % productivity improvements in all modes of transportation, as well as full liberalization in FTA (in force) signed by India and Pakistan. While India and Pakistan both see a substantial welfare gain of US$282 million and US$41 million, respectively, under the first simulation, there is a significantly larger jump in gains for both countries under the second simulation that includes productivity changes in the modes of transportation. In this scenario, India's welfare increases US$1.5 billion, while that of Pakistan's goes up to US$271 million. When one also incorporates the effect of other PTAs/FTAs that India or Pakistan has signed with their trading partners on top of mutual liberalization, the authors find that many ASEAN members gain significantly. Some countries benefit substantially—Malaysia (US$708 million), Singapore (US$347 million), Nepal (US$150 million), and China (US$80 million)—but there are some marginal losses to Sri Lanka (US$4 million) as well as some other South Asian countries. Given these findings, this chapter concludes that not only is there potential for significant mutual gains between India and Pakistan but also that these benefits could extend to several other countries. However, the realization of these benefits hinges primarily on improvement in transportation and infrastructure for trade between both countries.

Chapter 6, "Trade in Services Between India and Pakistan," by Rupa Chanda, examines bilateral exchanges between the services sectors of India and Pakistan, with an emphasis on the IT, health, and tourism industries. The services sector has driven South Asia's GDP in recent years and is an especially important propeller of growth in India and Pakistan. However, despite its exceptional performance, growth across the sector has not been uniform or equitable. Through the course of this chapter, the author provides an assessment of the spheres where India and Pakistan's tertiary sector has truly grown as well as identifies areas where proactive policy change and investment are still required for development. The study analyzes the existing bilateral trade and cooperation in this sector, highlighting the possibilities for furthering collaborative initiatives. While this chapter identifies the innate benefits of enhancing trade in the services sectors, the author sets the study in the wider context of the positive impact this trade would have on the cross-border exchange of goods, mobility of people, infrastructure, information flows, and regional integration. While both India and Pakistan have witnessed rapid growth in the services sector over the past two decades, it has been stronger and more consistent in India than in Pakistan. At present, India stands as the chief driver of the service trade in South Asia and is especially competitive in computer and information services as well as other business services. In contrast, over half of Pakistan's service exports were revealed to be in government services—indicating no significant areas of commercial competitiveness. Given this large difference in the relative nature and sizes of the corresponding sectors in India and Pakistan, there appears to be tremendous scope for trade between the two countries. However, currently, India accounts for less than 0.5 % of Pakistan's commercial service exports—with a lower share than the UK, the USA, the UAE, EU, and several smaller Asian economies. Moreover, the author observes that the services being primarily traded are incongruous with the comparative advantages of the two countries, suggesting significant barriers to trade in the services sectors of India and Pakistan.

The author goes on to examine the opportunities and constraints faced by the IT-BPO, tourism, and health industries in the two countries. The IT sector has developed rapidly in both India and Pakistan owing to their large pool of English-speaking graduates. Given the common export orientation toward the UK and the USA, there is some competition between the two countries in this sector. However, this overlap implies a similarity in the challenges faced by both countries and could encourage tie-ups and joint initiatives. Similarly, in the health sector, both countries share common problems of low quality, lack of equitable access to healthcare, as well as under-allocation of resources, which indicate potential for collaboration in spheres such as medical tourism and improved telemedicine links. The author then contrasts the slowly expanding tourism sector in India with the relatively stagnant corresponding industry in Pakistan and observes that despite important facilitating factors such as language, culture, social and family ties, as well as geographical proximity, the extent of bilateral tourism flows between the two countries is very low due to political factors. The author recommends a proactive role by the public and private sectors to overcome these challenges.

Chapter 7, "FDI in India: Prospects for Pakistan," by Vaqar Ahmed, Abid Q. Suleri, and Muhammed Adnan, brings forward the opportunities and concerns faced by Pakistani investors in India. In August 2012, India revisited its FDI consolidated policy and permitted investment from Pakistan, but only through the government route. With this recent change in the FDI regime, this chapter identifies key sectors for investment in India and compares these with Pakistan's investment potential. The study assesses sector-specific barriers to FDI in India, the willingness of Pakistani investors to venture into the Indian markets, and the level of cooperation between the corresponding government bodies in both countries. Another important component of this chapter is the analysis of the policy measures that would facilitate bilateral FDI and, in turn, strengthen engagement between the two countries. Set against a brief history of policies, talks, and agreements regarding the investment regime in both countries, this chapter is a unique addition to the existing literature regarding India and Pakistan's economic engagement, which has so far been primarily focused on trade in goods and services.

FDI inflows to India have increased rapidly from US$9 billion in 2005–2006 to their highest ever level of US$46.6 billion in 2011–2012. In 2011–2012, India's chemical sector received the maximum FDI, contributing 19.9 % of the overall investment flows to India. Other sectors that attracted FDI were services, housing, real estate, construction, and drugs and pharmaceuticals. The authors identify viable sectors for investment in India through a survey of Pakistani investors and relevant entities and then compare them with current trends in Pakistan's outward investment. The survey estimated that the total annual potential investment from Pakistan to India stands at US$1.6 billion. It identifies the textile sector as having the highest potential (US$760 million), comprising 47 % of the overall estimated FDI outflow, followed by the cement, auto, and food processing industries in manufacturing and hotel-related services, banking, and insurance in the services sector. While the survey indicates that large investors are attracted to India as an investment destination, medium-size investors feel that India presents little reward compared to the high risk for Pakistani capital in India, due to the absence of any mechanism to provide security of assets and the likely risk to profits in times of uncertain bilateral political relations. This chapter concludes with sector-specific recommendations for removing the bottlenecks that would lead then to more Pakistani investment in India.

In *Chap. 8*, "FDI in Pakistan: Prospects for India," Palakh Jain and Samridhi Bimal examine the potential for Indian investment in Pakistan. The analysis is set against the backdrop of the growing importance of FDI for emerging markets. In line with the trends seen across other developing countries, South Asian economies have also experienced a surge of capital inflows over the past decade. India has now emerged as one of the leading overseas investors across the world, while Pakistan has one of the most liberal investment policies in South Asia. These two fundamental features of the South Asian investment regime brought forth by the authors suggest tremendous potential for complementarity between the two nations. It is in this context that the authors set the stage for exploring possible avenues for India's investment in Pakistan.

There are enormous prospects for investment in Pakistan especially on account of its geographical location, liberal foreign investment policy, conducive business environment, and an abundance of skilled workers. The similarity between the products that India and Pakistan export to the rest of the world would allow the two countries to take advantage of the possible complementarities between them. Based on industry consultations, interactions with policy makers, and reviews of research reports, the study identifies sectors for possible collaboration. This chapter then examines the regulatory regime governing investment flows between India and Pakistan, the existing barriers to investment in Pakistan, and the need for banking channels to facilitate investment flows between the two countries.

An examination of the policy environment reveals that although India and Pakistan have made considerable progress in liberalizing their FDI regimes, inadequate implementation continues to affect investment flows. The governments on both sides need to address regulatory and administrative challenges faced by Pakistan in attracting investment from India. The authors conclude by proposing policy recommendations that would help increase investment from India to Pakistan in a phased manner.

In *Chap. 9*, "Pakistan-India Bilateral Trade in Sports Goods Sector," Farah Shahid Hassan and Kiran Javaid examine the possibilities for furthering trade between the sports industries of India and Pakistan. The sports industries in both countries have their roots in Sialkot, setting this study against a unique backdrop. The authors begin their analysis by highlighting the significance of the sports industry to India and Pakistan's export and employment bases, thus throwing light on the importance of taking advantage of any complementarities between the two countries. As a first step in identifying possibilities for trade and cooperation between the two countries in this sector, this chapter contrasts the historically dominant sports industry in Pakistan with the faster developing one in India. While the Pakistani sports industry relies on the availability of skilled, cheap labor, the sports sector in India is characterized by high labor productivity and rapid technological advancements; this gives each industry a separate niche. The identification of these contrasting strengths provides the backdrop against which the synergies between the corresponding sectors in India and Pakistan are further examined.

Pakistan's absolute value of exports in the sports sector far exceeds India's, though India's exports in sports footwear are higher. The two countries have comparative advantages in similar product categories, barring India's added competitiveness in sports footwear. India's exports to Pakistan are driven by one chief product—inflatable balls—and all other items form a very small proportion of exports. Although India has a comparative advantage in this product, there are 12 other product lines in which India is even more competitive, including golfing equipment, water sports equipment, tracksuits, and sports footwear. On the other hand, Pakistan's exports to India are more diversified, with the major exports comprising outdoor sports equipment, inflatable balls, and sports gloves. Having identified the commodities in which the two sectors are competitive, this chapter recommends that the two countries trade more in them. This is especially true of India's edge in sporting footwear, for which trade between the two countries is

negligible. Another observation of the study is that since only a few products dominate bilateral trade and both countries produce differentiated products, there is large scope for intra-industry trade. At present, bilateral trade exhibits both inter- and intra-industry elements.

The authors have estimated an augmented gravity model to identify the factors responsible for sports sector trade and to quantify its trade potential. The findings indicate that India and Pakistan trade is at least 249 % less than what it should be. This could, in part, be attributed to the presence of numerous nontariff barriers to trade. Overall, the authors conclude that there is great potential for trade between these two countries and both should try to increase trade, based on their respective comparative advantages.

In *Chap. 10*, titled "Pakistan-India Trade: An Analysis of the Health Sector," Hadia Majid and Nadia Mukhtar provide an assessment of the synergies between the health sectors of India and Pakistan. The authors point out that there is tremendous scope for bilateral engagement in this industry, where Pakistan's dire health services could gain from India's high-quality treatment and medical personnel, and India could take advantage of Pakistan's edge in manufacturing of health commodities. The study delves into the intricacies of trade in goods and services between the health industries of the two countries, and in doing so, it touches upon a wide array of issues pertinent to this industry, such as medical tourism, informal bilateral exchanges, cross-border price differentials, and collaborative medical initiatives. The analysis is made even more holistic with an examination of inter- and intra-industry trade in the health sector, as well as the inclusion of a trade intensity index. This in-depth research brings out many of the existing complementarities between the health industries of India and Pakistan and carves the path for further trade and cooperation opportunities. Also, this chapter identifies the obstacles to successful trade between the health sectors in India and Pakistan and addresses them through policy recommendations.

At present, protectionist domestic policy, nontariff barriers, weak intellectual property rights, and the lack of a concerted effort on the part of India and Pakistan's health sectors keep bilateral trade in health goods at an almost negligible level. To further analyze trade, the authors categorize health commodities into surgical instruments, pharmaceutical products, and medical equipment. It was observed that over 2003–2011, Pakistan's exports of surgical goods to India far outweighed the exports of the other two segments, while imports of pharmaceutical products from India were significantly higher than imports of surgical goods and medical equipment. The study finds that, currently, restrictive SPS requirements, domestic lobbying, and weak intellectual property rights force cheaper Indian medicines to be illegally imported through Afghanistan into Khyber Pakhtunkhwa along the Pak-Afghan border. These unregulated, informal imports along with the shortages, higher prices, and overall inequity in access to drugs in Pakistan require the issue of the low existing pharmaceutical trade between the two countries to be addressed. It is further observed that trade in surgical goods is limited to a few products, while that in medical equipment is nominal. Bilateral trade is predominantly interindustry, with intra-industry trade lying below 1 % in all three categories. This finding indicates

that both countries could benefit by taking advantage of the intra-industry trade available to them.

On the whole, the authors find that Pakistan imports commodities from the world that are India's leading exports to other countries. This is true of Pakistan as well, as least in the surgical and manufacturing sectors. These observations suggest numerous possibilities for furthering economic engagement, and the authors conclude with a set of recommendations to tap this potential.

In *Chap. 11*, "India Pakistan Energy Cooperation: Rethinking Opportunities and Newer Approaches," Mahendra P. Lama proposes regional cooperation and integration as a possible solution to the protracted energy deficit in the two South Asian economies. This chapter draws on lessons from other regional power agreements as well as existing bilateral mechanisms for exchange of energy and proposes that these should be applied in the context of India and Pakistan. This analysis is set against the backdrop of the slow evolution of the power sector from an elephantine state monopoly to a more competitive, efficient sector in both India and Pakistan. However, despite the continued efforts toward enhancing competitiveness in this sector, both countries are plagued by problems of infrequent power supply, long hours of load shedding, and low per capita consumption of energy that consequently affect human life and national security. In the face of insufficient energy supply and an ever-growing consumer base in India and Pakistan, it becomes imperative to develop interlinkages for the supply and dissemination of power among the South Asian economies.

To take care of the mismatch between demand and supply, this chapter draws on the experiences of Nord Pool and the South African Power Pool to show the benefits of cross-border energy trade to natural resources, supply reliability, capital savings, and operating costs.

A possible way forward could be limited exchanges of power between India and Pakistan through bilateral power trade, pool-based exchanges, and a wheeling facility. The author uses the example of successful agreements between India and Bhutan, as well as the initiatives taken for India-Bangladesh cooperation. For pool-based mechanisms, the study proposes that surplus power from individual plants could be pooled and then transported to deficit areas using a coordinated exchange mechanism. Alternatively, Pakistan could import power from Nepal and Bhutan, and India could play a critical role by providing an exclusive wheeling facility. It is significant that there is already a complete network for transmission of energy on both the Indian and Pakistani sides, but key issues such as cost of transmission lines, sharing mechanisms, power tariff, payment mechanism, and power sustainability need to be addressed. Some progress has been made with the commencement of the 5th round of Secretary-level talks in April 2011, but much remains to be done. With this in mind, the author concludes with a set of policy recommendations that urge both governments toward proactive action.

Chapter 2
Normalizing India-Pakistan Trade

Nisha Taneja, Mishita Mehra, Prithvijit Mukherjee, Samridhi Bimal, and Isha Dayal

2.1 Context of the Study

Even though positive measures have been taken in the past, the series of credible steps taken since November 2011 are likely to lead to a quantum jump in trade between India and Pakistan. As the two countries move toward normalizing their bilateral trading regimes, there will be new trading opportunities for both of them. It is important to quantify the trade potential and identify sectors with the largest potential. The negative and sensitive lists operational in Pakistan against India and the sensitive lists maintained by India for Pakistan indicate sectors in which the two countries want to protect their domestic industries from each other's imports; the lists indicate the corresponding gains to the protected exporters of both countries. The trade potential for these sensitive items would indicate the extent to which possible losers and gainers in different industries are being affected. While trade negotiations have focused largely on the goods sector, there are trade possibilities in the service sector as well. Assessing these possibilities would help equip businessmen in India and Pakistan with relevant information on services trade.

The extent to which trade potential can be realized between India and Pakistan depends on several factors. Identifying impediments to trade can help policymakers take relevant measures. Identifying nontariff barriers can also help improve market access for both countries. Foreign direct investments can help deepen trade linkages and sustain trade gains. Cross-border transportation at low costs can provide large gains to traders on both sides. It is also important to assess the impact of the trade normalization process on informal trade flows. For several years, India and Pakistan have followed a very strict visa regime that restricts the movement of people across the border. It is important to understand the nature of these restrictions,

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assess the steps taken so far, and suggest improvements. More importantly, greater people-to-people contact will erase misconceptions and help them engage fearlessly with each other. The success of the trade normalization process will also be determined by the role of institutions involved in this process at the center, state, and border levels, business and trade associations, nongovernment organizations, and the media.

Against this backdrop, our study focuses on the following questions:

(I) What is the trade potential between India and Pakistan?

- What are the total bilateral trade potential and the items with the largest potential?
- What is the trade potential of items on the negative and sensitive lists and which sectors in these categories have the largest trade potential?
- What items on the negative and sensitive lists are prone to competition?
- What are the trade possibilities in the service sector?

(II) How can the trade potential between India and Pakistan be realized?

- What are the transport and transit impediments, and how can the transaction costs of trading be reduced?
- What are the nontariff barriers and how can these be addressed?
- What is the magnitude of informal trade and how can it be shifted to formal channels?
- What are the impediments related to visas?
- How can investment flows deepen trade linkages?
- What is the role of institutions in enhancing trade?

2.2 Methodology

The study uses mixed methods that are based on primary information collected through field surveys and secondary sources. The secondary sources are published papers, data, and government policies, agreements, regulations, and protocols.

Primary surveys were conducted to understand the impediments to trade normalization, while secondary data was used to prepare estimates of trade potential between India and Pakistan. The primary survey was conducted during 2005–2008 and in 2012 in India, Pakistan, and Dubai. Face-to-face interviews, focus group discussions, and stakeholder consultations were held formally and informally using semi-structured, open-ended questionnaires with importers, exporters, manufacturers, freight forwarders, clearing agents, government officials at the state and central levels, and academics on the trade-related issues raised in this study.

Several methods have been used to predict the trade potential between India and Pakistan. The most popular econometric method is the use of gravity models in which bilateral trade is explained as being directly proportional to the product of the Gross National Product (GNP) of the trading partners and inversely related to the

distance between them. Gravity model estimates range between 0.5 times and 27 times of actual trade (Batra 2004; Rahman et al. 2006). While these estimates are useful, the model has some weaknesses, particularly for geographically contiguous countries such as India and Pakistan, where despite lower intercountry distances, transport and other transaction costs of trading are very high. Moreover, any econometric model would be limited in its use when existing bilateral trade is limited to the positive list.

This chapter uses a simple yet intuitive method to compute the trade potential between India and Pakistan that yields more realistic results. A two-step approach was used to calculate trade potential. In the first stage, products with trade potential were identified as those that had (a) adequate demand in the receiving country and (b) adequate supply capabilities in the source country. In the second stage, of the identified products, only items that were globally competitive were retained to arrive at estimates of trade potential.

Thus, in Step 1, trade potential for any commodity is given by Min (SE, MI)–ET, where SE, MI, and ET are supplier's global exports, receiver's global imports, and existing trade between the supplier and the receiver.

In Step 2, the revealed comparative advantage (RCA) for all items identified in Step 1 was computed, and only those which with an RCA greater than unity were included. Thus, India's export potential to Pakistan was arrived at by first calculating the trade potential for all commodities and then retaining only those in which India has a comparative advantage to export to the world. A similar exercise was conducted to estimate India's import potential from Pakistan.

The RCA index is a ratio of the share of a given product in a country's exports relative to the product's share in world exports (Balassa 1965). The RCA was computed using the following formula:

$$\mathrm{RCA}_{ij} = \frac{\left(X_{ij} / X_{\mathrm{I}}\right)}{\left(X_{\mathrm{w}j} / X_{\mathrm{W}}\right)}$$

where X_{ij} represents country i's export of commodity j, $X_{\mathrm{w}j}$ represents world exports of commodity j, X_{I} represents the total exports of country i, and X_{W} represents total world exports. The RCA index was computed by averaging the item-wise RCA for the years 2010 and 2011. The problem with such a measure of RCA is that its theoretical concept is based upon pre-trade relative prices in a world where markets function without distortions, but there will always be a gap between a country's comparative advantage inferred from post-trade observable data and its actual comparative advantage. However, Balassa (1965) argues that comparative advantage can be revealed through an examination of country/commodity trade patterns, because actual exchanges reflect relative costs as well as differences in non-price factors.

The estimates of trade potential have to be treated with caution, as they merely indicate the untapped trade possibilities. The estimate of trade potential is the maximum possible trade that two countries can have if they sourced from each other all items that they sourced from the rest of the world. Though this can never be the

case, this exercise gives ballpark figures on trade possibilities at a disaggregated level. The estimates also vary depending on the year of reference. In this exercise, the calculations are based on trade data for 2011.

Secondary data on India's trade with Pakistan was collected from the Directorate General of Foreign Trade (DGFT), Ministry of Commerce, and the United Nations International Trade Center's (UN ITC) World Integrated Trade Systems (WITS) Database published by the World Bank.

2.3 Trade Potential and Possibilities

In this section we examine current trade trends, assess the trade potential for India and Pakistan, examine the composition of the negative and sensitive lists, and assess the extent of trade potential accounted for by these items. Protected sectors with the highest trade potential are identified, and the implications of opening up these sectors are discussed. The sectors that are likely to face competition from imports once the negative and sensitive lists are further liberalized have also been identified. Trade possibilities and potential in the important service sectors have been examined as well.

2.3.1 Trends in Bilateral Trade

Bilateral trade between India and Pakistan increased by more than nine times between the years 2000 and 2011.[1] Total trade between the two countries was US$1.97 billion in 2011, of which India's exports to Pakistan were US$1.66 billion and imports US$313 million. Despite exporting only on the positive list, India has always had a trade surplus with Pakistan, with the trade balance as a proportion of its total trade with Pakistan increasing from 55 to 68 % between 2000 and 2011 (Table 2.1). However, from 2009 to 2012, the average annual rate of growth of imports from Pakistan was 23 %, while that of exports was just 9 %, signaling some reversals in the trend.

In 2011, India's top three exports to Pakistan at the HS-21 level of classification of items included chemicals, textiles, and vegetable products and accounted for 68 % of total exports to Pakistan.[2] India's top three imports included mineral products, vegetable products, and textiles, accounting for 59 % of total imports (Appendix Table 2.3).

At the disaggregated level (HS 6-digit classification), the top commodities exported from India to Pakistan that year included cotton, oil cake, xylene, tomatoes, woven fabrics, chickpeas, polypropylene, rubber tires, tea, fruits, and iron and steel containers. Cotton alone accounted for 16 % of exports (Appendix Table 2.4).

[1] Excluding mineral fuels.

[2] HS refers to Harmonized System of classification.

Table 2.1 India's trade with Pakistan (US$ million)

	US$ million (excluding mineral fuels)		US$ million (mineral fuels)		US$ million (including mineral fuels)	
	(1)		(2)		(3)=(1)+(2)	
Trade	2000	2011	2000	2011	2000	2011
Exports	162	1,659	0	19	162	1,678
Imports	47	313	22	39	69	352
Total trade	209	1,972	22	58	231	2,030

Source: UN ITC-WITS database

Table 2.2 India's trade potential with Pakistan

Trade potential (year 2011)	US$ million (excluding mineral fuels) (1)	US$ million (mineral fuels) (2)	US$ million (including mineral fuels) (3)=(1)+(2)
Export potential	7,874	9,062	16,936
Import potential	3,019	1,289	4,308
Trade potential	10,893	10,351	21,244

Source: UN ITC-WITS database
Note: Calculations based on trade data for 2011

Dates were the most important item imported from Pakistan, accounting for 19.8 % of total imports in 2011. Other items included cement, gold, light petroleum, lead, copper, petroleum oil, cotton yarn, disodium carbonate, gypsum, terephthalic salts, and vinyl chloride (Appendix Table 2.5).

2.3.2 Trade Potential in Goods

The trade potential between India and Pakistan was calculated using the methodology outlined in Sect. 2.2. The results show that the total trade potential, excluding mineral fuels, is US$10.9 billion, with the export potential accounting for US$7.9 billion and import potential accounting for US$3 billion. The trade potential from mineral fuels stands at US$10.4 billion (Table 2.2).

The same methodology was used to calculate the export and import potential for Pakistan's negative and sensitive list and for India's sensitive list. India's export potential for the items on Pakistan's negative list accounts for 43 % of its total export potential; and items on Pakistan's sensitive list under SAFTA account for 33 % of India's total export potential (Appendix Table 2.6). The export potential of items that are either on Pakistan's negative list or on the SAFTA sensitive list accounts for 56 % of India's total export potential (Fig. 2.1, Appendix Table 2.6).

India's import potential from Pakistan for items on India's sensitive list under SAFTA accounts for 22 % of India's total import potential (Fig. 2.2, Appendix Table 2.7). Thus, a substantial proportion of India's export potential is in products

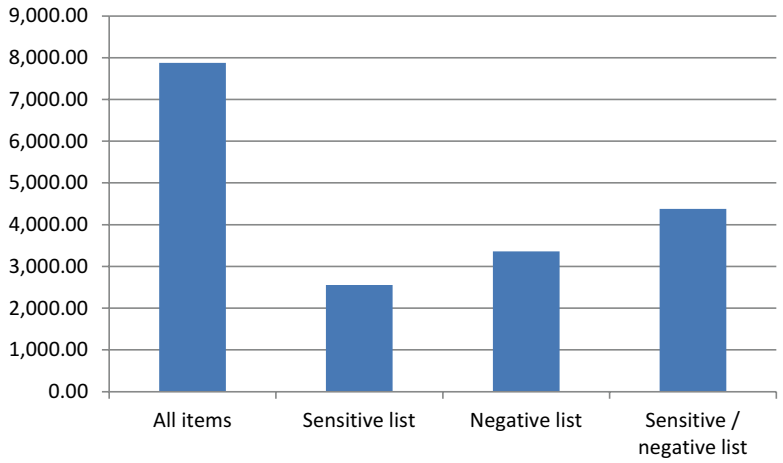

Fig. 2.1 India's export potential to Pakistan (US$ million) (*Source*: UN ITC-WITS database)

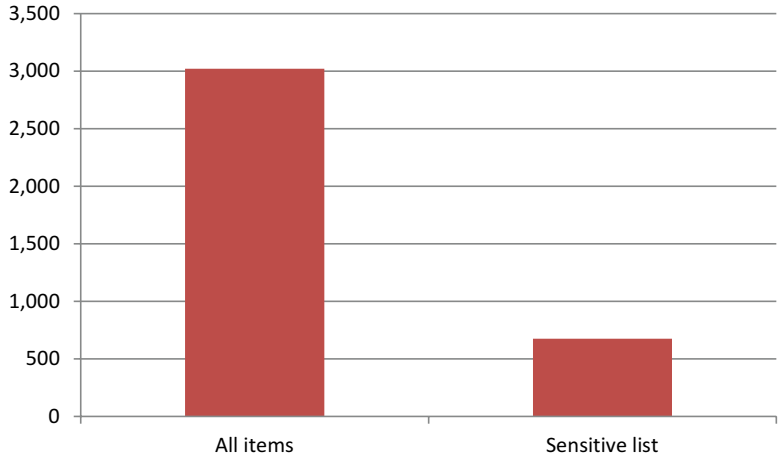

Fig. 2.2 India's import potential from Pakistan (US$ million) (*Source*: UN ITC-WITS database)

that are either on Pakistan's negative list for India or on the sensitive list under SAFTA. Similarly, a significant proportion of India's import potential is in items on the sensitive list for non-LDCs under SAFTA. Thus, even if trade is normalized, the two countries are likely to have limited preferential access to each other's markets.

The three categories (of HS-21 sectors) with the largest export potential from India to Pakistan are textiles, chemicals, and machinery, mechanical appliances and electrical equipment, which account for 55 % of the total export potential (Appendix Table 2.8, Columns 3 and 4). At the disaggregated level, the largest potential items include petroleum oils, light petroleum oils, cellular phones, cotton, vehicle components, polypropylene, xylene, tea, textured yarn, synthetic fiber, and medicaments (Appendix Table 2.9). However, 13 of the top 25 products with the

highest potential are currently on Pakistan's negative or sensitive lists or on both, making it difficult to realize the potential from these items.

The three categories with the largest import potential are textiles, jewelry and precious metals, and base metals, which account for 52 % of the total import potential (Appendix Table 2.10, Columns 3 and 4). At the disaggregated level, the items with the largest import potential are petroleum oils, jewelry, medical instruments and appliances, cotton, tubes and pipes of iron and steel, polyethylene, copper waste and scrap, structures and parts of structures, terephthalic acid and its salts, and sports equipment (Appendix Table 2.11). Again 6 of the 25 products with the highest import potential are on India's sensitive list for non-LDCs under SAFTA.

India has a huge export potential in mineral fuels largely accounted for by petroleum oil and light petroleum oil. The potential for the former is US$7.7 billion and the latter is US$1.3 billion (Appendix Table 2.9). India's import potential from Pakistan in petroleum oils is US$1.3 billion (Appendix Table 2.11). Although both countries have export potential in petroleum oils, analysis at a more disaggregated 8-digit level reveals that Pakistan's major petroleum oil export is base oil, while India's comparative advantage is in high-speed diesel, aviation turbine fuel, fuel oil, and lubricating oil.

2.3.3 Negative and Sensitive Sectors

Pakistan's negative list of 1,209 items is specified at the 8-digit level of classification followed by Pakistan Custom's Office. This classification differs from the Indian classification at the same level of disaggregation. An analysis of the 1,209 items indicates that auto components account for 32 % of the items, followed by steel and paper products that account for 11 % and 8 %, respectively (Fig. 2.3).

To assess the potential in these items, the codes were collapsed to the HS 6-digit level and then reclassified according to Pakistan's customs classification. However, in the process of aggregation, some products that were not on the negative list at the 8-digit level got included. Hence, at the HS 6-digit level, there were 788 items on Pakistan's negative list. Five categories, namely, automobiles, electrical machinery, textiles, steel, and pharmaceuticals, accounted for almost 90 % of the export potential on the negative list (Appendix Table 2.12, Column 2); within this, auto alone accounted for around 30 % of the export potential on the negative list. In addition, India's export potential in items that are included in Pakistan's negative list is the largest in automobiles (included largely in the category of vehicles, aircraft, vessels, and transport), which accounts for 12 % of India's total export potential to Pakistan (Appendix Table 2.8, Column 6).

To identify specific commodities on Pakistan's negative list that are "vulnerable" to competition from imports, paired RCAs were computed for every item traded between India and Pakistan. Vulnerable items identified through this exercise were those in which India had RCA > 1, but Pakistan had RCA < 1 (Taneja et al. 2011b). Thus, in the automobile sector, which accounted for the highest export potential on the negative list, of a total of 167 items at the 6-digit level, only 35 were vulnerable, as these were items in which India is globally competitive, but Pakistan is not.

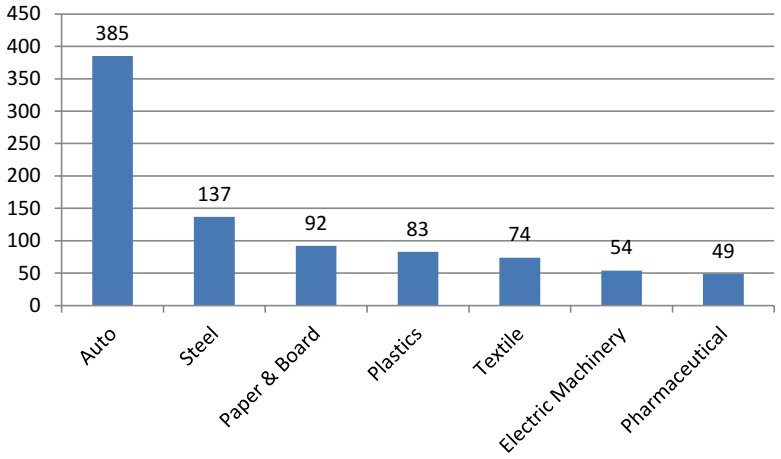

Fig. 2.3 Number of commodities on Pakistan's negative list (based on Pakistan customs classification 8-digit level) (*Source*: Ministry of Commerce, Government of Pakistan)

Similarly, in textiles, of the 74 items on the negative list, Pakistan is vulnerable in only 25 or 34 % of the items (Appendix Table 2.12, Columns 3, 5, and 6).

India's export potential in items that are included in Pakistan's sensitive list under SAFTA is the largest in automobiles (included largely in the category vehicles, aircraft, vessels, and transport) accounting for 37 % of the export potential of sensitive list items (Appendix Table 2.13, Column 2) and 12 % of India's total export potential (Appendix Table 2.8, Column 8). However, of the 70 items on the sensitive list in this category, Pakistan is vulnerable in only 19 items (Appendix Table 2.13, Columns 3 and 5). In terms of number of items, the textile sector was the largest, accounting for 24 % of the total number of items on the sensitive list (Appendix Table 2.13, Column 4). But these accounted for only 4 % of India's export potential for items on Pakistan's sensitive list under SAFTA (Appendix Table 2.13, Column 2). Moreover, of the total 224 textile items on the sensitive list, Pakistan is likely to face competition in only 41 or 18 % of the items (Appendix Table 2.13, Columns 3, 5, and 6).

India's sensitive list under SAFTA has the largest number of items in the textile sector, which accounted for 30 % of the total number of items on the sensitive list (Appendix Table 2.14, Column 4), while accounting for 62 % of India's import potential for items on the sensitive list (Appendix Table 2.14, Columns 2 and 4), and 14 % of India's total import potential from Pakistan (Appendix Table 2.10, Column 6). Further, of a total of 182 textile items on the sensitive list, India is vulnerable in only 45 items, i.e., 25 % of the items (Appendix Table 2.14, Columns 3, 5, and 6).

It can, hence, be inferred that while Pakistan considers its automobile sector most susceptible to competition, India fears competition in the textile sector. However, the tendency for both countries has been to protect several tariff lines in which neither partner is competitive.

In Pakistan the automobile sector is highly protected. The automobile industry was set up initially by Japanese, European, and Korean manufacturers. These assemblers are supported by auto component manufacturers or vendors. Some of

the assemblers have joint ventures with the component manufacturers, while others are independent. During 1985–2006, the industry adopted a "Deletion Program" that mandated compulsory localization of components over a period of time to provide protection to the local vendor industry (USAID and Government of Pakistan 2006). To comply with the WTO on trade and investment, the Deletion Program was abandoned, but the sector continued to be protected by high tariffs. Pakistan currently imports completely knocked down kits (CKDs) and semi-knocked down kits (SKDs) from Japan and parts from Thailand at higher prices than those from India. Opening up trade with India will make cheaper parts available to the industry (Trade Development Authority of Pakistan 2012). India's automobile vendor industry had a similar protected regime including an equivalent of Pakistan's Deletion Program for automobile manufacturers. With continuous liberalization, India has become a global R&D and small-car manufacturing hub (IBEF 2012). Indian auto component manufacturers, on the other hand, are moving up the value chain and delivering complex products although largely for the domestic market (IBEF n.d.). The government's Automotive Mission Plan (AMP) 2006–2016 visualizes India moving up the value chain and entering into R&D, design, and manufacture of automobiles and auto components (National Manufacturing Competitiveness Council 2011). Pakistan can learn from India's experience of opening up the automobile and auto component industry. Moreover, one of the major factors for the significant performance improvement in Pakistan's motorcycle industry is attributed to the opening up of Pakistan's market to imported Chinese components (Pursell et al. 2011). Thus, there is a case for Pakistan to further liberalize its auto sector. Currently, there is hardly any direct trade in auto components between India and Pakistan, and most of the trade is routed via Dubai, according to the Automotive Component Manufacturers Association of India.

India's textile and clothing sector has been one of the most protected sectors in India. Until 2005, readymade garments were reserved for exclusive manufacture by small-scale firms, and large firms were not permitted to manufacture these items. To protect the domestic industry, textiles and readymade garments were also subject to high import duties and specific duties that were applied in quantitative terms and not on *ad valorem* basis. In fact, some of the *ad valorem* rates exceeded 300 % (USTR 2012). In 2005, readymade garment items were removed from the reserved list, thereby allowing large firms to enter manufacturing. However, these items continued to be on the sensitive lists of India's free trade agreements even though the rationale for protecting the industry was no longer there (Taneja et al. 2011b). It was only in 2008 that India removed 164 textile items from the sensitive list for LDCs under SAFTA and offered duty-free access. In 2011, all textile items were allowed duty-free access from LDCs. Sri Lanka was offered duty-free access to 215 textile items under the India-Sri Lanka Free Trade Agreement in 2008. Similarly, a complex system of subsidies and taxes oriented the mill sector (spinning and yarn) powerfully toward the small-scale weaving sector that used power looms, which in turn was oriented primarily toward domestic consumption (Tewari 2005). In 2011–2012, the mill sector accounted for only 5 % of the total cloth produced by the mill and power loom sectors (India Economic Survey 2011–2012). However, there is a distinct difference in the fabric produced by the two sectors. While the mill sector produces

high-quality and high-value fabric, the fabric produced by the power looms is of low quality and commands a lower price (US International Trade Commission 2001). Pakistan, on the other hand, has a strong yarn and fabric manufacturing industry, and India fears that imports from Pakistan would hurt its small- and medium-scale sector. Fabric imports from Pakistan are more likely to compete with the mill sector in India than the power loom sector, thus providing no justification for India to protect large firms from imports. Also, as noted above, India does not face much threat by opening up the Indian market to Pakistan's textile sector, as only 25 % of the textile items on India's sensitive list fall in the "vulnerable" category.

However, it is agriculture that is the main point of contention in the ongoing trade talks. Even though farmers in Pakistan are raising concerns over unfair competition from Indian imports of agricultural products while they enjoy various subsidies, the negative list has very few agriculture items. India's export potential in tobacco items that are on the negative list is less than 1 % of the total export potential of items on the negative list (Appendix Table 2.12, Column 2). All the remaining agricultural items have been removed from the negative list. However, farmers fear that if the land route is opened to agricultural imports, they would not be able to compete with Indian products (Bhutta 2012).

Pakistan has always been concerned that due to high subsidies, the prices of agricultural commodities are lower in India, and, therefore, opening up trade would have a negative impact on domestic producers. While India does offer subsidies, its non-product-specific subsidies are below 10 % of the value of agricultural output, abiding by the WTO rules (Hoda and Gulati 2013).

Further, prior to 1996 when trade between the two countries was limited to a handful of items on the positive list, agriculture was part of this positive list, as it was not only an important means of overcoming short-term fluctuations but was also important for maintaining domestic price stability. When Pakistan's positive list expanded to 1,963 items, 156 agricultural commodities formed part of this list.

While Pakistan may have genuine concerns regarding any adverse impact on its agriculture sector due to a surge in agricultural imports from India, the solution should be to seek safeguards within the WTO system and under SAFTA, rather than imposing a total ban on agricultural commodities from India.

2.3.4 Trade Possibilities in Services

There are additional trade possibilities in the service sector that are becoming increasingly important in the economies of India and Pakistan. In 2011–2012, this sector accounted for 59 % of India's GDP and 54 % of Pakistan's GDP. Three sectors where there is potential are information technology and Business Process Outsourcing (BPO), health services, and entertainment services.

India's IT and BPO sector revenue was US$87.6 billion in 2011–2012. Software exports in 2011–2012 were US$69 billion compared to US$59 billion in 2010–2011. Exports dominate the industry and constitute about 78.4 % of total industry revenue. Indian IT service offerings have evolved from application development and

maintenance to emerge as full service players that provide testing and infrastructure services, consulting, and system integration (India Economic Survey 2011–2012). The BPO sector, which initially offered only low-value services, is now characterized by greater breadth and depth of services. Although the IT industry in Pakistan is in its infancy, it is growing at a rapid pace. IT exports in 2011 were US$440[3] million, up from US$432 million in the previous year, indicating that this area holds a lot more potential. India and Pakistan can establish joint ventures. While Pakistan could provide professionals at lower wages, Indian companies could help procure international contracts (Husain 2011). Pakistan is emerging as an exporter of specialized software services, such as gaming and animation, financial services, and healthcare, which Indian companies could import. The two countries could also gain if India sets up training institutes in Pakistan, or if professionals from Pakistan come to India for professional training. The BPO segment in Pakistan is also growing. Government incentives to the international outsourcing community include 100 % equity ownership, 100 % repatriation of capital and dividends, and income tax exemption for IT companies until 2016 (Pakistan Software Export Board n.d.). India could collaborate with BPO firms in Pakistan to offer more value-added services in this segment.

Healthcare service is another area in which there are opportunities for both countries. India has emerged as an important destination for the provision of medical services due to the affordable cost of treatment and advances in the field of medicine. Several Pakistani patients have visited India for medical treatment such as liver and kidney transplants and open heart surgery (Ahmad 2012). Other specialty treatment is also offered to Pakistani patients. For instance, the Mumbai Obstetric and Gynaecological Society provides treatment for infertility to Pakistani couples (Mid-Day 2012). In February 2012, a group of Indian and Pakistani doctors jointly performed a complicated liver transplant procedure in a Lahore hospital, thereby opening new avenues for cooperation in the area of healthcare services (Times of India 2011).

There are trade possibilities in the entertainment industry as well. India and Pakistan share a common language and culture, thus providing scope for trade and cooperation in the film industry. India is the second largest producer of movies in the world, while Pakistan produces very few movies. Pakistan imposed a ban on the screening of Indian films in 1965 following the Indo-Pakistan war (Chi n.d.), mainly to protect the domestic film industry. Despite the ban, the Pakistani film industry has not done well (The Express Tribune 2012). The ban was lifted in 2008, but since then there has been uncertainty in the policy as several ad hoc steps have been taken to ban Indian movies on a case-by-case basis. Through the years, the ban has been practically ineffective as the demand for Indian movies in Pakistan is met through pirated DVDs and satellite cable broadcasts of Indian films.

There is an interest in India and Pakistan in each other's music, both audio and visual. There is also an interest in Pakistan for Indian television serials and in India for Pakistani plays. However, Pakistani entertainment channels are not broadcast on Indian channels, whereas several Indian channels are broadcast in Pakistan.

[3] Balance of Payment Statistics, IMF.

The trade potential in the entertainment industry, particularly in films, television, and music, can be tapped by encouraging joint productions. Removing the ban on screening movies would benefit both countries. Exchanging broadcast rights to telecast each other's programs on television is yet another trade opportunity for India and Pakistan.

2.4 Realizing Trade Potential

For trade potential to be realized, the two countries would have to take measures in several areas. It is important to examine the regulatory regimes related to transport, nontariff barriers, and visas and assess how these regimes operate. The effectiveness of these policies will also determine the extent to which informal trade flows will be steered toward formal channels. The policies related to the liberalization of foreign direct investment also need to be examined, as the realization of cross-border investment will lead to deeper trade linkages. It is also important to assess the visa regime and the extent to which it is likely to get liberalized. The role of institutions in supporting the trade liberalization process also needs to be assessed, as they would play a key role in helping realize the untapped trade potential between India and Pakistan.

2.4.1 Transport and Transit

Most discussions and studies on the transport issue have focused on impediments to the land route. While the sea route has always been operational, it went unnoticed due to the restrictive maritime protocol. This protocol allowed only Indian and Pakistani flagships to carry cargo between India and Pakistan. This arrangement restricted competition from foreign vessels and resulted in high sea freight rates being charged by Indian and Pakistani vessels. The amendment of this protocol in 2005 brought sea trade between the two countries under global maritime arrangements, leading to greater competition and, therefore, to a considerable reduction in costs for sea-based trade between Mumbai and Karachi.

It is not surprising that when the road route was closed in 1995–1996, trade by rail accounted for 63 %, while trade by sea accounted for 33 % of the total trade between India and Pakistan (Fig. 2.4). By 2011–2012, the share of different modes in total trade between the two countries changed substantially due to the opening of the road route and the liberalization of sea trade. The share of trade by rail fell to 15 %, while that by sea increased to 60 %. The share of trade by road increased from zero percent in 1995–1996 to 17 % in 2011–2012. What is striking is that for both exports and imports, apart from a few commodities such as dry dates and cement, most of the top commodities are traded via a single mode of transport—road, rail, sea, or air.

The opening of the road route between India and Pakistan after 58 years was a historic move. Its significance can be understood when compared with the cross-border transport protocols that India has with Nepal. India and Nepal have a very liberal transport protocol that permits trucks from the two countries to move into each

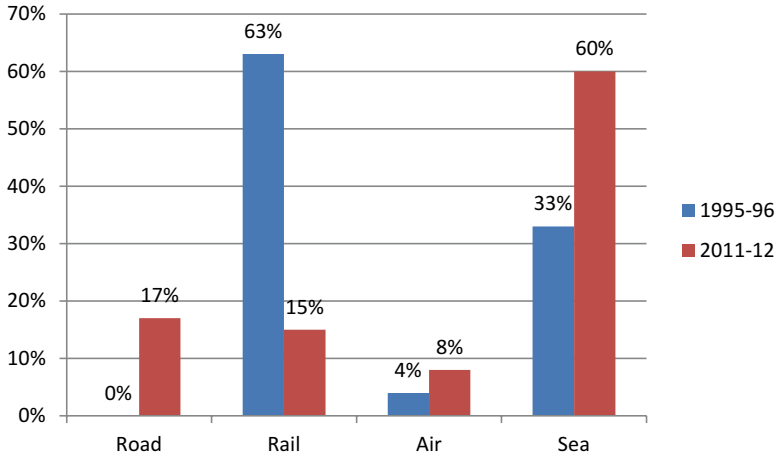

Fig. 2.4 India's total trade with Pakistan by mode (*Source*: Directorate General of Foreign Trade: Ministry of Commerce, India)

other's territory. However, in practice, goods from the trucks of one country are offloaded and loaded onto the other country's trucks at the border, because the local mafia extorts money from foreign trucks at the border. Thus, transshipment continues because these informal payments are higher than the cost of transshipment, which calls for effective implementation of policies. On the other hand, the opening of the road route between India and Pakistan has met with relatively little opposition. In fact, the institutional framework supporting trade between the two countries is strong enough to counter lobbyists and interest groups that may have resisted such a change. This raises immense hopes for successful implementation of further trade-facilitating measures at the 2,912 km land border between India and Pakistan.

Amritsar and Lahore are the two major cities on either side of the border and are separated by a distance of only 54 km. Hence, the cost for goods moved via the land route between northern India and northern Pakistan could be substantially lower than the sea route. Recognizing the importance of the land route, India opened an Integrated Check Post (ICP) at Attari in April 2012, with new facilities including a trade gate that would house all trade activities under one unit including warehousing and other facilities. The timings for trade were increased to 12 h every day for all days of the week. The two most important facilities that are being set up are automated systems for electronic filing of customs documents through the Electronic Data Interchange (EDI) facility and the installation of truck scanners. This is a marked change from the past when there was only one gate for trade and for passengers, trade timings were limited to 7 h a day, and no warehousing facilities were offered.[4]

In a short span of just 6 months—between April and October 2012—the warehouse has reached full capacity,[5] which limits the entry of trucks from across the

[4] Interviews with traders and officials in Amritsar in 2012.

[5] Ibid.

border. The question is whether these facilities will be able to bear additional cargo load that is likely to occur due to two factors: Pakistan's move to normalize trade on the road route by allowing all items to be imported from India via road, instead of the existing list of only 137 items, and a likely shift in trade from the sea route to the cheaper road route. When the Indian government designed the ICP, it clearly did not envisage such a paradigm change in trade between the two countries, and trade will increase even further if the two governments agree to move containerized cargo by road, which would reduce transaction costs further. The two governments are considering opening up new road routes; the option of opening the Munabao-Khokhrapar road route was discussed in the seventh round of talks between the two governments.

For several years the rail route was the dominant land transport mode for India-Pakistan trade, but its importance has declined because its reach continues to be limited. Goods are transported by 6–10 parcel wagons attached to the Samjhauta Express passenger train that runs twice a week or by the goods train, often referred to as "interchange train." Since the capacity of the Samjhauta Express is limited, most of the rail cargo is carried by the interchange train. Taneja (2006) pointed out that a single rail route through the Attari/Wagah border, the poor quality of the rolling stock, and restrictions on the type of wagons are some of the problems that traders faced. Also, traders in Kolkata, located in eastern India, find it difficult to trade through the Attari/Wagah land border because of lack of information on how to trade by the rail route. Therefore, they send consignments by sea to Colombo that are then transshipped to Karachi (Taneja 2007).

Since 2007, the services of the interchange train have deteriorated. Goods by the interchange train move only between Amritsar and Lahore through Attari station, with only the Pakistani wagons plying this route, unlike earlier when Indian wagons also plied the rail route. Cargo for export either comes in Indian wagons up to Amritsar where it is unloaded and then loaded onto Pakistani wagons, or it is loaded onto trucks to be sent through Wagah. Transshipment of cargo from Indian to Pakistani wagons or onto trucks adds considerable time and cost to transporting goods.

Even though infrastructure has improved with the ICP, these facilities do not extend to rail cargo movement, because the railway line is about 3 km from the ICP. The agenda for improving rail transport remains largely unaddressed. While the seventh round of talks agreed to increase the number of interchanges to 3–4 in a day and allow high-capacity wagons to ply, the discussions have only covered the immediate needs of facilitating rail transport.

So far, the ongoing bilateral dialogue between India and Pakistan has not addressed the issue of transit. India has not allowed Pakistan to access Nepal, Bangladesh, and Bhutan through its territory, and Pakistan has not given India any transit rights to access Afghanistan for its exports. However, in 1948 Pakistan had offered transit rights to Afghanistan's exports through its territory to reach the Indian market. In July 2010, Afghanistan and Pakistan signed an amended transit trade agreement, the Afghanistan-Pakistan Transit-Trade Agreement (APTTA) that provides for an increased number of transport routes for trucks from Afghanistan and Pakistan. However, the APTTA does not allow India's exports to Afghanistan through Pakistan via the land route. To increase their gains from the trade normalization process, India and Pakistan must put this transit issue on their dialogue

agenda. This would also have huge implications for reviving the Afghan economy. Afghanistan can gain little through trade given its limited export capability, but it can take advantage of its geographical location by converting into a logistics hub and offering a range of logistics services that could help transport goods between South and Central Asia. It follows that India should also allow transit facility to Pakistani goods to access the Nepal and Bangladesh markets.

There is a need to develop a long-term vision and plan for road and rail cargo movement. It is not enough to limit the opening of the land route to the land border. Freight costs are often determined by the freight trade balance between two countries. Since India has a trade surplus with Pakistan, India's cargo trucks/wagons moving back from Pakistan will not be fully loaded, and the empty wagons would add considerably to transaction costs. However, if the trucks/wagons are allowed cross-border movement and multimodal transportation is permitted, cargo balancing could be achieved by linking the seaports of Mumbai and Karachi through the land route, with the seaports largely connecting the rest of the world. Similarly, transit through Pakistan can link Indian seaports with Afghanistan and to the rest of Central Asia through Pakistan.

2.4.2 Nontariff Barriers

For several years, the Pakistan government has argued that its businessmen face nontariff barriers in accessing the Indian market (Taneja 2007; Taneja et al. 2008, 2011a). During talks, both countries recognized that there were no Pakistan-specific barriers but a general lack of awareness among Pakistani businessmen on the regulatory regimes in India. A study conducted in 2008 for the Task Force on Nontariff Measures (NTMs) found that while these NTMs were not discriminatory, the procedures relating to product standards were cumbersome, some regulations lacked transparency, and there were problems related to recognition of standards (Taneja et al. 2008). The two governments, however, felt that it was important to address the perceived barriers as well. In September 2011, the Indian government arranged interactive sessions between Indian regulators and Pakistani businessmen in New Delhi to help increase awareness among the latter on India's regulatory policies. A similar session was subsequently held in Pakistan in January 2012.

This government-to-business interaction is an innovative and effective method of addressing information gaps on the regulatory environment of India and Pakistan. Recently, the Trade Development Authority of Pakistan supported experts to undertake a study that identified potential products for exports to India, including tariff and nontariff barriers, which Pakistani businessmen faced. The findings of the study were disseminated across 10 cities in Pakistan to inform businesses on India's regulatory regimes. Some of the reported barriers included overvaluation of goods, tedious packaging and labeling requirements, access to a limited number of ports for some products, lack of testing facilities at ports, inadequate infrastructure, mishandling of goods, and theft of cargo at ports. Businesses were also

educated on the use of WTO-compliant trade defense instruments and how they are used to restrict imports that could hurt the domestic industry. Such a government-supported awareness initiative, if done on a sustained basis every few years, could have a long-term impact on dispelling misconceptions about barriers among businessmen who want to access the Indian market. It would also help raise awareness about genuine nontariff barriers and equip businesses to deal with expanded imports if they hurt their domestic industry.

In another initiative to address nontariff barriers, the governments of India and Pakistan signed three agreements in September 2012: a customs cooperation agreement to help avoid arbitrary stoppage of goods at each other's ports, a bilateral cooperation agreement on mutual recognition between the Pakistan Standard and Quality Control Authority (PSQCA) and the Bureau of Indian Standards (BIS), and an agreement on redressal of trade grievances between Pakistan and India. Taneja (2006, 2007) identified nontariff barriers of a different nature. The studies found that Pakistani consignments were subjected to excessive checks—usually due to security concerns—that caused harassment to genuine traders. Marketing and labeling issues that relate to the perceived "image" of Pakistani goods have also been pointed out; for instance, the label on Pakistani bed linen was changed to European and Indian labels for sale in the Indian market (Trade Development Authority of Pakistan 2012). Holding exhibitions, such as the Pakistan Mega Lifestyle Exhibition in Delhi in April 2012 and the Made in Pakistan Expo in August 2012 in Mumbai, could aid the acceptance of Pakistani goods in India. In September 2012, the Pakistan Fashion Design Council[6] opened an outlet in an upmarket shopping complex in New Delhi. Such steps will certainly raise awareness among Indian consumers about Pakistani products.

Indian products, too, face a labeling issue, with their Pakistani counterparts advising them to drop the "Made in India" label to increase sales in Pakistan.[7] However, newer products such as sweets and snacks manufactured by a large Indian firm have made a successful entry in the Pakistani market under the Indian label.[8]

Though measures have been taken to mitigate NTBs, addressing them is not a one-time effort. India and Pakistan need to identify, deal with, and address new NTBs on a continuous basis, as and when they are raised.

2.4.3 Informal Trade

The restrictive trade environment has led to large informal trade flows between India and Pakistan that are estimated to range between US$250 million and US$3 billion. The most detailed study on Indo-Pakistan informal trade estimated its value at around

[6] A leading design store that brings together more than 60 designers from all over Pakistan.

[7] Interviews with Indian manufacturers who are trying to enter the Pakistani market after their products were included in the positive list.

[8] Interview with an exporter of packaged sweets and snacks to Pakistan under the Indian label.

US$545 million in 2005 (Khan et al. 2007). Of this, Pakistan's imports from India are estimated to be around US$535 million and exports to India US$10.4 million. The main import items from India, via informal channels, are cloth, tires, pharmaceuticals, textile machinery, cosmetics, livestock, and medicines, which account for roughly 80 % of the total informal import value. Pakistan's informal exports mainly consist of textiles, which account for approximately 90 % of the total informal trade.

The modalities of India-Pakistan informal trade are interesting, with most of the trade flowing via a third country. Khan et al. (2007) estimate trade via the Mumbai-Dubai-Karachi route to be around 88 % of total informal trade and the remainder as cross-border informal trade through the Amritsar-Lahore and Sind-Rajasthan border routes. However, almost 51 % of informal trade taking place via Dubai does not reach Karachi directly and is shipped to Bandar Abbas in Iran and then moved by land across Afghanistan to finally reach Pakistan.

While these estimates are dated, they provide useful insights into the functioning of informal trade markets. It is reasonable to assume that individuals trading through the informal channels have devised parallel institutional mechanisms for contract enforcement and dispute settlement. Also, the smooth functioning of such markets shows that traders have developed efficient mechanisms for obtaining information on quantities and commodities to be traded and mitigating risks that might arise in the unofficial transacting environment (Taneja 2004).

The move toward trade normalization and a parallel reduction in tariffs and nontariff barriers would certainly lower informal trade flows between India and Pakistan.[9] Trade through Dubai is likely to decrease sooner if there are active channels of information that would bring buyers and suppliers on either side together in order to conduct trade directly with each other rather than through third parties. Elimination of the negative list would also allow the export of several items that are routed via Dubai and other informal trade channels. Until all such measures are fully implemented, informal trade and formal trade between India and Pakistan are likely to coexist.

2.4.4 Visas

A lot needs to be done to simplify the visa regime between India and Pakistan. Aspiring traders get limited market access because there are delays in granting visas, they are granted only city-specific visas, and they are required to report to the police on arrival and before departure Taneja (2006).

Consulates in both countries have exercised tremendous discretionary power in granting visas and waiving visa requirements, along with allowing some traders to be exempted from scrutiny by the Ministry of Home Affairs in India and Ministry of Interior Affairs in Pakistan. They have also allowed extended periods of stay, exempted traders from police reporting, and removed restrictions on the number of cities that can be visited. Traders who are beneficiaries of such largesse can make

[9] Interviews with traders in Dubai in 2012.

repeated visits and enhance their Pakistan-specific trade information, which remains inaccessible for other aspiring traders due to restricted market access, lack of transparency, market imperfections, and information asymmetries. However, Indian officials argue that, for the sake of security, rigorous screening of visas is essential. While it is true that no compromise can be made on national security issues, it needs to be recognized that genuine traders often become victims of a strict visa regime.

A new visa agreement was signed between India and Pakistan in September 2012. The agreement introduces measures to ease travel of tourists, pilgrims, the elderly, and children to facilitate people-to-people contact between the two countries. The business visa has also been made more liberal, allowing 1-year multiple entry visas for up to 10 places with exemption from police reporting for those who report a turnover of at least Rs. 30 million or equivalent in Pakistani currency.[10]

The new visa regime is a step toward easing the channels for information exchange on trade-related matters between India and Pakistan. As a next step, the countries could consider the use of electronic systems that would help in setting up adequate and effective security systems and at the same time would allow genuine traders to trade across borders.

2.4.5 Foreign Direct Investment

Investment flows play an important role in deepening trade linkages and raising market access between the countries involved. For several years India did not permit FDI inflows from Pakistan. In a move to normalize economic ties between the two countries, in August 2012 the Department of Industrial Policy and Promotion (DIPP) in India announced changes in the Consolidated FDI Policy to allow investment from Pakistani firms and individuals in all sectors (except defense, space, and atomic energy) through the government route. Following this, India recently removed Pakistan from the negative list under the Foreign Exchange Management Act (FEMA), paving the way for investment from Pakistan. The FEMA regulations have also been amended to allow Indians to invest in Pakistan.

In 2011, Pakistan's total outward FDI flow was only US$62 million. While a country-wise and sector-wise breakup of FDI outflow from Pakistan is not available, data from the Board of Investment in Bangladesh indicates that Pakistan has invested in textile firms there. Pakistan has also invested in Sri Lanka in the food processing and construction sectors (Vaqar 2012). In the Indian context, the sectors that could attract FDI are textiles and cement (Mishra 2012). A bilateral investment treaty between India and Pakistan in the near future would help boost both the safety of investments and investor confidence (Taneja and Bimal 2012). Given that due to inhibitions business interest may not be forthcoming immediately, an interesting

[10] For businessmen whose turnover is Pakistani Rs. 3 million or equivalent, a 1-year visa will be permitted that allows visits to five places, for up to four entries.

solution offered by businessmen has been to set up joint ventures between India and Pakistan without physically locating in each other's countries. Investment ventures set up in this manner could pave the way for raising investor confidence. During our consultations with industry, the sectors with potential for investment were identified as agriculture, fertilizers, drip irrigation, tissue culture, seeds, herbal extracts, biotechnology, mining and mining equipment, dairy and livestock, tourism and tourism infrastructure, textile machinery, heavy engineering and earthmoving machinery, and entertainment.[11]

2.4.6 Institutions Engaged in Trade Normalization

Trade normalization efforts have been driven at multiple levels on both sides. In India, the Ministry of External Affairs spearheads all bilateral talks, and the other important government departments involved are the Ministry of Commerce, which is leading the trade negotiating agenda, and the Ministry of Home Affairs, which has the primary responsibility for maintaining security. In the context of trade, the Home Ministry handles issuance of visas and border management, and as part of its border management functions, the Land Ports Authority of India (LPAI) was set up in April 2012 to provide cohesive management of cross-border movement of people and goods. On the Pakistan side, the road port is managed by the National Logistics Cell that comes under the Ministry of Defense.

With respect to their bilateral visa regimes, Ministry of Home Affairs in India and Pakistan has taken progressive steps. Even though the issue of cross-border terrorism often comes up in bilateral talks, so far there has been no attempt to link it to the trade agenda. The Indian and Pakistani military forces are not seen as adversaries in the trade normalization process, and the involvement of nongovernment organizations (NGOs) is quite limited.

The business communities in both countries have been actively engaged in pursuing the trade liberalization agenda through the Chambers of Commerce for several years. In India, the Federation of Indian Chambers of Commerce and Industry (FICCI), the Confederation of Indian Industry (CII), the Associate Chambers of Commerce (ASSOCHAM), and the Punjab, Haryana, and Delhi Chambers of Commerce and Industry (PHDCCI) have taken the initiative to facilitate cross-border interactions between business delegations and communities to assess trade possibilities. Since the initiation of the trade normalization process, such cross-border interactions have increased manifold.

Academic discourse in India has largely focused on the political issues between India and Pakistan that have implications for trade normalization between the two countries. Until recently, the print and visual media were engaged in "negative" reporting, as there was a tendency to report conflict rather than any peace initiatives taken by the two sides. Even the proposed grant of MFN status did not make headlines in any of the major news dailies. There is, however, an evident shift

[11] Summary of Proceedings, Regional Chambers of Commerce Roundtable, Lahore, January 10, 2013.

toward positive reporting in the media on peace initiatives and trade cooperation that can have an enormous impact on the perceptions of civil society toward the relations shared by India and Pakistan.

2.5 Conclusion

The trade normalization process will unleash trade opportunities for both India and Pakistan. Even though the automotive sector in Pakistan and the textile sector in India have resisted trade liberalization, there is no rationale for holding back a process that will inevitably benefit both countries.

India and Pakistan need to work together in several areas to be able to realize the untapped trade potential. So far, the two governments are only considering incremental steps to improve cross-border movement of goods. A comprehensive and integrated international land transport policy needs to be put in place not only to provide rail and road services connecting the two countries but also to link sea ports through land borders to enable connectivity with the rest of the world.

India should continue to lower its nontariff barriers as part of its ongoing reform process. In addition, a more concerted effort is required to help businessmen overcome their apprehensions about entering each other's market and fearlessly selling their products along with their country labels across the border. The unprecedented number of exhibitions and fairs held in India and Pakistan that display each other's products has received an overwhelming response from consumers, providing support for such efforts to continue.

While the removal of restrictions on FDI flows has opened up new investment opportunities, businessmen from India and Pakistan are reluctant to invest due to fears of a possible disruptive political event. Investors also fear in becoming easy targets for those who oppose their presence. Businessmen willing to invest could enter into joint ventures without physically locating in each other's territory as the first step to entry until legal systems are set up to safeguard investments and investor confidence improves.

For a liberal visa regime to be in place, electronic "smart systems" should be used to screen visa applications and track the physical movement of people, while avoiding unnecessary harassment of genuine traders. Telecommunication channels also need to be opened to foster people-to-people contact and reduce business costs. The existing communication system between India and Pakistan does not permit travelers to use their mobile phones in the other country. Buying local SIM cards is not easy, as it involves a lot of documentation; as a result, visitors and businessmen have developed informal mechanisms to procure local SIM cards through friends and relatives. The issue of improving telecommunications between the two countries was raised in the seventh round of talks and is expected to be part of the trade normalization process.

India and Pakistan need to constantly engage with one another to understand each other's regulatory regimes. As new businessmen enter into trading relations, it is important to have forums that bring buyers and sellers together. Guaranteed

payments are essential for building new and lasting business partnerships, for which banking channels need to be improved. An innovative dispute resolution system should also be put in place. For several years, Dubai has acted as a facilitator for trade and guaranteed payments between India and Pakistan. Thus, a third country that is trusted by both India and Pakistan could provide an effective dispute resolution mechanism. Moreover, it is important for business communities to create multilevel channels of communication that can reduce misconceptions, bridge information gaps, and generate a significant change in the business environment of the two countries. All such holistic measures could help in realizing the untapped trade potential between India and Pakistan.

Appendix

Table 2.3 India's exports to and imports from Pakistan (2011)

Product description	Exports (US$ million)	Share of sector in exports (%)	Imports (US$ million)	Share of sector in imports (%)
Animal or vegetable oils and fats	0.6	0.0	2.2	0.6
Arms and ammunition	–	–	–	–
Stone, plaster cement, glass, ceramic, etc.	7.1	0.4	1.1	0.3
Base metals and articles	89.4	5.3	33.4	9.5
Footwear, headgear, umbrellas, walking sticks, etc.	0.5	0.0	0.3	0.1
Live animals and animal products	15.9	0.9	1.3	0.4
Machinery and mechanical appliances, electrical equipment, electronics and parts	27.4	1.6	10.4	3.0
Mineral products	23.0	1.4	85	24.2
Miscellaneous manufactured articles	8.2	0.5	0.9	0.3
Pearls, precious stones and metals, imitation jewelry	0.1	0.0	32.7	9.3
Optical, measuring, precision, medical or surgical instruments, etc.	2.0	0.1	5.5	1.6
Plastics and rubber	140.1	8.4	12.2	3.5
Prepared foodstuffs, beverage and tobacco products	213.8	12.7	2.1	0.6
Chemical and allied products	419.3	25.0	30.1	8.6
Pulp of wood and paper products	5.2	0.3	1.0	0.3
Raw hides and skins and leather products	0.5	0.0	10.3	2.9
Textile and textile products	393.8	23.5	39.1	11.1
Vegetable products	330.5	19.7	82.1	23.3
Vehicles, aircraft, vessels, and associated transport equipment	0.2	0.0	1.3	0.4
Wood and wood products	0.2	0.0	0.5	0.1
Works of art	0.0	0.0	0.0	0.0
Total	**1,678**	100.0	**352**	100.0

Table 2.4 India's top 25 exports to Pakistan at HS-6 (2011)

Code	Product description	Exports (US$ million)	Share of the product in exports (%)	On Pakistan's sensitive list
520100	Cotton, not carded/combed	272.8	16.3	
230400	Oil cake and other solid residues	168.3	10.0	
290243	p-Xylene	120.1	7.2	
070200	Tomatoes, fresh/chilled	65.2	3.9	
540710	Woven fabrics	50.8	3.0	
071320	Chickpeas (garbanzos)	41.8	2.5	
390210	Polypropylene	41.8	2.5	
290242	m-Xylene	41.3	2.5	
401120	New pneumatic tires, of rubber	40.3	2.4	Yes
090240	Tea, black (fermented)	35.1	2.1	Yes
090420	Fruits of the genera *Capsicum*	34.0	2.0	Yes
731100	Containers for compressed/liquefied gas	32.4	1.9	
170199	Cane/beet sugar and chemically pure sucrose	27.4	1.6	Yes
294200	Organic comps. n.e.s. in Ch. 29	26.2	1.6	
550410	Artificial staple fibers	21.0	1.3	
381700	Mixed alkylbenzenes and mixed alkylnaphthalenes	19.4	1.2	
290241	o-Xylene	19.0	1.1	
121190	Plants and parts of plants	16.5	1.0	
320416	Reactive dyes and preparations based thereon	16.2	1.0	Yes
100190	Wheat other than durum wheat, meslin	14.1	0.8	Yes
270400	Coke and semicoke of coal/lignite/peat	13.8	0.8	
080119	Coconuts, other than desiccated	13.6	0.8	
720230	Ferro-silicomanganese	13.2	0.8	
070310	Onions and shallots, fresh/chilled	12.5	0.7	
120991	Vegetable seeds, of a kind used for sowing	11.9	0.7	

Table 2.5 India's top 25 imports from Pakistan at HS-6 (2011)

Code	Product description	Imports (US$ million)	Share of the product in imports (%)	On India's sensitive list
080410	Dates, fresh/dried	69.6	19.8	
252329	Portland cement (excl. white cement)	36.8	10.4	
710812	Gold (incl. gold plated with platinum)	32.5	9.2	
271011	Light petroleum oils and preparations	29.6	8.4	
780199	Unwrought lead other than refined	13.7	3.9	
740400	Copper waste and scrap	10.0	2.8	
271019	Petroleum oils	9.0	2.6	
520531	Cotton yarn, mult./cab. (excl. sewing thread)	7.1	2.0	

(continued)

Table 2.5 (continued)

Code	Product description	Imports (US$ million)	Share of the product in imports (%)	On India's sensitive list
283620	Disodium carbonate	6.9	2.0	
252010	Gypsum, anhydrite	6.5	1.8	
291736	Terephthalic acid and its salts	6.0	1.7	
390421	Poly(vinyl chloride)	4.6	1.3	
290315	1,2-dichloroethane (ethylene dichloride)	4.1	1.2	
510129	Wool, not carded/combed	3.9	1.1	
851712	Telephones for cellular networks/other wireless networks	3.5	1.0	
720421	Waste and scrap of stainless steel	2.9	0.8	
392321	Sacks and bags (incl. cones), of polymers of ethylene	2.8	0.8	Yes
901890	Instruments and appliances used in medical/surgical/veterinary sciences	2.8	0.8	
520932	Woven fabrics of cotton	2.7	0.8	
121190	Plants and parts of plants, incl. seeds and fruits	2.7	0.8	
281410	Anhydrous ammonia	2.6	0.7	
410449	Tanned/crust hides and skins of bovine	2.6	0.7	
520511	Cotton yarn, single (excl. sewing thread), of uncombed fibers	2.4	0.7	Yes
520622	Cotton yarn, single (excl. sewing thread), of combed fibers	2.3	0.7	
284700	Hydrogen peroxide	2.2	0.6	

Table 2.6 India's exports and export potential with Pakistan (2011)

Exports	Value (US$ million)	Share in total export potential (%)
India's exports to Pakistan	1,678.1	
Total export potential of Pakistan's sensitive list items	2,556.4	32.5
Export potential of negative list items	3,362.5	42.7
Export potential of sensitive/negative list items	4,375.7	55.6
Export potential	7,874.1	

Table 2.7 India's imports and import potential with Pakistan (2011)

Import	Value (US$ million)	Share in total import potential (%)
India's imports from Pakistan	352.0	–
Import potential of sensitive list items	676	22.4
Import potential	3,019	

Table 2.8 India's export potential with Pakistan (2011)

	1	2	3	4	5	6	7	8
Product description	Exports (US$ million)	Share of sector in total exports (%)	Export potential (US$ million)	Share of sector in total export potential (%)	Export potential of items in negative list (US$ million)	Share of negative list items in total export potential (%)	Export potential of items in sensitive list (US$ million)	Share of sensitive list items in total export potential (%)
Textile and textile products	393.8	23.7	1,745.3	22.2	631.0	8.0	102.8	1.3
Chemical and allied products	419.3	25.3	1,329.9	16.9	367.8	4.7	447.1	5.7
Machinery and mechanical appliances, electrical equipment, electronics and parts	27.4	1.7	1,277.0	16.2	757.6	9.6	294.6	3.7
Vehicles, aircraft, vessels, and associated transport equipment	0.2	0.0	1,122.8	14.3	942.6	12.0	942.8	12.0
Base metals and articles	89.4	5.4	734.6	9.3	373.4	4.7	58.1	0.7
Plastics and rubber	140.1	8.4	673.9	8.6	108.4	1.4	271.3	3.4
Vegetable products	330.5	19.9	615.3	7.8	–	0.0	338.4	4.3
Pearls, precious stones and metals, imitation jewelry	0.1	0.0	90.3	1.1	71.8	0.9	–	0.0
Prepared foodstuffs, beverage and tobacco products	213.8	12.9	59.8	0.8	17.3	0.2	32.5	0.4
Mineral products	3.7	0.2	48.9	0.6	–	0.0	2.2	0.0

Articles of stone, plaster, cement, etc.	7.1	0.4	35.5	0.5	10.5	0.1	12.7	0.2
Miscellaneous manufactured articles	8.2	0.5	30.6	0.4	30.3	0.4	1.5	0.0
Raw hides and skins and leather products	0.5	0.0	30.2	0.4	13.2	0.2	2.3	0.0
Optical, measuring, precision, medical or surgical instruments, etc.	2.0	0.1	26.6	0.3	22.8	0.3	21.7	0.3
Pulp of wood and paper products	5.2	0.3	16.9	0.2	15.8	0.2	12.5	0.2
Wood and wood products	0.2	0.0	16.1	0.2		0.0	0.1	0.0
Footwear, headgear, umbrellas, walking sticks, etc.	0.5	0.0	16.1	0.2	0.1	0.0	15.3	0.2
Live animals and animal products	15.9	1.0	3.4	0.0	–	0.0	–	0.0
Animal or vegetable oils and fats	0.6	0.0	0.6	0.0	–	0.0	0.4	0.0
Works of art	0.0	0.0	0.08	0.0	–	0.0	–	0.0
Total	**1,658.7**	**100.0**	**7,874.1**	**100.0**	**3,362.5**	**42.7**	**2,556.4**	**32.5**

Table 2.9 India's export potential with Pakistan at HS-6, top 25 items (2011)

Product code	Product description	Export potential (US$ million)	India's exports to Pakistan (US$ million)	On Pakistan's negative list	On Pakistan's sensitive list
271019	Petroleum oils	7,718.4	1.7		
271011	Light petroleum oils and preparations	1,253.2	0.0		
851712	Telephones for cellular networks/other wireless networks	629.6	0.0	Yes	
520100	Cotton, not carded/ combed	532.8	272.8		
870322	Vehicles (excl. of 87.02 and 8703.10)	361.9	0.0	Yes	Yes
390210	Polypropylene, in primary forms	356.7	41.8		
290243	p-Xylene	308.0	120.1		
90240	Tea, black (fermented)	304.2	35.1		Yes
540233	Textured yarn other than sewing thread	277.0	0.5	Yes	
870321	Vehicles (excl. of 87.02 and 8703.10)	263.0	0.0	Yes	Yes
550320	Synthetic staple fibers	255.1	0.0	Yes	
300490	Medicaments	213.4	10.9	Yes	Yes
721049	Flat-rolled products of iron/non-alloy steel	193.1	0.1	Yes	
401120	New pneumatic tires, of rubber	157.7	40.3		Yes
550410	Artificial staple fibers	154.6	21.0		
071320	Chickpeas (garbanzos)	138.5	41.8		
871120	Motorcycles (incl. mopeds) and cycles	84.8	0.0	Yes	Yes
890510	Dredgers	81.9	0.0		
871419	Parts and accessories of motorcycles	79.1	0.0	Yes	Yes
740311	Cathodes and sections of cathodes	75.4	0.0		
630900	Worn clothing and other worn articles	71.8	0.4		
711319	Articles of jewelry and parts thereof	69.1	0.1	Yes	
380891	Insecticides	68.2	10.1		
294190	Antibiotics and their derivatives	63.8	5.4	Yes	Yes
780110	Unwrought lead, refined	63.3	0.2		

Table 2.10 India's import potential with Pakistan (2011)

	1	2	3	4	5	6
Product description	Imports (US$ million)	Share of sector in total imports (%)	Import potential (US$ million)	Share of sector in total import potential (%)	Import potential of items in sensitive list (US$ million)	Share of sensitive list items in total import potential (%)
Textile and textile products	39	12	757	25	416.1	13.8
Pearls, precious stones and metals, imitation jewelry	33	10	447.2	15		–
Base metals and articles	33	11	367.3	12	12.5	0.4
Optical, measuring, precision, medical or surgical instruments, etc.	6	2	290.1	10	1.1	0.0
Plastics and rubber	12	4	228.0	8	96.8	3.2
Machinery and mechanical appliances, electrical equipment, electronics and parts	10	3	188.2	6	45.8	1.5
Chemical and allied products	30	10	149.8	5	12.9	0.4
Prepared foodstuffs, beverage and tobacco products	2	1	121.5	4	13.3	0.4
Mineral products	46.5	15	101.4	3	35.0	1.2
Raw hides and skins and leather products	10	3	83.2	3		–
Miscellaneous manufactured articles	1	0	80.7	3	0.2	0.0
Vegetable products	82	26	52.2	2	6.7	0.2
Footwear, headgear, umbrellas, walking sticks, etc.	0	0	47.3	2	29.5	1.0
Stone, plaster cement, glass, ceramic, etc.	1	0	29.9	1	3.4	0.1
Vehicles, aircraft, vessels, and associated transport equipment	1	0	17.7	1		–
Live animals and animal products	1	0	15.0	0	1.9	0.1
Animal or vegetable oils and fats	2	1	12.3	0		–
Works of art	0	0	11.5	0		–
Wood and wood products	0	0	9.5	0		–
Pulp of wood and paper products	1	0	7.9	0	1.2	0.0
Arms and ammunition	–	–	1.3	0		–
Total	**313**	**100**	**3,019**	**100**	**676**	**22.4**

Table 2.11 India's import potential with Pakistan at HS-6, top 25 items (2011)

Product code	Product description	Import potential (US$ million)	India's imports from Pakistan (US$ million)	On India's sensitive list
271019	Petroleum oils	1,288.5	9.0	
711319	Articles of jewelry and parts thereof	440.9	0.0	
901890	Instruments and appliances used in medical/surgical/ veterinary sciences	268.9	2.8	
520100	Cotton, not carded/combed	180.8	0.2	Yes
730690	Tubes, pipes, and hollow profiles of iron/steel	105.3	0.0	
390760	Poly(ethylene terephthalate)	81.4	0.0	
740400	Copper waste and scrap	75.5	10.0	
730890	Structures and parts of structures	60.0	0.0	
291736	Terephthalic acid and its salts	57.6	6.0	
950699	Articles and equip. for sports, n.e.s	44.8	0.4	
391590	Waste, parings, and scrap, of plastics	41.2	0.0	Yes
220720	Ethyl alcohol and other spirits, denatured	38.5	0.3	
840710	Spark-ignition reciprocating/ rotary internal combustion piston engines for aircraft	36.4	0.0	
841451	Fan with a self-contained electric motor	35.6	0.0	Yes
620342	Men's/boys' trousers, bib and brace overalls, of cotton	35.3	0.1	Yes
251512	Marble and travertine	34.6	0.2	Yes
520832	Woven fabrics of cotton, dyed, plain weave	34.3	0.4	
261000	Chromium ores and concentrates	31.6	0.0	
520942	Woven fabrics of cotton, denim	29.4	2.1	
630419	Bedspreads other than knitted/ crocheted	29.2	0.0	Yes
410719	Leather further prepared after tanning/crusting	28.8	1.4	
761519	Household articles and parts thereof	27.6	0.0	
390799	Polyesters (excl. of 3907.10–3907.91), in primary forms	26.5	0.1	
252329	Portland cement (excl. white cement)	21.8	36.8	
390319	Polystyrene other than expansible	21.0	0.0	

Table 2.12 Pakistan's negative list (Aggregated to HS-6 from Pakistan's customs classification)[a] (2011)

	1	2	3	4	5	6
Sector	Export potential of negative list items—RCA approach (US$ million)	Share of sector in total export potential of negative list (%)	Total number of items on negative list	Share of total items in negative list (%)	Number of vulnerable items in negative list	Sector-wise share of vulnerable items in total items on negative list (%)
Auto	1,008.1	30.0	167	21.2	35	21.0
Elect. machinery	667.9	19.9	43	5.5	9	20.9
Textile	625.7	18.6	74	9.4	25	33.8
Steel	368.1	10.9	90	11.4	33	36.7
Pharmaceutical	338.8	10.1	30	3.8	15	50.0
Plastics	93.4	2.8	67	8.5	9	13.4
Gems and jewelry	71.8	2.1	3	0.4	1	33.3
Machinery	46.2	1.4	20	2.5	5	25.0
Chemical	29.0	0.9	25	3.2	8	32.0
Misc. manfd. articles	25.0	0.7	19	2.4	7	36.8
Meters	20.8	0.6	6	0.8	3	50.0
Agri. (mainly tobacco)	17.3	0.5	15	1.9	2	13.3
Paper and board	15.8	0.5	80	10.2	11	13.8
Leather	13.2	0.4	14	1.8	3	21.4
Ceramics	7.2	0.2	16	2.0	4	25.0
Rubber	5.2	0.2	10	1.3	3	30.0
Furniture	3.5	0.1	14	1.8	2	14.3
Optical fiber	2.0	0.1	2	0.3	1	50.0
Sports	1.8	0.1	8	1.0	0	0.0
Cutlery	1.3	0.0	19	2.4	6	31.6
Glass	0.4	0.0	21	2.7	2	9.5
Stone and marble	0.2	0.0	5	0.6	2	40.0
Metal products	0.1	0.0	5	0.6	1	20.0
Footwear	0.1	0.0	7	0.9	1	14.3
Aluminum	0.0	0.0	10	1.3	0	0.0
Elect. appliances	0.0	0.0	3	0.4	0	0.0
Prefabricated buildings	0.0	0.0	1	0.1	0	0.0
Soap and toiletries	0.0	0.0	5	0.6	0	0.0
Surgical	0.0	0.0	6	0.8	0	0.0
Wood	0.0	0.0	3	0.4	0	0.0
Total	**3,362.5**	**100.0**	**788**	**100.0**	**188**	**23.9**

[a]Negative list of 1,209 items provided by the Ministry of Commerce, Pakistan at the 8-digit level has been compressed to 788 items at the 6-digit level, with the associated classification of sectors

Table 2.13 Pakistan's sensitive list (2011)

Sector	1 Export potential of sensitive list items—RCA approach (US$ million)	2 Share of sector in total export potential of sensitive list (%)	3 Total number of items on sensitive list	4 Share of total items in sensitive list (%)	5 Number of vulnerable items in sensitive list	6 Sector-wise share of vulnerable items in total items on sensitive list (%)
Textile and textile products	102.8	4.0	224	23.9	41	18.3
Machinery and mechanical appliances, electrical equipment, electronics and parts	294.6	11.5	179	19.1	38	21.2
Base metals and articles	58.1	2.3	116	12.4	25	21.6
Chemical and allied products	447.1	17.5	65	6.9	21	32.3
Plastics and rubber	271.3	10.6	105	11.2	21	20.0
Vehicles, aircraft, vessels, and associated transport equipment	942.8	36.9	70	7.5	19	27.1
Pulp of wood and paper products	12.5	0.5	6	0.6	6	0.0
Stone, plaster cement, glass, ceramic, etc.	12.7	0.5	27	2.9	6	22.2
Optical, measuring, precision, medical or surgical instruments, etc.	21.7	0.8	7	0.7	3	42.9
Vegetable products	338.4	13.2	17	1.8	3	17.6
Footwear, headgear, umbrellas, walking sticks, etc.	15.3	0.6	15	1.6	2	13.3
Prepared foodstuffs, beverage and tobacco products	32.5	1.3	15	1.6	2	13.3
Animal or vegetable oils and fats	0.4	0.0	13	1.4	1	7.7
Mineral products	2.2	0.1	3	0.3	1	33.3
Miscellaneous manufactured articles	1.5	0.1	11	1.2	1	9.1
Wood and wood products	0.1	0.0	13	1.4	1	7.7
Live animals and animal products	0.0	0.0	11	1.2	0	0.0
Pearls, precious stones and metals, imitation jewelry	0.0	0.0	0.0	0.0	0.0	0.0
Raw hides and skins and leather products	2.3	0.1	45	4.8	0	0.0
Total	**2,556.4**	**100.0**	**936**	**100.0**	**198**	**21.2**

Table 2.14 India's sensitive list (2011)

Sector	1 Import potential of sensitive list items—RCA approach (US$ million)	2 Share of sector in total import potential of sensitive list (%)	3 Total number of items on sensitive list	4 Share of total items in sensitive list (%)	5 Number of vulnerable items in sensitive list	6 Sector-wise share of vulnerable items in total items on sensitive list (%)
Textile and textile products	416.1	61.5	182	29.6	45	24.7
Plastics and rubber	96.8	14.3	97	15.8	9	9.3
Base metals and articles	12.5	1.8	60	9.8	2	3.3
Prepared foodstuffs, beverage and tobacco products	13.3	2.0	57	9.3	4	7.0
Vegetable products	6.7	1.0	38	6.2	4	10.5
Chemical and allied products	12.9	1.9	36	5.9	1	2.8
Live animals and animal products	1.9	0.3	28	4.6	2	7.1
Machinery and mechanical appliances, electrical equipment, electronics and parts	45.8	6.8	28	4.6	2	7.1
Animal or vegetable oils and fats	0	0.0	21	3.4	0	0
Footwear, headgear, umbrellas, walking sticks, etc.	29.5	4.4	17	2.8	3	17.6
Pulp of wood and paper products	1.2	0.2	14	2.3	1	7.1
Wood and wood products	0.0	0.0	11	1.8	0	0.0
Stone, plaster cement, glass, ceramic, etc.	3.4	0.5	10	1.6	0	0.0
Mineral products	35.0	5.2	5	0.8	2	40.0
Miscellaneous manufactured articles	0.2	0.0	4	0.7	1	25.0
Vehicles, aircraft, vessels, and associated transport equipment	0.0	0.0	4	0.7	0	0.0
Optical, measuring, precision, medical or surgical instruments, etc.	1.1	0.2	2	0.3	0	0.0
Total	**676.2**	**100.0**	**614**	**100.0**	**76**	**12.4**

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Chapter 3
Informal Flow of Merchandise from India: The Case of Pakistan

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3.1 Introduction

Prior to 1947, key South Asian countries including Pakistan, India, and Bangladesh constituted a single entity and intraregional trade was substantial. Even after independence, half of Pakistan's imports continued to come from India and two-thirds of exports went to India. Over time, due to the disputes over Kashmir, currency valuation, and water distribution, political relations between India and Pakistan led to a decline in bilateral trade volumes (USAID 2005). In fact, formal trade between India and Pakistan stood at around US$1.9 billion in the year 2012, which is far below its potential of US$15–20 billion (Husain 2011; PILDAT 2012; Qamar 2005). However, trade that takes place between families residing on both sides of the border continued and translated into informal channels of exchange. Such informal trade results in revenue losses to the governments on both sides in the form of lost tariff revenues, as well as high transit costs to traders in the form of indirect routes and speed money paid at borders for the clearance of goods.

While trade restrictions between the two countries have curtailed formal trade, the rising consumer appetite for the variety of goods available across the border implies substantial increases in informal mechanisms through which trade takes place. Chatterjee and George (2012) indicate that about 70 % of product categories included in the sensitive list of both countries would save about 60 % of import expenditure if sourced from each other at preferential rates (instead of being imported from distant destinations). Rising consumer demand and the economic efficiency of cross-border exchanges have contributed to the large volume of informal trade between India and Pakistan. Such informal exchanges between the two countries are not a new phenomenon; Khan et al. (2007) estimated the value of

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informal trade between India and Pakistan through various routes at US$545 million for the year 2005.

However, this estimate of informal trade between India and Pakistan is relatively outdated and is unable to account for recent changes in the bilateral relations of the two economies. Therefore, the primary aim of this study is to update the estimates of informal trade between India and Pakistan. Second, this study examines the routes and modalities for the commodities being exchanged between the two nations via informal mechanisms. Another important aspect of informal exchange analyzed in this chapter is the implications of informal trade for the formal sectors of both countries. Our research highlights the concerns of the formal business communities and the challenges they face from informal cross-border flows. Fourth, this chapter delves into the possible reasons for trade of this nature, with special emphasis on the complex structure of duties and customs procedures. Finally, this study examines how the ongoing trade normalization process between India and Pakistan would provide an opportunity to formalize the informal exchanges between the two countries.

The next section provides a brief literature review on this subject covering prior work on informal trade particularly in regions with conflict-ridden borders in Africa and South Asia. Section 3.3 discusses the methodology used to estimate the informal flow of goods from India to Pakistan, followed by a section that examines the customs procedures and hurdles associated with formal trade between India and Pakistan. Section 3.5 discusses the sector-wise and product-wise characteristics of informally traded goods. The next three sections provide sector-specific characteristics of traded items, transit costs of informal traders, and the limitations of our methodology. Our policy message in the end calls for measures that can formalize the current informal flows.

3.2 Literature Review

We observe across the literature that researchers have adopted various techniques to estimate the size of informal trade, including border observation, the latent structure approach, and physical stock-taking (Ackello-Ogutu 1996; Lesser and Moise-Leeman 2009; Minde and Nakhumwa 1998), comparison of partner country trade data (Nkendah 2010), as well as the use of secondary data and primary surveys (Afrika and Ajumbo 2012; Macamo 1999; Pohit and Taneja 2000; Taneja 1999; Taneja et al. 2005).

The literature on informal trade estimation also reveals that such trade depends upon substantial trust among the dealing parties. Financial transactions for informal trade take place in barter arrangements or through informal ways of money transfer (i.e., *hawala* and *hundi*). The movement of tradable items usually occurs at the borders in informal ways and, even if they come through formally designated routes, the items are under-invoiced to avoid taxes and customs

duties. These characteristics of informal trade also make it difficult to quantify the volume and value of such trade.[1]

As regards the motivation for informal trade, we know from the relatively large literature on the African case that lack of trade facilities, poor access to financial resources, and corruption levels have induced such forms of trade (Nkendah 2010). In Africa a major part of informal trade comprises agricultural products such as maize, wheat flour, sugar, and rice (Ackello-Ogutu 1996; Lesser and Moise-Leeman 2009). In Kenya, informal trade of food items with Uganda is an important factor for ensuring food security (Ackello-Ogutu 1997).[2] Informal trade, however, involves implicit costs for the entire society via channels of increased corruption and at times dumping of poor quality goods that, in turn, harm the country's domestic production (Nkendah 2010).

