JOINT PROGRAM FOR COMPREHENSIVE ECONOMIC AND TRADE COOPERATION BETWEEN CHINA AND PAKISTAN

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MINISTRY OF COMMERCE, PAKISTAN

&

MINISTRY OF COMMERCE, CHINA

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LIST OF ABBREVIATIONS

ADB	Asian Development Bank
ASEAN	Association of South East Asian Countries
BOI	Board of Investment
BOP	Balance of Payment
BTU	British Thermal Unit
CAD/CAM	Computer Aided Design / Computer Aided Manufacturing
CCPIT	China Council for the Promotion of International Trade
CCTV	Closed Circuit TV
CDMA/WLL	Code division multiple access / Wireless Local Loop
CKD	Complete Knock Down kit
CNG	Compressed Natural Gas
CNLC	China National Logging Corporation
CVAL	Class Value Added License
D-8	Developing 8 Countries
DSLAM	Digital Subscriber Line Access Multiplexer
ECNEC	Executive Committee of the National Economic Council
EHP	Early Harvest Programme
FDI	Foreign Direct Investment
FPCCI	Federation of Pakistan Chambers of Commerce & Industry
FTA	Free Trade Area
GATS	General Agreement on Trade in Services
GCC	Cooperation Council for the Arab States of the Gulf
GDP	Gross Domestic Product
GOP	Government of Pakistan
GPL	Government Procurement Law
HDI	Human Development Index
HS	Harmonized System of classification
IBRD	International Bank for Reconstruction and Development
IDB	Islamic Development Bank
IMF	International Monetary Fund
IPPs	Independent Power Producers
IT	Information Technology

JEG	Joint Economic Group
KANUPP	Karachi Nuclear Power Plant
KESC	Karachi Electricity Supply Corporation
KKH	Kara Korum Highway
LBIB	Law on Bid Invitation and Bidding
LNG	Liquefied Natural Gas
M & A	Mergers and Acquisitions
MFN	Most Favored Nation
MoU	Memorandum of Understanding
MTDF	Medium Term Development Framework
MTOE	Million Tons of Oil Equivalent
MW	Mega Watts
NEPRA	National Electric Power Regulatory Authority
NESPAK	National Engineering Services Pakistan (Pvt) Limited
NOC	No Objection Certificate
NPCC	National Power Construction Corporation
NTCIP	National Trade Corridor Improvement Program
ODI	Outward Direct Investment
OIC	Organization of the Islamic Conference
PPC	Private Power Cell
PPRA	Public Procurement Regulatory Authority
PRA	Procurement Regulatory Authority
PRSP	Poverty Reduction Strategy Papers
PSEDF	Private Sector Energy Development Fund
PSLM	Pakistan Social and Living Standards Measurement
PTA	Preferential Trading Agreement
R&D	Research and Development
RCA	Revealed Comparative Advantage
RMB	Currency of PRC
RRCA	Regional Revealed Comparative Advantage
RTA	Regional Trading Agreement
SAFTA	South Asia Free Trade Area
SECP	Securities and Exchange Commission of Pakistan
SME	Small and Medium Enterprises

SPS	Sanitary and Phytosanitary Agreement
TAP	Trans-Afghanistan Pipeline
TBT	Technical Barriers to Trade
TCF	Trillion Cubic Feet
TDAP	Trade Development Authority of Pakistan
TSI	Trade Specialization Index
UAE	United Arab Emirates
UNCTAD	United Nations Conference on Trade and Development
VOD	Video On Demand
WAPDA	Water and Power Development Authority
WTO	World Trade Organization

PREFACE

This report was jointly prepared by researchers (enumerated below) of the *Development Research Center of the State Council* (DRC), China and *Pakistan Institute of Development Economics* (PIDE), Pakistan and officials from their respective Ministries of Commerce as part of the Joint Research Team tasked with formulating a comprehensive development plan for economic and trade cooperation between China and Pakistan for the coming five years.

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PREAMBLE

Since China and Pakistan established diplomatic relations 57 years ago, both countries have enjoyed an all weather and everlasting friendship and affinity. The friendly and cooperative relations between China and Pakistan have become a paragon for the friendly coexistence of developing countries and neighboring countries. In recent years, the economies of both China and Pakistan have maintained a trend of fast growth. Bilateral economic and trade cooperation has also achieved significant results while demonstrating huge potential in the future.

In April 2005, leaders of both countries reached a consensus to work out the Joint Program for Comprehensive Economic and Trade Cooperation between the two countries. This was an important decision made by the leaders of both countries in a bid to promote the further development of their bilateral trade and economic relationship.

In order to implement the consensus reached by the leaders of the two countries and to clarify the direction of development for the bilateral trade and economic cooperation in the coming five years, the Ministries of Commerce of the two countries signed a *Memorandum of Understanding* in February 2006. In this *MOU*, the two sides decided to set up a Joint Research Team comprising of officials and economic scholars to jointly formulate the developmental plan for trade and economic cooperation between China and Pakistan in the coming five years.

It is in the common interests of the peoples of China and Pakistan to strengthen friendly neighborhood relations, to conduct mutually beneficiary cooperation and to strengthen strategic & cooperative partnership. The joint formulation of the Program for Comprehensive Economic and Trade Cooperation is not only conducive to expanding bilateral trade, broadening the fields of trade and economic cooperation, but is also beneficial to further consolidating mutually beneficiary relationship between the two countries on an equal and friendly basis as well as promoting peace, stability and prosperity in Asia.