It has also been found that unrecorded exchange of goods with neighboring countries is usually carried out by people who live in border areas (see trade between Cameron and CEMAC subregion by Nkendah 2010 and trade between Mozambique and the neighboring countries by Macamo 1999). As far as the economic value of informal trade is concerned, Lesser and Moise-Leeman (2009) suggest that it contributes 43 % of the GDP in Africa. Estimating the loss to the government from informal trade, Minde and Nakhumwa (1998) observe that 81 % of the formal revenue remains untapped.

The dynamics of informal trade in South Asia are slightly different from those in Africa, but one can find certain similarities (Sattar and Pursell 2006). A significant difference is that unlike in Africa, agricultural products are not the major commodities under informal trade for the South Asian economies. On the other hand, the primary similarity in both regions is that cross-border trade restrictions among nation states have given rise to a substantial volume of informal trade in South Asia as well as in Africa. In South Asia, Pohit and Taneja (2000) analyzed the informal trade patterns between India, Bangladesh, and Nepal. Their survey of 200 traders found that the informal flow is from India to Bangladesh, which consists of food items, textile, and machinery, whereas in the case of India and Nepal, it is a two-way flow. They also found that traders from India and Bangladesh accept each other's currency for ease of financial transactions.

Taneja et al (2002) conducted a survey to analyze the informal trade between India-Sri Lanka and India-Nepal. The findings show that the estimated informal trade value between India and Sri Lanka is around US$208 million, but the trade value between India and Nepal is estimated at US$396–408 million.

Despite the availability of literature that looks at the various facets of informal trade in South Asia, there is an increasing need to provide empirical evidence to

[1] In this study and as per our definition, we have not regarded under-invoicing as informal trade.

[2] It is also observed that at least 46 % of trade was based on informal channels between Uganda and its neighbor countries in 2006. In the same year, agricultural products worth US$113 million were informally traded between Uganda and its neighboring countries. The whole trade process is significant for wholesale retailers and small and medium enterprises.

governments regarding the revenue gains associated with formalizing current informal trade. There are also high non-tariff barriers that prevent the formalization of informal or quasi-formal flows of merchandise.

A consumer focus is also missing from the informal trade literature. We understand from trade theory that once NTBs are removed and processes allow the formalization of trade, there are consumer surplus gains as well as savings to producers who may be able to import raw material and intermediate inputs at lower costs (since rents by middlemen involved in informal trade are eliminated). With advances in theory as well as computation methods, these gaps in the literature are soon likely to be addressed.

3.3 Methodology

Pakistan shares its border in the east with India (2,912 km), and due to the volatile situation at various border checkpoints, we cannot solely rely on border monitoring techniques (see Lesser and Moise-Leeman 2009) to estimate informal trade. For example, while such monitoring techniques may be applied with relative ease at the Wagah-Attari border, it is a different case at other points such as Munabao, Ganda Singh Wala, and Chakothi.

The data on stocktaking and its comparisons with partner country trade suggest that this is not a viable option to estimate the magnitude of informal trade in the context of India and Pakistan, because traders under-invoice the products. Further, part of the trade between India and Pakistan takes place through a third country, for instance, the UAE or Singapore, which is quasi-formal trade.

In our study the term *informality* of trade refers to any movement of goods between borders that have no official record (see Taneja 1999). For this study we used a structured survey approach. The survey was designed to capture the modalities and characteristics as well as to estimate the volume of informal trade between India and Pakistan. The enumerators were carefully trained to probe these questions. If a respondent was reluctant to answer a specific question, the enumerators would either infer the response or leave it as missing information if it was difficult to judge.

Our survey conducted in January 2013 targeted importers, exporters, wholesalers, retailers, transporters, customs clearing agents, *Khepias*,[3] and frequent family travelers. The responses by traders regarding the routes, commodities, and estimates of informal trade were also validated through our interviews with trade and customs officials. Most of the trade sector respondents were involved in informal ways of business and, while it was not possible for a specific respondent to give an estimate of the overall volume of products imported from India, they did provide estimates

[3] Khepia is a local term used for business people who buy products in wholesale quantities from a country and sell them in their own country. Mostly this happens in gray market products, i.e., markets where goods are bought and sold at prices lower than the official price set by regulatory agencies.

Table 3.1 Markets with presence of informally traded items

Sector	Primary market	City	Primary market	City
Textiles	Bolton market	Karachi	Eshra, Azam, and Shahalam market	Lahore
Tobacco	Nanakwara Kharadar	Karachi	Paanmandi (Anarkali)	Lahore
Livestock	Yazman Rohri	Bahawalpur		
Auto parts	Ranchor Line Al-Noor market	Karachi	Badami Bagh	Lahore
Auto parts	Peerwadhai	Rawalpindi		
Pharmaceuticals	Bara	Peshawar	Shahalam market	Lahore
Pharmaceuticals	Bohar Bazar	Rawalpindi		
Cosmetics	Bolton market	Karachi	Anarkali	Lahore
Cosmetics	Karkhano Bazar	Peshawar		
Jewelry	Bolton market	Karachi	Anarkali	Lahore
Spices and herbs			Shahalam market	Lahore

Source: SDPI Survey Unit (2013)

about their daily turnover of Indian products inside Pakistan, on the basis of which annual estimates were calculated.

To select the measures, we took our lead from Khan et al. (2007), which mentions items that were available in Pakistan during an exercise conducted in 2005. Second, we took into account the now liberalized sensitive list of goods for Pakistan from India. Third, we developed a list of informally traded items identified during Key Informant Interviews (KIIs) conducted by the Sustainable Development Policy Institute (SDPI) as part of the identification of non-tariff barriers in December 2012. Our KIIs with traders and customs clearing agents dealing in Indian tradable items also helped make this list comprehensive. The key markets where these products are sold were identified and selected for the survey. Table 3.1 lists these markets. It is important to note that these markets are not dedicated to dealing with informally traded products. Therefore, the proportion of formal and informal stock available with the retailers was determined through the respondents' own judgment.

A detailed breakup of our respondents is given in Table 3.2.

3.4 Sectoral Estimates of Informal Trade

To estimate the volume of informal trade between India and Pakistan, we could not depend on observing the stock available with wholesalers and retailers because they were hesitant to talk about their inventories due to fear of confiscation. Therefore, we calculated the volume (or quantity) by seeking information about daily sales of Indian items that did not arrive through formal channels and their average prices. The annual quantity of informally traded products was then extrapolated using these estimates of the daily turnover in the various informal markets. In order to avoid ghost

Table 3.2 Breakup of survey respondents

		Breakup by type of respondent					
City	No. of responses	Importer	Exporters	Retailers/ wholesalers	Transporters	Customs/ clearing agents	Rangers/ security persons
Karachi	47	5	5	35		2	
Lahore	48	10	5	30			3
Rawalpindi	20	5	3	10	2		
Bahawalpur	5	5					
Peshawar	15	5		10			
Total	**135**	30	13	85	2	2	3

Source: SDPI Survey Unit (2013)

figures, their sales and business volume were revalidated from their competitors in the same market who dealt in the same or similar product categories from India. The list of items that did not arrive through formal channels was validated through business associations and customs officials. Some of the sector-wise assumptions given below were developed by using information from trader associations and clearance agents and published information by government sources.

3.4.1 Fruit and Vegetables

- There are four trading days at Chakothi border per week during which around 30 trucks pass through the line of control.
- On average, a single truck contains 750 cartons of fruit.
- At least 15 % of the cartons have no official record.[4]
- Calculation for fruit and vegetables: The price of a single carton upon entry into the first Pakistani market is in the range of US$5.8–9.5. Our calculations reveal that 22,500 cartons are traded informally during a single week. Multiplying this by the number of weeks in a year, i.e., 52 and with the average cost per carton provides an annual estimate of US$5.4 million.

3.4.2 Textiles

- In the wholesale market in Karachi, Lahore, and Rawalpindi, around 400 shops deal in Indian cloth, fancy suiting, and bridal wear. Apart from these shops, there are roadside vendors not included in our calculation.

[4] We understand that trading over the LoC in barter terms or otherwise should not be categorized under informal trade. Therefore, we take only that portion of LoC trade that has no record in formally recorded documentation.

- On average, the sale of each trader ranged from 20 to 40 dresses depending on whether the trader is a wholesaler or retailer. Sales also depend on the season in which turnover is being considered. Each respondent was asked about various types of dresses sold in terms of quantity. The key dresses that had value-added content included *saris* and fancy suiting, including bridal wear.
- The price of a *sari* ranged from US$50 to 90, and for the purpose of our estimation, we considered a value of US$70 per piece.
- The price of an Indian bridal dress ranged from US$800 to 1,600, and for the purpose of our estimation, we considered a value of US$1,200 per piece.
- Calculation for *saris*: 400 shops on average sell 20 pieces each on a daily basis. This implies that the annual sale is around 2.92 million pieces. We multiply this with an average price per suit (US$70) to arrive at the annually informally traded value of US$204.4 million.
- Calculation for fancy suiting (including bridal wear): Like *saris,* it is assumed that 400 shops on average sell 20 pieces each on a daily basis. The wedding season is assumed for four months in spring and winter. This implies that the 4-monthly sale stands at 960,000 pieces. If the average price per unit is assumed at US$1,200, we have our annual value of informally traded fancy suiting at US$1,152 million.[5]

3.4.3 Pharmaceuticals

- The daily turnover in informally exchanged Indian medicines reported in Khyber Pakhtunkhwa province and tribal areas (specifically, the border region of Afghanistan and Pakistan) is US$0.15 million.
- The daily turnover in Indian medicines reported in Lahore is US$15,000.
- Calculation of pharmaceuticals: We add the turnover of Khyber Pakhtunkhwa and Lahore to arrive at the daily turnover of US$165,000. We multiply this with 360 annual trading days to arrive at US$59.4 million. In 2012, five trading days were reportedly lost due to stoppages in receipt of informal medicines from the Afghanistan route.

3.4.4 Herbs and Spices

- Monthly turnover in spices is reported at US$0.7 million.
- Monthly turnover in Indian black tea coming through Afghanistan is calculated at US$0.1 million.
- There are wide variations in the daily values and therefore we have considered a month-on-month average.

[5] The justification for the 4-month peak sale during the wedding season comes from our discussion with the All Pakistan Textile Mills Association (APTMA).

3.4.5 Tobacco

- The price of Indian betel leaf in the Pakistani market through informal channels is US$11 per kilogram.
- On average, the monthly consumption of betel leaf is reported at 0.3 million kilogram in Lahore only.
- The monthly turnover in banned items like *gutka* and *pan parag* is reported at US$0.40 million.

3.4.6 Automobiles

- Calculation for auto parts: There are around 50 shops (Karachi, Lahore, and Rawalpindi had 18, 22, and 10 shops, respectively) that deal in informally exchanged Indian auto parts throughout Pakistan and their monthly sales in Indian auto parts are estimated at US$0.47 million. This is the turnover reported by respondents. Sales take place throughout the year and, therefore, monthly sales are multiplied by 365 trading days to arrive at an annual figure of US$5.64 million.
- Calculation for tires: The sum of responses received from these cities as well as Peshawar in Khyber Pakhtunkhwa province reveals a daily turnover of US$0.46 million. Assuming 365 trading days, the annual figure is US$170 million.

3.4.7 Cosmetics

- Cosmetics made in India were found in most of the markets mentioned in the methodology section.
- Calculation for cosmetics: A total daily turnover value of US$0.15 million was seen in Karachi, Peshawar, and Lahore (from where it is also distributed to other parts of central Punjab). Assuming that this supply is available for 365 trading days, the annual value of informally traded cosmetics stands at US$48 million.

3.4.8 Jewelry

- There are 150 shops in Karachi, Lahore, and Rawalpindi that deal in Indian jewelry.
- The daily sale on average is 2 bridal sets, 15–20 bangle sets, and 60 lockets.
- These items are priced very close to locally made items in order to remain competitive in the market.

- There was no evidence of seasonal variation in the sales reported above.
- Calculation for bridal sets: There are 150 shops selling on average two sets each per day. The average unit price of a bridal set is US$250 in the Pakistani market. This implies a daily sale of US$75,000. Assuming 365 trading days, the annual value stands at US$27.4 million.
- Calculation for bangles: There are 150 shops selling on average 15 bangle sets each per day. The average unit price of bangles is US$20 in the Pakistani market. This implies a daily sale of US$45,000. Assuming 365 trading days, the annual value stands at US$16.4 million.
- Calculation for lockets: There are 150 shops, each selling on average 60 sets per day. The average unit price of lockets is US$10 in the Pakistani market. This implies a daily sale of US$90,000. Assuming 365 trading days, the annual value stands at US$32.9 million.

3.4.9 Herbal Products

- The average price of key items varied across markets. In our calculations the average unit price of black asphaltum is US$2.5, Ispaghol US$3.5, Chyawanprash US$4.5, feminine creams US$2.2, hair oil US$1.8, beauty creams US$2.2, and herbal soaps US$0.7.
- Calculation for herbal products: There are around 41 shops that deal in Indian cosmetic products. The sum of daily reported turnover stands at US$4,164. Assuming 365 days, the annual turnover stands at US$1.52 million.

The overall estimates of Indian goods flowing into Pakistan through informal channels are given in Table 3.3. We understand that these estimations are only based on the markets visited by our survey team. A further limitation is that despite the subjective validation of our qualitative responses, these estimates remain the respondent's own judgment.

3.5 Reasons for Informal Trade

A variety of factors have given rise to informal trade between India and Pakistan. The high tariffs on certain commodities, non-tariff barriers to trade, and the inadequacies of transportation and infrastructure for formal trade encourage traders to find informal routes of bilateral exchange. Both policy and institutional factors give an impetus to informal trade between India and Pakistan. This section brings out the significant transaction costs associated with the customs procedures and clearances associated with formal trade, as well as the structure of duties on certain commonly traded items between India and Pakistan.

Table 3.3 Informal flow of goods from India to Pakistan

Items	Total (US$ million)
Fruits and vegetables	5.40
Textiles	
Saris	204.40
Fancy dresses (incl. bridal wear)	1,152.00
Pharmaceuticals	59.40
Spices and herbs	
Spices (cardamom, cinnamon, *jaiphal*, and *javitri*)	8.40
Tea	1.20
Tobacco items	
Gutka	4.80
Betel leaves	39.60
Automobile sector	
Spare parts	5.70
Tires	170.0
Cosmetics	
Soap, cream, shampoo, hair oil, etc.	48.0
Jewelry items	
Bridal sets	27.38
Bangles	16.43
Lockets	32.85
Low-grade artificial jewelry	
Lockets	2.19
Bangles	9.13
Herbal products	
Black asphaltum	0.22
Ispaghol	0.31
Chyawanprash	0.39
Feminine creams	0.19
Hair oil	0.16
Herbal beauty creams	0.19
Herbal soaps	0.06
Other	
Paper	0.30
Crockery	0.20
Total	**1,788.89**

Source: SDPI Survey Unit (2013)

Of the entire list of items traded informally, some are banned while others either face high duties or transaction costs. Table 3.4 shows the existing customs duties and taxes on the goods coming into Pakistan from India if they were to come through formal channels. The structure of customs duty is based on the nature of the commodity, while the sales tax and withholding tax are fixed for each good at 16 and 5 %, respectively. The customs duty on cosmetics items is 30 %, and 5–10 % duty is levied on jewelry.[6]

[6] The published rates are prior to Pakistan's federal budget 2013–2014.

Table 3.4 Duty structure on key informally traded items if they were to be traded formally[a]

Items	Duty (%)	Sales tax (%)	Withholding tax (%)
Fruits and vegetables	0–30	16	5
Textiles			
Saris	25	16	5
Fancy clothes (incl. bridal wear)	25	16	5
Pharmaceuticals	5–25	16	5
Spices and herbs			
Spices	5–15	16	5
Tea	10	16	5
Tobacco items			
Gutka	Banned	Banned	Banned
Betel leaves	200/kg	16	5
Auto parts (gears, windscreens, pumps)	Banned	Banned	Banned
Tires	5–25	16	5
Cosmetics	30	16	5
Jewelry items			
Bridal sets	5	16	5
Bangles	5	16	5
Lockets	5	16	5
Low-grade artificial jewelry			
Lockets	10	16	5
Bangles	10	16	5
Herbal products			
Ispaghol	5	16	5
Chyawanprash	10	16	5
Feminine creams	30	16	5
Hair oil	30	16	5
Herbal beauty creams	10	16	5
Herbal soaps	30	16	5
Other			
Paper	5–25	16	5
Crockery	30	16	5

Source: Federal Board of Revenue (2013)
[a]From India to Pakistan

Goods included in the fruit and vegetable sector have customs duties in the range of 0–30 %, with most fruits having a duty of 30 %. Wholesalers in *Sabzi Mandi* Rawalpindi indicated that the majority of fruits and vegetable goods from India are through the Chakothi border (Kashmir) where most of the transactions are barter arrangements.

Among medicines, drugs such as aspirin, eye drops, and paracetamol are included in the negative list, with a customs duty range of 20–25 %; however, a customs duty of 10 % is charged on homeopathic products. In the textiles sector, customs duty of 25 % is levied on apparel and clothing as well as on carpets. On tobacco items, *gutka* is banned for import into Pakistan, while the tax rate on betel leaves is Rs. 200 per kg.

Customs duty on black tea is 10 % and a 5 % duty is levied on cardamom and cinnamon. However, other spices such as red chillies and crushed/ground pepper have a duty of 15 %. The auto sector bears the highest customs duty among the sectors that we studied. Auto gears, windscreens, and pumps are included in the negative list along with the imposition of customs duty of 35 %. Used tires fall under three categories of customs duties; there is a duty of 25 % on motorcar tires and 5 % on bus/truck tires, and for tractors the duty is 20 %. A substantial level of indirect trade in the auto sector is also quasi-formal, i.e., via Dubai.

Traders claim that there are unnecessary delays in the customs process, which involves clearance in shipment and the documentation process. Currently, a trader has to file an entry for clearance and after that he/she is solely dependent on the customs collector for further procedures. The customs collector creates hurdles for traders and their decision cannot be challenged. Hence, customs collectors always raise needless points in the clearing process so that traders are forced to pay some form of gift money. This makes informal trade a cheaper option even for items that are formally allowed to be imported into Pakistan from India under the negative list-based trade regime.

In addition, the lengthy procedure of clearance (through product standards and safety checks) is troublesome for traders, as the increased time increases the transactions cost for the forward supply chain. The significant discretionary powers with the officials have resulted in instances of illegal payments for clearance processes. During inspection, goods may get damaged or lost, but customs officials do not take responsibility and insurance companies do not provide comprehensive cover. According to some traders, the "informal insurance" and strong trust in Khepias result in greater certainty of consignments reaching safely and on time.

3.6 Limitations of the Study

Several items could not be included in this study. During the survey, we found that livestock from India is also brought into Pakistan. It was reported that in the past the cattle entered from the border areas near Bahawalpur (Rohi); now, due to the fencing of the border, the movement has been restricted to some extent but smuggling of livestock is still reported. However, it was difficult for the respondents to estimate the value of informal trade in livestock. We also found that Indian alcoholic products come into Pakistan through informal channels and are available in Karachi and Lahore. Respondents were unable to identify the quantity and routes through which they enter Pakistan. There were reports that such alcoholic products entered through Gwadar, but this information could not be verified.

Future exercises that aim to refine this work should move away from perception-based responses. More discrete methods should be adopted to gather data on daily product-wise transactions; the frequency with which a market operates in a month or week; subsidiary markets, if any, for products that have greater demand at the

household level; and the characteristics of traders involved in the informal trade of various products.

Equally important for any future study will be to provide a cost and price buildup that allows government officials to see the loss being incurred by distortive trade policies, gaps in border-related trade infrastructure, and the lack of accountability in institutions responsible for trade promotion. Such a buildup analysis should specifically identify for each product the origin price in India, transport costs, payments toward bribes or in-kind, the markup at various stages in Pakistan, and the final price charged to the consumer.

3.7 Sector-Specific Characteristics of Informal Trade

3.7.1 Automobile Sector

In order to assess the informal trade between India and Pakistan in the automobile sector, auto markets situated in Karachi, Rawalpindi, and Lahore were visited. It was found that the Dubai channel and the Afghan Transit Trade (ATT) are the main sources of supply to the domestic market. Leakages from transit containers also play a role in informal trade, as these containers sometimes go up to Afghanistan and come back to Pakistan, or commodities are leaked at Karachi en route to Afghanistan. Indian tires are primarily supplied via the ATT route.

According to respondents, informal trade with India in the automobile sector is a recent phenomenon and started only about a year ago. The majority of vehicle engine parts in Pakistan are imported from China, whereas from India traders mainly import gearboxes. Most of these parts are channeled through the Wagah-Attari border. In Lahore, traders reported that they are shifting from Chinese to Indian parts because of higher cost-effectiveness, better quality, and ease of networking with Indian suppliers.

For some other items, the demand for Indian auto parts is low compared to parts from Japan, Malaysia, and Taiwan. However, even for these, Indian auto parts are considered as the major source to bridge the gap between demand and supply in the local market. It was observed that almost 30 % of the deficiency in the Pakistani market is covered by Indian auto parts, especially in the case of gears, differentials, tires, and windscreens. Some traders reported that after 10 months of active informal trading, their retail clients were ready to submit orders in advance to procure Indian auto parts.

The demand for Indian tires in the local market has surged and they cover a significant market share. Both new and refurbished tires are available in the market. Apollo, MRF, and JK Tyres are the key Indian brands available. There is also evidence of wrong declarations, as the actual import value is higher than the declared value.

Traders have expanded their businesses by diversifying the product range, as they now have Chinese, Indian, and other brands to sell in the market as per the demand of customers. Small-scale traders are now able to scale up operations by stocking relatively low-cost Indian parts. On average, such shops employ 3–4 workers, and the traders frequently visit India and Dubai to establish networks that now run the entire chain smoothly. These traders suggested that formalizing this trade by removing some distorting barriers could further increase the flow of Indian auto parts into Pakistan.

3.7.2 Tobacco Products

To estimate the informal trade in tobacco and allied items, we visited the Pan Mandi, Nanakwara, in Karachi and Anarkali in Lahore. The major items identified were betel leaves, areca nuts, tobacco, and *gutka*. One of the routes identified for trade in betel leaves is the Mumbai-Dubai-Lahore route. Areca nuts and other pan ingredients are imported from Bangladesh and Sri Lanka.

In the southern region of Pakistan, betel leaves are mainly imported from Sri Lanka and Bangladesh, whereas 60 % of the market demand is met by the locally produced betel leaves in coastal areas of Sind including Babio, Keti Bandar, Sakro, Somara Dan, Gujjo Mor Chanddi, and Sakhrand areas. Due to the popularity of Indian betel leaf, even local leaves are sold at some places under the tag of an Indian variety. In the case of gutka, 5–7 Indian varieties are available in the market. Gutka is a banned item and it arrives in Pakistan through Mumbai-based sea route ferries and Khepias. Despite the adverse effects of gutka on human health and its ban in India and Pakistan, traders claim that there is a substantial demand for Indian gutka in local markets.

Most of the sales in tobacco items take place in the gray market, comprising small hawkers and *khokhas*, who are not registered with any government authority. Their stock depends on the supply of products coming in through informal channels.

3.7.3 Textiles

To estimate the volume of informal trade between India and Pakistan in textiles, various markets were visited, including Ranchore Line, Eidgah, market at Karachi; Eshra, Azam, Shahalam, and Anarkali markets in Lahore; and Bara market and China market at Rawalpindi. It was found that the supplies of Indian textile items come to Pakistan through the Afghan Transit Trade (ATT) channel. Sometimes, containers coming to Karachi port under the ATT are unloaded without crossing the Afghan border. In several cases goods are smuggled back to Pakistan after reaching Afghanistan. This can be clearly seen in several markets across Khyber Pakhtunkhwa province. Some vendors also import Indian cloth through Dubai and

Table 3.5 Price comparison of Indian cloth in Pakistani market (average in US$)

Item	Wholesale price in India[a]	Price upon reaching Pakistan
Sari (per unit)	14.1	60.6
Bridal suits (per unit)	323.2	808.1

Source: SDPI Survey Unit (2013)
[a]These are market averages as quoted by our respondents

Singapore. In this case, the Indian cloth that goes to Dubai or Singapore is not stamped for its origin.

The main textile items found in the informal markets are Indian raw silk, cotton, Banarasi saris, muslin, and ready-made bridal dresses. The increase in demand for ethnic Indian garments is mainly attributed to the influence of media. The demand for ethnic ladies' suits increases significantly during the peak wedding season (after August).

Table 3.5 shows the prices of Indian clothes available in the Pakistani market. As can be seen, the cost of informally imported saris in Pakistan is more than four times the price in India, while the price of bridal suits is more than twice that at origin. The substantial price difference is partly due to the high transit cost and related barriers.

It was found that these products come through people who visit India for personal and family reasons. This is a regular practice for people who have relatives in India and it is much easier for them to arrange bulk quantities. At the same time, several frequent travelers have personal clients for whom they cater on demand. The product is sold without having to go through any formal or informal market setting. Khepias are also involved in facilitating this process; however, they only sell the product to wholesalers. Gurdaspur (India) and Ajmer (India) are the major supply points for Indian textiles to Pakistan.

3.7.4 Cosmetics

Informal trade in cosmetics was estimated by collecting data from Bolton market in Karachi, Paan Mandi, in Lahore and Bara market in Rawalpindi. Indian cosmetics are smuggled into Pakistan through Afghanistan, as Afghan traders have established networks for this supply. Khepias are another important channel and are responsible for the bulk of the supply. People visiting India on family visas also carry cosmetics with them.

Indian soap, shampoo, beauty cream, hair gel, face wash, hand wash, and makeup kits are in great demand in the Pakistani market. Although their market share is smaller than for Pakistani products, demand for these products has shown an increasing trend, mainly due to the influence of electronic and print media. There is wide variation in the quality of Indian cosmetics available in Pakistan. Low-quality products are mainly traded in the small stores and hawker stalls. Although the prices

Table 3.6 Average price of Indian cosmetics in Pakistani markets (in US$)

Items	Wholesale price in India	Price upon reaching Pakistan
Soap	0.25	0.45
Shampoo	1.31	2.32
Hair oil	0.71	1.82
Beauty cream	1.21	2.22

Source: SDPI Survey Unit (2013)

of these items are higher than local Pakistani products, there is a demand for foreign products mainly due to the perception that they are of better quality.

Table 3.6 indicates the price difference of cosmetics items of Indian origin in Pakistani markets. (See Annex I for sector-wise product description.) The brands available in the Pakistani market are international but are manufactured in India; these include Ponds, Johnson, Godrej, and Dabur.

The restricted movement of Khepias directly affects the supply line of local traders. Any delay in the visa process makes it difficult for traders to meet the demand in the local market. Delays and various restrictions also occur during conflicts at the line of control. At Lahore and Rawalpindi, most of the vendors reported that they are unaware of the channels through which Indian cosmetic products enter the market, but whenever there is demand, it is met by Afghan traders who are accessible even at short notice.

3.7.5 Jewelry

The major selling points for jewelry items of Indian origin are Bolton and Ranchor Line markets in Karachi, Shahalam and Anarkali markets in Lahore, and Bara and China markets in Rawalpindi. According to our respondents, Indian jewelry items enter Pakistan through the sea route (from Mumbai), Khepias, frequent family travelers, and the ATT.

The items of artificial Indian jewelry that have the highest demand in Pakistan are bridal jewelry sets, lockets, bracelets, and earrings. Customers prefer Indian artificial jewelry because of its relatively finer finish, giving it a closer resemblance to gold items. The demand for Indian jewelry has increased because of the increase in gold prices in the international market.

Table 3.7 shows the prices of Indian artificial jewelry available in the Pakistani market. Apart from the markup, the major cost is that of transit.

Whenever the movement of Khepias is disturbed, the supply to the local market is affected and some price increase is also observed. This factor disturbs the business relatively more in larger markets such as those in Karachi. Most customers were found to be well aware that these products come to Pakistan through informal channels.

Table 3.7 Average price of Indian jewelry in Pakistani markets[a]

Items	Wholesale price in India (US$)	Price upon reaching Pakistan (US$)
High-grade artificial jewelry		
Bridal sets	121.2	252.5
Bangles	12.1	20.2
Lockets	6.06	10.1
Low-grade artificial jewelry		
Lockets	0.08	0.2
Bangles	0.2	1.01

Source: SDPI Survey Unit (2013)

[a]These are rates of comparable make and brand as reported by the retailers

3.7.6 Pharmaceuticals

Pharmaceutical products of Indian origin were seen in Shahalam market in Lahore and Bohar Bazar in Rawalpindi. It was found that Indian medicine products are easily accessible in the Khyber Pakhtunkhwa province, especially near the Afghanistan border. In Peshawar several patients were reported to have doctors' prescriptions for medicines from India, which enter tribal areas of Pakistan from Afghanistan.

Medicines such as aspirin, amoxicillin, ampicillin, cimetidine, famotidine, cotrimoxazole, ciprofloxacin, lexotanil, and ranitidine manufactured by Indian companies (Liv. 52, Serpina, Mentat, Herb-Lax) are available in the local Pakistani market. Even though drugs such as aspirin and paracetamol are included in the negative list and cannot be traded, they are easily available in local markets, and there is a substantial demand for medicines of Indian origin due to their cheap prices. Painkillers such as Vasograin and pramipexole dihydrochloride were in high demand and are usually brought by frequent travelers in their personal baggage. In some cases, doctors in Lahore prescribe Indian medicines, informing patients of their better quality and lower costs. It was also found that Chinese buyers in Pakistan purchase Indian medicines in bulk from local chemist shops; these medicines are then taken to China in personal baggage.

Indian lifesaving drugs were termed substantially cheaper than the lifesaving drugs in Pakistani markets. In Pakistan, multinational companies (MNCs) import raw material from their country of origin (usually Western countries), whereas in India MNCs are bound to use local inputs in the production process. This practice has increased the cost of the final product in Pakistan.

As per the law, medicines are required to be registered with the Health Department before they can be sold in Pakistan. However, unregistered Indian medicines are being sold in Pakistan. Indian medicines available in Pakistan are not tested in any laboratory and the medicines are not packed properly. Some of them do not contain any drug information literature. Our respondents from the chemist trader community were of the view that the best way to deal with this gray market is to allow

pharmaceutical items from India to enter Pakistan through formal channels. In this way, the drugs entering Pakistan are more likely to be examined by the concerned authorities. To facilitate patients, especially users of lifesaving drugs, the government can encourage the import of raw material and related inputs of these drugs from India.

3.7.7 Herbal Products

There is no specific market for Indian herbal products in Pakistan as the trading activity takes place at a micro-level. Dabur Hajmola, feminine products, Chyawanprash, Dabur Shilajit, and Dabur Vatika hair oil are the main products of Indian origin available in the smaller retail stores.

It is found that these products come via both formal and informal routes. The sea route via Dubai is the major channel used for supply of these products. Khepias and some frequent family travelers also supply herbal products to the market; they carry products in their personal luggage, thereby avoiding customs duty. The occasional vigilance at customs ports was reported to disturb the supply for traders in Pakistan. Under-invoicing is also observed for trade of herbal products, as the actual value of imported stock is higher than the value and volume officially declared.

Pakistani herbal products remain dominant in the market and have the maximum market share. Shops dealing in herbal products prefer Pakistani inputs for their final product and expressed the view that the ingredients of Indian products are unknown to them. However, Indian herbal products are also available in their shops.

Advertisements for Indian herbal products on Pakistani cable channels encourage customers to demand these products without prior consultation with any herbal practitioner or traditional medicine expert. Traders dealing in Indian products indicated that informal imports are expected to increase, as the credibility of the products is increasing and *word of mouth* has helped to increase demand. They also said that some items produced by traditional healers in India were unregistered even in India and could be harmful for users if they are not inspected at the entry point in Pakistan.

3.7.8 Spices and Herbs

Jodiah Bazar in Karachi, Shahalam market in Lahore, and Bohar Bazar in Rawalpindi were visited to assess the volume and value of informal imports of Indian spices and herbs into Pakistan. The markets represent wholesalers who cater to bulk supply. It was observed that the informal channel for imports of spices and herbs in Pakistan is through the India-Kandahar (Afghanistan) route, entering Pakistan at the Chaman border, and finally reaching Karachi. Another route is the India-Kabul (Afghanistan) channel, from where it is forwarded to Peshawar and later distributed to Lahore and Rawalpindi.

Black tea, cardamom, cinnamon, *jaiphal*, and *javitri* are the products identified during the visit that come informally from India and are traded in the local market. Most of this business is at a small-scale level. Pakistan currently imports black tea primarily from Sri Lanka and Kenya, whereas the corresponding Indian product is creating its market gradually. Indian tea is now starting to cover a significant portion of the total market share of black tea in the domestic market. Indian black tea comes into the Pakistani market through the ATT route. There were also complaints by some Sri Lankan traders that tea of Sri Lankan origin, available in India, makes its way into Pakistan through informal routes in Kashmir. This, to them, was a violation of the terms of trade under the Pakistan-Sri Lanka free trade agreement (FTA).

Traders said that due to the substantial import-stage taxes in Pakistan (customs duty and general sales tax), informal means of supply continue to flourish. The consumption of tea is rising with the increase in population, and the majority of the demand is met through imports. In this scenario, trade with India can significantly increase the supply of tea and possibly bring down prices in the local markets. However, some traders also reported that Indian tea is adulterated when it enters Afghanistan. As a result, they often get tea of poor quality.

3.7.9 Fruits and Vegetables

The *Sabzi Mandi* (fruit and vegetable market) in Rawalpindi was visited to assess informal trade in Indian fruits and vegetables. This *mandi* is the hub for the distribution of fruits and vegetables to the twin cities of Rawalpindi and Islamabad. As per wholesalers, the main informal activity through barter takes place at the Chakothi border. Kashmir-based traders are involved in this informal trade as they have networks on both sides of the border.

Wholesalers claim that the quality of Indian fruit is better than that of the local produce and has a longer shelf life. Even in formal trade, one observes that for the past few months, the supply of Indian bananas has reduced the market share of local bananas. Trade through the Kashmir border is badly affected when tension between India and Pakistan escalates. Bad weather also creates hurdles, when snowfall occasionally closes the road channels. Since these items are perishable, they cannot be stored for long periods and the informal sector does not have cold-storage facilities.

Traders suggested that trade in these items should be expanded through the Wagah and Chakothi borders. The existing formal trade flow at the Wagah border is below the potential, forcing traders to resort to informal channels. Pakistan offers the best quality mangoes, but the production time for oranges is less than that in India, which gives Pakistan an edge. The same is true of India's bananas and tomatoes. If border-related infrastructure is expanded and standards-related non-tariff barriers are brought down, Pakistan and India can boost their bilateral trade in fruits and vegetables. Items such as onions, tomatoes, and bananas can be made available in a timely manner in the market when there is short supply in Pakistan.

3.8 Transit Routes, Costs, and Informal Transactions

Goods coming through informal channels are substantially more expensive than the same items in the Indian market. In the case of cosmetics, jewelry, and bridal suits, retailers charge 60–100 % more than the prices at origin in India. Respondents revealed that in the case of jewelry and cloth items, prices surge because of the high transit costs (via informal routes), whereas in the case of cosmetics, prices are related to the falling value of the Pakistani rupee vis-à-vis the Indian rupee. Tables 3.8 and 3.9 provide the transit costs for Khepias and pilgrims going from Karachi and Lahore, respectively.

The Samjhauta Express train service is used to take passengers from Lahore to Attari (India). Once the train enters India, passengers are shifted onto Indian Railways. The cost of religious trips given in Table 3.9 does not include passenger documentation charges of US$10. The bus ticket from Lahore to Delhi is around US$20.

It was found that the travelers on the Samjhauta Express can easily avoid customs officials by paying small bribes. According to travelers, on average a trip costs them around US$950 per family member. The items they bring from India are sold to known clients, friends, and wholesalers.

3.9 Conclusion and Policy Recommendations

Based on our survey of informally traded goods in key Pakistani cities, the inflow of such goods from India to Pakistan has been estimated at US$1.79 billion in 2012–2013, which is very close to the US$1.9 billion of formal trade between the two

Table 3.8 Transit cost for Khepias from Karachi

Type of cost	Long-term visa holder (US$)	Short-term visa holder (US$)
Taxi charges in Karachi (up to 10 km)	5	5
Taxi charges in Dubai (up to 10 km)	5.5	5.5
Return ticket	365	290
Visa fee	300 (90 days)	100 (30 days)
Hotel charges	50/day	50/day
Food	30/day	30/day

Source: SDPI Survey Unit (2013)
Note: Average rates were obtained from travel and tour agents and by requesting actual quotations

Table 3.9 Transit cost for pilgrims from Lahore

Departure	Destination	Approximate cost (US$)	Mode of travel
Lahore	Delhi	140 (including hotel charges)	By train
Lahore	Ajmer	72	By train
Lahore	Delhi	20	By bus

Source: Ministry of Religious Affairs and Interfaith Harmony, Government of Pakistan (2012)

countries in the same year. While informally traded items bring several benefits of lower costs and higher quality to consumers and traders, these exchanges adversely impact the government revenues of both countries because they bypass customs. Moreover, producers represented by the Pakistan Business Council felt that this informal trade, particularly in sectors such as auto parts, was crippling local industry and lowering the capacity of local producers to pay their taxes. Consequently, the government suffers a double loss of revenue. Formalization of even part of the trade discussed in this chapter could hold tremendous benefits for national revenue, and in that context, this section brings out the policy implications of the findings discussed in this chapter.

Textiles emerge as the single largest commodity being informally imported into Pakistan from India, constituting 75 % of the total estimates of informal inflows. This is followed by imports of auto parts and tires (9.8 %), jewelry items (4.9 %), and pharmaceuticals (3.3 %). This composition of informal trade is readily explained by the high customs duties/bans on Indian commodities in Pakistan. Wearing apparel is levied a customs duty of 25 % in addition to the 16 % sales tax and 5 % withholding tax imposed on all items. Given the consumer demand in Pakistan for Indian ethnic wear, these excessive duties encourage traders and consumers to bypass official channels. Similarly, popular auto parts such as gears, pumps, and differentials are on Pakistan's negative list, while tires are levied duties as high as 25 %. Most fruits, cosmetics, crockery, and herbal products carry very high duties in the range of 20–30 %, and many commonly imported pharmaceutical commodities are also on the negative list. Other than the high tariff costs, the complicated customs procedures also induce traders to use informal channels of exchange for commodities such as spices and jewelry.

With the rising demand for Indian goods in Pakistan, the flow of informal imports from India is set to increase in the coming months, especially if the Federal Board of Revenue (FBR) and the Ministry of Commerce do not move toward formalizing these exchanges. This process of trade normalization must start with Pakistan granting India MFN status and ensuring that the tariff and non-tariff barriers on both sides fall to a level where formal trade becomes more attractive. It is important to understand that there are safeguards that can be used even if MFN is granted to India.

Further, the analysis of informal flows of merchandise should be discussed at the government level. A joint working group comprising officials from the Ministry of Finance, FBR, Ministry of Commerce, and the central bank should discuss policy measures that could incentivize the formalization of the current informal inflows from India to Pakistan in a way that does not prohibit economic growth or hamper formal trade between the countries. Since the causes for informal trade do not remain stagnant, it would be useful for the proposed working group to report regularly on the causes of informal trade with neighboring countries to the National Economic Council. The FBR should also report annual revenue losses due to informal trade to the government as part of the Economic Survey of Pakistan published by the Ministry of Finance.

Important steps toward trade expansion with India would also include increasing the number of items allowed through the Wagah-Attari border, opening up the remaining nine land routes between India and Pakistan, allowing containerization via railways given that the current trucking facility is unable to meet the demand on both sides, increasing the presence of plant department officials (for agricultural and related items), and signing the pending trucking agreement between the two countries. Another extremely important aspect of the normalization process is the absence of essential cellular facilities and courier services between India and Pakistan. This peer-to-peer connectivity is important to facilitate both trade and investment between the two countries. It is worth mentioning here that both countries had announced a relatively liberal bilateral visa policy in 2012, but neither side has implemented this policy.

While these policy measures are imperative to reduce the transaction costs and procedural difficulties of formal trade between India and Pakistan, addressing the high tariff rates and the banned items on Pakistan's negative list are equally important in bringing about the formalization of imports from India to Pakistan. A combined effort toward removing the high tariffs on imports, as well as tackling the procedural difficulties of formal trade, would result in substantial benefits to the farming and manufacturing community, consumers, and traders, as well as to government revenue.

Annexure I: Product Description by Sector

Sector	Product	Indian brands in Pakistani markets
Auto parts	Windscreens	
	Gear parts	
	Differential parts	
	Pumps	
	Nozzles	
	Tires	Apollo, JK, MRF
Jewelry	Artificial jewelry	
	Bridal sets	
	Bangles	
	Lockets	
Cosmetics	Makeup kits	Ponds, Johnson
	Beauty creams	Garnier, Liril, Godrej
	Soaps	
Medicines	Aspirin	Liv. 52, Serpina, Mentat, Herb-Lax
	Amoxicillin	
	Ampicillin	
	Cimetidine	
	Lexotanil	
	Cotrimoxazole, famotidine	
	Ciprofloxacin	
	Ranitidine	

(continued)

Sector	Product	Indian brands in Pakistani markets
Tobacco	Betel leaf	
	Gutka	Rajguru
	Areca nuts	
	Beri	
Herbal products	Ispaghol	Dabur
	Chyawanprash	Vatika
	Feminine creams	
	Hair oils	
Spices and herbs	Black tea	
	Cardamom	
	Cinnamon	
	Jaiphal	
	Javitri	
Textiles	Saris	Banarasi sari
	Bridal dress	
	Fancy suits	Raw silk, muslin

Source: SDPI Survey Unit (2013)

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Chapter 4
India-Pakistan: Trade Perception Survey

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4.1 Key Questions, Survey Design, and Sampling

The trade policy governing the India-Pakistan trade has been undergoing rapid changes and continues to be very complex. Thus, awareness of these policies would help in realizing the trade potential. Based on earlier surveys and consultations by the authors, there was reason to believe that overall awareness of trade policies is higher in India than in Pakistan. Also, it was thought that while traders are aware about Pakistan granting Most Favored Nation (MFN) status to India, traders would be less aware about the specific policies related to the positive and negative lists and about the South Asian Free Trade Agreement (SAFTA) concessions.

For several years, Pakistan has been extremely concerned about the nontariff barriers (NTBs) that it faces in accessing the Indian market (Husain 2011; Taneja 2006, 2007; TDAP 2012). Even though standards applied by India to manufactured goods under the Agreement on Technical Barriers to Trade (TBT) and to agricultural products under the Sanitary and Phytosanitary Measures (SPS) Agreement are nondiscriminatory, they have been perceived as being trade restrictive by Pakistani businesses and policymakers. In our survey questionnaire, we attempted to assess whether Pakistani traders perceive TBT and SPS standards as more onerous than Indian traders.

The survey also elicited responses on market access for imports and exports. This was done to assess whether there is any significant difference in the perception of traders on both sides of the border. Businessmen in both countries have often opined that they are reluctant to use their country labels when accessing each other's

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market, because they think these labels impede market access. The question posed in the survey was to evaluate whether respondents perceived a negative impact of country labels on bilateral trade.

India and Pakistan have a history of unfavorable political events. However, in recent years neither country has taken measures to stop trade after such incidents (Taneja et al. 2011). A question was posed to assess if political incidents had a negative impact on market access.

Several studies have pointed out that business between the two countries is affected by the restrictive visa regime, lack of communication networks, and poor services offered by logistics operators (Khan 2009; Taneja 2007; TDAP 2012). The question posed was whether the difficulty in obtaining visas and difficulty in communication was higher for Pakistani businessmen than for Indian businessmen.

Logistics service providers are intrinsic to vibrant trade growth. Our survey solicited information from large and small logistics service providers to assess whether the services of the former are better than those of the latter.

Customs authorities play an important role in facilitating trade. Land Customs Stations (LCSs) are located at road, rail, sea, and air ports. Earlier studies seemed to suggest that the most inefficient was the rail customs station. Information was obtained through the survey to understand which mode has the fewest or the most impediments.

Inadequate and inefficient infrastructure at ports can be a major impediment to trade between the two countries. This could vary across road, rail, sea, and air ports. The question posed was whether there was any difference in the efficiency and availability of infrastructure at LCSs located at ports for different transport modes.

4.1.1 Questionnaire Design

To assess the number and intensity of impediments faced by businesses engaged in India-Pakistan trade, this Trade Perception Survey was undertaken using a structured questionnaire. While it is possible to consider a wide range of indicators to identify impediments, the questionnaire would become too long and lead to a poor response rate. Thus, one has to select the indicators carefully, keeping in mind the length of the questionnaire. The indicators for this study are based on existing studies and consultations and focus group discussions held by the authors during 2005–2008 and in 2012 in India, Pakistan, and Dubai.

For the design of the questionnaire, we adapted the framework used in constructing global indices such as the Enabling Trade Index (World Economic Forum 2012) and Logistics Performance Index (World Bank 2012) to make it relevant to the specifics of India-Pakistan trade and business environment. For instance, in the rapidly changing policy environment for India-Pakistan trade, it is important to assess traders' awareness of these policies. Several of these policies are applicable exclusively to India-Pakistan trade. If traders are not aware of recent policy shifts, they would be unable to take advantage of the changed scenario, and the trade potential would

remain untapped. Moreover, given the sensitive political relations between the two countries, specific questions on the impact of political events, impact of Made in India/Pakistan labels, ease of obtaining visas, and ease of communication were included. Keeping in mind all these factors, six broad indicators were included in the survey:

1. *Awareness of Trade Policy*. This indicator includes key developments in trade and transport policies such as the following:
   (a) Pakistan allows the import of all items from India except a negative list of 1,209 items.
   (b) Pakistan is in the process of granting MFN status to India.
   (c) India permits the import of all items from Pakistan.
   (d) Concessional duty rates can be availed for imports under the SAFTA agreement by both countries.
   (e) India has removed specific duties on all items except those on the sensitive list.
   (f) Pakistan allows the import of only 137 items from India via the road route.
   (g) India allows the import of all items from Pakistan via the road route.
   (h) Neither country has restrictions for trade via the rail route.
   (i) New facilities are offered at the Integrated Check Post (ICP) at Attari.
2. *Meeting Standards*. This indicator captures the ease/difficulty in meeting Sanitary and Phytosanitary (SPS) standards for agricultural products and Technical Barriers to Trade (TBT) standards for manufactured commodities.
3. *Market Access*. This indicator captures the perception of traders on overall increase in market access, whether Made in India/Pakistan labels reduce market access and whether India-Pakistan political events hamper trade.
4. *Business Facilitation*. This indicator captures the availability of "soft infrastructure" required to facilitate trade, including ease of obtaining visas, ease of communication with traders across the border, and competence of logistics industry.
5. *Customs and Documentation*. This indicator identifies barriers in customs trade procedures. The sub-indicators include time taken by customs to process documents, time taken for lab testing of imports, and excessive checks due to security measures.
6. *Infrastructure at Ports*. This indicator identifies infrastructural bottlenecks at the road, rail, sea, and air ports. The sub-indicators include congestion at LCS/port gate, availability of warehousing, and availability of wagons (for rail).

For each sub-indicator, respondents were asked to rank their perceptions on the current scenario, which referred to the time of the survey, and on the expected change next year, on a scale of 1 to 5.

The survey also captured the perception of respondents about:

- The extent of increase in India-Pakistan bilateral trade
- Which products are likely to witness the highest percentage increase in trade
- How much the capacity at border points needs to be increased in order to make mode-wise policy recommendations

Table 4.1 City-wise distribution of firms

India			Pakistan		
City	No. of firms	Percent	City	No. of firms	Percent
Ahmedabad	21	10.5	Faisalabad	7	3.5
Amritsar	33	16.5	Islamabad	3	1.5
Chennai	20	10.0	Karachi	107	53.5
Coimbatore	2	1.0	Lahore	60	30.0
Delhi	34	17.0	Multan	3	1.5
Hyderabad	17	8.5	Peshawar	1	.5
Kolkata	12	6.0	Rawalpindi	3	1.5
Mumbai	61	30.5	Sialkot	16	8.0
Total	**200**	**100.0**	**Total**	**200**	**100.0**

Source: ICRIER survey (January–March 2013)

4.1.2 Sampling Frame

Our total sample of 400 firms included firms that are engaged in trading with India/Pakistan, with 200 firms surveyed in each of the two countries.[1] Several cities in India and Pakistan were covered in order to incorporate the geographical diversity of commodities traded. In India, firms covered in the sample were spread across Delhi, Amritsar, Mumbai, Chennai, Kolkata, Hyderabad, and Ahmedabad. In Pakistan, firms were surveyed in Karachi, Lahore, Islamabad, Rawalpindi, Sialkot, Faisalabad, Multan, and Peshawar (Table 4.1).[2]

To determine sectors from which sample firms had to be drawn, sectors that met the twin criteria of high current trade and high trade potential were selected. The trade potential was calculated for 21 sectors[3] classified on the basis of the Harmonized System (HS) classification using trade data for 2011 from the WITS (World Integrated Trade Solution) database. Export potential for any commodity is given by the minimum of the supplier's global exports and receiver's global imports minus the existing trade between the supplier and receiver (Taneja and Kalita 2011). The exercise was conducted by first using India as a supplier, followed by Pakistan. Using the twin criteria, seven sectors were selected for drawing the export sample in India and import sample in Pakistan, namely, machinery, chemicals, textiles, plastics and rubber, vegetable products, prepared foodstuff, and base metal articles. Using the same methodology for India's imports from Pakistan and Pakistan's exports to India, the sectors identified were machinery, chemicals, textiles, plastics and rubber, vegetable products, prepared foodstuff, optical, photographic, and surgical instruments, and base metal articles. However, the actual sample surveyed did not completely match the sample selected, as firms involved in India-Pakistan trade are scattered, making it difficult to identify traders of all the commodities that were originally targeted (Table 4.2).

[1] Note that the sample size is not representative of the population due to time and resource constraints. The results obtained in our survey are only indicative.

[2] ICRIER conducted the survey in collaboration with Dun and Bradstreet.

[3] Sectors of the Harmonized System (HS) of classification, aggregated to the 2-digit level.

Table 4.2 Sector-wise distribution of respondents

	India				Pakistan			
	Exporters		Importers		Exporters		Importers	
Sector	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Agriculture	34	21	22	39	30	23	15	19
Chemicals	29	18	1	2	11	9	38	48
Textiles	36	22	2	4	36	28	6	8
Pharmaceuticals	18	11	8	14			6	8
Engineering/machinery	14	9						
Surgical items			7	12	13	10		
Cement			10	18	9	7		
Gypsum					13	10		
Others	31	19	7	12	17	13	15	19
Total	**162**		**57**		**129**		**80**	

Source: ICRIER survey (January–March 2013)
Note: A respondent may be trading in more than one commodity belonging to different sectors

Table 4.3 Distribution of firms by type of activity

	India		Pakistan	
Activity	No.	Percent	No.	Percent
Exporter/manufacturer	149	69.3	146	61.9
Importer	50	23.3	88	37.3
Freight forwarder/clearing agent	16	7.4	2	0.8

Source: ICRIER survey (January–March 2013)
Note: A respondent may be involved in more than one trade-related activity

Table 4.4 Mode-wise distribution of firms

	India				Pakistan			
	Exporter		Importer		Exporter		Importer	
Trading route	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Sea	104	69.8	9	18.0	60	45	48	58
Air	36	24.2	11	22.0	25	19	10	12
Rail	31	20.8	20	40.0	25	19	6	7
Road	39	26.2	39	78.0	74	55	39	47
Total	**150**		**50**		**134**		**83**	

Source: ICRIER survey (January–March 2013)
Note: A respondent (an exporter/importer) may be trading via more than one trading route

A major shortcoming of the actual sample was that Indian importers did not have adequate representation in the sample, because India has no directory for importers. Another shortcoming of the sampling frame was that it included very few freight forwarders and clearing house agents (Table 4.3).

Given that trade between India and Pakistan can be carried out via sea, air, rail, and road routes, we attempted to capture all modes of trading routes in our sample (Table 4.4). As this table shows, there is a larger representation of sea as a trading route, which reflects the fact that the sea route has become the dominant trading route between India and Pakistan in recent years.

4.1.3 Methodology for Analysis

Respondents were asked to evaluate their responses on a Likert scale of 1 to 5. The categories used were as follows:

Current scenario	Very high	High	Average	Low	Very low
Expected changes	Significantly increase	Increase	No change	Reduce	Drastically reduce

The survey responses were analyzed by examining the distribution of responses among exporters/importers from both India and Pakistan. The response distributions are represented by bar diagrams or in tabular form to understand the differences in sample characteristics of any indicator under study. Further, we used the standard chi-square test or z-test to check whether there was a statistically significant difference in responses between the two countries for a particular indicator under study.

4.2 Awareness of Trade Policy

Awareness of recent developments in trade policy is of paramount importance in increasing bilateral trade. For instance, during the survey it was noted that many traders who had always traded in a single commodity diversified their business after realizing that the new trade regime allows trade in several commodities that were previously restricted. However, several traders continue to be unaware of the policy changes. Therefore, to bolster bilateral trade and tap trade potential, it is important to disseminate trade-related information to traders in a manner that is comprehensive and easily accessible.

In this survey, binary responses were obtained on whether or not the respondents were aware of the various policy measures taken by the Indian and Pakistani governments. The nine sub-indicators were as follows:

1. Pakistan allows the import of all items from India except a negative list of 1,209 items.
2. Pakistan is in the process of granting MFN status to India.
3. India permits the import of all items from Pakistan.
4. Concessional duty rates can be availed for imports under the SAFTA agreement.
5. India has removed specific duties on all items except for items on the sensitive list.
6. Pakistan allows the import of only 137 items from India via the road route.
7. India allows the import of all items from Pakistan via the road route.
8. Neither country has restrictions for trade via the rail route.
9. New facilities are offered at the Integrated Check Post at Attari.

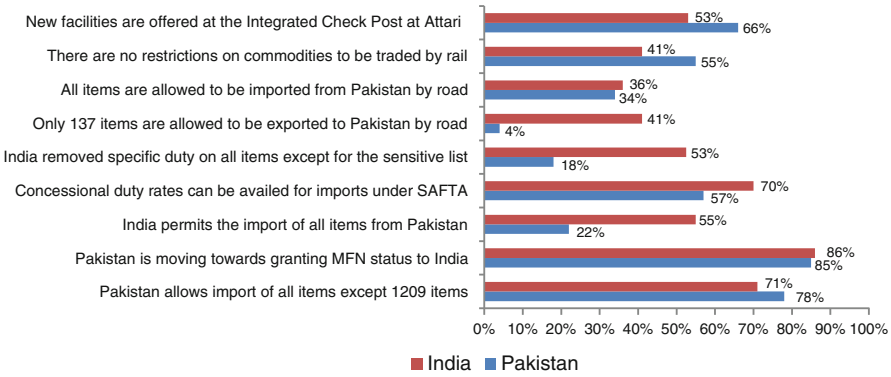

Fig. 4.1 Awareness sub-indicators (percent of traders aware of trade policy) (*Source*: ICRIER survey (January–March 2013))

In this chapter, we compare the awareness level of respondents using various criteria. To be specific, the following questions were posed:

1. Does awareness level in each of the nine sub-indicators vary between India and Pakistan?
2. Is overall awareness significantly higher in India than in Pakistan?
3. Are traders who use different modes of transport equally aware about trade policies?

4.2.1 Awareness of Sub-indicators

Of the nine sub-indicators, the level of awareness among traders in India and Pakistan is the highest in two sub-indicators, namely, Pakistan's move to grant MFN status to India and its shift from a positive list to a negative list of 1,209 items. However, the awareness of traders about other sub-indicators is low in both countries (Fig. 4.1).

The low degree of awareness about policy measures has crucial implications for bilateral trade between India and Pakistan. The fact that only 22 % of the Pakistani respondents are aware that India allows the import of all items from Pakistan indicates that traders in Pakistan are not exploiting the full export potential to India. There is also relatively low awareness of the concessional duty rates being offered for imports under SAFTA and on the removal of specific duties by India for all items other than those on the sensitive list. This implies that traders perceive tariffs to be higher than what they actually are and bilateral trade would be much larger if traders were more aware of these concessions (Fig. 4.1). When asked

whether they availed of SAFTA concessions for imports, only 42 % of importers in Pakistan and 70 % of importers in India claimed that they did. This shows that a larger proportion of traders in India are aware of these concessions than traders in Pakistan.

There is also low level of awareness about policies related to trade via the road and rail routes. A large proportion of traders in India and Pakistan are not aware that only 137 items are allowed to be imported by Pakistan via the road route. However, the level of awareness is also low on policies that impose no such restrictions, such as the fact that India allows the import of all items from Pakistan via the road route and that neither country imposes any restriction on commodities that can be traded via the rail route. Awareness about these policies needs to be increased among traders to ensure that the trade potential can be realized.

4.2.2 Overall Awareness

Overall awareness was calculated by summing the responses of traders across all awareness sub-indicators. As Fig. 4.1 indicates, in 3 of the 9 sub-indicators, the awareness level of Indian respondents is lower than that of Pakistani respondents. This is in agreement with earlier studies and our focus group interviews with key stakeholders. A statistical test of whether awareness level of Pakistani traders is lower than that of Indian ones confirmed our research question (Hypothesis 1, Table 4.8 in the Appendix). In India, 57 % of the respondents were aware of trade policy measures, while in Pakistan only 44 % of the respondents were aware of these policies.

4.2.3 Awareness of Policies Related to the Land Route Among Users of Different Transport Modes

Several policies are applicable to products traded by the land route. But are traders who use the four different modes of transport aware of policies related to the rail and road routes? During our interaction with respondents in India, it was observed that traders are largely aware of the policies related to the routes they use (Table 4.5).

In India, the overall awareness of traders using rail and road as a mode of transport was found to be significantly higher than traders using the sea and air modes. However, in Pakistan, awareness of traders using the air route was found to be significantly higher than those using the road mode. Additionally, traders trading via sea were found to have a lower level of awareness than those trading via road (Hypothesis 2, Table 4.8).

Table 4.5 Mode-wise awareness of policies related to road and rail routes (percent of respondents trading via different modes)

	Only 137 items are allowed to be exported to Pakistan by road		All items are allowed to be imported from Pakistan by road		There are no restrictions on commodities to be traded by rail		New facilities are offered at the Integrated Check Post at Attari	
Mode	India	Pakistan	India	Pakistan	India	Pakistan	India	Pakistan
Sea	39	3	28	36	33	55	46	60
Air	30	6	30	34	34	71	28	63
Rail	69	3	59	29	87	55	85	87
Road	68	5	66	28	61	47	93	75

Source: ICRIER survey (January–March 2013)

4.3 Meeting Product Standards

All WTO members maintain product standards to ensure safety and to protect plant, human, and animal life. The Agreement on Technical Barriers to Trade (TBT) and the Agreement on Sanitary and Phytosanitary (SPS) measures lay down the guidelines that should be followed in this regard. India and Pakistan have taken the initiative to implement all WTO-compatible procedures related to standards, testing, labelling, and certification requirements. The TBT Agreement applies to manufactured items and requires these measures to be applied in a manner that does not restrict international trade. The SPS Agreement applies to agricultural items. Members use these measures only to the extent necessary, based on scientific principles and with sufficient scientific evidence. In India, the Bureau of Indian Standards (BIS), under the Ministry of Food and Consumer Affairs, is the main standards-setting body, while in Pakistan the only standards-setting body is the Pakistan Standards and Quality Control Authority (PSQCA).

The national accreditation bodies for testing and inspection in India and Pakistan are members of the International Laboratory Accreditation Cooperation (ILAC). The ILAC arrangement is a global network of accredited testing and calibration laboratories and inspection bodies that are assessed and recognized as being competent. Pakistan became a full member of ILAC in 2009. Thus, awareness of recognition of accreditation bodies in both countries by ILAC can help in meeting the set standard requirements.

The survey responses on the difficulty in meeting SPS and TBT standards laid down by the two partner countries were analyzed. Based on earlier studies, we expected Pakistani exporters to find it more difficult to meet standards than Indian exporters. Since both countries are trying to improve the enabling environment so as to meet each other's standards, we also sought responses on the expected change in the ease of meeting standards in the coming year.

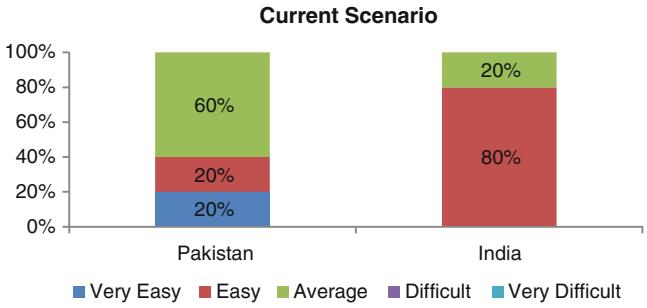

Fig. 4.2 Ease of meeting SPS standards for exporters (*Source*: ICRIER survey (January–March 2013))

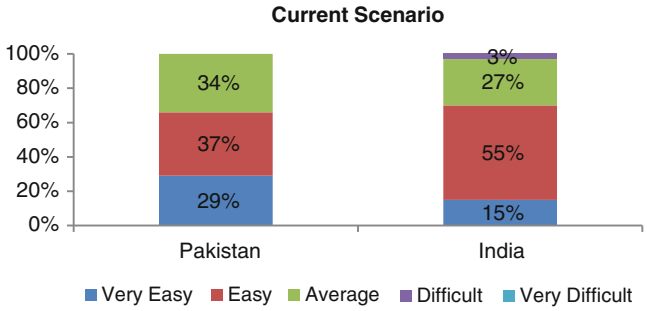

Fig. 4.3 Ease of meeting TBT standards for exporters (*Source*: ICRIER survey (January–March 2013))

4.3.1 Meeting SPS Standards: Current Scenario

It is evident from Fig. 4.2 that only 40 % of exporters in Pakistan find it easy/very easy to comply with SPS requirements, compared with 80 % of Indian exporters who find it easy to comply with SPS standards set by the authorities in Pakistan. As expected, the statistical test of this indicator suggests that exporters from Pakistan trading in agricultural commodities find it significantly harder to comply with SPS standard requirements than Indian exporters who trade in agricultural commodities (Hypothesis 3, Table 4.8).

4.3.2 Meeting TBT Standards: Current Scenario

For firms engaged in the export of manufactured commodities, no significant difference was found in the ease of meeting TBT standards between Indian and Pakistani exporters (Hypothesis 3, Table 4.8). It can be observed from Fig. 4.3 that 66 % of exporters from Pakistan find it easy/very easy to comply with TBT requirements, with a similar proportion of exporters on the Indian side (70 %) finding no difficulty in meeting these requirements.

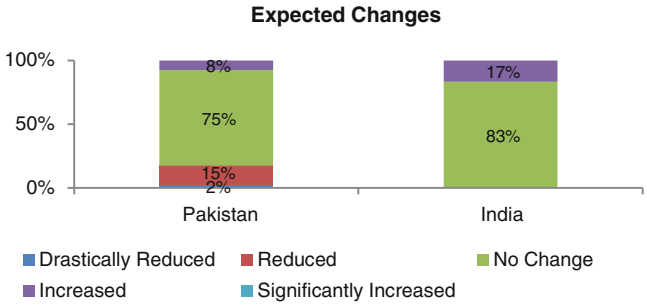

Fig. 4.4 Ease of meeting SPS standards for exporters (*Source*: ICRIER survey (January–March 2013))

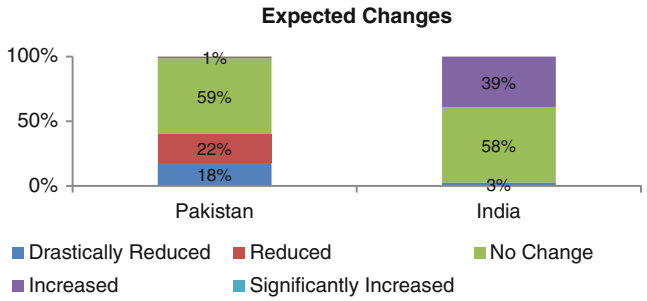

Fig. 4.5 Ease of meeting TBT standards for exporters (*Source*: ICRIER survey (January–March 2013))

It can be inferred that exporters from Pakistan find it harder to comply with just the SPS standards compared to Indian exporters, with there being no significant difference in the ease of fulfilling TBT standards for manufactured commodity exports between exporters from India and Pakistan.

4.3.3 Expected Change in Meeting SPS and TBT Standards

The largest proportion of traders from India (83 %) and Pakistan (75 %) perceive that there will be no change in the ease of meeting SPS standards next year (Fig. 4.4), with 17 % of Pakistani exporters optimistically expecting the SPS standards to reduce. On complying with TBT requirements, while 58–59 % of exporters from both India and Pakistan perceive that there will be no change next year, 39 % of exporters from India feel that the requirements for complying with standards for manufacturing commodities will increase next year and 40 % of exporters from Pakistan expect the TBT standards for exporting to India to reduce (Fig. 4.5).

4.4 Market Access

For trade expansion between India and Pakistan, it is important for traders in both countries to perceive high market access in the other country in terms of being able to export their products easily and being able to import them as well.

In the survey, perception about market access was sought in terms of whether trade expansion has been good. Here, a comparison of perceptions of Indian exporters and Pakistani importers was made to assess whether there is any significant difference in the perception of traders about market access on both sides of the border for the commodities exported from India to Pakistan. Similarly, a comparison was made of perceptions about market access for Indian importers and Pakistani exporters. The key questions asked were as follows: (1) Do Indian importers have a perception of higher market access than Pakistani exporters? (2) Do Indian exporters have a perception of higher market access than Pakistani importers?

A concern that is often raised by businesses in both countries is that the Made in India/Pakistan label affects market access negatively. Businesses are not sure about the acceptability of their products in each other's market due to the hostility between the two countries. Respondents were asked to what extent country labels affected trade, and how they expected market access to be affected by these labels in the following year.

Political events between India and Pakistan are key factors that govern the trading environment between the two countries. Events at the Line of Control (LOC) and subsequent public statements by the two governments could create uncertainty for traders. The survey was designed to capture perceptions regarding the effect of such incidents on trade. Respondents were also asked whether they expected the impact of such incidents on trade to change in the following year. Incidentally, such political events also took place during the survey.

4.4.1 Market Access in India and Pakistan

Are the perceptions of Indian importers and Pakistani exporters about market access significantly different? In the current scenario, only 16 % of Pakistan's exporters feel that access to the Indian market is high, while 58 % of Indian importers feel that the market access of goods from Pakistan is high (Fig. 4.6). Survey results indicate that Indian importers have a significantly higher perception of market access than Pakistani exporters (Hypothesis 4, Table 4.8). Moreover, Pakistani exporters are less optimistic about a future increase in market access, as only 17 % feel that it would increase next year compared with 32 % of Indian importers (Fig. 4.6).

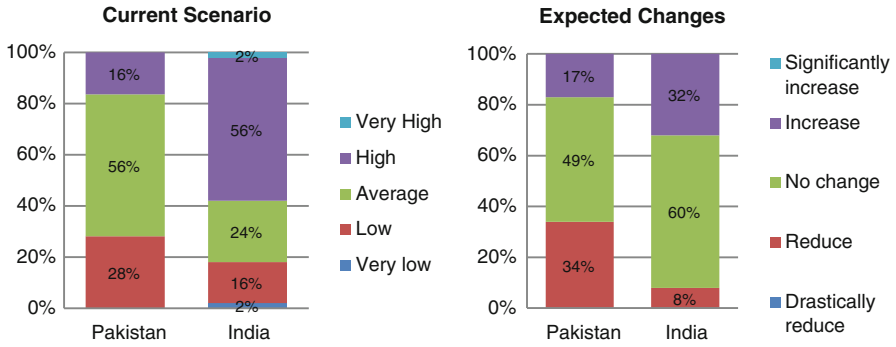

Fig. 4.6 Market access for Indian importers and Pakistani exporters (*Source*: ICRIER survey (January–March 2013))

If Pakistani exporters perceive lower market access than Indian importers, it could be inferred that Pakistani exporters are not exploiting the full market potential in India. Pakistani exporters pointed out that they are unable to expand the number of buyers in India due to lack of information on potential partners. Market access is also restricted due to lack of information on the commodities demanded and supplied by each country. Moreover, visa restrictions, especially city-based visas, inhibit Pakistani exporters from visiting India to conduct market assessments for their products. To address this concern, many traders suggested that a web portal should be developed so that traders on both sides can contact potential buyers/sellers across the border.

Are the perceptions of Indian exporters and Pakistani importers about market access significantly different? The proportion of Pakistani importers who feel that market access is high stands at 43 %, which is similar to the proportion of Indian exporters (47 %) (Fig. 4.7). However, Pakistani importers perceive significantly higher market access than Indian exporters (Hypothesis 5, Table 4.8). On perceptions about the future, both Pakistani importers and Indian exporters are optimistic about increased market access.

Overall, the majority of Pakistani exporters surveyed have a poor perception of market access in India, which can partially be attributed to their lower awareness of trade policies (in particular the policy that allows India to import all items from Pakistan). Even though trade data shows that over the past 3 years (2009–2012), the average annual rate of growth of imports from Pakistan has been 23 %[4]

[4] This is more than double the average annual rate of growth of India's exports to Pakistan (which stood at just 9 % in the same period).

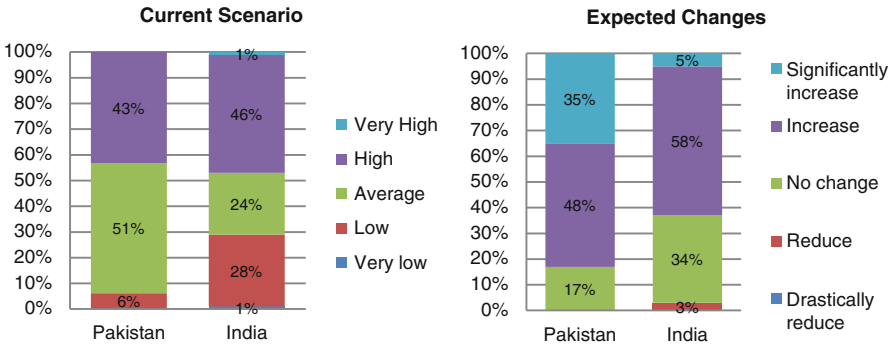

Fig. 4.7 Market access for Indian exporters and Pakistani importers (*Source*: ICRIER survey (January–March 2013))

(UNCOMTRADE WITS database), there is scope for further expansion. This requires addressing the problems perceived by Pakistani exporters so that they are able to export with greater ease.

4.4.2 Made in Pakistan/Made in India Labels

One may expect products with a "Made in Pakistan" label and products with a "Made in India" label to reduce market access in India and Pakistan, respectively. However, the majority of respondents in India and Pakistan perceived a low/very low impact of country labels on demand for their products, with 95 % of Pakistani exporters and 96 % of Indian importers perceiving little impact of the "Made in Pakistan" label in India and 100 % of Pakistani importers and 97 % of Indian exporters perceiving a negligible impact of the "Made in India" label in Pakistan. Further, traders in both countries did not expect the low impact of Indian/Pakistani labels to change next year (Figs. 4.8 and 4.9). In fact, during the survey, several traders felt that there is high demand in India for certain Pakistani products, such as dates and textiles. Respondents also stated that acceptance of Pakistani textiles in the Indian market is relatively recent and is largely the result of exhibitions of Pakistani textiles in several Indian cities. Similarly, respondents in Pakistan said that there was a huge demand for Indian jewelry in the Pakistani market; in fact, some Pakistan-made jewelry was sold under the "Made in India" label due to the high demand for Indian jewelry in Pakistan.

4.4.3 Political Events

Unfavorable political events tend to create uncertainties for traders trading between India and Pakistan. However, in recent years, the two governments have made an effort to delink adoption of trade-restrictive measures from political events. It was

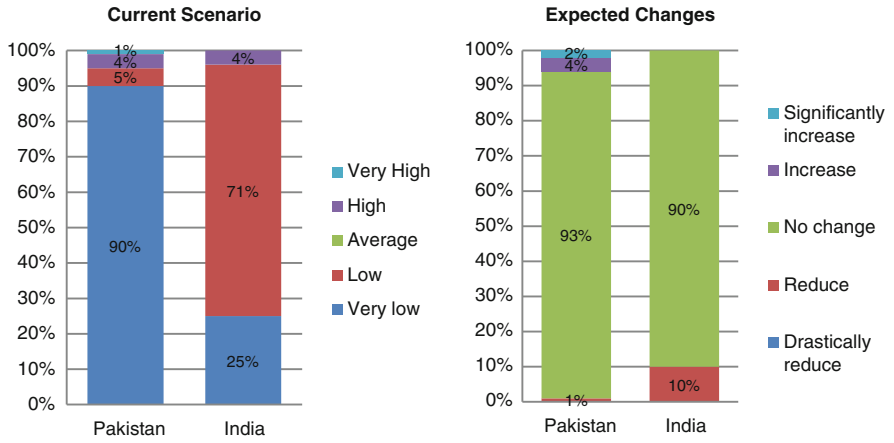

Fig. 4.8 Impact of Pakistani label on market access in India – Indian importers and Pakistani exporters (*Source*: ICRIER survey (January–March 2013))

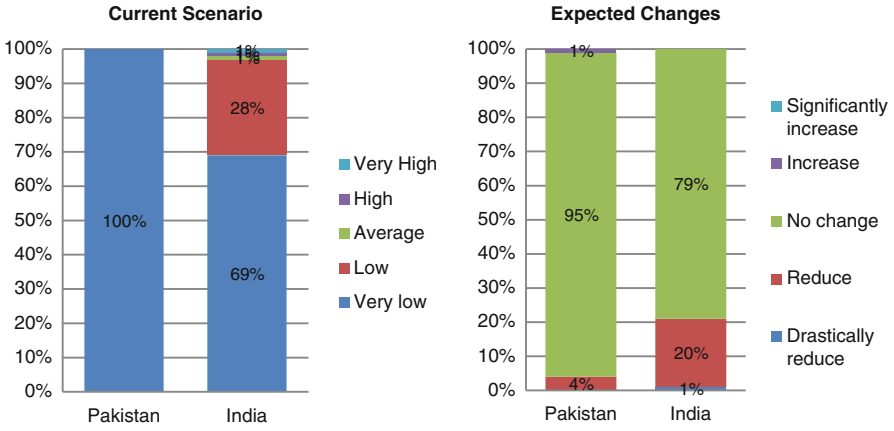

Fig. 4.9 Impact of Indian label on market access in Pakistan – Indian exporters and Pakistani importers (*Source*: ICRIER survey (January–March 2013))

expected that the survey would indicate that political incidents do not have a high negative impact on trade, even though the survey for this study was conducted when there were untoward incidents at the LoC.

Survey results indicate that 70 % of traders in Pakistan felt political events have a low/very low impact on trade. Pakistani traders were very optimistic about trade continuing, even if there are political tensions between India and Pakistan. On the other hand, Indian traders had a mixed response, as about 35 % of traders felt that

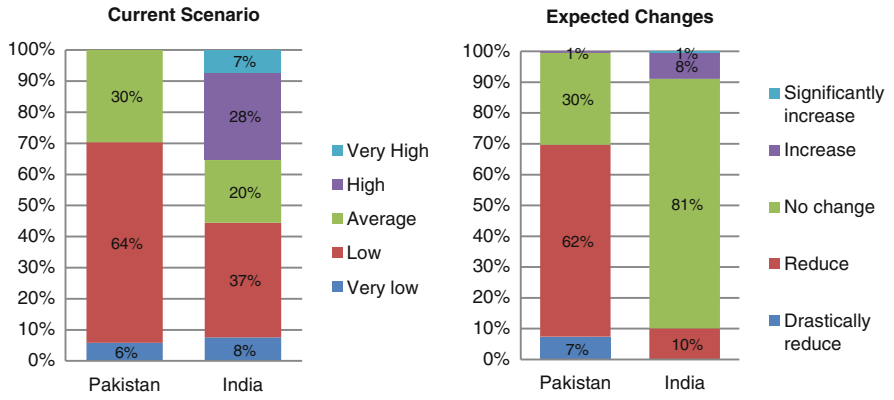

Fig. 4.10 Impact of political events on trade – Indian and Pakistani traders (*Source*: ICRIER survey (January–March 2013))

political events have a high impact, while 45 % felt that political events do not hamper trade at all (Fig. 4.10). Discussions with respondents revealed that they considered any negative impact to be transitory and not permanent. Additionally, none of the respondents interviewed stated that they had altogether stopped trading with Pakistan because of such political events. The survey results on future expectations revealed that 81 % of Indian traders did not expect any change from the current scenario, while 69 % of Pakistani traders expected that the negative impact of political events on trade would diminish (Fig. 4.10).

4.5 Business Facilitation

Business facilitation covers various aspects. For this survey, business facilitation included ease in obtaining visas, ease of communication, and efficiency of logistics operators.

4.5.1 Ease in Obtaining Visas

Travel to potential markets crucially depends on the ease of obtaining visas. However, for several decades, India and Pakistan have had a very restrictive bilateral visa regime. Based on earlier studies it was expected that Indian businessmen find it easier to obtain visas than their Pakistani counterparts. The survey indicated that only 8 % of traders from India and 3 % of traders from Pakistan found it easy to obtain visas, with Indian traders finding it significantly easier to obtain visas than their Pakistani counterparts (Hypothesis 6, Table 4.8).

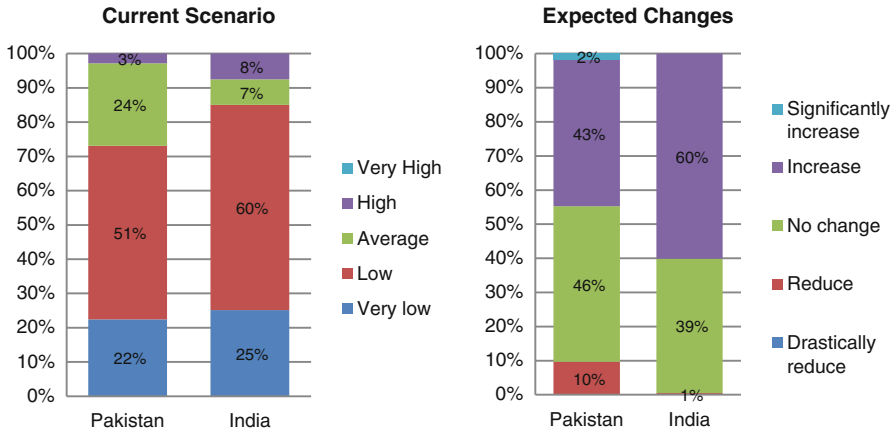

Fig. 4.11 Ease in obtaining visas (*Source*: ICRIER survey (January–March 2013))

There is greater optimism among Indian businessmen than among Pakistani businessmen on expected improvements in the visa regime. As Fig. 4.11 indicates, 60 % of respondents from India and 45 % of respondents from Pakistan expect the visa regime to become more liberal in the coming year.

4.5.2 Ease of Communication

The advent of the Internet and mobile phones has greatly eased communication across the border, although roaming facilities for mobile phones from Pakistan and India and messaging facilities for Indians in Pakistan are still not available. The survey indicated that 66 % of Indian traders perceive communication with their Pakistani traders as easy, while only 12 % of traders in Pakistan shared the same perception for communicating with traders in India (Fig. 4.12). It was found that Indian traders find it significantly easier to communicate with their counterparts in Pakistan compared with the ease of communication for Pakistani traders with Indian traders (Hypothesis 7, Table 4.8).

With regard to the future scenario, both Indian and Pakistani traders are optimistic that communication will improve (Fig. 4.12).

For India and Pakistan, most of the traders have a handful of distributors in the partner country with whom they are in touch on a regular basis. During the survey, traders on both sides stated that they find it difficult to establish new contacts and to be in direct contact with consumers to assess demand patterns. Hence, further expansion of trade between India and Pakistan would require easier access to communication facilities.

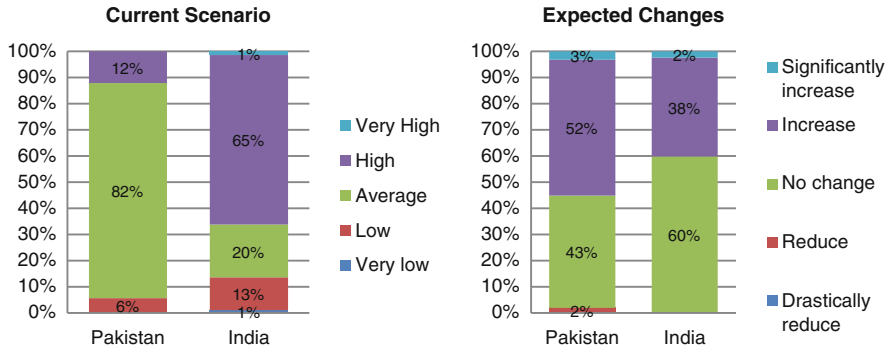

Fig. 4.12 Ease of communication (*Source*: ICRIER survey (January–March 2013))

4.5.3 Competence of the Logistics Industry

The logistics industry is an integral part of facilitating trade and business among trading partners. The industry provides a range of services that includes customs clearance, transportation, and freight forwarding. Large logistics firms provide end-to-end logistics chain management. A competent logistics industry can help expand trade through better supply chain management, both while delivering goods to the end-consumer and in procuring intermediate products for industries. In India and Pakistan, respondents stated that large logistics operators operate only on the sea and air routes. The rail and road routes specifically used for India-Pakistan trade are dominated by small/medium logistics operators or subcontracted agents of large operators.

In India, 56 % of traders perceived the competence of small/medium operators to be high, while the perception was average among 73 % of Pakistani traders (Fig. 4.13). For large operators, 77 % of Indian respondents perceived their competence to be high, while the perception was average among 87 % of the Pakistani traders (Fig. 4.14). In Pakistan, large logistics operators were perceived to be better than small/medium logistics operators, while there was no statistical difference between small/medium and large logistics operators in India (Hypothesis 8, Table 4.8).

Regarding future expectations, 47 % of the traders from India and 51 % of traders from Pakistan felt that the efficiency of small/medium operators would increase in the future. For large logistics operators, 80 % of Pakistani traders and 77 % of Indian traders expected that their competence would increase in the coming year (Figs. 4.13 and 4.14). Respondents in India stated that trade is expected to expand considerably with new commodities entering the market, which would require more and improved logistics services in the future. These could be met more efficiently by large logistics service providers. Pakistani

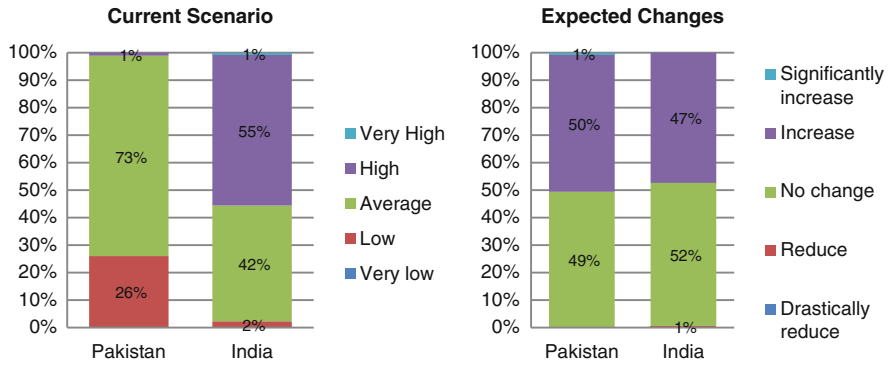

Fig. 4.13 Competence of small logistics operators (*Source*: ICRIER survey (January–March 2013))

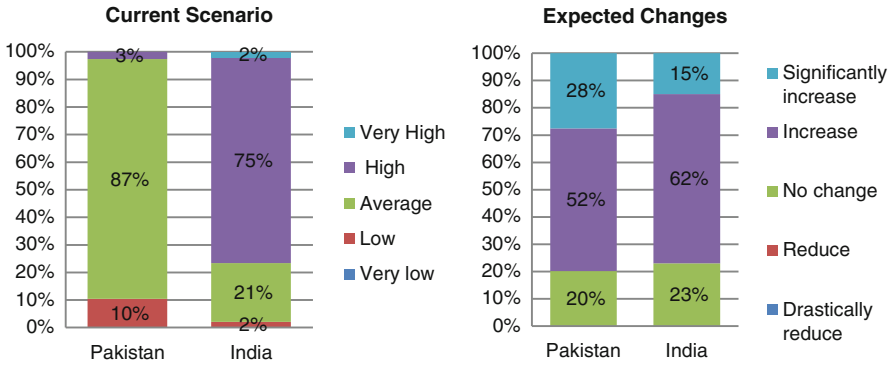

Fig. 4.14 Competence of large logistics operators (*Source*: ICRIER survey (January–March 2013))

traders said that currently, only the National Logistics Cell was operating in Pakistan and they felt that the presence of private operators would increase competition and improve logistics services.

4.6 Customs and Documentation

There has been increasing recognition of the importance of improving regulatory processes at the border to facilitate trade. To assess the efficiency of customs at different trading ports, we analyzed responses on sub-indicators such as the time

taken by customs to process documents, time taken for lab testing, and whether there were excessive checks due to security measures at the ports. Along with a mode-wise assessment for each sub-indicator, the overall efficiency of customs was also calculated by collating all the responses for individual sub-indicators.

4.6.1 Overall Efficiency of Customs

The overall efficiency of customs was calculated by summing responses across all the sub-indicators. We found that both Indian exporters and importers perceived the overall efficiency of customs to be significantly worse on the rail route than on the road, sea, and air routes (Hypothesis 9, Table 4.8). This is because the rail port continues to use manual procedures and the infrastructure available to custom officials at the rail port is far worse than the infrastructure available at other ports. For Pakistani exporters and importers, the data was insufficient to test customs efficiency across ports for trade through different modes of transport.

4.6.2 Time Taken by Customs to Process Documents

The time taken by customs to process documents is the average time between the arrival of documents (either manually or electronically) and their release after processing. The major documents that they process are an invoice, packing list, waybill, quality control certificate, and bill of export/import; these documents are the same for trade with all countries.

For Indian exporters, the processing time for documents by customs is significantly higher at sea ports than at road and air ports, with no significant difference between sea ports and rail ports (Hypothesis 10, Table 4.8). However, this is not a problem faced exclusively by traders trading with Pakistan (Fig. 4.15). On the other hand, there is no significant difference in the perception of processing time of documents by customs for Indian importers across all modes (Hypothesis 10, Table 4.8). However, half the Indian importers (50 %) trading via the sea route perceived the processing time to be relatively high (Fig. 4.16).

For Pakistani exporters, the processing time for documents at the road port is significantly higher than at rail, sea, and air custom stations (Hypothesis 10, Table 4.8). The major problem on the road route is that there is only one window for processing exports and imports at the customs station, which increases processing time. For Pakistani importers, too, processing time is significantly higher on the road route than the sea route (Hypothesis 10, Table 4.8).