During the past two years, the Joint Research Team has held four workshops in China and Pakistan respectively. This report is the end result of joint discussion by the Joint Research Team, and is a demonstration of the friendly and constructive spirit of collaboration between the two sides. The main contents of the report include: Chapter 1: Overview, Chapter 2: Trade in Goods, Chapter 3: Trade in Services, Chapter 4: Investment, Chapter 5: Economic Cooperation and Chapter 6: Summary and Conclusions.

The two representatives and members of the Joint Research Team will submit the report to the leaders of respective countries.

This report is signed on December 1st, 2008 in Beijing, China.

Mr. Fu Ziying	Mr. Shahid Bashir
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CHAPTER No. 1

OVERVIEW

1.1. INTRODUCTION

Pakistan is actively pursuing the policy of enhancing bilateral and regional economic cooperation. Of particular interest to Pakistan are its trade and economic relations with China. In April 2005, leaders of both countries reached a consensus to jointly work out a Joint Program for Comprehensive Economic and Trade Cooperation between the two countries. This was an important decision made by the leaders of both countries in a bid to promote further development of their bilateral trade and economic relationship. In order to implement the consensus reached by the leaders of the two countries and to clarify the direction of development for the bilateral trade and economic cooperation in the coming five years, the Ministries of Commerce of the two countries signed the *Memorandum of Understanding* in February 2006. In this *MOU*, the two sides decided to set up a Joint Research Team comprising of officials and economic scholars to jointly formulate the developmental plan for trade and economic cooperation between China and Pakistan in the coming five years.

Since China and Pakistan established diplomatic relations 57 years ago, both countries have enjoyed an all weather and lasting friendship and affinity. The friendly and cooperative relations between China and Pakistan have become a typical model for the friendly coexistence of developing countries and neighboring countries.

With the rapid growth of the Chinese economy, China is becoming an important link in the global supply chain, and the swift economic development of Pakistan in recent years has aroused worldwide attention. The cooperation between the two countries has been developing steadily, demonstrating that there is immense potential to enhance trade and economic cooperation between the two countries. During his visit

to Pakistan in April 2005, Premier Wen Jiabao stated that *"the cooperation between the two great countries and peoples of China and Pakistan require four bonds, namely, geological, political, economic and cultural bonds. Now that these four bonds have been established and relatively secured, we hope the economic bond will grow stronger."*

It is in the common interests of the peoples of China and Pakistan to strengthen friendly neighborhood relations, to conduct mutually beneficiary cooperation and to strengthen strategic & cooperative partnership. The joint formulation of the Joint Program for Comprehensive Economic and Trade Cooperation is not only conducive to expanding bilateral trade, broadening the fields of trade and economic cooperation, but is also beneficial to further consolidating mutually beneficiary relationship between the two countries on an equal and friendly basis as well as promoting peace, stability and prosperity in Asia.

The plan of this chapter is as follows; section 2 provides a comprehensive review of economic developments and prospects in China and Pakistan including economic structure and performance, the reform process and key features of the economies as well as external orientation. In section 3, a brief introduction is presented on the current status and institutional arrangements of the trade and economic cooperation between the two countries; section 4 provides a preliminary assessment of potential for trade and economic cooperation between the two countries.

1.2. ECONOMIC DEVELOPMENT OF CHINA AND PAKISTAN

1.2.1 CHINA'S ECONOMIC REFORM AND DEVELOPMENT TREND

1.2.1.1.SIGNIFICANT ACHIEVEMENTS THROUGH REFORMS

China is the third largest country in the world in terms of area and the largest in terms of population. Its total area is 9.6 million square kilometers and its population is 1.3 billion. China initiated a policy of

economic reform and opening up to the outside world since 1978, and put forward the establishment of a socialist market economy system as the goal of the reform.

The Socialist Market Economic System has been gradually perfected. The nature of government regulation on economic affairs has gradually transformed into macro-economic management through financial and monetary policies. Market forces have played an increasingly important role in resource allocation and price determination of the majority of the commodities and services.

China aims to improve the basic economic system of keeping public ownership as the mainstay of the economy and allowing diverse forms of ownership to develop side by side. China also encourages, supports and guides the development and growth of various forms of non-public economic entities (including diversified ownership, private and foreign, etc.) in order to create a fair competitive market environment for various forms of ownership.

China takes its WTO commitments such as gradual opening up of market, significant tariff reduction, 100% bounded tariffs, and elimination of most non-tariff measures very seriously. In 2007, the average tariff of China was lowered to 9.8% (with average tariff rates for manufacturing and agricultural products are 8.95% and 15.2% respectively). In the area of trade in services, China has implemented its WTO accession commitments to a more liberal regime, with opened sectors accounting for 62.5%[1]of the total. The degree of market openness in the service sector is already close to the level of developed countries.

China has adopted the policy of encouraging FDI and gradually improved the laws, stipulations and preferential policies to attract foreign investments; and it has already signed bilateral investment protection agreements with a total of 112 countries. The introduction of foreign capital, technology, talents and management experience and practices has not only promoted the upgrading of China's

[1] The commitments made in opening of the service trade fields cover ten of the twelve broad service categories in the General Agreement on Service Trade, involving 100 of the total 160 sub-categories.

industrial structure and development of modern trade in services, but also significantly improved economic efficiency and enhanced the international competitiveness of manufactured products.

China takes maintaining the balance of payment as its long term goal and has adopted the managed floating exchange rate system and RMB convertibility under current account, and it gradually promoted convertibility under the capital account.

1.2.1.2. Macro-Economic Status and Prospects for Development

After more than two decades of reform and opening up, China has achieved remarkable accomplishments in economic development and emerged as a developing country with one of the fastest rates of economic growth in the world. From 1980~2005, the annual GDP growth rate of China averaged 9.4%. In 2005, the total GDP volume of China amounted to 2.235 billion US Dollars, ranked fourth in the world, and per capita GDP stood at 1,703 US Dollars. In 2006, China's GDP reached 2.6 billion US dollars.

The industrialization process of China has progressed smoothly. In 2006, the proportion of the secondary industry to the GDP of China has reached 48.7%, while the first industry and tertiary industry respectively accounted for 11.8% and 39.5% of the total proportions.

China's foreign trade has experienced rapid growth since 1990. According to data from China's General Administration of Customs, total trade increased from $115.4 billion in 1990 to $ 1.76 trillion in 2006, with an average annual growth rate of 18.5%. After WTO accession, China's foreign trade entered into a period of even faster growth. Between 2002 and 2006, the annual growth rate of the foreign trade of China was consecutively over 20%. Since 2005, China became the third largest trading power in the world, next only to the US and Germany, with its proportion in global import and export rising up to 6.1% and 7.5% respectively.

The opening up of the service industry in China has boosted the swift development of trade in services. Between 1982-2006, China's total trade in commercial services rose from 4.34 billion US Dollars to 192.8 billion US Dollars. In 2005, China became the 7th largest importer and 8th largest exporter in terms of trade in services, accounting for 3.6% and 3.4% of the world total. In 2006, China's import and export of trade in services reached 100.8 billion US Dollars and 92 billion US Dollars respectively.

In the past 12 years, China has consistently been the largest recipient of FDI among developing countries. Up to the end of 2006, the accumulated FDI inflows to China amounted to 685.4 billion US Dollars.

China will dedicate all its efforts in the following years to come to building a well-off society in an all-round way. The goals of economic development set by the Chinese government are to increase GDP to 4,000 billion US Dollars by 2020, and to raise the per capita GDP to over 3,000 US Dollars, so as to achieve a much more developed economy, more complete democratic system, more advanced science and technology development, more prosperous cultural development, a more harmonious society and more well off lives of the people. In order to achieve sustainable development, the Chinese government stresses the establishment of a harmonious society and coordinative development, namely, *"coordinating urban and rural development, coordinating regional development, coordinating economic and social development, coordinating the harmonious development between man and nature, and coordinating domestic development with opening up to the outside world."*

1.2.1.3. Standpoints on Multilateral Trade System and Regional Economic Integration

A more open, free and stable multi-lateral international trade mechanism is not only beneficial to the development of global economy, but also is in the best interest of China itself. China has actively promoted a new round of multi-lateral trade negotiations and fully participated in the negotiations of all subjects, and conducted a series of multi-lateral negotiations in the fields of agriculture, market access for

non-agricultural products and trade in services. China firmly believes that the special and differentiated treatment for developing country members should be adequately emphasized and effectively reflected.

With the rapid growth of regional trade arrangements around the globe, Asian countries reformulated their regional economic cooperation strategies, and became actively involved in the regional free trade agreements. In 2001, China acceded to the WTO, and the Chinese leaders initiated negotiations to establish a free trade area with ASEAN. This symbolized the strategic move that China started to stress institutional arrangements like FTA to promote the establishment of bilateral and regional free trade relations.

In 2002, China signed an FTA framework agreement with ASEAN. In 2005, China signed a bilateral FTA with Chile. In 2006, China signed a bilateral FTA with Pakistan. At present, China is negotiating with the Gulf Cooperation Council, Australia, New Zealand, Singapore, Iceland and Norway on establishing FTAs. Progress has been continuously made in the institutional regional cooperation with Chinese participation.

Table 1: Progress of China's Participation in RTAs

PATTERN	PROGRESS	MEMBERS
Closer Economic Partnership Arrangement (CEPA)	Concluded	Mainland, China - Hong Kong, China
		Mainland, China – Macao, China
Free Trade Area (FTA)	Negotiation Partially concluded	China-ASEAN (trade in goods, trade in services)
		China - Chile (trade in goods)
		China - Pakistan (trade in goods)
	Negotiation on-going	China - New Zealand
		China – Australia
		China – GCC
		China – Singapore
		China – Iceland
		China – Norway
		China-Korea
	In research	China – India
		EAFTA (non-government research)
		China-Japan-Korea (non-government research)

1.2.2. PAKISTAN'S REFORM AND ECONOMIC DEVELOPMENT

Pakistan is a developing country with the world's sixth-largest population (158.2 million in 2006-07). Despite a weak economic base at the time of independence, Pakistan's growth record has been quite

respectable; on average the growth rate of GDP has exceeded four percent and per capita income has increased manifold to US$ 926 in 2006-07. There have been major structural transformations of the economy during the last three decades; share of agriculture in GDP has gone down from 38.9 percent in 1969-70 to 20.9 percent (projected) in 2006-07, and that of the services sector has increased from 38.4 percent to 53.3 percent during the same period (See Annex Table 1). The share of manufacturing sector has also increased gradually from 16 percent to 19.1 percent during the period. It should, however, be noted that Pakistan's industrial base at the time of independence was almost non-existent: the manufacturing sector contributed only 1.83 percent of GDP. Against this backdrop, it is quite evident that Pakistan has made major strides in the industrialization process since its inception.