On perceptions about the future, a large proportion of traders in India and Pakistan expect processing time to reduce for all modes next year. The exceptions were Indian and Pakistani exporters trading via the air route and Indian importers using the rail mode (Figs. 4.17 and 4.18). Facilities in both countries are well developed for the air mode since it caters to high-value cargo to the rest of the

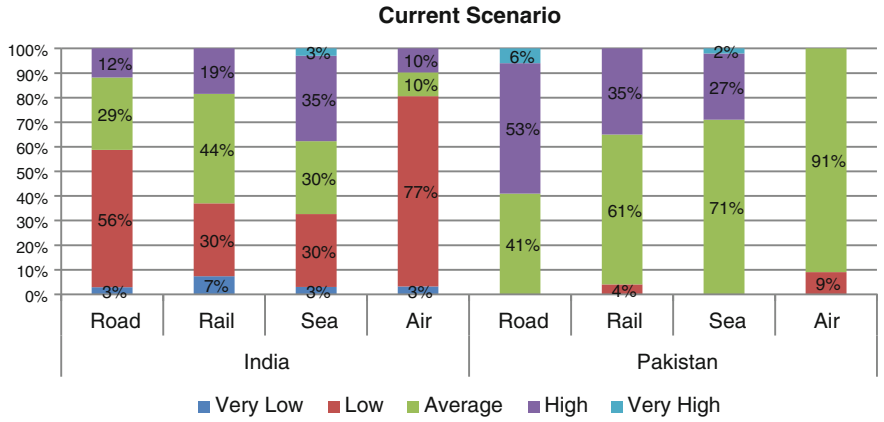

Fig. 4.15 Time taken by customs to process documents for exporters (current) (*Source*: ICRIER survey (January–March 2013))

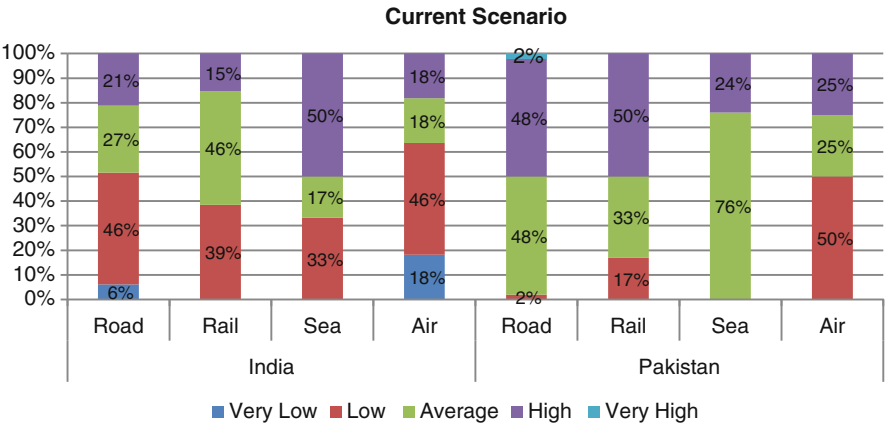

Fig. 4.16 Time taken by customs to process documents for importers (current) (*Source*: ICRIER survey (January–March 2013))

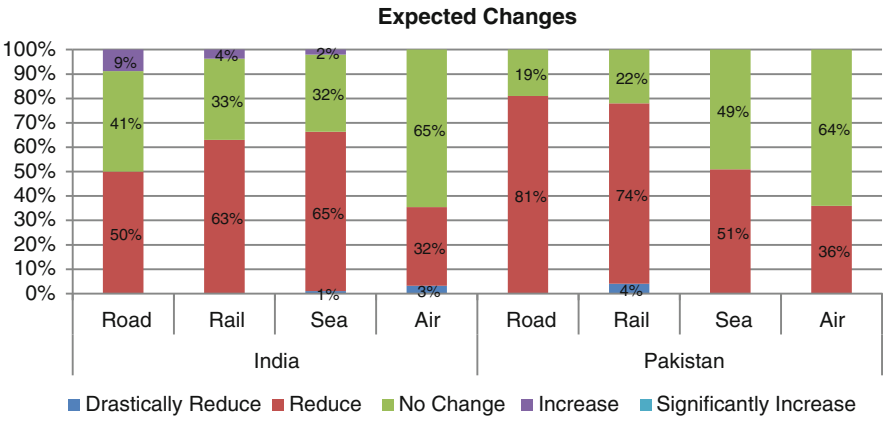

Fig. 4.17 Time taken by customs to process documents for exporters (expected changes) (*Source*: ICRIER survey (January–March 2013))

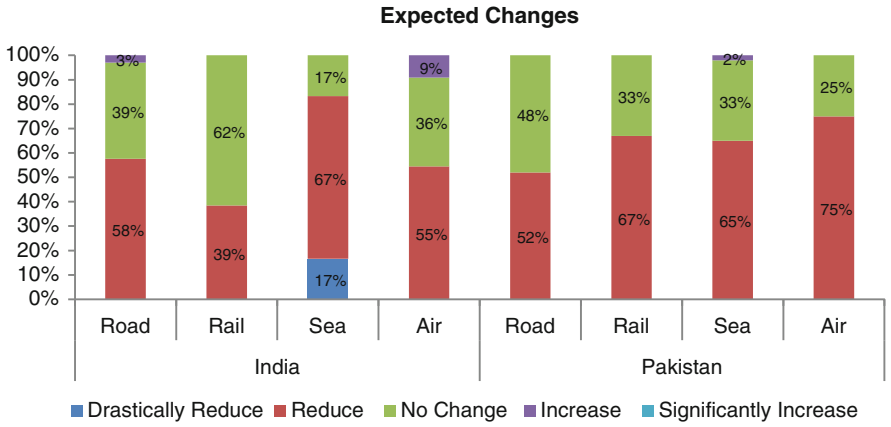

Fig. 4.18 Time taken by customs to process documents for importers (expected changes) (*Source*: ICRIER survey (January–March 2013))

world. Hence, traders by and large do not expect any improvement at the air port. In contrast, facilities in India for import by rail are so bad that respondents are overly pessimistic about the possibility of improvement in the coming years.

4.6.3 Time Taken for Lab Testing

Lab testing is a customs clearance procedure applicable usually to imported goods. It is carried out for two reasons: to determine whether imported goods meet compliance standards and to assess the product specifications to determine the applicable duty. In India, the time taken for lab testing is the highest for imports coming in through the rail route, with 60 % of importers perceiving the testing time to be high (Fig. 4.19).

In Pakistan, the time taken for lab testing was perceived to be average for all modes by the majority of importers. Some importers said that standards are not strictly enforced for imports into Pakistan and, hence, lab testing does not cause any delays. In fact, some traders felt that standards should be enforced, and even though there are no testing facilities at the customs stations, imported samples should be sent for testing to large laboratories in Pakistan.

On perceptions about the future, the majority of traders in India and Pakistan do not expect any change in the time taken for lab testing of imports (Fig. 4.20).

4.6.4 Excessive Checks Due to Security Measures

Given the political tensions and the ensuing security issues between India and Pakistan, the expectation is that excessively high checks of consignments by customs may act as a barrier to trade between the two countries. Excessive security checks

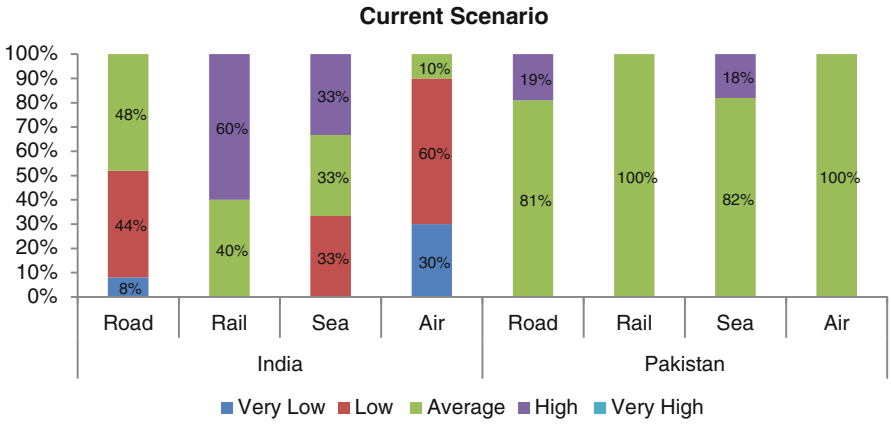

Fig. 4.19 Time taken for lab testing for importers (current scenario) (*Source*: ICRIER survey (January–March 2013))

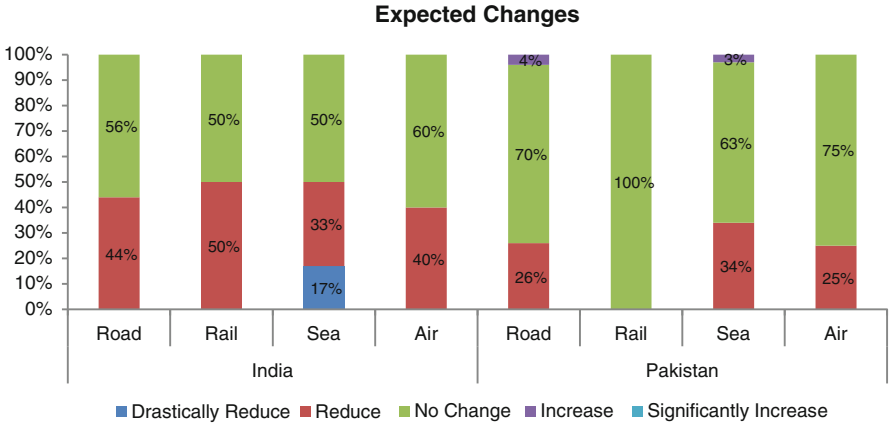

Fig. 4.20 Time taken for lab testing for importers (expected changes) (*Source*: ICRIER survey (January–March 2013))

are more relevant for imports, since there are fewer security checks for export consignments. On the rail and road route, the majority of Indian importers do not perceive checks to be high, even though 100 % checks on consignments are done at the land borders (Fig. 4.21). However, traders complained that security checks at the border are not executed efficiently. Manual security checking is time-consuming and should be replaced by a more efficient electronic process using better technology, such as scanners. Security arrangements in the case of rail mode are not only more inefficient, but the facilities are also inadequate.

For Indian importers, 84 % of respondents who use the sea mode perceived security checks to be high/very high (Fig. 4.21). Even though there are 100 % checks on consignments at all ports for goods imported from Pakistan and Bangladesh, the perception of excessive customs security checks is higher at sea ports. According to

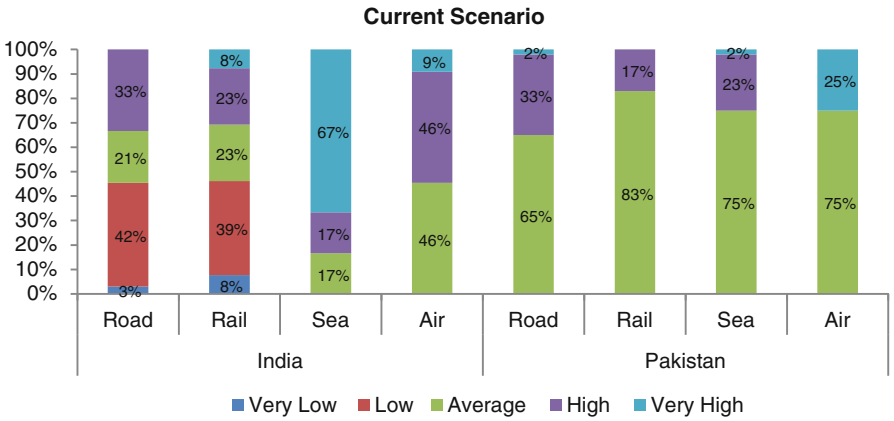

Fig. 4.21 Excessive checks due to security measures for importers (current scenario) (*Source*: ICRIER survey (January–March 2013))

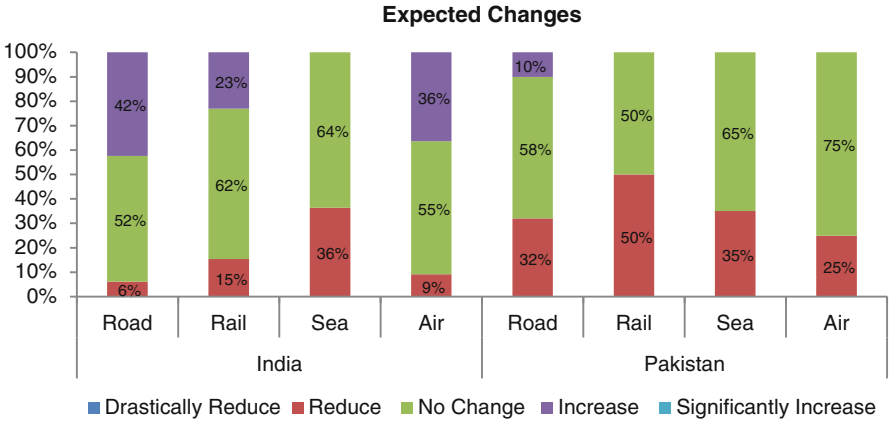

Fig. 4.22 Excessive checks due to security measures for importers (expected changes) (*Source*: ICRIER survey (January–March 2013))

traders, though the process is efficient at the sea port as consignments are checked through scanners, such a rigorous check on 100 % of the consignment is not carried out for goods from any other country.

In Pakistan, on the other hand, most respondents across all modes of trade feel that the intensity of excessive checks due to security measures is not high (or is average). While checks on goods traded through the sea and air routes are standardized for imports from all countries, even at the road and rail ports (which are exclusively used for trading with India), scanners have been installed to check all consignments, but there are no special rules imposed for extra security checks on commodities imported from India. Given the India-Pakistan political setup, the majority of traders in India and Pakistan do not expect a change in security checks across all modes in the future (Fig. 4.22).

4.7 Infrastructure at Ports

Port infrastructure is critical for facilitating and enhancing trade between India and Pakistan. The lack of proper and efficient infrastructure could raise the transaction costs of trading. While the infrastructure at sea and air ports caters to traders trading with all countries, the infrastructure at land ports affects only those trading between the two contiguous countries.

For this analysis, three infrastructure parameters, namely, congestion at the Land Customs Station (LCS)/port gate, availability of warehousing at the LCS/port, and the availability of wagons (for rail), were considered.

Since trade transaction across the border implies the use of infrastructure on both sides, the perceptions of traders on infrastructure sub-parameters were considered for exporters and importers for a particular mode. Survey data shows that sea ports are perceived to be significantly worse by both Indian and Pakistani traders, while air ports are perceived to be the best (Hypotheses 11 and 12, Table 4.8).

During the survey, we observed that the problem is not the lack of availability of infrastructure at ports but the shortfall in operational capacity to handle the current volume of trade. Port authorities allow consignments to enter the port only according to the port's operating capacity, which leads to congestion outside the port gate. In our survey, the sub-indicator "Congestion at LCS/port gate" captures the congestion that traders face before entering the LCS/port.

4.7.1 Congestion at LCS/Port Gate

The largest proportion of Indian exporters and importers perceive that congestion at the LCS/port gate is high at road, rail, and sea ports and low at airports (Fig. 4.23). Respondents using the road route felt that even though improved facilities were available at the Integrated Check Post (ICP), shortfalls in capacity inside the ICP are evident; at times there are more than 600 trucks waiting to enter the ICP. For Indian exporters, congestion was perceived to be significantly higher at the road and sea ports (Hypothesis 13, Table 4.8).

On the other hand, apart from 54 % of Pakistani exporters using the road route who felt that congestion on the road route was high, the highest proportion of all other Pakistani respondents felt that congestion was average across all modes (Fig. 4.24). Congestion was perceived to be significantly higher at the road LCS for Pakistani exporters; however, our analysis did not identify any significant difference for Pakistani exporters and importers for any other transport modes (Hypothesis 14, Table 4.8).

One common constraint faced by traders from both India and Pakistan is the limited number of hours of operation. Even though the border at the road land port is open from 7 am to 7 pm, trade normally stops at 4 pm because trucks that have crossed the border have to return to their respective countries, since the permit issued to drivers is for only 1 day. This further causes congestion at the border.

The highest proportion of both Pakistani and Indian exporters expects congestion at the LCS/port gate to reduce next year (Figs. 4.25 and 4.26). The majority of

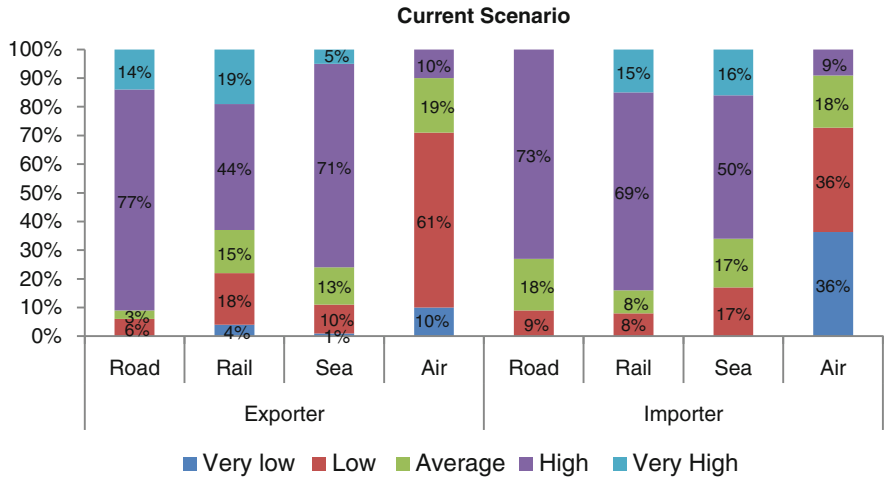

Fig. 4.23 Congestion at LCS/port gate for Indian exporters and importers (current scenario) (*Source*: ICRIER survey (January–March 2013))

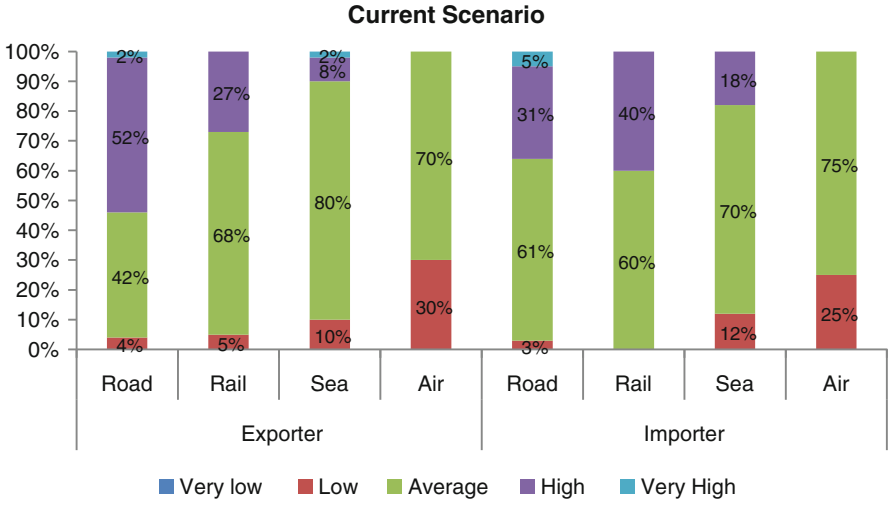

Fig. 4.24 Congestion at LCS/port gate for Pakistani exporters and importers (current scenario) (*Source*: ICRIER survey (January–March 2013))

Pakistani importers expect congestion to reduce at the road, rail, and sea ports, while they expect it to remain the same for the airports.[5] The majority of Indian importers, on the other hand, expect congestion to reduce only at the sea ports, while at the road, rail, and airports they expect it to remain the same next year (Figs. 4.25 and 4.26).

[5] Perception of no change in congestion levels for air mode is not unlikely, given that the overall efficiency level of this mode is already high.

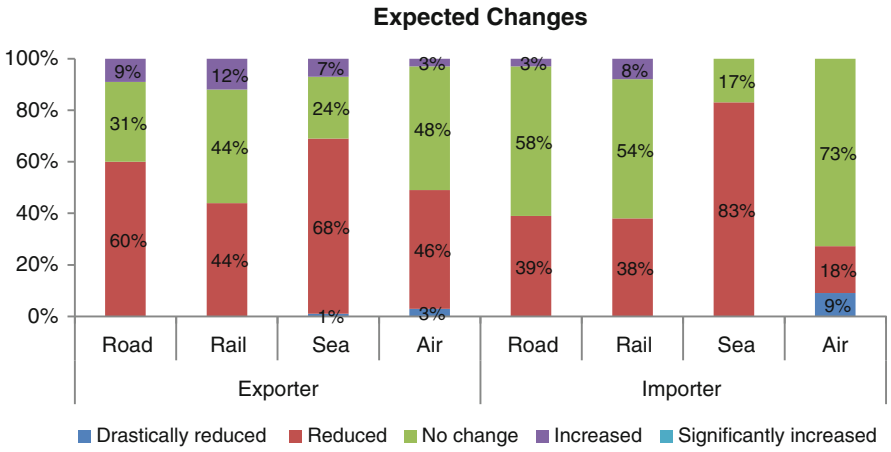

Fig. 4.25 Congestion at LCS/port gate for Indian exporters and importers (expected changes) (*Source*: ICRIER survey (January–March 2013))

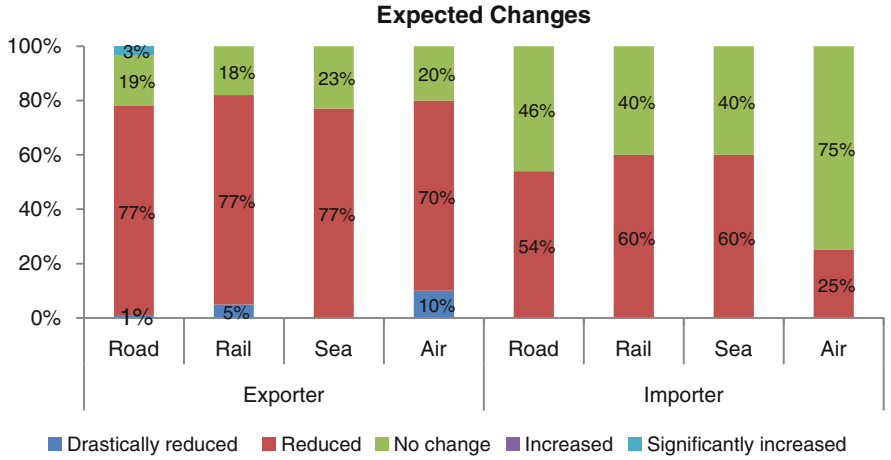

Fig. 4.26 Congestion at LCS/port gate for Pakistani exporters and importers (expected changes) (*Source*: ICRIER survey (January–March 2013))

4.7.2 Availability of Warehouses/Holding Areas

Warehouses and holding areas are important for facilitating both imports and exports. The availability of safe and secure warehouses and holding areas is important to protect goods against pilferage and damage. The availability of warehousing for trade by road was perceived to be low by both Indian exporters and importers (Hypothesis 15, Table 4.8), with 64 % of exporters and 70 % of importers perceiving warehousing availability at the road port to be low (Fig. 4.27). Discussions during the survey revealed that warehouses were operating at full capacity and were not equipped to handle the existing trade volumes.

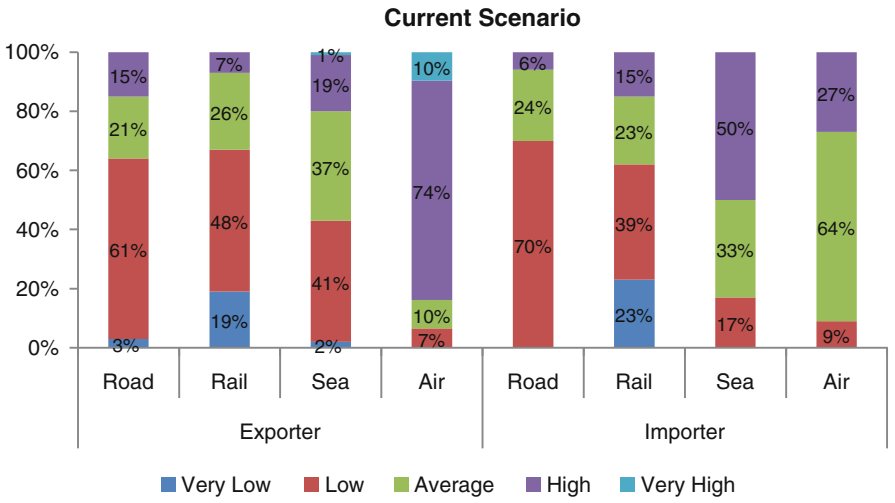

Fig. 4.27 Availability of warehouses/holding areas at Indian ports (current scenario) (*Source*: ICRIER survey (January–March 2013))

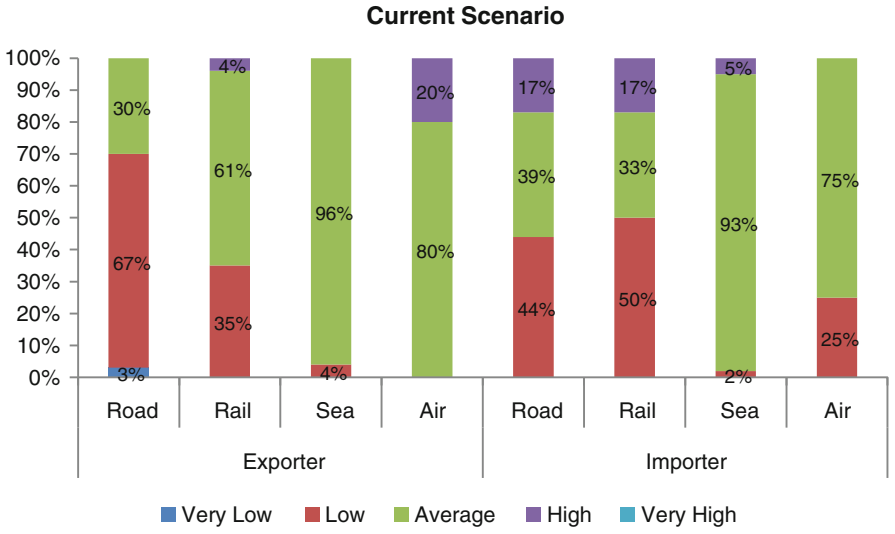

Fig. 4.28 Availability of warehouses/holding areas at Pakistani ports (current scenario) (*Source*: ICRIER survey (January–March 2013))

In Pakistan, the majority of both exporters and importers trading via the sea and air modes felt that the availability of warehousing facilities was average. However, a high proportion of both Pakistani exporters and importers who use the rail and road route felt that the availability of warehousing services was low (Fig. 4.28). During the survey, we noticed that although warehousing facilities at the railways in Lahore were sufficient, it was the lack of regular rail services that led to a biased view of the services at the rail port. Respondents pointed out that there were hardly any warehousing

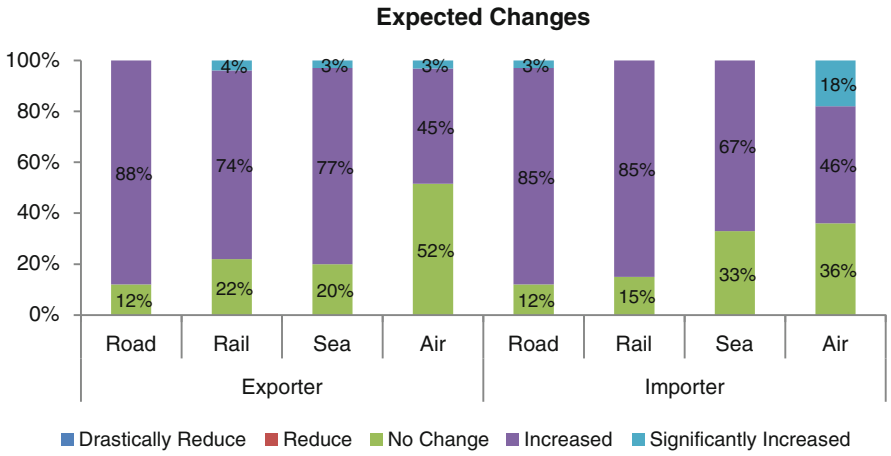

Fig. 4.29 Availability of warehouses/holding areas at Indian ports (expected changes) (*Source*: ICRIER survey (January–March 2013))

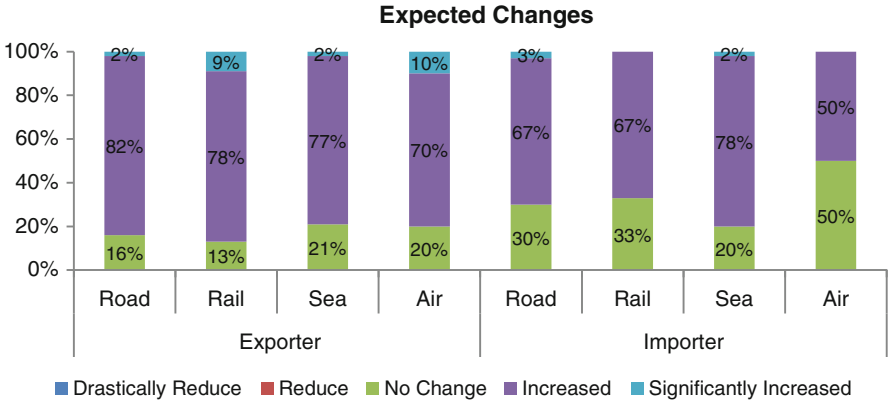

Fig. 4.30 Availability of warehouses/holding areas at Pakistani ports (expected changes) (*Source*: ICRIER survey (January–March 2013))

facilities available at the road port and that the goods were stored inside trucks. This, in turn, led to higher costs due to the long waiting time to enter the port.

The highest proportion of both Pakistani and Indian exporters and importers felt that the availability of warehousing facilities for all modes of transport would improve or significantly improve next year (Figs. 4.29 and 4.30).

4.7.3 Availability of Wagons

All the Indian exporters surveyed (100 %) felt that the availability of rail wagons is low/very low (Fig. 4.31). At the time of the survey, only Pakistani wagons plied the Amritsar-Lahore rail route. These wagons are sent to India only after they have been

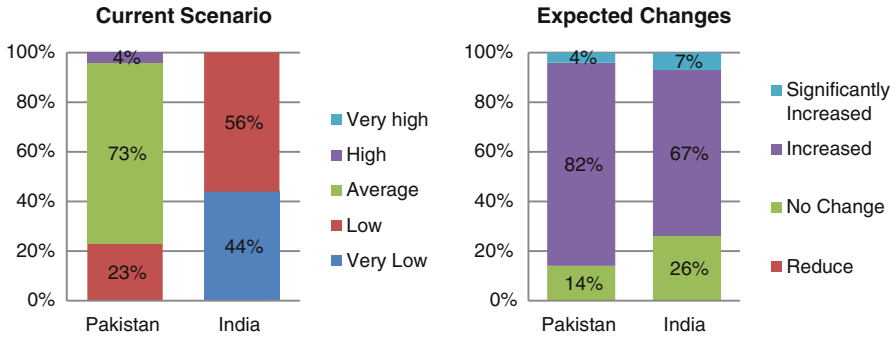

Fig. 4.31 Availability of wagons for exporters (current and future perceptions) (*Source*: ICRIER survey (January–March 2013))

loaded with Pakistan's export goods. The number of wagons is thus determined by Pakistani exporters' demand for wagons. On the Indian side, exporters are dependent on the arrival of Pakistani wagons, and often, the demand for wagons by Indian exporters is much larger than the number of wagons sent by Pakistan. The problem is perceived to be less severe on the Pakistani side as only 23 % of Pakistani exporters felt that the availability of wagons is low (Fig. 4.31). The perception of Pakistani exporters is positive because the number of wagons is determined by the demand for exports to India. Discussions during the survey also revealed that after the seizure of heroin in a cement consignment carried by rail at Amritsar railway station in July 2012, the demand for rail wagons has come down. In fact, exports of two major Pakistani items – dates and cement – have shifted to the road route. Therefore, the demand for rail wagons by Pakistani exporters has reduced, resulting in a shortage in the availability of wagons for Indian exporters.

The problem of nonavailability of wagons needs to be addressed, as not all goods are allowed to be traded via the road route; Pakistan allows only 137 items to be imported from India via the road route. Therefore, traders close to land ports are compelled to use the rail route for exporting certain commodities. Moreover, the unavailability of wagons could hurt trade between the two countries. Indian exporters are affected more than Indian importers because Pakistani exporters can shift to the road route, since India allows all items to be imported by the road route, but Indian exporters cannot do so. However, the major proportions of traders on both sides expect the availability of wagons to increase in the future (Fig. 4.31).

4.7.4 Expected Capacity Expansion at Ports/LCS

Based on traders' perception of the existing infrastructure capacity shortfalls and their expectations of an increase in the volume of trade in the coming year, respondents were asked to give their perceptions on the percentage by which capacity at

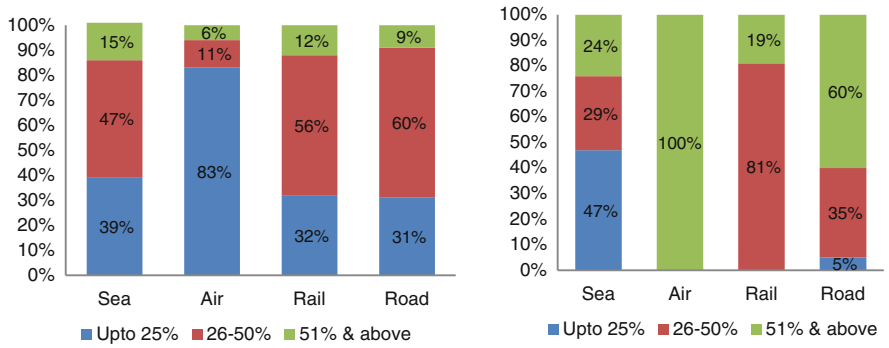

Fig. 4.32 Capacity expansion: Indian and Pakistani ports (*Source*: ICRIER survey (January–March 2013))

border points needs to be expanded. The majority of Indian respondents felt that capacity at the sea, rail, and road ports should be increased by 26–50 %, with a higher proportion of traders expecting the capacity at the airport to increase up to 25 % (Fig. 4.32).

On the other hand, in Pakistan the highest need for capacity expansion was felt at the road and air ports, with the major proportion of traders who trade via these routes perceiving that the capacity at these ports should be increased by more than 50 %. On the rail route, the majority of traders felt that capacity needs to be increased by 26–50 %, while Pakistani traders trading via the sea route had mixed responses – 47 % felt that capacity at the port needs to be expanded up to 25 %, while the others believed that it should be expanded by more than 25 % (Fig. 4.32).

4.8 Expected Trends

One of the major results of the Trade Perception Survey is that there is general optimism about improvement in key indicators that will enhance trade next year. Based on expectations of improvements in key indicators such as market access, business facilitation, and customs and infrastructure reforms, respondents were asked to give their views on:

- The extent of increase in trade
- Commodities in which trade is expected to increase and by how much
- The extent of increase in capacity at ports required to handle additional trade volumes

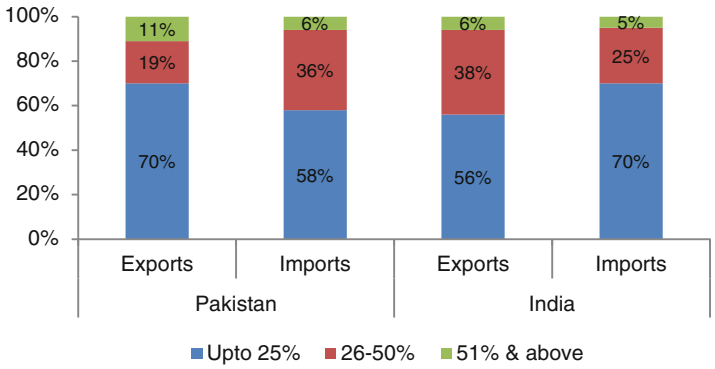

Fig. 4.33 Expected increase in exports and imports (*Source*: ICRIER survey (January–March 2013))

4.8.1 Expected Increase in Trade

The highest proportion of respondents in both India and Pakistan felt that exports and imports would increase by up to 25 %, which is greater than the average annual growth of bilateral trade between India and Pakistan in the past few years (Fig. 4.33). The average annual growth of Indian exports to Pakistan in the past 3 years has been 9 %, and the average annual growth of Indian imports from Pakistan during the same period has been 23 % (UNCOMTRADE WITS database).

4.8.2 Expected Demand for Commodities to Be Traded

The majority of Indian exporters expect exports to grow by more than 10 % for agricultural commodities such as vegetables, pulses, spices and sugar, and agricultural chemicals; processed food items including biscuits; cotton; engineering and mechanical goods; glass; metal alloys; paper; pharmaceutical items; textile items, including yarn and fabric; and tires. The majority of Pakistani importers expect Pakistan's imports from India, which mirror Indian exports to Pakistan, to increase by more than 10 % for chemicals, pharmaceuticals, jewelry, machinery, fabric and yarn, cotton (raw), and tea. For the remaining items, export growth was expected to be less than 10 % next year (Table 4.6).

On the other hand, the highest proportion of Indian importers expected imports from Pakistan to increase by more than 20 % for dry fruits and sugar. For Pakistani exports to India, which again reflect Indian imports from Pakistan, the majority of Pakistani exporters expected a more than 20 % increase in exports of dates, sacks, and gemstones. Import of other items was expected to be less than 20 % by the largest proportion of traders in both countries (Table 4.7).

Table 4.6 Expected growth in traded commodities for export from India to Pakistan (percent of respondents)

	Indian exporters		Pakistani importers	
Commodities	Up to 10 %	More than 10 %	Up to 10 %	More than 10 %
Agricultural products	8 %	92 %	67 %	33 %
Agro chemicals	0 %	100 %		
Auto parts	0 %	100 %		
Biscuits	0 %	100 %		
Chemicals	52 %	48 %	15 %	85 %
Clutch blocks			0 %	100 %
Cotton	25 %	75 %		
Cotton (raw)			0 %	100 %
Engineering goods	33 %	67 %		
Fabrics			0 %	100 %
Glass	0 %	100 %		
Industry supplies	0 %	100 %		
Jewelry			25 %	75 %
Leather	75 %	25 %		
Machinery			0 %	100 %
Mechanical goods	20 %	80 %		
Metals	50 %	50 %		
Metals alloys	33 %	67 %		
Oil			0 %	100 %
Paper	0 %	100 %		
Pharmaceuticals	37.50 %	62.50 %	20 %	80 %
Plastics products	50 %	50 %		
Processed foods	0.00 %	100 %		
Pulses	0 %	100 %		
Rubber products	50 %	50 %		
Shoe	100 %	0 %		
Spices	0 %	100 %		
Steel scrap			0 %	100 %
Stone	100 %	0 %		
Sugar	0 %	100 %		
Tea	100 %	0 %	0 %	100 %
Textiles	36 %	64 %		
Tires	0 %	100 %		
Yarn and polypropylene			0 %	100 %
Vegetables	0 %	100 %		
Other	0 %	100 %		

Source: ICRIER survey (January–March 2013)

4.8.3 Expected Increase in Trade Through Different Transport Modes

To identify which modes of transport would need the largest increase in investments to increase trade capacity at these ports, respondents were asked about their expectations of the modes of transport through which bilateral trade would increase the

Table 4.7 Expected growth in traded commodities for imports to India from Pakistan (percent of respondents)

	Indian importers		Pakistani exporters	
Commodities	Up to 20 %	More than 20 %	Up to 20 %	More than 20 %
Agricultural products	100 %	0 %	75 %	25 %
Bed linen			100 %	0 %
Cement	60 %	40 %	78 %	22 %
Chemicals			67 %	33 %
Cotton/cotton yarn	100 %	0 %	100 %	0 %
Cotton (raw)			100 %	0 %
Dates			11 %	89 %
Dry fruits	20 %	80 %		
Fabrics			82 %	18 %
Gemstones			0 %	100 %
Glass			100 %	0 %
Gypsum			86 %	14 %
Leather	100 %	0 %	75 %	25 %
Marble blocks			100 %	0 %
Metal products	100 %	0 %		
Pharmaceuticals	100 %	0 %		
Processed foods			100 %	0 %
Rock salt			75 %	25 %
Sacks			0 %	100 %
Salt products, lamps, and crafts			100 %	0 %
Shoes	100 %	0 %		
Soda ash			50 %	50 %
Spices	56 %	44 %		
Stainless steel scrap			100 %	0 %
Sugar	0 %	100 %		
Surgical instruments	67 %	33 %	55 %	45 %
Terry towels			100 %	0 %
Textile	67 %	33 %		
Wood products/wood	100 %	0 %	80 %	20 %

Source: ICRIER survey (January–March 2013)

most. The majority of Indian exporters and importers expected the trade increase to be up to 25 % for all modes except through the road port for Indian exports, which is expected to witness a 26–50 % growth in trade (Fig. 4.34) On the other hand, the majority of Pakistani exporters and importers expected a more than 51 % growth in trade through the sea and road ports (Fig. 4.35).

4.9 Summary and Policy Recommendations

India and Pakistan are in the midst of a process of trade normalization. This Trade Perception Survey was undertaken to gather the perception of stakeholders engaged in India-Pakistan trade regarding the extent of impediments they face in realizing the trade potential. The analysis is based on information collected on six indicators:

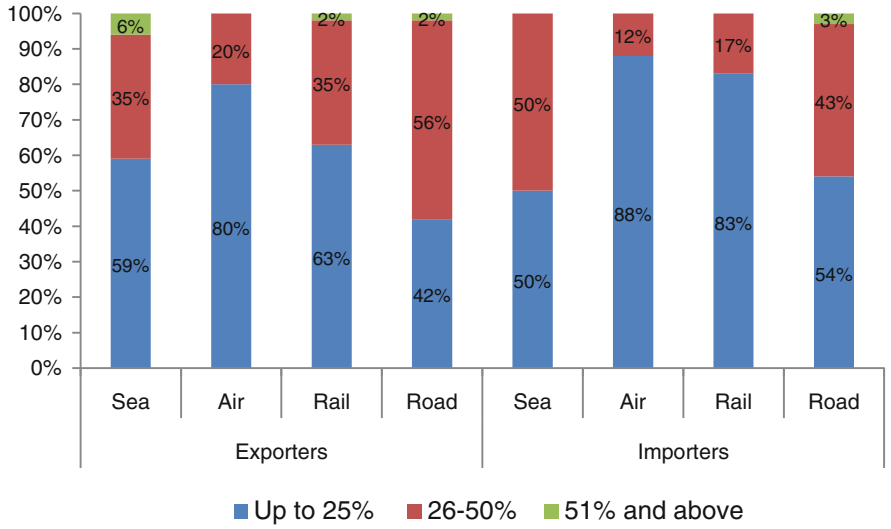

Fig. 4.34 Expected increase in trade through different modes of transport (percent of Indian respondents) (*Source*: ICRIER survey (January–March 2013))

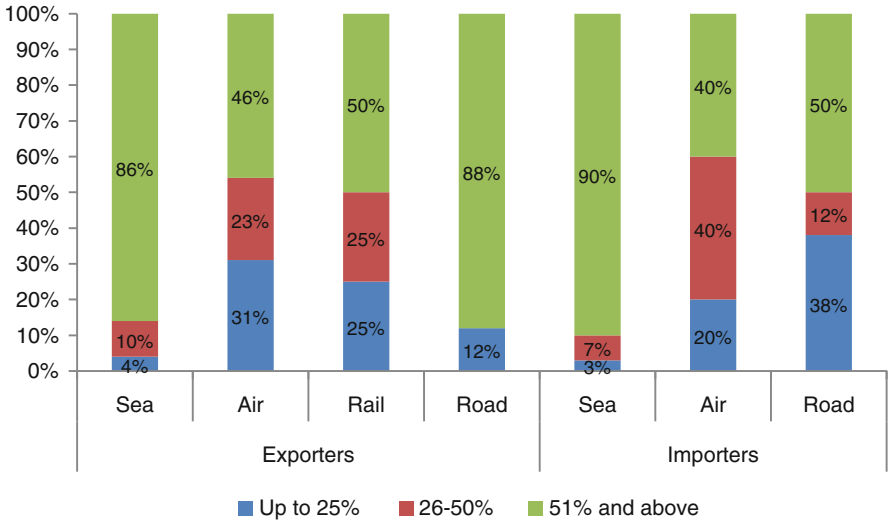

Fig. 4.35 Expected increase in trade through different modes of transport (percent of Pakistani respondents) (*Source*: ICRIER survey (January–March 2013))

awareness of trade policy, ease in meeting standards, market access, business facilitation, customs and documentation, and infrastructure at ports. Statistical tests conducted on the data collected bring out some interesting findings on the basis of which policy recommendations can be made.

A major finding of the survey was that awareness of trade policies was much lower in Pakistan than in India. An even more important finding was that awareness in Pakistan was much lower about the fact that all items were permissible for import into India. This could have a huge impact on the potential for Pakistan's exports to India.

Meeting standards is not a major problem for manufactured goods either by Pakistani businessmen or by Indians. However, Pakistani traders find it difficult to meet standards laid down by Indian authorities on agricultural products. Respondents in both countries do not expect any change in the next year.

Pakistani traders perceive that they have low market access into the Indian market, indicating that there is large untapped potential. Pakistani respondents are also not optimistic about better market access in the future. Interestingly, neither country perceived country labels to have any negative impact on trade flows. However, the perception about the negative impact of political events on trade was to some extent perceived by Indian respondents but not by Pakistani traders.

Obtaining visas and communicating with counterparts is far more difficult for Pakistani businessmen than for Indian respondents. There is less optimism among Pakistani respondents than among Indian respondents on improvements in the visa regime in the coming year. Customs efficiency in terms of the time taken to process documents, time taken for lab testing, and checks for security was seen to be the worst at the rail Land Customs Station (LCS) compared to the road, sea, and air ports in India. In India, even though a 100 % security check is conducted on all consignments from Pakistan, the checks were perceived as being excessive at sea ports, as they were conducted only on Pakistani consignments and not on consignments from other countries.

Overall infrastructure at sea ports was perceived to be the worst compared to other ports in both India and Pakistan. Congestion at the port gate was significantly higher at the road and sea ports for Indian traders, but there was no significant difference between different modes for Pakistani respondents. Warehousing at the road LCS was found to be more of a problem for Indian traders trading by the road route compared to other modes of trade. Pakistani respondents found warehousing a problem largely at the rail and road LCS. Availability of rail wagons was perceived to be a problem on the Indian side but not as much on the Pakistan side.

Overall, the highest proportion of respondents in both India and Pakistan felt that bilateral trade will increase by up to 25 %, with the growth of exports from India to Pakistan expected to be greater than 10 % for agricultural commodities, chemicals, pharmaceuticals, processed food items including biscuits, cotton, engineering and mechanical goods, glass, jewelry, metal alloys, machinery, paper, pharmaceutical items, tea, textile items including yarn and fabric, and tires. On the other hand, imports from Pakistan are expected to increase by more than 20 % for dates, dry fruits, gemstones, and sugar.

The largest trade expansion is expected on the road route in India, while in Pakistan, traders expected that the largest increase would be through the sea and road ports. With an expected increase in trade on the road route, businessmen in both countries felt that with larger volumes and new commodities in the future, better logistics services would be required.

4.9.1 Policy Recommendations

- The negative list of 1,209 items should be removed, and Pakistan should allow import of all items from India via the road route.
- The Chambers of Commerce and the governments should disseminate policies governing India-Pakistan trade, particularly those related to road and rail transport.
- The government bodies should ensure that revisions or changes in policy reach traders in an easily accessible and timely manner. A dedicated web portal should be designed for India-Pakistan trade that would provide the latest changes in trade policy.
- As traders in both countries find it difficult to identify new trading partners, encouraging interaction of traders via a web portal could benefit both countries.
- Information on regulatory regimes related to meeting product standards should be made easily available to traders. For key commodities, flow charts exhibiting the import and export process covering procedures and documents, regulatory requirements, and the relevant authorities should be displayed on the web portal.
- As India and Pakistan are members of the International Laboratory Accreditation Cooperation (ILAC), efforts should be made to set up mechanisms whereby there is acceptance of each country's test certificates. This has been done successfully in the case of textiles and should be extended to other commodities.
- An increase in the number of exhibitions as well as participation in them could encourage new entrants and entrepreneurs to enter the trade market.
- The visa regime needs to be improved. Measures are needed to do away with city-specific visas and police reporting and provide multiple entry visit visas.
- Improvement of communication channels is a necessity. In particular, the use of mobile phones in each other's territory needs to be facilitated.
- Since expanding trade requires more specialized logistics services, large logistics service providers with the requisite expertise, particularly from the private sector, should be encouraged.
- Electronic submission of bills of entry/shipping bills at land customs stations will reduce the time taken for processing documents on both sides of the border.
- Random security checks should be carried out on import consignments coming into India. A system of according authorized trader status could be introduced to reduce security checks at sea and land ports.
- Increasing the number of gates on the road LCS will reduce port congestion. Increasing operating times of customs from 12 to 24 h throughout the week would also help relieve congestion.
- The availability of rail wagons needs to be improved.
- Allowing movement of containerized cargo by road and rail will improve the efficiency of surface transportation.
- Increase in infrastructure capacity is required at sea, road, and rail customs stations.

Appendix

Table 4.8 Hypothesis test results

Hypothesis No	Research question	Ho: null hypothesis
1	Is awareness of trade policy among traders from Pakistan lower than awareness of traders in India?	Awareness of trade policy among traders is independent of the country to which the traders belong
2	Are traders across different modes equally aware about trade policy changes?	Indian traders using sea and air modes are equally aware about trade policy changes
		Indian traders using sea and rail modes are equally aware about trade policy changes
		Indian traders using sea and road modes are equally aware about trade policy changes
		Indian traders using air and rail modes are equally aware about trade policy changes
		Indian traders using air and road modes are equally aware about trade policy changes
		Indian traders using rail and road modes are equally aware about trade policy changes
		Pakistani traders using sea and air modes are equally aware about trade policy changes
		Pakistani traders using sea and rail modes are equally aware about trade policy changes
		Pakistani traders using sea and road modes are equally aware about trade policy changes

H1: alternative hypothesis	Chi-square test/z-test score (as applicable)	p-value	Decision	Remarks
Awareness of trade policy among traders is not independent of the country to which the traders belong	48.5	0.00	Reject null	Pakistani traders are less aware than Indian traders
Trade policy awareness of Indian traders is not independent of the mode they use	4.11	0.77	Do not reject null	No significant difference is observed
Trade policy awareness of Indian traders is not independent of the mode they use	22.74	0.00	Reject null	Indian traders using rail mode are more aware than traders using sea mode
Trade policy awareness of Indian traders is not independent of the mode they use	22.32	0.00	Reject null	Indian traders using road mode are more aware than traders using sea mode
Trade policy awareness of Indian traders is not independent of the mode they use	16.93	0.02	Reject null	Indian traders using rail mode are more aware than traders using air mode
Trade policy awareness of Indian traders is not independent of the mode they use	19.66	0.01	Reject null	Indian traders using road mode are more aware than traders using air mode
Trade policy awareness of Indian traders is not independent of the mode they use	5.52	0.60	Do not reject null	No significant difference is observed
Trade policy awareness of Pakistani traders is not independent of the mode they use	3.37	0.85	Do not reject null	No significant difference is observed
Trade policy awareness of Pakistani traders is not independent of the mode they use	6.33	0.50	Do not reject null	No significant difference is observed
Trade policy awareness of Pakistani traders is not independent of the mode they use	17.19	0.02	Reject null	Pakistani traders using road mode are more aware than traders using sea mode

(continued)

Table 4.8 (continued)

Hypothesis No	Research question	Ho: null hypothesis
		Pakistani traders using air and rail modes are equally aware about trade policy changes
		Pakistani traders using air and road modes are equally aware about trade policy changes
		Pakistani traders using rail and road modes are equally aware about trade policy changes
3	Are SPS and TBT standards harder to meet for Pakistani exporters than Indian exporters?	Ease of meeting SPS standards is independent of the country from which the goods are exported
		Ease of meeting TBT standards for is independent of the country from which the goods are exported
4	Do Indian importers have a perception of higher market access than Pakistani exporters?	There is no statistical difference in perception of market access between Pakistani exporters and Indian importers
5	Do Indian exporters have a perception of higher market access than Pakistani importers?	There is no statistical difference in perception of market access between Indian exporters and Pakistan importers
6	Do Pakistani traders find it harder to obtain visas compared to Indian traders?	Ease of obtaining visas is independent of the country to which the traders belong
7	Do Indian traders find it easier to communicate with their counterparts in Pakistan than Pakistani traders do with India?	Perception about ease of communication with counterparts is independent of the country to which the traders belong

H1: alternative hypothesis	Chi-square test/z-test score (as applicable)	p-value	Decision	Remarks
Trade policy awareness of Pakistani traders is not independent of the mode they use	10.05	0.19	Do not reject null	No significant difference is observed
Trade policy awareness of Pakistani traders is not independent of the mode they use	25.93	0.00	Reject null	Pakistani traders using air mode are more aware than traders using road mode
Trade policy awareness of Pakistani traders is not independent of the mode they use	9.95	0.19	Do not reject null	No significant difference is observed
There is a statistical difference in ease of meeting SPS standards between Indian and Pakistani exporters	31.34	0.00	Reject null	It is easier for Indian exporters to meet SPS standards than Pakistani exporters
There is a statistical difference in ease of meeting TBT standards between Indian and Pakistani exporters	6.69	0.24	Do not reject null	No significant difference has been found in the ease of meeting TBT standards among Indian and Pakistani exporters
There is a statistical difference in perception of market access between Pakistani exporters and Indian importers	−4.16	0.00	Reject null	Indian importers perceive a significantly higher market access than Pakistani exporters
There is a statistical difference in perception of market access between Indian exporters and Pakistan importers	−3.04	0.00	Reject null	Pakistani importers perceive a significantly higher market access than Indian exporters
Ease of obtaining visas is not independent of the country to which the traders belong	−2.47	0.01	Reject null	Pakistani traders find it harder to obtain visas than Indian traders
There is a statistical difference in the ease of communication between traders from Pakistan and India	−10.66		Reject null	Indian traders finding it easier to communicate with their counterparts in Pakistan

(continued)

Table 4.8 (continued)

Hypothesis No	Research question	Ho: null hypothesis
8	Are large logistics operators perceived to be better than small/medium operators?	Efficiency of logistics operator is independent of the size of the firm in India
		Efficiency of logistics operator is independent of the size of the firm in Pakistan
9	Is efficiency of customs worst at rail compared to road and sea ports for both India and Pakistan?	For Indian importers, there is no statistical difference between the efficiency of customs perceived by traders using road and rail modes
		For Indian importers, there is no statistical difference between the efficiency of customs perceived by traders using road and sea modes
		For Indian importers, there is no statistical difference between the efficiency of customs perceived by traders using road and air modes
		For Indian importers, there is no statistical difference between the efficiency of customs perceived by traders using rail and sea modes
		For Indian importers, there is no statistical difference between the efficiency of customs perceived by traders using rail and air modes

H1: alternative hypothesis	Chi-square test/z-test score (as applicable)	p-value	Decision	Remarks
There is a statistical difference between small/medium and large logistics operators in India	−0.12		Do not reject null	No significant difference has been found between the efficiencies of small/medium and large logistics operators in India
There is a statistical difference between small/medium and large logistics operators in Pakistan	−4.02		Reject null	Large logistics operators are found to be more efficient than small/medium operators in Pakistan
For Indian importers, there is a statistical difference between the efficiency of customs perceived by traders using different modes	17.61	0.01	Reject null	Significant difference has been found between all pairs of modes for Indian importers with efficiency of customs being highest at the airport followed by road, sea and rail ports; implying that customs efficiency is the worst at the rail port.
For Indian importers, there is a statistical difference between the efficiency of customs perceived by traders using different modes	78.37	0.00	Reject null	
For Indian importers, there is a statistical difference between the efficiency of customs perceived by traders using different modes	46.21	0.00	Reject null	
For Indian importers, there is a statistical difference between the efficiency of customs perceived by traders using different modes	65.57	0.00	Reject null	
For Indian importers, there is a statistical difference between the efficiency of customs perceived by traders using different modes	67.73	0.00	Reject null	

(continued)

Table 4.8 (continued)

Hypothesis No	Research question	Ho: null hypothesis
		For Indian importers, there is no statistical difference between the efficiency of customs perceived by traders using sea and air modes
		For Indian exporters, there is no statistical difference between the efficiency of customs perceived by traders using road and rail modes
		For Indian exporters, there is no statistical difference between the efficiency of customs perceived by traders using road and sea modes
		For Indian exporters, there is no statistical difference between the efficiency of customs perceived by traders using road and air modes
		For Indian exporters, there is no statistical difference between the efficiency of customs perceived by traders using rail and sea modes
		For Indian exporters, there is no statistical difference between the efficiency of customs perceived by traders using rail and air modes
		For Indian exporters, there is no statistical difference between the efficiency of customs perceived by traders using sea and air modes

H1: alternative hypothesis	Chi-square test/z-test score (as applicable)	p-value	Decision	Remarks
For Indian importers, there is a statistical difference between the efficiency of customs perceived by traders using different modes	51.87	0.00	Reject null	
For Indian exporters, there is a statistical difference between the efficiency of customs perceived by traders using different modes	5.13	0.40	Do not reject null	Significant difference has been found for Indian exporters with efficiency of customs being the highest at the airport followed by road, sea and rail ports. Perception of efficiency is worst at the rail port, however no significant difference has been found in the efficiency of customs between the road and rail ports
For Indian exporters, there is a statistical difference between the efficiency of customs perceived by traders using different modes	35.75	0.00	Reject null	
For Indian exporters, there is a statistical difference between the efficiency of customs perceived by traders using different modes	79.23	0.00	Reject null	
For Indian exporters, there is a statistical difference between the efficiency of customs perceived by traders using different modes	28.53	0.00	Reject null	
For Indian exporters, there is a statistical difference between the efficiency of customs perceived by traders using different modes	81.88	0.00	Reject null	
For Indian exporters, there is a statistical difference between the efficiency of customs perceived by traders using different modes	26.30	0.00	Reject null	

(continued)

Table 4.8 (continued)

Hypothesis No	Research question	Ho: null hypothesis
10	Which mode has the highest processing time for customs documentation in India and Pakistan?	Processing time at customs is independent of whether Indian exporters use road or rail mode Processing time at customs is independent of whether Indian exporters use road or sea mode Processing time at customs is independent of whether Indian exporters use road or air mode Processing time at customs is independent of whether Indian exporters use rail or sea mode Processing time at customs is independent of whether Indian exporters use rail or air mode Processing time at customs is independent of whether Indian exporters use sea or air mode Processing time at customs is independent of whether Indian importers use road or rail mode Processing time at customs is independent of whether Indian importers use road or sea mode Processing time at customs is independent of whether Indian importers use road or air mode Processing time at customs is independent of whether Indian importers use rail or sea mode Processing time at customs is independent of whether Indian importers use rail or air mode Processing time at customs is independent of whether Indian importers use sea or air mode Processing time at customs is independent of whether Pakistani exporters use road or rail mode

H1: alternative hypothesis	Chi-square test/z-test score (as applicable)	p-value	Decision	Remarks
Processing time across these two modes differs	−0.74	0.46	Do not reject null	No significant difference is observed
Processing time across these two modes differs	−2.82	0.00	Reject null	Processing time at sea port is higher than at road port for Indian exporters
Processing time across these two modes differ	0.27	0.79	Do not reject null	No significant difference is observed
Processing time across these two modes differs	−1.87	0.06	Do not reject null	No significant difference is observed
Processing time across these two modes differs	0.97	0.33	Do not reject null	No significant difference is observed
Processing time across these two modes differs	2.94	0.00	Reject null	Processing time at sea ports is higher than at air ports for Indian exporters
Processing time across these two modes differs	0.45	0.65	Do not reject null	Processing time for customs documentation is independent of modes used by Indian importers
Processing time across these two modes differs	−1.49	0.14	Do not reject null	
Processing time across these two modes differs	0.22	0.82	Do not reject null	
Processing time across these two modes differs	−1.59	0.11	Do not reject null	
Processing time across these two modes differs	−0.18	0.86	Do not reject null	
Processing time across these two modes differs	1.38	0.17	Do not reject null	
Processing time across these two modes differs	1.98	0.04	Reject null	Processing time at road port is higher than at rail port for Pakistani exporters

(continued)

Table 4.8 (continued)

Hypothesis No	Research question	Ho: null hypothesis
		Processing time at customs is independent of whether Pakistani exporters use road or sea mode
		Processing time at customs is independent of whether Pakistani exporters use road or air mode
		Processing time at customs is independent of whether Pakistani exporters use rail or sea mode
		Processing time at customs is independent of whether Pakistani exporters use rail or air mode
		Processing time at customs is independent of whether Pakistani exporters use sea or air mode
		Processing time at customs is independent of whether Pakistani importers use road or rail mode
		Processing time at customs is independent of whether Pakistani importers use road or sea mode
		Processing time at customs is independent of whether Pakistani importers use road or air mode
		Processing time at customs is independent of whether Pakistani importers use rail or sea mode
		Processing time at customs is independent of whether Pakistani importers use rail or air mode
		Processing time at customs is independent of whether Pakistani importers use sea or air mode

H1: alternative hypothesis	Chi-square test/z-test score (as applicable)	p-value	Decision	Remarks
Processing time across these two modes differs	3.28	0.00	Reject null	Processing time at road port is higher than at sea ports for Pakistani exporters
Processing time across these two modes differs	3.61	0.00	Reject null	Processing time at road port is higher than at air ports for Pakistani exporters
Processing time across these two modes differs	0.5	0.62	Do not reject null	No significant difference is observed
Processing time across these two modes differs	2.24	0.02	Reject null	Processing time is higher at rail port than at air ports for Pakistani exporters
Processing time across these two modes differs	2.06	0.03	Reject null	Processing time is higher at sea ports than air ports for Pakistani exporters
Processing time across these two modes differs	0.00	1.00	Do not reject null	No significant difference is observed
Processing time across these two modes differs	2.52	0.01	Reject null	Processing time at road port is found to be higher than at sea port for Pakistani importers
Processing time across these two modes differs	0.96	0.34	Do not reject null	No significant difference is observed
Processing time across these two modes differs	−1.59	0.11	Do not reject null	No significant difference is observed
Processing time across these two modes differs	−0.18	0.86	Do not reject null	No significant difference is observed
Processing time across these two modes differs	0.34	0.73	Do not reject null	No significant difference is observed

(continued)

Table 4.8 (continued)

Hypothesis No	Research question	Ho: null hypothesis
11	Across all infrastructure indicators, which mode is worst for (1) Indian importers (2) Indian exporters?	Across all infrastructure indicators, there is no statistical difference between different modes for Indian importers
		Across all infrastructure indicators, there is no statistical difference between different modes for Indian exporters
12	Across all infrastructure indicators, which mode is worst for (1) Pakistani importers (2) Pakistani exporters?	Across all infrastructure indicators, there is no statistical difference between different modes for Pakistani importers
		Across all infrastructure indicators, there is no statistical difference between different modes for Pakistani exporters
13	Does congestion at port gate depend on the modes used by Indian traders?	Congestion at ports is independent of whether Indian exporters use road or rail mode
		Congestion at ports is independent of whether Indian exporters use road or sea mode
		Congestion at ports is independent of whether Indian exporters use road or air mode

H1: alternative hypothesis	Chi-square test/z-test score (as applicable)	p-value	Decision	Remarks
Across all infrastructure indicators, there is a statistical difference between different modes for Indian importers	217.8	0.00	Reject null	Significant difference has been found with infrastructure at sea ports being the worst. Infrastructure at air ports is found to be the best, followed by road and rail ports
Across all infrastructure indicators, there is a statistical difference between different modes for Indian exporters	87.6	0.00	Reject null	Significant difference has been found with infrastructure at sea ports being the worst. Infrastructure at air ports is found to be the best, followed by road and rail ports
Across all infrastructure indicators, there is a statistical difference between different modes for Pakistani importers	120.3	0.00	Reject null	Significant difference has been found with infrastructure at sea ports being the worst. Infrastructure at air ports is found to be the best, followed by road and rail ports
Across all infrastructure indicators, there is a statistical difference between different modes for Pakistani exporters	8.4	0.08	Reject null	Difference has been found with infrastructure at sea ports being the worst. Infrastructure at air ports is found to be the best, followed by rail port
Congestion across these two modes differs for Indian exporters	−4.54	0.00	Reject null	Congestion is higher at road port than at rail port for Indian exporters
Congestion across these two modes differs for Indian exporters	−6.97	0.00	Reject null	Congestion is higher at road port than at sea ports for Indian exporters
Congestion across these two modes differs for Indian exporters	−0.16	0.87	Do not reject null	No significant difference is observed

(continued)

Table 4.8 (continued)

Hypothesis No	Research question	Ho: null hypothesis
		Congestion at ports is independent of whether Indian exporters use rail or sea mode
		Congestion at ports is independent of whether Indian exporters use rail or air mode
		Congestion at ports is independent of whether Indian exporters use sea or air mode
		Congestion at ports is independent of whether Indian importers use road or rail mode
		Congestion at ports is independent of whether Indian importers use road or sea mode
		Congestion at ports is independent of whether Indian importers use road or air mode
		Congestion at ports is independent of whether Indian importers use rail or sea mode
		Congestion at ports is independent of whether Indian importers use rail or air mode
		Congestion at ports is independent of whether Indian importers use sea or air mode
14	Does congestion at port gate depend on the mode used by Pakistani traders?	Congestion at ports is independent of whether Pakistani exporters use road or rail mode
		Congestion at ports is independent of whether Pakistani exporters use road or sea mode
		Congestion at ports is independent of whether Pakistani exporters use road or air mode

H1: alternative hypothesis	Chi-square test/z-test score (as applicable)	p-value	Decision	Remarks
Congestion across these two modes differs for Indian exporters	−1.36	0.17	Do not reject null	No significant difference is observed
Congestion across these two modes differs for Indian exporters	4.26	0.00	Reject null	Congestion is higher at rail port than at air ports for Indian exporters
Congestion across these two modes differs for Indian exporters	6.59	0.00	Reject null	Congestion is higher at sea ports than at air ports for Indian exporters
Congestion across these two modes differs for Indian importers	−0.85	0.39	Do not reject null	No significant difference is observed
Congestion across these two modes differs for Indian importers	0.3	0.76	Do not reject null	No significant difference is observed
Congestion across these two modes differs for Indian importers	3.69	0.00	Reject null	Congestion is higher at road port than at air ports for Indian importers
Congestion across these two modes differs for Indian importers	0.89	0.37	Do not reject null	No significant difference is observed
Congestion across these two modes differs for Indian importers	3.69	0.00	Reject null	Congestion is higher at rail port than at air ports for Indian importers
Congestion across these two modes differs for Indian importers	2.49	0.01	Reject null	Congestion is higher at sea ports than at air ports for Indian importers
Congestion across these two modes differs for Pakistani exporters	2.16	0.03	Reject null	Congestion is higher at road port than at rail port for Pakistani exporters
Congestion across these two modes differs for Pakistani exporters	5.02	0.00	Reject null	Congestion is higher at road port than at sea ports for Pakistani exporters
Congestion across these two modes differs for Pakistani exporters	3.18	0.00	Reject null	Congestion is higher at road port than at air ports for Pakistani exporters

(continued)

Table 4.8 (continued)

Hypothesis No	Research question	Ho: null hypothesis
		Congestion at ports is independent of whether Pakistani exporters use rail or sea mode
		Congestion at ports is independent of whether Pakistani exporters use rail or air mode
		Congestion at ports is independent of whether Pakistani exporters use sea or air mode
		Congestion at ports is independent of whether Pakistani importers use road or rail mode
		Congestion at ports is independent of whether Pakistani importers use road or sea mode
		Congestion at ports is independent of whether Pakistani importers use road or air mode
		Congestion at ports is independent of whether Pakistani importers use rail or sea mode
		Congestion at ports is independent of whether Pakistani importers use rail or air mode
		Congestion at ports is independent of whether Pakistani importers use sea or air mode
15	Which mode has the worst warehousing facilities in India?	There is no difference in state of warehousing facilities between road and rail ports
		There is no difference in state of warehousing facilities between road and sea ports
		There is no difference in state of warehousing facilities between rail and sea ports

H1: alternative hypothesis	Chi-square test/z-test score (as applicable)	p-value	Decision	Remarks
Congestion across these two modes differs for Pakistani exporters	1.95	0.05	Do not reject null	No significant difference is observed
Congestion across these two modes differs for Pakistani exporters	1.83	0.07	Do not reject null	No significant difference is observed
Congestion across these two modes differs for Pakistani exporters	1.02	0.30	Do not reject null	No significant difference is observed
Congestion across these two modes differs for Pakistani importers	−0.18	0.85	Do not reject null	Congestion at port gate is independent of the mode used by Pakistani importers
Congestion across these two modes differs for Pakistani importers	1.77	0.08	Do not reject null	
Congestion across these two modes differs for Pakistani importers	1.27	0.20	Do not reject null	
Congestion across these two modes differs for Pakistani importers	1.11	0.27	Do not reject null	
Congestion across these two modes differs for Pakistani importers	1.26	0.20	Do not reject null	
Congestion across these two modes differs for Pakistani importers	0.82	0.41	Do not reject null	
Warehousing facilities vary across the two modes	0.10		Do not reject null	No significant difference in warehousing facilities is observed between road and rail ports in India
Warehousing facilities vary across the two modes	−1.89		Reject null	Difference has been found with warehousing facilities at road port being worse than at sea ports in India
Warehousing facilities vary across the two modes	−1.65		Do not reject null	No significant difference in warehousing facilities is observed between rail and sea ports in India

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Chapter 5
India-Pakistan Trade Liberalization: A CGE Modeling Approach

Sanjib Pohit and Radhika Saini

5.1 Introduction

Over the past two decades, economies across the world have witnessed greater regional and economic integration as a result of rapid globalization. Independent nation-states, such as those in Europe, have given way to economic communities, while in other countries regional agreements on trade, investment, and the mobility of people have greatly reduced the barriers to cross-border economic engagement. The picture in South Asia stands in stark contrast to this worldwide trend. Economic relations between the two largest economic powers in South Asia—India and Pakistan—are dictated by past wars, political disputes, and border skirmishes. Consequently, intra-regional trade in South Asia is abysmally low, standing at about 5 % of the total trade of the South Asian economies. In contrast, intra-regional trade accounts for roughly 65 % of the European Union's (EU) total trade, 51 % in the North American Free Trade Agreement (NAFTA) area, 25 % in the Association of South East Asian Nations (ASEAN), and 16 % in the Latin American trade bloc.

The South Asian Free Trade Area (SAFTA) became operational on January 1, 2006; however, India had already signed a Free Trade Agreement (FTA) with Sri Lanka. The pace and quantum of liberalization under SAFTA were slow due to India and Pakistan's inability to reach a consensus regarding numerous points of negotiation. India is now pursuing trade liberalization policies with other neighboring countries such as Bangladesh and Myanmar under BIMSTEC.

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Further, under the Look East Policy, India has signed FTAs or Economic Integrated Agreements (EIA) with individual ASEAN members such as Thailand and Singapore and finally with the ASEAN region as a whole in 2010 (Table 5.1). India has also entered into Preferential System of Arrangements (PSAs) with several Latin American countries. Along the same lines, Pakistan has embarked (albeit on a more limited scale) toward economic integration through regional and bilateral arrangements. As represented in Table 5.1, Pakistan has signed FTAs with Sri Lanka, Malaysia, and China.

Table 5.2 reports the status of various FTAs being pursued by India and Pakistan. It is clear that FTAs are very much within the purview of both India and Pakistan's trade policy.

Recent initiatives to normalize trade between India and Pakistan augur well for the economies of both nations. Pakistan's decision to grant India MFN status, reciprocating India's grant of a similar status in 1996, has given way to multiple avenues for economic engagement between the two countries. The Joint Statement issued in November 2011 indicated that Pakistan would first graduate from the positive list of items to be traded with India to a small negative list of items, and eventually the negative list would also be phased out. It was also decided that a similar phased approach would be undertaken for the road route on which the number of permitted items is currently only a fraction of the total items on the positive list.

Against this backdrop of recent trade normalization initiatives, the study attempts to assess the impact of bilateral trade liberalization on India and Pakistan, as well as on the remaining South Asian economies.

Since other studies have analyzed the economic impact of trade liberalization, in the next section we discuss how this chapter builds on the existing literature (Husain 2011; Rahman et al. 2006; Raihan and Razzaque 2007; Sikdar 2011; Taneja 2006, 2013; Taneja et al. 2011). Section 5.2 provides a brief review of the trade regimes of India and Pakistan and an overview of studies that quantify the gains from India and Pakistan's trade liberalization, and it provides an assessment of issues that pertain to transit, transportation, and infrastructure that hamper trade relations between India and Pakistan. Section 5.3 describes our modeling framework as well as the sectoral and regional aggregation scheme of the model. Section 5.4 discusses the rationale for our proposed simulations and their economic impact, and Sect. 5.5 provides concluding remarks.

5.2 Background of the Study

Over the years, India's trade regime has become fairly liberal. Quantitative restrictions on imports have given way to tariffs, and for the most part the liberalization in tariff cuts has been unidirectional (in the sense that reduced tariffs have not been increased in case of economic difficulties). However, there have been a few instances where export restrictions have been imposed on select agricultural products (e.g.,

Table 5.1 India and Pakistan: RTAs in force

RTA name	Coverage	Type	Date of notification	Notification	Date of entry into force	Status
ASEAN-India	Goods	FTA	August 19, 2010	Enabling Clause	January 1, 2010	In force
Chile-India	Goods	PSA	January 13, 2009	Enabling Clause	August 17, 2007	In force
India-Afghanistan	Goods	PSA	March 8, 2010	Enabling Clause	May 13, 2003	In force
India-Bhutan	Goods	FTA	June 30, 2008	Enabling Clause	July 29, 2006	In force
India-Japan	Goods and services	FTA and EIA	September 14, 2011	GATT Art. XXIV and GATS Art. V	August 1, 2011	In force
India-Malaysia	Goods and services	FTA and EIA	September 6, 2011	Enabling Clause and GATS Art. V	July 1, 2011	In force
India-Nepal	Goods	PSA	August 2, 2010	Enabling Clause	October 27, 2009	In force
India-Singapore	Goods and services	FTA and EIA	May 3, 2007	GATT Art. XXIV and GATS Art. V	August 1, 2005	In force
India-Sri Lanka	Goods	FTA	June 17, 2002	Enabling Clause	December 15, 2001	In force
Korea, Republic of-India	Goods and services	FTA and EIA	June 23, 2010	GATT Art. XXIV and GATS Art. V	June 1, 2010	In force
MERCOSUR*-India	Goods	PSA	February 23, 2010	Enabling Clause	June 1, 2009	In force
Pakistan-China	Goods and services	FTA and EIA	January 18, 2008 (G)/ May 20, 2010 (S)	GATT Art. XXIV and GATS Art. V	July 1, 2007 (G)/ October 10, 2009 (S)	In force
Pakistan-Malaysia	Goods and services	FTA and EIA	February 19, 2008	Enabling Clause and GATS Art. V	January 1, 2008	In force
Pakistan-Sri Lanka	Goods	FTA	June 11, 2008	Enabling Clause	June 12, 2005	In force

Source: www.wto.org

Note:

1. SAFTA is not shown here
2. MERCOSUR comprises Argentina, Brazil, Paraguay, and Uruguay

Table 5.2 FTA status of India and Pakistan, 2013

Country	Proposed	Under negotiation		Signed but not in effect	Signed and in effect	Total
		Framework agreement signed/ under negotiation	Under negotiation			
Bangladesh	0	2	1	1	2	6
India	7	4	10	0	13	34
Nepal	1	1	0	0	2	4
Pakistan	11	4	3	3	6	27
Sri Lanka	2	1	0	1	4	8

Source: Asia Regional Integration Center (www.adb.org)
Notes:
Proposed: Parties consider an FTA, with the governments or relevant ministries issuing a joint statement on its desirability or establishment of a joint study group/joint task force for the conduct of feasibility studies
Framework agreement signed: The parties initially negotiate the contents of a framework agreement (FA), which serves as a framework for future negotiations
Negotiations launched: The parties, through the relevant ministries, declare the official launch of negotiations or set the date for such or start the first round of negotiations
Signed but not yet in effect: Parties sign the agreement after negotiations have been completed. However, the agreement has yet to be implemented
Signed and in effect: Provisions of FTA come into force, after legislative or executive ratification

onions) to arrest domestic price rise. Average nonagricultural tariffs have fallen below 15 %, while agricultural tariffs average 30–40 %. Overall, the simple average Most Favored Nation (MFN) tariff rate in India declined to 12 % in 2010–2011 from 15.1 % in 2006–2007 (WTO 2013). Foreign investment norms have also been relaxed for a number of sectors. One area in which India has been extremely proactive has been the imposition of antidumping duties. In fact, India accounts for nearly 17 % of all antidumping duties, which was the highest among all importing countries between 1995 and 2006.

India has continued to streamline customs procedures and implement trade facilitation measures. An electronic system for customs clearance has been introduced, and a risk management system is in place to selectively screen high- and medium-risk cargo for customs examination. Despite the implementation of these measures, India's import regime remains complex, especially with respect to the tariff structure, which has multiple exemptions and rates that vary in accordance with the product, user, or specific export promotion program. Moreover, owing to the multiplicity of RTAs in place, all with varying rates and partners, transaction costs have increased.

In contrast to India's movement toward trade liberalization, Pakistan's trade regime is more restrictive and similar to India's policy structure 10 years ago. While Pakistan's simple average applied MFN rate stood at about 14 % in 2010 (as per the trade profile statistics of WTO), this hides the complexities of Pakistan's trade

regime. According to Pursell et al. (2011), the principal black spots in Pakistan's trade policy are the following:

(a) Reversal of duty liberalization in certain cases, notably sugar, fertilizers, etc.
(b) High tariffs in the auto industry, along with repeated interventions by the Engineering Development Board.
(c) Use of WTO-compatible tools, such as TBT and SPS, and antidumping duties to restrict imports.
(d) The introduction of a number of Regulatory Duties since August 2008.
(e) The expanded use of the Statutory Regulatory Order (SRO) since 2006. For instance, more than half (54 %) the total number of tariff lines in 2010–2011 were subject to at least one special condition announced in an SRO. Most of these are exemptions for inputs and are confined to specified firms or groups of firms. They are not available to other importers, in particular commercial importers. Their administration is a de facto import licensing system run by ministries in conjunction with the customs service.
(f) Trading with India on the basis of a positive list.

Both the inadequate physical infrastructure and the positive list are major impediments to trade between India and Pakistan. With regard to infrastructure, the transport protocols for land routes need to be modified to allow for the movement of containerized cargo (without transshipment) in each other's nations. The number of commodities currently included under the road-based positive list is very small, while the capacity of rail-bound cargo is limited given the absence of a dedicated cargo train on a regular basis. At present, bilateral exchanges rely on the Samjhauta Express that runs twice a week, with only 6–8 attached freight cars. Given the difficulties of trading through road and rail routes, the amendment of the Maritime Protocol in 2005 has boosted sea-borne trade between the two nations (Taneja 2013). As Taneja (2013) points out, nearly 60 % of India's trade with Pakistan was carried out by sea in 2011–2012.

As expected, the restrictive trade environment between India and Pakistan has given way to a large volume of informal trade. However, heightened security measures in the border area are an impediment to land-based informal trade. The best-documented route for informal trade is the Mumbai-Dubai-Karachi route that caters to nearly 88 % of total informal trade (Khan et al. 2007). The rest is moved through the Amritsar-Lahore and Sindh-Rajasthan cross-border routes.

A few researchers have adopted a CGE framework to understand the welfare implications of trade liberalization in South Asia. Notable among them is the work of Raihan and Razzaque (2007). Their study focuses on Bangladesh, using the GTAP model and an earlier version of the GTAP database to understand the gains from SAFTA. Pakistan is not modeled as a separate entity and, consequently, this chapter could not throw light on the gains from bilateral trade liberalization between India and Pakistan. In a similar study, Sikdar (2011) adopted the GTAP modeling framework to understand the gains from India-Sri Lanka trade liberalization. While this chapter models Pakistan as a separate entity, the study does not undertake

any simulation on India-Pakistan trade liberalization, nor does it highlight the welfare impact on Pakistan as a result of the India-Sri Lanka trade liberalization.

On the other hand, De et al. (2013) attempt to understand the possible gains from bilateral trade liberalization between India and Pakistan if Pakistan were to grant Most Favored Nation (MFN) status to India and analyze whether the gain is magnified when accompanied by improvements in trade facilitation measures. The comparative state experiments used a GTAP modeling framework and Version 8 of the GTAP database. The study found that both countries enjoy large economic gains only when liberalization is accompanied by trade facilitation measures. Our study, while similar to previous studies in its approach, builds on the existing literature in this area. Our study differs from De et al. (2013) in several aspects. First, we have used the latest available database, GTAP Version 8.1, that incorporates more recent protection coefficients for different countries; this variable is usually shocked in a CGE model and is the channel through which economic effects are transmitted in the world. Second, we hypothesized that the economic impact of bilateral trade liberalization on other South Asian economies would be greater than that on just India and Pakistan. Hence, we attempted to analyze whether this regional impact would negate the positive effects of bilateral trade liberalization. Third, we have incorporated the effects of trade facilitation measures on economic welfare. While the study by De et al. (2013) incorporated the measure by reducing import prices, we have assumed a fall in transportation costs, because we hypothesized that the direct effect of trade facilitation measures would be on lowering the cost of transportation between India and Pakistan, whereas import prices would fall only indirectly.

5.3 Modeling Framework and Aggregation Scheme

A complete analysis of trade and trade-related issues requires an analytical framework that takes into account a holistic view of economies across the world. There are not only interlinkages between various sectors of an economy, but different sectors in an economy are also linked to the rest of the world through exports and imports of final products, intermediate goods, capital goods, etc. Thus, linkages are present at the national, regional, and global levels both in products and in the input markets. Of course, policy instruments such as tariffs, subsidies, and supply and demand elasticity influence how consumers and sectors in the economy respond to any policy-induced or market-related shock. To take complete account of these interlinkages and the role of policy instruments, we chose a global computable general equilibrium (CGE) modeling framework as the analytical tool. We have adopted the well-established Global Trade Analysis Project (GTAP) model to analyze ex ante the economic consequences of mutual trade liberalization by India and Pakistan.

The GTAP model is a multiregional applied general equilibrium (AGE) model that captures world economic activity in 57 different industries of 129 regions

(version 8 of the database). To keep the analysis in manageable form, we used an aggregated version of this database with 20 sectors and 16 regions.

The theory underlying the GTAP model is similar to that of other standard, multiregional AGE models.[1] The underlying equation system of GTAP includes two different kinds of equations. One part covers the accounting relationships, which ensures that receipts and expenditures of every agent in our model economy are balanced. The other part of the equation system consists of behavioral equations that are based on microeconomic theory. These equations specify the behavior of optimizing agents in the economy, such as demand functions.

There are five principal factors of production in the GTAP model, namely, skilled labor, unskilled labor, capital, natural resources, and land. Of these, the first three are considered to be perfectly mobile across sectors. These factors earn the same market return regardless of where they are employed. In the case of immobile or sluggish endowment commodities, returns in equilibrium may differ across sectors.

In standard models of international trade, it makes no economic sense to engage in trade in both directions in the same product. Nonetheless, a characteristic of real world trading patterns is that countries often simultaneously import and export goods in the same product category. In the applied CGE model, this phenomenon can be accommodated by the "love for variety" approach, i.e., consumers are assumed to have a "love for variety" that generates demand for both domestic and foreign-produced products within a product category, which is called the Armington specification. The GTAP model assumes this Armington specification in the trading sector, which allows for the possibility of distinguishing imports by their origin and explaining intra-industry trade of similar products.

Thus, imported commodities are assumed to be separable from domestically produced goods and are combined in an additional nest in the production tree. The elasticity of substitution in this input nest is equal across all uses. Under these circumstances, firms decide first on the sourcing of their imports. Given the composite import prices and domestic prices, they then determine the mix of imported and domestic goods that minimize the cost of production.

The market structure in all sectors of the standard GTAP model is assumed to be perfect competition. Commodity supplies are based on single-output production functions. Substitution between inputs is modeled with two-level nested production functions. Demands for land, labor, and capital are based on constant elasticity of substitution (CES) functions. International trade clears commodity markets, with each commodity being differentiated by its place of origin. Trade policies operate as ad valorem distortions that, in addition to transportation costs, form a wedge between domestic and world prices.

Households maximize utility derived from market goods (i.e., consumption and savings) subject to regional income, which consists of primary factor payments and net tax collections. Regional production of new capital goods is financed by

[1] A detailed description of the model, equations, and the flowchart of the model is given in Hertel (1997).

Table 5.3 Aggregation scheme for sectors and regions

Sectors		Regions
Grains and crops	Mineral products	India
Meat products and livestock	Motor vehicles and parts	Pakistan
Extraction	Transport equipment	Nepal
Processed food	Electronic equipment	Sri Lanka
Textiles	Machinery	Rest of South Asia
Wearing apparel	Trade and communication	Malaysia
Leather products	Sea transport	Singapore
Light manufacture	Air transport	Rest of ASEAN
Heavy manufacture	Other transport	Chile
Chemicals, rubber, etc.	Other services	China
Factors of production		European Union (EU-25)
Skilled labor (mobile)		Japan
Unskilled labor (mobile)		Korea
Capital (mobile)		MERCOSUR
Land and natural resource aggregate (fixed)		NAFTA
		Rest of the world

domestic savings and net capital inflows. The price index for international capital is the numeraire. The model is implemented and solved using GEMPACK.

For the present analysis, we used the GTAP model Version 6.2 comprising 20 sectors, 16 countries/regions, and 4 factors of production. The latest version of the GTAP database (release 8.1) for the calendar year 2007 was used to create an aggregated database for our CGE model. The aggregation scheme for sectors and regions is shown in Table 5.3.

The regional aggregation scheme is based on two criteria. One, the major trading partners of India and Pakistan are modeled as individual entities. Second, countries that have entered into FTA/PTA agreements with India and Pakistan are modeled as individual nations. Since India has signed PTAs with Chile and MERCOSUR, we included them as individual entities. In fact, barring the EU-25, NAFTA, and the rest of the world, all the countries/regions have an existing FTA with India and/or Pakistan.

We attempted to model sectors in as disaggregated a manner as possible. The different modes of transport services are modeled separately to incorporate productivity shocks in our simulations. This is relevant, because several studies on India-Pakistan trade have stressed the inefficiency of trading routes (De et al. 2013; Pursell et al. 2011; Taneja 2006, 2013). While the manufacturing sectors have been modeled in as disaggregated a manner as possible, we did not do this for the service sectors, because the GTAP database does not include any trade barriers for India and Pakistan in the service sectors. Thus, we are not in a position to give any trade-related policy shocks in the service sectors of India and Pakistan and there would be no gain from decomposing the service sectors further.

The structure of India-Pakistan trade in the base year, namely, 2007, is shown in Table 5.4. This ex post trade is subject to existing trade barriers including the

Table 5.4 Overview of trade linkages in base year

	Exports: India to Pakistan		Exports: Pakistan to India	
Sectors	Value (US$ million)	Share (%)	Value (US$ million)	Share (%)
Grains and crops	409.9	21.7	65.7	20.7
Meat products and livestock	21.9	1.2	1.1	0.3
Extraction	64.1	3.4	5	1.6
Processed food	170.2	9.0	5.5	1.7
Textiles	28.7	1.5	57.9	18.3
Wearing apparel	0.3	0.0	1.3	0.4
Leather products	7.9	0.4	14	4.4
Light manufacture	29.1	1.5	2	0.6
Heaving manufacture	363.2	19.2	88.1	27.8
Chemicals, rubber, etc.	599.1	31.8	14.8	4.7
Mineral products	5.0	0.3	11.7	3.7
Motor vehicles and parts	0.4	0.0	0.4	0.1
Transport equipment	1.2	0.1	0	0.0
Electronic equipment	0.3	0.0	0	0.0
Machinery	29.3	1.6	5.4	1.7
Trade and communications	5.4	0.3	2.2	0.7
Sea transport	1.2	0.1	4	1.3
Air transport	1.9	0.1	12.7	4.0
Other transport	13.8	0.7	1.8	0.6
Other services	134.0	7.1	23.2	7.3
Total	1886.9	100.0	316.9	100.0

Source: Authors' estimates based on GTAP 8.1 database

commodities covered under Pakistan's list of positive items and other nontariff barriers that both countries impose on each other.

The relative importance of India and Pakistan's various trading partners is shown in Table 5.5. As Column 3 in Table 5.5 indicates, the EU is the most important trading partner for Pakistan, followed by China; Pakistan sourced nearly 14 % of its imports from China in 2007. India also sourced most of its imports from the EU, followed by NAFTA and China. India seems to be a source country for imports into Sri Lanka. In 2007, Pakistan sourced nearly 5 % of its imports from India, while India sourced only 0.1 % of its imports from Pakistan.