1.2.2.1. Agriculture

Agriculture remains the single largest sector of the national economy since independence. Although its share in GDP is declining over the years, it still accounts for 20.9 percent of GDP (in 2006-07)[2] and employs bulk of the total work force. Agriculture contributes to growth as a supplier of raw materials to industry as well as a market for industrial products and is the main source of foreign exchange. Approximately 66[3] percent of the country's population live in rural areas and are directly or indirectly reliant on agriculture for their livelihood.

1.2.2.2. Manufacturing

Starting from virtually scratch at the time of independence, Pakistan has made significant advances in the industrialization process. A handful of industrial units producing sugar, vegetable ghee, tea blending, cement and cotton textiles comprised the total large scale industrial assets of Pakistan at the time of independence and they contributed only 1.83 percent of GDP. The small-scale industries however,

[2] and 21.3 percent of GDP in 2005-06

[3] based on data in Economic Survey of Pakistan 2006-07 (pg.96 of statistical supplementTable 12.2)

contributed 4.56 percent of GDP. While the share of small-scale industries is 4.2 percent in 2006-07[4], the share of large scale industries has increased to 13.6 percent in 2006-07[5]. The overall share of value-added industry in GDP rose from 19.5 in 1960s to 25.8 percent in 2006-07[6].

1.2.2.3. Services

The services sector in Pakistan consists primarily of wholesale and retail trade; transport, storage and communications; and financial and insurance services. The share of services sector in GDP is rising continuously over the years. For instance, it was 39.7% in 1960s, 43.9% in 1970s, 48.5% in 1980s, and 49.6% in 1990s and above 50 per cent per annum 2000 and onwards. The whole sale and retail trade dominates the services sector in its contribution to GDP followed by transport, storage and communications.

1.2.2.4. Economic Growth

Pakistan has made impressive economic progress during the recent years. In particular, economic growth has been revived and continues to be strong, fiscal deficit has been reduced to around 4.3 percent of GDP in 2006-07 (Jul-Mar), debt ratios have witnessed significant improvement, exchange rate has been stabilized and international reserves have reached an all time high level (Table 2~~Table 2~~). Furthermore, Pakistan's creditworthiness has been upgraded and the country has joined the list of few developing countries that have successfully completed the transitions from an IMF program to enter international financial markets.

[4] 4.2 percent in 2005-06

[5] 13.4 percent in 2005-06

[6] 25.9 percent in 2005-06

1.2.2.5. Foreign Trade

The World Bank has categorized trade policy of Pakistan as one of the least restrictive in South Asia. This policy has gradually reduced the anti-export bias to strengthen exports in existing markets and explore new markets around the globe. The liberal trade policy is complemented by a market-based exchange rate regime. As a result of these polices, not only the exports of the country picked up, the imports also surged manifold. Total exports increased from US$5,587 million in 1990 to US$16,388 million in 2005-06 whereas total imports rose from US$7,383 million to US$24,647 million during the same period (See Annex Table A.2).

Table 2: Selected Macroeconomic Indicators

Indicators	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07 (Jul-Mar)
Growth Rate (%)								
Real GDP	3.9	2	3.1	4.7	7.5	9	6.6	7
Consumer Price Index (2001=100)	3.6	4.4	3.5	3.1	4.6	9.3	7.9	7.9
Value (US $)								
exports (millions)	8,190	8,933	9,140	10,889	12,396	14,401	16,388	12,390
imports (millions)	9,602	10,202	9,434	11,333	13,604	18,753	24,647	19,809
Cash Foreign Exchange Reserves (millions)	1,828	1,547	2,100	4,772	9,975	11,052	10,310	11,651
Income Per Capita	526	501	503	586	669	733	833	925
As Percent of GDP								
Budgetary Deficit	5.4	4.3	4.3	3.7	2.4	3.3	4.3	4.3
Current Account Balance (including official transfers)	0.7	1.9	3.8	1.3	1.6	4.5	3.6	4.3
Total Debt	43	42.7	39.9	38.9	35.7	33.2	30.5	27

Source: Economic Survey of Pakistan 2006-07

Pakistan is not a major player in world export market and its exports are highly concentrated (see Annex table 3): the textile and clothing sector (roughly $6.8 billion in 2006) constitutes a predominant share (almost 41%) of total exports. Other exports include apparel ($3.2 billion), cereals ($1.2 billion), sports goods ($305 million). The imports include mineral fuels, oils etc. ($7.7 billion), electrical and electronic equipment ($3 billion), organic chemicals ($1.2 billion), vehicles ($1.7 billion) and iron and steel ($1.4 billion) in 2006.

The principal exports markets and principal imports suppliers in 2006 are given in Annex table 4. It can be seen that United States (US) was the major market of the Pakistani exports and United Arab Emirates the major import supplier for Pakistan. Total exports to the United States were $4.3 billion, followed by United Arab Emirates ($1.2 billion), Afghanistan ($991 million), United Kingdom ($936 million), Germany ($698 million) and China at $507 million. Total imports from United Arab Emirates were $3.4 billion, followed by Saudi Arabia ($3 billion), China ($2.9 billion) and United States ($1.9 billion) in 2006.

1.2.2.6. Pakistan's Major Trade Agreements

Pakistan, like many other developing economies, is actively pursuing the policy of enhancing bilateral and regional economic cooperation. In the context of South Asia, Pakistan is a signatory to SAFTA which has come into force with effect from July 2006. Trade and investment ties with south-east Asia are small but there is considerable potential for growth. Pakistan has initiated a series of preferential trade negotiations for wider market access. The negotiations with a number of countries are at various stages while some have already materialized into trade agreements. Pakistan's first agreement on a Free Trade Area (FTA), signed with Sri Lanka, has been effective since June, 2005. As a result of this agreement, the exporters of fruits, vegetables, footwear, engineering products, sanitary goods, chemicals, leather, rice and some textiles items enjoy duty concession in the Sri Lankan market. Moreover, a full-fledged FTA with China has also been signed. And finally, while FTA negotiations with Malaysia are proceeding at a rapid pace, an early harvest program has become effective since January 2006. As a result Malaysia has allowed export of Pakistani items such as fruits, vegetables, some textile items and jewellery at concessional rates of duty. The negotiations are expected to conclude by the end of this year. Fourthly, negotiations on Preferential Trade Agreement (PTA) with Iran have also recently concluded. Under the terms of this Agreement Iran has agreed to grant tariff concessions on 309 tariff lines which include items such as sea food, fruits, vegetables, rice, marble and granite, textile machinery, wooden furniture, pharmaceutical products, minerals and certain textile items. This Agreement is expected to become

operational shortly. Fifthly, the South Asian Free Trade Agreement (SAFTA) among the seven South Asian countries has been signed by all members and became operational as of July 1st 2006. The conclusion of FTA negotiations with Singapore and the Gulf Cooperation Council (GCC) is expected by the end of this year. The commerce minister is also expected to sign to framework agreement with Mercosur countries (i.e. Brazil, Argentina, Paraguay and Uruguay).

Pakistan has initiated talks with several other countries for preferential market access arrangements. Bilateral negotiations in this regard are underway with Mauritius, Morocco, Russia, and Thailand. Additionally multilateral negotiations are taking place in the context of the Organization of Islamic Countries (OIC), and Group of Developing Eight countries (D-8). Further a joint consultative study group for a potential PTA with Association of South East Asian Nations (ASEAN) has also been formed.

1.3. OVERVIEW OF TRADE AND ECONOMIC COOPERATION BETWEEN CHINA AND PAKISTAN

1.3.1. TRADE IN GOODS

Bilateral trade between China and Pakistan has seen rapid development. Between 1996 and 2006, the bilateral trade grew from 0.96 billion US Dollars to 5.25 billion US Dollars at an annual average growth rate of 19.5%, higher than that of China's total. According to Chinese Customs statistics, China's import and exported to Pakistan reached 1.01 billion US Dollars and 4.24 billion US Dollars in 2006, becoming the second largest trade partner of Pakistan. Pakistan has in turn become the second largest trade partner of China in South Asia.

Due to the differences in economic development level and industrial structure of the two countries, availability of supplier's credit, loans at the bilateral levels and foreign private investments by the Chinese firms in Pakistan, China's exports to Pakistan have grown more rapidly. Between 2001 and 2006, the annual average growth rate reached 36.5%, while China's imports from Pakistan at an annual growth rate of merely 13.6%. The trade deficit sustained by Pakistan has constantly expanded, amounting to 2.6 billion US Dollars in 2005 and reaching 3.23 billion US Dollars in 2006.

In terms of product composition, the main commodities exported from China to Pakistan consist of machinery, consumer durables (such as electrical appliances and electronic products, garments), and industrial raw material (such as plastics and chemical products), etc. The main export commodities from

Pakistan to China include cotton yarn threads, cotton woven fabrics, copper and copper products, leather and primary chemical products, etc.

1.3.2. TRADE IN SERVICES

Trade in services between China and Pakistan has developed gradually and steadily. In 2005, the total bilateral service trade amounted to 237 million US Dollars, of which China exported 153 million US Dollars and imported 84 million US Dollars. Construction and tourism are the two largest categories of service export by each country.

1.3.3. MUTUAL INVESTMENT

Mutual investment between China and Pakistan is relatively small in scale, and is just at the starting phase. According to official statistics[7], the contracted investment of China to Pakistan in 2006 was 3.79 million US Dollars and the number of investment projects of Pakistan to China was 28, with the contracted investment of 26.33 million US Dollars and actual investment of 6.18 million US Dollars. By the end of 2006, China's contracted investment to Pakistan amounted to 108 million US Dollars. Pakistan invested in 157 projects in China, with contractual and actual investments amounted to 126 million US Dollars and 30.86 million US Dollars respectively.