5.4 Policy Simulations and Results

To understand the economic impact of India-Pakistan bilateral liberalization, we undertook three basic policy simulations:

- Simulation 1: Full liberalization. India and Pakistan remove all tariffs and barriers against each other on all goods.

Table 5.5 Share of country/region's import in total in base year (%)

	India	Pakistan
India		4.9
Pakistan	0.1	
Nepal	0.2	0.0
Sri Lanka	0.2	0.2
Rest of South Asia	0.3	0.5
Malaysia	2.4	3.3
Singapore	3.6	1.5
Rest of ASEAN	3.4	4.5
European Union	20.2	18.9
Korea	2.2	1.9
Japan	2.9	4.3
Chile	1.6	0.0
China	9.2	13.2
MERCOSUR	0.9	0.9
NAFTA	10.8	8.8
Rest of the world	41.8	37.1

Source: Authors' estimates based on GTAP 8.1 database

- Simulation 2: Full liberalization + 50 % productivity improvements in all modes of transport services (i.e., land, sea, and air) between India and Pakistan.
- Simulation 3: Simulation 2 + full liberalization in FTA (in force) signed by India and Pakistan.

In all three simulations, we abolished tariffs on goods even though some of the FTAs in force encompass services. This was done because the trade protection coefficients of the service sectors between India and Pakistan are absent in the GTAP database/model.

Scenario 1 simulates the impact of signing a hypothetical FTA between India and Pakistan. This helps us understand whether there are any gains in bilateral trade liberalization and, if so, by how much and what sectors would benefit in terms of output and exports and identify sectors that would contract. We recognize that trade liberalization between India and Pakistan will move at a slow pace. However, we study the hypothetical impact of complete liberalization since this quantifies the upper limit of gains from trade liberalization.

A literature review of the existing work on India-Pakistan economic engagement suggests that transportation is a serious bottleneck to cross-border exchanges between the two countries. Apart from the inefficiency of trade services in India and Pakistan, various policy-induced bottlenecks, namely, certain goods can only be carried only by road, the need for transshipment, excessive security checks, and the absence of regular containerized trains, further reduce efficiency and raise the cost of transportation between the two neighbors. In this simulation, we assume that both countries undertake measures to facilitate trade. As a result, there is a 50 % improvement in productivity in all modes of transport services that operate between India and Pakistan. In Simulation 2, we attempt to quantify the gains of trade liberalization

under Simulation 1 if productivity improvement were to occur in different modes of transport services used in trade between India and Pakistan.

Since both India and Pakistan have recently undertaken multiple initiatives toward improving South Asian trade relations, these FTAs would have an impact on other South Asian nations. We carry out this analysis under Simulation 3. We have assumed that there are zero tariffs in trade between India and the following countries: ASEAN members, Sri Lanka, Nepal, Pakistan, the rest of South Asia, Japan, and Korea. Similarly, we assume that there are zero tariffs in trade between Pakistan and the following countries: Malaysia, China, Sri Lanka, Nepal, India, and the rest of South Asia.

India has also signed two PSAs with Chile and MERCOSUR. Since the tariff liberalization in these two cases is minimal, we reduced the tariffs imposed by India and Chile on each other's imports based on the trade agreement. A similar approach was taken toward the import tariffs between India and MERCOSUR where the tariff preferences are based on the trade agreement.[2]

Most of the FTAs to which India or Pakistan are party have been signed and have been in force since 2007. However, the base year for the global GTAP model is 2007. Our simulations on trade liberalization remove the tariff distortions over the base year value, i.e., 2007. In this context, our model results abstract from reality. In economic terms, what is their implication? Between 2007 and 2011, both India and Pakistan have undertaken unilateral as well as multilateral liberalization. Thus, if we are able to move the base year to a more recent period, the extent of trade-related distortions and policy shocks in simulations would be much lower. Generally, in any CGE model, the deeper the policy shock, the greater the welfare gains.[3] Thus, we may assume that an earlier base year (2007) instead of a more recent base probably overestimates the economic gains.

5.4.1 Welfare Implications of Trade Liberalization on India and Pakistan

At the outset, regional household behavior in the GTAP modeling framework is governed by an aggregate utility function specified over per capita private household consumption, per capita government spending, and per capita savings. Economic welfare is represented as being derived from the allocation of national income among these three variables (private consumption, government consumption, and savings). This recognizes that households gain from their own current household consumption expenditure. They also benefit from current net national saving, since this increases their future household consumption. Finally, they benefit from the government's provision of public goods and services, as indicated by

[2] Generally, the tariff preferences are about 10–20 %.

[3] See Sect. 5.4 on interaction of the policy shock in our GTAP model.

current government expenditure. Any distortion in the model has an effect on consumption, savings, and even on future consumption. The welfare change variable makes an estimate of the change of utility due to any distortion. The percentage change in the aggregate per capita utility for a region is the welfare change variable that is computed in a standard GTAP model during simulations. The model also computes a money metric equivalent of this utility change in US$ million, which is referred to in the CGE literature as equivalent variation (EV). The regional household's EV is given by the difference between the expenditure required to obtain the post-simulation level of utility at initial prices and that available initially. One can decompose EV into different components, each of which relates to a quantity change interacting with a distortion in the model. Broadly, the sources of change in real income arising in the policy simulation are the following: change in income due to change in endowments net of depreciation (this is normally zero in a comparative static situation), tax on output of any good, tax on the use of any endowment in any industry, tax on the use of intermediate input in any industry, tax on private household consumption and government consumption of any good, trade taxes (export and import) on any good, changes in regional terms of trade (ToT), and changes in the relative prices of savings and investment (investment saving effect) (Huff and Hertel 2000). If one also introduces technology change arising due to productivity improvement as a policy shock, this would be another source of welfare change.

In this context, when trade-related distortions between India and Pakistan are abolished under Simulation 1, resources will be reallocated to maximize welfare in the respective countries to take into account the changes in equilibrium prices arising from changes in import tariffs.[4] When there is improvement in productivity of bilateral transport services between India and Pakistan, in addition to trade liberalization as in Simulation 2, there will be further resource reallocation. Since the equilibrium import prices of Pakistani goods would become lower, Pakistani goods may cost less for Indian consumers/firms/government relative to goods imported from other trading partners. In that case, there may be an effect of trade diversion from other trading partners toward Pakistan. A similar transmission channel can be expected for the Pakistani economy. The policy simulation would quantify the net impact in terms of economic welfare.

In Simulation 3, we remove further trade distortions as part of the commitments undertaken by India and Pakistan due to FTAs with some of their trading partners. A further round of resource reallocation would take place to arrive at a new level of equilibrium prices, quantities, and macroeconomic variables. This would give us an insight into the economic impact of regionalism vis-à-vis bilateral liberalization.

Table 5.6 shows the welfare numbers for the three simulations. As Table 5.6 shows, welfare improves in both India and Pakistan under the full liberalization scenario (Simulation 1). India's welfare rises by US$281 million in Simulation 1, whereas Pakistan's welfare increases by US$41 million. When we introduce productivity change in modes of transport services in trade between these two countries, both countries gain significantly in welfare; India's welfare rises to US$1.5

[4] In Simulation 1, there is zero import tariff on goods traded between India and Pakistan.

Table 5.6 Sources of welfare gains

	Simulation 1		Simulation 2		Simulation 3	
Variables	India	Pakistan	India	Pakistan	India	Pakistan
Equivalent variation (US$ million)	280.9	40.2	1558.6	269.8	7226.4	117.1
Allocative efficiency effects	163.6	19.6	303.4	45.4	6630.6	254.1
Terms of trade effects	96.3	10.2	107.5	15.0	−375.7	−137.7
Technical change effects			1124.9	187.9	1124.9	187.9
Investment saving effect	21.0	10.4	22.9	21.5	−153.4	−187.1
Real return to factors (%)						
Land	0.02	0.31	0.15	0.27	−0.32	0.97
Unskilled labor	0.02	0.15	0.12	0.34	0.92	0.74
Skilled labor	0.02	0.14	0.12	0.35	1.08	0.77
Capital	0.02	0.13	0.12	0.33	1	0.67

Source: Authors' estimates

billion, and that of Pakistan goes up to US$270 million. Further, when we consider the effect of the FTA in force between India and Pakistan as in Simulation 3, India's welfare increases by four times over Simulation 2, but Pakistan's welfare falls relative to Simulation 2.

The principal sources of welfare gains are shown in Table 5.6. The table shows that the gain from the allocative efficiency effect is the principal source of gain in Simulation 1. When India and Pakistan abolish barriers to trade on each other's goods, resources in these two countries are reallocated so that both countries produce goods/service in which they possess a comparative advantage. Of the total welfare gains, allocative efficiency effects account for income gains that arise from resource reallocation. The large size of this gain indicates that there is a high degree of distortion in the trade relations between India and Pakistan.

As expected, when one country removes tariffs on the other country's goods, its export prices in relation to import prices improve.[5] The gains arising from this source is accounted for by terms of trade effects. If tariff barriers are removed, import prices would change in India and Pakistan. Their high value (reported in Table 5.6) implies the presence of significant distortions in India-Pakistan trade.

Technical change emerges as the principal source of gain in Simulation 2 in both countries. In addition to tariff liberalization in Simulation 1, we have assumed in Simulation 2 that there is a 50 % improvement in efficiency in all modes of transport service (land, water, and air) between India and Pakistan, irrespective of whether it is operated by Indian or Pakistani firms. The technical efficiency effects quantify these productivity effects in terms of income gains in Simulation 2. The relative size of this component signals the inefficiency of the present regime that arises from various distortions that transport operators now face (see Section 2).

[5] Since India and Pakistan are not changing import (export) tariffs on any goods imported (exported) from (to) any other trading partner, changes in trading prices would arise from movement in India/Pakistan's trading prices.

India and Pakistan have signed or are in the process of signing several RTAs (FTAs or PSAs) with their major trade partners. Under Simulation 3 we analyze the impact on the Indian and Pakistani economies if, in addition to the previously discussed policy shocks, the various trade agreements become fully functional. As Table 5.6 shows, India's welfare increases by more than four times, whereas Pakistan's welfare falls by 50 % compared to that under Simulation 2. Even though the terms of trade effect worsens in both countries, the larger gain from the allocative efficiency effect in India more than compensates for this loss. The primary reason for this disparity is that India's liberalization process is deeper than Pakistan's under Simulation 3, because India has signed FTAs with several trade partners. As Table 5.6 shows, the investment saving effect that measures the changes in the relative prices of saving and investment is negative in both countries. Since the size of this effect in Pakistan is almost equal to the technical change effects and the terms of trade effect (negative) in Pakistan is about 50 % of the allocative efficiency effect, welfare in Pakistan, though positive, falls in Simulation 3 relative to that under Simulation 2.

On returns to factors of production, we find positive returns on all factors, barring the returns on land for India in Simulation 3. Note that for Pakistan land earns the maximum returns in Simulation 3, whereas labor earns the maximum returns in Simulation 2. It was also found that skilled labor earns the maximum returns in India under Simulation 3.

5.4.2 Impact on Selected Trade and Other Variables of India and Pakistan

Table 5.7 indicates that GDP improves in all three simulations. India's volume of exports rises by 0.13 % in Simulation 1, 0.23 % in Simulation 2, and 4.33 % in Simulation 3. In contrast, Pakistan's exports increase by 1.1 % in Simulation 1, 1.3 % in Simulation 2, and 7.2 % in Simulation 3. In terms of imports, India (Pakistan) registers a rise of 0.27 % (1.2 %) in Simulation 2 and 3.71 % (7.27 %) in Simulation 3. The trade balance declines in both countries under all three simulations. As expected, the decline is sharpest under Simulation 3 for both India and Pakistan. The decline in the trade balance exceeds US$1.07 billion for India, because India has removed its high levels of trade (import) distortions with FTA partners, such as ASEAN, Japan, and Korea, all of which have fairly liberal trade regimes in the base year.

Bilateral trade liberalization fosters bilateral export growth in the respective countries. Pakistan's exports to India surge by 89 % in Simulation 1,110 % in Simulation 2, and 104 % in Simulation 3. On the other hand, India's exports to Pakistan rise by 42 % in Simulation 1, about 58 % in Simulation 2, and 52 % in Simulation 3. It must be remembered that the increase in exports in percentage terms is large, due to the small exports in base years as shown in Table 5.7.

What sectors gain in exports? The data is shown in Table 5.8. We focus on Simulation 2 and Simulation 3 only, since the results in Simulation 1 mimic those

Table 5.7 Changes in macroeconomic variables

	Simulation 1		Simulation 2		Simulation 3	
Variables	India	Pakistan	India	Pakistan	India	Pakistan
Change in GDP (%)	0.01	0.01	0.11	0.12	0.63	0.27
Change in volume of exports (%)	0.13	1.10	0.23	1.31	4.33	7.24
Change in volume of imports (%)	0.15	0.75	0.27	1.20	3.71	3.94
Change in trade balance (US$ million)	−36.66	−65.77	−115.33	−144.06	−1067.13	−184.02
Change in terms of trade	0.04	0.05	0.05	0.21	−0.16	−0.52
Increase in Pakistan's export to India (%)	89		110		104	
Increase in India's exports to Pakistan (%)		41.7		58.0		52.3

Source: Authors' estimates

of Simulation 2, with an additional magnification effect. As this table shows, the largest export growth from India to Pakistan in percentage terms occurs in sectors such as motor vehicles and parts, leather products, wearing apparel, and transport equipment in Simulation 2. However, some of the sectors exhibit a large increase in exports due to the small base problem. As Table 5.8 shows, the largest increases in exports in absolute terms are in the sectors of heavy machinery (US$286 million); chemicals, rubber, etc. (US$322 million); and grains and crops (US$180 million). When both India and Pakistan remove their trade barriers with other countries as in Simulation 3, we find that these three sectors do well on India's export front. Thus, the trade diversion effect is minimal in this case.

Coming to Pakistan's exports to India, the maximum increase (in percentage terms) in sectoral exports in Simulation 2 is registered in sectors such as extraction, grains and crops, transport equipment, light manufacture, and wearing apparel. However, since exports of these products in the base year are minimal, the percentage values give a false impression. If we compute the change in exports in absolute terms, we find that the sectors of grains and crops (US$124 million), processed food (US$80 million), textiles (US$68 million), and heavy manufacture (US$80 million) gain significantly. This is also true in Simulation 3, indicating that the trade diversion effect is minimal due to the existing FTAs by these countries.

In the aftermath of tariff liberalization, economies are expected to align as per their comparative advantages. However, since India and Pakistan are weakly linked in our base year (weak trade partnership between them), not much is expected as part of sectoral output changes in Simulation 2. The effect would be more pronounced in Simulation 3, as we are able to capture important partners of India and Pakistan in this simulation. The relevant data is shown in Table 5.9. The contracting sectors in Simulation 2 for India are textiles, wearing apparel, leather products, electronic equipment, and sea transport service; the remaining sectors are expanding. The largest increases are in sectors that register large export increases, namely,

Table 5.8 Sectoral export's growth (%)

	Exports: India to Pakistan				Exports: Pakistan to India			
	Simulation 2		Simulation 3		Simulation 2		Simulation 3	
Sectors	%	US$ million	%	US$ million	%	US$ million	%	US$ million
Grains and crops	44.0	180.4	44.5	182.2	188.9	124.1	182.7	120.0
Meat products and livestock	53.6	11.7	53.6	11.7	98.2	1.1	97.9	1.1
Extraction	138.9	89.1	138.4	88.7	247.1	12.4	244.9	12.2
Processed food	56.1	95.4	36.3	61.8	141.4	7.8	59.6	3.3
Textiles	105.8	30.4	76.4	21.9	118.0	68.3	115.4	66.8
Wearing apparel	146.5	0.4	78.4	0.2	107.9	1.4	110.6	1.4
Leather products	160.0	12.6	128.1	10.1	87.4	12.2	80.6	11.3
Light manufacture	117.0	34.1	95.1	27.7	138.6	2.8	136.0	2.7
Heavy manufacture	78.6	285.6	76.7	278.5	91.3	80.3	84.4	74.2
Chemicals, rubber, etc.	53.7	321.8	46.6	279.0	101.9	15.1	92.1	13.6
Mineral products	129.3	6.5	102.4	5.1	146.2	17.1	142.9	16.7
Motor vehicles and parts	177.3	0.7	165.6	0.7	84.3	0.3	61.2	0.2
Transport equipment	134.8	1.6	126.6	1.5	153.9	0.0	154.1	0.0
Electronic equipment	68.8	0.2	50.6	0.2	−0.1	0.0	1.1	0.0
Machinery	78.0	22.9	62.8	18.4	109.4	5.9	101.1	5.5
Trade and communication	0.4	0.0	−1.0	−0.1	−0.8	0.0	1.5	0.0
Sea transport	0.3	0.0	−0.3	0.0	−0.6	0.0	1.3	0.1
Air transport	0.1	0.0	−0.6	0.0	0.0	0.0	2.2	0.3
Other transport	0.0	0.0	−0.9	−0.1	0.2	0.0	2.4	0.0
Other services	0.3	0.4	−1.2	−1.6	−0.5	−0.1	1.9	0.4

Source: Authors' estimates

Table 5.9 Growth in sectoral output (%)

	India		Pakistan	
Sectors	Simulation 2	Simulation 3	Simulation 2	Simulation 3
Grains and crops	0.11	–0.29	0.12	0.33
Meat products and livestock	0.12	0.43	0.13	0.02
Extraction	0.04	–0.38	–0.39	–0.17
Processed food	0.16	–4.24	–0.16	–1.95
Textiles	–0.04	0.96	0.34	2.7
Wearing apparel	–0.11	1.48	–0.29	2.68
Leather products	–0.01	1.35	–0.03	2.4
Light manufacture	0.04	0.12	–0.51	–3.69
Heavy manufacture	0.17	0.89	0.1	–0.42
Chemicals, rubber, etc.	0.31	0.45	–1.53	–3.18
Mineral products	0.04	0.13	0.25	–1.06
Motor vehicles and parts	0.06	–1.72	0.33	–2.17
Transport equipment	0	0.23	0.33	–0.51
Electronic equipment	–0.01	0.27	0.1	–4.16
Machinery	0.04	–1.62	0.89	6.41
Trade and communication	0.12	0.22	0.08	–0.08
Sea transport	–0.02	0.39	–0.19	0.48
Air transport	0.03	0.3	0.08	0.76
Other transport	0.1	0.31	0.19	0.19
Other services	0.1	0.33	0.13	0.22

Source: Authors' estimates

chemicals, processed food, and heavy manufacture. On the Pakistan side, a large increase in output occurs in sectors such as textiles and machinery, but the following sectors seem to contract: extraction, processed food, leather products, light manufacture, and chemical, rubber, etc. The chemical, rubber, etc. sector also exhibits the largest fall in output at 1.53 %.

In Simulation 3, sectoral effects are marginally different for both India and Pakistan. In this simulation, the grains and crops sector contracts in India but expands in Pakistan. Textiles, wearing apparel, and leather products register significant increases in output in Pakistan as well as in India. The processed food sector contracts in both countries. The chemicals and rubber sector expands marginally in India, but contracts significantly in Pakistan. The machinery sector seems to expand significantly in Pakistan, while the motor vehicles sector seems to contract in both countries.

What is the impact on other countries as a result of the policy shocks? In a global CGE model, countries that do not reduce tariffs suffer welfare losses. The same happens in our model. However, several countries that reduce tariffs in Simulation 3 gain in welfare (Table 5.10). The rest of South Asia and Sri Lanka do not suffer significantly due to India-Pakistan trade liberalization, but Japan, Korea, and ASEAN members gain significantly in this simulation.

Table 5.10 Welfare gains for other countries in Simulation 3 (US$ million)

Nepal	Sri Lanka	Rest of SA	Malaysia	Singapore	Rest of ASEAN	Chile	China	EU-25	Japan	Korea	MERCOSUR	NAFTA
135	−55	−34	706	374	955	−17	−90	−214	839	1382	−157	−384

Source: Authors' estimates

5.5 Concluding Remarks

While it is intuitive that bilateral trade liberalization would benefit India and Pakistan, this study was able to estimate the extent of this welfare under multiple trade liberalization scenarios. Our results indicate that there are significant gains from mutual trade liberalization between the two countries. However, these gains are fully realized only when complemented by productivity improvements in the modes of transport services for trade between the two countries. This is expected, given the infrastructure and logistical obstacles to trade between India and Pakistan. The model indicates that India and Pakistan would gain under both the first and second simulations of trade liberalization and productivity changes in the modes of transportation used in trade services between the two countries. On the other hand, under Simulation 3 where all regional FTAs are in force, India's welfare increases fourfold over that in Simulation 2, while Pakistan's welfare is seen to fall.

The primary source of gains in the first simulation is the allocative efficiency effect, while that in the second simulation is the technical change effect. The significant magnitude of the gains from the reallocation of trade, production, and transportation between India and Pakistan represents the present distortions in the economic relations of the two countries. For both India and Pakistan, the GDP increases and the trade balance falls under all three simulations. Disaggregating these benefits at a sectoral level allows us to identify the true beneficiaries under the various simulations of trade liberalization. With respect to India's exports to Pakistan, the largest increases (in absolute terms) are seen in the heavy machinery, chemicals, and grains and crops sectors. The largest exports from Pakistan to India are expected to be in the grains and crops, processed food, textiles, and heavy manufacturing sectors.

To make this study more holistic, the analysis was extended to include the impact on other economies under the various simulated scenarios. This allowed us to gauge the effects of bilateral and multilateral liberalization on individual economies as well as regional economic integration on the whole. We found that in the first two scenarios of bilateral liberalization between India and Pakistan, other countries do suffer some welfare losses. However, in a multilateral liberalization scenario (as in Simulation 3), several countries enjoy gains from liberalization. Malaysia, Singapore, Japan, Korea, and Nepal are some of the countries that would see a positive impact under this simulation, while losses can be expected in Sri Lanka, Chile, China, the EU, NAFTA, and the MERCOSUR region. However, the gains from liberalization far outweigh the losses.

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Chapter 6
Trade in Services Between India and Pakistan

Rupa Chanda

6.1 Introduction

To date, regional integration efforts have had little impact on trading patterns in South Asia. Regional trade agreements such as SAFTA and SAPTA have been criticized for their large negative lists, back-loaded approach to tariff liberalization, restrictive rules of origin, and failure to address nontariff barriers. The volume of intra-regional trade among SAARC countries is only around 5 % of total trade compared to over 20 % for ASEAN. Trade intensity for the SAARC region has increased only marginally over the past two decades (Kumar and Singh 2009). Regional liberalization under SAFTA has been shallow and limited in coverage. Most studies suggest that the region does not meet many of the conditions required for a successful RTA. There are also challenges to achieving deeper economic integration in South Asia that include the strained political relations between India and Pakistan, the lack of complementarity in their trade baskets, the modalities of the negotiating process, the small regional market, and asymmetries among the economies in this region.

Regional integration in South Asia has been affected by bilateral relations between India and Pakistan. The general view is that without political will at the highest level and without improvement in bilateral relations between these two countries, wider integration efforts in the region cannot progress. Thus, the recent initiatives to boost bilateral trade flows through initiatives at the Wagah border, Pakistan's decision to grant MFN status to India, and the decisions to relax visa requirements for select categories of visitors between the two countries and to remove the prohibition on bilateral

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investment have been hailed widely as much-needed confidence-building measures. However, bilateral relations remain fragile and susceptible to adverse events.

In light of these recent developments and given the significance of this bilateral relationship for longer-term integration prospects in South Asia, this chapter examines the scope for expanding trade between India and Pakistan in the area of services. To date, most of the discussion on India-Pakistan trade has centered on issues of trade facilitation for goods, customs procedures, MFN status, and informal trade. There has been little or no focus on bilateral relations in services, although improved trade relations in services can yield direct and indirect benefits. Enhanced bilateral relations in services can help diversify the trade basket; build confidence through people mobility, investments, and information flows; and facilitate merchandise trade through cooperation in transport, logistics, telecommunications, and other infrastructure services by fostering people-to-people ties. This chapter assesses the feasibility of developing trade and investment relations between the two countries in services and places this within the larger framework of improving overall bilateral relations and enabling progress on regional integration in services.

Section 6.1 provides a brief overview of trends in services performance in terms of output in the two countries. Section 6.2 presents the trends in services exports and imports as well as FDI in services for the two countries at the aggregate and subsectoral levels to highlight areas of strength and weakness in the two countries, the complementarities and overlaps, and, thus, potential opportunity segments. Section 6.3 discusses three specific services, namely, information technology, healthcare, and tourism. It briefly outlines the status of their exports in the two countries, the evidence on bilateral relations in these segments, and the trade possibilities and market access barriers in these subsectors based on secondary and primary sources. Section 6.4 outlines the broader challenges to regional integration in South Asia and concludes by suggesting the way forward.

6.2 Trends in Services Performance

Services have been an important driver of overall economic growth in South Asia since the 1990s, helping to pull up overall economic growth in the region and compensating for volatility in other sectors. The services sector's strong performance over the previous decades has also led to its growing contribution to South Asia's GDP and to its trade and investment flows. These trends reflect the role of deregulation and policy reforms in services and the role of rising incomes and domestic demand in driving growth in segments such as trade and distribution services and growth in export opportunities due to technological advances and increased outsourcing of activities in segments such as information technology (IT), IT-enabled services, and various business services. South Asia is also an important source region for labor exports at various skill levels.

Table 6.1 Growth in real GDP by sector for South Asia, India, and Pakistan, 1991–2010 (2005 prices, US$)

		Average annual growth rate of GDP by sector (%)				CAGR of GDP by sector (%)	
		1991–1995	1996–2000	2001–2005	2006–2010	1991–2000	2001–2010
South Asia	GDP	5.18	4.79	7.03	6.79	5.16	7.05
	Primary	3.43	1.37	2.59	2.97	3.01	2.90
	Secondary	6.43	4.12	8.29	5.52	5.58	7.35
	Tertiary	6.00	6.57	8.11	7.75	6.23	8.05
India	GDP	6.37	5.41	7.44	8.17	6.05	7.95
	Primary	3.47	0.88	1.95	2.90	2.93	2.51
	Secondary	9.19	3.82	7.63	6.85	6.68	7.86
	Tertiary	7.08	8.26	9.21	9.25	7.52	9.34
Pakistan	GDP	4.54	2.87	5.78	3.75	3.82	4.91
	Primary	4.00	3.17	3.29	2.44	4.38	3.22
	Secondary	4.30	3.19	9.78	4.03	3.81	6.66
	Tertiary	5.03	3.38	5.77	4.52	4.24	5.28

Source: Calculated using National Accounts Main Aggregates Database. http://unstats.un.org/unsd/snaama/dnlList.asp. Accessed 5 Dec 2012

6.2.1 Services Output

India dominates the region in services growth and has exhibited more dynamism in this sector than Pakistan. The regional picture largely reflects India's performance in services. Table 6.1 summarizes the growth trends over the 1991–2010 period across all three sectors of the economy for the region as well as for India and Pakistan. The data indicate that India has exhibited consistently higher growth rates in services than Pakistan. In both countries, services growth has tended to be higher during the 2000s than in the 1990s.

Services have grown in importance in both India and Pakistan, as measured by their contribution to overall GDP. In both countries, services occupy over half of GDP. This increased share has been directly at the expense of agriculture in the case of India, where the contribution of services has risen sharply from 52 % to nearly 60 % between 2000 and 2010, compared to a more gradual increase in the case of Pakistan (Table 6.2).

Across subsectors, India has exhibited higher growth than Pakistan, with all subsectors growing at 8 % or more over the past decade compared to 6 % or less in the case of Pakistan. Trade and distribution services constitute the largest share within services in both countries (Table 6.3).

The subsectoral data suggest that in Pakistan, services growth has been greater in miscellaneous, non-tradable services (e.g., personal, household, government services) than in business services, while in India segments such as communication services have exhibited better performance. Hence, the subsectoral pattern of India's services growth is more likely to have had positive ramifications for trade.

An important characteristic of services growth in both countries is the much higher contribution of services to output as opposed to employment. While services account

Table 6.2 GDP value and share by sector (US$ million and %)

		2000		2005		2010	
South Asia	GDP	914,211.57	100.0	1,250,800.11	100.0	1,760,677.10	100.0
	Primary	179,533.69	19.64	206,666.80	16.52	242,296.32	13.76
	Secondary	329,565.71	36.05	469,238.39	37.52	646,573.89	36.72
	Tertiary	476,496.69	52.12	690,504.06	55.20	1,014,919.52	57.64
India	GDP	597,743.59	100.0	837,298.66	100.0	1,251,602.85	100.0
	Primary	127,915.10	21.40	146,063.78	17.44	170,335.74	13.61
	Secondary	203,627.94	34.07	282,208.01	33.70	415,831.21	33.22
	Tertiary	312,120.34	52.22	475,448.23	56.78	746,494.88	59.64
Pakistan	GDP	85,596.15	100.0	109,213.46	100.0	134,328.00	100.0
	Primary	19,851.69	23.19	22,082.59	20.22	25,834.13	19.23
	Secondary	28,845.80	33.70	44,402.41	40.66	54,886.31	40.86
	Tertiary	43,032.85	50.27	55,488.72	50.81	70,473.53	52.46

Source: Calculated using National Accounts Main Aggregates Database. http://unstats.un.org/unsd/snaama/dnlList.asp. Accessed 5 Dec 2012

Table 6.3 Share of services subsectors and CAGRs by subsector (%)

		2000	2010	CAGR
South Asia	Construction	10.5	9.5	33.1
	Wholesale, retail trade, restaurants, and hotels	25.6	21.2	31.9
	Transport, storage, and communication (ISIC I)	13.2	11.6	32.7
	Other activities	50.6	57.7	36.2
	Total services	100.0	100.0	34.4
India	Construction	11.9	12.2	9.3
	Wholesale, retail trade, restaurants, and hotels	26.5	25.8	8.8
	Transport, storage, and communication (ISIC I)	11.1	15.5	12.8
	Other activities	50.5	46.6	8.2
	Total services	100.0	100.0	9.1
Pakistan	Construction	5.3	5.4	5.2
	Wholesale, retail trade, restaurants, and hotels	30.9	29.2	4.5
	Transport, storage, and communication (ISIC I)	24.9	21.8	3.7
	Other activities	38.8	43.6	6.3
	Total services	100.0	100.0	5.1

Source: Calculated using National Accounts Main Aggregates Database. http://unstats.un.org/unsd/snaama/dnlList.asp. Accessed 5 Dec 2012

for more than half of GDP in both India and Pakistan, their share in the labor force is only around one-third. Hence, services growth has not been very employment intensive in these countries. The high-growth services in India have relied more on productivity and efficiency gains, thus not contributing to employment in the same measure.

Fig. 6.1 Average annual growth rates of services exports and imports for India, Pakistan, and South Asia, 2001–2005 and 2006–2011 (%) (*Source*: Calculated using UNCTAD stats: International trade in services report. http://unctadstat.unctad.org/ReportFolders/reportFolders.aspx. Accessed 4 Dec 2012)

6.2.2 Services Trade

Trends in services output are also reflected in the services trade flows of the two countries. Data on aggregate and subsectoral trade flows for both countries and associated measures of competitiveness and significance in world markets indicate that India has been the driver of services trade in South Asia. It has exhibited much higher and more consistent growth rates for services exports and imports than Pakistan. The role of global economic conditions and the domestic economy have clearly had a bearing on services trade flows for both countries. Annual trade data indicate a significant drop in both services exports and imports in 2009 and 2010 following the global economic crisis (Fig. 6.1).

Given India's stronger trade performance in services, the relative contribution of services to the country's total export basket is much higher than for Pakistan. Services constitute a little over 30 % of India's total export basket (peaking at around 36 % in 2009) compared with less than 20 % for Pakistan. The same pattern emerges for the relative contribution of services within imports. Services contributed over 20 % of India's total imports, which is greater than for Pakistan (Fig. 6.2).

Services, thus, play a bigger role in the Indian economy with respect to output and trade compared with Pakistan or the rest of South Asia. This is also evident from India's consistently growing share in world services exports and imports over the past decade. India's share in world services exports has risen from a little over 1 % in 2000 to around 3.2 % in 2011, and its share in world services imports has increased from 1.2 to 3 % over this same period. Pakistan's shares in both world services exports and

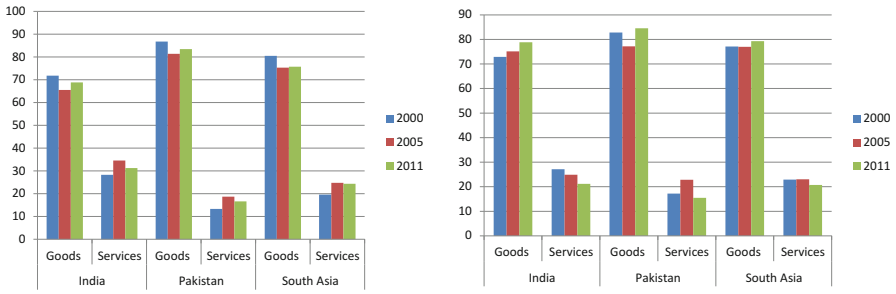

Fig. 6.2 Share of goods and services exports and imports in world services exports and imports, 2000, 2005, 2011 (%) (*Source*: Calculated using UNCTAD stats: International trade in goods and services report. http://unctadstat.unctad.org/ReportFolders/reportFolders.aspx. Accessed 4 Dec 2012)

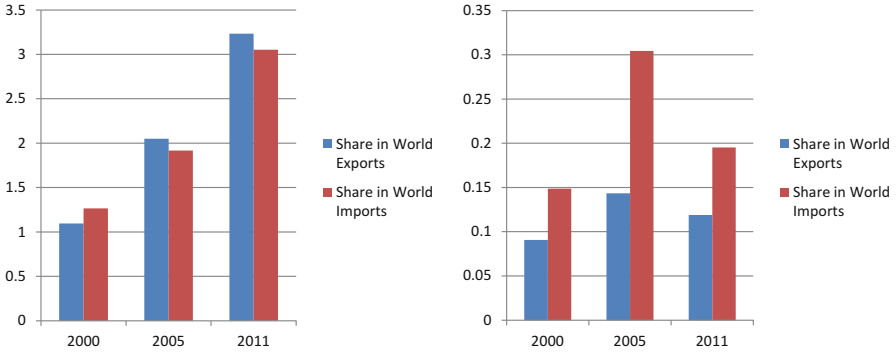

Fig. 6.3 Share in world services exports and imports, 2000, 2005, 2011 (%) (*Source*: Calculated using UNCTAD stats: International trade in services report. http://unctadstat.unctad.org/ReportFolders/reportFolders.aspx. Accessed 4 Dec 2012)

imports, on the other hand, were below 0.5 % throughout 2000–2011 and have declined. Thus, India's services sector has been more trade oriented (Fig. 6.3).

6.2.2.1 Subsectoral Trends

Trends at the subsectoral level highlight the areas of strength and weakness within the services sector. Although several segments have witnessed significant growth in India's services exports, ICT services exports have risen tenfold in the past decade, and their share in the services export basket rose from 28 % to nearly 50 % in the 2000–2010 period. There has been a shift from traditional services such as transport and travel services toward emerging segments, especially computer and information services and other business services.[1] The growth momentum has been dominated by IT services (Table 6.4).

[1] Since government services account for a very small part of India's services trade, excluding this segment does not change the composition of India's services export basket much.

Table 6.4 Value and share of India's exports in different service subsectors (US$ thousand and %)

	2000		2007		2010	
	Value	Share	Value	Share	Value	Share
Total services	16,685,100	100.0	86,927,000	100.0	116,454,000	100.0
Travel	3,459,880	20.7	10,729,000	12.3	14,160,000	12.2
Transportation	1,978,710	11.9	9,036,000	10.4	13,248,000	11.4
Other business services	4,149,150	24.9	20,695,000	23.8	21,667,000	18.6
Financial services	276,010	1.7	3,379,000	3.9	5,834,000	5.0
Royalties and license fees	82,550	0.5	163,000	0.2	128,000	0.1
Computer and information services	4,727,390	28.3	37,491,000	43.1	56,878,000	48.8
Construction services	501,940	3.0	753,000	0.9	525,000	0.5
Communications services	598,800	3.6	2,348,000	2.7	1,412,000	1.2
Insurance services	256,980	1.5	1,506,000	1.7	1,782,000	1.5
Personal, cultural, and recreational services		0.0	510,000	0.6	335,000	0.3
Government services, n.i.e.	653,680	3.9	317,000	0.4	485,000	0.4

Source: Calculated using ITC stats. http://www.trademap.org/tm_light/Service_SelService_TS.aspx. Accessed 4 Dec 2012

India's services import basket has diversified over the past decade, with a growing contribution by emerging segments such as other business services and financial services. The import pattern reflects the liberalization of the economy and the role of services imports in supporting business activity. Overall, India's services trade balance has moved from a slight deficit to a reasonably large surplus over the past decade, but this improvement is mainly on account of computer and information services (Table 6.5).

In the case of Pakistan, the services export basket is more difficult to assess due to the predominance of government services (n.i.e.) that constitute over half of Pakistan's services exports, followed by transport services. In absolute value terms, several services segments, such as other business services, computer and information services, insurance, and transport, show a consistent and reasonable increase in export value over the 2003–2010 period, but these are significantly smaller in value and share than government services. In order to gauge the tradability of Pakistan's services sector and performance trends in the commercial services segment, one needs to consider services exports net of government services, as captured in Table 6.6.

When we exclude government services, Pakistan's main commercial services as exports are transportation, other business, computer and information, and communication services. IT and other business services have registered the largest increase in relative shares within the country's services export basket. Although traditional services

Table 6.5 Value and share of India's imports in different service subsectors (US$ thousand and %)

	2000		2007		2010	
Service label	Value	Share	Value	Share	Value	Share
Total commercial services	18,897,580	100.0	47,364,000	100.0	67,171,000	100.0
Transportation	8,703,160	46.1	10,119,000	21.4	14,212,000	21.2
Travel	2,690,360	14.2	8,220,000	17.4	10,636,000	15.8
Other business services	4,322,670	22.9	18,303,000	38.6	26,490,000	39.4
Financial services	1,277,190	6.8	3,237,000	6.8	6,787,000	10.1
Royalties and license fees	282,460	1.5	1,160,000	2.4	2,438,000	3.6
Computer and information services	576,780	3.1	3,583,000	7.6	2,531,000	3.8
Construction services	127,090	0.7	728,000	1.5	991,000	1.5
Communications services	104,790	0.6	862,000	1.8	1,194,000	1.8
Insurance services	813,080	4.3	887,000	1.9	1,425,000	2.1
Personal, cultural, and recreational services		0.0	265,000	0.6	467,000	0.7

Source: Calculated using ITC stats from http://www.trademap.org/tm_light/Service_SelService_TS.aspx. Accessed 4 Dec 2012

Table 6.6 Value and share of Pakistan's commercial services exports by subsector (US$ million and %)

	2003		2007		2010	
	Value	Share	Value	Share	Value	Share
Total commercial services	1,476	100	2,224	100	2,793	100
Travel	122	8.3	276	12.4	304	10.9
Transportation	836	56.6	1,067	48.0	1,334	47.8
Other business services	247	16.7	419	18.8	599	21.4
Financial services	12	0.8	67	3.0	50	1.8
Royalties and license fees	8	0.5	37	1.7	3	0.1
Computer and information services	34	2.3	126	5.7	193	6.9
Construction services	4	0.3	66	3.0	20	0.7
Communications services	190	12.9	128	5.8	242	8.7
Insurance services	22	1.5	36	1.6	44	1.6
Personal, cultural, and recreational services	1	0.1	2	0.1	4	0.1

Source: Calculated using ITC stats. http://www.trademap.org/tm_light/Service_SelService_TS.aspx. Accessed 4 Dec 2012

such as transport account for the bulk of services exports, there has been a gradual shift toward modern services.

Pakistan's commercial services imports are concentrated in three segments: transport, travel, and other business services. Across almost all commercial services, with the exception of computer and information services and communication services, Pakistan has had a trade deficit (Table 6.7).

The picture that emerges is one of the relatively concentrated strengths in computer and information services for India and has no significant areas of commercial competitiveness in the case of Pakistan, although computer and information services,

Table 6.7 Value and share of Pakistan's commercial services imports by subsector (US$ thousand and %)

	2003		2007		2010	
Service label	Value	Share	Value	Share	Value	Share
Total commercial services	3,102,000	100.0	8,435,000	100.0	6,467,000	100.0
Transportation	1,585,000	51.1	3,278,000	38.9	3,756,000	58.1
Travel	925,000	29.8	1,593,000	18.9	925,000	14.3
Other business services	347,000	11.2	2,924,000	34.7	1,049,000	16.2
Financial services	73,000	2.4	125,000	1.5	102,000	1.6
Royalties and license fees	36,000	1.2	107,000	1.3	124,000	1.9
Computer and information services	6,000	0.2	122,000	1.4	168,000	2.6
Construction services	12,000	0.4	43,000	0.5	29,000	0.4
Communications services	45,000	1.5	101,000	1.2	158,000	2.4
Insurance services	73,000	2.4	141,000	1.7	143,000	2.2
Personal, cultural, and recreational services		0.0	1,000	0.0	13,000	0.2

Source: Calculated using ITC stats. http://www.trademap.org/tm_light/Service_SelService_TS.aspx. Accessed 4 Dec 2012

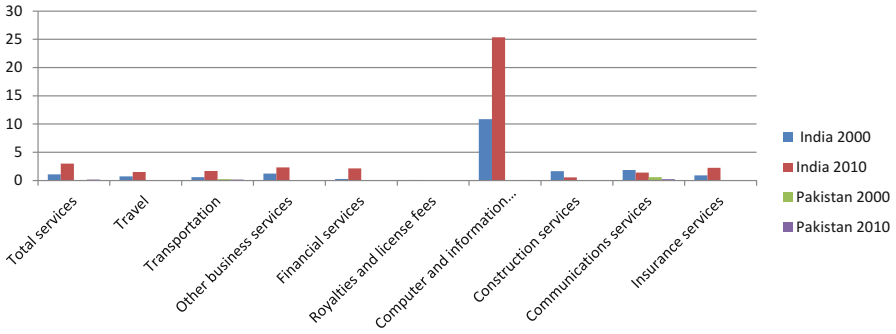

Fig. 6.4 Share in world services exports by subsector, India and Pakistan, 2000 and 2011 (%) (*Source*: Calculated using ITC stats. http://www.trademap.org/tm_light/Service_SelService_TS.aspx. Accessed 4 Dec 2012)

communication services, and other business services show promise. This is confirmed by trends in these countries' subsectoral shares in world exports. India's significance in the world market for computer and information services and as a result for total services exports has risen considerably over the past decade, though its share in other services segments remains low. Pakistan's contribution to world services exports is negligible for all commercial services segments (Fig. 6.4).

Revealed comparative advantage (RCA) indices confirm India's relative competitiveness in services as opposed to goods, especially in computer and information services. Figure 6.5 shows the aggregate goods and services RCAs for India, Pakistan, and South Asia followed by Table 6.8, which provides the subsectoral RCAs for both countries.

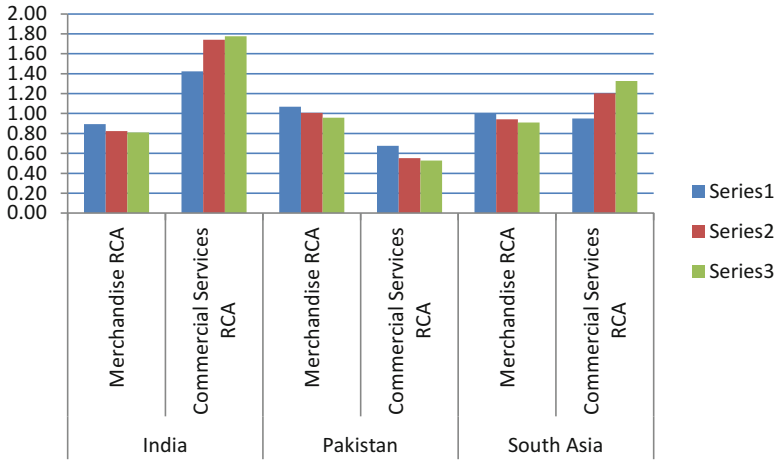

Fig. 6.5 RCA indices for India, Pakistan, and South Asia, 2000, 2005, 2011 (*Source*: Calculated using UNCTAD stats: International trade in goods and services report. http://unctadstat.unctad.org/ReportFolders/reportFolders.aspx. Accessed 4 Dec 2012)

Table 6.8 Subsectoral RCA indices for India and Pakistan, 2000, 2005, 2010

	India			Pakistan		
	2000	2005[a]	2010	2000	2005	2010
Total commercial services	1.42	1.74	1.78	0.67	0.55	0.53
Travel	0.67	0.68	0.48	0.20	0.32	0.43
Transportation	0.54	0.64	0.54	2.85	2.30	2.25
Other business services	1.15	1.45	0.75	0.47	0.66	0.86
Financial services	0.26	0.43	0.69	0.12	0.34	0.25
Royalties and license fees	0.09	0.09	0.02	0.00	0.12	0.02
Computer and information services	10.15	13.02	8.14	0.59	0.68	1.15
Construction services	1.55	0.38	0.18	0.00	0.38	0.28
Communications services	1.72	1.68	0.44	6.80	5.90	3.16
Insurance services	0.86	1.23	0.71	0.21	0.81	0.73
Personal, cultural, and recreational services	0.00	0.25	0.36	0.00	0.09	0.18

Source: Calculated using ITC stats. http://www.trademap.org/tm_light/Service_SelService_TS.aspx. Accessed 4 Dec 2012

[a]As 2005 data for other business services is not available for India, the RCA estimate for this category is for 2007, which is the closest year available

The RCA estimates (excluding government services) highlight that both countries have potential in computer and information services. India's RCAs in segments such as other business services and communication services have declined. Pakistan's RCA estimates indicate potential in communication and transport services, in addition to IT services. The high RCAs in transport services are noteworthy and require further examination to determine the source of this competitiveness and its implications.

Overall, some inferences can be drawn about the likely areas of complementarity, collaboration, and commercial relations between India and Pakistan in services based

Table 6.9 Value and share of Pakistan's commercial services exports to select partner countries (US$ thousand and %), 2011 and 2007

	2011		2007	
	Value	Share	Value	Share
Total commercial services exports to world	3,374,586	100.00	2,286,401	100.00
India	10,305	0.31	3,371	0.15
USA	974,515	28.88	807,379	35.31
UK	311,878	9.24	219,526	9.60
UAE	410,502	12.16	229,986	10.06
China	61,753	1.83	28,111	1.23
Canada	11,287	0.33	9,955	0.44
Singapore	269,128	7.98	75,935	3.32
Afghanistan	30,004	0.89	3,755	0.16
Malaysia	15,827	0.47	12,239	0.54
Sri Lanka	5,064	0.15	1,134	0.05
EU	840,624	24.91	561,676	24.57
Saudi Arabia	212,060	6.28	176,898	7.74

Source: Calculated using ITC stats. http://www.trademap.org/tm_light/Service_SelService_TS.aspx. Accessed 4 Dec 2012

on growth performance, RCA indices, and contribution to the export basket. Some potential areas appear to be computer and information services, communication services, and other business services. Travel and transportation services are also potential areas for strengthening relations in view of their significance in the export basket and their implications for commercial and noncommercial ties between the two countries. The trends indicate that there is scope for complementarity and collaboration as opposed to competition between the two countries, given the large difference in the size of their services sectors and exports. Further, the nature of these services would warrant engagement through all four GATS modes of supply.

6.2.2.2 Bilateral Services Trade

Bilateral services trade data provided by the State Bank of Pakistan highlights the limited engagement between the two countries.[2] India accounts for less than 0.5 % of Pakistan's commercial services exports to the world, and this share has barely increased over the years. Pakistan's main export markets for services are the USA, the UK, and the rest of the EU followed by the UAE. The growing importance of the UAE and Singapore is noteworthy (Table 6.9).

On the import side, Pakistan's main markets are the EU, the USA, the UAE, China, Saudi Arabia, and the UK. Singapore and Malaysia have increased in importance. India's share, on the other hand, remains below 2 % (Table 6.10).

Hence, India is not an important services trade partner for Pakistan, even compared to other Asian countries that are smaller players in the global services market. An

[2] Similar bilateral services trade data for India is not publicly available.

Table 6.10 Value and share of Pakistan's commercial services imports from select partner countries (US$ thousand and %), 2011 and 2007

	2011		2007	
Partner country	Value	Share	Value	Share
India	118,865	1.7	107,740	1.3
USA	918,862	13.0	803,018	10.1
UK	471,436	6.7	516,996	6.5
UAE	912,489	12.9	784,150	9.8
China	614,362	8.7	833,387	10.4
Canada	69,475	1.0	114,836	1.4
Singapore	328,393	4.6	291,901	3.7
Afghanistan	8,305	0.1	1,009	0.0
Malaysia	172,844	2.4	123,205	1.5
Sri Lanka	18,418	0.3	17,267	0.2
EU	1,076,806	15.2	1,291,269	16.2
Saudi Arabia	582,096	8.2	498,533	6.2

Source: Calculated using State Bank of Pakistan Publication on Imports of Goods and Services. http://www.sbp.org.pk/index.asp. Accessed 12 Feb 2013

Table 6.11 Pakistan's services exports to India, values (US$ thousand) and shares (%), 2007–2011

	2011		2010		2009		2008		2007	
Service category	Value	Share	Value	Share	Value	Share	Value	Share	Value	Share
Total commercial services (excl. government services)	10,305	100	8,257	100	6,274	100	3,743	100	3,371	100
Transportation	443	4.3	415	5.0	19	0.3	726	19.4	354	10.5
Travel	36	0.3	44	0.5	74	1.2	463	12.4	614	18.2
Communication services	5,374	52.1	341	4.1	5	0.1	10	0.3	1	0.0
Construction services	1,083	10.5	6	0.1	0	0.0	1	0.0	0	0.0
Insurance services	6	0.1	905	11.0	67	1.1	40	1.1	3	0.1
Financial services	301	2.9	281	3.4	324	5.2	459	12.3	319	9.5
Computer and information services	242	2.3	41	0.5	90	1.4	114	3.0	44	1.3
Royalties and license fees	54	0.5	12	0.1	45	0.7	53	1.4	27	0.8
Other business services	2,731	26.5	6,176	74.8	5,614	89.5	1,821	48.7	2,007	59.5
Personal, cultural, and recreational services	35	0.3	36	0.4	36	0.6	56	1.5	2	0.1

Source: Calculated using State Bank of Pakistan Publication on Exports of Goods and Services. http://www.sbp.org.pk/index.asp. Accessed 12 Feb 2013

analysis of the subsectoral pattern of services trade reveals that Pakistan's bilateral services trade is highly concentrated in a few areas (Tables 6.11 and 6.12).

Pakistan's services exports to India mainly consist of communication and other business services that together constitute close to 80 % of all commercial services exports to India. On the import side, transport services make up the bulk of Pakistan's

Table 6.12 Pakistan's services imports from India (US$ thousand) and subsectoral shares in commercial services imports (%), 2007–2011

	2011		2010		2009		2008		2007	
Service category	Value	Share	Value	Share	Value	Share	Value	Share	Value	Share
Total commercial services (excl. government services)	118,865	100	90,192	100	86,876	100	168,620	100	107,740	100
Transportation	115,135	96.9	84,721	93.9	80,455	92.6	114,332	67.8	94,498	87.7
Travel	303	0.3	72	0.1	183	0.2	780	0.5	1,494	1.4
Communication services	460	0.4	184	0.2	144	0.2	342	0.2	28	0.0
Construction services	46	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Insurance services	0	0.0	33	0.0	11	0.0	28	0.0	5	0.0
Financial services	556	0.5	273	0.3	319	0.4	506	0.3	414	0.4
Computer and information services	1,620	1.4	928	1.0	504	0.6	397	0.2	252	0.2
Royalties and license fees	82	0.1	100	0.1	113	0.1	38	0.0	16	0.0
Other business services	622	0.5	3,876	4.3	5,074	5.8	52,169	30.9	11,028	10.2
Personal, cultural, and recreational services	41	0.0	5	0.0	73	0.1	28	0.0	5	0.0

Source: Calculated using State Bank of Pakistan Publication on Imports of Goods and Services. http://www.sbp.org.pk/index.asp. Accessed Feb 12, 2013

services imports from India. Most of the other services are insignificant (less than 1 %), though there is considerable variation in the relative shares of some segments due to the low base of services trade between the two countries and possibly problems in capturing the true extent of services trade in some segments.

It is also worth noting that the pattern of services trade between India and Pakistan is different from the composition of Pakistan's overall services exports and imports. Exports of both communication and other business services occupy a larger share in Pakistan's trade with India than in its overall services trade basket with the world; on the other hand, other segments such as transport, which are important in its overall services exports to the world, occupy a very small share in Pakistan's exports to India but constitute a disproportionate share in its services imports from India. This trade pattern does not correspond well with the relative competitiveness pattern indicated by the subsectoral RCAs for the two countries. Subsectors where Pakistan has much higher RCAs than India (such as transportation services) do not feature importantly in its exports to India, and, conversely, subsectors where India is more competitive (computer and information services) do not feature significantly in Pakistan's imports from India. These differences between the aggregate and the bilateral patterns of the services trade basket suggest that (a) there are barriers to services trade between India and Pakistan that adversely affect the potential for services flows; (b) there is scope to expand trade relations in services to leverage areas where the two countries are competitive; (c) there are likely to be competing interests in some subsectors where collaboration and tie-ups rather than trade may be beneficial; and (d) there may be lack of interest in each other's market in areas where the two countries are competitive.

These inferences are roughly confirmed by data on Pakistan's bilateral services exports and imports across select developed and developing countries. A few important points emerge. Pakistan's services trade is more diversified with developed country partners than with developing country partners such as India and China. Its imports of transportation services constitute a much higher share of its services import basket in the case of developing countries. Its trade pattern with India differs considerably from that with other countries, both developed and developing, in four subsectors, namely, transportation, computer and information, communications, and other business services. Transportation services account for a particularly low as a share of Pakistan's services exports to India, whereas it is particularly high for Pakistan's services imports from India compared with that for its other partners (a feature that may be explained by the lack of diversification of the rest of the basket and some other logistics and trade facilitation-related reasons). Likewise, the share for computer and information services exports with respect to India is much lower than for Pakistan's exports to countries such as the USA, the UK, and even China, which could indicate scope for expanding commercial relations in this segment with India. On the other hand, the share of communication services is very high in Pakistan's services exports to India compared with its exports to other partners, while the share of other business services imports is very low in the case of India compared to that for other partner countries (Tables 6.13 and 6.14).

Table 6.13 Services exports from Pakistan to select countries, FY 2011 (US$ thousand and %)

	US		UK		China		UAE		EU		India	
Type of service export	Value	Share	Value	Share	Value	Share	Value	Share	Value	Share	Value	Share
Total services	2,285,540		440,678		62,165		429,769		1,021,063		10,957	
Total commercial services (excl. government services)	974,515	100.0	311,652	100.0	61,747	100.0	410,100	100.0	840,056	100.0	10,305	100.0
Transportation	212,383	21.8	199,426	64.0	13,911	22.5	240,374	58.6	560,096	69.3	443	4.3
Travel	301,447	30.9	1,351	0.4	15	0.0	3,597	0.9	2,311	0.5	36	0.3
Communication services	153,935	15.8	11,247	3.6	423	0.7	17,425	4.2	27,609	1.9	5,374	52.1
Construction services	2,064	0.2	768	0.2	80	0.1	8,625	2.1	1,617	4.3	1,083	10.5
Insurance services	8,634	0.9	18,177	5.8	4,272	6.9	2,196	0.5	20,401	0.4	6	0.1
Financial services	35,037	3.6	5,711	1.8	14,291	23.1	2,582	0.6	10,926	2.8	301	2.9
Computer and information services	104,953	10.8	17,946	5.8	8,506	13.8	19,856	4.8	36,628	1.0	242	2.3
Royalties and license fees	3,710	0.4	255	0.1	14	0.0	27	0.0	971	0.0	54	0.5
Other business services	151,877	15.6	56,771	18.2	20,235	32.8	115,418	28.1	179,497	19.8	2,731	26.5
Personal, cultural, and recreational services	475	0.0	226	0.1	6	0.0	402	0.1	568	0.1	35	0.3
Government services	1,311,025		128,800		413		19,269		180,439		652	

Source: Calculated using State Bank of Pakistan Publication on Exports of Goods and Services. http://www.sbp.org.pk/index.asp. Accessed 12 Feb 2013

Table 6.14 Services imports by Pakistan from select countries, FY 2011 (US$ thousand and %)

	US		UK		China		UAE		EU		India	
Type of service imports	Value	Share	Value	Share	Value	Share	Value	Share	Value	Share	Value	Share
Total services	953,339		516,751		662,801		918,063		1,144,657		118,944	
Total commercial services (excl. government services)	918,862	100.0	471,436	100.0	614,362	100.0	912,489	100.0	1,076,806	100.0	118,865	100.0
Transportation	178,062	19.4	125,386	26.6	378,816	61.7	744,635	81.6	486,940	45.2	115,135	96.9
Travel	154,017	16.8	70,954	15.1	2,369	0.4	5,986	0.7	96,086	8.9	303	0.3
Communication services	13,617	1.5	14,205	3.0	497	0.1	69,986	7.7	44,923	4.2	460	0.4
Construction services	5,024	0.5	3,432	0.7	35,687	5.8	1,146	0.1	11,272	1.0	46	0.0
Insurance services	6,894	0.8	64,454	13.7	2,988	0.5	9,941	1.1	66,806	6.2	0	0.0
Financial services	53,881	5.9	14,530	3.1	1,269	0.2	4,143	0.5	23,742	2.2	556	0.5
Computer and information services	17,873	1.9	19,808	4.2	600	0.1	18,692	2.0	56,104	5.2	1,620	1.4
Royalties and license fees	17,209	1.9	29,299	6.2	2	0.0	356	0.0	49,599	4.6	82	0.1
Other business services	472,128	51.4	119,429	25.3	192,131	31.3	57,570	6.3	231,328	21.5	622	0.5
Personal, cultural, and recreational services	157	0.0	9,939	2.1	3	0.0	34	0.0	10,006	0.9	41	0.0
Government services	34,477		45,315		48,439		5,574		67,851		79	

Source: Calculated using State Bank of Pakistan Publication on Exports of Goods and Services. http://www.sbp.org.pk/index.asp. Accessed 12 Feb 2013

Two broad inferences can be drawn. The first is that the services trade basket between India and Pakistan is narrower than it is with other countries, and so there is scope for expanding this basket. The second is that cross-border supply or Mode 1 trade in services seem to be performing better than other modes (communication and transport services being primarily provided through Mode 1); this indicates that without the facilitation of people, capital, and service provider mobility, the prospects for services trade will remain limited (which is reflected by the lower shares for computer and information services, travel services, and other business services in the case of India relative to other partners). Overall, India can potentially be a more important services trade partner for Pakistan. The overlap in terms of growing significance of certain regional markets such as Singapore and the UAE suggests the potential for exploiting commercial opportunities through third countries (via joint ventures and establishments in third markets with whom both countries have substantial trade interests in services) if direct trade linkages in services between the two countries prove difficult to establish.

6.2.3 Services Investment

As services transactions require the presence of establishments, it is important to examine FDI trends in the two countries and the role of services within overall FDI flows. The source and sectoral profile of FDI flows for the two countries indicates the prospects for bilateral investment relations in services if existing investment restrictions are removed.

Net FDI inflows into Pakistan have been important across a variety of services such as communications, financial, construction, and energy services. Although there has been some volatility in these trends, most of the FDI has been in services. The USA, the UK, and some countries in the Middle East are the main sources of FDI in Pakistan (Table 6.15).

Likewise, services account for over 60 % of net FDI inflows into India. Chief among these services are construction, financial, communications, and business services. If we exclude Mauritius, the important source countries are the USA, the UK, the UAE, and Singapore. Large FDI flows from certain countries may reflect tax treaty arrangements that make it attractive for investors to route their investment through these countries to take advantage of preferential provisions such as exemption from capital gains tax (Table 6.16).

An important development is the growing outward investment by Indian companies, including in the services sector. Outward FDI flows from India have grown from US$678 million in 2000–2001 to US$16.8 billion in 2010–2011, most of this in the form of equity and mainly in business (including IT) services (Table 6.17).

Data on the country destination for FDI indicates the significance of bilateral tax treaties in driving Indian outward investment. Several of these destination countries, such as Singapore and Mauritius, are also important source countries of FDI, which suggests round-tripping of some of India's FDI flows.

Table 6.15 Net FDI inflows into Pakistan by sector, values (US$ million), and shares (%)

	2001–2002		2005–2006		2011–2012	
	Value	Share	Value	Share	Value	Share
Oil and gas	268.2	55.3	312.7	8.9	612.8	75.4
Financial business	3.6	0.7	329.2	9.3	56.4	6.9
Textiles	18.5	3.8	47	1.3	30.3	3.7
Trade	34.2	7.1	118	3.4	25.3	3.1
Construction	12.8	2.6	89.5	2.5	71.8	8.8
Power	36.4	7.5	320.6	9.1	−84.9	−10.4
Chemical	10.6	2.2	62.9	1.8	96.3	11.9
Transport	21.4	4.4	18.4	0.5	17.4	2.1
Communication (IT and telecommunications)	12.8	2.6	1,937.70	55.0	−315.3	−38.8
Others	66.2	13.7	285	8.1	302.5	37.2
Total (including privatization proceeds)	484.7	100	3,521.00	100.0	812.6	100.0

Source: Board of Investment, Govt. of Pakistan. http://www.pakboi.gov.pk/index.php?option=com_content&view=article&id=180&Itemid=137. Accessed 4 Dec 2012

Table 6.16 Net FDI inflows into India by sector, values (US$ million), and shares (%)

	2007–2008		2009–2010		2011–2012	
Source/industry	Value	Share	Value *P*	Share	Value *P*	Share
Total FDI	19,425	100.0	22,461	100.0	23,473	100.0
Manufacture	3,726	19.2	5,143	22.9	9,337	39.8
Construction	2,551	13.1	3,516	15.7	2,634	11.2
Financial services	3,850	19.8	2,206	9.8	2,603	11.1
Real estate activities	1,336	6.9	2,191	9.8	340	1.4
Electricity and other energy generation, distribution, and transmission	829	4.3	1,877	8.4	1,395	5.9
Communication services	66	0.3	1,852	8.2	1,458	6.2
Business services	1,158	6.0	1,554	6.9	1,590	6.8
Miscellaneous services	1,901	9.8	888	4.0	801	3.4
Computer services	1,035	5.3	866	3.9	736	3.1
Restaurants and hotels	280	1.4	671	3.0	870	3.7
Retail and wholesale trade	200	1.0	536	2.4	567	2.4
Mining	461	2.4	268	1.2	204	0.9
Transport	816	4.2	220	1.0	410	1.7
Trading	176	0.9	198	0.9	6	0.0
Education, research, and development	156	0.8	91	0.4	103	0.4
Others	884	4.6	384	1.7	419	1.8

Source: RBI Annual Report (2012) Appendix Table 19. http://rbi.org.in/scripts/AnnualReportPublications.aspx?Id=1070. Accessed 21 Dec 2012
Note: *P* provisional
Only FDI through SIA/FIPB and RBI routes

Table 6.17 Major sector-wise overseas investments by Indian companies (US$ billion)

Sector	2008–2009	2009–2010	2010–2011	2011–2012[a]	Total
Manufacturing	10.18	5.35	5.04	2.74	23.31
Financial insurance, real estate business, and business services	3.55	4.41	6.53	2.53	17.03
Wholesale, retail trade, restaurants, and hotels	1.17	1.13	1.89	1	5.19
Agriculture and allied activities	2.38	0.95	1.21	0.41	4.94
Transport, communication, and storage services	0.31	0.38	0.82	1.34	2.85
Construction	0.35	0.36	0.38	0.37	1.46
Community, social, and personal services	0.39	0.18	0.7	0.18	1.45
Electricity, gas, and water	0.14	0.84	0.1	0.04	1.19
Miscellaneous	0.12	0.11	0.18	0.1	0.51
Total	18.58	13.71	16.84	8.73	57.86

Source: Extracted from Khan (2012) Table 1. http://rbi.org.in/scripts/BS_SpeechesView.aspx?Id=674. Accessed 6 Dec 2012

[a]April 2011 to February 22, 2012

There is considerable overlap in the sectoral composition of FDI inflows and the source countries for FDI. This suggests commonality in sectoral interests as well as potential to attract investment in services from select regions and countries. What makes these trends pertinent to assessing prospective bilateral relations is the growth in outward FDI by Indian companies in countries that are also sources of investment for both India and Pakistan. Thus, there is potential for the two countries to collaborate on FDI flows, especially in IT, other business, and energy services, through establishments based in third countries if direct investment between the two countries is difficult. In addition, since some of these investment partner countries are also important services trade partners for the two countries, trade and investment flows in services between India and Pakistan could be linked through third countries. The evidence also indicates the significance of bilateral tax treaties in shaping outward and inward FDI flows in India, since some of the main destination and source countries have tax treaties with India. This suggests the potential for stimulating investment flows between India and Pakistan through bilateral arrangements such as investment or tax treaty.[3]

6.3 Opportunities and Constraints in Select Services

An examination of specific services captures the prospects and challenges for expanding bilateral services trade and investment between the two countries. The following discussion examines three services, namely, IT-BPO, tourism, and health services. For each service, it outlines its characteristics and describes recent trends

[3] India, until recently, did not permit Pakistani citizens or entities incorporated in Pakistan to invest in India.

in the two countries using secondary sources. It also presents the views of industry experts and academics on the potential to expand bilateral relations in these services.

6.3.1 IT-BPO Services

An important growth segment in both India and Pakistan has been information technology and business process outsourcing services. The contribution of this sector to exports has grown in both countries, driven by common factors such as the pool of skilled and English-speaking labor force, low costs, and improvements in telecommunications infrastructure. However, there are problems with quality, data protection, rising costs, and growing competition from third countries that are likely to affect future growth.

6.3.1.1 India

Within the services sector, the IT-BPO segment has been the fastest growing subsector in India's exports, registering double-digit annual growth rates for exports in the past decade. India's IT and BPO services exports have risen from a mere US$754 million in 1995–1996 to US$9.6 billion in 2002–2003 and then to $47.5 billion in 2009, with the industry's total turnover reaching $101 billion or 8 % of GDP in 2012. Exports amounted to $69 billion (or over two-thirds of total industry turnover). As a result, the IT sector's share in India's total export basket has increased from less than 4 % in 1998 to around 25 % in 2012. Within the industry, IT services alone is accounted for $56 billion (56 %) in 2012, BPO services for another 21 %, and engineering services and software products for another 18 % of export earnings in this industry (NASSCOM Strategic Review 2013, p. 4).

These exports cover a variety of verticals, including the banking and financial services industry (BFSI), telecommunications, manufacturing, retail, healthcare, and travel and tourism. There has also been a gradual movement up the value chain, with a growing number of offshore R&D centers being established in India and a shift toward higher-end services, such as business analytics, equity research, and market research. Multinational firms operating in the Indian market through captive subsidiaries and offshore development centers as well as large-, small-, and medium-sized Indian firms are engaged in IT-BPO services exports. The main export markets for India's IT-BPO industry are the USA followed by the UK, with the two together accounting for almost 80 % of total exports. There has been little diversification beyond these two English-speaking countries to the Asia-Pacific region or the rest of the world (Figs. 6.6 and 6.7).

India's IT-BPO services exports take the form of onsite delivery through the temporary movement of software professionals to other markets and offshore delivery through data, voice, and information flows over the Internet and phone. There has been a gradual shift from a predominantly onsite to an offshore mode of delivery

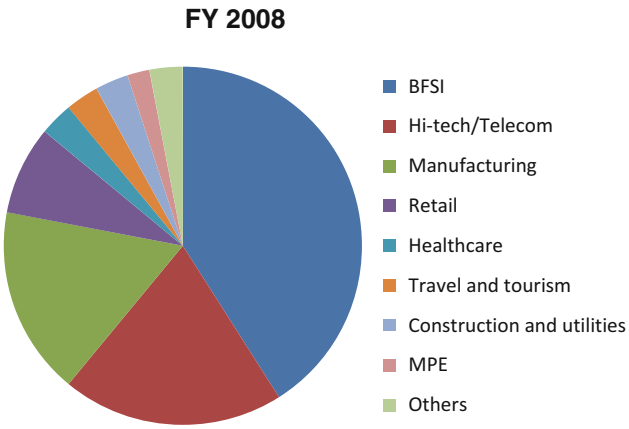

Fig. 6.6 Indian IT-BPO industry by verticals, 2011 (*Source*: NASSCOM strategic review (2013), p. 73)

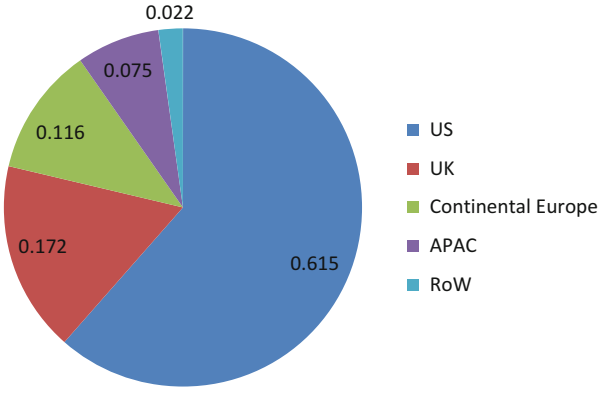

Fig. 6.7 Indian IT-BPO exports by markets, 2011 (*Source*: NASSCOM strategic review (2013), p. 74)

over the past decade. The onsite-offshore mix declined from 57 and 43 %, respectively, in 2000 to 30 and 70 %, respectively, in 2005 and stands at 85:15 today (Hindu Business Line 2010). Mode 1 exports accounted for 69 % of IT services exports in 2011–2012, followed by Mode 3 and Mode 4 at 15.4 % and 15.1 %, respectively.[4] According to the AT Kearney Offshore Location Attractiveness Index, India has consistently ranked the highest among offshore destinations, due to the combination of its skill availability, favorable business environment, and low cost (Kearney 2011). Today, India accounts for 58 % of the offshore IT-BPO market, and India-based delivery is estimated to account for 60–70 % of the delivery capabilities of the

[4] RBI (2013) http://rbidocs.rbi.org.in/rdocs/PressRelease/PDFs/IEPR42SUR0713.pdf

leading multinational IT-BPO players, despite emerging competition from other developing countries and regions (NASSCOM 2013, p. 43). Growth in outsourcing and the establishment of offshore development centers in India have had important spillover effects on the Indian economy in terms of the sector's contribution to GDP and to direct and indirect employment (NASSCOM 2013). However, there are challenges, including the need to ensure adequate quality manpower to address rising wage costs, to move up the value chain in verticals and products, to diversify export markets including the Asian market, and to spread into second- and third-tier cities to address rising establishment costs and serve the domestic market.

6.3.1.2 Pakistan[5]

The IT industry in Pakistan has witnessed high growth in exports. According to the Central Bank's statistics, IT exports amounted to US$187.9 million in 2009–2010, although the WTO places the figure four times higher at US$ 490.4 million. According to estimates of software developers, exports were close to $1 billion. The BPO industry has registered double-digit export growth in recent years. The industry provides contact centers and offshore back-office services such as finance functions, software development, data processing, IT support, administrative support, and marketing services. Experts estimate an annual average growth rate of 33 %, with export revenues crossing US$10 billion over the next 5 years (Pakistan Software Export website). The main verticals are government, financial, telecommunications, and energy. There is also a gradual shift in revenue sources from exports toward the domestic market, with the split changing from 40:60 to 52:48 more recently (Figs. 6.8 and 6.9).

Like India, Pakistan's cost advantage stems from its large untapped pool of English-speaking graduates whose wages are around 60 % of those of their US counterparts. Employment has grown rapidly, increasing by 41 and 27 % in 2007–2008 and 2006–2007, respectively, according to a study commissioned by P@SHA. A 2007 Annual Review of the country's IT-BPO industry put the number of full-time IT professionals at 12,232, up from 4,619 in 2004, with 20 % being foreign qualified professionals. In 2008, over 24,000 IT professionals were engaged in export-oriented activities such as software development, call centers, and technical support services. The total number of IT professionals in the country was estimated at around 125,000 in 2008 (Pakistan Software Export website). Given the large number of IT graduates produced each year and that several universities offer IT and computer science programs, Pakistan has a steady supply of professionals for the industry. There are also infrastructure advantages due to high-speed connectivity at competitive rates in all major cities; infrastructure investment in telecommunications; the establishment of IT parks proactive measures by the government to develop the industry, such as tax exemptions until 2016; and liberal foreign investment policies.

[5]The discussion in this section is based on P@SHA (2013) http://pasha.org.pk/ict-industry/facts-figures/ and the Pakistan Software Export website, http://www.pseb.org.pk/item/industry_overview.

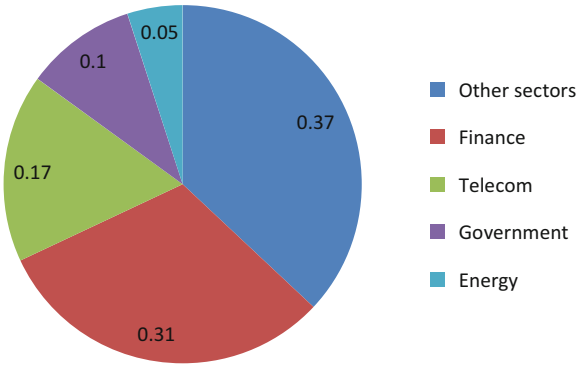

Fig. 6.8 Sources of demand for Pakistan's IT services (*Source*: P@SHA annual review (2008), p. 2)

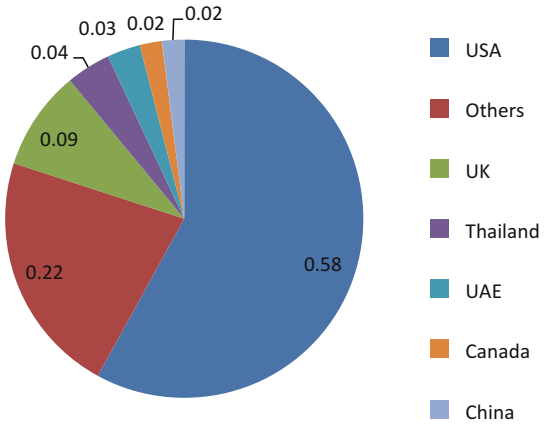

Fig. 6.9 Export markets for Pakistan's IT services (*Source*: P@SHA annual review (2008), p. 20)

There has been impressive growth in this industry. The number of companies has grown significantly (from just 4 in 1994 to around 400 today). The largest companies today earn around US$15–25 million in revenues, and some of the leading MNCs account for much larger revenues. The industry as a whole earns over $2 billion in revenues, up from less than a billion dollars a few years ago. Most of this growth has been from foreign software and high-end services projects. MNCs such as IBM, Cisco, Microsoft, and Oracle have in recent years expanded their operations in Pakistan, and start-ups backed by venture capitalists have also emerged. The leading 8–10 MNCs have been growing at 25–30 % per year on average. At current growth rates, the industry is expected to cross US$11 billion in the next 5 years. Today, the in-house operations of the major MNCs, banks, and government bodies constitute an important part of the customer base for Pakistan's IT-BPO industry, and in-house development contributes significantly to the IT market in the country.

However, there are several areas of concern connected with the continued availability of skilled manpower, quality, and physical infrastructure. There is over-dependence on a few clients for exports, and there is a need to diversify and focus on

international marketing and business development. The P@SHA study found that the average share of company revenue derived from the top five clients rose from 72.5 % in 2004 to 83 % in 2007. Pakistani firms also face growing competition from firms in other countries (which has partially contributed to the shift in revenues from the export market toward the domestic market) and are confronted by problems of negative image and publicity arising from geopolitical problems. There is also an overdependence on the USA and the UK for investment in this industry. Over 20 % of software and BPO companies in Pakistan have their parent entities in the USA, followed by the UK, with the subsequent dominance of these markets for Pakistan's IT-BPO exports.

Overall, Pakistan fares moderately in recent studies on its relative attractiveness for IT-BPO services exports. It scores reasonably well on costs and availability of manpower, but not so well on infrastructure, standards and certification, and geopolitical stability. In relation to India, it fares better in labor costs and overall costs for setting up and managing IT operations. In recent years, global outsourcing country rankings have included Pakistan among the list of "potential players." The main negative factor is rising labor and infrastructure costs.

6.3.1.3 Bilateral Prospects

Both India and Pakistan derive their comparative advantage in this sector from their large manpower base and low labor costs compared to developed and other developing countries. There are clearly elements of competition in terms of their export orientation toward markets such as the USA and the UK and the dominance of verticals such as banking, financial, and telecommunications services. However, they face common challenges, though Pakistan's industry not only is much smaller but also has to overcome barriers of perception about quality and political stability. From a bilateral perspective, there is scope to approach this sector strategically by encouraging collaboration and tie-ups between Indian and Pakistani firms, which help address Pakistan's constraints with regard to scale, reputation, marketing, and diversification and which help address India's emerging challenges on wages, quality manpower, growing competition from lower-cost countries, and the need for diversification.

Pakistan's trade in computer and information services with India is very small but growing. The trade balance is in favor of India. Imports from India have grown more than exports to India, though not significantly (Table 6.18).

Bilateral trade in communications services, which includes call center services (in addition to telecommunications services and courier and postal services based on the State Bank of Pakistan's classification of this subsector), is larger than for computer and information services and is in favor of Pakistan. Recent monthly data on Pakistan's services exports suggests that about 10–20 % of overall communications services exports are accounted for by call services (Table 6.19).

There seems to be scope for increasing trade in computer and information services and BPO services with India when we compare trade trends for India with the trends for other developing countries such as Singapore, Malaysia, and China

Table 6.18 Pakistan's exports and imports of computer and information services, 2009–2011 (US$ thousand)

	Exports			Imports		
Country	FY11	FY10	FY09	FY11	FY10	FY09
India	242	41	90	1620	928	504
USA	104,953	94,827	115,749	17,873	16,276	27,034
UK	17,946	28,183	17,180	19,808	22,132	19,169
UAE	19,856	14,288	13,899	18,692	21,648	11,670
China	8,506	5,135	1,394	600	823	1,029
Canada	4,028	2,270	1,714	588	1,155	57
Singapore	5,463	2,426	2,090	38,491	27,742	19,135
Malaysia	602	135	103	7,753	10,174	6,719
EU	36,628	40,684	26,500	56,104	56,428	31,105
Sri Lanka	38	6	4	147	209	215
Saudi Arabia	6,373	3,861	2,768	53	0	0

Source: Publication on Exports and Imports of Goods and Services from State Bank of Pakistan. http://www.sbp.org.pk/index.asp. Accessed 12 Feb 2013

Table 6.19 Pakistan's exports and imports of communication services, 2009–2011 (US$ thousand)

	Exports			Imports		
	FY11	FY10	FY09	FY08	FY07	FY06
India	5,374	341	5	460	184	144
USA	153,935	157,828	138,777	13,617	14,150	12,041
UK	11,247	33,965	13,197	14,205	16,660	23,234
UAE	17,425	15,582	4,559	69,986	71,715	66,965
China	423	548	311	497	977	1,503
Canada	1,014	595	313	21	1,759	252
Singapore	977	1,796	295	7,931	10,591	7,776
Afghanistan	1,181	1,118	27	6,287	87	1,746
Sri Lanka	3,423	22	81	23	112	6
EU	27,609	41,560	32,734	44,923	35,365	41,228
Saudi Arabia	816	1,528	74	779	785	906
Malaysia	2,204	2,502	346	10,718	1,776	1,736

Source: Publication on Exports and Imports of Goods and Services from State Bank of Pakistan. http://www.sbp.org.pk/index.asp. Accessed 12 Feb 2013

(Yasir 2011). The very low volume of IT and BPO services trade with India indicates various barriers to trade between India and Pakistan. Some of the larger IT companies in both countries work together; the Pakistani company Netsol has provided financial services applications to Indian companies, Ten Pearl has signed a deal with an Indian company to create mobile applications, and Pakistan's System Limited has worked with Indian companies through its sister organization in the USA. However, experts find that there are several restrictions on sharing mutual expertise and IT-based applications. These include the absence of MFN status by Pakistan's government to India; restrictions on investment by Indian IT companies in Pakistan; lack of a supportive visa policy, which constrains the mobility of IT

professionals; and corporate regulations. Pakistani and Indian companies have not been able to invest in each other's countries, merge to form larger companies, or enter into partnerships. But as the former chairman of P@SHA noted in an interview, there is a lot of potential for Indian companies to invest in Pakistan's IT sector, especially since the large Indian IT companies are looking to outsource their BPO businesses to countries such as the Philippines. Pakistan could be a potential partner. According to a newspaper source, Pakistan and India can boost their mutual trade in the IT sector to as much as $5 billion through joint ventures, investment, and exchange of expertise (Yasir 2012).

Secondary sources indicate the potential to complement each other given their mutual strengths. For instance, Pakistani industry has gained a reputation in gaming and animation that could be combined with Indian industry's strength in IT-enabled services. Investment flows and movement of service providers are central to boosting bilateral relations in the ICT sector.

Discussions with industry experts confirm these possibilities. According to one Pakistani expert, Pakistan is better placed than some parts of India for the call center business because of its neutral accent. It also has good bandwidth and compares well with India on telecommunications costs and connectivity. Companies in both countries could set up offices in a third, neutral country, such as Dubai or Singapore, through joint ventures and provide services from these offshore offices to other markets. This approach would circumvent the investment and visa restrictions that make it difficult to do direct business between the two countries. It is also possible for Indian companies to strategically engage with Pakistani companies to tap markets in the Middle East, Central Asia, and North Africa. Other potential areas of engagement are exports of Indian software products to Pakistani banks and vice versa and using Indian expertise to execute the contracts of Pakistani IT firms in third countries. According to a recent study commissioned by P@SHA, Pakistan could provide a strategic offshore base for Indian companies to service Western and Central Asia, while Indian investments in Pakistan would benefit the latter through increased access to technology and markets. Although there is the possibility that increased trade in this sector with India could come at the expense of domestic providers, little concern has been voiced in this regard and the emphasis is on mutual complementarities and possibilities for collaboration.

However, the general view about bilateral prospects in this sector is not too optimistic, especially on the Indian side. Discussions indicate that given the current regulatory environment, it would be very difficult for companies in the two countries to work together due to difficulties in obtaining visas and setting up offices. As people mobility and working in teams are essential for collaboration in this industry, a roadmap would be required for facilitating visas for IT service providers. Moreover, given the negative perceptions about Pakistan due to issues of terrorism and fundamentalism, Indian companies are unlikely to consider Pakistan for investment in the immediate future. It was noted that there is no particular reason why Indian IT companies would be very interested in the Pakistani market or in Pakistani firms since (a) Pakistan is still much lower in the rankings than other potential markets where Indian firms could invest, (b) its scale of engineering talent

and manpower is not very large, and (c) there are concerns about safety and stability in that market. According to some Indian industry experts, there is nothing specific that the Pakistani industry can add to the portfolio of Indian IT companies in terms of service offerings, lower costs, vertical specialization, or quality for serving Western markets. Instead, the Philippines, Eastern Europe, and East Africa provide better options in terms of availability of specialized skills and talent. Pakistan lacks sufficient scale, quality, and expertise and is not an attractive market for investment and offshoring for the Indian IT-BPO industry.

Experts suggested that to promote bilateral ties in ICT services, the two governments need to take several steps. These would include signing an agreement to cooperate in IT-BPO services so as to provide official sanction to business initiatives in the IT sector; promoting travel between companies through an easy visa for companies and service providers who meet specified entry conditions; promoting more trade in products, including IT products; removing investment restrictions; and enabling the exchange of students, interns, executives, and contractual service providers to boost confidence. Overall, while there is potential for trade, investment, collaboration, and leveraging complementarities and synergies, realizing this potential will require both governments to create a facilitative regulatory environment and confidence-building measures on visas and investment rules.

6.3.2 Health Services

Healthcare is a sector where the potential for regional integration and cooperation has been well recognized. Both Pakistan and India have poor health indicators. Public expenditure on healthcare accounts for less than 1 % of their GDP, and out-of-pocket spending constitutes the main source of health financing in both countries. The countries share common challenges in terms of the lack of universal and reliable health coverage, lack of equitable access, under-allocation of resources, lack of quality, and lack of institutional capacity. The private sector plays an important and growing role in meeting the growing demand for health services in both countries.

6.3.2.1 India in the Regional Market

Regional initiatives and developments, particularly in the private sector, highlight some of the regional opportunity segments. One promising segment is medical tourism. India attracts international patients from over 50 countries, including all the South Asian countries. The country's medical tourism industry is estimated at $1 billion and has been projected to touch $2 billion by 2015 (Dey 2013a). International patients, on average, account for 10–20 % of total patients in major corporate hospitals (Dey 2013b). The regional South Asian market and in particular medical value travelers from Pakistan, Bangladesh, Nepal, and the Maldives have been identified as one of the four strategic segments for promoting medical tourism exports by Indian hospitals,

given the underdeveloped facilities and unavailability of specialized treatments in these markets. Such patients find medical care in India attractive due to considerations of cost, quality, cultural, and geographic proximity. Manipal Hospital in Bangalore receives patients from more than 30 countries, including Sri Lanka, Bangladesh, Nepal, and Pakistan among the SAARC nations. Pakistan is seen as a potential source market for patients seeking high-end treatments at a reasonable cost.

The government of India has taken steps in recent years to promote medical tourism. It has introduced M-visas for health tourists that are valid for 1 year and allows up to three entries; they can be extended for another year by the state government or Foreigner Regional Registration Offices (FRROs) subject to a medical certificate or advice from reputed or recognized hospitals in the country.[6] Attendants or family members are granted MX-visas that are co-terminus with the M-visa. In addition, as of 2007, the Ministry of Health and Family Welfare has allowed medical practitioners from several countries such as the USA, the UK, Canada, and Australia to work in Indian hospitals to enable knowledge sharing and upgrading of capabilities (IBEF 2011).

Another potential area is cross-border investment in hospitals. Several leading Indian hospitals have entered other markets in the region through joint ventures with a local partner, wholly owned subsidiaries, or management contracts. There are also telemedicine links between major hospitals in India and establishments in other South Asian countries, mainly for teleconsultation and telediagnostic services.

Numerous challenges at the government and private sector levels have, however, constrained regional integration in health services. Investments in other countries in the region have been affected by political instability and regulatory constraints. Telemedicine services have been constrained by the high cost of bandwidth, poor quality of images, lack of home devices, problems of data security, and potential breach of patient confidentiality. The shortage of trained specialists to serve the local market in countries like India has made it difficult for their telemedicine providers to focus on the regional market. There have been difficulties with the regional mobility of professionals, which has affected the staffing of overseas investment ventures in the region and organizing regional seminars and conferences to exchange expertise and build capacity in the region. A major limitation has been the lack of recognition of qualifications, as there is no formal mechanism for recognizing medical professionals' qualifications across SAARC countries.[7] Medical tourism has been constrained by delays in getting visas, the lack of processes for obtaining expedited medical visas, poor airline connectivity, and inadequate local support infrastructure in the receiving country, which also affect tourism in general (Rahman 2000). The lack of insurance portability and any regional insurance products is another constraint. There is also no proactive policy at the national or

[6] Foreigners coming on an M-visa have to register within 14 days of their arrival with the local FRRO.

[7] The Indian Medical Council Act notifies medical degrees from Bangladesh, Nepal, Sri Lanka, and Pakistan under the reciprocal arrangement provision. This means that these countries recognize medical qualifications from notified Indian colleges and universities.

intergovernment level to facilitate medical tourism within the region and no efforts to develop joint medical tourism products at the regional level.