The main manufacturing investment projects by China in Pakistan include the Haier Industrial Park, ZTE (Pakistan) Co. Ltd., Saindak Copper-gold Mine by the MRDL Corporation of China, Duddar Lead-zinc Mine and the Saigol-Qingqi Motorcycle Co. Ltd. The investments of Chinese firms in infrastructure, automobiles, textile and foreign assistance have opened a new area of economic relationships between the two countries and increased bilateral trade.

1.3.4. ECONOMIC & TECHNICAL COOPERATION

Pakistan is a key market for China to conduct overseas contract engineering projects and labor export. In 2006, the contractual value of engineering projects invested by Chinese companies to Pakistan reached 1.99 billion US Dollars, and the actual turnover amounted to 988 million US Dollars, a growth of 70% compared with that in 2005. Up to the end of 2006, the accumulated value of contracted projects and labor export of China to Pakistan had reached 10.01 billion US Dollars, and the actual turnover amounted to 7.72 billion US Dollars.

[7] Ministry of Commerce of the People's Republic of China

In recent years, the sustained rapid development of the Pakistani economy and expanding market demand have provided hard-won opportunities for China to conduct contracted engineering projects and export large electrical & machinery equipment. At present, there are more than 30 Chinese enterprises engaged in such kind of businesses that cover numerous fields such as water conservancy, electricity, traffic, communications, railways, petroleum & natural gas, machinery manufacturing, mineral resource development and construction. The Karakoram Highway, Gwadar Port Project, waterway dredging project of the port, CHASHMA-2 project (nuclear power plant) and many other important projects are examples of economic cooperation and embodiment of the friendship between the two countries. In November 2006, the leaders of the two countries attended an inauguration ceremony of Pakistan Haier-Ruba Economic Zone, the first overseas industrial zone established by China.

1.3.5 INSTITUTIONAL ARRANGEMENTS FOR BILATERAL TRADE AND ECONOMIC COOPERATION

Through concerted efforts by both sides, China and Pakistan have concluded a number of agreements and institutional arrangements in fields such as trade, investment and economic & technical cooperation. Significant progress has been achieved in trade and economic cooperation.

In January 1963, the two countries signed a bilateral trade agreement.

In October 1982, the two countries established the China-Pakistani Joint Committee on Economic, Trade and Technical Cooperation, which has convened 12 conferences so far.

In February 1989, the two countries signed the Agreement on Mutual Encouragement and Protection for Investments, encouraging and supporting enterprises from both sides to invest in both ways.

In November 1989, the two countries signed the Agreement on the Prevention of Double Taxation of Incomes and the Prevention of Tax Evasion.

The traditionally strong ties between Pakistan and China were further strengthened with Chinese Prime Minister, Zhu Rongji's visit to Pakistan in May 2001. During this visit, 6 Agreements and one Memorandum of Understanding (MoU) amounting to over one billion dollars were signed between Pakistan and China.

In November 2003, Chinese President Hu Jintao and Pakistani President Pervez Musharraf signed a preferential trade arrangement, stating that the two sides would further promote the development of bilateral trade and strengthened cooperation in the field of labor export and contracted engineering projects with the ultimate goal of establishing a free trade arrangement.

In November 2003, the two countries signed the Joint Declaration between China and Pakistan on Directions of Bilateral Cooperation [8], promoting the cooperation in such fields as agriculture, manufacturing, science, technology & information, transportation, finance and so on, while at the same time both sides actively expanded, promoted and regulated the bilateral trade.

In 2003, the tourist administrations of China and Pakistan signed the Memorandum of Cooperation. Starting from November 1st 2003, Pakistan acquired Approved Destination Status and became a destination country for Chinese tourists. The two sides are committed to strengthening cooperation in developing the tourist markets in the two countries.

Another land mark in Pak-China relations has been Prime Minister, Shaukat Aziz's visit to China in the year 2004. Seven agreements in trade, communication and energy sector were signed between the two countries and a framework was drawn up for greater cooperation.

During the Chinese Prime Minister, Wen Jiabao's April 2005 visit, 21 agreements and MoUs were signed on cooperation in economic, defence, energy, infrastructure, social sector, health, education, higher education, housing and other areas. The Agreement on Early Harvest Programme (EHP) was signed, which is a mini fast track prelude to the FTA under negotiation. Both Pakistan and China have increased market access for each other on items of significant commercial interests. This program became operational with effect from 1st January 2006.

In February 2006, on the occasion of Pakistani President Pervez Musharraf's visit to China, 23 MOU's amounting to US $555 million in various sectors like Financial, Infrastructure, Media, Power Generation, Urea fertilizer, Steel, Pre-fab Housing, Pharmaceuticals, Pesticides, Automobiles & Motorcycles and Vaccines were signed during this Forum.

In November 2006, during President Hu's visit to Pakistan, 31 agreements / MoUs were signed between the public and Private sector of the two countries. And, during the visit by Premier of Pakistan to China in April 2007, 13 agreements/MOUs were signed. Most of these documents feature bilateral trade and economic cooperation, such as the Agreement on Strengthening Cooperation in Customs Affairs, the Sino-Pakistani Framework Agreement on Cooperation in the Field of Energy, Protocol on Plant Quarantine over the Permitted Rice and Orange Exports from Pakistan to China, Agreement on the Support for Chinese and Pakistani Enterprises to Strengthen Cooperation in the Manufacturing Field,

[8] Joint Declaration between China and Pakistan on Direction of bilateral cooperation.