6.3.2.2 Pakistan's Prospects

According to a recent PITAD study, Pakistan has the potential to trade health services through all four modes of supply. At the lower end, it exports outsourced health services such as medical transcription and billing to large hospitals in the West. Telehealth services have also taken off in Pakistan in areas such as dermatology and radiology and are being used to train doctors and to run telehealth clinics and hospitals in remote areas. Pakistan also has the potential to trade health services through Mode 2, i.e., mobility of patients in and out of Pakistan. Patients from SAARC countries such as Bangladesh and Afghanistan come to Pakistan for treatment. A limited number of scholarships are also provided to SAARC students to study in Pakistani medical colleges. Over the past decade, Pakistan has opened up its medical education system to private players and has permitted private investment in state-of-the-art hospitals and diagnostic laboratories. The Aga Khan Medical Complex Karachi, Shifa Hospital Islamabad, Maroof Hospital Islamabad, Doctors Hospital Lahore, and Hearts International are some high-end hospitals that are capable of providing healthcare services to patients from other countries, such as Afghanistan. Liberalization of the insurance sector has helped support the provision of healthcare to foreign patients.

Media articles cite the positive outlook of Pakistani medical practitioners and industry bodies regarding medical tourism. The cost of treatment for conditions such as fertility can be in the range of Rs. 0.2 million compared to Rs. 2.5–3 million abroad (Siddiqui 2012). The low costs combined with good doctors and private sector hospitals are seen as placing Pakistan in a competitive position to attract international patients who lack insurance cover. The Pakistan Medical Association has noted the huge potential for Pakistan to become a hub for medical tourism. Pakistan already receives patients from the Middle East, the UK, and the USA, mostly of Pakistani origin, for treatments such as cardiac surgery, infertility treatments, and cosmetic surgery (liposuction and hair transplant). Earlier, international patients also came for kidney transplants, but this number has come down due to legislation regulating the illegal trade in kidneys. The main constraints are security and political instability, which have not only affected the inflow of foreign patients but also caused many Pakistani doctors to leave the country.

Until recently, there was no coordinated strategy and individual hospitals and agencies were acting on their own. But in 2010 the government made medical tourism a key element of the country's new National Tourism Policy, 2010. It set up a task force to develop medical, health, spiritual, and wellness tourism in Pakistan after consulting the local provincial governments. This policy aims to provide fiscal incentives and soft loans to local and foreign investors to develop tourism infrastructure. The Punjab government is planning to develop a 150-bed hospital for kidney transplants and heart surgery as specialties to target medical tourists (Eturbonews 2010).

Pakistan also has the potential to attract foreign investment in the health sector. It exports midwives, nurses, physiotherapists, and paramedics mainly to the Gulf countries. Its medical specialists and doctors practice in the West, Southeast Asia, and the Gulf countries, while foreign medical doctors are also allowed to practice if they are registered with the Pakistan Medical and Dental Council.

6.3.2.3 Bilateral Prospects

There are numerous news articles in Pakistani and Indian papers about the potential for medical tourism trade between the two countries. Hospital chains such as Apollo, Max, Medanta, and Ganga Ram attract Pakistani patients, mostly for organ transplants (liver and kidney), oncology-related treatments, and cardiac and orthopedic surgeries. On average, Apollo receives around 50–60 patients from Pakistan every month, who account for around 3 % of its total revenues from international patients (which constitute around 20–25 % of its total revenues). The hospital performed 130 liver transplants on Pakistani patients in 2012. Ganga Ram Hospital gets around 30–40 Pakistani patients per month, and Medanta receives 8–10 patients per month (Dey 2013a). Pakistani patients account for 15–20 % of total international patient inflows to India.

There are also numerous media accounts of Pakistani patients who have received treatment at renowned Indian hospitals. One Pakistani woman with a liver cirrhosis condition underwent a successful life-saving liver transplant operation at Ganga Ram Hospital in New Delhi in August 2012. A team of 21 Indian doctors conducted the operation over 16 h at a cost of Rs. 1,775 lakh (The Hindu 2012). There is also the case of Baby Noor Fatima who underwent open heart surgery at Narayana Hrudayalaya in Bangalore in 2003. As one article notes, in India pediatric cardiac surgery costs around Rs. 200,000 to Rs. 300,000, while the same procedure costs Rs. 2.5 million in developed countries. Likewise, liver transplants in India costs Rs. 1.5 million compared to Rs. 10 million in the West (Husain 2012). Experts note the potential for medical tourism from Pakistan in pediatric cardiac surgery and liver transplants. Such experiences have helped spread goodwill between the two countries and led to more patients traveling from Lahore and Karachi to Delhi, Mumbai, and Bangalore. The recent easing of visa restrictions can enhance such patient mobility.

Another potential area is fertility treatment. One newspaper report put it provocatively as "Pakistani children could soon be 'made in Mumbai'" (NDTV 2012). The Mumbai Obstetric Gynecological Society is planning to collaborate with Pakistani doctors to help Pakistani couples with cutting-edge fertility treatments, thus expanding beyond the usual areas of cardiovascular, pediatric, and orthopedic treatment. The idea is to collaborate with doctors in Pakistan, in which the latter would handle patients in the earlier stages of in vitro fertilization procedures and patients can come to India for the next phase of treatment. Mumbai can provide cost-effective infertility treatment to Pakistani couples. Such collaboration can help provide preimplantation genetic diagnosis by Pakistani doctors and subsequent treatment in India. The cost of conception is around Rs. 80,000 to Rs. 1 lakh compared to Rs. 12 lakh in the USA (NDTV 2012).

There are also commercial initiatives to promote medical tourism between the two countries. Asia Health, which is a health tourism service provider in India, puts together a wide-ranging list of Indian medical providers to inform Pakistani patients about their specialties and services. Recently, Pakistan's government has mooted the idea of developing doctor-to-doctor contacts between the two countries. A liver care forum has been created for the people of both countries to help subsidize treatment for liver transplants (Pakistan Today 2012).

There is also potential to expand telemedicine services exports between India and Pakistan. The Apollo Group exports telemedicine throughout the SAARC region, and its telemedicine arm, ATNF, has set up over 120 telemedicine centers, of which seven are outside India, including in Pakistan, Sri Lanka, Oman, Maldives, and Nepal (South Asia Centre for Policy Studies 2011). In October 2004, the Apollo Group set up a telemedicine link between its Indraprastha Apollo Hospital in Delhi and the Apollo Information Centre in Lahore; medical programs are provided through videoconferencing as continuing medical education to upgrade the skills of local doctors in Lahore. Telemedicine holds the most promise as it is the least affected by political instability and does not require people mobility.

There are, however, several constraints. The prospects for telemedicine trade are constrained by technology, telecommunications infrastructure, and privacy concerns. It is still not cost-effective, given the high cost of equipment. Prospects for medical tourism are affected by the lack of health-financing arrangements and regional insurance products, poor airline connectivity, lack of supporting infrastructure for patients and their families, and difficulties with pre- and post-consultations. Although many Pakistani patients come to India because it is a cheaper option than going to the USA, disruption in transport services (such as when the bus service was stopped) requires them to come through other routes, such as via the Middle East. Political relations between the two countries are also a major constraint to expanding medical tourism trade. For instance, although the recent proposals to ease visas would benefit this trade, hospitals and industry experts fear that recent border tensions and resulting visa hurdles could affect the flow of patients from Pakistan to India. Leading Indian hospitals have cited a fall in the number of patients soon after the border conflict. The number of patients at Ganga Ram Hospital is said to have fallen from around 4–5 patients per day to 1–2 patients per day. Continued tensions are expected to hurt the visa issuance process, although government officials have stated that medical tourism would be treated as a special case and there would be no discrimination between countries in issuing medical visas. Doctors and hospital representatives in India, however, believe that this will have an adverse effect on patient flows, not only due to fewer visas being issued but also because Pakistani patients will choose not to come to India in light of the political tensions (Dey 2013a).

Until recently, investment relations have been constrained by the restrictions imposed by India. It remains to be seen whether removing these restrictions will result in FDI flows by major Indian hospitals into Pakistan, or investment between the two countries in setting up telemedicine or diagnostic clinics. Finally, cross-border mobility of health professionals will remain constrained unless the current strict visa policies that affect even attendance at seminars and conferences in the

other country are eased. Mobility of health professionals for managing establishments, providing specialized skills and expertise, and attending seminars and conferences in the other country would need to be eased.

Discussions with some experts confirmed these problems. There are perceived opportunities for Indian patients to get treatment in areas such as nephrology and oncology in Pakistan. There are informal referrals in place and links among medical professionals from the two countries due to their training in countries such as the UK. There is scope to provide health services on a charitable basis across the two countries through establishments such as the Aga Khan Hospital. Telemedicine is another area where there is scope and the existing mobility restrictions and safety concerns can be overcome. Companies such as GE are present in these countries and are manufacturing telemedicine equipment. They could provide telehealth services between the two countries.

Simple factors such as the inability to register for an Indian SIM as a Pakistani national or the requirement to register with the FRRO are impediments to medical tourists from Pakistan. A leading corporate hospital stated that while they had considered opportunities in the rest of South Asia, they had decided not to invest in Pakistan even if investment were liberalized given the country's political instability. Indian medical professionals and management would not be interested in residing in Pakistan which would constrain investments in healthcare in that market. But they noted that there is scope for building strategic relations in this sector and creating goodwill. Three areas need to be targeted: medical tourism to facilitate bilateral mobility of patients between the two countries, cross-border investments in hospitals and telemedicine centers, and capacity building and regulatory cooperation by initiating joint efforts in research, training, and capacity building through education and research tie-ups between select centers and establishments.

In the context of medical tourism, a regional insurance product could be developed that includes an overseas package for treatment in other countries. As international insurance premiums are high, an insurance policy initiated within the region but with an understanding among the countries for treatment in the region could help promote medical tourism.[8] Pilot schemes could be introduced for specialized elective treatments and procedures that are not be available in the home country of the patient.[9] Thus, it would be useful for governments, insurance companies, and hospitals in these countries to explore the possibility of cross-border insurance arrangements, common insurance products with agreed rates for treatment within the region, and supplementary financial arrangements through formal channels. Other areas such as visas, transport, supporting logistics, and follow-up services

[8] According to a leading Indian practitioner, there is scope to institute a regional Medicare system where reimbursements are scheduled transparently and rates are fixed for different procedures and treatments for each country in the region. Medical tourism would also get a boost in the region if regional insurance players recognize payments in each other's markets and there are bank-to-bank guarantees in the region.

[9] Some potential segments would be transplant surgery, infertility medicine, joint replacements, and treatments for cardiac, eye, dental, urological, and gastrointestinal problems.

would also need to be addressed. In the context of cross-border investment in hospitals and telemedicine establishments, private sector investment initiatives must be supported by government measures on visas, licensing, registration, repatriation of income and profits, and provision of a stable, investor-friendly environment.

With regard to capacity building, intergovernment dialogue is required. There is scope for research and development with multicenter and multicountry studies that focus on common diseases that afflict the region, public health issues, and emerging areas of health research and delivery. Data could be shared and validated. There is scope for joint initiatives in public health for education, research, training, and awareness-raising purposes, by identifying public and private centers of excellence. Steps could be taken to increase interaction among members of the medical community in both countries through the exchange of health professionals and students across identified research centers and training institutions, sharing of knowledge and best practices, and capacity building in specific domains. Education and research institutions could also be linked through government and private sector scholarships to promote medical studies in the region. Joint training could take place in areas such as nursing and paramedical services. There is also a need for regulatory cooperation on recognizing degrees, standards, and accreditation of medical establishments, which would, in turn, facilitate medical tourism. Thus, promotion of health services trade would require cooperation at various levels, among professional associations, private players, and regulatory bodies in the two countries.

The two governments could cooperate on the promotion of ICT for healthcare delivery, through telemedicine arrangements between establishments in the two countries. Another potential area is clinical trials. Given the racial diversity and the common diseases and afflictions in the region, the large population base in South Asia provides opportunities for carrying out stage 3 and 4 clinical trials. Existing intergovernment initiatives at the regional level on disease control, joint research and training, promotion of traditional systems of medicine, and exchange of health professionals and academics could provide the basis for bilateral initiatives between India and Pakistan.

6.3.3 Tourism Services

This is a sector where the two countries have much in common with respect to language, culture, history, religion, and geography, thus providing an excellent basis for bilateral trade and cooperation.

6.3.3.1 Key Features of India's Tourism Industry

The tourism sector has grown considerably in India over the past few years. The number of foreign tourists into the country increased from 5.11 million in 2009 to around 6 million in 2011. The CAGR of the tourism sector in India between 2001

and 2010 was around 8 %. Tourism is also significant for the economy, accounting for 2.5 % of GDP, and is the third largest foreign exchange earner. However, India does not feature among the top 20 destinations for international tourists or the top 10 destinations in the Asia-Pacific region and ranks 40th in the United Nations World Tourism Organization rankings for tourism arrivals (WTTC 2012a).

Although there has been growth in value, employment, investment, and arrivals, the pace of this growth has been moderate, even though India has many attractive tourist spots. This failure to capitalize on its tourism potential is due to the lack of management, marketing, infrastructure, hygiene, and sanitation and the absence of a focused strategy to promote tourism. However, WTTC projections place India as one of the top tourism spots in the next decade, with several emerging segments such as ecotourism, medical tourism, and sports tourism. There is scope to expand tourist inflows, as foreign visitor spending currently accounts for only round 17.8 % of total spending compared with more than 80 % for domestic visitor spending (with leisure spending contributing to around three-fourths of total revenues). It is expected that by 2020 India will be the leading tourism destination in South Asia with about 8.9 million arrivals (though still far less than what many smaller developing countries receive) and, according to the WTTC, the industry has the potential to create around 40 million jobs by 2019. But this will require huge investments in room capacity, skill development, better connectivity to tourist sites, and reduced tax burden in this sector. More recently, the Indian government has made concerted efforts to promote the sector, such as through its "Incredible India" campaign.

6.3.3.2 Key Features of Pakistan's Tourism Industry

Pakistan's tourism industry was estimated at about PKR 500 billion in 2011 and 2012, and its contribution to GDP remains stagnant at about 7 %. Pakistan attracts a little over 1 million foreign tourists per year and revenues from foreign tourist spending account for only 10 % of total tourism revenues. The domestic segment dominates. Business visitor spending accounts for around 18 % of tourism revenues, and the bulk is constituted by leisure tourism (WTTC 2012b). Foreign visitor exports and arrivals have declined or stagnated in recent years, as has capital investment, which most likely reflects the unstable political environment and concerns over safety and security. Projected estimates by the WTTC for investment, employment, value added, and tourist arrivals suggest sluggish growth.

6.3.3.3 Bilateral Prospects

In the context of SAARC, the possibilities for expanding intra-regional tourism have been discussed, and the potential spin-off benefits for infrastructure development, employment creation, and improvement in bilateral relations are well recognized. There are prospects in segments such as religious and cultural tourism, sports and recreational tourism, adventure tourism, ecotourism, and medical tourism. In the

Table 6.20 Top ten source countries for foreign tourist arrivals in India, 2011

S. No.	Source country	FTAs (in million)	% share
1	USA	1.004	15.97
2	UK	0.791	12.57
3	Bangladesh	0.399	6.34
4	Sri Lanka	0.305	4.85
5	Canada	0.255	4.05
6	Germany	0.253	4.02
7	France	0.237	3.76
8	Malaysia	0.218	3.46
9	Japan	0.199	3.01
10	Australia	0.186	2.96
	Total of top ten countries	3.837	60.98
	Others	2.453	39.02
	All countries	6.29	100.00

Source: Ministry of Tourism, Government of India (2011)

Table 6.21 Tourist arrivals into Pakistan by nationality, 2000–2008 ('000s)

	Nationality	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1	UK	179.7	144.4	151.3	131.1	196.3	248.6	275.1	275.5	285.7	275.4
2	USA	71.5	69.1	69	72.4	87.3	121.6	126.2	121.9	114.1	117.5
3	Afghanistan	28.2	47.1	98.5	119.9	117.6	77.6	84.9	80.5	66.4	96.6
4	Canada	13	11.8	18.2	13	15	23	30.8	36.5	39.9	43
5	India	66.1	58.4	2.6	7.1	119.7	59.6	70.2	48.2	54.1	42.7
6	China	6.2	5.7	8.9	10.3	17.2	29.6	36.4	30.4	30.1	30.1
7	Iran	5.4	6.4	6.4	8.1	8.2	9.1	11.4	7.4	14.2	26.6
8	Germany	14.1	9.1	12.2	13.7	18.9	24.7	27.3	23.9	22.4	21.4
9	Philippines	2.2	1.7	2.1	1.7	2.5	3	4	4.4	3.6	15.6
10	Australia	7.7	7.4	5.7	6.1	7.3	9.6	11.4	12	12.2	13.2
	Total of top ten countries	394.1	361.1	374.9	383.4	590	606.4	677.7	640.7	642.7	682.1
	Others	162.7	138.6	123.2	117.5	58	191.9	219.9	198.8	180.1	172.8
	Total	556.8	499.7	498.1	500.9	648	798.3	897.6	839.5	822.8	854.9

Source: Pakistan Bureau of Statistics (2011) http://www.pbs.gov.pk/content/pakistan-statistical-year-book-2011. Accessed 12 Feb 2013

India-Pakistan context, the extent of bilateral tourism flows is very small. Despite facilitating factors such as a common language, culture, religion, and history, close social and family ties, and geographic proximity, neither country features among the top source markets for foreign tourist arrivals for the other (Tables 6.20 and 6.21).

For India, the main tourism source countries are the USA and the UK. Bangladesh is the third most important source country, accounting for around 6 % of all foreign tourist arrivals. While many of the factors such as family ties, historical links from pre-partition days, or medical tourism are driving inflows from Bangladesh, the same does not hold for Pakistan, indicating the political, visa, and security challenges specific to this bilateral relationship.

Table 6.22 Exports and imports of travel services by Pakistan with select countries, 2009–2011 (US$ thousand)

	Exports			Imports		
	FY11	FY10	FY09	FY11	FY10	FY09
India	36	44	74	303	72	183
USA	301,447	239,675	200,591	154,017	97,380	47,552
UK	1,351	1,490	6,229	70,954	47,384	44,927
UAE	3,597	862	2,420	5,986	3,509	4,954
China	15	4	81	2,369	2,367	5,370
Canada	44	120	212	8,170	7,883	6,453
Singapore	1,483	1,962	556	1,706	1,336	1,472
Afghanistan	171	244	1,013	88	12	11
Sri Lanka	3	36	64	2,163	40	41
EU	2,311	2,801	8,724	96,086	73,224	79,840
Saudi Arabia	2,525	1,518	4,652	24,658	14,307	30,685

Source: State Bank of Pakistan, Publication on Exports of Goods and Services. http://www.sbp.org.pk/index.asp. Accessed 12 Feb 2013

The inflows into Pakistan from India clearly reflect the impact of political relations. The number of Indian tourists entering Pakistan declined from around 98,000 in 2000 to 42,000 in 2009, peaking at around 120,000 in 2004. The numbers reflect the ups and downs in political relations, with the sharpest declines corresponding to years when political tensions peaked (Kargil) and the sharpest increases corresponding to years when relations were improving and steps were taken to facilitate transport (surface) connectivity between the two countries. The main mode of tourist arrivals into Pakistan, at present, is air, with land arrivals accounting for only around 10 % of the total, indicating that geographic proximity has not been an important contributor to date in Pakistan's tourism industry. This is also evident from the following tables that give Pakistan's travel services (business, leisure, medical, etc.) exports to select countries. India's insignificant contribution to Pakistan's travel services exports is striking, though the trends are similar for other Asian countries such as China, Sri Lanka, and Singapore, and the overall level of export earnings is also quite small (at around US$300 million), reflecting Pakistan's general lack of competitiveness in tourism services. On the import side as well, India is not an important market for Pakistani tourists and is less significant than other countries in Asia such as Singapore, Sri Lanka, and China. In both imports and exports of travel services, a downward trend is visible for India over 2007–11, which also holds for several other countries over this period. Thus, there appears to be a general sluggish trend in this sector (Table 6.22).

Although bilateral tourism flows are insignificant, the scope to expand such trade exists. Both countries can leverage their cultural, historical, religious, and linguistic ties to expand tourism services trade. This can be part of a larger tourism diversification strategy where both countries can focus on new markets, especially in South Asia, and can be an ideal way to build goodwill among the people of the two countries. Diversification is particularly important for Pakistan to counter the fall in tourism

inflows from the West due to fears related to terrorism and fundamentalism. One potential segment is religious and cultural tourism. From Pakistan's perspective, there are two groups of interest in this segment—Sikh pilgrims and Hindu pilgrims from India. From India's perspective, the groups of interest are Muslim pilgrims from Pakistan to famous Sufi shrines in India and monuments such as the Taj Mahal and also minority Hindus from Pakistan to religious places in India. A large number of Indian tourists currently visit Pakistan for religious purposes; many also go to see their place of birth or to visit relatives. Sikh pilgrimage tourism is increasingly being seen as an important potential source of foreign exchange earnings for Pakistan. One newspaper reports that in 2011 over 8,000 Sikh pilgrims from India and other countries visited Pakistan to celebrate the birthday of their founding guru, Guru Nanak, at Nankana Sahib. Sikh pilgrims also visit religious sites in Pakistan on other occasions. Sikh yatris, in addition to ethnic Pakistanis from overseas, are among the largest groups of tourists visiting Pakistan.

The Pakistan Tourism Development Corporation has identified 32 temples, *gurdwaras*, and Sufi shrines that could be of interest to pilgrim groups from India. In the recent past, it has renovated important Sikh shrines and is improving accommodation facilities at these places. It has built a 200-room complex to provide accommodation to Sikh and Hindu pilgrims at Gurdwara Panja Sahib in Hasan Abdal at an estimated cost of US$236,000 (Jamal 2011). In Lahore, large-capacity guesthouses are being built at the Gurdwara Janam Asthan Nankana Sahib and Gurdwara Dera Sahib. The government has also renovated the Hindu shrine of Katasraj. The Pakistan Tourism and Resorts Development Department (TRDD) plans to build hotels to provide standard and affordable accommodation facilities in order to promote religious tourism in Punjab, in light of the growing number of religious pilgrims visiting gurdwaras, Sufi shrines, and Hindu temples. There is also a plan to build the Baba Guru Nanak International University in Pakistan, which would award degrees in Sikhism. One media account states that the Prime Minister and President of Pakistan have given specific orders to the TRDD to develop Sikh religious places and to promote them for religious tourism (Jamal 2011). There are statements by Pakistani tourism authorities indicating their plans to promote tourism sites for their historical and architectural interest through annual festivals where other tourists can join pilgrim tourists. There is also potential to expand historical and cultural tourism in other areas of Pakistan, such as Sindh and Balochistan, where there are a large number of Buddhist stupas and monasteries that could be of interest to Indian tourists.

Apart from religious tourism, other opportunity segments are sports tourism around cricket and family tourism. But two fundamental challenges remain. One is visas and the other is connectivity and transport facilities by rail and bus.

(i) *Visa and Security Issues*

Pakistan has expressed an interest in increasing the number of visas for Indian tourists to promote religious tourism. The Indian government has been criticized for restricting the number of visas and requiring Pakistani tourists who visit religious sites to report to an FRRO, which is not required of Indian

religious tourists in Pakistan. After the Mumbai incident, these requirements have become more stringent.

Another constraint is the need to travel long distances to get a visa; often, the consulate is further than the distance to the destination. For instance, the Amritsar-Nankana Sahib Bus Service that was launched in 2006 failed within a year, since traveling from Amritsar to Delhi (500 km) to get a visa was longer than traveling from Amritsar to Lahore (50 km) or to Nankana Sahib (75 km). Even for short distances such as 51 km from Dera Baba Nanak in Indian Punjab to the Gurdwara of Darbar Sahib in Kartarpur in Pakistan, Sikh pilgrims have to travel to Delhi to get a visa. Proposals have been made to open more Pakistani consulates in towns such as Jodhpur and Amritsar and to increase the number of Indian consulates in Pakistan or to issue visas with higher frequency in the smaller towns where there is sufficient demand to help tourists, businessmen, and traders living in Punjab, Rajasthan, Sind, and the two Kashmirs. But to date, there is little progress on this front.

There have also been transport-related problems. Travel services have failed due to security concerns. There has been no progress in establishing a religious corridor between shrines that are located very close together in the two countries, despite demands from pilgrims and politicians in both sides of Punjab.

The recent steps to ease visa restrictions on select categories of travelers between the two countries are an important step in promoting bilateral tourism services trade. Under the new visa policy between India and Pakistan, there will be a single entry visitor visa for up to 6 months and for five places (up from 3 places at present) to visit relatives and friends, for business, and other legitimate purposes. The visa can be issued for up to a year if needed, depending on the nature of work or business. In addition, a visitor visa for a maximum of 5 specified places may be issued for up to 2 years with multiple entries in the case of senior citizens (65+), the spouse of a national of one country married to a national of the other country, and children below 12 years accompanying their parents. Transit visas will now be issued within 36 h as opposed to 72 h. Another important development is the separation of the business visa from the visitor visa.[10] There are also ongoing discussions to allow people to cross the Line of Control (LoC) for pilgrimage and cultural reasons. However, the fragility of these measures is evident from the fact that all cross-border trade and travel services between the two were suspended following border clashes in early 2013. The visa on arrival facility for senior citizens was put on hold due to the perceived unequal treatment of Indians who want to visit Pakistan; the criticism was that while the Indian side wanted Pakistani nationals to produce only their national identity card and a utility bill to issue a visa, the Pakistani side wanted several documents including a sponsorship letter from Pakistan. As the reciprocity principle was not maintained, India put the agreement on hold.

[10] For more details on visa regulations, see High Commission of India in Islamabad http://www.india.org.pk/.

(ii) *Transport Links*

Poor transport connectivity and infrastructure and restrictive bilateral air services agreements (BASAs) are a major challenge to expanding tourism flows between India and Pakistan. The absence of an integrated transport infrastructure in South Asia in terms of cross-border road and rail links, poor air connectivity, and lack of transit facilities within the region are a major constraint to developing intra-regional tourism. Road links have not been successful due to security challenges. Rail links have run into problems of attacks and disruption of services (e.g., the Samjhauta Express). Air links are limited. Connectivity between major cities in the two countries and the capital cities of the two countries is very poor.

Air services liberalization indices that capture the key features of BASAs indicate that the South Asian countries have very restrictive ASAs, with scores of 10 or below out of a maximum score of 50 and scores that are much lower than the world average. The ASAs between South Asian countries are more restrictive than their BASAs with countries outside the region. Faster, efficient, and affordable air connectivity is an absolute necessity for promoting tourism among these countries. Improvements in air connectivity would, in turn, require reducing operational costs of the airlines, simplifying transit visa regimes, increased investment in airline-related infrastructure, fleet, and airport capacity.

Overall, due to the variety of political, regulatory, and infrastructural challenges affecting tourism trade between India and Pakistan, both sector-specific and crosscutting measures have to be taken to promote bilateral tourism. These include lowering travel costs between the two countries, improving transport connectivity for surface and air, and streamlining visa procedures along with providing longer duration and more flexible visa arrangements for cross-border travel. There is also scope to consider joint marketing and developing tourism projects around selected themes such as religion, heritage, nature, and geography. If investment flows between the countries are eased, this could be another area for expanding relations as Indian hospitality groups (Leela, Taj, and Oberoi) are present in other SAARC countries. The two countries could also build on existing intergovernment initiatives in the region (such as the SAARC Working Group on Tourism) and frame bilateral agreements in this sector to promote the joint development of hospitality projects, increase flight frequency, and enable cross-border cooperation between travel agents. The intangible benefits in terms of goodwill and confidence building could be large and could provide the stepping stones for further liberalization of trade, investment, and people mobility between the two countries.

6.4 The Way Forward

It is evident that there are several sectors where opportunities exist for expanding trade and investment relations between India and Pakistan. However, there are broader challenges to exploiting these opportunities due to the overall regulatory

and business environment in the two countries. Notwithstanding considerable FDI liberalization in services, many "behind the border" barriers remain. Segments have been carved out and remain restricted. The absence of a competitive market environment in many services and the presence of state-owned enterprises in certain services (such as electricity and ports) continue to undermine liberalization that has been undertaken in terms of allowing foreign firms to enter the market. Some strategic sectors such as ports, airports, and electricity transmission and distribution are dominated by public sector enterprises that operate under monopolistic market structures and impede the entry of foreign investors. Some segments of India's transport sector, such as freight transport, not only are dominated by public monopolies but also are closed to foreign equity participation. In Pakistan, while manufacturing and the primary industries are fully open to foreign equity ownership, there are several ownership restrictions in certain services, in the form of residency and nationality requirements, government approval requirements, restrictive FDI ceilings, and minimum investment requirements.

These "behind the border" challenges to liberalization of services in South Asia are captured in the low scores on a range of business environment indicators for both India and Pakistan. Hence, increased market access in services between the two countries must be complemented by stronger regulatory frameworks, improved institutional capacity, and pro-competitive market conditions.[11] Recent World Bank estimates of Trade Policy Restrictiveness Indices that capture both FDI and domestic regulatory restrictions for various services highlight the scope for further unilateral liberalization of services in both India and Pakistan and the challenges to bilateral cooperation. The restrictiveness indices for GATS commitments likewise reflect the scope for both countries to bind in additional liberalization and to also align their commitments closer to their unilateral policies (see Appendix Tables 6.23 and 6.24). Unless such inadequacies in the business environment are addressed and unless these countries are willing to unilaterally liberalize further, it would be difficult to undertake any bilateral initiatives to improve India-Pakistan business relations in services or to promote regional services integration under SATIS.

This restrictive approach is also evident in their regional offers under SATIS,[12] which remain quite minimal and subject to conditions such as foreign equity ceilings,

[11] The WTO's Trade Policy review for Pakistan notes that the major remaining investment limitations include the following: poor coordination and collaboration between relevant regulatory bodies, duplication of requisite permissions, inadequate implementation of incentives and their non-competitiveness compared to those offered by regional governments, an improper domestic arbitration framework to resolve commercial disputes, and lengthy and time-consuming judicial procedures. There have been several cases of foreign investors having difficulties enforcing contracts with domestic partners. Investors also remain discouraged by political instability, sectarian violence, weak infrastructure, high crime rates, and corruption. See, WTO (2008) and WTO (2011).

[12] SATIS was signed at the 16th SAARC Summit in 2010. Its architecture resembles that of GATS in terms of its provisions, carve-outs, and scheduling modalities. The objective is progressive

minimum capital requirements, preferential treatment of domestic service providers, economic needs tests, sectoral carve-outs, and various requirements. Mode 4 conditions ensure that access is restricted for forms other than intracorporate transferees. There is unwillingness to liberalize mobility of natural persons in categories such as independent professionals and contractual service suppliers. Considerations surrounding foreign investment also seem to be important, in terms of restricting the degree of foreign versus local participation, regulation of these providers, and stressing the role of state operators in some infrastructure services. The lack of meaningful market access offered under SATIS, even from India which is the most competitive country in services and dominates the region in services exports and FDI, indicates the lack of preparedness and lack of willingness to liberalize regionally, a feature that is also likely to characterize any bilateral initiatives to liberalize services.

6.4.1 Some Proposals[13]

Two important points emerge from the preceding discussion. First, while initiatives may be undertaken at the bilateral level to promote relations, these will not bear fruit unless constraints related to the regulatory and business environment within the countries are addressed. For instance, investment is one of the most important ways in which bilateral relations can be expanded. But as long as the business environment within the countries remains difficult due to the lack of infrastructure in basic areas, such as transport and power, and labor productivity problems, cross-border investment is unlikely to take off even if it is liberalized.

Second, it is evident that though opportunities exist in specific sectors, many of the challenges are crosscutting and have far-reaching implications across goods and services. For example, supply-side constraints in the transport and logistics sector due to the inadequate availability of vessels and manpower in the case of maritime transport infrastructure, capacity constraints with respect to the availability of airports, parkways, cargo facilities, security, and baggage handling in the context of air transport services, and problems with customs clearance, warehousing, banking multimodal transport, and other supporting facilities adversely affect the bilateral flow of goods and services, investments, and people. Lack of trade facilitation measures and missing infrastructural linkages between the countries (such as in transport services) make it difficult to undertake subregional projects. These constraints make the overall environment for bilateral relations difficult and also unattractive from a cost-benefit point of view. Thus, it is important to address the "behind the border" measures as these can undermine bilateral initiatives to promote relations.

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liberalization of services, with a positive list approach and request-offer negotiations, in line with national policy objectives, the level of development, and the size of the economies.

[13] The discussion in this section is based on Chanda (2011), Chapter 10.

What is required is an approach that relies on confidence-building measures, incremental steps, and demonstrable outcomes. Two players are critical in this process. The first is the private sector, which can provide an impetus by highlighting opportunities, building production networks and supply chains in the region, pushing for the removal of many nontariff and regulatory barriers that plague the region, and building confidence through initiatives and outcomes. The second are the governments on both sides. Confidence and goodwill measures will be needed through political leadership and vision at the highest level as no progress can be achieved without reducing mistrust.

The way forward requires a progressive approach, such as setting up working groups on issues and services of common interest and gradually expanding the ambit of liberalization to cover more services and launching pilot projects, while simultaneously addressing crosscutting issues of investment, regulatory harmonization, labor mobility, and connectivity. Industry in the region will need to play a greater role by highlighting the benefits of cooperation and the costs of noncooperation, while political leaders at the highest level in the region have to show commitment and will. But as highlighted earlier, these negotiating frameworks and initiatives can only succeed if they are backed by adequate regulatory, institutional, infrastructural, and human resource capacity, by a business-friendly environment, and by a favorable policy orientation and mindset at the individual country level.

Bilateral discussions will need to focus on specific issues, namely, investment and people mobility. Without progress on these fronts, improvement in bilateral services relations will not be possible.

6.4.1.1 Investments

Bilateral discussions could focus on faster clearances and approval procedures in general, fast track procedures, fast track clearances in identified services that are largely commercial and where there are fewer sensitivities, provision of regular and updated information on the regulatory framework governing investment in different services through government websites and reports, and information on bidding processes and award of contracts. It would also be useful to consider a bilateral investment treaty and double taxation treaties between the countries. This framework would need to address issues of investment facilitation, investor protection, dispute settlement, and contract enforcement so as to ensure greater ease, transparency, and commitment in bilateral investments. A common investment framework would help in developing investment policies and associated regulations in a coordinated manner and enable harmonization of rules and procedures and mutual recognition of standards and technical specifications in services.

6.4.1.2 People Mobility

Bilateral efforts will also need to focus on facilitating cross-country mobility of persons for service delivery and services consumption. Visa procedures and requirements for select categories of persons need to be streamlined, as is already underway. If investments are indeed critical to services integration between the two countries, then mobility of people relating to investment flows must be given priority in any people mobility discussions. Efforts could be oriented toward simplifying visa procedures and expediting visa approvals for categories such as business visitors, intracorporate transferees, and professionals and academics against bona fide approved or prospective investment projects, institutional tie-ups, and exchange arrangements. Likewise, streamlined processes and speedier approvals could be introduced for special categories of services consumers, such as medical tourists, students, leisure travelers, and transit travelers. There are no doubt security concerns in relaxing visa regulations between some of the countries. But even in these cases, mobility restrictions could be streamlined for a limited set of persons, those associated with commercial presence, or where other regulatory approval processes are also involved. Similarly, mobility restrictions could be streamlined for services that have been identified as high-priority sectors. Related issues such as transport connectivity will also need to be addressed, by identifying selected bilateral and subregional projects to develop road and rail transport links and joint investments in these projects, signing open skies agreements between countries in the region, and developing transit hubs in the region (Asian Development Bank 2007).

6.4.2 Concluding Thoughts

Hence, a multipronged approach is required, where bilateral efforts are complemented by national efforts, the key issues of investment and people mobility are prioritized, and related institutional efforts are undertaken at various levels. Discussions are required between the governments, regulators, professional associations, industry associations, research institutions, and civil society in the two countries to share information, exchange best practices, collect data, conduct joint feasibility and impact analysis studies, identify priority areas for a services agreement, develop soft skills, and create templates for investment or immigration-related initiatives. The aim should be to deliver tangible outcomes, even if in a limited set of services, which could have positive demonstration effects in other areas and, thus, provide the impetus for launching more bilateral initiatives in services.

Appendix

Table 6.23 Services trade restrictiveness indices in India and Pakistan

Country	Label	Overall	Mode 1	Mode 3	Mode 4
India	Overall	65.7	70.75	69.34	
India	Financial	48.1	53.23	50	
India	Telecommunications	50		50	
India	Retail	75		75	
India	Transportation	62.4	50	65.28	
India	Professional	87.5	100	100	70
Pakistan	Overall	28.3	38.54	26.68	
Pakistan	Financial	48.7	59.69	50	
Pakistan	Telecommunications	12.5		12.5	
Pakistan	Retail	0		0	
Pakistan	Transportation	25.3	50	19.44	
Pakistan	Professional	48	8.33	45	55

Source: World Bank (2010a) http://iresearch.worldbank.org/servicestrade/. Accessed 7 Feb 2013

Table 6.24 GATS commitments restrictiveness index

Indicators	India		Pakistan		South Asia
Time period	2005–2008	2006–2009 Latest	2005–2008	2006–2009 Latest	2006–2009 Latest
Services policy					
All services sectors	6.69	6.69	8.97	8.97	10.06
Market access	5.46	5.46	8.90	8.90	8.78
National treatment	7.91	7.91	9.05	9.05	11.33
Business services	2.52	2.52	7.32	7.32	8.03
Communication services	12.08	12.08	16.42	16.42	12.84
Construction/engineering services	4.02	4.02	4.02	4.02	3.80
Distribution services	0.00	0.00	0.00	0.00	9.08
Educational services	0.00	0.00	0.00	0.00	6.79
Environmental services	0.00	0.00	0.00	0.00	11.46
Financial services	6.19	6.19	6.57	6.57	12.88
Health/social services	6.38	6.38	14.89	14.89	7.80
Tourism/travel services	18.20	18.20	24.26	24.26	30.15
Recreational/cultural services	0.00	0.00	0.00	0.00	4.78
Transport services	0.00	0.00	0.00	0.00	2.21
Other services	0.00	0.00	0.00	0.00	0.00
Ease of doing business—rank	126	133	79.50	85	117.3

Source: World Bank (2010b) http://info.worldbank.org/etools/wti/3a.asp. Accessed 7 Feb 2013
Note: A higher value indicates greater restrictiveness for both the above tables

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Chapter 7
FDI in India: Prospects for Pakistan

Vaqar Ahmed, Abid Q. Suleri, and Muhammad Adnan

7.1 Introduction and Background

Despite the usual political frictions, the trade normalization process between India and Pakistan has progressed at an encouraging pace in the recent past. The Foreign and Commerce Ministers and secretaries from both sides have met several times to facilitate the process. The government of India, through an executive order, allowed foreign direct investment (FDI) from Pakistan in August 2012. Earlier, neither a Pakistani national nor an entity incorporated in Pakistan could make investments in India.[1]

The government of India revisited its FDI consolidated policy in August 2012 and decided to permit a citizen of Pakistan or an entity incorporated in Pakistan to make investments in India under the government route. The amended paragraph 3.1.1 of the policy now reads: "A non-resident entity can invest in India, subject to the FDI policy. A citizen of Pakistan or an entity incorporated in Pakistan can invest, only under the Government route, in sectors/activities other than defence, space and atomic energy."[2]

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[1] This was clearly mentioned in the government of India's FDI consolidated policy effective from April 10, 2012, in Section 3.1.1 under the heading *Who Can Invest in India*: "A non-resident entity (other than a citizen of Pakistan or an entity incorporated in Pakistan) can invest in India, subject to the FDI policy" (Government of India 2012a: p. 13).

[2] Government of India (2012a). Press Note No. 3 (2012 Series) (FC-I Section); also attached as Annexure.

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This study aims to highlight Pakistan-specific investment opportunities in India against the backdrop of Pakistani investors' concerns regarding FDI in India. It also focuses on the preparedness of Pakistan's private sector to take benefit of this opportunity. We have taken a sectoral approach whereby we inquire from the business community already engaged in outward investments in the leather, sports, surgical, engineering, auto, education, textiles, and steel sectors about their willingness to invest in India.

We divided our research exercise into the following key questions:

- What are the key sectors available to Pakistani investors in India?
- Willingness of Pakistani investors toward investment opportunities in India.
- How well the key sectors offered by India compare with the potential of Pakistani investors.
- The general barriers regarding investment in India.
- The extent of an investment-specific dispute resolution mechanism that is needed.
- The level of cooperation between government investment bodies in India and Pakistan toward investment cooperation.
- How the liberalized trade between India and Pakistan will help improve FDI prospects.

While one finds some recent robust work on India-Pakistan trade potential and opportunities, there is very little on the investment potential that both countries offer for each other.

Comparing FDI inflows to India with its neighboring country China, Agrawal and Khan (2011) examined the effects of FDI on economic growth of India and China and estimated that 1 % increase in FDI would result in 0.02 % increase in India's GDP and 0.07 % in China's GDP. About investment opportunities, the study found that foreign investors give preference to China over India mainly because China has a larger market, greater policy certainty, and developed infrastructure. A similar analysis can be seen in Sinha et al. (2007).

Devajit (2012) considers FDI in India to be an important ingredient if the country is to sustain economic growth and keep pace with the rest of the BRICS countries. His focus on FDI as a creator of employment in India, particularly through services sectors such as education and healthcare, is important. Ranga and Ansari (2010) acknowledge that while central and state governments have been making efforts to better their investment climate, India's competitors have done a lot more and India needs to learn from them on an expedient basis.

At the South Asian level, Alam and Aowrangazab (2006) talk about deeper reforms if intra-regional FDI in South Asia has to be promoted. They hint at harmonization of fiscal policies, investment policies, and tax and customs laws. They believe that this is possible by the strengthened implementation of already agreed upon articles under the South Asia Free Trade Agreement (SAFTA).

Regarding India's decision to allow FDI from Pakistan, Malik (2012) believes that Pakistani investors have done well in other regional countries such as Bangladesh and Sri Lanka. It will be an opportunity to reap the benefits of proximity if both countries liberalize their investment regime. He, however, is of the view that bilateral

investment flows will be in favor of India given its larger market size and sectoral diversification. Ahmed (2012) considers it a long-awaited decision from India, since Pakistan has allowed this from its first investment policy. He also identifies four key steps for the future that can strengthen investment cooperation between the two countries. First, the cooperation for liberalizing the visa regime at the level of Home/Interior Ministries of both countries should include (a) non-reporting multiple visas for the business community, (b) extending the jurisdiction of visas to multiple cities, and (c) allowing longer duration visas (for enabling the physical presence of an investor). Second, mutual recognition of product standards will be important if both countries intend to bring their raw material and related inputs for production processes across the border. Third, both countries need to make gradual progress toward a bilateral investment treaty so that foreign investment is treated at par with foreign investors and, finally, in the short term, there may be a need to think about a sovereign guarantees framework, whereby investors from both countries know that any political upheaval will not impact the security of their assets and profits.

Shukla (2012) reports on Pakistan's keen interest in investing in India, as the leading businessman of Pakistan, Mian Muhammad Mansha, is interested in opening a branch of the Muslim Commercial Bank (MCB) in India and his wife in the textile business also wants to open stores in Ludhiana, Amritsar, Delhi, and Mumbai. A similar intent by SEFAM, a private limited company, as well as Lucky Cement is cited in Ministry of Commerce (2013). Both entities have done substantial homework in their sectors and see a wider market in their neighborhood.

The next section undertakes a descriptive analysis of FDI trends in India. This is followed by a discussion on the Pakistan-specific investment regime in India. We elaborate the processes under FDI via the government route as required for Pakistani investors wishing to enter Indian markets. Using a perception-based methodology and through key informant interviews, we try to provide sector-specific estimates of potential FDI flows from Pakistan to India. This is supplemented with a qualitative analysis of sector-specific barriers to FDI in India. Finally, we provide some policy recommendations to take the process of investment cooperation forward at the bilateral and SAARC levels.

7.2 FDI Trends in India

India's liberalization of its FDI regulations has attracted foreign investors, and this step is now transforming India into one of the fastest growing destinations for global FDI inflows. Owing to the relatively large amount of red tape involved, particularly at the state level, a larger proportion of foreign investors first prefer to enter into a joint venture and their preferred sectors are telecommunications, software, tourism, and manufacturing goods, including chemicals, pharmaceuticals, transportation equipment, and food processing (Bloodgood 2007). According to the A. T. Kearney Foreign Direct Investment Confidence Index 2012, India has been ranked the

second most attractive destination for FDI. In the 2010 Index, India was ranked the third most attractive destination.[3]

According to Ernst and Young (2012), India remained very attractive for foreign investors in 2011. In the same year, FDI projects were increased by 20 % and the new 932 projects resulted in the creation of 255,416 jobs in the country during 2011.

The Government of India has been welcoming FDI in all the permitted sectors especially for development of infrastructure, including rail, road, aviation and ports development. FDI in technological up-gradation of Indian industry through 'Greenfield' investments is also being welcomed (Government of India 2012b).

7.3 FDI Policy of India: Some Key Features

India first allowed FDI in 1991 through an Industrial Policy Statement. The main purpose of the policy was to develop the capital market, increase industrial competitiveness, and dismantle the regulatory systems. The policy framework evolved and expanded according to the appropriate requirement of reforms and the requirements of domestic economy (Kanungo 2012). The FDI consolidated policy 2012 has been termed by the government transparent, predictable, and easily comprehensible (Government of India 2012a).

According to the FDI consolidated policy 2012, inward investment up to 100 % is allowed, under the automatic route, in almost all sectors except retail trade, lotteries, casinos, Nidhi companies, transferable development rights, real estate, construction of farm houses, manufacture of tobacco products, railways, and atomic energy.[4] Other than these sectors, FDI in the form of licensing for trademark, brand name, and management contract is also completely prohibited.

7.4 Entry Routes for Investment in India

India has allowed FDI through two routes: (1) automatic route and (2) government route. According to the FDI consolidated policy 2012, nonresident Indians (NRIs) can make investments in the equity shares/fully, compulsorily, and mandatorily convertible debentures/fully, compulsorily, and mandatorily convertible preference shares of an Indian company through the automatic route or the government route. To make investments under the automatic route, an NRI or the Indian company does not require any approval from the government of India. However, prior approval of the government is required under the government route. Proposals for foreign investment under the government route are considered by the Foreign Investment Promotion Board (FIPB).

[3] http://www.indiainbusiness.nic.in/investment/for_dir_investment.htm

[4] Pakistan is not allowed under the automatic route.

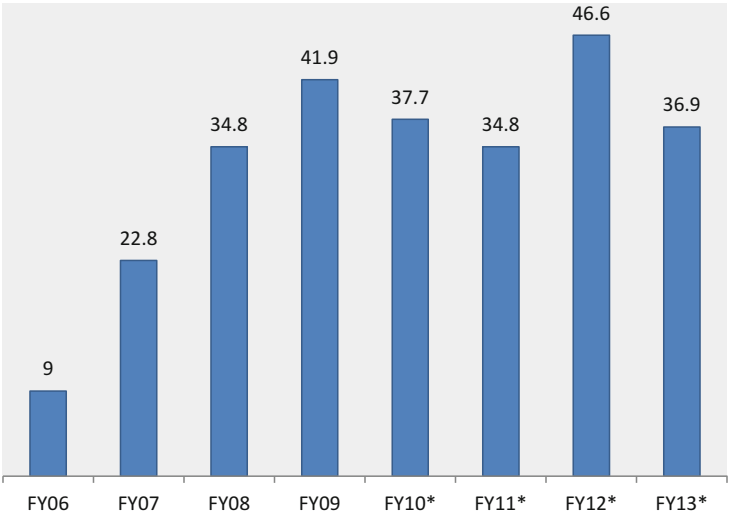

Fig. 7.1 FDI in India (US$ billion) (*Provisional, *Source*: Department of Industrial Policy & Promotion (DIPP), Ministry of Commerce & Industry, Government of India)

7.5 FDI in India: Statistical Overview

In 2005–2006, the total inflow of FDI[5] in India was US$9 billion, which increased to US$22.8 billion in the year 2006–2007, and in the year 2007–2008, it further increased to US$34.8 billion.[6] This increasing trend continued in 2008–2009 and the FDI inflow was US$41.9 billion. However, in the year 2009–2010 (following the tremors of the global financial crisis), it decreased to US$37.7 billion and again decreased to US$34.8 billion the next year. There was recovery in 2011–2012 and inflows were recorded at US$46.6 billion, the highest ever in the history of India. In the fiscal year 2012–2013, FDI inflows stood at US$36.9 billion (Fig. 7.1).

7.6 Sector-Wise Breakup of FDI

There are various sectors in which foreign investors are exhibiting interest, and among them, services, hotel and tourism, automobile, metallurgical industries, housing, real estate and construction, and drugs and pharmaceuticals seem to top the list. In 2012–2013, foreign investors made a substantial investment in the services sector, contributing 21.78 % of overall FDI inflows to India. The hotel and tourism sector is the second largest FDI destination. It contributed 14.53 % of total FDI in 2012–2013. The third largest sector, which attracted 6.85 % FDI in

[5] FDI includes the FIPB route/RBIs automatic route/acquisition route + equity capital of unincorporated bodies + reinvest earnings + other capital.

[6] India's fiscal year starts on April 1 and ends on March 31 the following calendar year.

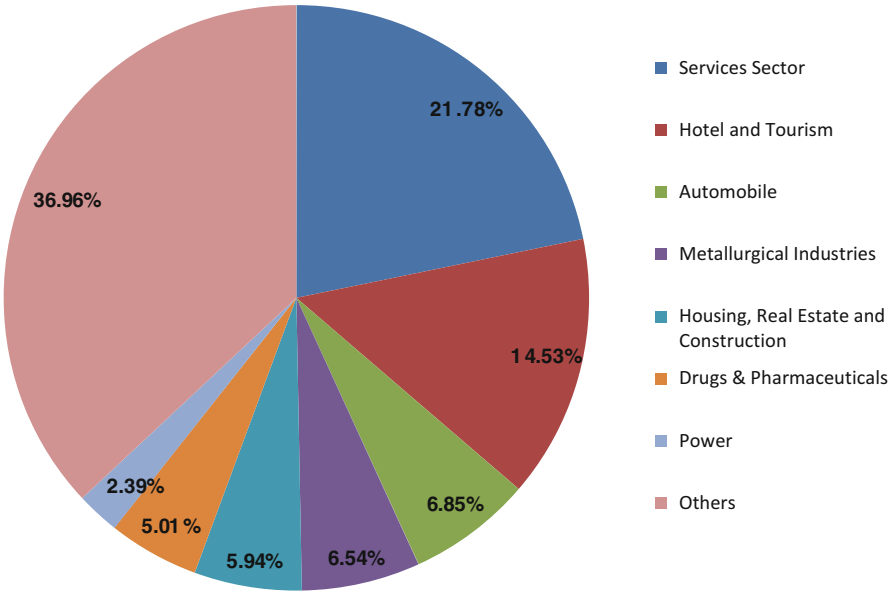

Fig. 7.2 Percentage share of FDI by sector (2012–2013) (*Source*: Department of Industrial Policy & Promotion (DIPP), Ministry of Commerce & Industry, Government of India)

the same fiscal year, is the automobile sector. The metallurgical industries sector attracted 6.54 % of total FDI (Fig. 7.2).

7.7 FDI Equity Inflows by Country

According to data from the Department of Industrial Policy and Promotion (DIPP), India, Mauritius made 42.35 % of total FDI equity inflows in India for the year 2012–2013. After Mauritius, Singapore is the second largest FDI country in India. Singapore has contributed 10.29 % of the total FDI. Japan is the third largest contributor to India's FDI inflows with 9.98 % share of the total FDI (Fig. 7.3). The cumulative position is given in Annex II.

7.8 Recipient Regions in India

During 2012–2013, Mumbai was the largest recipient city for FDI inflows in India, and it received an amount of US$8.72 billion, according to data provided by the Department of Industrial Policy and Promotion. New Delhi is the second largest FDI recipient city and it received US$3.22 billion, while the third largest FDI recipient was Chennai at US$2.8 billion during 2012–2013.

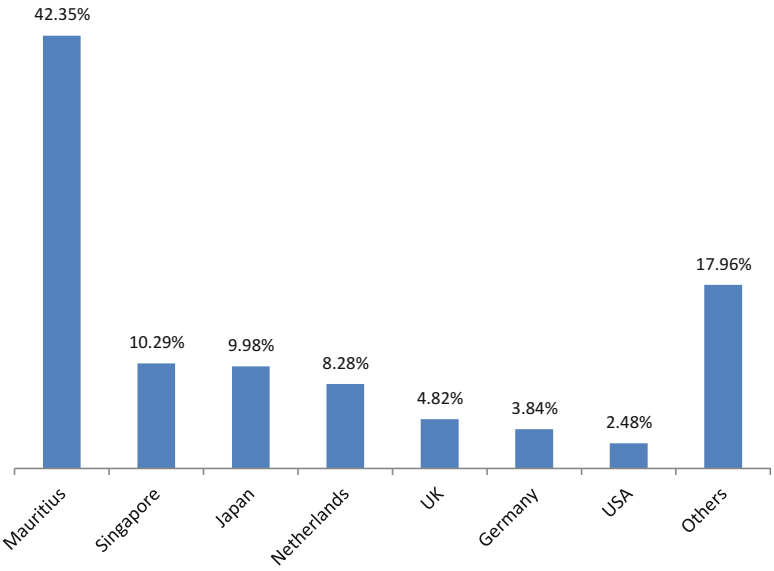

Fig. 7.3 FDI equity inflows by country 2012–2013 (% share) (*Source*: Department of Industrial Policy & Promotion (DIPP), Ministry of Commerce & Industry, Government of India)

In terms of cumulative FDI equity inflows to India from April 2000 to March 2013, Mumbai was the largest recipient with an amount of US$63.33 billion during this period and contributed to 33 % of overall FDI equity inflows. New Delhi remained the second largest recipient at US$36.3 billion with a share of 19 % of total FDI equity inflows (Table 7.1 and Fig. 7.4).

Among the Indian cities neighboring Pakistan, Chandigarh and Rajasthan present strong potential for future returns. In 2012–2013 they received FDI amounting to US$47 million and US$132 million, respectively. (For a detailed discussion on key sectors in India that are currently attracting FDI, see Annex I.) Most of these sectors also have strong horizontal and vertical linkages with Pakistan's industrial sector. Later, it was proposed that sector-specific studies should be conducted in order to explore such supply chain linkages at more micro and meso levels.

7.9 Pakistan-Specific Investment Regime in India

India has allowed FDI through the government route (and not the automatic route) from Pakistan in all sectors except defense, space, and atomic energy. It is important to discuss here the various steps involved in investment from Pakistan to India via the government route. The process starts with an investor submitting an FDI proposal to the Foreign Investment Promotion Board (FIPB) in India. The FIPB secretariat, upon fulfillment of the requirements toward proposal documentation, is required to submit the file to senior members of the board within 15 days. However, within

Table 7.1 City-wise FDI inflows across India (US$ million)

S. No.	RBI's regional office	State covered	2010–2011 (April–March)	2011–2012 (April–March)	2012–2013 (April–March)	Cumulative inflows (April 2000–March 2013)	% of total inflows
1	Mumbai	Maharashtra, Dadra and Nagar Haveli, Daman and Diu	6,097	9,553	8,716	63,337	33
2	New Delhi	Delhi, part of UP and Haryana	2,677	7,983	3,222	36,294	19
3	Bangalore	Karnataka	1,332	1,533	1,023	10,784	6
4	Chennai	Tamil Nadu, Pondicherry	1,352	1,422	2,807	11,081	6
5	Ahmedabad	Gujarat	724	1,001	493	8,650	4
6	Hyderabad	Andhra Pradesh	1,262	848	1,159	7,968	4
7	Kolkata	West Bengal, Sikkim, Andaman and Nicobar Islands	95	394	424	2,306	1
8	Chandigarh	Chandigarh, Punjab, Haryana, Himachal Pradesh	416	130	47	1,201	1
9	Bhopal	Madhya Pradesh, Chhattisgarh	37	471	72	911	1 0.5
10	Kochi	Kerala, Lakshadweep	451	123	220	997	1 0.5
11	Panaji	Goa	302	38	9	771	0.4
12	Jaipur	Rajasthan	51	33	132	685	0.4
13	Bhubaneswar	Orissa	112	140	31	341 347	0.2
14	Kanpur	Uttar Pradesh, Uttaranchal	15	28	52	341	0.2
15	Guwahati	Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Tripura	8	1	5	78	0
16	Patna	Bihar, Jharkhand	5	24	8	37	0
17	Region not indicated		6,447	11,399	4,004	47,494	24.6
Total			**21,383**	**35,121**	**22,423**	**193,403**	**100**

Source: Department of Industrial Policy & Promotion (DIPP), Ministry of Commerce & Industry, Government of India

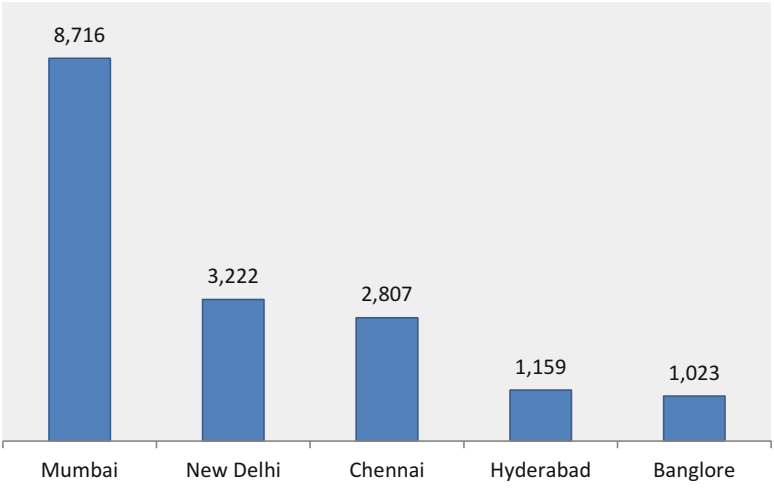

Fig. 7.4 Top 5 FDI recipient cities FY 2012–2013 (US$ million) (*Source*: Department of Industrial Policy & Promotion (DIPP), Ministry of Commerce & Industry, Government of India)

these 15 days, the FIPB secretariat is supposed to seek comments on the proposal from related ministries. The choice of ministries from where comments should be sought depends upon the sector of investment.

The board is then required to study these proposals keeping in view that the final decision has to reach the interested party within 30 days. The key issues that are examined while considering a proposal include (a) any licensing requirements of the sector in which the investor is interested and whether such a license should be obtained at current or later stages, (b) any export orientation of the proposal and, if any, then consideration of items of exports and their destinations, and (c) any defense-related or strategic considerations.

The board's guidelines also direct its members to prioritize investment and prefer proposals that fall in the infrastructure sector, areas where employment may be generated, particularly in rural areas, export-oriented ventures, agrobusiness and the farm sector, social sector (including projects such as hospitals, vocational training, life-saving equipment, and medicine), and sectors that require the induction of technology.

During the scrutiny of proposals, several policy-related factors are evaluated. This examination starts while looking into the extent of foreign equity proposed and if there are any sector-specific caps. Another important issue is to see how this foreign equity would be formalized, i.e., in the form of a holding company, wholly owned subsidiary, joint venture, etc. Similarly, in terms of capital enhancement, if this equity is used to set up a new project, it will lead to enlargement of existing foreign equity or induction of equity in an Indian company. In the case of enlargement of equity in an existing foreign or Indian entity, the approval of the Board of Directors and shareholders' agreement will be required. The modality of enlargement of equity will also be studied, and it will be checked whether such an enlargement takes the shape of paid-up capital, authorized capital, shares transfer, or rights issue. The issue of

transfer and pricing of shares will follow the guidelines of the Securities and Exchange Board of India (SEBI) and the Reserve Bank of India (RBI).

At a sectoral level, the FIPB is responsible for checking whether the foreign origin's activity in India has any restrictions with respect to the sector or micro and small enterprises. Further, it is seen whether the activity involves import of items into India that may be hazardous, banned, or detrimental to environment. Further details can be seen in the Ministry of Commerce (2013).

Once Pakistani investors succeed in obtaining approval from the FIPB, they are allowed to establish their presence in India in the form of liaison, branch, and project offices. A wholly owned subsidiary is also allowed, subject to conditions mentioned later.

The opening of a liaison office requires approval from the Reserve Bank of India (RBI) and can perform several functions on behalf of the parent company. These functions include representing the parent company in India, facilitating cross-border trade, facilitating technical and financial collaboration, and coordinating communications between Indian companies and the parent company. The RBI usually grants permission to open such an office initially for 3 years, but this can be extended subject to fulfillment of conditions. The expenses for running such an office can only be met through remittance from the head office of the parent company.

Similarly, opening a branch office requires approval from the RBI; however, it also requires a certificate of establishing a place in India from the Registrar of Companies (RoC). Such offices can undertake cross-border trade, professional and consultancy services, research work, IT services, and technical and financial collaboration in India. Currently, there are no Pakistani banks in India; therefore, the application has to be routed through a nominated banking entity.

The project office does not require approval from the RBI in standard cases (except in the case of Pakistan). Such an office is required to be funded through inward remittance from the parent company's head office, or a bilateral/multilateral funding body. The project office requires clearance by the FIPB. The taxation rules treat a project office as an extension of a foreign entity and apply the taxation structure relevant to a foreign company.

The most flexible method of doing business in India for a foreign entity is to register as a wholly owned subsidiary. In this case, funding can be arranged for the subsidiary in the form of equity or debt or both. Repatriation of profits is allowed without approvals (except in the case of Pakistan). In the case of a joint venture with an Indian partner, the laws governing local companies will apply.

7.10 Estimating Potential Pakistani Investment in India

7.10.1 Methodology

In this section, we briefly describe the methodology we used to estimate the potential flow of Pakistani investment to India. Our starting point was to examine the current level of outward FDI flows (and stocks) from Pakistan. For Pakistani investors, the

UAE, Malaysia, Bangladesh, Afghanistan, and Sri Lanka have been important destinations. Studies that document the motivation of outflows from Pakistan find that this varies across the region and sectors. For example, the investment going to Bangladesh is largely from the textile sector of Pakistan that wanted to benefit from the generalized system of preferences allowed for Bangladesh by the EU and the USA. There is also evidence that some outflows can be termed "capital flight" due to law and order disturbances in Karachi and Khyber Pakhtunkhwa (Khan and Ahmed 2012).

Many such flows do not get reflected in Pakistan's official statistics due to a large informal economy and the existence of nonofficial channels of transfer. We, therefore, relied on estimates of destination countries. The following are some recent outflows based on data from the destination country:

- Pakistan to the UAE: US$670 million (FY 2012)[7]
- Pakistan to Afghanistan: <US$700 million (FY 2011–2012)[8]
- Pakistan to Malaysia: <US$600 million (FY 2011–2012)
- Pakistan to Bangladesh: <US$30 million (since 2008–2009)
- Pakistan to Sri Lanka: >US$0.15 million (July–January FY13)

In the next step, we identified the key sectors in which India is attractive for Pakistani investors. We developed this ranking through our questionnaire-based inquiry. A total of 27 resident Pakistani investors/entities were interviewed at two different points in India-Pakistan relations between September 2011 and June 2012. These 27 respondents were willing to answer our questions from a total of more than 45 who have invested abroad in the recent past. Another condition was that these 27 had to be members of either local chambers of commerce or the Pakistan Business Council. All 27 interviewees have a presence at multiple places in Pakistan.

The first phase of the interview was immediately after the meeting of two Commerce Ministers (when the aspirations of the business community were fairly upbeat). The second phase of interview was immediately after the exchange of firing across the Line of Control (when all of a sudden there was a feeling that the normalization process may get curtailed). The perception-based estimates provided by these business entities greatly varied between the two periods. We, therefore, provided a mean average of the two periods in the next subsection. The top-ranked sectors included (in order) textiles, cement, hotels and restaurants, auto sector, sugar and wheat products, banking, and insurance. Some other sectors were identified, mainly in services, but they were not a majority response.

[7] Source: Abu Dhabi Investment Authority http://www.adia.ae/En/News/media_news_1.aspx, Afghanistan Investment Support Agency http://www.aisa.org.af/reports/annual_report_english.pdf, Malaysia Investment Development Authority http://www.mida.gov.my/env3/index.php?page=download, Bangladesh and Sri Lanka information obtained from the Board of Investment in Pakistan and validated through sectoral manufacturing associations.

[8] Greater than and less than signs represent approximations around 10 % less or greater. The variance is common, as data on foreign investments is consolidated after substantial time lags.

Table 7.2 Potential annual outflows by sector

Sector	Amount (US$ million)	Percentage
Textiles	760	48.6
Cement	205	13.1
Hotel and restaurant services	171	10.9
Auto sector	122	7.8
Sugar, wheat products, and beverages	82	5.2
Banking and insurance	63	4.0
Other	163	10.4
Total	1,563	100

Source: Authors' calculations
Livestock processing, dairy and milk products, fisheries, communications, shipping, and construction engineering

For each sector we then identified/inquired from respondents the minimum amount of annual investment outflow that had taken place during any of the past 3 years (2010–2012) in the countries listed above.[9] Taking the minimum gives us a conservative estimate of potential investment. There could be more optimistic scenarios given that India could soon become more attractive vis-à-vis the economies listed above due to proximity, agglomeration, and similarities in tastes and preferences, which in turn can spur a clustering effect in the region.

We also conducted focus group discussions to (a) validate our estimates for each sector and (b) collect information on sector-specific barriers faced by Pakistani investors in India.

7.10.2 Sector-Wise Estimates

According to our estimates shown in Table 7.2, the total annual potential investment from the Pakistan side to India stands at US$1.6 billion. This is under the assumption that both the government and automatic routes are open to Pakistani enterprises/investors. The textile sector heads the list with potential annual direct investment of US$760 million. This sector has a 47 % share in overall estimated FDI outflow. Textile sector is followed by cement, the auto sector, and food processing on the industrial side and hotel-related services, banking, and insurance on the services side. Two Pakistani banks have already applied for licenses in India to initiate operations. In the textile and cement sectors, two firms, namely, SEFAM and Lucky Cement, have reportedly approached the FIPB with investment proposals (Ministry of Commerce 2013).

[9] The reason for taking the past 3 years is to avoid any slump that might have occurred before 2010 on the account of the global financial crisis.

Given that we have used a static (time-specific) methodology, it is not possible to capture two dynamic effects of the quantum of FDI. First is the possibility of *investment creating trade*, whereby Pakistani investors who have their production processes in India will import raw material and intermediate goods from Pakistan (thus benefiting from customs-free input availability). Second, we do not account for the reverse, i.e., *trade creating investment*, whereby trade agreements between the two countries can have in-built clauses that partially represent investment cooperation (but is not a full-fledged bilateral investment treaty).

Some justification is required here to explain the perception-based estimates given above. Pakistan's textile sector becomes a leading player with the potential of FDI in India. The textile sector contributes 9 % to Pakistan's GDP and provides employment to over 15 million workers. It is the leading sector in Pakistan's export basket and rides on the strong back of Pakistan's cotton sector (Pakistan is the 4th largest producer of cotton). This sector enjoys vertical as well as horizontal linkages with the Indian textile sector, and the possibility of joint ventures as well as wholly owned subsidiaries by Pakistani investors remains strong. Pakistani investors, however, need to be mindful that textiles in India is a sunset sector.[10] This argument can also imply some overestimation in our perception-based exercise.

With the establishment of an integrated checkpost at the Wagah-Attari border, the exports of Pakistani cement to India witnessed a substantial jump. However, our interviews in the cement sector reveal that transporting such a huge quantity across the border may be less lucrative if one is allowed to set up production facility in neighboring cities of India. DG Khan Cement and Lucky Cement have already been reported to have evaluated this option and are forming alliances with the Indian business community to undertake production ventures inside India.

7.10.3 Sector-Specific Barriers to Investment

This section presents qualitative responses from our in-depth interviews with potential investors. We split our sector-specific results into two levels. The first is the high-end production units in Pakistan whose owners have already invested elsewhere in the world apart from their establishments in Pakistan. For them, India is a destination whose advantages they weigh vis-à-vis other global options they might have. They do, however, believe that in some sectors India presents a unique opportunity given its large population and growing middle class. This class of businesses seemed ready for ventures in India.

The medium-end businesses whose risk-worthiness is not mature felt that India presents little reward compared to the high risk for Pakistani capital in a country that traditionally does not enjoy good foreign relations. The reasons for their unease included laxness on the part of governments on both sides in addressing their fears

[10] A phenomenon used to describe sectors losing their competitive advantage due to a fast-changing global landscape in technology and innovation.

regarding security of assets and profits in the event of political upheavals. This stream of businesses felt content with their current success, whereby the trade lists on both sides have been rationalized and there are greater export opportunities for such entrepreneurs.

At a sectoral level, when leather sector producers were asked about their willingness to invest in India, they were apprehensive of finding the right labor at an appropriate wage. There are major gaps in the availability of information in this sector. They felt that handmade leather products in which Pakistan had a global niche require decades of training and expertise, which is hard to find elsewhere. They, however, felt that if bilateral relations between the two countries remained normal, then they could, as a local partner, think about introducing the technology being practiced in Sialkot across the border to Indian Punjab. This may imply additional investment in the accompanying vocational education specific to the leather sector. However, one respondent said that they were considering a joint venture in the tannery subsector.

In engineering, and particularly the auto sector, Pakistani producers said that Pakistan already has substantial import demand of raw material (scrap, semifinished steel, and components) from India. If they were allowed to open subsidies in India, this could eventually lead to greater producer surplus. However, for this to happen, they expect that once they start operations in India, they should also have access to local subsidies. Given that initial setup costs are high and there is increased exposure to sunk costs, producers in this sector want to access local finance, particularly for working capital purposes. They also expect a high level of investment-led trade flows (importing goods and services from country of origin); therefore, they want the screening processes to be eased and mutual recognition of standards needed to be carried out on an expedient basis. This sector has had some sour experiences and the respondents quoted anecdotal evidence about the excessive red tape (particularly at the state level) that ArcelorMittal faced in entering India's steel sector.

In the surgical and sport goods sectors, the need to strengthen competition policies in both countries in order to prevent imperfectly competitive practices was urged. Respondents noted that the price differential between India and Pakistan is very narrow in this sector; therefore, practices such as price wars need to be checked.[11]

This sector was also apprehensive about the weak implementation of intellectual property rules in India. Respondents said that Pakistan supplies surgical and sport goods to China, but no producer has yet physically invested due to fears of intellectual property breach. They felt that once the Chinese had a clear idea of their production and technological processes, they could easily reverse engineer the product.

In the food processing sector, a huge demand in India was reported. If Pakistani investors enter this sector, particularly in areas with close geographical proximity, they would consider importing intermediate inputs from the country of origin. Since the integrated checkposts on the land routes have reached full capacity, the current trucking mode will not suffice, and containerization via rail is needed. For mass cargo, open roof containers should be allowed between the two countries. This sector's flow of intermediate goods and raw materials will require the enhanced presence of

[11] In the international market, Pakistan sells soccer balls for US$2.50 versus India at US$2.48.

plant department officials on both sides unless mutual recognition of product standards is allowed. There were also fears that state-specific and city-specific restrictions in India could curtail the food processing supply chain.

The Karachi-based producers of *halal* food chains reported that Pakistan's certification, particularly in *halal* meat, is well respected across the globe. Given the large Muslim population in India, they were contemplating investing in this sector across the border.

In the services sector, respondents in the banking sector had a fair idea that they would need to follow the licensing route allowed by the RBI. However, other services subsectors were still waiting for information on precise rules for FDI in India. Pakistan has a vibrant core and noncore social services sector. One example is the education services portfolio in the private sector that has branches in China, the UAE, and Saudi Arabia. For them, it makes economic sense to open up in India, but certain operational barriers hinder such a decision. First, registration with national and local educational authorities is still not allowed for Pakistan.[12] The bilateral e-commerce facility is not possible given the lack of cooperation in the fiber-optic framework. The cellular services of the two countries do not respond across the border, thus negating the chances for holding online conferencing. Direct courier services are missing, which increases the number of days required for legal documentation. Finally, the visa policy for Pakistani faculty and students is city specific, and it is not possible for Pakistani students and teachers in India to open personal bank accounts.

Health service providers in Pakistan made similar observations. They said that given the increased potential of health tourism in India, it made sense for them to branch out to India either independently or through a joint venture. However, they had no guarantee for expedient visas required by patients in an emergency. Further, they said that if both countries were serious about liberalizing health tourism, special private flights should be allowed for health sector stakeholders (including patients and doctors). Secure direct conferencing protocols should be ensured so that delicate medical operations could be virtually handled across the border.

There was a general concern about the bilateral investment treaties that India currently maintains with some countries. There has been a rise in the number of arbitration cases by foreigners who have invested in India. There is now a need to review these agreements with respect to favorable treatment to foreigners vis-à-vis locals, the obligations of the Indian government toward the protection of foreign investment, and the treatment of intellectual property rights (Dhar et al. 2012). It is important to note that currently India has 82 treaties. Despite some resentment that arouse out of the government's delay in facilitating arbitration, India is keen to pursue such treaties with the USA and Canada, but both these countries have questioned the strength of India's arbitration mechanisms. Finally, at the South Asia level, it remains to be seen how successful India's treaties with Sri Lanka and Bangladesh have been.

[12] This may be the same for all countries; however, our respondents felt that such measures are applied more strictly to Pakistan.

During this study we had an opportunity to interview respondents from SAARC institutions and the SAARC Chamber of Commerce and Industries. At the South Asia level, SAFTA provides provisions for the smooth flow of investments between countries and emphasizes the removal of barriers to intra-SAARC investments. To strengthen the resolve toward SAARC trade and investment proposals, a SAARC Arbitration Council was established in 2007. Like other SAARC institutions, this council faced substantial delays in getting its first director general appointed in 2010. By the end of 2013, only three meetings of this council had been held.

The business community noted that after the duration allowed under the SAARC sticker visa was shortened, it has become very cumbersome for the business community to keep their passports and travel documentations tied up at embassies for long periods. It is discouraging to note that the duration allowed under this sticker is now 3 months.

The business community also made some observations on the provisions under India's FDI consolidated policy, effective from April 2012. They felt that if India at some point allows investment by Pakistanis through the automatic route, it would be necessary to amend this policy document. The revisions would then relax the various clearances required by Pakistan from the offices of the FIPB, the RBI, and state-level institutions.

There are caps in India for investing in sectors such as banking and insurance, broadcasting, print media, and telecommunications. Several services sector respondents were of the view that some South Asian countries, including Pakistan, are best placed to invest in these sectors given the sophistication that Pakistan has exhibited in telecommunications and the robustness of its banking sector proven after the global financial crisis. India may allow Pakistan's services sector without sector caps in the interests of promoting competition and efficiency.

In Chapter 6 of this policy, the sector-specific conditions on FDI were termed harsh. For example, it was felt that the agricultural activities allowed under 6.2.1 were fairly narrow. Pakistan's entrepreneurs in livestock have already indicated their interest in setting up milk processing plants for which there are laws that either place a sectoral cap or completely prohibit such activity.

Under 6.2.16.4, 100 % investment is allowed in single-brand product retail trade; however, for proposals beyond 51 % foreign investment, there is a mandatory sourcing of 30 % for the product's value from Indian small industries. The point of concern here is that the definition of small industries terms an entity small if total investment in plant and machinery does not exceed US$1 million. Such definitions give rise to arbitrary valuation by government departments (in turn, allowing them space for rent seeking) and can pose problems when such ventures are evaluated at a later stage.

In Chapter 7 Clause 7.1.2, the repatriation of dividends is termed "taking place freely." However, in the case of Pakistan, this is not possible unless Pakistani banks are allowed to open branches in India. If this does not happen and profits to Pakistan are routed through third-party banking arrangements, this could give rise to double taxation as well as overseas transaction tax.

7.11 Summary and Policy Recommendations

This study estimated the potential investment that can go from Pakistan to India at US$1.6 billion annually, if both the government and automatic routes are allowed. Textiles, cement, hotel services, and the auto parts sectors head the list of potential investments. From the discussion, a few broad recommendations need to be pursued. First, investment diplomacy is required whereby Pakistan should be allowed to invest in India through the automatic route (besides the currently allowed government route). It has to be recognized that a large part of FDI in the world is undertaken through the automatic route. Foreign investors usually cite increased transaction costs wherever compliance with government regulations is a prescribed condition. In this regard, a starting point can be a joint working group between the Pakistan's Board of Investment and India's FIPB.

Second, as in the case of most investment-friendly countries, the business community seeks a privileged visa facility so that access to their investments in foreign lands is certain. Currently, the visa regime between India and Pakistan suffers from (a) interference by security institutions, (b) arbitrariness in deciding on awarding visas, and (c) cumbersome documentation to obtain internal clearance from the Ministry of Interior in Pakistan/Home Ministry in India. It is again recommended that a joint working group comprising these two counterparts should meet every quarter. This will also act toward enhancing investors' confidence.

Given that Pakistani investors have cited the availability of their labor in close proximity to India as a key factor that can facilitate their investment decisions particularly in neighboring regions such as Indian Punjab, it is important that work visas should be liberalized between the two countries. Initially, this may be done on an investment-specific basis, i.e., only allowed for Pakistani-origin businesses in India. This recommendation could be carried forward by the working group of the Interior/Home Ministries proposed above.

Third, both India and Pakistan have experience in the arbitration of investment-related disputes at the international level; however, potential investors from Pakistan felt that investment-specific dispute resolution between these two countries needs to be more transparent and detailed. This would allow additional assurances for investors from both sides in order to guarantee security of assets and profits. This should at least be done in the short term as a confidence-building measure. Examples of this arrangement can be seen across ASEAN countries.

Fourth, if proximity is a key reason to invest across the border, then the availability of integrated transport and warehousing infrastructure cannot be undermined. The two key requirements in the short term will be containerization via rail and increasing the capacity of customs houses and storage facilities across the land routes. There already is a working group at the level of the customs departments of the two countries. This group needs to be broadened to include officials from the ministries of transport and communications from both countries. We have included the Communications Ministry because courier services and mobile phone roaming facility between the two countries are currently nonexistent.

Fifth, three financial sector initiatives may be required. Pakistani investors, for example, want to be able to access the financial markets for their working capital needs in the same manner as domestic Indian firms do. The double taxation issue will have to be taken up by the finance ministries on both sides. As banks on both sides are being issued licenses and if they end up financing government ventures (including public-private partnerships), then currency swap agreements between both countries may be pursued by the State Bank of Pakistan and the Reserve Bank of India. There have already been meetings between the governors of the central banks; however, the frequency of these meetings needs to be increased.

Finally, and even if in the short term both countries do not embark on a bilateral investment treaty, there needs to be some legal cover for foreign investors' fixed assets and intellectual property. There are examples from ASEAN countries that can be used.

A more concrete question to pose here is about the implementation mode for these policy proposals. While we understand that in the trade sphere the Ministry of Commerce on both sides is now in close liaison, for the promotion of cross-border investments, a more devolved approach is required. The process should start with the Board of Investment in Pakistan and the Foreign Investment Promotion Board in India working on the possibility of opening up the automatic route. This phase should also see the ministries of industries on both sides initiating discussions on advanced recognition of standards/inputs in the production processes. Several Pakistani investors have shown keenness to import textile raw material from Pakistan if they end up operating in India (in order to gain from customs-free imports through the country of origin).

The Home/Interior Ministries on both sides will be required not just to facilitate expedient visas for investors but also to synchronize visa policy with flow of merchandise and natural persons (work visas). In one of our discussions with a steel manufacturer in Islamabad, we learned that while textile machinery had been imported from India months ago, the Indian engineer who was supposed to install the machinery had still not been given a visa. Here, the role of the ministry of foreign/external affairs also becomes important. While individual ministries will do their part, it is this ministry that has to coordinate the process of trade and investment diplomacy.

Moreover, it is the responsibility of India and Pakistan to strengthen the overall investment cooperation process under SAARC. In its current state, SAARC interventions to promote FDI are grounded in the overall framework for regional trade, which is not correct for practical reasons (Moazzem 2013). Investment cooperation must be carried forward as an independent agenda. There is a vast literature that explains how investment creation in a regional market can substitute for trade diversion in the region (Blomstrom and Kokko 1997).

There has been an effort under SAARC to draft the agreement on promotion and protection of investment. This draft has been waiting for approval since 2007 despite the 17th SAARC Summit that demanded fast tracking of regional investment cooperation and the creation of regional production chains. Following Moazzem (2013), this chapter also proposes that a separate body in SAARC needs to be formed to deal with issues that fall within the ambit of regional investment cooperation. Such an institutional arrangement will also speed up the progress on SAARC initiatives that are underway, such as the establishment of a SAARC Arbitration Council and the SAARC Agreement on Avoidance of Double Taxation.

SAARC can also learn from the existing mechanism at the ASEAN level. There are three main instruments in ASEAN member states that allow for investment integration. These are the ASEAN Investment Area (AIA), ASEAN Free Trade Area (AFTA), and ASEAN Industrial Cooperation (AICO). Such arrangements can address many of the bottlenecks identified in FICCI (2010), such as policies on excluded sectors, restrictions on equity, lack of protection for foreign investors' assets and profits, and underutilization of bilateral investment treaties.

Annex I: Select Areas of FDI in India

Automobile

One of the major sectors of India's economy is the automobile industry, which contributes 22 % of the country's manufacturing GDP. Among all the FDI inflows into India, the automobile sector contributes 4 %. Data from DIPP shows that FDI inflow in the automobile sector during 2011–2012 was US$923 million. The government of India has allowed 100 % FDI in the automobile sector under the automatic route (except from Pakistan). The automobile industry is fully de-licensed and investors are also allowed free imports of automotive components. Further, there are no minimum investment criteria for investment in this sector.[13]

Biotechnology

India is among the top 12 biotech destinations in the world and ranks second in Asia, after China. DIPP data shows that between April 2011 and January 2012, FDI inflow in the drugs and pharmaceuticals sector was around US$3 billion. FDI up to 100 % is allowed in this sector only through the automatic route (except for Pakistan) in the manufacture of drugs and pharmaceuticals. Given the importance of this sector, India aims to offer grants and tax incentives and is formulating sector-specific investment-friendly regulations.

Cement

After China, India is the second largest cement manufacturer in the world. The demand for cement in India originates from four segments: housing 67 %, infrastructure 13 %, commercial construction 11 %, and the industrial sector 9 %. The government of India is promoting this sector to attract more FDI, and in the budget

[13] http://www.investindia.gov.in/?q=automobile-sector

2012–2013, the government has exempted customs duty on noncoking coal (earlier it was at 5 %). Given the increasing demand for cement in India and abroad, foreign investors are establishing and expanding their plants in India. The world's top 10 cement companies have investments in India, and these companies have almost 50 % of the total market size.

Chemicals

In terms of volume of chemical production, India is the 3rd largest producer in Asia after China and Japan. This sector produces about 5 % of India's total GDP. Between April 2000 and April 2011, India received inflows of US$3 billion. For this sector, 100 % FDI is allowed without license of production. This liberal policy applies to organic, inorganic, dyestuff, and pesticides. Foreign investors are making substantial investments that, in turn, have resulted in making the chemical sector's contribution to Indian exports a little over 13 %.

Civil Aviation

This sector, while retaining its strategic importance for India, has led to substantial job creation. India has become the fastest growing aviation market and expects to become the 4th largest by 2020. This sector is open and 100 % FDI is allowed under the automatic route, but those who want to make investments beyond 74 % in the existing airports are required to get approval from the Foreign Investment Promotion Board (FIPB). There are 136 airports in India, and the government is encouraging private investments in airlines and airport infrastructure.

Education

The 2011 census shows that the literacy rate in India is 74 %. The male literacy rate is 82.14 % and female literacy rate is 65.46 %. About 546 million people are under 25 years of age, which offers huge potential in the education sector for foreign investors.

There are two segments of education in India: core and noncore. Primary, secondary, and higher education are in the core segment, whereas preschools, coaching institutes, and vocational training come under the noncore segment. In 2010, the education sector's total worth was around US$25 billion. A report by Grant Thornton entitled "Education in India: Securing the Demographic Dividend" finds that the vocational segment is emerging as a substantial market and it grew rapidly to US$3.6 billion in 2012.

Currently, the percentage of students who go in for higher education is 12.4 %. The Ministry of Education aims to increase this ratio to 30 % by 2020. By reaching this goal, according to the Ministry of Education, India will need 800 more universities and 35,000 colleges. This requires an investment of US$150 billion during the next 10 years in the higher education sector. DIPP data shows that the total FDI inflows into the education sector from April 2000 to April 2011 remained at US$410 million. The current policy allows 100 % FDI in the education sector, and the government is promoting public-private partnership for maximum enrolment of students and the provision of quality education.

Food Processing

The food processing industry in India contributes 32 % of value added in India's total food sector. Being one of the largest industries of India, it is worth US$121 billion with an annual growth of 10 % and is expected to reach US$194 billion by 2015. It also contributes about 14 % of the manufacturing sector's GDP, 13 % of India's exports, and 6 % of industrial investment. India's potential in food processing also originates from its natural endowments. The country is the largest producer of wheat and rice and also contributes about 10 % of global fruit production. Further, 17 % of the country's total expenditure on food goes to milk and milk-related products. For producing agriproducts, meat products, marine, and milk and milk products, 100 % FDI is allowed under the automatic route. There is no import duty on capital goods and raw material for 100 % export-oriented units. The earnings from these exports are exempt from corporate tax, and also 100 % tax exemption for 5 years is allowed. The government has allowed mega food parks to be set up across the country. Numerous foreign investors already have investments in India, either directly or in partnership with Indian businessmen.

Gems and Jewelry

India is the largest consumer of gold and currently consumes more than 20 % of world's total gold. It is also the world's largest polishing and cutting center for diamonds. In 2011, the market size of the gems and jewelry sector was US$30 billion (as noted by the Gems and Jewellery Export Promotion Department) and is expected to reach US$45 billion by 2015. Currently, the sector provides employment to 1.8 million people and aims to increase jobs to a further 1.1 million people in the next 5 years. The total FDI inflows in this sector between April 2000 and April 2011, as per data from the DIPP, remained at US$302 million. For the promotion of investment in this sector, Gems and Jewellery Special Economic Zones (SEZs) have been set up.

Healthcare

Indian health sector consists of subsectors, including hospitals, medical infrastructure, medical devices, health insurance, clinical trials, telemedicine, outsourcing, and medical equipment. In 2010, the healthcare industry was worth US$40 billion and is expected to grow to US$100 billion by 2015 and to US$276 billion by 2020. DIPP data shows that between April 2000 and April 2011, total FDI inflows in this sector were US$1 billion. The government is facilitating foreign investors by reducing import duties on medical equipment to 7.5 % and introducing a number of other tax incentives. The government has also reduced the customs duty to 5 % from 25 % on life-saving medical equipment.[14]

Information Technology

India is one of the biggest destinations for global IT and ITeS outsourcing and contributes about 55 % of the global sourcing market. India is the preferred destination for companies that are seeking to offshore IT and back-office functions. India is also known for its successful export-led software industry. The IT sector is the biggest employment generation sector in the country. Between April 2000 and March 2011, the IT sector inclusive of computer hardware and software received total FDI of US$10.7 billion. The government has created Special Economic Zones (SEZs) and Software Technology Parks (STPs). Numerous benefits have been provided to these STPs, including exemptions from excise duty, service tax, and rebate for payment of Central Sales Tax (CST).

Media and Entertainment

India has one of the largest media and entertainment sectors, which comprises the film industry, print, music, and radio. In terms of volume, India is the biggest film producer in the world, as it produces more than 1,000 films in all languages every year. Currently, a large part of investment is desired to upgrade the equipment being used in various subsectors. Investment is also required in capacity building of the support staff working in the media and entertainment industry.

[14] http://indiabudget.nic.in/budget2012-2013

Mining

The mining and quarrying sector contributes about 2.5 % of India's GDP. India produces 87 minerals and the total value of mineral production was estimated at US$41.8 billion during 2010–2011. Major investments in this sector have come from Canada and the USA, followed by Australia, the UK, and South Africa. Given the growth in the construction sector, it is expected that mining activity will expand.

Pharmaceuticals

The pharmaceutical industry of India, which is technologically strong and self-reliant, is the 3rd largest in the world. The industry is growing at about 10–11 % per year. DIPP data shows that this sector attracted FDI worth US$1.9 billion between April 2000 and March 2011. The government is encouraging greater investment toward research and development in pharmaceuticals. Further, more capital injection is required for testing laboratories.

Telecommunications

The telecommunications sector is the second highest recipient of FDI and attracted 8.5 % of the total inflows into India between April 2000 and July 2011 (with an amount of US$12.3 billion). Currently, 74 % to 100 % FDI is allowed for various telecommunications services. With this, up to 100 % FDI is allowed under the automatic route for the manufacture of telecommunication equipment. With a young population, India is yet to have complete access to telecommunications across the length and breadth of India.

Textiles

The textile sector at present contributes almost 14 % to industrial production, 4 % to GDP, and 17 % to the exports of India. After agriculture, the textile sector of India is the second largest employment generation sector, providing direct employment to more than 35 million people. From April 2000 to April 2011, the total FDI inflow into this sector was US$959 million. A dedicated Ministry of Textiles has been set up, and the FDI cell at the Economic Division of India also attaches importance to this sector through supplementary policies.

Annex II: Sectors and Origin of FDI in India

Table 7.3 FDI sectors in India (April 2000 to March 2013)

US$ million

S. No.	Sector	Amount of FDI inflows	Percentage with total share FDI inflows
1	Services sector (financial, banking, insurance, non-fin/business, outsourcing, R&D, courier, tech. testing and analysis, etc.)	37,235	19.26
2	Construction development: townships, housing, built-up infrastructure and construction-development projects	22,080	11.42
3	Telecommunications	12,856	6.65
4	Computer software and hardware	11,691	6.05
5	Drugs and pharmaceuticals	10,318	5.34
6	Chemicals (other than fertilizers)	8,881	4.59
7	Power	7,834	4.05
8	Automobile industry	8,295	4.29
9	Metallurgical industries	7,507	3.88
10	Hotel and tourism	6,631	3.43
11	Petroleum and natural gas	5,381	2.78
12	Trading	3,956	2.05
13	Information and broadcasting (including print media)	3,284	1.70
14	Electrical equipment	3,183	1.65
15	Cement and gypsum products	2,626	1.36
16	Miscellaneous mechanical and engineering industries	2,319	1.20
17	Industrial machinery	2,302	1.19
18	Consultancy services	2,095	1.08
19	Construction (infrastructure) activities	2,090	1.08
20	Nonconventional energy	2,591	1.34
21	Food processing industries	1,811	0.94
22	Ports	1,635	0.85
23	Hospital and diagnostic centers	1,597	0.83
24	Agriculture services	1,609	0.83
25	Textiles (including dyed, printed)	1,226	0.63
26	Electronics	1,198	0.62
27	Sea transport	1,195	0.62
28	Fermentation industries	1,135	0.59
29	Rubber goods	1,134	0.59
30	Mining	998	0.52
31	Paper and pulp (including paper products)	866	0.45
32	Prime mover (other than electrical generators)	849	0.44
33	Education	684	0.35
34	Machine tools	623	0.32
35	Medical and surgical appliances	604	0.31
36	Soaps, cosmetics, and toilet preparations	632	0.33

(continued)

Table 7.3 (continued)

US$ million

S. No.	Sector	Amount of FDI inflows	Percentage with total share FDI inflows
37	Ceramics	508	0.26
38	Air transport (including air freight)	449	0.23
39	Vegetable oils and vanaspati	385	0.20
40	Diamond, gold ornaments	391	0.20
41	Glass	389	0.20
42	Fertilizers	298	0.15
43	Printing of books (including litho printing industry)	272	0.14
44	Railway-related components	270	0.14
45	Commercial, office, and household equipment	255	0.13
46	Agricultural machinery	296	0.15
47	Earth-moving machinery	175	0.09
48	Leather, leather goods and pickers	107	0.06
49	Tea and coffee (processing and warehousing coffee and rubber)	101	0.05
50	Scientific instruments	94	0.05
51	Timber products	79	0.04
52	Photographic raw film and paper	67	0.03
53	Industrial instruments	67	0.03
54	Boilers and steam-generating plants	62	0.03
55	Sugar	52	0.03
56	Retail trading (single brand)	95	0.05
57	Coal production	25	0.01
58	Dyestuffs	20	0.01
59	Glue and gelatin	15	0.01
60	Mathematical, surveying, and drawing instruments	8	0.00
61	Defense industries	4	0.00
62	Coir	2	0.00
63	Miscellaneous industries	7,844	4.10
Total		**193,281**	**100**

Source: Department of Industrial Policy & Promotion (DIPP), Ministry of Commerce & Industry, Government of India (http://dipp.nic.in/English/Publications/FDI_Statistics/2013/india_FDI_March2013.pdf)

Table 7.4 Top 20 countries' FDI in India (April 2000 to March 2013)

US$ million

S. No	Country	Amount of FDI equity inflows	Percentage with total FDI inflows
1	Mauritius	73,666	38.11
2	Singapore	19,460	10.07
3	UK	17,549	9.08
4	Japan	14,550	7.53
5	USA	11,121	5.75

(continued)

Table 7.4 (continued)

US$ million			
S. No	Country	Amount of FDI equity inflows	Percentage with total FDI inflows
6	Netherlands	8,965	4.64
7	Cyprus	6,889	3.56
8	Germany	5,480	2.84
9	France	3,573	1.85
10	UAE	2,422	1.25
11	Switzerland	2,367	1.22
12	Spain	1,463	0.76
13	South Korea	1,232	0.64
14	Italy	1,169	0.61
15	Hong Kong	1,028	0.53
16	Sweden	982	0.51
17	Cayman Islands	878	0.45
18	British Virginia	796	0.41
19	Indonesia	610	0.32
20	Poland	569	0.29
Cumulative total		**174,769**	**90.42**

Source: Department of Industrial Policy & Promotion (DIPP), Ministry of Commerce & Industry, Government of India (http://dipp.nic.in/English/Publications/FDI_Statistics/2013/india_FDI_March2013.pdf)

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Chapter 8
FDI in Pakistan: Prospects for India

Palakh Jain and Samridhi Bimal

8.1 Introduction

Over the past two decades, foreign direct investment (FDI) has been one of the defining characteristics of the world economy. Global FDI has increased substantially since the 1980s and is now among the largest forms of cross-border capital flows. This boom has been especially pronounced in developing countries where FDI has become the primary source of private sector finance (Mold 2004; UNCTAD 2005). Given the potential role FDI can play in terms of injection of capital, technology, and knowledge as well as in accelerating growth and economic transformation, the attitude of developing countries toward FDI has changed with dramatic improvements in their FDI policy regimes (UNCTAD 2005). As a result, developing countries have become an important source and destination for foreign investment. For the first time, in 2012 developing economies absorbed more FDI than developed economies. They accounted for a record 52 % of global FDI inflows, exceeding flows to developed economies for the first time by US$142 billion. The global ranks of the largest recipients of FDI also reflect the increasing importance of developing economies and the changing patterns of investment flows: nine of the 20 largest recipients were developing countries (UNCTAD 2013). Even in terms of FDI outflows, developing economies generated about one-third of global outflows.

Like many other developing countries, South Asian nations have been experiencing increased FDI inflows over the past decade (Table 8.1). Compared to total inflows, intra-regional flows of FDI seem to be increasing, but still accounted for only about 5 % of total cumulative FDI in the past three decades (Athukorala 2013). India accounts for over 90 % of these FDI flows in South Asia.

South Asian economies have great potential to attract FDI. Several policy and regulatory measures have been taken to improve the investment climate and attract

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Table 8.1 FDI flows for South Asia (US$ billion)

	2007	2008	2009	2010	2011	2012
FDI inflows	34.5	56.6	42.4	28.7	44.2	33.5
FDI outflows	17.7	21.6	16.5	16.4	12.9	9.2

Source: UNCTAD, FDI-TNC-GVC Information System, FDI database (www.unctad.org/fdistatistics)

Table 8.2 Ranks of South Asian countries (2013)

	India	Pakistan	Nepal	Sri Lanka	Bangladesh	Afghanistan	Bhutan
Ease of doing business index	132	107	108	81	129	168	148
Starting business	173	98	105	33	95	28	94
Protecting investors	49	29	114	169	97	94	71
Political instability index*	135	7	19	31	19	7	108

Source: World Bank Indicators; Economist Intelligence Unit
*Political instability index is for the year 2009–2010. A lower rank indicates higher risk

foreign investment in most South Asian countries. However, with the exception of India, all countries attract low amounts of FDI. Many believe that the major investment barriers in South Asia are widespread corruption, poor governance, and weak political and institutional structures (Asian Development Bank 2009; Raihan and De 2013). These factors create a gap between policies and their implementation and, thus, impede investment inflows.

In South Asia, Pakistan has the most liberal investment policy.[1] It ranks 2nd in ease of doing business. The investor-friendly regime followed by Pakistan is the result of policy reforms and liberalization measures taken since the 1980s and a realization by the Pakistan government of the benefits that the Pakistan economy can reap from FDI inflows. For investors looking at Pakistan, economic prospects get dimmed because of political factors (see political instability index in Table 8.2). Thus, Pakistan's attractiveness as an investment destination falls despite its favorable policy regime.

Given the importance of FDI as a source of economic development and growth for developing countries like Pakistan, and against the background of investment trends and the importance of India as a source destination for foreign investment in South Asia, there is great potential for Pakistan to attract FDI from India. In this case, FDI can serve the twin objective of contributing to overall economic development of both countries and strengthening long-term bilateral relations. The normalization of economic relations between the two South Asian giants is also crucial for the economic integration of the South Asian region.

[1] Board of Investment, Pakistan.

This chapter examines the potential for Indian investment in Pakistan. The scope of FDI from India into Pakistan is not limited to the business options arising from India's comparative advantage. As India and Pakistan compete to sell their goods in the global market, there are several areas where the two countries can complement each other's needs and, hence, produce cost-effective quality goods. This can be done through joint ventures to cater to the markets of developed nations. In the process, both nations can learn from each other.

This chapter attempts to understand the investment environment in Pakistan for Indian investors and recommends a three-stage approach to create a mutually beneficial business environment for India and Pakistan. The following research questions are addressed in this chapter:

- What are the prospects for Indian investment in Pakistan?
- What are the potential sectors for Indian investment in Pakistan?
- What is the current policy regime governing FDI flows between India and Pakistan?
- What are the barriers to investment in Pakistan?
- What policy recommendations can be adopted to foster India-Pakistan FDI flows?

The analysis is based on secondary data and primary information collected through a survey of firms based in Delhi and Mumbai. Twenty firms were interviewed during May–June 2013 for this study; the authors also interacted with government officials and researchers from both nations.

8.2 Prospects for Indian Investment in Pakistan

Pakistan's geographical location, liberal foreign investment policy, conducive business environment, and a young skilled workforce make it an investor-friendly destination. Strategically located in South Asia, Pakistan is at the crossroads of China, the Central Asian Republics (CAR), and the Gulf States. Pakistan's large market offers huge opportunities to investors from India in terms of the easy access it can provide to markets in Iran, Afghanistan, the Middle East, and CAR.

Pakistan's foreign investment policy has been designed as a comprehensive framework to create a conducive business environment to attract FDI. The investment policy offers foreign investors several incentives with respect to tax and to regulations on repatriation of capital and profit. Pakistan has enacted the Law of Special Economic Zones[2] that allows the creation of industrial clusters and offers liberal incentives, infrastructure, and investor facilitation services to enhance productivity and reduce the cost of doing business. An added advantage is its large trained and skilled English-speaking labor force. The consumer market in Pakistan

[2] The Special Economic Zones Act 2012 was published as Act XX of 2012 vide Gazette Notification No. F. 22(7)/2012.

Table 8.3 FDI outflows by India (2005–2012) (US$ billion)

2005	2006	2007	2008	2009	2010	2011	2012
2.9	14.3	17.2	21.1	16	15.9	12.4	8.6

Source: UNCTAD Statistics

is also growing at a rapid pace, and the potential to tap market opportunities provides strong grounds for FDI flows from India into Pakistan.

Indian investment in Pakistan can benefit from several country-specific advantages. The common culture and language between the two countries can immensely facilitate business cooperation. The language spoken is the same in the two Punjabs; in the two main cities of the two countries, Karachi and Mumbai, Sindhi is spoken. There is a certain sense of connection with people across the border. Smooth communication channels help in business interactions by reducing entry and transaction costs.

Given the enormous benefits of FDI, increased investment flows between India and Pakistan could be mutually beneficial for both countries. However, the benefits of FDI seem to be larger for Pakistan than for India, as investment can boost economic growth and help Pakistan overcome the domestic challenges to its economy. Overall, an improvement in the FDI scenario between India and Pakistan will help strengthen bilateral ties.

Against the background of prospects for Indian investment in Pakistan, the following subsections analyze the growing importance of India as an overseas investor and Pakistan as an investment destination.

8.2.1 India as a Source Country

In recent years, emerging market economies like India have become an important source of FDI outflows. The liberalization of government policies and removal of restrictions on outward FDI have led to a rise in overseas Indian investment. Apart from the liberalized policy environment for overseas investment, India has gained ground as an important overseas investor on the back of rapid economic growth, easy access to financial resources, and strong motivation to acquire resources and strategic assets abroad.

Indian companies are acquiring international firms to obtain resources that are not available in India or are cheaper in the foreign country and to obtain greater access to the global market. Such investments increase the competitiveness of the firms and catalyze the growth of exports and transfer of technology.

Between 2005 and 2012, outward FDI from India peaked in 2008 at US$21.1 billion. Since then, annual outflows have been falling gradually. In 2012, Indian FDI outflow stood at US$8.6 billion (Table 8.3).

Table 8.4 FDI inflows into Pakistan (US$ billion)

2005	2006	2007	2008	2009	2010	2011	2012
2.2	2.3	5.6	5.4	2.3	2	1.3	0.8

Source: UNCTAD Statistics

8.2.2 Pakistan as a Destination Country

Pakistan's large domestic market and liberal policy environment are attractive for foreign investment. The policy regime in Pakistan is investor friendly, and doing business in Pakistan is easier than in any of its South Asian neighbors (Table 8.2). Further, the World Bank (2013) confirms that Pakistan ranks ahead of Russia, Indonesia, Brazil, and the Philippines.

In the early years after independence, Pakistan received much more FDI than its larger neighboring countries. Due to inconsistent investment policies, the flow of FDI remained insignificant until 1991 but gradually increased after liberalization and showed an upward trend. FDI inflow peaked at US$5.6 billion in 2007. Table 8.4 shows that since 2008, FDI inflows have declined sharply and stood at only US$0.8 billion in 2012.

Since investment decisions are linked with socioeconomic, political, and cultural factors in the host economy, these factors significantly affect the flows of FDI to developing countries. The low rate of GDP, political instability, and energy crises are a few more possible reasons for low FDI in Pakistan (Jaffri et al. 2012; Khalid et al. 2012). However, in terms of attracting FDI, Pakistan has performed well compared with similar economies like Iran and Peru (Hamdani 2011), and there is scope for a reversal of this downfall given the tremendous business opportunities combined with the political will of the new government.

8.3 Potential Areas for Indian Investment in Pakistan

As India and Pakistan compete to sell their products in the international market, there are areas in which the two countries can complement each other's needs. There is general interest among businessmen on both sides to invest in the other's country. There is greater interest from the Pakistan side to invest in India in sectors such as cement, hotels, and textiles. There is a general expression of interest by large Indian business houses such as the Tatas and Godrej to invest in Pakistan. Companies such as Dabur already operate via Dubai to cater to the Pakistani market.

In September 2013, the first India-Pakistan joint venture took place. A furniture-making firm in Lahore, IWM Interwood Mobel Private Ltd. and Noble Translinks Private Ltd. of Amritsar jointly set up a firm called IWM Interwood Mobel Private Ltd. (The News International 2013). The stage has been set for investment by these two companies, and this precedent should be followed with more such investments.

During the course of our industry consultations, interaction with policymakers, and review of research reports, we identified sectors for possible collaboration within three broad categories.

8.3.1 Primary Sector

India and Pakistan are both principally agrarian economies with agriculture contributing 13.7 % and 21.4 % to GDP, respectively, in the two countries in 2012–2013 (Government of India 2013; Government of Pakistan 2013). Agriculture, with its allied sectors, is unquestionably the largest livelihood provider in both countries. Most industries also depend on this sector for their raw materials. There are considerable opportunities for investment in agriculture and processed foods. Within agriculture, there is tremendous scope for investments/joint ventures in inputs such as seeds, agricultural equipment, and technology (Husain 2013).

Further, the mining sector offers scope for investment. Based on available information, more than 600,000 sq. km of outcrop potentially holds metallic/nonmetallic mineral deposits in Pakistan (Board of Investment, Pakistan n.d.). Except for oil, gas, and nuclear minerals regulated at the federal level, minerals are regulated at the provincial level. The Federal and Provincial governments jointly set out Pakistan's Mineral Policy in 1995 (Board of Investment, Pakistan 1995), providing the appropriate institutional and regulatory framework and an equitable and internationally competitive fiscal framework. The enforcement of the Mineral Policy has paved the way to expand mining sector activities and attract international investment in this sector. Although the opportunity for Indian investment in the mining and mineral sector is good, past experience may deter investors from investing here. In December 2009, the authorities in Balochistan Province passed a motion and threatened to terminate the exploration mining license of the Reko Diq copper and gold mine held by Canadian Barrick Gold Corporation and a Chilean copper mining company. The threat to cancel the license was reportedly on the grounds that the mining lease application was incomplete and not legally compliant with mining laws (Wall Street Journal 2011). However, according to Asia Times (2010), the Balochistan government called the move a step toward getting control over provincial resources. Despite timely intervention by Pakistan's federal government, the dispute sends a negative image of the otherwise lucrative and welcoming attitude of the government toward FDI and may deter Indian investment in this sector.

8.3.2 Secondary Sector

Pharmaceuticals, textiles, transport, and energy are a few sectors that offer investment potential to Indian investors in the secondary sector. In the pharmaceuticals sector, there is scope for collaboration in bulk drugs and expansion of formulation

and health products. Indian pharmaceutical products are cheaper than Pakistani pharmaceutical products, and Pakistan's pharmaceutical regime is not strictly regulated for domestic production. There is scope for setting up JVs in Pakistan for sharing technical know-how in this sector. The Indian pharmaceutical industry can provide the necessary support and assistance to Pakistan to expand its industry. Further, this will have a positive impact on Pakistan's industrial growth and help meet the challenge of providing cheaper drugs to Pakistani citizens. The major Indian pharmaceutical player, Biocon, has licensed BIOMAb-EGFR to enter the Pakistan market through a licensing arrangement with Ferozsons Laboratories, Pakistan (Biocon 2007). There is scope for further FDI in the pharmaceutical sector.

With energy demand rising in Pakistan, the greatest benefit could accrue in the sphere of energy cooperation, which could act as the single most effective confidence-building measure. It could result in wider participation from stakeholders and promote market integration in energy-related trade. Several projects involving cross-border trade in coal, hydroelectric power, petroleum products, thermal energy, renewable energy, and bilateral and regional grid interconnection have the potential to be economically viable (Kaul 2013). Cross-border "power trade" could be done via bilateral power trade, pool-based exchange, or a wheeling facility. Overall, there is high potential for energy trade between the two countries, for which talks are ongoing (Lama 2013). India and Pakistan are considering the option of electricity trading. The first meeting of the Joint Group of Experts to examine the feasibility of trade in electricity was held on October 20, 2011 at New Delhi. The Central Electricity Authority and Power Grid Corporation of India Limited/Power System Operation Corporation Ltd. were designated as the nodal technical agencies from the Indian side. They are interacting with the National Transmission and Dispatch Company Ltd. of Pakistan to work out optimal technical solutions for grid connectivity between the two countries. A broad understanding has been reached on possible grid connectivity between Amritsar and Lahore to enable trade of up to 500 MW of power. As of January 2014, the Federal Cabinet in Pakistan approved the signing of a Memorandum of Understanding between the two countries (Business Recorder 2014). Given the importance of electricity for Pakistan's domestic economy, the electricity sector can be seen as one of the most important sectors for investment.

Pakistan has been trying to make the energy sector lucrative for Indian investors by offering incentives such as customs and sales tax exemption in Special Economic Zones, zero import duty on machinery for energy plants, etc. There is a need to pass this information to Indian investors. India is one of the most rapidly growing energy markets in the world and will be able to absorb new sources of supply as they materialize in the region. Pakistan can be a potential transit route for energy from Iran and Central Asia through the construction of pipelines. This will require major capital investment. The Iran-Pakistan-India (IPI) pipeline and the Turkmenistan-Afghanistan-Pakistan-India (TAPI) pipeline are two such ambitious projects, for which negotiations are underway. A huge transit fee and a share in gas supply on a daily basis is the direct benefit that will accrue to Pakistan in such cases.

Energy cooperation between India and Pakistan would have an overall stabilizing effect on the region, and such ventures can be explored in other areas of energy. For example, India can invest in Pakistan's power sector, on which the backbone of the economy – the textile sector – is also dependent. Pakistan experiences major power cuts that adversely affect its industries. FDI in this sector will have twin benefits. First, it will rectify power problems in the domestic economy. Second, it will contribute to attracting more MNCs to Pakistan. Further, investment in such crucial sectors can ensure better safety of investment and promote economic development in the country. For the long-term strategic benefit of the country, proposals for acquisition of overseas assets in the energy sector through PSUs or a special purpose fund are being discussed.

Textiles is one sector in which Pakistan has a comparative advantage. However, the textiles sector in Pakistan is not technologically advanced. There is a case for India and Pakistan to leverage each other's comparative advantage by complementing each other. Initially, the opening of trade with India can help Pakistan acquire high-tech machinery at lower prices than the ones it currently acquires from Germany. Further, JVs can help combine the strengths of Pakistan's designs and fabric with Indian marketing skills. This sector offers scope for technology sharing. Pakistan and India are competing for the same international markets. The two countries can jointly cater to international markets, such as Europe, by producing high-quality and cost-effective textile products. In other words, instead of acting as competitors, both countries can collaborate by focusing on value addition and joint marketing for European and ASEAN countries.

Pakistan's performance on most logistics indicators, including quality of trade and transport infrastructure, is lower than for most Asian countries, particularly India (World Bank 2012). The transport sector in Pakistan suffers from low quality, long travel times, and poor reliability that hinder the economic growth of the country. In this regard, India can offer logistics support to meet increased transportation requirements in Pakistan. India can invest in infrastructure projects similar to its successful home projects like the Delhi Metro. Investments in trade corridors should also be encouraged.

8.3.3 Tertiary Sector

India has established itself as a major player in the information technology (IT) segment. Although the software industry in Pakistan is still in its nascent stages, it has the potential to emerge as a major software export and training center. India and Pakistan could enter into joint ventures to tap the global market for software. While Pakistan can provide professionals at lower wages, Indian companies could help procure international contracts (Husain 2011). India has a comparative advantage in IT in terms of low-cost, qualified, English-speaking personnel. This can be replicated in Pakistan. Another area where the two countries could gain is if India sets up training institutes in Pakistan or if professionals from Pakistan are allowed to go to India to get professional training.

Healthcare services is another area in which there are opportunities for both countries. India has emerged as an important destination for provision of medical

services due to affordable treatment costs and advances in medicine. Despite a relatively tight visa regime, the number of patients going from Pakistan to India has been on the rise. Several Pakistani patients have been visiting India for medical treatment, such as liver and kidney transplants and open heart surgery (Ahmad 2012), and the Mumbai Obstetric and Gynaecological Society provides fertility treatment to Pakistani couples (Mid-Day 2012). In February 2012, a group of Indian and Pakistani doctors jointly performed a complicated liver transplant procedure in a Lahore hospital, opening new avenues for cooperation in healthcare services (Times of India 2011).

The common culture and language in India and Pakistan provides immense opportunities for trade and cooperation in the film, television, and music sector. India is the second largest producer of movies in the world, whereas Pakistan produces very few movies. Pakistan had imposed a ban on the screening of Indian films in 1965 following the Indo-Pak War (Chi n.d.). The ban was intended to protect the domestic film industry, but despite the ban the Pakistani films industry has not done well (The Express Tribune 2012). The ban was lifted in 2008, but there has been no consistency in policy implementation since bans on Indian films are often imposed on a case-by-case basis. Through the years, the ban has been practically ineffective since the demand for Indian movies is met through pirated DVDs and satellite cable broadcasts of Indian films. There is interest in both India and Pakistan in each other's music – both audio and visual. There is also an interest in Indian television serials and in Pakistani plays in India. However, Pakistani entertainment channels are not broadcast in India, whereas several Indian channels are broadcast in Pakistan. Exchanging broadcast rights to telecast each other's programs on television is yet another trade opportunity for the two countries.

For the potential investments to fructify, the two countries have to take measures in several areas. It is important to examine the regulatory regime governing investment flows between India and Pakistan, the existing barriers to investment in Pakistan, and the need for banking channels to facilitate investment flows between the two countries.

8.4 FDI Policy Regime

Policy regime is a key factor that drives foreign investment flows to a country. Apart from the underlying macroeconomic fundamentals, the ability of a nation to attract foreign investment depends on its policy regime. This section examines the policy regime that governs investment flows between India and Pakistan.

As a part of its economic reform agenda, Pakistan began to liberalize its foreign investment policy toward the end of the 1980s. Several policy and regulatory measures were taken to improve the business environment and attract FDI. A Board of Investment, attached to the Prime Minister's Secretariat, was set up to generate investment opportunities and facilitate investment. A "one-window" facility was established to overcome difficulties in setting up new industries (Zakaria et al. 2014).

Table 8.5 Pakistan's attractive investment packages

Policy parameters	Manufacturing	Agriculture	Infrastructure and social	Services including IT and telecom
Government permission	Not required except for specified industries	Not required except for specific licenses from concerned agencies		
Remittance of capital, profits, dividends, etc.	Allowed			
Upper limit of foreign equity allowed	100 %			
Minimum investment amount (US$ million)	No	0.3	0.3	0.15
Customs duty on import of PME	5 %	0 %	5 %	0–5 %
Tax relief (IDA, % of PME cost)	50 %			
Royalty and technical fees	No restrictions on payment	Allowed as per guidelines. Initial lump sum up to $100,000; max. rate 5 % of net sales; initial period 5 years		

Source: Board of Investment, Pakistan, Government of Pakistan

As a result of liberalization of the investment regime, Pakistan today offers one of the most investor-friendly and liberal investment regimes in the South Asian region.[3] The government of Pakistan has put in place a policy framework on foreign direct investment that is transparent, predictable, and easily comprehensible. Foreign investment in Pakistan is at present regulated by the "Investment Policy 2013." The policy consolidates existing policies by related line ministries and has further liberalized the policy, besides drawing up futuristic strategic programs to implement the policy. The policy has been designed to provide a comprehensive framework to create a business environment that is conducive to FDI (Table 8.5). The Special Economic Zones (SEZ) Act 2012 (Board of Investment, Pakistan 2012), which is the centerpiece of Investment Policy 2013, is expected to encourage industrial clusters and bring Pakistan on the international economic radar by offering a liberal investment regime and adequate physical infrastructure (Board of Investment, Pakistan 2013).

The key features of the liberal investment policy of Pakistan are given below:

- Equal treatment of local and foreign investors
- All sectors of economy open to foreign investment
- Foreign equity up to 100 % allowed
- No government permission required

[3] Pakistan's rank in ease of doing business indicators is the second lowest in South Asia; refer to Table 8.2.

- Remittance of capital, royalty, profits, technical, and franchisee fees allowed
- Network of export processing zones
- Foreign investment protected by Foreign Private Investment (Promotion and Protection) Act, 1976, and Protection of Economic Reforms Act, 1992

Although Pakistan has always followed a liberal and nondiscriminatory policy toward all countries, including India, until 2012 India had restrictions on outward investments to and inward investments from Pakistan (Box 8.1). In a major confidence-building measure, India overturned the ban in August 2012. Both inward and outward investments must be routed through the "approval" route, which requires prior approval from the Reserve Bank of India. Requests under the approval route are considered by taking into account, inter alia, the prima facie viability of the Joint Venture (JV)/Wholly Owned Subsidiary (WOS) outside India; the likely contribution to external trade and other benefits that may accrue to India through the investment, financial position, and business track record of the Indian party and the foreign entity; the experience and expertise of the Indian party in the same or a related line of activity outside India; etc.[4] While the routing of investment via the approval route should not be a deterrent to enhancing FDI flows between the two countries, approvals must be accepted/rejected in a transparent and time-efficient manner.

Box 8.1: Case of India-Bangladesh FDI

Until recently, India had Sri Lanka, Bangladesh, and Pakistan on the negative list for investment; however, in 2006 and 2007, India permitted FDI from Sri Lanka and Bangladesh, respectively, making Pakistan the only country from where India did not permit any FDI inflows. As of date, apart from Pakistan, investments from and to Bangladesh are also routed through the "approval" route, which is applicable to all sectors. The India-Pakistan FDI relation can draw lessons from the success of the India-Bangladesh FDI scenario. Until 2007, Bangladesh was also on the banned list of Indian FDI regime. With the removal of restrictions, investments from India into Bangladesh have increased at a tremendous pace (Table 8.6).

According to UNCTAD (2013) and the Bangladesh Board of Investment, India has emerged as the largest South Asian investor in Bangladesh.

Table 8.6 FDI inflow by India in Bangladesh (2007–2010) (US$ million)

2006	2007	2008	2009	2010
6.09	1.67	11.29	7.99	43.19

Source: Board of Investment, Bangladesh. http://www.boi.gov.bd/

[4] For more details, visit rbi.org.in.

8.5 Existing Barriers in Pakistan

Despite the investor-friendly nature of the FDI policy offered by Pakistan government, investment from India has not yet entered the Pakistan market. There are tangible and intangible barriers to investing in Pakistan that are not due to the policies, but to the underlying nature of the Pakistan economy. The major barriers in the way of foreign investment are described below.

8.5.1 Law and Order

In recent years, the law and order situation has deteriorated all over the country. It is far from satisfactory even in the growth capital of the country, that is, Karachi.

8.5.2 Lack of Political Stability

Political risks largely depend on political stability and governance by the government (Husain 2009). Political stability is extremely important for the normal macroeconomic and business environment of a country. It enhances the probability of attracting FDI inflows into countries, as it builds confidence among investors. Several studies show that the degree of political stability is an important factor that investors consider when entering business, and it significantly affects FDI flows (Lambsdorff 1999). If the country's political stability is low, foreign investors hesitate to bring in projects until they are assured that the business environment is conducive and favorable (Brada et al. 2005; UNCTAD 2010; World Bank 2011). Pakistan has been suffering from instability in its political system, and this can be identified as the most important barrier that has prevented Pakistan from receiving large inflows of FDI from countries including India. Even the World Bank (2011) categorically states that private sector investment is low in the country because of political instability and corruption.

Since 2008, political instability in the country has increased. One measure of political instability is the *political instability index* that shows the level of threat posed to governments by social protest. Table 8.7 shows the political instability index score for Pakistan compared to India. Pakistan's score has deteriorated since 2007 and signifies high risk. In fact, Pakistan's rank is 7 in terms of political instability out of 165 countries, which indicates very high risk. On the other hand, India has shown considerable stability and stands at a rank of 135.

The issue of investment protection and safety is a major concern for every investor, the lack of which adds a component of risk to investment. In general, risk can be of two types: risk on profit and risk on capital. Political instability in Pakistan exposes investors to both types of risk. In the short run, investors may be willing to bear losses if there are chances of profits in the long run. However, with regard to

Table 8.7 Political instability index: India and Pakistan

	India	Pakistan
Political stability index		
2007	4.5	5.8
2009/2010	4.5	7.8

Source: Economic Intelligence Unit
Note: The index is on a scale of 0 (no vulnerability) to 10 (high vulnerability)
The index scores are derived by combining measures of economic distress and underlying vulnerability to unrest. The index covers the period 2009/2010, and scores were compared with the results for 2007. EIU data, retrieved June 10, 2013, from http://viewswire.eiu.com/site_info.asp?info_name=social_unrest_table&page=noads

Pakistan, investors fear 100 % risk with regard to the security of their capital too. The investment scenario is further dampened by an idiosyncratic risk related to the political relations between India and Pakistan (Desbordes 2010; Desbordes and Vicard 2009).

8.5.3 Pakistan's Economic Performance

Macroeconomic indicators are important determinants of FDI. However, over the past few years, Pakistan seems to be losing its macroeconomic strength. Pakistan's economy grew at an annual average rate of only 2.9 % during the past 5 years. Deterioration in the power sector is a major constraint to growth, and power outages have shaved annual GDP growth to 2 %. GDP growth has been stuck at a level that is less than half of Pakistan's long-term trend potential of 6.5 % per annum.

8.5.4 Transparency of the Regulatory System

A transparent regulatory system is vital for foreign investors, because nontransparency imposes additional costs on businesses. These additional costs arise because firms have to tackle the lack of information that should have been provided by the appropriate government department in the implementation of its policies and as part of the activities of government institutions. Transparent policies also facilitate cross-border mergers and acquisitions. When firms decide to acquire abroad, they are often required to have their acquisitions approved by a commission or government body in the foreign country (Drabek and Payne 1999). Nontransparent applications of government regulations have also been responsible for the low levels of FDI in Pakistan (Khan 1997). The privatization program and incentive packages have also not been without controversy, that is, surrounding the transparency of the deals, job losses, and/or profit repatriations (Hamdani 2011).

Table 8.8 Control of Corruption Index in Pakistan

Year	Control of Corruption Index
2005	13.7
2006	23.4
2007	24.3
2008	21.8
2009	12.4
2010	12
2011	15.6

Source: Worldwide Governance Indicators (2012)
Note: Higher values indicate better governance

8.5.5 Corruption

If corruption keeps increasing in a country, the reputation of the country suffers in the eyes of the foreign investor. Aburime (2010) probed into the influence of corruption in FDI and effectiveness in the case of Pakistan. The study observed that the Pakistan economy is "haunted by hovering clouds of corruption causing adverse effects." Several other studies also point out that corruption is a major problem in the development of the Pakistan economy (Shahbaz et al. 2008; Shahbaz and Rahman 2010).

The World Bank's Control of Corruption Index reflects perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests. Table 8.8, which shows the control of corruption index for Pakistan, indicates that Pakistan's control of corruption is not good represented by low values on the corruption control index.

8.5.6 Cost of Doing Business

In Pakistan, the cost of doing business is higher than the global norm. Pakistan's rank is 107 out of 183 countries. Although this is lower than in most South Asian countries, it is high compared with other developing countries of the world.

8.5.7 Infrastructure

The availability, reliability, and cost of infrastructure facilities (power, telecommunications, water supply, etc.) are important determinants of a conducive business environment. Unfortunately, infrastructure facilities in Pakistan are inadequate and, thus, act as a barrier to attracting investment flows (Khan 1997). Poor infrastructure leads to an increase in transaction costs, limits access to both local and global markets, and discourages FDI.

8.5.8 Tax Structure

Payment of taxes and contributions is a complex and cumbersome process in Pakistan (Jacobs and Coolidge 2006). In addition to corporate income taxes, a large number of direct and indirect taxes are levied at the federal, provincial, and local levels. Foreign investors in Pakistan sometimes complain of the confusing array of federal and provincial taxes and controls. Administrative discretion plays a large role in assessing tax, resulting in discrimination among taxpayers. The number of approvals, permits, and licenses required from various government entities prior to launching a business project in Pakistan poses a significant hurdle to investment in Pakistan, but many of these licenses and permits have been removed over the past few years. It is no longer mandatory to register with the Board of Investment, but investors must still register with the Securities and Exchange Commission of Pakistan (SECP) and the State Bank of Pakistan (SBP).

8.5.9 Banking and Financial Services

Banking channels play a catalytic role in promoting and facilitating investment flows, because they guarantee payments that are essential for building new and lasting business partnerships. The extent to which investment potential can be realized depends on the availability of banking and financial services between India and Pakistan. However, currently there are no Indian banks in Pakistan and no Pakistan banks in India. So, even though the FDI policy allows for repatriation of dividends freely, this is not possible directly and easily for Indian and Pakistani investors unless there are banks that operate in each other's country. In the absence of such a mechanism, profits are routed via third-party banking arrangements or correspondent banks.[5] This results in delays in payments and increases cost; it raises issues of double taxation and overseas transaction tax.

If India and Pakistan open bank branches in each other's country, then transactions can get processed within a day or so. Intra-bank processing happens through electronic clearance unlike interbank processing in which usually routing is done via a third-country bank.

In 2005, the Reserve Bank of India and the State Bank of Pakistan signed an agreement to open branches of two Indian banks in Pakistan and two Pakistan banks in India. This agreement has still not been implemented, as procedural difficulties have been allowed to overwhelm the substance of the agreement (Husain 2013). Without banking services, investment flows cannot flourish.

[5] Banks usually undertake transactions in countries in which they do not have a presence through correspondent banking. This involves opening vostro/nostro accounts. A vostro account is another bank's account with the reporting bank, while a nostro account is the reporting bank's account with another bank (IMF 2011).

8.5.10 Restrictive Visa Regime

International investment requires personal contact with business partners. Visa restrictions render such personal meetings difficult. The current visa regime between India and Pakistan is complicated and restrictive. Some of these restrictions are delays in granting visas, only city-specific visas are granted, visitors have to report to the police on arrival and before departure, and visitors have to depart from the port of entry. Pakistan should strive to remove these bottlenecks in a bid to enhance its competitiveness in attracting FDI flows.

8.6 Conclusion and Policy Recommendations

India and Pakistan should increase their cooperation, especially on the economic front, to enhance trade and investment flows, as these are the two economic partners most suited to bring about a huge change in the entire South Asia region. As the FDI regime between India and Pakistan is liberalized, much remains to be done on both sides to facilitate and enhance investment flows.

First, regulatory and administrative barriers to investment need to be addressed. The mobility of capital and labor are two important issues in international investment. An efficient banking channel can provide the backbone for smooth flow of capital and investment between countries. Opening branches of Indian and Pakistani banks will facilitate the movement of capital and lower transaction costs. Political willingness to remove such barriers is necessary to build international relations. Similarly, free movement of labor is important to facilitate FDI flows. The current visa regime is restrictive, complicated, and a major deterrent in the flow of labor across the border; hence, it needs to be liberalized.

For business deals to be finalized, it is important to have good channels of communication. A primary requirement of business communities on both sides is better telecommunications. The rules with regard to international roaming facility should be relaxed. (Joint Statement 2012).

Although policy changes have been instituted, the complementary policies and actions required to introduce liberal foreign investment are still missing. This study proposes stagewise recommendations for better and sustained formulation of investment relations between India and Pakistan (Fig. 8.1).

8.6.1 Stage 1

Governments on both sides need to engage with each other to send the right signals about their willingness to take the trade normalization process forward. Businesses on both sides need to engage with each other proactively to continue the momentum

Fig. 8.1 Three-stage recommendation

of the process of trade normalization. There is lack of awareness and apprehension among businesses about business opportunities in the other country. Awareness needs to be spread and the information gap needs to be filled. This needs to be pursued at multiple levels through collaborative efforts across governments, business chambers, and academic institutions in both India and Pakistan.

8.6.1.1 Informal Events

Informal events like road shows for sustained interest in bilateral business and regular exchange and interaction among business delegations need to be promoted. Chambers of commerce in India need to assist Pakistani businessmen in conducting road shows that focus on key sectors in Pakistan that could benefit from Indian investment. This can be done in association with state-level investment boards in India. The events have to be organized every month so that the business potential remains in public memory. Recently, a cross-border business plan competition, *Start-up Dosti*, was organized by Dosti Partnership to connect Indian and Pakistani entrepreneurs and facilitate investment and collaboration (Atlantic Council 2013). Dosti Partnership is the product of a cross-border partnership between the Atlantic Council (US), the Indian Angel Network (India), and SEED Ventures (London, Karachi). It seeks to build on the improved economic relations between India and Pakistan by promoting greater trust and collaboration in the business community, providing opportunities for cross-border investment, and supporting young entrepreneurs. Such innovative events to attract youth potential should be encouraged through think tanks and educational institutions.

8.6.1.2 Trade Fairs

Annual trade fairs in the two countries can help create awareness of existing business opportunities and pave the way for technology exchange across the border. The unprecedented number of fairs and exhibitions held in India and Pakistan (see Box 8.2), displaying each other's products, has received an overwhelming response from consumers, which provides support for such efforts to continue (Taneja et al. 2013).

Box 8.2: Recent Pakistan Trade Fairs and Exhibitions in India

Made in Pakistan Exhibition, Chandigarh	April 2013
Indo-Pak Expo, Ludhiana	February 2013
Indo-Pak Expo, Jalandhar	March 2013
Made in Pakistan Expo, Mumbai	August 2012
Pakistan Mega Lifestyle Exhibition, New Delhi	April 2012

Source: Rawalpindi Chamber of Commerce & Industry rcci.org.pk.
http://www.ficci.com/PressRelease/985/ficci-press-aug30-pak.pdf

8.6.1.3 Formalization of Indirect Investment

Given the attractive business opportunities in Pakistan, several Indian business entities operate in Pakistan via Dubai. This is partly due to the congenial and hassle-free business environment offered by Dubai and partly to its proximity to Pakistan. The exchequers of both countries lose significant potential revenue because of such indirect investment. For instance, Dabur operates in Dubai to access the huge market in Pakistan for its products such as Hajmola Chulbuli Imli. The aim should be to identify such investors, understand the reasons for their reluctance to invest directly in the other country, and remove the causes that drive them to operate through third countries. This would help drive mechanisms and regulations that would promote direct business.

8.6.1.4 Progress Region-Wise

There is a need to take small steps. The first attempt can be to tap the synergies across the two Punjabs, which share a lot in terms of culture, language, and business ethics. The success of business in these regions can pave the way for moving to other provinces and states in the two countries. During a recent meeting between the chief ministers of the two Punjabs in December 2013, the need to integrate the economies of these states was reiterated. The joint statement, the first of its kind between any two provinces of India and Pakistan, released after the meeting

has proposed free movement of academics, students, and interns and the promotion of community contacts and understanding through the exchange of delegations consisting of professionals and practitioners from different sectors, including agriculture, trade, industry, and commerce (Naqvi 2013). The chief ministers focused on promoting cooperation and sharing learning in the livestock sector, including dairy development, vaccinations, animal husbandry, veterinary sciences, and water management. Such high-profile meetings and the resolution to promote peace and harmony across the Punjab region must be replicated at the national level too.

8.6.1.5 Removing Bias

There is need to remove the prevailing bias against Indian goods in Pakistani markets and against Pakistani goods in India. A recent study found that Pakistani businesses find it difficult to sell their goods in India, as there is an "image issue." For instance, Pakistani bed linen is sold in India under European and Indian labels (Trade Development Authority of Pakistan 2012). A similar fear persists in the minds of Indian businesses, as their business partners in Pakistan advise them not to use the "Made in India" label.[6] However, new products, for example, sweets and snacks by a large Indian manufacturer, have made a successful entry into the Pakistani market under the Indian label.[7]

Efforts are needed to make these goods more acceptable in order to increase demand. This can be done by celebrity endorsement of goods and building the brand image of "Made in India" goods in Pakistan and vice versa in India.

8.6.1.6 Government Participation

The Indian government can set a precedent by taking the initiative to invest in Pakistan. This will send encouraging signals to private investors. When a region is not conducive for business, public investment can have a demonstration effect that leads to additional projects by foreign country investors. A good example of this is the investment by the Indian public enterprise ONGC Videsh Ltd. for exploration of oil and natural gas in Afghanistan. The success story of ONGC has generated confidence among investors and has paved the way for future private foreign investment in Afghanistan.

[6] Interviews with manufacturers who are trying to enter the Pakistani market after their products were included in the positive list.

[7] Interview with an exporter of packaged sweets and snacks to Pakistan under the Indian label.

8.6.2 Stage 2

Innovative solutions are required to mitigate the risk, perceived or real, of investing in Pakistan and to pave the way for investor confidence.

8.6.2.1 Encourage Investors of Pakistani Origin

Investments from Indian investors who are originally from Pakistan should be encouraged. There is a strong business community that migrated from Pakistan to India in the 1980s and 1990s and has recent memories of Pakistan. These businessmen have expressed an interest in investing in Pakistan, provided that the business proposal and investment climate is sound. However, they are apprehensive of losing the trust of the Indian government by investing in Pakistan. The Indian government needs to address such fears and encourage investment in Pakistan. Investment by Pakistan-origin businessmen settled in India can then percolate to the entire Indian business community.

8.6.2.2 Common SEZs

Pakistan and India can learn from Jordan and Israel that face continuous tension along their common border. The areas on the border between Jordan and Israel have been designated as Qualifying Industrial Zones[8] (State of Israel, Ministry of Economy). Initially, only a few Jordanian companies took advantage of this because they faced hostility in doing business with Israel; gradually, more Jordanian businesses began to set up establishments when business considerations began to overshadow political hostilities. India and Pakistan can learn from the success story of business development between two border nations (Jordan and Israel) with a background of political hostility. Pakistan could also consider setting up an SEZ near Lahore with special incentives. By using Pakistan land, manpower, and other resources, such SEZs would generate employment in Pakistan and foster economic development in both countries. Economic cooperation will also generate a sense of peace and prosperity in the region.

By this stage, several Indian business organizations would have got first-hand experience of operations in Pakistan. Their experience needs to reach out to other business organizations by word of mouth. This can be done by sharing experiences through social media and joint meetings with potential investors.

[8] Qualifying Industrial Zones are a special type of free trade zone.

8.6.3 Stage 3

Eliminating risks from investment to levels that are palatable to investors can be partially achieved by smoothing the investment landscape using guarantees and innovative insurance products.

8.6.3.1 Support from International Organizations

Political risk is a major investor concern in developing countries. The World Bank (2009) rated Pakistan as among the five most risky investment destinations. In 2002, the Asian Development Bank created an insurance cover, namely, the Political Risk Guarantee (PRG), against specific political or sovereign risks. PRGs are designed primarily for cases where commercial lenders are prepared to take on the commercial risks of a project, but require assistance from multilateral institutions or private insurers to mitigate political risks. This facility is counter-guaranteed and indemnified by the Pakistani government. There is flexibility to increase this coverage (up to US$175 million) through commercial reinsurance arrangements. Although there have been no terrorist incidents targeting FDI in Pakistan so far, the investor's security concerns can be addressed through support from the Multilateral Investment Guarantee Agency (MIGA), which is an international financial institution that offers political risk insurance and guarantees. MIGA is popular in countries in Africa that have managed to attract a lot of FDI despite disturbed domestic conditions. In Pakistan, too, MIGA has provided several guarantees to Habib Bank AG Zurich, Switzerland, to support the expansion and growth of its branch operations in Pakistan.

8.6.3.2 Bilateral Investment Treaty (BIT)

As the FDI regime between India and Pakistan has been liberalized, the next obvious step for both governments should be to set up an institutional mechanism that would guarantee each other's investments. The countries should work toward signing a bilateral investment treaty that protects and promotes investments on a reciprocal basis and includes provisions on fair and equitable treatment, protection from expropriation, and national treatment (Taneja and Bimal 2012). Signing a BIT is also required to instill confidence and a sense of security among investors on both sides. In case of an unforeseen event, this can act as a sovereign guarantee too.

8.6.3.3 Dispute Settlement Mechanism

An innovative and well-defined dispute settlement mechanism to address the issues faced by investors can go a long way in building a conducive and strong business environment between India and Pakistan.

To conclude, given the lucrative Pakistan market, the geographical proximity of the two countries, and the access to the Central Asian Republics that Pakistan could make available to India, there is a strong case to encourage Indian investment in Pakistan. To realize the untapped investment potential, there is a need for coherence in investment policy with other areas of investment facilitation and business practices in order to enhance the investment climate. Although India and Pakistan have made considerable progress in liberalizing their FDI regime, implementation problems continue to affect investment flows. The governments on both sides need to address the regulatory and administrative challenges that Pakistan faces in attracting investment from India. Innovative solutions are needed to increase investment flows. It is important for businesses on both sides to create multiple channels of communication and engagement to bridge the information gap. This will enhance economic relations between India and Pakistan, which could play a critical role in improving overall bilateral relations between the two countries.

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Chapter 9
Pakistan-India Bilateral Trade in Sports Goods Sector

Farah Shahid Hassan, Kiran Javaid, and Hadia Majid

9.1 Introduction

Theory would predict that trade between the two largest economies in South Asia, i.e., India and Pakistan, would be much greater than its current level of around US$2 billion per year (Rasheed 2012). Although Pakistan shares its second largest border with India, both countries have never been devoted trading partners. For the past several years, opening up trade between India and Pakistan is the most frequently debated question at many policy forums and among concerned groups. Trade has increased during the past couple of years, but a huge gap with the potential level still remains. Despite being close neighbors who became WTO members at the same time in 1995, the level of bilateral trade remains insignificant.

A lot of empirical work has been done on the problems that traders face on both sides of the border. However, there has been little sectoral analysis on bilateral trade between Pakistan and India. This chapter looks at the trade pattern between these two countries for the sports goods sector. It identifies categories of sports goods in which the two countries have a comparative advantage by calculating the revealed comparative advantage. An examination of the pattern of intra-industry trade between Pakistan and India in the sports goods industry and the product diversification in their current level of bilateral trade further augments the analysis. Further, the trade potential between India and Pakistan was estimated using the gravity model, which analyzes the actual versus potential trade for a pair of countries such as Pakistan and India. This helps us determine if actual trade between the two neighbors is equal to, greater than, or less than the expected level of trade.

The rest of this chapter is organized as follows: the next section gives an overview of trade relations between Pakistan and India and briefly discusses the existing

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barriers to trade and the different channels through which trade takes place. This is followed by a description of the sports goods industries of Pakistan and India and the methodology. This chapter then discusses the pattern of bilateral trade between Pakistan and India using the results of various indices, including revealed comparative advantage, the trade concentration index, and intra-industry trade; the final section reports the empirical results of the gravity model which is followed by the conclusion.

9.2 Historical Background

The Pakistan-India trade issue has gained particular importance since India granted Most Favored Nation (MFN) status to Pakistan in 1995 to comply with the princi - ples of the World Trade Organization (WTO) regime; however, Pakistan has been reluctant to reciprocate so far. According to a report by the World Bank, the share of Pakistan's trade with India as a percentage of its total trade was 0.61 % in 1995 and around 1.18 % in 2000, rising to 4.68 % in 2010. Figure 9.1 shows the volume of trade between the two countries over the years. As can be seen from the figure, trade levels remained low in the past, but then slowly increased. Figure 9.2 shows trade between the two countries as a percentage of their respective total trade. This shows that the two largest economies of South Asia have minimal bilateral trade despite their common border.

Given the market size of the two countries, the current volume of trade is not proportionate to the potential. Increased trade levels between Pakistan and India can play an important role in normalizing the political relationship between the two countries and benefiting millions of people living on both sides of the border. While both countries are aware of the merits of trade, a variety of political and infrastructure (physical, legal, and regulatory) impediments have paralyzed bilateral trade relations for several decades. The two main reasons usually quoted for the low levels of trade include Pakistan's reluctance to give MFN status to India and the presence of non-tariff barriers.

To promote trade relations with Pakistan, India granted MFN status to Pakistan in 1995 and continues to ask Pakistan to do the same because of the subsequent ease in qualitative and quantitative restrictions on trade of items. Although Pakistan has not yet granted MFN status to India, it has, over time, increased the list of items on the "positive list" to 768 items (these are the goods that can be legally imported from India). Pakistan's trading community is in favor of granting MFN status to India, as according to the Karachi Chamber of Commerce and Industry, it will not cause any damage to the industry in Pakistan. However, some believe that this will expose Pakistan's economy to India's large industrial and engineering base, accruing most of the benefits to India (Qamar 2005).

The Indian side, even after granting MFN status to Pakistan, has not yet removed the non-tariff barriers (NTBs) that are employed at multilateral levels, creating hurdles for Pakistani exports. Pakistan, on the other hand, in order to benefit in true terms, wants the removal of NTBs before it grants India MFN status. Non-tariff barriers include infrastructure issues at the port of entry, bureaucratic, and administrative

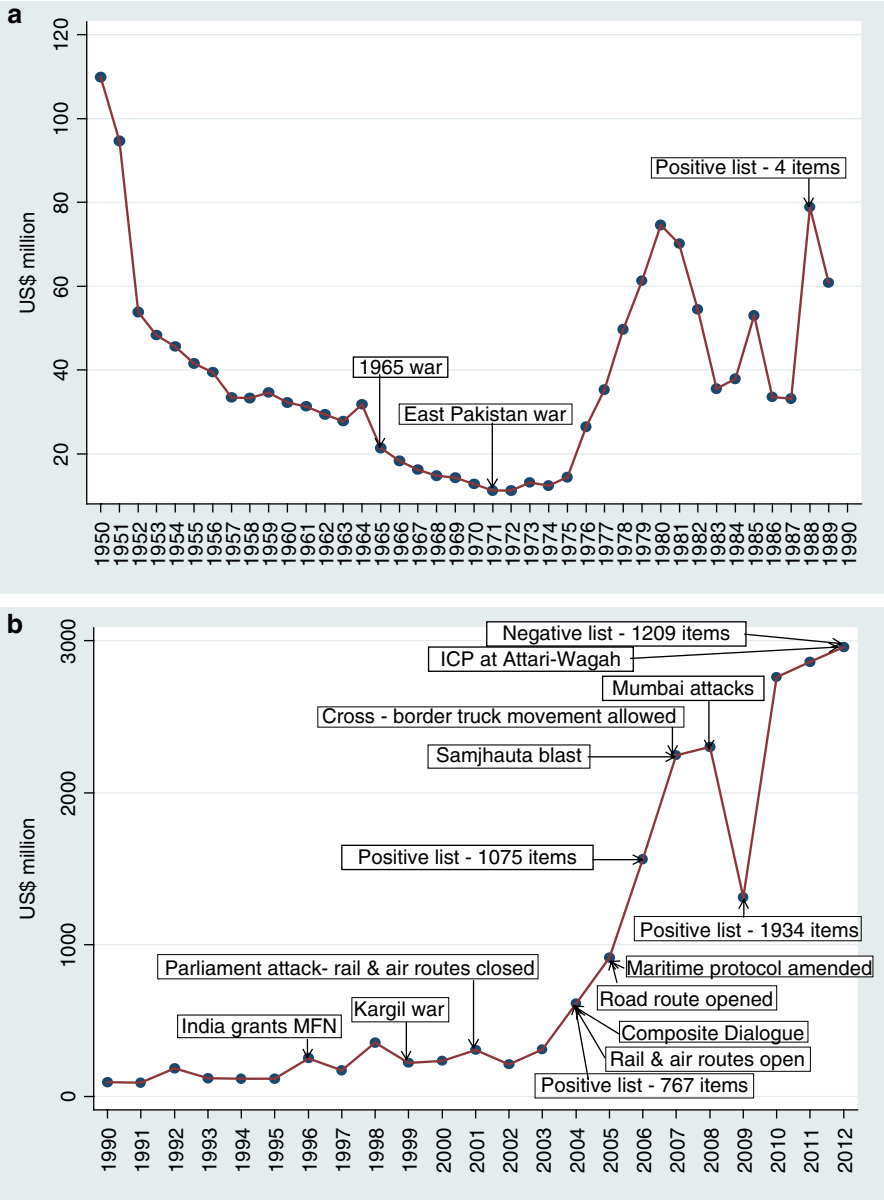

Fig. 9.1 Events influenced Pakistan – India trade (**a**) 1950–1990, (**b**) 1990–2012 (*Source:* De et al. 2013)

problems such as customs inspection; certification and labeling/marketing/packaging rules; psychological issues stemming from bilateral political issues, visa restrictions, and surveillance of visitors to India; banking problems; investment restrictions; and restrictive trade routes (Qamar 2005).

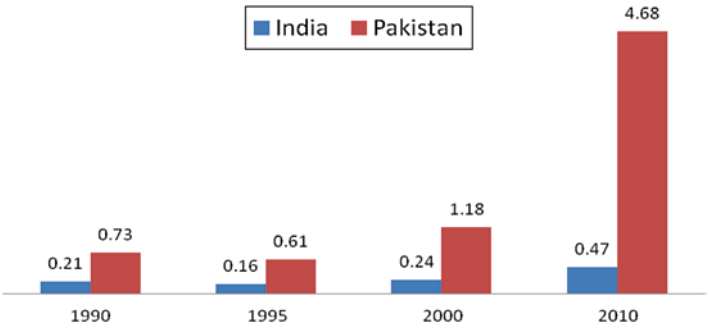

Fig. 9.2 Indo-Pakistan trade as percentage of each country's total trade (*Source:* De et al. 2013)

9.2.1 Pakistan-India Trade

The private sector has been active in identifying areas of trade potential, possible joint ventures, and other forms of cooperation between the two countries. Major sectors that have been identified for bilateral trade possibilities include textiles, agriculture, engineering, sports goods, pharmaceuticals, rubber, and plastics.

All studies on India-Pakistan trade have demonstrated the benefits that would accrue to both countries if the constraints on bilateral trade are relaxed. According to theory, countries in geographical proximity tend to trade more with each other owing to the lower transportation and communication costs. Using an augmented gravity model, Batra (2006) shows that all three gravity effects are statistically significant for trade between India and Pakistan. The results show that actual trade is significantly less and that among all the SAARC countries, Pakistan and India have the highest trade potential given their geographical proximity.

Nabi and Nasim (2001) found that given the current structure of the two economies, the removal of barriers could increase bilateral trade between India and Pakistan by a factor of three, benefiting both countries. A study by the State Bank of Pakistan (2006) concluded that bilateral trade could increase by a factor of five if MFN status is granted and non-tariff barriers are removed. Naqvi and Schuler (2007) estimated that trade between the two countries could jump two to four times its current level.

Formal trade between India and Pakistan is negligible compared to the presence of both countries in the world trade market. The low volume of trade between the two countries dates back to their history of political frictions, which has, in turn, affected bilateral trade between them. In addition to formal trade, informal trade also takes place between India and Pakistan. The system for conducting informal trade between the two countries is well established, with both official and private actors involved; rent seeking is, of course, the norm in informal trade (Khan 2005).

Quick realization of payments and no documentation or procedural delays lead to lower transaction costs in the informal trade channel (Rasheed 2012). The presence of restrictions on imports and high tariff barriers/transportation costs and presence of non-tariff barriers, distortions in domestic policies, and weaknesses in the "rules of origin" in the formal channel lead to more people adopting informal trade routes (Rasheed 2012). Although the governments of the two countries would ideally want to convert all informal trade to formal trade, they also need to take into account the fact that smuggling-prone areas are well established and are also a source of employment for many people (Khan 2005).

A large volume of trade between India and Pakistan currently takes place through agents operating in free ports like Dubai, Singapore, and Central Asian countries. The benefit of trading via these countries is that goods are not scrutinized as much as if they would be if they were coming directly from either country. Goods going from India to Pakistan via third country routes include capital goods, textile machinery, dyes/chemicals, iron and ore, medicines, tea, etc. Informal exports from Pakistan to India include plastic goods, foods items, synthetic fibers, and chemical products.

Given the trade volume flowing through informal channels, it is easy to assess the potential for trade between Pakistan and India. Potential trade sectors can also be estimated by comparing Pakistan's exports with Indian imports from the rest of the world.

9.3 Sports Goods

9.3.1 Pakistan Sports Goods Industry

The history of the sports goods sector in Sialkot can be traced back to 1883 when products like cricket bats, hockey sticks, and polo sticks were being manufactured. In 1918, football was added to the goods that were being manufactured and was supplied to the British Army stationed in Singapore at that time. Pakistan, and particularly the city of Sialkot, is known all over the world for the production of sports goods. It is around the city of Sialkot that the industry is mainly clustered, with Sialkot being the center of excellence for the production of sports goods for more than 100 years. Sialkot has emerged as the center of the sports goods industry due to the availability of skilled and cheap labor in addition to the availability of basic infrastructure in the form of a dry port and an international airport that help in the exporting process.

The sports goods sector of Pakistan produces almost all sports-related items, which can be divided into five categories: articles and equipment for physical exercise/gymnastics/athletics; articles and equipment for fishing; sports gloves; articles and accessories for billiards; and articles for fun fair. Among these, articles for gymnastics/athletics and articles for funfair have been the key drivers of the sports

sector's growth in the world. In addition to the basic sports items, all other goods related to sports such as sports bags and sports jackets are also produced in Pakistan. Moreover, the country is considered a leading manufacturer of footballs, cricket balls, hockey sticks, and cricket bats.

The sports goods industry of Pakistan has gained worldwide recognition for the quality of its products; the main reason for this quality is that most of the sports items are handmade, affording it the perfection that machines lack. It currently supplies products to most countries in the world, directly or indirectly. Several well-known brands, including Adidas, Nike, Mizassa, Puma, and Umbro, source a major portion of their supplies from Sialkot, which increases the credibility of the industry as a manufacturing and export sector. However, there is no particular brand or manufacturer that is famous in the sports industry of Pakistan because most of the goods are made by small-scale industries.

Currently, the sports goods industry provides employment to 300,000 to 350,000 skilled and unskilled laborers and represents around 1.42 % of the country's total export base, making the industry an integral part of the economy as a whole.

Due to its long standing in the international market, Pakistan's sports goods sector has easy access to most foreign markets. However, the monopoly that it long enjoyed in the international market has been broken due to increased competition from countries such as China, India, and South Korea. Although Sialkot has seasoned workers, these newly established markets enjoy the benefits of higher levels of research and development, leading to product diversification, and uninterrupted power supplies that enable them to fulfill orders faster than Sialkot-based manufacturers.

9.3.2 Indian Sports Goods Industry

The roots of the sports goods industry in India lie in Sialkot, Pakistan, which was the major hub of the sports goods industry before partition. After partition, many Hindu artisans moved to India, where Jalandhar is now the major center of the sports goods industry, followed by Meerut in Uttar Pradesh and Gurgaon in Haryana. In line with the changing global trends, the Indian sports goods industry is progressively using new technology to manufacture products. This has led to exceptional growth of the sports goods sector, which has immense potential for exports, growth, and employment generation. Labor productivity and low wage rates are major contributors toward the competitiveness of the Indian sports goods industry.

The significance of the sports goods industry to the Indian economy pertains to its rural and urban employment generation potential as well as its share in the country's exports, which have been increasing in recent years. The major exports from the Indian sports goods industry include inflatable balls, hockey sticks and balls, cricket bats and balls, boxing equipment, fishing equipment, indoor games, and some protective equipment. According to a report by the Ministry of Commerce and Industry India, the industry exports its goods to more than 130 countries, the top five destinations being the UK, the USA, Australia, South Africa, and Germany.

9.3.3 Pakistan-India Bilateral Trade

Currently, a very small amount of trade takes place between Pakistan and India in the sports goods sector. There are no tariffs or non-tariff barriers that are specific to trade in this sector, but it does face the same political and infrastructure barriers as other sectors due to the not-so-friendly relations between Pakistan and India.

9.4 Methodology

9.4.1 Literature

The gravity equation is a simple empirical model used to analyze bilateral trade flows between geographical entities. According to the gravity model, trade between a pair of countries is directly proportional to their economic "mass" (national income) and inversely proportional to the distance between them. In spite of successful empirical estimations, early gravity models were not thought to be reliable. Anderson (1979), Helpman (1984), and Bergstrand (1985) developed firm theoretical foundations for the gravity models, demonstrating that it can be derived from models of trade in differentiated products. Deardorff (1998) went further to show that the gravity model in consistent with variants of Ricardian and Heckscher-Ohlin models extended to include transport costs. All that the gravity equation says is that "bilateral trade should be positively related to the two countries' incomes and negatively related to the distance between them."

The gravity model has been used extensively to predict trade flows. Rahman (2003) estimated the trade potential for Bangladesh using a panel data approach, including economic factors like openness and exchange rates. Christie (2002) estimated a classical gravity model for trade on aggregate trade volumes between OECD and transition countries on cross-sectional data. Frankel and Wei (1993) have also examined bilateral trade patterns throughout the world, analyzing in particular the impact of currency blocks and exchange rate stability on trade. The UNCTAD-WTO Trade Center has developed a gravity model called TradeSim to estimate the trade potential for countries with limited trade relations, particularly transition economies.

Some studies have examined trade possibilities between India and Pakistan using revealed comparative advantage (RCA) and trade complementarity indices. Balassa's revealed comparative advantage (RCA) index determines the comparative advantage a country has over others in a particular market via the relative market share that the product of that country holds. This index has been used in several papers as a measure of competitiveness (Batra and Khan 2005; Latruffe 2010; Soesastro 2005). The RCA indices (with world) of the products of two countries have also been compared over time to show the competitive positioning of one against the other (Batra and Khan 2005). The problem with

the RCA indicator is that it uses historical trade values that are affected by barriers to trade, which are present in the South Asian region mostly as non-tariff barriers (Bandara and Yu 2003). Further, the trends in the RCA values are much more important than just the values themselves at a certain point in time (Latruffe 2010).

9.4.2 Revealed Comparative Advantage (RCA)

The RCA index measures how much of a comparative advantage a certain country has in producing a certain good compared to the world average. Obtaining this measure for two countries, in our case India and Pakistan, we can compare which one has an overall advantage over the other.

$$RCA = \frac{\sum_d x_{isd} \Big/ \sum_d X_{sd}}{\sum_{wd} x_{iwd} \Big/ \sum_{wd} X_{wd}}$$

In the formula shown above, the numerator is a ratio of a country's exports of products from sector i summed over all export destinations d, and the country's aggregate exports of products from all sectors summed over all export destinations d. The denominator is a ratio of the exports of products of sector i summed over all exporting countries w and export destinations d, and the aggregate exports of products from all sectors summed over all exporting countries w and export destinations d, xi being the exports for a particular sector i, and X being the aggregate exports for the country.

9.4.3 The Trade Concentration Index (TCI)

The TCI is aimed at assessing the degree of concentration/diversification of a given country's exports. The index ranges between zero and one. The index can be calculated by product or by country, and it is a summary measure that aggregates information across a range of products.

The trade concentration index by product (TCI) is calculated by using the following equation:

$$\text{TCI by Product}_{ij} = \sum_k \left(\frac{x_{ij}}{X_{ij}} \right)^2$$

In the above equation, *xij* is country *i*'s exports of product *k* to country *j*. The index sums across products the squares of the product shares in country *i*'s exports of product *k* to country j; the product shares themselves sum to 1. The index sums across products the squares of the product shares in country *i*'s exports of product *k* to country j; the product shares themselves sum to 1.

This indicator shows the degree to which a given country's exports are particularly concentrated by either product or destination. The former is useful for considering the political economy of trade reform; the latter can be important in considering the relative benefits of regional trade liberalization.

9.4.4 Intra-Industry Trade (IIT)

In today's economies, international specialization does not depend solely on the fact that different countries specialize in the production of different goods, but it may also happen that several countries specialize in the production of different types of goods from the same industry, which results in intra-industry trade (IIT). IIT is the concurrent import and export of the same kind of goods. There are several ways to measure IIT, but the most commonly applied method is from Grubel and Lloyd (1975). It measures the overlap of import and exports at a given level of aggregation. Further, it can be used to calculate the IIT index at a disaggregated level for individual sectors.

The G-L index, for the trade between countries *i* and *j* in good *k*, is given by

$$GL_{ij}^{k} = 1 - \left(\frac{\left| x_{ij}^{k} - m_{ij}^{k} \right|}{x_{ij}^{k} + m_{ij}^{k}} \right)$$

where x_{ij}^{k} and m_{ij}^{k} represent exports and imports from/by country *i* to/from country *j* of commodity *k*.

In the above equation, a value of 0 for either x_{ij}^{k} or m_{ij}^{k} denotes a GL_{ij}^{k} of 0 which refers to a one-way trade or an interindustry trade. On the other hand, if $x_{ij}^{k} = m_{ij}^{k}$, then $GL_{ij}^{k} = 1$ which means trade is equal in both directions, which depicts intra-industry trade.

9.4.5 Gravity Model

Based on Newton's law of gravitation, the gravity model is used to predict the flow of people, goods, or communication between two places. The basic form of the gravity equation explains the volume of exports between two countries *i* and *j* with the help of two factors: the economic mass of the two countries and the distance between them. In its most general form, the model suggests that the magnitude of

trade between two countries is a function of the supply potential of the exporting country, the demand potential of the importing country, and the distance. This general gravity equation has the following multiplicative form:

$$X_{ij} = GS_i M_j \Phi_{ij}$$

where X_{ij} is the monetary value of exports from country i to country j, G is a variable that does not depend on i or j such as the level of world liberalization, S_i denotes exporter-specific factors (such as the exporting country's GDP), and M_j denotes importer-specific factors (such as the importing country's GDP) and Φ_{ij} represents the ease of access of the exporter to the importer's market (WTO report by Bacchetta et al. 2012).

The gravity model can be used for the overall trade volume as well as a more disaggregated analysis (Bacchetta et al. 2012; DIT 2005; Jordaan and Eita 2011). For our purposes we use a gravity model to explain the sports goods trade between Pakistan and India along with their major sports goods trading partners, which include Australia, China, France, Germany, Italy, Japan, Republic of Korea, Singapore, the USA, and the UK.

Given the multiplicative form of the basic gravity equation, the natural logarithms of all the variables are taken to obtain a log-linear equation that can be estimated by ordinary least squares (OLS) estimation. This will give the following export demand function:

$$\ln X_{ij} = \ln G + \ln S_i + \ln M_j + \ln \Phi_{ij}$$

This equation can be specified further to

$$\ln X_{ij} = \beta_0 + \beta_1 \ln Y_i + \beta_2 \ln Y_j + \beta_3 \ln D_{ij} + \beta_4 \ln y_i + \beta_5 \ln y_j + \ln \Phi_{ij}$$

where the natural logarithm of the value of trade between two countries is explained by the log of their respective GDPs, log of the distance between them, log of their per capita GDPs, and a composite term measuring the barriers to trade between them.

A number of variables are used to capture the barriers to trade between the two countries Φ_{ij}. First, if the countries share a common border, transaction costs may be reduced due to the distance factor leading to higher bilateral trade. Second, if the countries share a common official language, then trade between them is likely to be higher. Third, if the countries were at any point in time part of the same country, search costs would be lower since business practices would be well known to one another.

So, according to the literature, trade costs take the following form:

$$\Phi_{ij} = \delta_1 \mathrm{con}_{ij} + \delta_2 \mathrm{clang}_{ij} + \delta_3 \mathrm{same}_{ij}$$

where con_{ij} represents contiguity of the country pair, clang_{ij} represents whether the pair shares a common official language, col_{ij} represents if the country pair has ever been in a colonial relationship, and same_{ij} represents whether the two countries were part of the same country. All these variables are dummy variables and take the value

1 when the country pairs are contiguous, have a common official language, or were part of the same country.

Since the emphasis of this chapter is on Pakistan-India trade, we further add a Pakistan-India dummy, *Pak-Ind*, to the model (which is 1 when Pakistan and India are trading with each other and 0 otherwise) in order to estimate whether the bilateral trade between Pakistan and India is more or less than would be expected if all other variables are held constant.

So, the final equation that we estimated was

$$\ln X_{ij} = \beta_0 + \beta_1 \ln Y_i + \beta_2 \ln Y_j + \beta_3 \ln D_{ij} + \beta_4 \ln y_j + \beta_5 \ln y_j + \delta_1 \text{con}_{ij} + \delta_2 \text{clang}_{ij} + \delta_3 \text{same}_{ij} + \sigma_1 \text{ Pak\_Ind} + u_{ij}$$

The coefficients β_1 and β_2 are expected to be positive since a higher level of GDP is indicative of a high level of production in the exporter country and a higher level of consumption in the importer country, increasing the potential for exports and imports, respectively. β_3, the coefficient of distance, is expected to be negative as it measures the transportation costs. The population variables can affect exports in two different ways: the absorption effect or the economies of scale effect (Jordaan and Eita 2011). According to the absorption effect, a large population is indicative of a large domestic market and, hence, less potential for trade, making the coefficient, β_4, negative. On the other hand, a larger population means division of labor, which leads to economies of scale and higher volumes of exports, making β_4 positive. For similar reasons, the effect of the population of the importing country can be negative or positive. Hence, the signs for β_4 and β_5 cannot be assigned a priori.

The coefficient of the dummy variables representing a common border between country pairs, a common official language, and whether the two countries were a part of the same country are expected to be negative. All these variables are expected to increase trade flow between the country pairs. The coefficient for Pakistan-India trade, σ_1, is expected to be negative as it is predicted that due to the existence of non-tariff barriers, trade between these two countries will be less than expected.

We estimate the gravity model by pooling all the observations and using ordinary least squares (OLS), but as this method might suffer from misspecification issues that make the coefficients biased, we also adopt other techniques. Fixed effects were used in order to allow for heterogeneity across country pairs as well as time. *F*-test results revealed that fixed effects provided a better specification than pooled OLS. Since fixed effects estimation drops all the time invariant dummy variables – which in our case are the variables of most interest – the alternate approach of random effects has also been employed. This approach assumes that the individual affects are random, normally distributed, and independent of the residual. The Lagrange Multiplier test developed by Breusch and Pagan was used to see whether random effects or pooled OLS provided a better specification. The results ruled that the random effects model is appropriate. We then used the Hausman test of random versus fixed effects, which ruled in favor of fixed effects. The problem with fixed effects is that we cannot directly estimate variables that do not change over time. Therefore, we report pooled OLS, fixed effects, and random effects estimations for completeness and also as a check for robustness.

9.4.6 Data

The trade figures for this study were extracted from the COMTRADE database, according to HS codes,[1] and TradeSift software was used to compute the RCA, IIT, and TCI indices. For the gravity model, we took time series data for the years 1988–2011; GDP and population data were taken from the World Development Indicators (WDI), while data for distances and the rest of the dummies were taken from the CEPII database.

9.5 Comparison of Indian and Pakistani Sports Goods Sectors

The sports goods industries of both India and Pakistan have been actively exporting their goods all over the world for a long time now. The products of the sports sector are divided into three main categories, namely, sports equipment, sports apparel, and sports footwear. The major exports of Pakistan's sports sector are sports equipment, followed by sports apparel, and then small quantities of sports footwear. The major Indian exports are sports equipment, followed by sports footwear, and then sports apparel.[2]

In absolute numbers for total sports goods exports, Pakistan's exports are much higher than Indian exports. Comparing across categories, however, Pakistan exports more equipment and apparel than India, while Indian exports of footwear are higher than those of Pakistan. Pakistan's sports equipment exports are substantially higher than all categories (Fig. 9.5) and mainly contribute to the larger absolute numbers for Pakistan.

According to Fig. 9.6, Indian sports goods exports have been rising very rapidly due to which sports goods exports for the two countries seem to be converging in absolute terms. However, calculating total sports goods exports as a percentage of GDP for both countries, Fig. 9.7 shows that Indian sports goods as a percentage of its GDP have been stable over time, while for Pakistan, though it depicts a downward trend, it has always been more than that for India. This can be explained by the fact that since India is a much larger economy, the proportion of sports goods exports is much smaller for India than it is for Pakistan. The sports goods sector is, therefore, more important for Pakistan's economy than it is for India.

9.5.1 Bilateral Trade of Sports Goods

For bilateral trade of sports goods between India and Pakistan, we find that in absolute numbers over the past 5 years, India has exported more goods to Pakistan than Pakistan has exported to India. However, the trend for both countries is upwards, which means that over the years bilateral trade between India and Pakistan has increased (Fig. 9.8).

[1] The complete list of HS codes used for the sports goods sector can be found in the Appendix.

[2] Figures on exports of Pakistan (Fig. 9.3) and India (Fig. 9.4) for a more extended period are available in the Appendix.

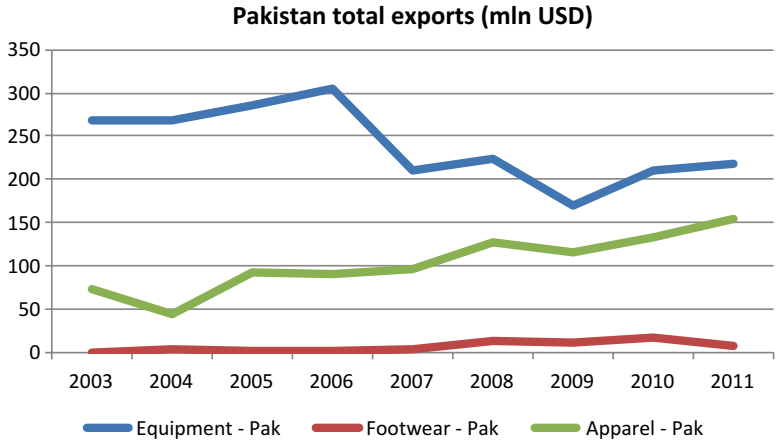

Fig. 9.3 Pakistan's total exports (US$ million) (*Source:* COMTRADE data)

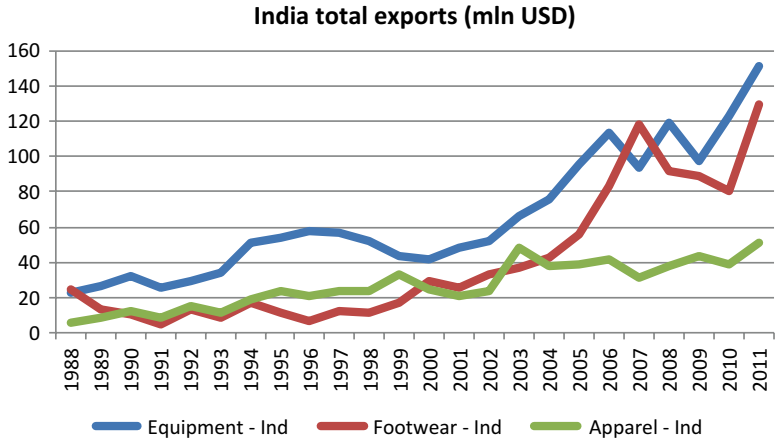

Fig. 9.4 India's total exports (US$ million) (*Source:* COMTRADE data)

A look at the proportion of each country's total sports goods exports to the other country reveals that Pakistan is a much more important export partner for India than India is to Pakistan (Fig. 9.9). Therefore, a higher proportion of India's total sports goods exports come to Pakistan, while the proportion of total sports goods exports of Pakistan that are exported to India is relatively small. Pakistan, hence, exports a higher percentage of sports goods to countries other than India.

Having looked at the general picture, it is of interest to calculate in which products Pakistan and India have a comparative advantage and whether the current trade patterns correspond to their respective advantage. Table 9.1 shows the list of product lines for which the two countries have a comparative advantage. Of the total 38 product lines in the sports goods sector, India has a comparative advantage in 15 categories,

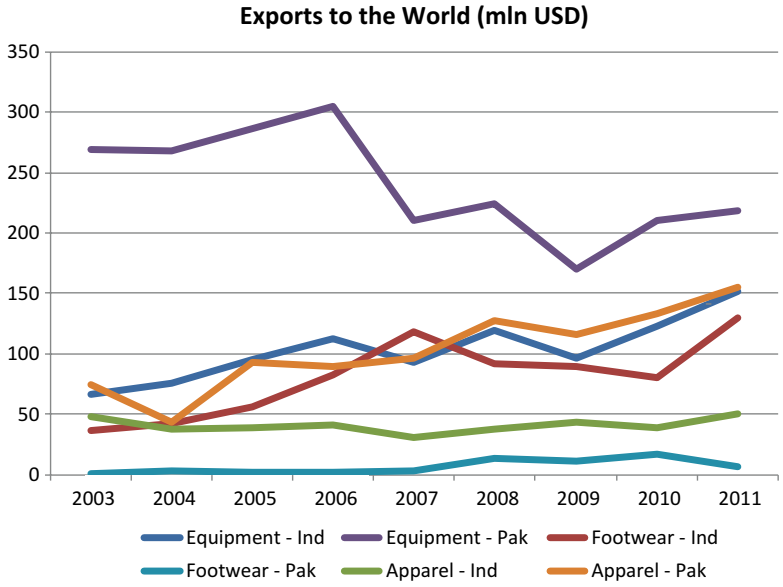

Fig. 9.5 Exports to the world (US$ million) (*Source:* COMTRADE data)

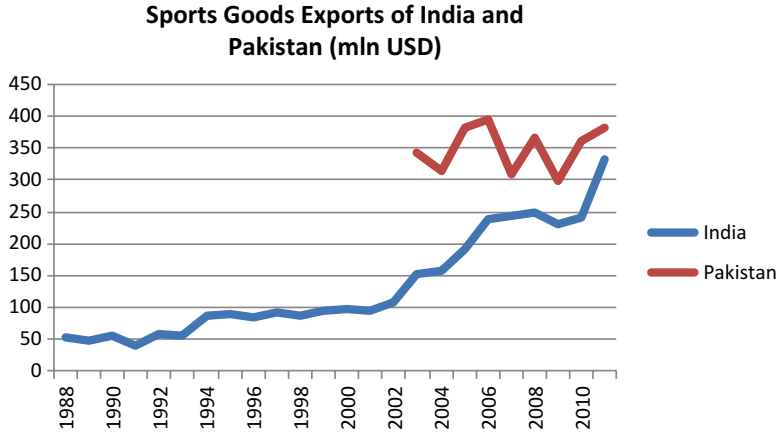

Fig. 9.6 Exports of sports goods from India and Pakistan (US$ million) (*Source:* COMTRADE data)

while Pakistan has a comparative advantage in 10 categories. From this table, we can see that India and Pakistan have an advantage in similar product categories, except for India's advantage in sports footwear, which Pakistan does not have.

If we look at the trend of bilateral trade, we can see that the goods that India exports to Pakistan are actually goods in which India has a comparative advantage. This can be

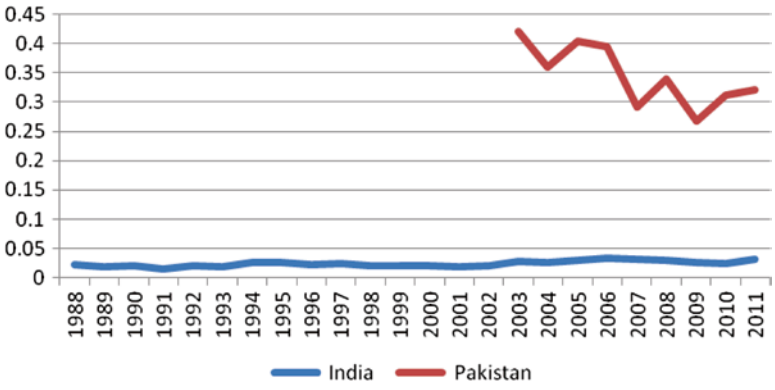

Fig. 9.7 Total exports of sports goods (% of GP) (*Source:* COMTRADE data)

Fig. 9.8 Pakistan-India trade in sports goods (US$) (*Source:* COMTRADE data)

seen from Fig. 9.10, which clearly illustrates that the majority of the exports going from India to Pakistan are the goods in which India has an RCA. However, the exports are driven by only one product, "inflatable balls" (950662), and all other categories represent a very small proportion of the total exports. Another interesting aspect is that inflatable balls according to Table 9.1 are ranked as the 13th product in terms of having a revealed comparative advantage. In other words, there are 12 products in which India is more competitive, but those products are not a major part of Indian exports to Pakistan.

Similarly for Pakistan, we see that the sports goods that are exported to India are those in which Pakistan has a comparative advantage (Fig. 9.11). For Pakistan, however, the major products comprise "Articles and Equipment for Outdoor Sports"

Fig. 9.9 Bilateral exports of sports goods (%) (*Source:* COMTRADE data)

(950699) followed by "inflatable balls" (950662) and "Sports Gloves – Mittens & Mitts" (420321). These items rank second, sixth, and fifth, respectively. Although only three products dominate Pakistan's exports to India, the product line is still more diversified compared with the exports coming from India to Pakistan.

Given the narrow export lines, it is interesting to note the export potential of both countries according to the import needs of the partner country. Table 9.2 shows this potential, with the highlighted items being the commodities in which the country has a comparative advantage. For the majority of the commodities, export potential exists for commodities in which the exporting country has an RCA. These gains can easily be realized by shifting the direction of trade from other countries to each other, so as to save transportation and transaction costs.

The limited number of export product lines was examined further using the trade concentration index that assesses the level of concentration versus diversification of a country's export products. Table 9.3 lists the TCI figures for Pakistan and India for 3 recent years. We find that the TCI has been falling for Pakistan's exports to India, from 44 % in 2009 to 32 % in 2011. This means that the concentration of Pakistan's exports has been falling and that more product lines were exported in 2011 than in 2009. On the other hand, India's exports to Pakistan are still highly concentrated as depicted by the 56 % TCI ratio for 2011. This value must be due to the high export value of inflatable balls, as Fig. 9.10 shows. Therefore, Pakistan's export items are becoming more diversified, while India's exports depend on fewer products.

Since only a few products continue to dominate bilateral trade between them, of which inflatable balls are being exported by both India and Pakistan, this hints at the existence of intra-industry trade. Therefore, it would be of interest to investigate the Pakistan-India trade pattern for intra-industry versus interindustry trade. For this purpose, we calculated the intra-industry trade for the past few years (Table 9.4).

Table 9.4 shows that both intra-industry and interindustry trade exist in the sports goods sector for India and Pakistan. Intra-industry trade takes place in the product

Table 9.1 Top product lines based on revealed comparative advantage – 2011

Product lines in which India has RCA			Product lines in which Pakistan has RCA		
Rank			Rank		
1	621112	Swimwear (excl. knitted/crocheted), women's/girls'	1	621112	Swimwear (excl. knitted/crocheted), women's/girls'
2	950699	Articles and equipment for sports, n.e.s. in Ch. 95 (exc…	2	950699	Articles and equipment for sports, n.e.s. in Ch.95 (exc…
3	950639	Golf equipment other than golf clubs, complete/golf b…	3	950691	Articles and equipment for general physical exercise/gy…
4	950691	Articles and equipment for general physical exercise/gy…	4	950639	Golf equipment other than golf clubs, complete/golf b…
5	950629	Water skis, surfboards, and other water sport equip.…	5	420321	Gloves, mittens, and mitts of leather/composition le…
6	950669	Balls other than golf/table tennis/lawn tennis/inf…	6	950662	Inflatable balls
7	611220	Ski suits, knitted/crocheted	7	611219	Tracksuits, knitted/crocheted, of textile material…
8	420321	Gloves, mittens, and mitts of leather/composition le…	8	950669	Balls other than golf/table tennis/lawn tennis/inf…
9	611239	Men's/boys' swimwear, knitted/crocheted, of other …	9	611211	Tracksuits, knitted/crocheted, of cotton
10	611211	Tracksuits, knitted/crocheted, of cotton	10	621111	Swimwear (excl. knitted/crocheted), men's/boys'
11	640319	Sports footwear other than ski boots/cross-country…			
12	950790	Line fishing tackle (excl. of 9507.10-9507.30); fi…			
13	950662	Inflatable balls			
14	611219	Tracksuits, knitted/crocheted, of textile material…			
15	640312	Ski boots, cross-country ski footwear, and snowboard …			

Source: COMTRADE data

Fig. 9.10 India's exports to Pakistan: RCA (*Source:* COMTRADE data)

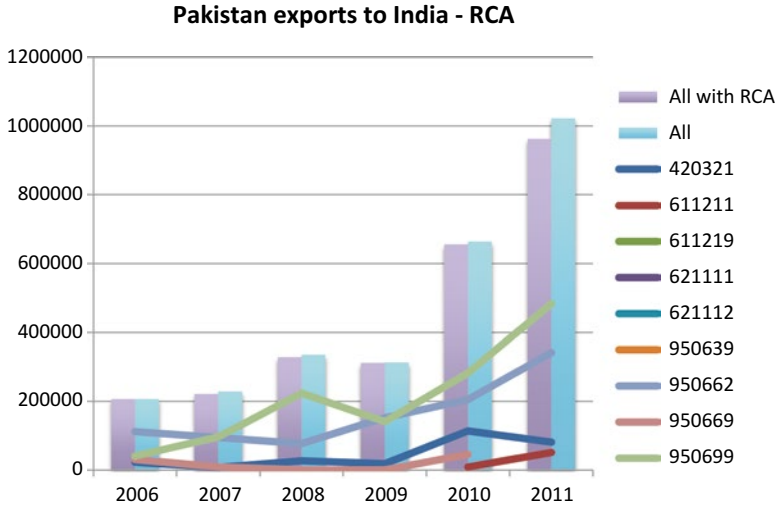

Fig. 9.11 Pakistan's exports to India: RCA (*Source:* COMTRADE data)

categories of balls (950662 and 950669) and "other sports equipment" (950699). Trade in the rest of the product lines can be classified as interindustry trade, since for those items either Pakistan exports the product or India does, but both do not.