Agreement on the Cooperation between China Council for the Promotion of International Trade (CCPIT) and the Trade Development Authority of Pakistan (TDAP), Sino-Pakistani Agreement on Economic and Technological Cooperation, Framework Agreement on Expanding and Deepening Bilateral Economic and Trade Cooperation between the Government of the People's Republic of China and the Government of the Islamic Republic of Pakistan, and the Five-year Development Plan for Trade and Economic Cooperation between 2007 and 2011, etc. These agreements are of great significance to the cooperation between China and Pakistan in trade and economics.

1.3.6. CHINA-PAKISTAN FREE TRADE AGREEMENT

Engagements by both countries to translate the all weather bilateral friendship at political level into economic and trade linkages began in November, 2003 with the signing of a bilateral Preferential Trade Agreement (PTA). Thereafter, a Joint Feasibility Study for a bilateral Free Trade Agreement (FTA) was conducted and simultaneously an Agreement on an Early Harvest Programme (EHP) of the FTA was also negotiated in 2005. During a high level visit to Pakistan from China, successful conclusion of a Joint Feasibility Study was announced and the Agreement on EHP was signed. The EHP Agreement was enforced on 1st January, 2006. Meanwhile negotiations on a comprehensive bilateral Free Trade Agreement continued.

Negotiations on any Free Trade Agreement are intense and complicated. They require high levels of knowledge, skills and a deep commitment. Negotiators represent stakeholders of the respective countries who promote and protect their interests. In spite of all these difficulties, the negotiations were completed in five Rounds of discussions on 11th November, 2006 at Beijing.

The Free Trade Agreement with China covers Trade in Goods as well as Investment. Pakistan is the first country which has the component of Investment in the FTAs so far initiated and implemented by China.

The Free Trade Agreement was signed by the Islamic Republic of Pakistan and the People's Republic of China on 24 November 2006 and entered into force on 1 July 2007. The Agreement embodies a phased and gradual programme of elimination of tariff on substantially all bilateral trade.

The Agreement was notified to the WTO on 18 January 2008 under Article XXIV:7(a) of GATT 1994. The text is available, together with its Annexes, on the web site of the Ministry of Commerce, Government of Pakistan and MOFCOM, China.[9]
For both the countries tariff reductions or eliminations for the first phase are to be completed within a period of five years, i.e. by 1 January 2012. Duty eliminations or reductions took place on 1st July, 2007 and on 1 January in subsequent years. The Agreement in Article 8 (3) provides

[9] http://www.commerce.gov.pk/PCFTA.asp

http://gjs.mofcom.gov.cn/aarticle/af/fazzn/200611/20061103845345.html *and*
http://fta.mofcom.gov.cn/pakistan/xieyiwenben.shtml

that Tariff Reduction Modality and the Annex relating to elimination or further reduction of tariff to be reviewed on or before 2012. First Review of implementation of the Agreement may take place by the end of 2008.

Under the Agreement, both countries have agreed to accord national treatment to the goods of the other party in accordance with Article III of the GATT 1994 (Article 7 of the Agreement).

Pakistan and China have bound applied MFN tariff of 2006, which is already much below to the Bound Tariff in WTO. Tariff liberalization covers Chapters 1-97 of the Harmonized System (HS). In the case of Pakistan, for the first phase the Agreement provides for six different categories of tariff reduction modalities as follows: elimination of tariffs within three years (I); duties reduced to 5% or below within five years (II); duties reduced by a margin of preference of 50% within five years (III); duties reduced by a margin of preference of 20% within five years (IV); no concession (V); and excluded (VI). For China, for the first phase, five categories are foreseen: elimination of tariffs within three years (I); duties reduced to 5% or below within five years (II); duties reduced by a margin of preference of 50% within five years (III); duties reduced by a margin of preference of 20% within five years (IV); and no concession (V).

The FTA envisages reduction of applied MFN rate after the entry into force of the Agreement and before the end of the tariff elimination period, the tariff elimination schedule is to be applied to the reduced rate (Article 8.2). Upon request by either Party, the Parties agree to consider accelerating the elimination of customs duties (Article 8.3). The Parties agree to review and modify the tariff reduction modalities every five years. The first review is scheduled to take place either at the end of the fourth year or at the beginning of the fifth year after entry into force of the Agreement, i.e. by end 2010 or the beginning of 2011 (Article 8.4).

Under Phase II of the Agreement, Pakistan and China have agreed to eliminate tariffs on no less than 90% of products, both in terms of tariff lines and trade volume within a reasonable period of time. The second phase will begin after the completion of the first phase of tariff elimination/reduction. The period of completion of the second phase is to be negotiated by both countries.

1.3.6.1. Liberalization of Trade and Tariff Lines

The elimination of tariffs applicable between both the countries is detailed in their corresponding schedules. Tariff elimination began on the date of entry into force of the Agreement, i.e. 1 July 2007; subsequent reductions or eliminations of duties take place on 1 January of following years. The base rate used for tariff reductions is the applied MFN rate applicable in 2006.