Both countries producing differentiated products and enjoying economies of scale due to the limited range of products might explain the presence of intra-industry trade. It is also important to note that these trade patterns are in line with the revealed comparative advantage of both countries. A disaggregated analysis of trade in these product lines would be helpful in this regard, in order to confirm trade in different items. Unfortunately, due to lack of availability of data, this exercise could not be undertaken for this chapter. However, India and Pakistan should trade according to their RCA and concentrate on products that have a higher comparative advantage.

Table 9.2 Export potential of Pakistan and India by commodity code – 2011

Pakistan's Export Potential (2011)		India's Export Potential (2011)	
Commodity Code	Export Potential (US$)	Commodity Code	Export Potential (US$)
640411	3240999	950691	8326571
950662	3048889	950699	6787229
950669	2619787	640319	6502031
640319	2320368	950669	1399338
640219	1213643	640411	513475
950691	922892	950629	224986
950651	676046	950661	222228
611249	592595	950659	164222
420321	452039	640219	120684
611211	282465	950619	104435
950659	237120	950632	101771
621111	203859	950640	85132
950790	161617	950639	77351
611219	152455	420321	38747
611239	83369	950720	34526
621112	66303	950631	21897
950619	63689	950790	20818
611212	59690	611212	18638
640212	57806	621111	13659
950632	49876	950670	10236
621120	16300	950710	5448
950639	9833	621120	5277
611220	6503	611219	2922
640312	4838	621112	2787
950661	2279	640212	2619
		611231	2500
		611241	2058
		950651	1616
		611239	1579
		950730	1249
		611249	1083
		611211	597
		950612	160
		640312	124

Table 9.3 Trade concentration index (TCI)

	2009	2010	2011
Pakistan's exports to India	0.44	0.35	0.32
India's exports to Pakistan	0.22	0.58	0.56

They should also trade in differentiated products within product categories where they have a comparative advantage in the same product line. Further, India's comparative advantage in footwear should also be taken advantage of, as currently trade in this category does not exist.

Table 9.4 Intra-industry trade (IIT) index

	2003		2004		2005		2006		2007		2008	
	Product code	IIT	Product code	IIT	Product code	IIT	Product code	IIT	Product code	IIT	Product code	IIT
Intra-industry trade	950662	0.05	950669	0.13	950662	0.53	950662	0.80	950669	0.88	950669	0.58
			950662	0.07	950699	0.04	950699	0.20	950699	0.54	950699	0.40
									950662	0.28	950662	0.33
											950691	0.19
Interindustry trade	950640	0.00	950611	0.00	950659	0.00	950659	0.00	950629	0.00	950619	0.00
	950669	0.00	950699	0.00			950669	0.00	950691	0.00	950629	0.00
	950691	0.00					950691	0.00			950639	0.00
	950699	0.00									950659	0.00

9.6 Empirical Results: Gravity Model

The previous section looked at the situation analysis of the bilateral trade in sports goods between India and Pakistan, but other important aspects of the current trade are the factors that drive trade flows in this sector and whether the current levels of exports between the two countries are what would be expected for two similar countries. To this end, we conducted gravity modeling for Pakistan, India, and their major trade partners in the sports goods sector.

Table 9.5 shows the cross-country OLS, fixed effects, and random effects regression results obtained from the simple gravity model for the sports goods equipment sector (HS code 9506 at a 6-digit disaggregated level). The basic gravity model shows that most of the variables have the expected signs and are highly significant, which signifies the appropriateness of a gravity model for the sports goods sector.

The variable distance acts as a proxy for transport costs and is negatively related with exports, indicating that countries that are located farther from each other trade less than countries closer together. According to the OLS model, holding other variables constant, a 1 percentage point increase in distance will lead to a 0.53 percentage point decrease in exports.

The GDPs of the exporter and importer countries are mostly positively related to trade, as countries with higher incomes have a higher level of production and, therefore, higher possible exports and the ability to import larger quantities. Therefore, trade is higher with larger economies than smaller economies. The OLS results show that a 1 % increase in importer's GDP is accompanied by a more than proportionate increase of 1.14 % in exports, while a one percent increase in exporter's GDP is followed by a 0.7 % increase in exports. The income elasticity is, therefore, higher for the exporter than for the importer.

Table 9.5 Simple gravity model

	Pooled OLS	Fixed effects	Random effects
Distance	−0.532***	–	−0.594***
	(−5.73)		(−5.33)
GDP importer	0.554***	0.915	0.707***
	(6.21)	(0.98)	(5.08)
GDP exporter	1.142***	−3.057***	0.867***
	(10.31)	(−3.31)	(5.56)
GDP per capita importer	0.710***	1.090	0.841***
	(10.16)	(0.95)	(8.57)
GDP per capita exporter	−0.450***	4.430***	−0.218*
	(−3.58)	(4.08)	(−1.85)
Constant	−29.51***	23.19	−28.97***
	(−7.67)	(1.27)	(−5.76)
Observations	2,643	2,643	2,643
Adjusted R^2	0.6381	0.9148	0.602

t statistics in parentheses
Standard errors are robust
*$p<0.10$; **$p<0.05$; *** $p<0.01$

Table 9.6 Augmented gravity model

	Pooled OLS	Fixed effects	Random effects
Distance	−0.619***	–	−0.642***
	(−5.58)		(−4.82)
GDP importer	0.592***	0.915	0.711***
	(6.37)	(0.98)	(5.17)
GDP exporter	1.184***	−3.057***	0.887***
	(11.40)	(−3.31)	(5.72)
GDP per capita importer	0.707***	1.090	0.840***
	(10.70)	(0.95)	(8.86)
GDP per capita exporter	−0.456***	4.430***	−0.233*
	(−3.53)	(4.08)	(−1.88)
Contiguity	0.181	–	0.518
	(0.36)		(0.90)
Common official primary language	0.695**	–	0.727**
	(2.44)		(2.35)
Were or are the same country	0.657**	–	0.741**
	(2.26)		(2.29)
Pak-India bilateral trade	−2.881***	–	−2.493***
	(−4.40)		(−2.77)
Constant	−31.03***	23.19	−29.28***
	(−7.92)	(1.27)	(−5.84)
Observations	2,643	2,643	2,643
Adjusted R^2	0.6525	0.9148	0.6175

t statistics in parentheses
Standard errors are robust
*$p<0.10$; **$p<0.05$; ***$p<0.01$

Population was factored into the equation by using the GDP per capita variable. The coefficient of this variable can be either positive or negative (Oguledo and MacPhee 1994) depending on whether a larger population leads to more trade, due to economies of scale, or to less trade because of the absorption effect or more self-sufficiency and decreased dependence on international trade. In our model, GDP per capita of the importer country is positively related to exports, whereas exporter's GDP per capita has an ambiguous effect.

Exports depend on several factors other than distance, GDP, and GDP per capita; therefore, we carried out an augmented gravity model that included dummy variables for common border, primary language, and a dummy if two countries were the same country in the past. Since the focus of our analysis is on Pakistan-India trade in the sports goods sector, we also added a dummy for Indo-Pak bilateral trade.

Table 9.6 shows that the variables that are common to the simple gravity model have the same signs and significance and almost the same magnitude. Of the new dummies that have been added, the "sharing a common border" variable has a positive sign, although it is not statistically significant. Countries that have a common official primary language tend to trade significantly more, as do countries that were or are the same country.

The Pakistan-India trade dummy has a negative and statistically significant coefficient for both the OLS and the random effects case. This means that Pakistan and India trade *less* than would be expected if all other variables were held constant. The magnitude of this result is quite large. Pakistan-India trade is 288 % according to pooled OLS and 249 % according to the random effects model, which is lower than trade between any two similar countries. Therefore, the gravity model suggests that the Pakistan-India bilateral trade is a lot lower than expected.

9.7 Conclusion

The objective of this chapter was to analyze the trade pattern between Pakistan and India in the sports goods sector. Generally, we found the total sports goods exports of Pakistan to be higher than the total sports goods exports of India; however, the rate of increase seems to be higher for India than for Pakistan. Looking specifically at bilateral trade between Pakistan and India in the sports goods sector, we found an increasing trend that points toward increased trade liberalization. In addition, we found that a larger volume of exports comes into Pakistan from India rather than the other way around, but it seems to be converging.

We went on to calculate the RCAs for the two countries and found India to have an advantage in 15 of the 38 categories of sports goods, whereas Pakistan has a comparative advantage in 10 categories of goods. Analyzing the trade pattern, we found both countries were exporting goods in which they had an advantage. But having said that, the product lines are limited (inflatable balls are being exported by both countries), and there is a need for both Pakistan and India to focus on exporting products for which they have higher RCAs. The surprising thing here is that both India and Pakistan export goods from the same product line to each other. This leads to further research potential in doing a disaggregated analysis of products within the given product lines. The limited number of export product lines was further studied using the trade concentration index, which shows that Pakistan's export items are more diversified, while India's exports are dependent on fewer products. Since only a few products dominate bilateral trade between Pakistan and India, there is the possibility of intra-industry trade. For this, we calculated the intra-industry trade index, which shows that both intra-industry and interindustry trade exist in the sports goods sector for India and Pakistan. Intra-industry trade takes place in the product categories of balls ("other sports equipment"), while trade in the rest of the product lines can be classified as interindustry trade.

Further, we estimated the gravity model of exports to see whether the trade between Pakistan and India in the sports goods sector is equal to or less than the potential trade. The simple gravity model gives the expected results, showing that the GDPs of the exporter and importer countries affect exports in a positive manner, while distance has a negative impact, as it is a measure of transportation costs. We also estimated an augmented gravity model that included dummies for contiguity, common official language, and whether the country pairs had been part of the same country. The coefficients on all dummy variables were positive, as expected. In addition to these

dummy variables, since the countries of interest are Pakistan and India, we added a dummy that takes the value of 1 for trade between Pakistan and India. The coefficient on Pakistan-India bilateral trade has a very large negative coefficient that is highly significant, implying that for a similar country pair, Pakistan and India are trading 288 % less according to the pooled OLS model and 249 % less according to the random effects model. Further research potential exists in including variables on IIT and tariffs, which could not be included in this analysis due to data constraints.

Therefore, according to the gravity model, Pakistan-India bilateral trade is a lot lower than it should be. The numerous non-tariff barriers that are in place in both India and Pakistan can partially explain this low level of trade. Bilateral trade remains low despite the MFN status granted to Pakistan by India in 1996. It is also surprising that even though Pakistan has not granted MFN status to India, India exports more sports goods in absolute terms to Pakistan compared with Pakistan's exports to India. Great potential for trade exists between these two countries, and both countries should strive to increase trade based on their respective comparative advantage.

Appendix

HS Code Description

Sports Equipment

9506 Articles and equipment for general physical exercise, gymnastics, athletics, other sports (including table tennis) or outdoor games, N.E.S. swimming pools and paddling pools
950611 Snow skis and other snow ski equipment, except ski poles
95061100 Skis
950612 Snow ski bindings or ski fastenings
95061200 Ski fastenings (ski bindings)
950619 Other snow ski equipment
95061900 Other snow ski equipment
950621 Sailboards
95062100 Sailboards
950629 Water skis, surfboards, and other water sports equipment, except sailboards
95062900 Other
950631 Golf clubs, complete
95063100 Clubs, complete
950632 Golf balls
95063200 Golf balls
950639 Golf equipment (except complete clubs and balls)
95063900 Other
950640 Articles and equipment for table tennis

95064000 Articles and equipment for table tennis
950651 Tennis rackets, whether or not strung
95065100 Lawn tennis rackets, whether or not strung
950659 Tennis, badminton, and similar rackets, whether or not strung
95065910 Squash or racket ball badminton rackets, whether or not strung
95065990 Other rackets
950661 Lawn tennis balls
9506100 Lawn tennis balls
950662 Inflatable balls
95066210 Footballs
95066220 Volleyballs
95066230 Basketballs
95066290 Others
950669 Other balls
95066910 Hockey balls
95066920 Cricket balls
95066930 Golf balls
95066940 Rugby balls
95066990 Others
950670 Ice skates and roller skates, including skating boots with skates attached
95067000 Ice skates and roller skates, including skating boots with skates attached
950691 Articles and equipment for general physical exercise, gymnastics, or athletics
95069110 Boxing equipment
95069190 Other gymnastics/athletics equipment
950699 Articles and equipment for outdoor sports
95069910 Badminton shuttlecocks
95069920 Leg pads and bats for cricket
95069930 Shoulder pads for football
95069940 Hockey sticks and blades
95069950 Polo sticks including blades, shafts, and heads
95069960 Sports nets
95069970 Tennis and badminton racket pressures
95069980 Shin/protective guards and elbow or shoulders pads excluding those for football; waist, thigh, and hip protective equipment
95069990 Other sports equipment
9507 Fishing rods, fishhooks, and other line fishing tackle, fish landing, and similar nets; decoy "birds" (other than those of heading 9208/9705) and similar hunting requisites
950710 Fishing rods
95071000 Fishing rods
950720 Fishhooks, whether or not snelled
95072000 Fishhooks, whether or not snelled
950730 Fishing reels
95073000 Fishing reels

950790 Other fishing and hunting requisites
95079010 Fishing landing and butterfly nets
95079090 Others

Sports Apparel

4203 Articles of apparel and clothing accessories of leather or of composition leather
420321 Sports gloves – mittens and mitts
42032110 Gloves for sports
42032120 Mittens and mitts for sports
6112 Tracksuits, ski suits, swimwear – knitted or crocheted
611211 Tracksuits of cotton, knitted
61121100 Tracksuits of cotton
611212 Tracksuits of synthetic fibers, knitted
61121200 Tracksuits of synthetic fibers
611219 Tracksuits of other textile materials, knitted
61121910 of silk
61121920 of wool or fine animal hair
61121930 of artificial fibers
61121990 Other fibers
611220 Ski suits, knitted
61122010 of silk
61122020 of wool or fine animal hair
61122030 of cotton
61122040 of synthetic fibers
61122050 of artificial fibers
61122090 Other fibers
611231 Men's/boys' swimwear of synthetic fibers, knitted
61123100 of synthetic fibers
611239 Men's/boys' swimwear of other textile materials, knitted
61123910 of silk
61123920 of artificial fibers
61123990 Other fibers
611241 Women's/girls' swimwear of synthetic fibers, knitted
61124100 of synthetic fibers
611249 Women's/girls' swimwear of other textile materials, knitted
61124910 of silk
61124920 of artificial fibers
61124990 Other fibers
6211 Tracksuits, ski suits, swimwear, not knitted
621111 Swimwear for men or boys, not knitted
62111100 Swimwear for men or boys
621112 Swimwear for women or girls, not knitted

62111200 Swimwear for women or girls
621120 Ski suits, not knitted
62112000 Ski suits

Sports Footwear

6402 Other footwear with outer soles and uppers of rubber or plastic
640212 Ski boots, cross-country ski footwear, and snowboard boots
64021210 of rubber
64021290 of other materials
640219 Other sports footwear with outer soles and upper of rubber/plastic
64021910 of rubber
64021990 Other
6403 Footwear with outer soles of rubber, plastic, leather, or composition leather and uppers of leather
640312 Ski boots and cross-country ski footwear and snowboard boots
64031200 Ski boots, cross-country ski footwear, and snowboard boots
640319 Footwear with outer soles of rubber, plastic, with uppers of leather
64031910 Other sports footwear with outer soles of leather
64031920 Other sports footwear with outer soles of rubber
6404 Footwear with outer soles of rubber, plastic, etc., and uppers of textile materials
640411 Sports footwear, tennis shoes, basketball shoes, gym shoes, training shoes, etc., with outer soles of rubber/plastic
64041110 of rubber sole with canvas upper
64041120 of rubber sole with leather cloth uppers
64041190 Other (Appendix)

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Chapter 10
Pakistan-India Trade: An Analysis of the Health Sector

Hadia Majid and Nadia Mukhtar

10.1 Introduction

Despite sharing a border of about 1,800 miles, trade between India and Pakistan has been relatively low. Figure 10.1 shows that India's trade with Pakistan totaled US$1.9 billion in 2011–2012, giving Pakistan a rank of 52 among trading partners, with the top slot going to the People's Republic of China.

However, the primary reason for this poor trade performance is not economic, but is largely due to the two nations' fractious history.

Trade between Pakistan and India has been the subject of keen academic and policy-based studies, especially over the past few years (see for example State Bank of Pakistan 2006 and Husain 2011). This interest has largely been sparked by the signing of the South Asian Free Trade Agreement (SAFTA) in 2004. While SAFTA is a major step toward the eventual establishment of a customs union in the region, intra-regional trade between South Asian countries remains meager. By 2004, intra-regional trade as a proportion of trade with the rest of the world was only 4.7 % (Taneja 2006). Although the reduction in tariffs under SAFTA will help increase this percentage, the successful integration of countries comprising South Asia hinges on the normalization and continued stability of trade between India and Pakistan.

There has been some move toward stabilizing trade relations between the two nations. India's decision to grant most favored nation (MFN) status to Pakistan in 1996 and the change from a positive to a negative list with respect to imports from India by Pakistan in 2012 have been important steps in the normalization of trade between the two nations. The two countries have also agreed to simplify customs procedures, streamline and facilitate goods' certification processes, and simplify trade by opening national banking operations in the other country. Finally, India has

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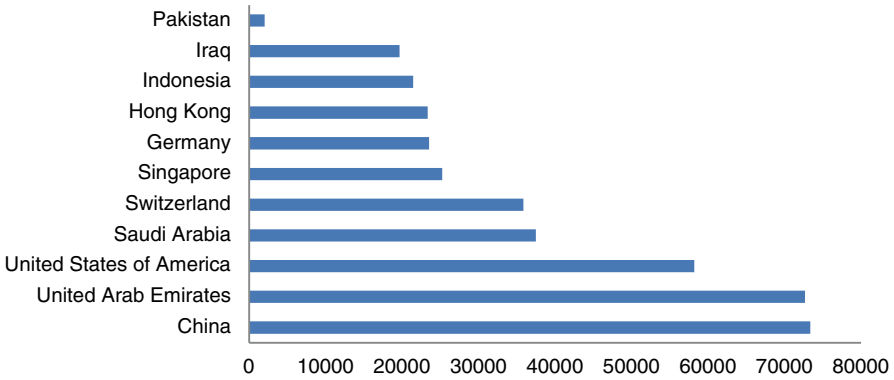


Fig. 10.1 India's total trade with partners, April 2011–March 2012 (US$ million) (*Source*: Department of Commerce, India)

notified a law that allows Pakistani citizens and companies to invest in India (with the exception of sectors related to defense, space, and atomic energy).

Trade ties with India have been on the mend since November 2011. As part of the unilateral liberalization that was undertaken by India during the 1990s, in 1996, India granted Pakistan MFN status. Bilateral trade between the two neighbors did not pick up, however, until 2011, when a new wave of trade negotiations seemed to provide renewed buoyancy to traders on both sides of the border. With the dismantling of the positive list (trade only in items on the list) and the adoption of a negative list (no trade only in items on the list) in March 2012, Pakistan indicated that it was serious about trade liberalization with India. And while the deadline to grant India MFN status lapsed in January 2013 because the Pakistan government faced enormous pressure from the domestic automotive parts and agricultural lobbies, there is a firm belief on both sides that granting MFN status to India is only a matter of time, especially in light of the pro-trade stance of the new government after the May 2013 elections in Pakistan.

Currently, trade with India is governed by three lists. There is the negative list of 1,209 items that are not importable from India. Then there is a 137-item positive list of items importable only by the land route. And last, there is the sensitive list that Pakistan maintains under the South Asian Free Trade Agreement (SAFTA) of 1,183 items that are importable from India, but at a higher tariff rate, even if MFN were granted.

The bid to improve the environment for bilateral trade and investment is rooted in the economic and political gains from greater market integration. In 2010–2011, Pakistan's exports to India as a percentage of total exports amounted to 1 %, while India's exports to Pakistan as a percentage of total exports totaled a mere 0.9 % (Pasha and Imran 2012). Thus, there is considerable trade potential between the two nations, particularly when we consider that estimates regarding illegal trade between India and Pakistan range from US$0.5 billion to US$3 billion. In particular, this

Table 10.1 Health facilities and manpower densities

Health manpower	2010–2011	2011–2012	2012–2013
Registered doctors	144,901	152,188	160,289
Registered dentists	10,508	11,584	12,544
Registered nurses	73,244	77,683	82,449
Population per doctor	1,222	1,164	1,127
Population per dentist	16,854	15,288	14,406
Population per bed	1,701	1,647	1,786

Source: Pakistan Economic Survey 2012–2013: Health and Nutrition

chapter argues that there is substantial potential for trade in the health sector, i.e., health services and health-related commodities.

This study explores Pak-India trade in commodities and services in the health sector. Our emphasis is on three commodities: medical equipment, pharmaceutical products, and surgical instruments. We investigate existing trading patterns and also examine if there is any evidence of trade in health services, particularly:

1. Research and collaborative work in medicine and pharmaceuticals
2. Documented movement of medical personnel and patients at the institutional level
3. Student exchange or training programs

10.1.1 Why Focus on the Health Sector?

Our focus on the health sector is driven by the dire condition of Pakistan's health services sector—there is a wide gap between the population's needs and the existing supply of infrastructure and trained medical personnel. In 2012–2013, there were 1,127 individuals per licensed/registered doctor and 1,786 persons per hospital bed, with government health expenditure as a percentage of GDP standing at 0.35 % (Pakistan Economic Survey 2012–2013). Details on some key health sector statistics for the past 3 years are given in Table 10.1.

In contrast to Pakistan, in 2010, the average OECD health expenditure was at 9.5 % of GDP, while India spent 4 % of GDP on health (WHO 2010). Moreover, medical tourism has been systematically growing in India, with the nation ranking among the top destinations for patients from all over the world, and cost savings for patients (using US cost estimates) in the range of 65–90 % in the Indian health market.[1] Given the high quality of medical treatment and personnel available across the border at affordable rates, the Indian health market has the potential to become a vital boon to patients in Pakistan who are unable to access the same quality of care at home.

[1] See "Medical Tourism Statistics and Facts" at http://www.patientsbeyondborders.com/medical-tourism-statistics-facts

Compared to the health services sector, health-related commodities, particularly pharmaceutical and surgical goods manufacturing, have been performing well in Pakistan. The pharmaceutical industry displayed 16.35 % growth in 2012–2013 (Pakistan Economic Survey 2012–2013). The growth in the pharmaceutical industry may be attributed to the national policy of deregulation of prices, along with easier registration and import policies, which has allowed the sector to improve its market share.

The surgical goods industry, which is largely export oriented, saw its exports grow by 13.7 % in 2010–2011 (Trade Development Authority of Pakistan 2013), with exports of $300 million in 2011–2012. The production of surgical instruments is predominantly clustered in Sialkot, a city in the Punjab province. Only 5 % of the production is sold in the domestic market with production capacity estimated at two million pieces a year and industry capacity utilization is estimated at 70 %. Governmental facilitation of the surgical and medical equipment industry includes the establishment of centers within the industry clusters to help outsource ancillary processes and provide training in skills as well as adjustments of import tariffs to allow import of inputs at minimal rates (Trade Development Authority of Pakistan 2013).

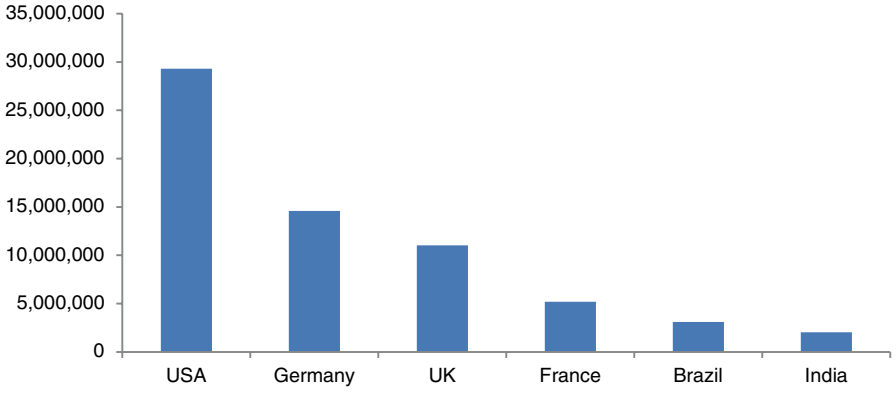
Pakistan's market for medical devices is small in value terms given the size of its population. Moreover, the market is heavily supplied by imports that account for approximately 94 % of the market (Pakistan Medical Device Market Intelligence Report 2011). Imports have been showing strong growth trends since 2005, and the medical devices market is expected to grow, fuelled largely by its imports, at an average of 7.7 % between 2011 and 2016 (World Medical Device Market Report 2012).

It is worth noting that health commodities function as important complementarities to health services. Given Pakistan's burgeoning performance in commodities and India's flourishing health services sector, there is potential for significant synergies between the two countries within the health sector. Against this backdrop, it would be fruitful to conduct an in-depth analysis of the existing trends in trade along with an investigation into which subsectors in the health sector exhibit the greatest prospects for increased trade flow between the two countries, as this would allow for marked improvement in the overall health capital of the population of the region and result in significant welfare gains.

10.2 Trends in Trade[2]

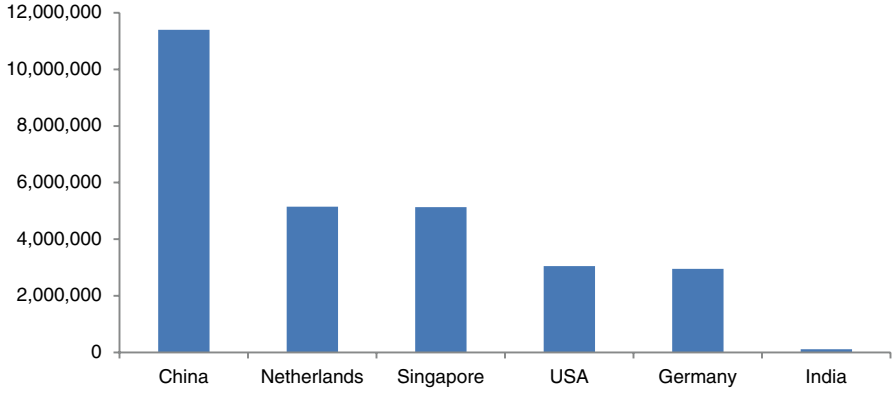
In 2011–2012, Pakistan witnessed a positive trade balance in surgical instruments, while total imports of pharmaceutical products and medical equipment exceeded the country's total exports. Figures 10.2 and 10.3 provide statistics on the top five countries that Pakistan exported surgical goods to and imported surgical goods from in 2011–2012. The figures also provide details on the shares of these countries in Pakistan's total exports and total imports for the product, as well as statistics on India for comparative purposes.

[2] All statistics in this section are based on data obtained from the UN Commodity Trade Statistics Database (UN Comtrade). United Nations Statistical Division. (2013). Data retrieved from http://comtrade.un.org/



	USA	Germany	UK	France	Brazil	India
Share of Total Exports	29%	14%	11%	5%	3%	2%

Fig. 10.2 Total exports of surgical instruments, July 2011–October 2012 (US$)



	China	Netherlands	Singapore	USA	Germany	India
Share of Total Imports	22.7%	10.3%	10.2%	6.1%	5.9%	0.2%

Fig. 10.3 Total imports of surgical instruments, July 2011–October 2012 (US$)

The United States and Germany both rank among Pakistan's top trade partners in terms of exports and imports of surgical goods. Moreover, the difference in shares between the top-ranked and the second-ranked trading partner in both exports and imports is significant. Finally, while Pakistan's exports of surgical goods to India come in close behind its 5th largest export partner, Pakistan's imports of surgical instruments from India were paltry in 2011–2012.

Figures 10.4 and 10.5 provide details on the top 5 countries that Pakistan exported pharmaceutical products to and imported pharmaceutical products from in 2011–2012. The figures also provide details on the shares of these countries in Pakistan's total exports and total imports for the product, as well as statistics on India.

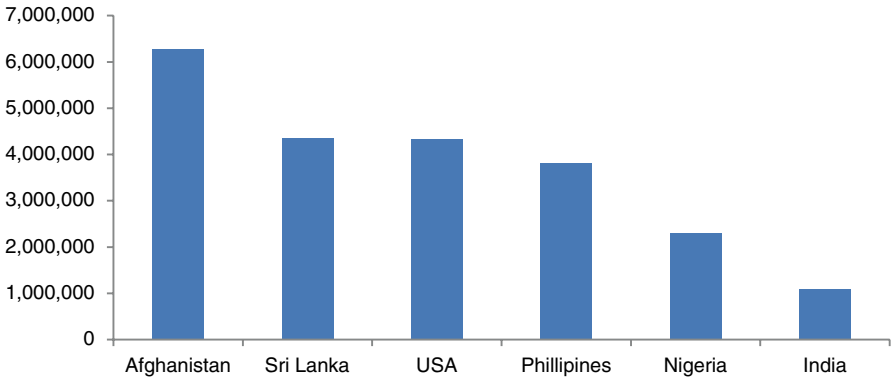


Fig. 10.4 Total exports of pharmaceutical products, July 2011–October 2012 (US$)

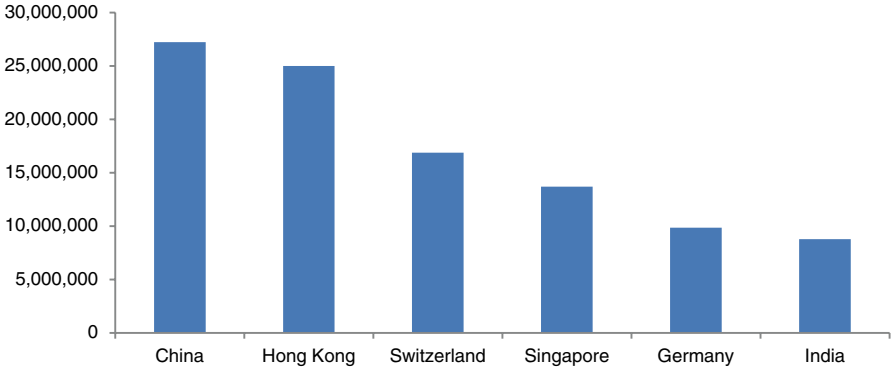


Fig. 10.5 Total imports of pharmaceutical products, July 2011–October 2012 (US$)

Unlike trade in surgical goods, the top five importing and exporting countries for pharmaceutical products do not see any overlap. Moreover, not only is the gap in the share of the top-ranked and second largest trading partner not as significant as in the surgical goods' case, both are South Asian countries. Finally, India's share in total exports and imports is larger than it is in surgical goods.

Figures 10.6 and 10.7 provide details on the top five countries that Pakistan exported medical equipment to and imported from in 2011–2012. The figures also provide details on the shares of these countries in Pakistan's total exports and total imports for the product along with statistics on India.

Medical equipment is the only commodity that saw zero exports to India in 2011–2012. For both pharmaceuticals and medical equipment, Pakistan's top recipients of exports are South Asian countries. Finally, while the United States ranks among the top three recipients of exports for all three commodities, Germany ranks among the top five countries that Pakistan imports the three products from.

The comparison of India with Pakistan's top 5 trading partners in surgical goods, pharmaceutical products, and medical equipment seems to indicate that aside from

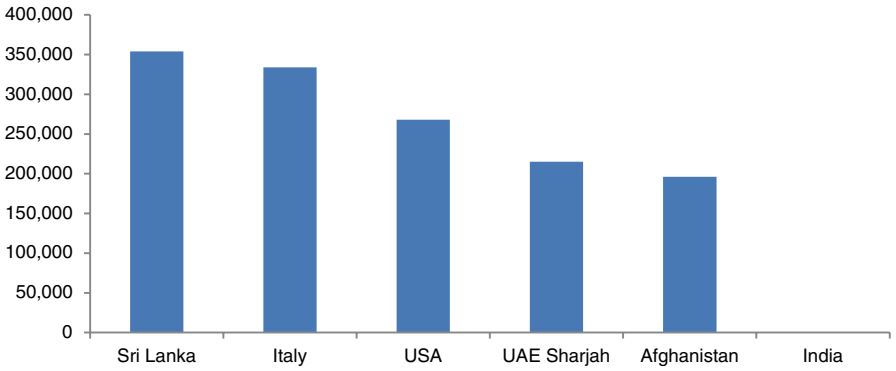


Fig. 10.6 Total exports of medical equipment, July 2011–October 2012 (US$)

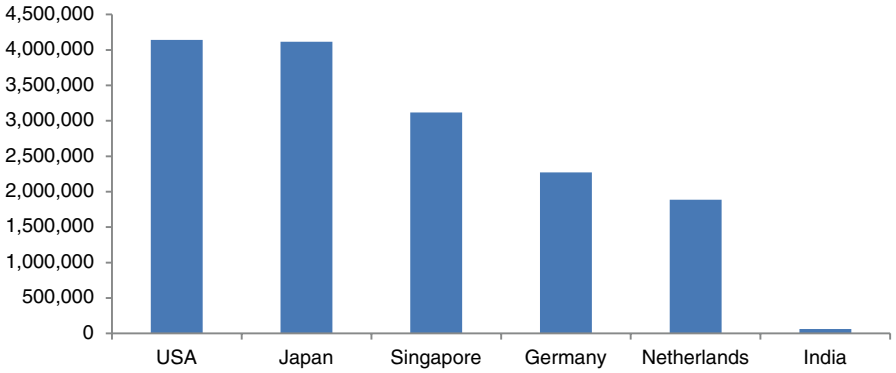


Fig. 10.7 Total imports of medical equipment, July 2011–October 2012 (US$)

the imports of pharmaceutical products, in 2011–2012, Pakistan did not engage in significant trade with India. To get a clearer picture of Pakistan's trade relationship with India vis-à-vis these three commodities, we traced the trend in imports and exports from 2003 to 2011.

Existing trade in health products between Pakistan and India is negligible compared to their trade with the rest of the world. Several factors lend themselves to an explanation of why this is so: protection by the respective countries, nontariff barriers, weak intellectual property rights, etc. It may also be that trade is so low because there has been no concerted effort on the part of the relevant industries in the health sector of each country to penetrate the other, either due to the high entry barriers faced by Pakistani exporters to India (huge R&D costs, dealing with complex patent and licensing requirements, and market concentration) or simply lack of interest in the Pakistani market by Indian exporters.

This list includes around 4.6 % of items that cover medical equipment, surgical items, and pharmaceutical products. Specifically, about 40 items pertain to pharmaceuticals,

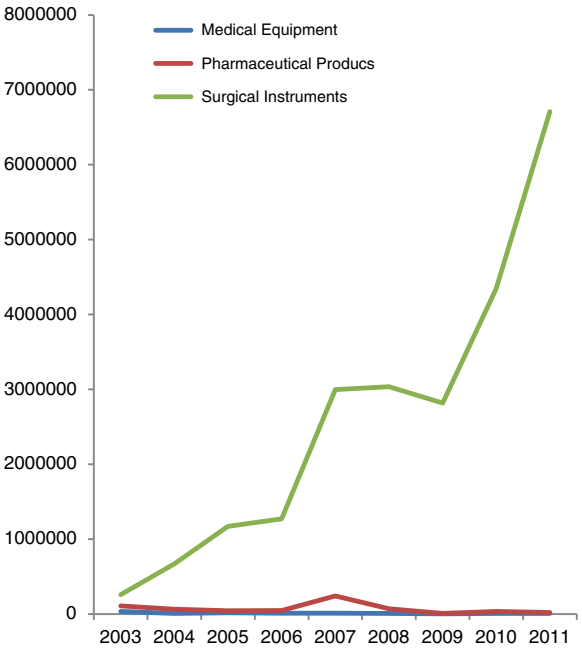


Fig. 10.8 Pakistan's exports to India (US$)

9 to surgical items, and 8 for medical equipment. At the same time, the Pakistan government has relaxed somewhat the restriction on the import of raw and packing materials used for the production of pharmaceutical products by allowing Pakistani manufacturers (that have been recognized by the DG Health Pakistan) to continue importing those items even if they are on the negative list. The exception is when the basic raw material is domestically available in Pakistan.

Figures 10.8 and 10.9 show that there is one clear outlier in the three commodities examined. In the case of exports, surgical instruments exhibit an upward trend with numbers that far exceed those for pharmaceutical products and medical equipment in the 2003–2011 time frame. In contrast, the data on imports reveals a general upward trend for pharmaceutical products with significantly lower figures for the other two commodities. The sharp decline in imports of pharmaceuticals in 2009 may in part be due to the global recession, but are largely attributable to months of political tension between the two nations.

10.2.1 A Closer Look

Here, we break down the current status of Pak-India trade in surgical instruments and pharmaceutical products. In particular, we highlight the success stories and challenges faced by traders through the use of case studies. The section provides

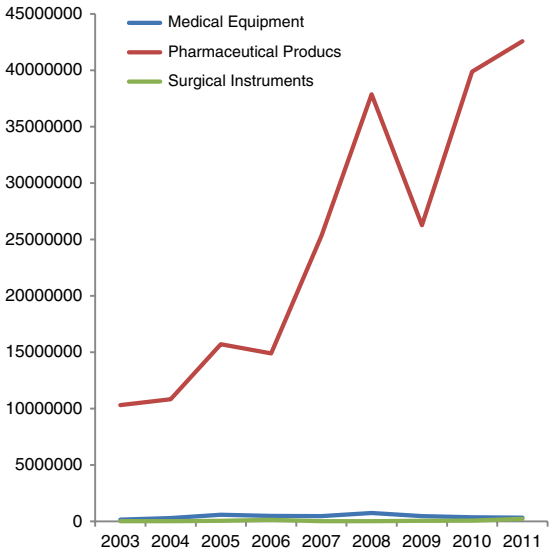


Fig. 10.9 Pakistan's imports from India (US$)

an extensive look at the pharmaceutical sector—not only is Pak-India trade in pharmaceuticals approximately six times larger than trade in any of the other health commodities examined in this chapter, but the sector has been seeing high rates of growth in both countries. Moreover, given the high (and similar) disease burden in both countries, increased trade in medicinal products will be beneficial from a human capital perspective. Thus, this section specially emphasizes the challenges of and potential gains from trade in pharmaceuticals.

10.2.1.1 Surgical Instruments

While direct trade in the surgical instruments industry is low, Pakistan has been exporting surgical goods to India through Germany and Dubai for some time. Conservative estimates of the gains from direct trade have been placed at $200 million (Trade Development Authority Pakistan 2012). This is not to say that direct trade does not exist. While overall trade numbers are low, this trade is being driven by a few Pakistan producers whose individual market shares are significant. An example of such a success story is that of Hilbro Instruments, Pakistan, a division of the Hilbro International Surgical group.[3] Currently exporting goods worth $240,000 per annum, the Sialkot-based company started trading with a Delhi-based distributor following a SAARC exhibition in 2006. Hilbro has since expanded business to four Indian companies and is the largest supplier for one of

[3] Pakistan Economic Forum II- Regional Trade Report 2013. Available at www.pbc.org.pk/assets/pdf/regional_report.pdf

them. As Hilbro meets EU and Japanese quality standards, Indian sanitary and phytosanitary regulations are not a concern. In fact, Hilbro is looking to set up a manufacturing plant in collaboration with an Indian surgical instruments importing company. Here, unfinished surgical instruments imported from Pakistan will be processed by a 50-worker factory in India. In light of the increased demand for medical tourism in India, Hilbro expects its sales to increase to $2 million in the near future. Despite the potential gains from trade, Hilbro is one of the few Pakistani exporters to India. It seems that where trade ties do exist, they are driven by the personal endeavors of a select group of manufacturers who are able to withstand the attendant teething problems of doing business in any new environment. But as Hilbro shows, there are substantial first-mover advantages for new entrants in the Indian economy.

10.2.1.2 Pharmaceutical Products

The value of Pakistan's pharmaceutical industry was $1.64 billion in 2011 (Aamir and Zaman 2011). In both countries, spending on pharmaceuticals was low compared to global averages, with private spending leading public expenditure. According to the Pakistan Pharmaceutical Manufacturers Association (PPMA), of the 400 drug manufacturers in the country, only 30 are multinational. In India, there are 250 large-scale and 8,000 small-scale units in the sector, with five central public sector units. The Indian pharmaceutical industry is much larger, with an estimated 25,000 producers, of which 100 are foreign-accredited. While the share of foreign investors is increasing in India, in Pakistan, more local firms (55 %) operate in the country due to the inhospitable business climate. Even so, the MNC, GlaxoSmithKline, leads the market share (11.6 %), while Getz Pharma (Pakistan) Private Ltd. is the national leader (3.8 %) (Aamir and Zaman 2011). According to the PPMA, Pakistan is able to meet 70 % of domestic demand for finished medicines. Similarly in India, only 30 % of demand is unmet in the country.[4] The Indian market is characterized by stiff competition and government market-based price controls and specializes in the export of sophisticated bulk drugs that are cheap due to cost-effective chemical synthesis of drug molecules.[5] In Pakistan, too, nearly all drug prices are regulated, with 800 drugs on the National Essential Drug List (2003) (Network for Consumer Protection 2006).

The Indian pharmaceutical world market share stands at 1 % in terms of value and 8 % in terms of volume and is ranked the third largest of 15 global manufacturers in volume terms.[6] Pakistan can look to gain from estimations that place incremental market growth in India ($14 billion) over the next decade at par with China ($23

[4] A brief report on pharmaceutical industry in India. March 2013. Corporate Catalyst India. Available at http://www.cci.in/pdfs/surveys-reports/Pharmaceutical-Industry-in-India.pdf

[5] *Ibid*.

[6] India Pharma Industry. Available at http://www.pharmaceutical-drug-manufacturers.com/pharma-industry-statistics/

billion).[7] India is the leading exporter of generics in the world, at $11 billion. It seems that Pakistan can gain much by importing bulk drugs from India, given that growth in that sector is expected to be 21 % per annum until 2014 (to $16.9 billion), an increase of 4 % from its current rate of 17 % in 2010–2011 and 2012–2013. The Indian pharmaceutical industry has been growing at a compound average growth rate of 12 % over the past 5 years. While Indian industry is attracting investment to the tune of $6.3 billion, Pakistan would stand to benefit from the same from India, given that the Pakistani industry is set to reach only $2.12 billion by 2019 (Aamir and Zaman 2011).

Like India, the Pakistani market is dominated by generics, with the most growth in the alimentary tract and metabolism and systemic antiinfective therapeutic groups (Aamir and Zaman 2011). But while Indian exports have soared, Pakistani exports have been hurt by the 2011 decentralization of drug regulation from the Center to the provinces, which together with the lack of intellectual property rights has meant that Pakistan has not been an attractive destination for MNCs. To that end, Pharma Bureau, a group of foreign pharmaceutical companies in Pakistan, suggested in February 2012 that a centralized Drug Regulatory Authority (with provincial monitoring) be created. Not only would this body be responsible for monitoring and approving drugs, but it would also oversee the quality of alternative (*Ayurvedic* and homeopathic) and imported medicines, which are currently not under regulation (Business Monitor 2012).

Existing trade in pharmaceutical products between India and Pakistan is low. But there is a need to address this issue. Despite pharmaceuticals being the sixth highest contributor to manufacturing, almost half the Pakistani population cannot acquire modern medicines. The prices of medicines in Pakistan are regulated, and the government procures and supplies them to government health facilities. Yet there are huge shortages, with disastrous consequences on the poor who are unable to afford medicines from private pharmacies, given that they do not stock generics. And while private pharmacies offer drugs at lower prices than other developing countries, they are more expensive than in India, with private pharmacies charging a markup of 25 % above regulated prices. Almost 17 of the 21 commonly used drugs are more expensive in Pakistan than in India, Bangladesh, or Nepal (Network for Consumer Protection 2006). Inequity in access to basic medicines seems set to rise, with the pharmaceutical industry in Pakistan asking the government to deregulate prices to allow manufacturers to meet the ever-rising production costs due to energy shortages and business-unfriendly government policies.

For instance, it was found that innovator brand formulations of atenolol, ciprofloxacin, omeprazole, and ranitidine were more expensive in Pakistan relative to India in 2004, even though the same MNC produces them locally in both countries. The same was true for the lowest price generic formulations of ciprofloxacin, ranitidine, and fluoxetine (Network for Consumer Protection 2006).

[7] Indian Pharma Industry – An overview. April 13, 2012. Available at http://www.indiabiznews.com/?q=node/2873

At the same time, technical barriers to trade have further lowered possible gains from trade. Standards regulation is a state issue in India, whereas it is a national one in Pakistan. This leads to multiple sanitary and phytosanitary (SPS) requirements that make it difficult for Pakistani exporters to sell their drugs in India. Further, the lack of a strong intellectual property rights framework discourages Indian manufacturers from exporting to Pakistan.

In addition, trade in biopharmaceuticals (vaccines and antibodies) is currently low, although the two countries have partnered to deal with the polio virus that is endemic in Pakistan. In India, there is much growth in this sector too, especially due to the number of copartnered patents between Indian and US/UK drug regulatory authorities. Not only does that increase the chances of approval, but it also encourages US and UK firms to locate in India once they have been accredited. Local producers have felt threatened by the prospect of importing Indian vaccines, and many have appealed to the courts to challenge such transactions. For instance, in 2009, a court order that stayed the import of vaccines from India set a precedent for others to follow suit. At the same time, the Pakistani National Polio Plus committee is learning from how India managed to eradicate the virus from Indian states that have sizeable Muslim communities. Pakistani teams have visited Bihar and Uttar Pradesh, where polio was rampant, to make their own oral vaccination campaigns more effective (DNA 2013).

At the same time, Indian medicines are being illegally imported through Afghanistan into Khyber Pakhtunkhwa (KPK) along the Pak-Afghan border, with officials looking the other way. Drug formulations of amoxicillin, ampicillin, cotrimoxazole, laxotanil, ciprofloxacin, ranitidine, famotidine, and cimetidine are the most in demand. There are reports that doctors also suggest that their patients use Indian medicines in these areas, as the domestic market prices of MNC-produced medicines are very high in KPK. It is argued that by legally ensuring that MNCs use local raw materials, Indian costs are lowered tenfold compared with Pakistan where MNCs buy inputs from their parent-company subsidiaries. Also, given the ease of market entry for local manufacturers in India, the same MNCs (which charge higher prices in Pakistan) are forced to cut prices to remain profitable in the highly competitive Indian market. Moreover, the supply of Indian medicines into the tribal areas seems all but ensured, as India has a bilateral treaty with the United States to supply medicines to Afghanistan, which are then smuggled through third parties into Pakistan and sold at exorbitant prices in Peshawar (Asia Times 2001). Given that Pakistan's top export destination is Afghanistan, industry insiders have acknowledged that Pakistan is mainly exporting its medicines to countries with no or weak drug regulatory frameworks, such as Sudan, Vietnam, the Philippines, and Sri Lanka. There is a fear that India may do the same with Pakistan, by exporting high-quality goods to OECD countries while exporting inferior drugs to Pakistan.[8] By making imports of medicines from India legal, concerns about quality will also be addressed, as Indian manufacturers will have to register with the Pakistan government and undergo standards and safety tests. Given that Indian medicines are

[8] Pharma industry's fears: Free trade may bring inferior drugs from India. October 7, 2012, The ExpressTribune.Availableathttp://tribune.com.pk/story/448099/pharma-industrys-fears-free-trade-may-bring-inferior-drugs-from-india/

already being smuggled into the country, this would help allay fears of substandard Indian medicines entering the Pakistani market.

While the average Pakistani spends about $10 on drugs in Pakistan, an Indian spends roughly $4. This not only indicates that rural health expenditures in India are low, with pharmaceutical market penetration of only 17–18 %, but also that Indian drugs are cheaper than in Pakistan. The average cost of treatment in terms of the lowest-paid government worker in Pakistan was roughly 3-day wages for innovator brands and about 1.5 days for the lowest price generic equivalent. To put things in perspective, the average Pakistani faces a double dilemma. She is unable to buy generic medicines from government-run pharmacies that are meant to cater to her income bracket, because there are dire shortages of essential medicines. She must then avail of private pharmacies that mostly stock branded medicines, which cost her almost 3 days' worth of pay. Given that the monthly poverty line in 2004–2005 was Rs. 878.6 per adult (which is less than half the salary of the lowest-paid government worker that was taken as a reference point for the cost analysis), missing anything more than 2 days work would impose a heavy burden on a typical Pakistani family. She is then one of millions of Pakistanis who are unable to get even the most basic of treatments. For instance, in 2004, for a standard ulcer treatment in India, the cost would be 0.23-day wages, while in Pakistan, it would be 8.5 days (using ranitidine). For some of the most common ailments such as asthma, hypertension, peptic ulcers, and diabetes, consumer savings in terms of reduced number of day's wages required for treatment could range from 2 to 37 days' wages (Network for Consumer Protection 2006). Importing cheap medicines from India will undoubtedly have a positive impact on consumer welfare in Pakistan.

While Indian policies encourage their pharmaceutical sector by promoting R&D through tax deductions from income taxes for in-house R&D and give import duty waivers for capital goods required in the pharmaceutical and biotechnology sectors, the same is not true for Pakistan. The Pakistani industry is also generics-based, but unable to capitalize on the huge world market due to inadequate policies, lack of infrastructure, and energy deficiencies. Specifically, domestic pharmaceutical companies have complained that they must get their facilities approved by the WHO at their own expense, there is no export insurance scheme, export clearance procedures are cumbersome, and they must pay 1 % of profit before tax (PBT) for a central research fund (CRF) that they have never benefitted from, and, more significantly, are only allowed to retain 15 % of dollar revenues, which they claim is insufficient to meet high capital costs and R&D expenditure (Ali 2010). So, while India produces almost 60,000 generic drugs and its patented drugs in 2012 represented a 10 % market share of the overall pharmaceutical industry, the same is not true of Pakistan. According to the Pakistan Pharmacist Association (PPA), only 2,373 and 124 locally manufactured and imported drugs, respectively, were registered in 2004.[9] As a result of favorable policies, Indian industry is projected to increase its share from $12 billion in 2012 to at least $55 billion in 2020 or more ($70 billion), according to a report by McKinsey and Company.[10] The dominant player in the

[9] Available at http://ppapak.org.pk/drugz.php

[10] India Pharma 2020: Propelling access and acceptance, realizing true potential Available at http://www.mckinsey.com/locations/india/mckinseyonindia/pdf/India_Pharma_2020.pdf

Indian pharmaceutical market will remain its branded generic drugs, given that the US patents of around 80 "blockbuster drugs" worth $171 billion will expire between 2010 and 2015, allowing Indian manufacturers to make cheap but high-quality generic versions of the same, with the Indian pharmaceutical industry estimated to be worth $20 billion by 2015.[11] Pakistan's low R&D in this sector will have important repercussions for its future.

In light of this, three key facts will govern Pakistan's trade with India in the pharmaceutical sector. First, the license to sell and manufacture drugs is controlled by individual state governments through the Indian Food and Drug Associations. Second, as per the Drug Price Control Order 2013, scheduled medicines are subject to price controls that are market-based compared with prior cost-based controls. The new list includes 348 essential drugs (652 formulations) amounting to a large share of the overall pharmaceutical market, with average medicine prices falling by 20–25 % under the revised pricing system.[12] In addition, the active ingredients of even some nonscheduled medicines are regulated (e.g., acetylsalicylic acid or aspirin, along with ephedrine and its salts). Moreover, for nonscheduled drugs, manufacturers must fix retail prices subject to a maximum price increase of 10 % per annum. More importantly, the prices of imported drugs will also be regulated for medicines with over 1 % market share in that therapeutic area. In addition, central and state taxes will be added to the ceiling price to determine the final consumer price that is set for Pakistani imports (Mukherjee 2013). This could effectively render Pakistani medicines uncompetitive.[13] Third, due to interstate central sales tax, there are hardly any national distributors to allow for third-party (say, Pakistani exporters) retail networks. And even if Pakistani manufacturers were to set up shop in India, they would have to acquire drug-selling permits to operate the requisite storage facilities.[14] This, in effect, precludes the practice of distance selling or teleshopping of over-the-counter (OTC) drugs between the two countries, even if there are cost advantages to be had in doing so.

From the above, it seems that India has a clear edge when it comes to producing pharmaceutical goods. Four things, however, bode well for Pakistan. First, domestic demand only accounts for 20–50 % of Indian pharmaceutical company revenues. Second, given that smaller Indian manufacturers are taking the lead in domestic markets and the larger ones are looking to outsource discovery services, clinical trials, and even manufacturing and focus on specialty therapies that are

[11] Indian Pharmaceutical Industry-Future Trends. Available at http://www.pharmaceutical-drug-manufacturers.com/articles/indian-pharmaceutical-industry.html

[12] National pharmaceutical pricing policy 2012, Government of India. Available at http://nppaindia.nic.in/index1.html

[13] New price control regime to cut drugs cost by up to 80 %. FirstPost. Available at http://www.firstpost.com/business/new-price-control-regime-to-cut-drugs-cost-by-up-to-80-790801.html

[14] India Pharmaceutical Industry Profile 2011. Organization of pharmaceutical producers of India. Available at http://www.indiaoppi.com/IndiaOTCpharmaProfile2011.pdf

associated with more affluent lifestyles,[15] there is a chance for larger Pakistani pharmaceutical companies to compete with such smaller firms. Third, rural market penetration is currently very low and is expected to lead overall pharmaceutical growth, although perhaps not at the high growth and profit rates of the previous increase.[16] Again, if Pakistani companies are able to enter the rural health products market, they could make inroads in India. And, fourth, manufacturing costs in India are almost half the production costs in OECD countries, while clinical trials and R&D are 10 and 12.5 %, respectively, of developed world costs.[17] If Pakistan is serious about boosting the export potential of its pharmaceutical industry, it must collaborate with India.

Although Pakistan is well behind India in terms of the volume of pharmaceutical products, both countries do not account for a significant portion of world value in this sector. This has two effects. As both countries—especially India—produce cheap generics, their terms of trade relative to other leaders in the pharmaceutical sector are falling, given that high-end technologically advanced production still takes place in OECD countries. At the same time, their more affordable drugs allow them to sell more. India is already the pharmacy of South Asia—Pakistan needs to collaborate with Indian drug companies to improve their terms of trade by producing high-end medicines using joint R&D. This would allow the inexperienced Pakistani firms to cover a substantial amount of the risk inherent in breaking into new markets as well as meet quality standards that India is already fulfilling, while Indian firms would benefit by the horizontal and vertical integration of manufacturing plants due to cost savings.

Pakistani pharmaceutical companies face many challenges in the Indian market. One such hurdle is the practice by Indian pharmaceutical companies of marketing OTC drugs through medical representatives, whom Pakistani producers will find impossible to target.[18] The only other option is for Pakistani drug manufacturers to penetrate the Indian market through mass media campaigns. That is also unlikely. At the same time, the mind-set of Pakistani health practitioners must change from promoting branded expensive drugs. Specifically, they must consider "switching" from "Rx to OTC" or encouraging generic substitutes for prescription medicines to reap the benefits from importing cheap generics from India for the benefit of its consumers. India manufactures more than 400 active pharmaceutical ingredients (APIs) that Pakistan can make use of, given that India has the most US FDA-approved manufacturing plants outside the United States.[19] Pakistan also needs to learn from

[15] India Pharmaceutical Industry Profile 2011. Organization of pharmaceutical producers of India. Available at http://www.indiaoppi.com/IndiaOTCpharmaProfile2011.pdf

[16] Indian Pharma Industry – An overview. April 13, 2012. Available at http://www.indiabiznews.com/?q=node/2873

[17] Pharmaceutical Industry Profile 2011. Organization of pharmaceutical producers of India. Available at http://www.indiaoppi.com/IndiaOTCpharmaProfile2011.pdf

[18] India Pharmaceutical Industry Profile 2011. Organization of pharmaceutical producers of India. Available at http://www.indiaoppi.com/IndiaOTCpharmaProfile2011.pdf

[19] *Ibid*.

India how to attract FDI and technology. India has recently made it easier for MNCs already in joint ventures with Indian firms to start their own business or partner with other Indian companies.[20] Through pharmaceutical licensing, Indian drug manufacturers could use Pakistani molecules, use good manufacturing practices and quality control, and encourage formulation development at competitive rates. Given that the Pakistani pharmaceutical industry is not as actively supported by the government as in India, this could pave the way for fruitful joint business ventures. Getz Pharma Pakistan Ltd. is an example of using outsourcing and contract research to sell its branded generic pharmaceutical products.

Another critical factor is the relative pricing in both countries. A study in 2006 found that the control price for some innovator brands and generics was higher in Pakistan than the world reference price taken from the International Drug Price Indicator Guide 2003. Effectively then, the difference between Indian and Pakistani price controls is that while India periodically revises its drug list, Pakistan does not. There is evidence to suggest that when more than five generic equivalents exist, the prices of both branded and generic drugs will decrease. By keeping price lists frozen, medicine prices in Pakistan are being kept too high in some cases, to the detriment of consumers, which has been factored in the recent DPCO 2013 in India (Network for Consumer Protection 2006). Pakistan could learn from Indian practices.

Lastly, with the Pakistani rupee devaluing against the dollar, while exports may increase, the profit margins of pharmaceutical companies will decrease.

10.3 Data and Methodology

The existing and potential trade levels for surgical goods, pharmaceutical products, and medical equipment were analyzed using data obtained from the websites of UN Comtrade, the Department of Commerce, India, and the Federal Bureau of Statistics, Pakistan. Using import and export numbers, we calculated several indices that allow us to confirm levels of trade intensity and complementarity.

Before investigating the extent and potential for trade between India and Pakistan in health-related commodities, we first establish the existing patterns of trade. In particular, we calculate the Grubel-Lloyd index (1971) to determine whether there is intra- or interindustry trade for surgical goods, pharmaceutical products, and medical equipment. The Grubel-Lloyd index is represented by:

$$GL_k = 1 - \frac{|X_k - M_k|}{X_k + M_k}; \quad 0 \le GL_i \le 1$$

where X_k and M_k denote the export and the import of commodity k, respectively. If $GL_i = 1$, there is only intra-industry trade and no interindustry trade, implying that

[20] *Ibid.*

there is exchange of similar products belonging to the same industry. Conversely, if $GL_i = 0$, there is no intra-industry trade and only interindustry trade. We calculate the Grubel-Lloyd index for the years 2003–2011 for all three commodities for three trade relationships:

1. Pakistan's trade with the rest of the world
2. India's trade with the rest of the world
3. Pakistan-India bilateral trade

In order to ascertain the relative strengths and competitiveness of each country in surgical goods, pharmaceutical products, and medical equipment, we estimate the revealed comparative advantage (RCA) of both India and Pakistan in these commodities:

$$\text{RCA}_{ik} = \frac{x_{ik} / x_i}{x_{wk} / x_w}$$

where the RCA of country i in commodity k is given by the share of commodity k in the country's total exports relative to the share of this commodity in world trade. If the commodity's share in total national exports is higher than the commodity's share in total world exports, the RCA value is greater than one. The country is then considered to have a revealed comparative advantage in the particular commodity. On the other hand, for a commodity with an RCA of less than one, the country is said to have a revealed comparative disadvantage.

We use import (m_{ijk}) and export (x_{ijk}) trade intensity indices as defined in Venkatasubbulu (1996) and Rahman (2005) to gauge the extent of trade between Pakistan and India in surgical goods, pharmaceutical products, and medical equipment. The indices have been modified to be applicable to the three-commodity case:

$$m_{ijk} = \frac{M_{ijk}}{M_{ik}} \Big/ \frac{X_{jk}}{\left(X_{wk} - X_{ik}\right)} \quad \text{and} \quad x_{ijk} = \frac{X_{ijk}}{X_{ik}} \Big/ \frac{M_{jk}}{\left(M_{wk} - M_{ik}\right)}$$

where:

m_{ijk} = Import intensity index of trade of country i with country j in commodity k
M_{ijk} = Imports of a country i from trading partner j in commodity k
M_{ik} = Total imports of country i in commodity k
X_{jk} = Total exports of country j in commodity k
X_{wk} = Total world exports in commodity k
X_{ik} = Total exports of country i in commodity k
x_{ijk} = Export intensity index of trade of country i with country j in commodity k
X_{ijk} = Exports of country i to trading partner j in commodity k
X_{ik} = Total exports of country i in commodity k
M_{jk} = Total imports of country j in commodity k
M_{wk} = Total world imports in commodity k
M_{ik} = Total imports of country i in commodity k

The value of each index ranges from 0 to 100. If the value is zero, it implies that there is no trade relationship between partner countries. If, however, the value of the index is more (or less) than 100, it indicates that country *i* is importing/exporting more (or less) from country *j* than might be expected from that country's share in total world trade.

Finally, to examine the potential for trade, we calculate a complementarity index between countries *i* and *j* for commodity *k*:

$$\mathrm{TCI}_{ijk} = 1 - 0.5\left(\left|m_{ik} - x_{jk}\right|\right); \quad 0 \le \mathrm{TCI}_{ijk} \le 1$$

where m_{ik} denotes the share of the *k*th commodity in the total imports of country *i* and x_{jk} denotes the share of the *k*th commodity in the total exports of country *j* (Pasha and Imran 2012). The higher the magnitude of the TCI, the greater is the trade complementarity between the two countries.

10.4 Trade in Health Commodities[21]

Trade in health-related commodities, i.e., surgical instruments, pharmaceutical products, and medical equipment, has both inter- and intra-industry characteristics. Table 10.4 in Appendix I records the Grubel-Lloyd index for Pakistan-world and India-world trade in surgical instruments, pharmaceutical products, and medical equipment for the years 2003–2011. The figures for Pakistan indicate that trade medical equipment is largely traded for products belonging to other industries. Interestingly, the Pakistan-world and Pakistan-India index is very high for 2003, but this may be accounted for by the fact that Pakistan had the highest exports to India and the world in 2003, and the lowest imports.

In contrast, on average, 36 % of pharmaceutical goods and 73 % of surgical goods were exchanged for goods in the same industry between 2003 and 2011. The numbers for India reveal that approximately 50 % of trade in the three commodities is at the intra-industry level.

The higher level of intra-industry trade exhibited by the Indian medical equipment and pharmaceutical industry as opposed to the Pakistani one may be attributed to the larger size of the Indian economy that has allowed producers to achieve and benefit from economies of scale. The structure of the Pakistani surgical instruments industry, which is clustered in the metalwork skill triangle around Sialkot thus allowing it to benefit from external economies of scale as well as its century-old existence, has allowed this industry to develop differentiated products. Moreover, estimates on revealed comparative advantage presented in Table 10.6 in Appendix I show that Pakistan has a revealed comparative advantage in surgical instruments. Hence, the industry is able to engage in a greater degree of intra-industry trade com-

[21] Details on the product names, categories, and HS codes that have been used to perform the analysis in this section are provided in Appendix II, Table 10.10.

pared with the Indian surgical instruments industry and compared with the Pakistani (and Indian) pharmaceutical and medical equipment industries.

10.4.1 Pakistan-India Trade

Trade between Pakistan and India in surgical instruments, pharmaceutical products, and medical equipment is predominantly interindustry, indicating that simultaneous exchange of similar but differentiated goods is largely absent (Appendix I, Table 10.5). Moreover, both import and export trade intensities (Appendix I, Table 10.7) are far below 100. Although Pakistan's import trade intensity in pharmaceutical product exchange is of a higher magnitude than any of the other statistics provided in Table 10.7, the figure does not go above 5 when the maximum value that the index can take is 100.

The less than 1 % of intra-industry trade in pharmaceuticals is especially surprising when we consider that (1) the two countries engage in 36 (for Pakistan) and 49 (for India) percent of intra-industry trade with the rest of the world and (2) the Pakistan pharmaceutical industry has been growing at a 10 % rate and so could gain from exchange with the Indian pharmaceutical industry, especially given that India has a revealed comparative advantage in pharmaceuticals (Appendix I, Table 10.6). The lack of a streamlined drug certification process between the countries that would make trade of, particularly finished, products easier may be a significant contributing factor in the low intra-industry trade levels.

Import trade intensity in pharmaceuticals is consistently higher than that for any other product (and is higher than export trade intensity), which may be driven by the size of the Indian pharmaceutical industry: India is among the top five manufacturers of bulk drugs in the world.

The low levels of import and export trade intensities as well as intra-industry trade indicate that there is potential to improve bilateral trade between India and Pakistan. This conclusion is supported by the estimates on trade complementarity provided in Table 10.8 in Appendix I. In fact, Table 10.8 reveals that there is high potential to engage in the simultaneous import and export of each of the three commodities.

10.4.2 Drivers of Trade

Having looked at trade in the three sectors in aggregate terms, we will now check to see which product categories are driving trade in their respective sectors. This section not only provides a discussion on existing bilateral trade patterns of specific products (at the 6/8 digit HS code level; see Appendix II Table 10.11), but we also recalculate the trade complementarity index at the disaggregated product code level. While the former gives an indication of bilateral trade intensities, the latter provides

a richer look into the potential for trade expansion with regard to products that have been identified as the primary trade drivers in each of the three broad commodity categories (i.e., surgical instruments, pharmaceutical products, and medical equipment).

For the surgical sector, it seems that the majority of Indian imports from the world and Pakistan are in the category of "instruments and appliances used in medical, surgical, dental or veterinary sciences" (HS code 901890). In terms of products, this category includes anesthesia apparatus, stethoscopes, surgical scissors and knives, sphygmomanometers, infant incubators, and fiber dialyzers. And while the second highest Indian imports from the world are ophthalmic apparatus, that slot for Pakistan goes to dental apparatus. India mainly exports medical, surgical, and veterinary appliances and instruments to the world as well as dextrose and saline infusion-giving sets (HS code 901839).[22] At the same time, India's main imports from the world are also in the same—medical, surgical, and veterinary appliances and instruments, followed by electrodiagnostic apparatus, catheters, and cannulae. Interestingly, India's top exports to Pakistan are catheters and cannulae followed by medical, surgical, and veterinary instruments and appliances. Pakistan's only exports to India are instruments and appliances used in medical, surgical, dental, or veterinary sciences and dental apparatus.

On the other hand, Pakistan imports electrodiagnostic and medical, surgical, and veterinary apparatus and instruments from India, where India is a net importer of electrodiagnostic scanning apparatus. The third highest import of Pakistan from India is catheters and cannulae. Similar trade patterns exist with the rest of the world—with the top three import slots going to surgical, medical, and veterinary appliances and instruments, electrodiagnostic apparatus, catheters, and cannulae, respectively (this category has ten subcategories, of which catheters and cannulae are two). It seems then that what Pakistan imports from the world, it also imports from India.

For the pharmaceutical sector, Pakistan's top three imports from India are (a) antibiotics; (b) blood, antisera, vaccines, toxins, and cultures; and (c) medicaments mixed together for therapeutic use, in dosage (Table 10.2).

A detailed breakup of the drivers within these 4-digit HS classifications indicates that Pakistan's imports of antibiotics consist mostly of gramicidtrycidine, thricin, erythromycin, and chloramphenicol. India imports medicaments mixed together for therapeutic use, both in bulk and in dosage (Table 10.3). In the latter category, at the 6-digit level, India imports items including *Unani*, *Ayurvedic*, and other oriental-type medicines, homeopathic medicines, dextrose and saline infusion solutions (with/without infusion sets), eyedrops, medicinal ointments, medicinal cough syrup, paracetamol, aspirin, and sulfa drugs; medicaments for dosage containing insulin; and medicines for dosage that include ampicillin, amoxicillin, and cloxacillin capsules/syrup. In bulk medicines, India imports only in the subcategory of *Unani*, *Ayurvedic*, and other Asian medicines, as well as homeopathic medicines. While

[22] This category (901839) subsumes ten subcategories including dextrose and saline infusion-giving sets, suction, catheters, cannulae, surgical needles, endotracheal tubes, and medical balloons.

Table 10.2 Trade drivers

Driver	Imports from India	Imports from the world	Exports to India	Exports to the world
Surgical				
1.	Electrodiagnostic apparatus	Instruments and appliances used in medical, surgical, dental, or veterinary sciences	Instruments and appliances used in medical, surgical, dental, or veterinary sciences	Instruments and appliances used in medical, surgical, dental, or veterinary sciences
2.	Instruments and appliances used in medical, surgical, dental, or veterinary sciences[a]	Electrodiagnostic apparatus	Dental apparatus	Dental apparatus
3.	Dextrose and saline infusion-giving sets[b]	Dextrose and saline infusion sets	None	None
Pharmaceutical				
1.	Antibiotics	Medicaments, therapeutic prophylactic use, in dosage	Medicaments, therapeutic prophylactic use, in dosage	Medicaments, therapeutic prophylactic use, in dosage
2.	Blood, antisera, vaccines, toxins, and cultures	Blood, antisera, vaccines, toxins, and cultures	Medicaments mixed together for therapeutic use, in bulk	Medical wadding, gauze, dressings
3.	Medicaments, therapeutic prophylactic use, in dosage	Antibiotics	Antibiotics	Medicaments mixed together for therapeutic use, in bulk
Medical equipment				
1.	Apparatus based on the use of X-rays, under "Other, for medical, surgical, or veterinary uses"	Instruments, apparatus and models, designed for demonstrational purposes	Instruments, apparatus and models, designed for demonstrational purposes	Instruments, apparatus and models, designed for demonstrational purposes
2.	Parts and accessories of apparatus based on the use of X-rays	CT apparatus	Orthopedic or fracture appliances	Artificial teeth and dental fittings under
3.	Apparatus based on the use of alpha, beta, or gamma radiations	Other, based on the use of X-rays	Apparatus based on the use of alpha, beta, or gamma radiations	Medical, dental, surgical furniture

Source: UN Comtrade Database

[a]This category (901890) includes eight subcategories at the 8-digit level: anesthesia apparatus, stethoscopes, surgical scissors, surgical knives, sphygmomanometers, infant incubators, fiber dialyzers, and others

[b]This category (901839) subsumes ten subcategories including dextrose and saline infusion-giving sets, suction, catheters, Foly's, cannulae, surgical needles, endotracheal tubes, and medical balloons

Table 10.3 Drivers – a closer look[a]

	Top three import drivers from India			Treatment								
	(1)	(2)	(3)	Negative list			SAFTA sensitive list			Peak tariff rate (%)		
Surgical	Electrodiagnostic apparatus	Instruments and appliances used in medical, surgical, dental, or veterinary sciences[b]	Dextrose and saline infusion-giving sets	No	Yes	Yes	No	No	No	5	–	–
Medical equipment	Apparatus based on the use of X-rays, under "Other, for medical, surgical, or veterinary uses"	Other, including parts and accessories of apparatus based on the use of X-rays, including radiography or radiotherapy	Apparatus based on the use of alpha, beta, or gamma radiations, including radiography or radiotherapy apparatus	No	No	No	No	No	No	5	5	5

Pharmaceutical

	Disaggregated drivers			Negative list			SAFTA sensitive list			Peak tariff rate (%)		
	(1)	(2)	(3)									
Antibiotics	Cephalexin, gramicidtrycidine, thricin, cephradine oral, cefixime in bulk and other	Erythromycin and its derivatives; salts thereof	Chloramphenicol and its derivatives salts thereof	Yes	Yes	Yes	Yes	No	No	5[c]	–	–
Blood, antisera, vaccines, toxins, and cultures	Vaccines for human medicine, including for tetanus and hepatitis B	Human and animal blood, saxitoxin, and ricin	None	No	Yes	–	No	No	–	5	5[d]	–
Medicaments, therapeutic, in dosage	Eyedrops, cough syrups, paracetamol, sulfa drugs, ointments, aspirin	Antibiotics, with penicillin/ derivatives or streptomycins/ derivatives	None	Yes	Yes	–	Yes	No	–	–	–	–

[a]Numbers based on UN Comtrade database and coded using Pakistan Customs Tariff 2010–2011
[b]In the 901890 category, the restriction is only on surgical knives and surgical scissors at the 8-digit level
[c]Of the six listed subcategories, only two (gramicidtrycidine and thricin) are allowed through at 5 % peak tariff
[d]Human and animal blood are excluded from the negative list

interesting, relatively speaking, these imports are in almost negligible amounts when compared to Pakistan. For instance, Indian imports in the category of medicaments in dosage are only 0.13 % of Pakistan's imports over the period from 2003 to 2011. In terms of exports, Pakistan exports one additional category of medical wadding and dressing (surgical tape in jumbo rolls and acrynol pads) to the world but not to India.

Trade between the two countries in the area of medical equipment is nominal. Pakistan, by and large, imports only apparatus based on the use of X-rays, under "Other, for medical, surgical, or veterinary uses." Between 2003 and 2007, imports of parts and accessories of apparatus based on the use of X-rays were also rising, while imports of apparatus based on the use of alpha, beta, or gamma radiations picked up in 2011. India, on the other hand, imports artificial parts of the body other than artificial joints, artificial teeth, and dental fittings and some parts and accessories of apparatus based on the use of X-rays from Pakistan.

It is interesting to note that the main Indian import drivers in pharmaceuticals, when analyzed at the 8-digit level, are on the negative list that Pakistan maintains for India. From our analysis, the main drivers are antibiotics, medicaments in bulk, medical wadding and dressings, medicaments in dosage, and blood, antisera, vaccines, toxins, and cultures (see Table 10.3 for the last three). Of medicaments in bulk and medical wadding, gauze, and dressings, imports of the latter are completely prohibited as they are on Pakistan's negative list. While India does not have a negative list for Pakistan, India does not import antibiotics or antisera, blood fractions, and modified immunological products from Pakistan.

10.4.2.1 Drivers of Trade: Trade Complementarity Indices

In the aggregate, at the 4-digit level in terms of total trade in the category of medical equipment, India and Pakistan are trading very nominally with the world (about 0.68 and 0.01 %, respectively). This lends to a high trade complementarity index, as both country's shares in world imports and exports are very small and similar. But once we disaggregate to the 6-digit level, we find that the main world trade drivers of India and Pakistan are not similar. For India, for world exports, these are apparatus using X-rays, parts and accessories of apparatus using X-rays, and X-ray tubes. For Indian world imports, these include chromatographs and electrophoresis apparatus, parts and accessories of apparatus using X-rays, and CT apparatus. For Pakistan, the world export drivers are dummies and demonstration models, artificial teeth, and medical, dental, and veterinary furniture. For world imports, the drivers are dummies and demonstration models, CT apparatus, and apparatus based on the use of X-rays. The only common product in the Pakistani and Indian basket of leading tradables is apparatus using X-rays for medical, surgical, or veterinary use. The average TCI between Indian exports and Pakistani imports at the disaggregated level for this category is 0.91, with a downward trend since 2009 (Appendix I, Table 10.9). This indicates that the shares in world trade of Pakistan and India have started to diverge, with Indian exports in this category picking up. For example, Pakistani exports of medical equipment were a paltry 0.81 % of Indian exports in

2011. Of course, this does not mean that trade in medical equipment will not pick up in the future.

The main trade drivers in the category of surgical instruments for India and Pakistan overlap perfectly, except for order of importance. These drivers are surgical, medical, and veterinary appliances and instruments; electrodiagnostic apparatus; and dextrose and saline infusion-giving sets. Upon looking at the share of the identified three drivers (Table 10.2) in the total imports and exports in the overall surgical goods category disaggregated at the 6-digit level, we find that on average that there is higher trade potential for Indian exports in Pakistani markets than vice versa, as the TCI for Indian exports and Pakistani imports was, on average, 0.96, whereas for Pakistani exports and Indian imports, it was 0.87 (see Appendix I, Table 10.9).

For the pharmaceutical sector, two trade complementarity indices were calculated, first at the 4-digit level and then for the overlapping driver (3004:300420 and 300490) at the 6-digit level.[23] In the first index, we identified the leading product categories for both countries. We found that world trade in the pharmaceutical industries of Pakistan and India is dominated by antibiotics; blood, vaccines, toxins, cultures, and antisera; medicaments in bulk; and medicaments in formulation.

The TCI at the 4-digit level with respect to both countries is quite different. While the trade complementarity between Indian exports and Pakistani imports is high, on average at 0.95, for Pakistani exports and Indian imports, it is relatively lower at 0.82 (see Appendix I, Table 10.9). It seems that Pakistan's pharmaceutical industry does not export commodities that India imports from the rest of the world. But when we look at the second TCI at the 6-digit level, for the products that Pakistan exports and India imports from the world—medicaments in formulation—we find that the trade complementarity is extremely high (Appendix I, Table 10.9). In particular, the complementarity index for Indian exports at the 6-digit level suggests that both sides will gain from liberalizing the trade regime, given that at present, Pakistan has placed all the subcategories (at the 8-digit HS level) within this particular trade driver on its negative list.

10.5 Health Services

For our study, we were especially interested in tracing trade in health services between India and Pakistan. Our aim was to identify if the two countries engage in (1) any collaborative research in medicine and/or pharmaceuticals and (2) exchange that involves people mobility, such as student exchange, personnel training programs, or patient treatment efforts.

[23] In this product category [3004], at the 6-digit level, there were two common subcategories: 300490 (*Unani*, *Ayurvedic*, homeopathic, and other oriental medicines, as well as eyedrops, cough syrups, paracetamol, sulfa drugs, medicinal ointments, and aspirin) and 300420 (other antibiotics, containing penicillins or derivatives thereof, with a penicillanic acid structure, or streptomycins or their derivatives).

Before examining the state and the potential for trade in health services between India and Pakistan, it is worth noting Pakistan's position vis-à-vis GATS in health services. In general, Pakistan's key interest in the General Agreement on Trade in Services (GATS) negotiations has been to get access in Mode 4 (i.e., service delivered within the territory of the Member, with supplier present as a "natural person") and attract FDI. With regard to specific commitments in the health sector, Pakistan has made commitments in both hospital services and in medical and dental services. In contrast, India has made specific commitments only with regard to hospital services where it allows market access in Mode 3 with a limitation on foreign equity participation.

Breaking down the four modes with regard to the health sector and examining the performances of both countries in each mode, we find that with reference to cross-border supply (including telemedicine), several private companies in Pakistan provide medical subscription services to large hospitals in the West; however, these companies face little regulation. Moreover, although there is little import of health services, Pakistan has been focusing on attracting cross-border supply primarily through national telemedicine companies. India's offer in this mode for medical and dental services covers only diagnostic and research services and is especially interested in establishing telemedicine with the EU. With regard to Mode 2 (i.e., consumption of health services in other countries by consumers/patients, students/trainees), we find that for Pakistan, there is greater movement of patients and students out of the country than those coming into the country. India has been especially successful in attracting patients and there is no limitation on market access or national treatment. In Mode 3 (i.e., commercial presence of foreign health services providers—hospitals/labs/health insurance companies/medical institutions, etc.), Pakistan has an open investment policy in the hospital sector, but there has been no major FDI in the health sector. Commercial presence in India is allowed through local incorporation with a foreign equity limit of 74 % subject to the introduction of the latest technology. Particularly with regard to hospital services in this mode, there are no limitations on national treatment, such as reservation of public-funded services or differential rates for Indian citizens. Finally, in Mode 4 (i.e., movement of health professionals—doctors/dentists/nurses/paramedics, etc.), many professionally skilled medical personnel including midwives, nurses, physiotherapists, and paramedics have left Pakistan for the Gulf States, while Pakistani doctors continue to migrate en masse to the United States and United Kingdom. At the same time, there is no limitation on market access for charitable purposes in India.[24] Although trade in healthcare enhances the scope of available services and provides opportunities to improve the quality and efficiency of healthcare provision, there are some risks involved with GATS: The public healthcare sector is likely to be hit the hardest, with healthcare professionals leaving public hospitals to take advantage of lucrative jobs in foreign-invested hospitals and institutions abroad. Further, if unregulated, GATS can suppress the growth of domestic providers, while hospitals

[24] Trade in Health Services in Pakistan: A country case study http://www.who.int/trade/en/4.9_Z_Mirza_GATS_and_Pakistan_NOT_presented.pdf

driven by foreign investors are more likely to target lucrative markets and in so doing ignore the needs of rural and remote areas.[25,26]

Turning to the specific case of medical tourism and examining it in the Indian context, it is clear that since India's efforts to promote medical tourism took off in 2002, the country has quickly become an important international center for the healthcare industry. In 2005 alone, 155,000 patients from 55 countries traveled to India to avail of medical treatment in services ranging from cardiology and orthopedics to oncology and fertility (Badwe et al. 2012). India's popularity for health services is largely attributed to the availability of world-class facilities in certain parts of the country at significant cost savings (60–90 % of US cost). At the same time, many foreigners are attracted to traditional medical treatments such as *Ayurvedic* and naturopathy (Badwe et. al. 2012). According to the Federation of Indian Chambers of Commerce and Industry, the healthcare market, which includes health insurance, stands at 5.2 % of GDP.[27]

While India hosts medical tourists from the United Kingdom, the United States, China, Bangladesh, and Pakistan, it also faces intense regional competition from Malaysia, Singapore, and Thailand. Particularly with regard to Pakistan, it is estimated that 15–20 % of medical tourists to India come from Pakistan (International Medical Travel Journal 2014). This movement of patients is driven by individual efforts, with some assistance from the respective governments. Newspapers in both countries regularly report cases of treatment of Pakistani patients in Indian hospitals. One such case involved a heart transplant for a Pakistani man in a Chennai hospital where the donor was incidentally Indian.[28] Similarly, a 3-year-old Pakistani girl who was diagnosed with liver cancer received a liver transplant in New Delhi.[29]

Along with patient and family-driven efforts that have resulted in the treatment of Pakistanis in India, institutions such as the Pak Health Care Center have been facilitating patients by arranging visas and accommodation and scheduling appointments in suitable hospitals.[30] Although the focus of Pak Health Care Center is liver transplants, its establishment in Pakistan is a welcome development as Pakistani patients looking to receive treatment in India usually face difficulties with regard to visas, accommodation, and opening bank accounts, which makes payment easier.

With regard to medical tourism in Pakistan, it is worth noting that there was a surge of patients coming into Pakistan as India worked to reduce illegal (organ) trade. Thus, by 2005, Pakistan became a hub for transplant tourism with almost 1,500 foreigners coming annually to purchase kidneys and receive transplants in

[25] "STOP! Before it GATS too late" http://healthcare.financialexpress.com/200701/market19.shtml

[26] "Domestic Preparedness of India in Trade in Services" www.cuts-citee.org/ppt/STNC-1.pp

[27] "Medical Visas Mark Growth of Indian Medical Tourism" See http://www.who.int/bulletin/volumes/85/3/07-010307/en/

[28] http://tribune.com.pk/story/554523/breaking-boundaries-indian-doctors-donor-save-pakistanimans-life/

[29] http://articles.timesofindia.indiatimes.com/2012-03-18/delhi/31206919_1_liver-transplant-liver-donor-liver-disease

[30] http://www.pakistanlivertransplant.com/about-us

private hospitals.[31] The passage of the Human Organ and Tissue Transplantation Law of 2010 has been done with the aim of reducing illegal organ trade. At the same time, the Transplantation Society of Pakistan has increased its efforts to encourage deceased organ donation within the country. These are both positive and much-needed steps if Pakistan is to promote medical tourism within its borders. The presence of high-quality medical personnel and world-class hospitals in the major cities of the country (which already receive about 50 patients every year from abroad) points toward the untapped potential for medical tourism.[32] With this in mind, medical tourism has been included as a key element of the National Tourism Policy 2010 and a special task force has been set up to promote medical, spiritual, and wellness tourism in the country.[33] With regard to medical tourism, the core areas that have been identified are heart surgery, liposuction, and fertility treatments, where operation costs have been estimated as lower than those in India.[34]

When examining cases of research collaboration, we found that there is no institutional level involvement between the two countries. While doctors and researchers collaborate and attend conferences on both sides of the border, such as the attendance of Indian physicians at the 28th Annual Congress of the Pakistan Society of Gastroenterology & G.I. Endoscopy in February 2012, these are singular occurrences with little state-level involvement. Moreover, where we do see state or institutional engagement surrounding Pakistan-India research in health sciences, it is largely driven by third-party involvement. For example, the South Asian Clinical Toxicology Research Collaboration promotes clinical research within the South Asian region where grants are extended to researchers from India, Pakistan, Sri Lanka, Maldives, Bangladesh, and Nepal and is housed in Sri Lanka.[35] Similarly, a representative of the Pakistan Pharmaceutical Manufacturers Association stated that research collaboration between India and Pakistan in pharmaceutical goods and products is entirely absent. Moreover, unlike medical research where we found instances of collaboration between Pakistani and Indian practitioners, we were unable to trace any such occurrences in the case of pharmaceutical research. This is unsurprising given that the Pakistani pharmaceutical industry does not enjoy the same benefits of engaging in R&D through tax deductions and import duty waivers for capital goods required in the pharmaceutical and biotechnology sectors as the Indian pharmaceutical industry.

Finally, despite the presence of exceptional medical and nursing colleges and training programs on both sides of the border, there is no student exchange or com-

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[31] http://tribune.com.pk/story/514898/newly-passed-transplantation-law-will-curb-illegal-organ-trade-siuts-dr-rizvi/

[32] Untapped market: Can Pakistan become a hub for medical tourism? http://tribune.com.pk/story/365757/untapped-market-can-pakistan-become-a-hub-for-medical-tourism/

[33] Pakistan appoints task force on medical tourism. http://www.eturbonews.com/13941/pakistan-appoints-task-force-medical-tourism

[34] Roundtable at FPCCI on promotion of medical tourism http://www.dailytimes.com.pk/default.asp?page=2013%5C03%5C24%5Cstory_24-3-2013_pg5_11

[35] http://www.sactrc.org/

mon training program in health between India and Pakistan. As mentioned in Sect. 10.1.1, the doctor-to-person ratio in Pakistan stands at 1:1,127 and at 1:1,449 in India (Government of India Social Statistics Division 2011). Given that the WHO recommends one doctor per 1000 population it is vital that India and Pakistan pool their resources in medical training facilities and make optimal use of the resultant synergies to improve the availability of trained personnel for the countries' respective populations (Universal Health Coverage–India 2011).

There is substantial scope for cross-border cooperation in higher education and science and technology especially in the health services and sciences sectors because both India and Pakistan share a similar disease environment and are physically contiguous. Thus, a wider system of student and academic staff exchange and joint seminars, workshops, and conferences would not only be beneficial for the region but the similarity in culture and language should make it fairly straightforward to set up. However, the main barriers to such endeavors include the stringent visa regime that restricts people mobility and can change unpredictably depending on the political climate, the poor transport options, and the lack of regional insurance and payment options. While it is important to facilitate people mobility, one exciting opportunity would be to focus on programs of distance learning and telemedicine between the two countries. Pakistan is already engaged in a tele-rehabilitation program with the United States, and the country used telemedicine software customized for disaster relief immediately after the 2005 earthquake.[36] Further, under the Electronic Government Directorate, three pilot telemedicine projects have been initiated in hospitals in urban Sind and Punjab to enable specialists based in urban hospitals to provide consultation to citizens living in rural/remote areas.[37] The scope of this project could be widened to include more hospitals not only in Pakistan but also in India.

10.6 Conclusion

This study examined Pakistan-India trade in commodities and services within the health sector. We analyzed three commodities: (1) medical equipment, (2) pharmaceutical products, and (3) surgical instruments and found that Pakistan-India trade intensity (as measured in relation to Pakistan's total trade) was extremely low between 2003 and 2011. At the same time, our estimates revealed that there is high potential for trade in all three commodities especially at the intra-industry level. Further, once we identified the drivers of trade in each of the three commodities, it seems that Pakistan is in fact importing from the world commodities that are India's leading exports to the world. This is equally true for Pakistan, at least for the surgical and pharmaceutical sectors. Indeed, gains would be much higher if trade in these sectors was liberalized on the Pakistani side by removing key Indian exports from

[36] http://www.telemedicine.pk/

[37] http://www.telemedicine.pk/moit_telemedicine_project.html

Pakistan's negative list and if Pakistani exports were allowed easier access to the Indian market through business-friendly policies that allowed trade facilitation. Trade between India and Pakistan will continue to suffer while the political situation remains precarious.

This chapter also examined if there is any evidence of trading in health services, particularly, (1) research and collaborative work in medicine and pharmaceuticals, (2) documented movement of medical personnel and patients at the institutional level, and (3) student exchange or training programs. On average, we find that there is evidence of medical tourism especially of Pakistani patients seeking treatment in India, but there are no formal institutional arrangements at the bilateral level mechanisms through which collaborative research work can currently be undertaken. This lack of mobility is largely due to political mistrust between the two countries and will likely improve once the visa regimes are bettered.

Our study suggests that there is tremendous potential to improve trade in the health sector. With regard to the commodities that were examined, the evidence in favor of potential for intra-industry trade suggests that it may be possible to exploit economies of scale at the regional market level and establish a differentiated product system based on a value-added chain. This would involve geographically fragmented production that sees different stages of the value change dispersed across different regions of India and Pakistan according to factor endowments or labor productivity.

Appendix I

Table 10.4 Grubel-Lloyd index: Pakistan-world, India-world

	Pakistan-world trade			India-world trade		
	Med equip	Pharma	Surgical	Med equip	Pharma	Surgical
2003	0.272	0.312	0.635	0.513	0.474	0.546
2004	0.055	0.361	0.612	0.553	0.463	0.508
2005	0.071	0.384	0.810	0.535	0.509	0.450
2006	0.072	0.406	0.907	0.492	0.514	0.473
2007	0.042	0.372	0.728	0.412	0.530	0.461
2008	0.031	0.356	0.688	0.420	0.486	0.458
2009	0.082	0.377	0.761	0.413	0.512	0.516
2010	0.087	0.352	0.796	0.400	0.508	0.527
2011	0.038	0.357	0.696	0.371	0.440	0.588
Average	0.083	0.364	0.737	0.457	0.493	0.503

Source: UN Comtrade; Department of Commerce, India; Federal Bureau of Statistics, Pakistan

Table 10.5 Grubel-Lloyd index: Pakistan-India

	Pakistan-India trade		
	Med equip	Pharma	Surgical
2003	0.351	0.021	0.140
2004	0.046	0.012	0.080
2005	0.061	0.006	0.090
2006	0.039	0.006	0.194
2007	0.046	0.019	0.017
2008	0.025	0.004	0.011
2009	0.014	0.001	0.040
2010	0.050	0.002	0.032
2011	0.038	0.001	0.065
Average	0.074	0.008	0.074

Source: UN Comtrade; Department of Commerce, India; Federal Bureau of Statistics, Pakistan

Table 10.6 Revealed comparative advantage

	Pakistan			India		
	Med equip	Pharma	Surgical	Med equip	Pharma	Surgical
2003	0.092	0.152	2.130	0.362	1.378	0.430
2004	0.020	0.176	2.285	0.389	1.305	0.395
2005	0.029	0.202	2.155	0.408	1.253	0.367
2006	0.036	0.207	1.952	0.372	1.281	0.407
2007	0.032	0.247	2.742	0.311	1.328	0.398
2008	0.022	0.236	2.833	0.295	1.324	0.346
2009	0.040	0.248	2.207	0.206	0.872	0.268
2010	0.038	0.227	2.159	0.279	1.254	0.378
2011	0.018	0.223	2.244	0.217	1.368	0.371
Average	0.036	0.213	2.301	0.316	1.262	0.373

Sources: UN Comtrade; Department of Commerce, India; Federal Bureau of Statistics, Pakistan

Table 10.7 Trade intensity indices

	Import trade intensity			Export trade intensity		
	Med equip	Pharma	Surgical	Med equip	Pharma	Surgical
2003	1.227	4.440	0.101	0.609	0.877	0.225
2004	1.715	4.551	0.146	0.562	0.426	0.521
2005	2.059	4.833	0.156	0.665	0.176	0.659
2006	1.336	4.023	0.290	0.235	0.144	0.721
2007	0.902	4.385	0.054	0.259	0.525	1.126
2008	1.308	5.142	0.035	0.285	0.137	0.962
2009	1.049	3.009	0.096	0.046	0.010	1.003
2010	0.840	4.258	0.104	0.119	0.053	1.499
2011	0.659	3.249	0.283	0.154	0.026	1.853
Average	1.233	4.210	0.140	0.326	0.264	0.952

Source: UN Comtrade; Department of Commerce, India; Federal Bureau of Statistics, Pakistan

Table 10.8 Trade complementarity indices

	India EX and Pakistan IM			Pakistan EX and India IM		
	Med equip	Pharma	Surgical	Med equip	Pharma	Surgical
2003	0.9993	0.9917	0.9986	0.9968	0.9972	0.9966
2004	0.9994	0.9910	0.9989	0.9969	0.9981	0.9962
2005	0.9994	0.9918	0.9981	0.9969	0.9985	0.9967
2006	0.9996	0.9865	0.9999	0.9972	0.9987	0.9973
2007	0.9706	0.9386	0.9795	0.9971	0.9990	0.9955
2008	0.9987	0.9893	0.9991	0.9975	0.9995	0.9948
2009	0.9988	0.9941	0.9987	0.9980	0.9988	0.9946
2010	0.9992	0.9897	0.9988	0.9973	0.9994	0.9958
2011	0.9987	0.9900	0.9990	0.9976	0.9995	0.9957
Average	0.9960	0.9848	0.9967	0.9973	0.9987	0.9959

Source: UN Comtrade; Department of Commerce, India; Federal Bureau of Statistics, Pakistan

Table 10.9 Trade complementarity indices at disaggregated level

	India EX and PAK IM				PAK EX and IND IMP		
	Pharma	Surgical	Med equip	Medicines	Pharma	Surgical	Medicines
2003	0.94333	0.92242	0.947341	0.9721571	0.7364041	0.882234	0.910335
2004	0.93836	0.93232	0.974276	0.9872618	0.7704874	0.877301	0.957302
2005	0.94337	0.95872	0.923639	0.9938828	0.7975183	0.878672	0.941673
2006	0.93789	0.97295	0.921476	0.9564525	0.8558988	0.878548	0.990799
2007	0.95590	0.94899	0.923755	0.9925238	0.8847313	0.860794	0.988299
2008	0.95825	0.98818	0.928584	0.9941277	0.8368142	0.874279	0.889817
2009	0.95984	0.97391	0.925289	0.9971221	0.8279531	0.863103	0.944728
2010	0.95455	0.97404	0.826960	0.9760985	0.8386167	0.863327	0.921697
2011	0.94996	0.98740	0.862028	0.9781858	0.8541475	0.851736	0.986337
Average	0.94905	0.96210	0.914816	0.9837318	0.8225079	0.866883	0.984049

Source: UN Comtrade Database

Appendix II

Table 10.10 HS-4 digit codes with product names

HS codes	Product name	Product category
9018	Surgical instruments	Surgical instruments
2941	Antibiotics	Pharmaceutical
3001	Glands and other organs	Pharmaceutical
2937	Hormones and steroids	Pharmaceutical
3002	Human or animal blood	Pharmaceutical
3003	Medicaments for therapeutic use	Pharmaceutical
3004	Medicaments NES	Pharmaceutical

(continued)

Table 10.10 (continued)

HS codes	Product name	Product category
2936	Provitamins, etc.	Pharmaceutical
3006	Special pharmaceutical goods	Pharmaceutical
9025	Thermometers, etc.	Medical equipment
3005	Wadding, gauze, etc.	Medical equipment
9022	X-ray apparatus, etc.	Medical equipment
9027	Instruments and apparatus for physical	Medical equipment
9023	Instruments, apparatus, and models	Medical equipment
9026	Instruments, etc., for measuring checking flow	Medical equipment
7017	Lab and hygienic or pharmaceutical glassware	Medical equipment
9019	Mechanotherapy massage	Medical equipment
9502	Medical dummies	Medical equipment
9402	Medical furniture, etc.	Medical equipment
9020	Breathing apparatus	Medical equipment
9938	Cardiology/cardiac surgery disposables	Medical equipment
9021	Orthopedic appliances	Medical equipment

Source: UN Comtrade. United Nations Statistical Division. (2013). Data retrieved Jan 18, 2013, from http://comtrade.un.org/

Table 10.11 6-digit and 8-digit HS codes with product names

HS Code	Product name	Product category
294110	Penicillins and their derivatives with a penicillanic acid structure; salts thereof	Pharmaceutical
294120	Streptomycins and their derivatives; salts thereof	Pharmaceutical
294130	Tetracyclines and their derivatives; salts thereof	Pharmaceutical
294140	Chloramphenicol and its derivatives salts thereof	Pharmaceutical
294150	Erythromycin and its derivatives; salts thereof	Pharmaceutical
294190	*At the 8-digit level*	Pharmaceutical
29419010	Cephalexin	Pharmaceutical
29419020	Gramicidtrycidine	Pharmaceutical
29419030	Thricin	Pharmaceutical
29419040	Cephradine oral	Pharmaceutical
29419060	Cefixime in bulk	Pharmaceutical
29419090	Other	Pharmaceutical
300210	Antisera and other blood fractions and modified immunological products, whether or not obtained by means of biotechnological processes	Pharmaceutical
300220	*At the 8-digit level*	Pharmaceutical
30022010	Tetanus toxoid	Pharmaceutical
30022020	For prevention of hepatitis B	Pharmaceutical
30022090	Other	Pharmaceutical
300230	Vaccines for veterinary medicine	Pharmaceutical
300290	*At the 8-digit level*	Pharmaceutical
30029010	Human blood	Pharmaceutical
30029020	Animal blood	Pharmaceutical

(continued)

Table 10.11 (continued)

HS Code	Product name	Product category
30029030	Saxitoxin	Pharmaceutical
30029040	Ricin	Pharmaceutical
30029090	Other	Pharmaceutical
300310	Containing penicillins or derivatives thereof, with a penicillanic acid structure, or streptomycins or their derivatives	Pharmaceutical
300320	Containing other antibiotics	Pharmaceutical
300331	Containing hormones or other products of heading 29.37 but not containing antibiotics: insulin	Pharmaceutical
300339	Containing hormones or other products of heading 29.37 but not containing antibiotics: other	Pharmaceutical
300340	Containing alkaloids or derivatives thereof but not containing hormones or other products of heading 29.37 or antibiotics	Pharmaceutical
300390	*At the 8-digit level*	Pharmaceutical
30039010	Unani, *Ayurvedic*, and other oriental-type medicines	Pharmaceutical
30039020	Homeopathic medicines	Pharmaceutical
30039090	Other	Pharmaceutical
300410	Ampicillin, amoxicillin, and cloxacillin capsules/syrup	Pharmaceutical
300420	Containing other antibiotics	Pharmaceutical
300431	Containing hormones or other products of heading 29.37 but not containing antibiotics: insulin	Pharmaceutical
300432	Containing corticosteroid hormones, their derivatives, or structural analogues	Pharmaceutical
300439	Other	Pharmaceutical
300440	Containing alkaloids or derivatives thereof but not containing hormones, other products of heading 29.37 or antibiotics	Pharmaceutical
300450	Other medicaments containing vitamins or other products of heading 29.36: cod liver oil	Pharmaceutical
300490	*At the 8-digit level*	Pharmaceutical
30049010	Unani, *Ayurvedic*, and other oriental-type medicines	Pharmaceutical
30049020	Homeopathic medicines	Pharmaceutical
30049030	Dextrose and saline infusion solution, with infusion set	Pharmaceutical
30049040	Dextrose and saline infusion solution, without saline infusion set	Pharmaceutical
30049050	Eyedrops	Pharmaceutical
30049060	Ointments, medicinal	Pharmaceutical
30049070	Aspirin, medicinal	Pharmaceutical
30049080	Sulfa drugs	Pharmaceutical
30049091	Cough syrup medicinal	Pharmaceutical
30049092	Paracetamol	Pharmaceutical
30049099	Other	Pharmaceutical
300510	*At the 8-digit level*	Pharmaceutical
30051010	Surgical tape in jumbo rolls	Pharmaceutical
30051090	Other	Pharmaceutical

(continued)

Table 10.11 (continued)

HS Code	Product name	Product category
300590	*At the 8-digit level*	Pharmaceutical
30059010	Acrynol pads	Pharmaceutical
30059090	Other	Pharmaceutical
701720	Beakers	Medical equipment
701790	Other	Medical equipment
901910	Mechanotherapy appliances; massage apparatus; psychological aptitude-testing apparatus	Medical equipment
901920	*At the 8-digit level*	Medical equipment
90192010	Oxygenator with accessories	Medical equipment
90192020	Ozone therapy apparatus	Medical equipment
90192030	Aerosol therapy apparatus	Medical equipment
90192090	Other	Medical equipment
902000	*At the 8-digit level*	Medical equipment
9020010	Gas masks	Medical equipment
9020020	Other breathing appliances	Medical equipment
902110	Orthopedic or fracture appliances	Medical equipment
902121	Artificial teeth	Medical equipment
902129	Other	Medical equipment
902131	Artificial joints	Medical equipment
902139	Other	Medical equipment
902140	Hearing aids	Medical equipment
902150	Pacemakers for stimulating heart muscles, excluding parts and accessories	Medical equipment
902190	Other	Medical equipment
902212	CT apparatus	Medical equipment
902213	Apparatus based on the use of X-rays: dental uses	Medical equipment
902214	Apparatus based on the use of X-rays for other, for medical, surgical, or veterinary uses	Medical equipment
902219	Apparatus based on the use of alpha, beta, or gamma radiations for medical, surgical, or veterinary uses: under "other uses"	Medical equipment
902221	Apparatus based on the use of alpha, beta, or gamma radiations: for medical, surgical, dental, or veterinary uses	Medical equipment
902229	Apparatus based on the use of alpha, beta, or gamma radiations: for other uses	Medical equipment
902230	X-ray tubes	Medical equipment
902290	Apparatus based on the use of alpha, beta, or gamma radiations: parts and accessories	Medical equipment
902300	Instruments, apparatus and models, designed for demonstrational purposes (e.g., in education or exhibitions)	Medical equipment
902511	Thermometers, clinical	Medical equipment
902519	Other	Medical equipment
902720	Chromatographs and electrophoresis instruments	Medical equipment

(continued)

Table 10.11 (continued)

HS Code	Product name	Product category
940210	*At the 8-digit level*	Medical equipment
94021010	Dentists' chairs	Medical equipment
94021090	Other	Medical equipment
940290	*At the 8-digit level*	Medical equipment
94029010	Operating tables	Medical equipment
94029020	Hospital beds with mechanical fittings	Medical equipment
94029090	Other	Medical equipment
901811	Electrocardiographs	Surgical
901812	Ultrasonic scanning	Surgical
901813	MRI	Surgical
901814	Scintigraphic app	Surgical
901819	Electrodiagnostic app	Surgical
901820	UV IR app	Surgical
901831	Syringes	Surgical
	At the 8-digit level	
90183110	With needles	Surgical
90183120	Without needles	Surgical
901832	Metal tubular needles	Surgical
901839	*At the 8-digit level*	Surgical
90183910	Dextrose and saline infusion-giving sets imported along with empty nontoxic bags for infusion solution	Surgical
90183920	Dextrose and saline infusion-giving sets, catheters	Surgical
90183931	Suction	Surgical
90183932	Pulmonary artery	Surgical
90183933	Foly's	Surgical
90183939	Other	Surgical
90183940	Cannula	Surgical
90183950	Surgical needles	Surgical
30183960	Endotracheal tube	Surgical
90183970	Balloons	Surgical
90183990	Other	Surgical
901841	Dental drills	Surgical
901849	Dental apps	Surgical
901850	Ophthalmic apps	Surgical
901890	Instruments/appliances used in medical, surgical, dental, and veterinary sciences	Surgical
	At the 8-digit level	
90189010	Anesthesia apparatus	Surgical
90189020	Stethoscopes	Surgical
90189030	Sphygmomanometer	Surgical
90189060	Infant incubators	Surgical
90189070	Fiber dialyzers	Surgical
90189090	Other	Surgical

Source: Pakistan Customs Tariff 2010–2011; UN Comtrade Database

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Chapter 11
India-Pakistan Energy Cooperation: Rethinking Opportunities and Newer Approaches

Mahendra P. Lama

11.1 Introduction

Energy security has been a critical issue and a dominant driver of regional geopolitics in the India-Pakistan subregion. Energy demand has grown steadily, and protracted deficit could lead to instability and conflict. Per capita energy consumption remains rather low, and the accessibility and quality of energy supplies have emerged as a crucial public interest issue. This chapter primarily focuses on power, specifically the electricity sector, in the broader context of essentialities, possibilities, and trade opportunities for energy sector cooperation between India and Pakistan. Even though India and Pakistan trade in mineral fuels and petroleum products (to the tune of a fairly substantial US$58 million in 2011), the sector is one in which India recorded a trade deficit of US$20 billion in 2011. The trade potential in the sector is much higher, in particular trade in power. However, trade in power is a complicated issue with neither of the two countries, until recently, showing any willingness to reach an amicable solution. Both India and Pakistan face electricity shortages, and therefore, cooperation in the sector could be highly beneficial for the two countries.

11.1.1 Energy Reserves in India and Pakistan

The developing economies of India and Pakistan have largely relied on fossil fuels like coal for their energy needs (Table 11.1), although over time they have shifted to more sustainable sources of energy, namely, hydro energy, biofuels, solar, or nuclear based. Solid fossil fuels like coal dominate energy production in India, while natural

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Table 11.1 Energy reserves in India and Pakistan

India		Pakistan	
Resource	Reserves	Resource	Reserves
Oil	800 million tons at the end of 2012 (0.3 % of world total)		
Natural gas	1.3 trillion cubic meters at the end of 2012 (0.7 % of world total)	Natural gas	0.6 trillion cubic meters at the end of 2012 (0.3 % of world total)
Coal	60,600 million tons at the end of 2012 (7 % of world total)	Coal	2,070 million tons at the end of 2012 (0.2 % of world total)

Source: BP Statistical Review of World Energy (2013)

Table 11.2 Reserves-to-production ratio (R/P)

	Production[a] (2012)		Consumption[a] (2012)		R/P ratio (years)	
Resource	India	Pakistan	India	Pakistan	India	Pakistan
Oil	42 MT	–	171.6 MT	20 MT	17.5	–
Natural gas	40.2 bcm	41.5 bcm	54.6 bcm	41.5 bcm	33.1	15.5
Coal	228.8 MToe	1.2 MToe	298.3 MToe	4.3 MToe	100	>500

Source: BP Statistical Review of World Energy (2013)
[a]Production and consumption for oil measured in million tons (MT); natural gas measured in billion cubic meters (bcm); coal measured in million tons oil equivalent (MToe)

gas is a major energy source in Pakistan, with industry and households being the two prominent categories of consumers in both countries (UNESCAP 2013).

For India, the reserves-to-production ratio[1] in the case of oil is 17.5 years, with a production of 42 million tons (MT) (894 thousand barrels daily) in 2012, even though the refining capacity was far more at 4,099 thousand barrels daily. Consumption far exceeded production, with an estimated consumption of 171.6 MT (3,652 thousand barrels daily). Consumption in Pakistan was recorded to be much lower at 20 MT (402 thousand barrels daily). Due to the discrepancy in the production and consumption pattern of oil, India has been a major importer of crude oil (Table 11.2).

The reserves-to-production ratio of natural gas is 33.1 years for India, with a production of 40.2 billion cubic meters (bcm) and consumption of 54.6 bcm in 2012. For Pakistan, the reserves-to-production ratio of natural gas is 15.5 years, with a production as well as consumption of 41.5 bcm in 2012. With India facing a major shortage in natural gas, it received imports in the form of liquefied natural gas (20.5 bcm) from various countries in the Middle East and Africa, such as Qatar (16.1 bcm), Nigeria (2.1 bcm), Egypt (0.8 bcm), and Algeria and Yemen (0.6 bcm each).

[1] Reserves-to-production (R/P) ratio: If the reserves remaining at the end of the year are divided by the production in that year, the result is the length of time that the remaining reserves would last if production were to continue at that rate.

Table 11.3 Total energy requirement and dependence on traditional fuels (1,000 TJ)

	Traditional fuels (2009) (A)	Total energy requirement (2009) (B)	Share of traditional fuels in total energy requirement (%) (A/B %)
India	7,360	29,647	25
Pakistan	1,051	3,526	30

Source: UNSD (2012), UNESCAP (2013)

In the case of coal, India, with over 60.6 billion tons of reserves, accounts for the largest share of coal reserves in the subregion and the fifth largest in the world (UNESCAP 2013). For India the reserves-to-production ratio is 100 years, while for Pakistan, the reserves would last for more than 500 years at the existing rate of production. In 2012, coal production in India was 228.8 million tons oil equivalent (MToe) and consumption was 298.3 MToe. During the same year, coal production in Pakistan was 1.2 MToe and consumption was 4.3 MToe.

The increasing demand for energy, coupled with a lack of domestic reserves, has led India to rely on imports to meet its demand for conventional fuels like crude oil and coal, which are sourced from West Asia and Indonesia, Australia, and South Africa, respectively. Although India is a net importer when it comes to trade in energy sources, an increase in refining capacity has made India a net exporter of refined petroleum products. On the other hand, Pakistan is an importer of refined petroleum products, sourced largely from West Asia (UNESCAP 2013).

Unlike other countries of South Asia where traditional sources of energy, namely, firewood, animal dung, and crop residues, are still the only or major energy sources to the larger populace, the share of conventional sources has steadily gone down in both India and Pakistan. Today, both these countries depend on commercial energy for over 60 % of their energy. On the one hand, this indicates a cushion provided to environmental conservation and more efficient use of energy resources, and on the other, it poses a significant challenge to these countries in terms of the management and sustainability of these sources.

Looking at the low share of traditional fuels in total energy requirements in India and Pakistan (Table 11.3), the countries have relied either on trade or other sustainable sources of energy to meet their power demands. Under the Jawaharlal Nehru National Solar Mission (JNNSM, launched in January 2010), India has set a target of generating 20,000 MW of grid-connected solar energy by the year 2022. Additionally, according to a report by the Ministry of New and Renewable Energy (2011, p. 10), India has the potential to generate 20–30 MW/sq.km of solar power using photovoltaic and solar thermal energy. In Pakistan too, the Pakistan Council of Renewable Energy Technologies (PCRET) is undertaking R&D on solar thermal devices, with the country having the potential to generate 29 TW of solar energy (WEC 2010).

Apart from solar energy, India and Pakistan have a large estimated renewable energy potential from onshore winds, hydro plants, and biomass. For instance, with respect to hydroelectricity, India's consumption stood at 26.2 MToe (3.1 % of world total) and Pakistan's at 6.4 MToe (0.8 % of world total) in 2012. In the absence of

dependable reserves of conventional energy sources, India and Pakistan are now relying on alternative sources of energy, including nuclear power (Dalton 2011). Although there is no proven data on reserves of nuclear energy in either of the countries, the consumption levels stand at 7.5 MToe (1.3 % of world total) for India and 1.3 MToe (0.2 % of world total) for Pakistan in 2012 (BP Statistical Review of World Energy 2013).

Despite their high dependence on imported fossil fuels, per capita commercial energy consumption in both countries continues to be quite low, pointing to the need for stepping up their energy infrastructure and production. The poor quality of energy infrastructure has been a major obstacle to the economic development of both countries (World Bank 1994). Equally critical has been the skewed distribution of available energy both within a country and across the region. In India, regional distribution of natural reserves is uneven, leading to a divorce between supply zones and demand centers in the country.

11.1.2 Power Generation in India and Pakistan

Electricity can transform the quality of life and work substantially. It improves health standards and assists in education and in motivating people. In rural areas, it helps to mitigate rural-urban migration and enhances opportunities for income and employment generation (Leach 1987; Munasinghe 1996, pp. 6–7).[2] However, the questions of accessibility and affordability are critical in rural areas, with a significant segment of society still not having access to modern sources of energy.

The current status of power generation in Pakistan is extremely poor with the country being able to meet only 65 % of the electricity requirement from its installed infrastructure (against a standard of 80 %), because of obsolescence and poor maintenance (Express Tribune 2013). As far as import of electricity is concerned, Pakistan can source electricity from its neighboring countries—Iran, India, and others in Central Asia (Raza 2012). In recent years, various steps have been taken to increase energy collaboration between India and Pakistan.

There has been a remarkable increase in the demand for power in both countries because of the changing needs of consumers, rural electrification projects, and emphasis on power-driven industrialization, particularly in the aftermath of the liberalized economic regimes. The sector-wise consumption patterns in India and Pakistan are given in Tables 11.4 and 11.5. In both countries, domestic consumption has increased significantly, while it has declined in the industrial sector.

Although 55,000 MW of new generating capacity was created during the 11th Plan in India, there continues to be an overall energy deficit of 8.7 % and a peak

[2] Electricity in rural areas can help increase the working hours in the evening, giving time and space for holding adult and other literary classes. Television and radio sets can help in dissemination of useful information to the rural community. Fridges that become possible with electricity can store vaccines, which can improve the health conditions of the community.

Table 11.4 India: electricity consumption by economic group (percentage share)

Year	Domestic	Commercial	Industry	Traction	Agriculture	Other
1950–1951	12.6	7.5	62.6	7.4	3.9	4.0
1960–1961	10.7	6.1	69.4	3.3	6.0	4.5
1970–1971	8.8	5.9	67.6	3.2	10.2	4.3
1980–1981	11.2	5.7	58.4	2.7	17.6	4.4
1990–1991	16.0	5.9	44.2	2.2	26.4	4.5
2000–2001	23.9	6.1	34.0	2.6	26.8	5.6
2010–2011	25.2	10.4	36.5	2.2	20.5	5.4

Source: Government of India, Economic Survey 2002–2003 (p. S-27) and 2012–13 (p. A 27), Ministry of Finance, New Delhi

Table 11.5 Pakistan: electricity consumption by economic group (percentage share)

Year	Domestic	Commercial	Industry	Agriculture	Bulk supply and public lighting	Traction
1992–1993	35.9	4.2	34.9	17.9	7.1	0.1
1997–1998	41.5	4.5	26	17.5	10.5	0.04
2002–2003	44	5.3	28.8	12.7	9.2	0.02
2010–2011	41.3	6.2	23.6	11.8	9.7	0.00

Source: Pakistan Economic Survey (various years)

shortage of 9.0 % (Economic Survey 2012–13, p. 232). The inability to cater to increasing industrial and other commercial needs has adversely affected their productive activities, social development, and investment climate. This is exacerbated by structural, institutional, and financial problems. It is estimated that every unit of electricity cut results in an economic loss of five to ten times the cost of electrical energy generated due to wastage of manpower, material, and equipment as well as loss of production hours (Pereira 1996, p. 7). Khatib and Munasinghe (1992) estimated the cost of power shortages to the industrial sector in India and Pakistan at 1.5 and 1.8 % of GDP, respectively. In Pakistan alone, the estimated cost of power crises to the economy is approximately PKR 380 billion per year, i.e., around 2 % of the GDP (Economic Survey of Pakistan 2012–2013, p. 195). Moreover, the financial crunch in the power sector has resulted in underutilization of installed capacity of up to 4,000 MW (ibid.). These deficits can be met through regional cooperation and a conscious policy of investments in the power sector.

11.2 Energy Sector Reforms

Massive reforms in electricity, gas, petroleum, and coal sectors have taken place in the past two decades. The question has been that of deepening, sustaining, and providing the benefits of these reforms to all socioeconomic categories and geographical locations. Both India and Pakistan have undertaken a series of reforms in

Table 11.6 Transmission and distribution losses

Countries	T & D losses (%) (2003)	T & D losses (%) (2011)
India	30.9	22.8
Pakistan	23.6	20.8

Source: Economic Surveys of India and Pakistan

the power sector in a phased manner for more than two decades to introduce more competition and improve the overall efficiency of the sector.

For decades together, power generation, transmission, and distribution remained an exclusive state monopoly.[3] The lack of accountability in terms of operational performance, service standards, and codes in public sector entities made most power generating units highly dependent on subsidies by the government. Power distribution units lacked commercial independence and suffered from an unclear definition of their corporate structures and responsibilities. Tariff rates were kept low in relation to the financial requirements of the operating entities. The high system losses[4] and low collection from consumers made these entities both defaulters and sick (Table 11.6). Owing to high debt service and operation and maintenance (O&M) expenses, the revenue flows could cover only a small share of investment costs. This adversely affected investments in new capacity addition.[5]

Electricity reforms in India began with the liberalization, privatization, and globalization phase that was set in motion in 1991. The focus rested on bringing in private investment and promoting independent power producers (IPPs), following the government's decision to open up the power sector by amending the Electricity Supply Act (1948). However, not many projects have come up in the private sector.

India's power sector reforms have been at both the central and state levels. Besides setting up regulatory commissions at the levels of both the center and the states, the Electricity Act (2003) introduced comprehensive policy changes and ushered in an era of the multi buyer-seller model. One crucial provision of this Act was that all distribution, trading, and generating companies will have nondiscriminatory

[3] Respective state and federal governments have owned, operated, and regulated the power entities.

[4] A high proportion of losses at the transmission and distribution (T&D) level include nontechnical losses like theft, pilferage, and improper billing. System losses are both nontechnical (pilferage, faulty metering, and billing) and technical (low plant load factor and other operational and technical inefficiencies). T&D losses could be attributed to substantial energy sold at lower voltage, sparsely distributed loads over large rural areas, inadequate investment in the distribution system, improper billing, and high pilferage. Indiscriminate grid extension despite low load densities (as measured by demand in MW divided by the length of the T&D system) has resulted in inefficiencies.

[5] For instance, the financial health of State Electricity Boards (SEBs), the most vital buyers of power in India, has been deteriorating over the years. In 1999–2000, of the 30-plus SEBs, only 7 had a positive rate of return (Economic Survey of India 2001–2002).

open access to the interstate and intrastate electricity transmission system on payment of specified transmission charges. This open access was expected to facilitate competition in the industry, creating conditions for the development of a market in power. Moreover, the Act provided incentives to improve efficiency by moving away from the cost-plus regulatory regime to a new regime of lighter regulation. This changeover from intrusive regulation, involving detailed scrutiny of various actual costs, to light-handed regulation based on normative parameters of the performance of all the interstate generating and transmission utilities allowed entrepreneurs more flexibility and incentives to achieve higher efficiency levels (Box 11.1) (Hindustan Times 2004).

The Integrated Energy Policy (2006) recognized that energy security can be increased not only by diversifying sources of import of a particular fuel but also by diversifying the energy mix by using different types of fuel. It also noted that import of hydropower through Bhutan and Nepal could enhance India's energy security. The first national-level power exchange, Indian Energy Exchange (IEX), commenced operations in June 2008. It attracted more than 200 participants including 25 states, 4 union territories, captive power plants, and direct consumers and has facilitated electricity trade of more than 6.7 billion units, worth INR 45 billion.

Box 11.1: India: Restructuring and Policy Reforms

Policy Interventions

- Private sector participation through induction of private investment into power generation (first phase of reforms beginning in 1991 (India Energy Portal: http://www.indiaenergyportal.org/subthemes_link.php?themeid=19&text=power))
- Segregation of the regulatory functions from the government and vesting them in independent regulatory commissions at the center and state levels—Common Minimum Action Plan for Power (CMNAPP), December 1996
- Unbundling various activities from a vertically integrated unit into distinct and separate units based on functions
- Corporatization of various units, namely, vesting the units in a company incorporated under the Companies Act, 1956
- Tariff reforms included under electricity regulatory commissions (ERC)
- ERCs (following the Electricity Regulatory Commissions (ERC) Act, 1998) both at the center (CERC) and the states (SERC), for rationalizing tariff and other allied matters
- Electricity Act 2003

Main Provisions of the Electricity Act 2003

- To usher in the multi buyer-seller model.
- A thrust to complete rural electrification and providing for management of rural distribution by *panchayats*, cooperative societies, nongovernment organizations, franchisees, etc.
- Generation to be de-licensed and captive generation to be freely permitted. Hydro projects would, however, need approval of the state governments and clearance from the Central Electricity Authority.
- Transmission utility at the central as well as state level, to be a government company with responsibility for planned and coordinated development of the transmission network.
- Provision for private transmission licensees.
- Open access in transmission from the outset with provision for surcharge to take care of existing levels of cross-subsidization, with the surcharge being gradually phased out.
- Distribution licensees would be free to undertake generation; and generating companies would be free to take up distribution licenses.
- The State Electricity Regulatory Commission (SERC) is mandatory.
- Provision for license-free generation and distribution in rural areas.
- Regulatory Commission being authorized to fix ceilings on trading margins, if necessary.
- Metering of all electricity supplied made mandatory.
- Provisions relating to theft of electricity made more stringent.

Power sector reforms in Pakistan started much earlier than in India in the 1980s. They have focused on all critical aspects, including supply and demand management and institutional reforms. Until the early 1980s, the major focus of power sector reforms was to expand generation capacity and improve the technical, administrative, and economic efficiency of the existing power system. However, when load shedding emerged as the major constraint to growth in 1983–1984, Pakistan invited the private sector into power generation and announced generous incentives for private investors in the form of tax holidays, free import of electrical plants and machinery, etc. Besides, a minimum load factor was also ensured. These incentives attracted interest from the private sector in power generation, and the first big oil-fired power station of 1,292 MW was approved for construction at Hub, Pakistan.

The "Policy Framework and Package of Incentives for Private Sector Power Generation Projects in Pakistan" (1994) has features such as internationally competitive rates for purchase of electricity (where 60 % capacity payment at the load factor is ensured), reduction in local currency investment requirements, and simplification of procedures. It extended incentives to the private sector involving incorporation of fuel price as a pass-through item, tax cuts, import subsidies, and

foreign exchange risk insurance, while establishing a one-window Private Power Cell (PPC) and Private Sector Energy Development Fund (PSEDF) with financial assistance from the World Bank. A regulatory body—the National Electric Power Regulatory Authority (NEPRA)—was introduced to act as the regulator of generation, transmission, and distribution of electricity. Responding to the incentives, there was a surge in both domestic and foreign investment in the power sector. However, in the following years, the majority of the private sector power projects were engulfed in controversy generated by allegations of corruption and kickbacks (Boxes 11.2 and 11.3).

Both power utilities of Pakistan—the Water and Power Development Authority (WAPDA) and the Karachi Electric Supply Company (KESC)—have been suffering financial losses. To address structural inefficiencies in WAPDA, the government launched a medium-term reform program that included breaking up the power wing into twelve[6] autonomous entities for power generation, transmission, and distribution. Pakistan Electric Power Company (PEPCO) has been established to assist the new companies to autonomously carry out the business activities of the former power wing of WAPDA with independent management.[7]

Box 11.2: Pakistan: Restructuring and Policy Reforms

Policy Interventions

- Power Sector Strategic Plan—1992.
- Private Power Policy Framework—1994.
- Hydel Power Policy Framework—1995.
- Policy for New Private Independent Power Projects—1998.
- Policy for Power Generation Projects—2002.
- National Electric Power Regulatory Authority (NEPRA)—1997.
- Restructuring of two vertically integrated public utilities, i.e., the Power Wing of WAPDA and the Karachi Electric Supply Company (KESC)—1998.
- WAPDA prepared a Hydropower Development Plan (Vision 2025).

[6]The 12 companies include 8 distribution companies (DISCOs), 3 generation companies (GENCOs), and the national transmission company.

[7]The government is currently striving to improve the financial health of WAPDA through a series of measures including streamlining of bill collection, reduction in power theft, and rationalization of power tariffs.

Box 11.3: Pakistan: Principal Components of Reform Strategy

Declaration of electricity production as an industry in the early 1990s

- NEPRA (1997).
  - Grant of license for generation, transmission, and distribution of electricity.
  - Prescribing procedures and standards for investment, performance standards, uniform industry standards, and code of conduct.
  - Determine tariff, rates, charges, and other terms and conditions for supply of electricity by generation, transmission, and distribution companies.
- Power wing of WAPDA restructured in 1998 under Pakistan Electric Power Company Ltd. (PEPCO).
  - Twelve independent power generation, transmission, and distribution companies.
  - Three thermal generation companies—GENCOs, one National Transmission and Dispatch Company (NTDC), and eight distribution companies (DISCOs).
- Policy Framework and Package of Incentives for Private Sector Power Generation Projects in Pakistan (1994).
  - Incentives include incorporation of fuel price as a pass-through item, tax cuts, import subsidies, and foreign exchange risk insurance.
  - One-window Private Power Cell (PPC) established.
  - Private Sector Energy Development Fund (PSDEF) created with financial assistance from the World Bank.
- Private Power and Infrastructure Board (PPIB) to provide a one-window facility for investors.
- Privatization Commission is processing the sale of Karachi Electric Supply Company (KESC) and the privatization of WAPDA GENCO-1 (Jamshoro Power Company).
- WAPDA's Hydropower Development Plan (Vision 2025).
  - Hydel projects by private sector will be implemented on build-own-operate-transfer (BOOT) basis.
  - Thermal projects either on BOOT or build-own-operate (BOO) basis.
  - The government will guarantee the terms and conditions of executed agreements, i.e., the implementation agreement.
  - Power purchase agreement (PPA), fuel supply water use license, including payment terms, will be maintained during the term of the agreement for projects above 50 MW.

WAPDA has prepared the Hydropower Development Plan (Vision 2025) that suggests a consolidated list of potential projects to be implemented in the short, medium, and long term. Hydro projects in the private sector will be implemented on a build-own-operate-transfer (BOOT) basis. Thermal projects in the private sector, however, will be established either on BOOT or build-own-operate (BOO) basis.

Despite all these reforms, power utilities suffer from the same problems of inefficiency, higher line losses, and financial bankruptcy in both countries. Reliability and accessibility continue to pose serious problems. Scheduled power cuts, unscheduled outages, and incorrect voltages are common in most states, leading to enormous disruption in all aspects of economic life. The basic problem faced by the sector is the gap between user charges and the cost of supply.

However, the impact of reforms can be seen very distinctly in some major operational areas in India. For instance, the plant load factor (PLF) of the overall system, an important measure of the operational efficiency of thermal power plants, has improved significantly from 64.7 % in 1997 to 1998 to 73.32 % in 2011–2012, implying a secular improvement in efficiency in generation.

11.3 Expanding Infrastructure for Energy Exchange

A huge and significant infrastructure has been developed in the energy sector in both India and Pakistan. For instance, the expansive laying of transmission systems in India has led to interstate and interregional[8] exchanges. The present interregional transmission capacity is 38,650 MW, which is expected to increase to 75,000 MW by the year 2017. The transmission infrastructure includes 220 kV transmission lines (150,000 km), 400 kV transmission lines (125,000 km), HVDC 800/600 kV lines (3,600 km), and HVDC 500 kV lines (7,400 km). On the other hand, in Pakistan the length of transmission lines is 7,367 km for 220 kV and 23,995 km for 132 kV, as of June 2010.

Intra-country power exchange gives a broad indication about the nature of power trading within a country and various regions of a country, geographical locations of load centers within a country, existing institutional mechanisms in power transfer and sales, trading mechanisms including tariff fixation, and potential regions of both power generation and market.

There are both one-way power transfers and two-way exchanges of power in India between its different states and regions. Besides a major shift in the planning of the transmission system, there has now been a conscious attempt to integrate regional grids for bulk interregional power transfers. This will cater to the increased variations in planned and actual load growth in different parts of the country. Transmission highways of high capacity are also to be built across the country to

[8] One may divide India into 5 regions: north, south, east, west, and northeast. See Table 11.10 in the Appendix for state- and region-wise division.

facilitate large-scale trading of power anticipated in the future. Scheduled interstate exchanges within the same region take place in a limited quantity. The facilitative framework created through the Central Electricity Regulatory Commission (CERC) (Open Access in Inter-State Transmission) Regulations 2008 has provided regulatory certainty for sellers and buyers through improved market access and security of payment against default by buyers. Unscheduled interstate exchanges take place due to diversity in demand and overdrawals by states (Economic Survey of India 2012–2013, p. 236).

In India, trade in electricity is enabled through electricity traders and power exchanges. Short-term markets also provide generators an alternative to sell power other than through long-term power purchase agreements (PPAs). CERC has granted 61 interstate trading licenses, 45 of which were in existence as of November 30, 2012. There is a cap on trading margins to be charged by traders under the regulations. For short-term contracts, with the per unit price of electricity being less than INR 3, the trading margin is 4 paise per unit; and for per unit price of electricity higher than INR 3, the trading margin is capped at 7 paise per unit.

Some examples of interstate exchanges include transmission of electricity from Himachal Pradesh to Delhi during the summer months (100–200 MW); Punjab to Rajasthan, Tamil Nadu, Andhra Pradesh, etc. during the winter months (100–150 MW); Maharashtra to Karnataka during winter (100–150 MW); and Orissa to Andhra Pradesh round the year (150 MW). The existing interregional transmission capacity of 27,750 MW connects the northern, western, eastern, and northeastern regions in a synchronous mode operating at the same frequency and the southern region asynchronously operating in the same mode.

There are a number of new interregional interconnections, including Sasaram HVDC back-to-back system (500 MW), Bihar Sharif-Sasaram-Allahabad 400 kV D/C, and Rourkela-Raipur 400 kV D/C, which have been commissioned. This facilitates bulk interregional power transfers.

In Pakistan, internal power exchange is between the Karachi Electric Supply Corporation (KESC) and the Water and Power Development Authority (WAPDA). Currently, the share of WAPDA in the total electricity generation is 48.7 %. WAPDA meets the KESC's supply shortfall if excess supply is available.

11.4 Energy Supply: Composition and Determinants

In India, the suppliers of bulk power are central generating stations, independent power producers (IPPs)/mega power projects, state transmission utilities in surplus areas, and power trading corporations (PTC). All IPPs have long-term contracts assuring recovery of fixed cost and return on equity at a plant load factor (PLF) of 68.5 %. Some IPPs have even guaranteed offtake of power. In Pakistan, the need for rapid development in the power sector, especially under the privatization drive, has led to the emergence of a chain of thermal power projects. The reliance on thermal power has not only contributed to an increased dependence on imported fuel but

Table 11.7 Power generation in India and Pakistan

	Hydro	Share (%)	Thermal	Share (%)	Total power generated
India (power generation in billion KWh)					
2011–2012	100.178	17.25	454.404	78.26	580.664
2012–2013	92.543	13.53	561.879	82.18	683.753
Growth %	−7.62		23.65		17.75
Pakistan (power generation in Gwh)					
2011–2012	22,411	32.98	45,534	67.02	67,945
2012–2013	22,273	33.67	43,874	66.33	66,147
Growth %	−0.62		−3.65		−2.65

Source: Economic Survey of India (2012–2013); Economic Survey of Pakistan (2012–2013)

also led to higher tariffs, placing a significant financial burden on the largely state-owned power utilities.

In Pakistan, the three electricity generation companies incorporated out of thermal power plants of the WAPDA system are (1) Jamshoro Power Company comprising the 850 MW thermal power station, Jamshoro (Sindh), and the 174 MW gas turbine power station, Kotri (Sindh); (2) Central Power Generating Company comprising the 1,655 MW Guddu thermal power station (located in Sindh Province); and (3) the Northern Power Generation Company, comprising the 1,350 MW thermal power station, Muzaffargarh, the 130 MW natural gas power station, Multan, 244 MW gas turbine power station, Faisalabad, and 132 MW steam (gas-based[9]) power station, Faisalabad.

There are revealing variations in the power generation of utilities in India and Pakistan. These variations also reflect potential based on their natural endowments. Thermal power has gradually dominated the total power generation in India (82 %) and Pakistan (66 %). A relatively small proportion of hydro energy has been exploited, with the share of hydro sources in total electricity generation having declined in 2012–2013 compared to that in 2011–2012 in both countries (Table 11.7).

In India, almost 45 % of the total installed hydropower capacity is located in South India. This is followed by 34 % in North India, 11.5 % in West India, and 9.4 % in East India. It should be noted that the eastern region, which despite having proven hydropower potential, continues to be a laggard on this front. Even mountainous states having large hydropower potential like Jammu and Kashmir and Himachal Pradesh lag behind. They together contribute a meager 2.4 % of the total installed hydro capacity.

In Pakistan, of the total 40,000 MW of identified hydro energy potential, only 6,481 MW has been harnessed so far. WAPDA has started active work on six different hydro projects, namely, Khan Khawar, Golan Gol, Allai Khawar, Duber Khawar, Pehur Canal, and Satpara. Private sector participation in the development and construction of hydropower plants has been encouraged.

[9] http://globalenergyobservatory.org/geoid/3143

Table 11.8 All-India projected demand

	Energy requirement (Mkwh)			Peak load MW		
Region	2006–2007	2011–2012	2016–2017	2006–2007	2011–2012	2016–2017
Northern region	220,820	308,528	429,480	35,540	49,674	69,178
Western region	224,927	299,075	395,859	35,223	46,825	61,966
Southern region	194,102	262,718	354,599	31,017	42,061	56,883
Eastern region	69,467	90,396	117,248	11,990	15,664	20,416
Northeastern region	9,501	14,061	20,756	1,875	2,789	4,134
All India	719,097	975,222	1,318,644	115,705	157,107	212,725

Source: 16th Electric Power Survey, Central Electricity Authority, New Delhi

11.5 Demand-Supply Gap Projections

Both India and Pakistan have calculated load forecasts for the next 15–20 years. Load forecast, which projects the demand for electricity, assesses the likely demand for electricity over a period of 5, 10, and even up to 25 years. This facilitates ascertaining the capacity and energy requirements of the country.[10] In most cases, the basis of forecast is a detailed review of the past level of electrical consumption supplemented by overall development policies.

In India, the demand for electric power has been increasing more rapidly than additions in capacity. In the 1990s, growth rate of electricity consumption was consistently over 8 %. Consequently, the country had to face both energy and power shortages. There is a range of projections based on different sets of assumptions in each model. The projections in demand according to the 16th Electric Power Survey (EPS) of the government are provided in Table 11.8.

In India, the northern and the southern regions have faced the maximum demand-supply gaps. All the regional grids face a perennial energy shortage, except for the eastern region. In order to meet power and energy demand, the anticipated requirement is of the order of 10,000–15,000 MW capacity addition every year during the next 10 years. This addition would be possible only if independent power producers (IPPs) and mega power developers participate in the power sector development. Besides, optimal utilization of existing generation and transmission capacity is essential through conscious planning and promotion of interstate energy exchanges from surplus to deficit systems. The Central Electricity Authority (CEA) has made power demand projections up to 2016–2017 (Appendix Table 11.10). Of the total projected peak demand of 212,725 MW in 2016–2017, over 32 % is likely to come from northern India, followed by 29 % from the southern region, 26 % from the western region, and 9 % from the eastern region.

[10] Load forecast helps determine the direction and extent of investments required in the power sector. It is prepared taking into account the nation's expected economic growth rate, per capita GDP, population projections, consumer affordability (income and price elasticity), industrial growth rate, and historical trends. Load forecast is also essential to formulate financial policies, tariff rate studies, and future fuel requirements.

Table 11.9 Projected demand for power in Pakistan

Demand projections			
	Year	Normal case (MW)	High demand scenario (MW)
11th Plan	2008–2009	25,117	27,751
	2009–2010	27,789	30,985
	2010–2011	30,747	34,600
	2011–2012	33,488	38,030
	2012–2013	36,474	41,803
Growth rate (GR) 11th Plan (average %)		9.78 %	10.79 %
12th Plan	2013–2014	39,730	45,953
	2014–2015	43,279	50,518
	2015–2016	47,147	55,540
	2016–2017	51,363	61,046
	2017–2018	55,959	67,141
GR 12th Plan (average %)		8.94 %	9.94 %

Source: Working Group for Energy Sector, Pakistan

In Pakistan, the Working Group for Energy Sector under their Planning Commission developed two power demand scenarios based on GDP growth projections (Table 11.9)—one based on the assumption of normal growth in consumption and the other on the assumption of higher than normative growth in demand. On the other hand, WAPDA provided load forecasts based on GDP growth rates of 5, 6, and 7 %. WAPDA also prepared an energy generation forecast for higher growth scenarios for the years 1997–1998 to 2017–2018.

A comparison of projections developed by these institutions shows that the actual demand growth has been more subdued than even the most pessimistic scenarios of the Working Group and WAPDA. The actual demand will depend on how well or badly Pakistan performs in terms of overall economic growth in the interim period and how much of the gross national investment is directed toward the power sector.

To overcome the impending power deficit, the government of Pakistan has announced a power policy whose thrust is to encourage private investment in their power sector to increase the installed capacity from 13,188 MW in 2002 to 48,284 MW in 2025.

11.6 Opportunities and Advantages of Cross-Border Energy Exchange

Besides the challenging backdrop, there are four interesting developments that push the countries in the subcontinent toward energy cooperation. There is an array of possibilities that have emerged in energy sector cooperation, which vary from an

exclusive bilateral energy exchange to the sharing of pipelines and grids with other regional and extra-regional partners, and from working within the SAARC region toward a regional power pool, bringing countries in central Asia and neighboring countries like China and Myanmar into the fold of energy exchanges. The rich concentration of energy resources in this subregion could in fact be a major instrument of development. No single country in South Asia can tackle energy security on its own. Hence, cooperation on either a cross-border basis or through an interregional framework can be the only way forward for a durable solution to the issue of energy insecurity:

1. The advantages of cross-border energy exchange are very well established, as can be seen in many other regional groupings like that of the Nord Pool in northern Europe encompassing Norway, Sweden, Finland, and Denmark and the South African Power Pool (SAPP) including South Africa, Lesotho, Mozambique, Namibia, Malawi, Zimbabwe, and Zambia. Cross-border energy trade could lead to effective utilization of natural resources, increase in supply reliability, savings in capital and operating costs, optimal use of available generating capacity, and mutual support during contingencies, while helping address the issue of seasonality both in terms of generation and daily usability. It could also bring about large-scale transformation in sectors contributing to economic growth and provide operational feasibility to power plants, which may not be viable on a national level but feasible in the regional context (i.e., large-scale hydro and coal power plants). In the context of India and Pakistan, power exchange can act as the single most effective confidence building measure through the participation of multiple stakeholders and market integration in energy-related goods and services.
2. There is increasing realization among the leaders of South Asian countries of the need to expedite the process of energy exchange, as indicated by declarations in various SAARC Summits. It started with the Islamabad Declaration of 2004, where the concept of an "Energy Ring" was discussed. The Male Summit of 2011 directed the conclusion of the "Inter-governmental Framework Agreement for Energy Cooperation" and the "Study on the Regional Power Exchange Concept," as also the work related to "SAARC Market for Electricity."
3. Various sensitization exercises and preparation for energy cooperation have been undertaken in the past decades that have started bearing fruit now. This includes cooperation among technical and professional public sector organizations including Petrobangla, Power Grid and Power Trading Corporations of India, and the Electricity Authorities of Nepal, Sri Lanka, and Pakistan. At the same time, international agencies like the World Bank, ESCAP, Asian Development Bank, USAID (SARI-E initiatives), and UNDP have also been fairly active. Several training programs and capacity building projects have been conducted for both governmental institutions and private agencies in different SAARC countries, including those by USAID's SARI-E project. Independent power producers (IPPs) have started actively exchanging notes on cooperation across the border.

4. A large number of studies have been conducted on the topic of energy/power trade. Policy suggestions by several academic and professional organizations have been put forward, including those by the South Asia Network of Economic Research Institutes (SANEI), Coalition for Action on South Asian Co-operation (CASAC), South Asian Centre of Policy Studies (SACEP), ICRIER (New Delhi), Bangladesh Unnayan Parishad (Dhaka), Centre for Policy Dialogue (Dhaka), Institute for Integrated Development Studies (Kathmandu), Centre for Policy Research (New Delhi), Tata Energy Research Institute (New Delhi), and premier universities like Jawaharlal Nehru University (New Delhi), Sikkim University, Bangladesh University of Engineering and Technology (BUET, Dhaka), Quaid-i-Azam University (Islamabad), and Lahore University of Management Sciences (Pakistan).

11.7 Modes of Power Trade Between India and Pakistan

Given the bourgeoning power deficits, one of the ways forward would be to initiate limited power exchanges between India and Pakistan. Among the whole gamut of energy cooperation issues, the following section highlights the possibility of cross-border power trading. For India-Pakistan power exchange, there could be three options: bilateral power trade, pool-based exchange, and wheeling facility. Examples of other existing power exchanges provide important lessons for cross-border trade between India and Pakistan.

11.7.1 Bilateral Mode

Cross-border power trade on a bilateral mode already takes place widely between India and Bhutan and to a certain extent between India and Nepal. In the former, it takes place through long-term power purchase agreements (PPAs) for three critical hydropower projects that include Chukha (336 MW), Kurichu (60 MW), and Tala (1,020 MW). Bhutan exports over 84 % of its total generation (1,494 MW) after keeping aside 1,152 MU (Peak load 187.5 MW) for internal consumption. Its annual export is around 5,922 MU that generates electricity sale revenue of US$203 million (47 % of national revenue from power).

The sale of surplus power to the power-deficit western region of India has been the hallmark of this project. The transmission link has also been a great success and is likely to be upgraded to help evacuation of 4,500 MW from three large potential power projects that are being built to yield an expected generation of 10,000 MW by 2020. However, Bhutan is keen to diversify the power market, as at the moment it is a clear situation of monopsony where India is the only buyer.

There are three important power projects underway between India and Bangladesh for the first time, namely, (1) 250 MW electricity exports from India have commenced since mid-2013; (2) a grid interconnection between Bheramara (Bangladesh) and Bahrampur (West Bengal, India) with a capacity of 500 MW has been established, of which sale of 250 MW has been implemented in mid-2013 at an agreed price (although Bangladesh intends to procure the rest of the installed capacity as well); and (3) a 1,320 MW coal-based unit at Rampal (350 km south-west of Dhaka) by the Bangladesh-India Friendship Power Company consisting of BPDB and NTPC and costing US$1.5 billion, which should be ready by 2017. The success of these three landmark projects could encourage several other bilateral exchanges in the future, especially those between India and Pakistan.

11.7.2 Pool-Based Mode

The pool-based approach could provide long-run market equilibrium in regional power trade. This, in essence, would be pooling of surplus power generated by individual plants in the participating countries and transporting the power to deficit ones by a coordinated exchange mechanism depending on demand and consumer categories.

India has recently introduced the concept of a regional power trading system that helps various regions of India reduce power deficit by transferring surplus power from another region. Under the Electricity Act (2003), Indian companies can pool power in an exchange. A consumer would be free to buy it from anyone. This concept of power pool within India can be enlarged to cover neighboring countries. In this context, establishing a Sub-Regional Power Trading Corporation (SRPTC) would be highly beneficial for India and Pakistan. To facilitate the process of setting up an Indo-Pak-SRPTC, it is essential to assess and understand the nature, direction, and extent of intra-country power exchange in India and Pakistan. This can ultimately form a regional power pool, generating a huge opportunity for power trading in the South Asian region.

11.7.3 Wheeling Mode

The border regions of India and Pakistan have significant scope for both power generation and marketing. The surplus generated by the hydro plants in Bhutan and Nepal partly coincides with seasonal peak demands in the supply-short countries of India and Pakistan. Further, for the purpose of load balancing, hydro capacity provides better load following capability than fossil-based systems in India and Pakistan. This would result in more efficient use of resources.

As India and Pakistan strengthen their economic and social linkages and develop projects both at the bilateral and South Asian levels, there are distinct advantages

for Pakistan to import power from Bhutan and Nepal, both because of lower tariffs and supply reliability. This is where India has to play the critical role of providing an exclusive wheeling facility that could be used by Pakistan to buy power from anywhere in India on a commercial basis. Since India is developing a widespread transmission network across the country, Pakistan could make commercial use of it.

In addition, neighboring SAARC member countries in Central Asia (rich in hydropower, gas, coal, oil) and Iran (rich in gas, oil) have abundant natural resources. Opportunities exist for Pakistan to import electricity from Central Asia/Iran via Afghanistan and provide transit to India and other SAARC countries. For example, under a new regional initiative, the governments of Afghanistan, Kyrgyz Republic, Pakistan, and Tajikistan have entered into an MoU for the development of Central Asia-South Asia Regional Energy Markets (CASAREM). Working groups have been formed to work on critical areas of project sponsorship, finance structuring, and supplier and buyer issues and have come up with a working paper. Under this, the Afghanistan Foundation has been set up, and the North East Power System (NEPS) is in the initial stages of construction, which can serve over 15 provinces in the northern and eastern regions of Afghanistan.

11.8 India-Pakistan Power Exchange: Newer Initiatives

India's proposed power import from Pakistan in 1998 was an impressive step, following which Pakistan offered sale of surplus power to India. There have been intensive negotiations between the Power Grid Corporation of India Limited (PGCIL) and various independent power producers (IPPs) in Pakistan led by the Water and Power Development Authority (WAPDA). The feasibility of exporting 300–1,000 MW power to India was studied, delivery points were identified, and a number of options were explored. System studies were carried out under various loading conditions, technical and commercial aspects were considered, and a draft on interconnection and operation was also produced. The agreement was discussed on February 1, 1999, in which tariff stood out as the major stumbling block; while WAPDA offered power at US7.2 cents/KWh, the Indian side offered US2.25 cents/KWh, causing the negotiations to break off.

However, it adequately indicated that there is high potential for energy exchange between India and Pakistan. The transmission arrangement too could be easily done, as it existed in the pre-partition period. At present, Pakistan's 500 kV primary transmission system extends from Jamshoro in the south to Tarbela and Peshawar in the north. These lines run very close to the borders adjoining India and may not require complex transmission extensions between the designated substations, like Dinanath (Lahore) in Pakistan and Patti (Amritsar) in India. New rounds of negotiations have again been initiated after almost 15 years.

The situation, however, has changed. Pakistan now desperately requires power, and a potential source of import is India and other neighboring countries, both within and outside the SAARC region. A group of experts on energy have met

three times, and the 5th round of secretary-level talks on commercial and economic cooperation between India and Pakistan took place during April 27–28, 2011. Islamabad has been keen to facilitate exchange and import 500 MW from the Indian power market on commercial terms.

On January 20, 2014, the federal cabinet in Pakistan approved the signing of an MoU with India to import 500 MW of power.[11] This power exchange could be increased to 2,000–2,500 MW to meet the power shortage in Pakistan's economy. The nodal agencies appointed by India are the Central Electricity Authority and the Power Grid Corporation of India (PGCIL), which will look into the technical aspects; Pakistan will have the National Transmission and Dispatch Company (NTDC) and the Chief Engineering Advisor as its nodal agencies. The NTDC, Lahore, has been appointed as the focal authority on behalf of the Government of Pakistan and the PGCIL on behalf of the Government of India. The project will require 45 km of 220 kV transmission lines on both sides of the border—25 km in India and 20 km in Pakistan. The tariff is likely to be around INR8 per unit, which is almost similar to the electricity rates in Pakistan. The possibilities of interconnection are being explored at (1) Batapur at Lahore; (2) Ghazi Road, Lahore, at 132 kV; (3) Ghazi Road, Lahore, at 220 kV; (4) Sarfaraz Nagar at 132 k; (5) Sarfaraz Nagar at 220 kV; and (6) Kasur at 132 kV (Business Recorder 2014; Express Tribune 2013; Telegraph 2014).

With a consumption rate of 62 % of the total generated electricity, the neighboring Punjab in Pakistan remains the most power-hungry province.[12] It is stated that each country will construct and maintain a double circuit twin-bundled 220 kV transmission from the designated substations, namely, Dinanath in Pakistan and Patti in India. There is a complete network of transmission lines and grids on the Pakistan side along the northwestern border of Indian Punjab.[13]

For power transfer to India (under the pool-based or the bilateral mode), the adjacent grids in the Punjab province of Pakistan near the border of Indian Punjab are the potential locations that can be used for onward transmission to the Indian distribution lines. The nearest grid on the Indian side of Punjab is Patti and is located very near the Lahore Ring. There are various possibilities for transmission through the grids in Pakistan between New Kot Lakhpat and Raiwind to Patti in India. There is a proposal to lay a 50 km high-voltage double-circuit (HVDC) transmission line to transfer power form the Dinanath substation near Lahore to the Patti substation in

[11] Pakistan currently imports 35 MW of electricity from Iran to meet the requirements of Gwadar, while work on increasing it to 100 MW is underway. The two sides signed an agreement on the project in 2007. Pakistan also has another project in the pipeline for the import of 1,000 MW of electricity from Tajikistan under the Casa-1000 program. The feasibility report of the project has been finalized, and work is expected to be completed by 2016.

[12] Sindh consumes 20.2 %, Khyber Pakhtunkhwa 11.4 %, and Balochistan 5.5 % (Pakistan Economic Survey 2011–2012, p. 200).

[13] On the southwestern border, there are relatively few lines on the Pakistan side of Punjab. The only weak possibility of transmission appears to be in the areas of Fort Abbas and Faqirwali grids in Pakistan Punjab (with relatively low kV) to the Indian lines near Anupgarh.

Indian Punjab. If this happens, it is likely to bring about a major transformation in the political economy of regional cooperation in South Asia.

The National Grid Company plc (NGC), which is the largest privately owned independent transmission company in the world, already has a prominent presence in Pakistan. This can play a major role in concretizing the India-Pakistan electricity/power transmission.

In 1989, the Iran-Pakistan-India gas pipeline project was envisaged to tap gas from Iran's South Pars field through a pipeline from Assaluyeh in Iran to the Pakistan border, covering a distance of 1,115 km and a further 760 km through the territory of Pakistan to the Indian border. Within India's territory, a 900 km pipeline was to be laid to connect the north Indian gas market (Batra 2007). However, negotiations over the years have revolved around the price of gas to be paid by India and Pakistan. Currently, the project is being considered as a gas pipeline between Iran and Pakistan. Another is the Turkmenistan-Afghanistan-Pakistan-India (TAPI) gas pipeline, for which the gas sale and purchase agreement was signed in May 2012 (UNESCAP 2013).

Bhutan, today, has substantial surplus capacity that has been developed largely with support from India. With India and Pakistan moving toward power exchange agreements, Pakistan too stands to gain from importing electricity from India and providing connectivity between India and the other energy-rich Central Asian countries.

11.9 Summary and Policy Recommendations

The possibility of power purchase between countries has opened new vistas of cooperation. Cross-border power trade between India and Pakistan will lead to effective utilization of natural resources, increased reliability of power supply, greater economic cooperation and mutual support during contingencies, large-scale transformation in the sectors contributing to economic growth, and greater confidence among stakeholders on both sides.

Although an agreement on wheeling power from India to Pakistan was agreed to earlier this year, several other exchanges at the bilateral and regional level have been stalled due to extensive negotiations on key issues such as the cost of transmission lines and its sharing mechanism, the determination of power tariff, the payment mechanism, and most importantly the sustainability of power supply by immunizing it from regional geopolitics. It is crucial to maintain a fair balance in the energy security equation in order to avert the risk of "trade and fade." A set of proactive actions is urgently required:

1. To provide the policy and institutional framework for increasing cooperation in power trade. This would mean having an intergovernment agreement on bilateral/regional power trade, regional power trade coordination committees, and setting up focus groups to work on options for a future power market, regional power trade operating agreements, and an energy sector strategy.

2. To develop a grid-interconnected infrastructure through a building block approach, allowing for cross-border dispatch of power. This should include essential physical power interconnections, harmonization of transmission planning, design, operational practices (performance standards), and power infrastructure database design and implementation.
3. To initiate cross-border investment, with the possibility of undertaking joint projects. This could include establishing a subregional infrastructure investment fund under a guarantee cover or sourcing funds from multilateral institutions such as the World Bank or the ADB. Additionally, Pakistan could allow FDI from India—particularly for investment in oil refineries—which would be an important step in strengthening India-Pakistan energy trade.
4. Tariff structure for regional/bilateral electricity trade is going to be critical in all the three modes of power exchange between India and Pakistan (bilateral, pooled, and wheeling power exchange) and between South Asia and Central Asia. Hence, a comprehensive discussion and long-term policy outlines should be put in place to pave the way for such exchanges in the future.
5. Trade in energy should not be limited to traditional energy sources. It is important to focus on renewable energy solutions like shale and coal bed methane in both India and Pakistan to ensure energy security and promote sustainable green growth.

Appendix

Table 11.10 India: state-wise power demand projections

States	2001–2002	2006–2007	2011–2012	2016–2017	2001–2002	2006–2007	2011–2012	2016–2017
	Energy requirement (Mkwh)				Peak load (MW)			
Northern region: public utilities								
Haryana	17,460	25,750	37,801	55,234	3,322	4,899	7,192	10,509
Himachal Pradesh	3,656	5,113	7,118	9,863	708	973	1,354	1,876
Jammu and Kashmir	6,796	9,099	12,125	16,081	1,437	1,923	2,563	3,399
Punjab	29,824	41,922	58,661	81,700	5,483	7,719	10,801	15,043
Rajasthan	28,852	40,341	56,133	77,741	4,844	6,772	9,423	13,051
Uttar Pradesh	50,087	70,803	99,631	139,542	8,018	11,384	16,019	22,436
Chandigarh	1,337	2,120	3,347	5,259	254	403	637	1,001
Delhi	19,454	25,672	33,712	44,060	3,266	4,310	5,659	7,397
Northern region	157,466	220,820	308,528	429,480	25,307	35,540	49,674	69,178
Western region: public utilities								
Goa	1,740	2,207	2,786	3,501	280	355	448	563
Gujarat	46,393	61,683	81,683	107,479	8,074	10,605	14,031	18,478
Madhya Pradesh	39,167	51,952	68,578	90,096	6,480	8,595	11,346	14,906
Maharashtra	79,593	106,892	142,911	190,167	12,472	16,716	22,348	29,738
D & N Haveli	923	1,284	1,779	2,452	159	216	299	412
Daman and Diu	585	909	1,406	2,164	97	146	226	348
Western region	168,401	224,927	299,075	395,859	26,501	35,223	46,825	61,966
Southern region: public utilities								
Andhra Pradesh	50,493	68,797	93,289	125,905	8,234	11,219	15,213	20,532
Karnataka	32,950	44,748	60,478	82,354	5,699	7,740	10,460	14,071
Kerala	15,378	22,998	34,231	50,718	2,855	4,304	6,406	9,491

(continued)

Table 11.10 (continued)

States	2001–2002	2006–2007	2011–2012	2016–2017	2001–2002	2006–2007	2011–2012	2016–2017
	Energy requirement (Mkwh)				Peak load (MW)			
Tamil Nadu	42,341	54,872	70,769	90,838	6,825	8,847	11,411	14,646
Pondicherry	1,818	2,687	3,951	5,784	310	458	673	985
Southern region	142,980	194,102	262,718	354,599	22,784	31,017	42,061	56,883
Eastern region: public utilities								
Bihar (excl. DVC)	9,303	12,256	15,814	20,308	1,770	2,332	3,072	4,047
DVC	9,213	11,129	13,365	15,974	1,696	2,049	2,461	2,941
Orissa	14,002	17,997	23,376	30,220	2,317	2,977	3,867	5,000
Sikkim	183	239	312	405	47	62	81	105
West Bengal (exc. DVC)	20,885	27,546	37,529	50,341	3,859	5,169	6,966	9,344
Eastern region	53,586	69,467	90,396	117,248	9,229	11,990	15,664	20,416
Northeastern region: public utilities								
Arunachal Pradesh	216	303	423	588	73	97	136	189
Assam	3,669	5,294	7,604	10,870	687	991	1,423	2,034
Manipur	643	1,039	1,672	2,679	156	252	406	651
Meghalaya	644	955	1,410	2,071	134	198	293	430
Mizoram	327	525	838	1,331	93	136	217	345
Nagaland	270	388	555	790	70	98	141	200
Tripura	635	997	1,559	2,427	161	253	396	616
Northeastern region	6,404	9,501	14,061	20,756	1,272	1,875	2,789	4,134

Source: Central Electricity Authority (2000, pp. 115–116)

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Chapter 12
The Way Forward

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12.1 Introduction

Normalizing economic and commercial ties has emerged as the most pertinent issue in India and Pakistan's bilateral relations. Initially, both countries felt that without addressing core political and strategic issues, it would not be possible to move forward on the economic and trade agenda. However, in the past decade, things have changed, and there is now an emphasis on accelerated resolution of economic issues, in acceptance of the fact that trade and commerce have very often proven to be extremely effective in establishing peace.

The potential bilateral trade between India and Pakistan has been estimated to be around US$20 billion, compared to the current traded volume of US$2.6 billion. Further, a computable general equilibrium (CGE) modeling exercise to estimate the benefits of trade liberalization estimates that full liberalization along with a 50 % productivity improvement in all modes of transportation would lead to substantial welfare gains for both India and Pakistan. However, this vast trade potential remains unrealized largely due to impediments in transport and transit facilities, a restrictive visa regime, the continuation of large informal trade flows, and the presence of "perceived" nontariff barriers to trade between India and Pakistan. As a consequence of the presence of trade barriers and the subsequently high trade costs, a large part of the potential trade between the two countries continues to take place through informal channels and remains unaccounted.

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For the untapped trade potential to be realized, the two countries would have to undertake several measures in a number of areas. This would include, among others, a comprehensive and integrated international land transport policy to provide rail and road services connecting the two countries and to link seaports through land borders to enable connectivity with the rest of the world. Measures to liberalize the visa regime, open up telecommunication channels, facilitate cross-border exchange of businessmen, enhance communication links, and improve banking facilities would need to be expedited. In addition, India will need to continue to lower its nontariff barriers as part of its ongoing reform process.

It is evident from the facts put together in the various chapters in this volume that tremendous progress has been achieved in reforming trade, economic, and commercial relations between India and Pakistan. Yet there is a very long way to go, and numerous challenges still remain. In this concluding chapter, we identify the challenges and suggest recommendations that could form the basis of the future agenda for the two countries.

We then look at India-Pakistan relations in a larger and broader context of regional integration in South Asia as well as the consequent integration between South Asia and the rest of Asia. Improved relations between India and Pakistan are also needed to enhance the pace of regional integration in South Asia. Strengthening the process of South Asian Integration presents tremendous opportunities, and a lasting peace between India and Pakistan backed by improved trade and commerce links between them is essential to ensure a stable and prosperous South Asia.

12.2 Recommendations

The realization of the bilateral trade potential between India and Pakistan will depend on the degree and speed at which the various physical and regulatory impediments are redressed. This would require a persistent effort toward liberalization of trade and commerce by the governments on both sides, along with a constant endeavor to keep economic and trade relations outside the realm of political forces. Several recommendations have emerged from the chapters of this volume that encompass steps that must be taken. These fall under the following major heads:

12.2.1 Address Trade Policy Issues

During the Commerce Secretary-level talks in September 2012, a roadmap was laid down for trade normalization between the two countries. While several milestones on this roadmap have been met, there is still a lot of potential to better trade policy measures between the two countries. As things stand today, Pakistan has yet to complete the process of granting MFN status to India. This includes the removal of 1,209 items from the negative list and permitting the movement of all goods through the land route. Both countries also have to reduce their sensitive lists as was agreed by them.

12.2.2 Address Impediments to Physical Movement of Goods

Measures to address impediments to physical cross-border movement of goods are vital to ensure maximum benefits from the trade normalization process. In recent years, significant measures have been implemented to streamline transportation across the border, but barriers to physical movement of goods continue to persist. The movement of consignments and businessmen continues to face numerous obstacles owing to inadequate capacity of hard and soft infrastructure at the various ports.

The available infrastructure at the ports, especially the land ports, has been found inadequate, and the capacity at ports needs to be increased significantly in both India and Pakistan to handle the current volume of trade. There is high congestion at the Attari-Wagah border crossing, and low infrastructure capacity relative to current trade also leads to long processing times for customs documents at the road port. To boost trade by the road route, the first of the integrated check posts (ICPs) initiated by the Indian government became operational at the Attari-Wagah border in April 2012 and has been designed to provide integrated services for road transport with dedicated passenger and cargo terminals and other facilities in a single complex. It has, however, been found that the warehouses are already operating at full capacity, and a large number of consignments kept in the open area become prone to damage and pilferage. There is also a need to increase parking space at the check-post, as seen in the substantial backlog of trucks. Warehousing facilities at the road and rail ports too need attention. The road and rail routes are dominated by small logistics operators, which are perceived as less efficient than large operators.

Streamlining cross-border transportation at low cost will provide large gains to traders on both sides. Until now, the two governments have considered only incremental steps to improve cross-border movement of goods. However, a comprehensive and integrated international land transport policy needs to be put in place, not only to provide rail and road services connecting the two countries but also to link seaports through land borders to enable connectivity with the rest of the world. In addition, there is a need to allow and facilitate containerized cargo for seamless transportation of goods.

12.2.3 Eliminate Informal Trade

Informal trade flow from India to Pakistan was estimated at US$1.79 billion in 2012–2013, which is almost the same as the formal trade in that year amounting to US$1.9 billion. The main Indian products that are informally exported are textiles, cosmetics, tobacco, spices, herbal products, pharmaceuticals, and automobile items. This expansion in informal trade is hurting the manufacturing sector since Pakistani producers end up competing with items that are effectively imported duty-free and, thus, found cheaper in the local market. There is also a loss of revenue to the government, as these goods are not subjected to the usual customs procedures. In the case of

food, herbs, and pharmaceutical items, the merchandise is not checked for health and safety standards, posing a risk to human health.

It is, therefore, in the interests of the government to move fast and adopt measures that lead to formalization of trade. Speeding up the overall process of India-Pakistan trade normalization would help this endeavor. Informal trade can be converted into official formal trade by normalizing trade flows, primarily with Pakistan granting India MFN status, and ensuring that the tariff and nontariff barriers on both sides fall to a level where formal trade becomes more attractive. Further, policy measures that could incentivize formalization of the current informal inflows from India to Pakistan should be implemented after mutual discussions at the government level. In addition, a combined effort toward removing the high tariffs on imports, as well as tackling the procedural difficulties of formal trade, would be vital. Important steps toward streamlining trade procedures include removing restrictions on the number of items allowed through the Attari-Wagah land route, opening up more land routes between India and Pakistan, allowing containerization via railways given that the current trucking facility is unable to fulfill the demand on both sides, increasing the presence of plant department officials (for agricultural and related items), and signing the pending trucking agreement between the two countries.

12.2.4 Implement Trade Facilitation Measures and Address Nontariff Barriers

Nontariff barriers to market access appear to be a major complaint by traders, especially by Pakistani exporters who are trying to access Indian markets. Though India and Pakistan have implemented customs reforms at various ports, the road and rail routes that are specific to trade between the two contiguous countries remain backward with the continued use of manual procedures, poor efficiency of logistic operators, unavailability of Electronic Data Interchange (EDI) or Risk Management Systems, and inadequate warehousing and rail wagons for exporting goods.

Addressing these would require measures to simplify procedures and harmonize product standards by aligning them with international specifications. Both governments would also need to undertake further customs reforms at the land borders to expedite border procedures by introducing modern testing and risk management facilities. In addition, customs officials need to be trained on trade policies. Indian authorities must introduce modern techniques in order to fast-track the import procedures, especially since excessive security checks are conducted in India on consignments from Pakistan for security concerns.

Increased trade at land borders has also meant that the logistics needs have changed. Thus, there is a need to incentivize large logistic operators to operate on the road and rail routes in order to facilitate trade at the land borders. This will happen if there is greater automation and risk assessment and if it is made as efficient as seaports. Official charges can be commensurate with the cost of service provided.

12.2.5 Improve Business Facilitation by Liberalizing the Visa Regime

The current visa regime is complicated, with restrictions on the cities that can be visited, the need for police verification, and numerous entry-exit rules that impede the cross-border travel of businessmen who may want to reach out to markets. In September 2012, India and Pakistan signed a new visa regime to facilitate simpler cross-border travel, replacing the old visa regime signed in 1974 that was considered very restrictive. The new visa agreement will facilitate multiple-entry and reporting-free visas for businessmen, allowing them to visit five cities instead of three, which was the case earlier. It also exempts elderly people from reporting to the police.

Bilateral efforts will also need to focus on facilitating cross-country mobility of people. For one, visa procedures and requirements for select categories of service providers and businessmen could be streamlined, as is already underway. Likewise, streamlined processes and faster approvals could be introduced for special categories of visitors, such as medical tourists, students, leisure travelers, and transit travelers. Security and mobility restrictions could be streamlined for a limited set of people, such as those associated with a commercial presence or where other regulatory approval processes are involved. Automated systems such as electronic smart cards could be used to screen visa applications and track the physical movement of people, while avoiding harassment of genuine traders.

12.2.6 Promote Communication Among Traders

A concerted effort needs to be made to create multilevel channels of communication that would bridge the information gap and generate a significant change in the business environment of the two countries. A comprehensive web portal that keeps track of the latest developments in trade policy and allows traders (including buyers and sellers) from India and Pakistan to contact each other could solve the dual problems of poor awareness and low perception of market access.

Increasing the number of bilateral trade fairs and exhibitions as well as enhancing the level of participation in them could enhance trade ties between India and Pakistan while also encouraging new entrants and entrepreneurs to enter the trade market. In recent years, both countries have been arranging business-to-business and government-to-business interactions to address information gaps on regulatory regimes, which has served not only as a powerful confidence-building measure but has also proved to be an effective way to facilitate further trade.

Currently, cross-border communication is severely constrained by the absence of essential cellular facilities and courier services between India and Pakistan, and therefore telecommunication channels need to be opened up to foster people-to-people contact and reduce business costs. Further measures to facilitate cross-border

business would include setting up buyer-seller forums, improving banking channels for guaranteed payments, setting up an innovative dispute resolution system, and creating multilevel channels of communication.

12.2.7 Take Measures to Enhance Trade in Services

Although most of the discussion on India-Pakistan trade liberalization has centered on trade in goods, there is also potential for bilateral trade in services, which faces several barriers. Improved trade relations in services can yield direct and indirect benefits by diversifying the trade basket and building confidence through people, investments, and information flows. Services trade can indirectly facilitate merchandise trade through cooperation on transport, logistics, telecommunications, and other infrastructure services and by fostering people-to-people ties.

Opportunities exist for expanding trade and investment relations in services such as IT-BPO, tourism, health, energy, and other business services. However, like trade in goods, there are challenges to exploiting these opportunities due to the overall regulatory and business environment in the two countries. Thus, it is important to address these issues as they can undermine bilateral initiatives to promote relations.

12.2.8 Take Measures to Encourage Bilateral Investments

Bilateral investments between India and Pakistan have remained very low. Tangible and intangible barriers have impeded FDI flows from India to Pakistan. The main barrier is the risk associated with the investment due to political uncertainty. Related barriers are the complicated visa process and the lack of awareness among Indian investors. However, the FDI policy regime was liberalized in 2012 when India removed the restriction on Indian nationals investing in Pakistan and on Pakistani investors investing in India, with an exception that the proposal had to be done through the government route.

As a follow-up to India's opening the government route to investments from Pakistan, it is recommended that India open up the automatic route for FDI (Pakistan has already done this), and both countries immediately bring in a relaxed visa regime for businessmen and their associates. Some measures to encourage bilateral investments are faster clearances and approval procedures in general, fast-track procedures, regular and updated information on opportunities, the regulatory framework for investment, bidding processes, and award of contracts, targeting Indian investors of Pakistani origin, greater investment by the Indian government to build investor confidence, and setting up common SEZs at the borders.

It would also be useful to consider a bilateral investment treaty that addresses issues of investment facilitation, investor protection, dispute settlement, and contract enforcement so as to ensure greater ease, transparency, and commitment in bilateral investments.

12.2.9 Encourage Trade in Energy and Power

India and Pakistan face power deficits, low per capita commercial energy consumption, and poor quality of energy infrastructure, which indicate the potential for joint cooperation and mutual resolution of energy problems. One way forward is to initiate limited power exchanges between India and Pakistan. Cross-border power trade will lead to effective utilization of natural resources and increase the reliability of the power supply for various economic activities. With power tariffs and the cost and sharing mechanism of transmission lines being the prime reasons why negotiations on this front break off, there is a need for a conducive policy and institutional framework to increase cooperation in the energy sector. There is also a need to develop physical grid interconnected infrastructure for cross-border dispatch of power, initiate targeted cross-border investment with the possibility of undertaking joint projects, and establish a mutually agreeable tariff structure for electricity trade.

Since India and Pakistan have begun to explore hydro, solar, and nuclear power sources, trade in renewable energy, apart from the traditional sources of fuel, will help maintain energy security and promote sustainable green growth.

12.2.10 Implement Measures to Strengthen Border Institutions

Officials of the Border Security Force (BSF) have only been trained in security issues and, thus, tend to view cross-border trade through the same lens. While security is paramount, it is also important for the BSF to understand the nuances of intra-regional trade so that the current one-dimensional focus does not hamper legitimate trade flows with excessive safety checks. Training specific to trade and cross-border mobility must be provided to these officials so that they are able to participate positively in the trade facilitation process. To this end, a separate research cell could be established to garner information on cross-border trade or training centers could be set up to disseminate information to BSF officials.

12.3 Strengthen Border Trade

Special emphasis should be given to improving economic and commercial ties between regions on both sides of the border. Progress on this front was achieved recently with the Chief Ministers of east and west Punjab initiating the signing of a protocol to identify mutual areas of interest and cooperation. The two Chief Ministers agreed on a 12-point agenda that covers a wide variety of areas including easy access for people of both sides of the border to religious places of their respective faith and contacts between professionals, students, academics, sports people, and artistes. As agriculture is the backbone of both east and west Punjab,

it was decided to step up communication to share expertise in livestock, veterinary sciences, and water management.

Similarly, cross-border trade across the Line of Control (LoC) in Kashmir has been taking place as a confidence-building measure since 2008 in select primary products that originate in Kashmir. The aim of opening up this route had been to bring people across the LoC closer and reduce cross-border tensions while strengthening the peace process. Last year, a Trade Facilitation Centre was opened at Uri near the LoC. More initiatives are required to ensure further growth of trade across the LoC, especially to expand the list of items that can be traded and to convert the present barter system of trade into normal trade practices.

Along the same lines, greater economic and commercial ties should be inculcated between Sindh on the Pakistan side and Gujarat and Rajasthan in India. Opening the Khokhrapar-Munabao route for movement of cargo will be a step in the positive direction.

12.3.1 The Larger Picture

The nature of the recent dialogues shows that the two countries have broadened their mind-sets and have shown greater sensitivity to each other's concerns. In general, what is required to complete the trade normalization process is an approach that relies on confidence-building measures, incremental steps, and demonstrable outcomes. For this, the role of both the government and the private sector will be critical. The success of the trade normalization process will also be determined by the role of institutions that are involved in this process, including different government departments at the state, central, and border levels, business and trade associations, nongovernment organizations, and the media.

The way forward requires a progressive approach, such as setting up working groups on issues and services of common interest and gradually expanding the ambit of liberalization to cover more services and launching pilot projects while simultaneously addressing crosscutting issues of investment, regulatory harmonization, labor mobility, and connectivity. But as highlighted, these negotiating frameworks and initiatives can only succeed if they are backed by adequate regulatory, institutional, infrastructural, and human resource capacity, by a business-friendly environment, and by a favorable policy orientation and mindset at the individual country level.

Since India and Pakistan are the largest countries in South Asia, the lack of normalcy in India-Pakistan relations has also severely impeded the successful implementation of regional integration initiatives in South Asia as a whole. This has especially contributed to the South Asian Free Trade Agreement (SAFTA) being a slow starter and lagging in its achievement of target objectives. The initiation of the process for normalizing India-Pakistan trade relations since 2011 is, therefore, expected to have significant implications for the entire South Asian region by creating a favorable environment for accelerating the pace of trade and regional integration.

Incidentally, the measures taken to address barriers to India-Pakistan trade were also the most significant trade facilitation measures undertaken within the region.

To take advantage of the liberalization of the policy regime, it is important that all other barriers to seamless trade and connectivity in South Asia be addressed simultaneously by expediting trade and transport facilitation measures at the regional level. Although SAFTA has made progress on minimizing intra-regional tariffs under SAFTA's tariff liberalization program, on other nontariff barriers, transit, and connectivity, there has been much less progress. These barriers have kept the costs of moving goods across borders in the region very high. Apart from physical infrastructure barriers, transaction costs are also high due to nonphysical barriers such as cumbersome customs procedures, nontransparent and unpredictable rules, restrictive regulatory regimes, and requirements governing cross-border trade in the region (document processing, inspection, etc.). These mainly emanate from non-conducive regulations, inefficiencies of the administrative institutions, and poor governance. These factors often translate into high informal costs in the form of bribes and speed money, especially at the land borders.

The factors impeding trade flows have been recognized for a long time, both bilaterally and regionally, and a large number of measures have been initiated to address them. However, these measures have not really taken off, and positive efforts toward facilitating trade within the region have not yet been able to give the desired push to intra-regional trade. Therefore, it is important to devise a blueprint that lays down an agenda for achieving the region's goals of deeper connectivity and enhanced trade integration. Integrated trade facilitation measures that combine resolution of border issues, transport, and logistic problems as well as aim at harmonizing administrative rules and procedures would help reduce transactions costs. This would, in turn, enhance intra-regional trade and help increase the region's share in global trade.

By implementing these measures, significant benefits can be garnered from the resulting deeper physical and institutional connectivity in South Asia. It is important to recognize that there are larger benefits in resolving transport and transit issues to facilitate intra-SAARC trade. Addressing trade barriers in the movement of goods across South Asia will not only help integrate the regional space but also help integrate the region with East Asia, Europe, and Central Asia through contiguous land borders. This, in the long run, will help connect the entire Asian landmass from East to West via South Asia and further to Europe.

For one, once Bangladesh grants India transit through its territory, India will not only be able to connect to its Northeast Region (NER) but also to East Asia via Myanmar. The restoration of democracy in Myanmar in 2010 has paved the way for unlocking the country's large potential as the vital link between South and Southeast Asia. Myanmar forms a land bridge that connects South Asia with Southeast Asia. However, until recently, Myanmar's participation in the regional and global networks was limited by sanctions that prohibited trade transactions in major international currencies as well as the country's underdeveloped infrastructure, nontransparent FDI policy, and unfavorable institutional and business environment (De and Ray 2013).

Subject to Bangladesh granting the transit rights, two major axes that could be promoted as a strategy for enhancing physical connectivity are overland connectivity through India's Northeast Region and a multimodal connectivity link through southern India, primarily through the Chennai-Ennore area.

Similarly, if Pakistan grants India transit rights through its territory, it would open up the prospects of using India and Pakistan as land bridges to connect with Central and West Asia. The potential trade gains that may arise by integrating South Asia and Central Asia are enormous (Das 2012). Through Pakistan, India and subsequently South Asia can have direct connectivity to Iran, which will give India land access to West Asia. In addition, India's land access to Afghanistan through Pakistan would help exploit Afghanistan's strategic geographic position as a potential land bridge that provides South Asia with direct routes to the Central Asia Region (CAR). This can happen if the rights of passage are provided by Pakistan to India and beyond. Pakistan has consistently been averse to the idea of granting transit facility to India through land, primarily for security reasons.

Thus, Afghanistan can emerge as a bridge for trade, transportation, and energy between Central and South Asia, the Middle East, and China, while Myanmar can be the land bridge between South Asia, ASEAN, and China. A regional overland road link between Kabul (Afghanistan) and Yangon (Myanmar) via Dhaka (Bangladesh) could be revived for regional trade. This could mean operationalizing the Afghanistan-Pakistan-India-Bangladesh-Myanmar (APIBM) Transport Corridor, through which the distance of 5,272 km between Kabul and Yangon can be covered in 12 days (RIS 2007). Such unfettered transit and transport linkages could provide larger markets in Asia. Thus, it is vital that India actively promotes these land bridges that link it to Southeast Asia via Myanmar and through Pakistan to Iran and Central Asia. The vital factor determining the successful interregional integration of South Asia with its Asian neighbors will be the speed and extent to which members of the SAARC region can connect with each other.

Integrating the greater landmass that would ultimately connect South Asia with both East and West Asia would help achieve greater market access as well as scale economies in terms of cargo volumes, which would significantly reduce transaction costs of trading with the world. Addressing the barriers to cross-border trade and transport would help South Asia participate in international production networks (IPNs). South Asia, owing to the incomplete intra-regional integration, has not yet been able to integrate into IPNs, unlike Southeast Asian countries that reaped significant benefits from their participation in IPNs. The failure to do so was mainly attributable to the high cost of moving goods across borders in South Asia, since cost- and time-efficient cross-border movement of goods is the backbone of international supply chains. SAFTA members must draw lessons from ASEAN's economic integration that was designed to deepen involvement in the international supply chains by lowering trade and investment barriers and rapidly developing transportation and ICT networks. Improving the efficiency of border corridors and Land Customs Stations would be the most important step needed to maximize the benefits of fuller regional connectivity and to make cross-border trade time- and cost-efficient.

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