Table 3: Tariff Reduction Modality

Category	Track	No. of Tariff Lines	No. of Tariff Lines

No.		(Pakistan)	(China)
I.	Elimination of tariff (Three years in linear way)	2423 (36.6%)	2681 (35.5%)
II.	0-5% (five years in linear way)	1338 (19.9%)	2604 (34.5%)
III.	Reduction on Margin of Preference of 50% (five years in linear way)	157 (2%)	604 (8%)
IV.	Reduction on Margin of Preference of 20% (five years in linear way)	1768 (26.1%)	529 (7%)
V.	No Concession	1025 (15%)	1132 (15%)
VI.	Exclusion	92 (1.4%)	-

Most of the products in Pakistan's Category I (0%) and II (5%) include machinery, raw materials and intermidetiary goods. On the other hand in China's Track I and II category list finished products and included. The FTA has therefore created a strong linkage of trade and investment between both the countries. It has provided immense opportunities to the investors to invest in Pakistan and manufacture products using duty free inputs from China and export the finished goods in the expnding market of China under preferential tariff.

1.3.6.2. Rules of origin

Disciplines regarding rules of origin are set out in Chapter IV of the Agreement. Article 12 defines the terms used and Articles 13-24 provide the substantive rules.

A good is considered as originating when it (Article 13):
is wholly obtained or produced in one of the Parties; or

fulfils a minimum local value content of 40% determined in accordance with Article 15; or

has undergone sufficient transformation in accordance with the product specific criteria which shall be annexed to the rules of origin, when negotiated bilaterally, currently, no Product Specific Rules exist.

Bilateral cumulation is allowed under the Agreement (Article 16) i.e., cumulation in terms of materials and components between the Parties.

1.3.6.3. Standards

Sanitary and phytosanitary measures

The Chapter VI of the Agreement lays down the provisions applying to sanitary and phytosanitary measures. In Article 29 both countries reaffirm their existing rights and obligations under the WTO Agreement on the Application of SPS Measures. With regard to transparency, they agree to cooperate as per the transparency requirements of the SPS Agreement and to exchange information related to sanitary and phytosanitary conditions in their territories. Article 34 provides for the establishment of a Committee on Sanitary and Phytosanitary matters composed of each Party's representatives within two months of the Agreement's entry into force. The Committee has been mandated to meet at least once a year unless the Parties agree otherwise.

Technical barriers to trade

Chapter VII lays down the provisions applying to standards and technical regulations. Both countries reaffirm their existing rights and obligations with respect to each other under the WTO Agreement on Technical Barriers to Trade and agree to use international standards or relevant parts thereof as the basis for their technical regulations and related conformity assessment procedures. Article 39 provides for the Parties, through consultation, to seek to identify specific cooperation areas and products, and arrange for cooperative implementation initiatives. Article 40 provides for a range of measures to improve transparency of technical regulations including electronic transmission of proposals to the other Party's inquiry point. In Article 41, the Parties agree to establish a Joint Committee on Technical Barriers to Trade to monitor the implementation and administration the provisions of Chapter VII. The Committee to meets at least once a year unless agreed otherwise by the Parties.

Safeguard mechanisms

Global safeguards

Under Article 26 o the Agreement, both countries maintain their rights and obligations under Article XIX of GATT 1994 and the Agreement on Safeguards. Actions taken pursuant to WTO rules are not subject to the Agreement's rules on dispute settlement.

Bilateral safeguards

Article 27 of the Agreement sets out the rules that apply to the imposition of a bilateral safeguard measure. During the transition period, a Party may impose a bilateral safeguard measure on a product benefiting from preferential tariff treatment under the Agreement if there is an increase in imports in absolute terms and under such conditions as to constitute a substantial cause of serious injury or threat thereof to the domestic industry of the importing Party producing a like or directly competitive good. Disciplines regarding the application of such measures include an investigation by the Party's competent authorities prior to its application; its scope and duration; consultation procedures; and compensation. The Parties agree within five years of the entry into force of the Agreement to meet to determine whether there is a need to maintain the bilateral safeguard mechanism.

Anti-dumping and countervailing measures

Under Article 25 of the Agreement both countries maintain their rights and obligations under the Agreement on the Implementation of Article VI of the GATT 1994 and the Agreement on Subsidies and Countervailing Measures. Antidumping actions taken pursuant to the WTO agreements may not be subject to the Agreement's rules on dispute settlement.

Subsidies and State-aid

Under Article 25 of the Agreement, both countries maintain their rights and obligations under the WTO Agreement on subsidies and countervailing measures.

Other regulations

Customs-related procedures

Customs procedures related to rules of origin are detailed in Operational Certification Procedures (OCP) annexed to the Agreement, which contains a sample of the certificate of origin which is to be issued by the government authority designated by the exporting Party and notified to the other Party in accordance with the procedures.

Transparency

Chapter VIII of the Agreement provides for a range of measures to promote transparency including the establishment of contact points; prompt publication of measures on any matter covered by the Agreement; notification and provision of information; and access to confidential information.

Intellectual Property

Article 10 of the Agreement provides that any right holder initiating procedures for suspension by the customs authorities of the release of suspected counterfeit trademark or pirated copyright goods into free circulation is required to provide adequate evidence to satisfy the competent authorities that, under the relevant laws of the importing country, there is prima facie an infringement of the right holder's IPR and to supply sufficient information to make the suspected goods reasonably recognizable to the customs authorities.

Investment

Chapter IX of the Agreement sets out the provisions relating to investment. Investment is defined as every kind of asset invested by investors of one Party in accordance with the laws and regulations of the other Party in the territory of the latter, including movable and immovable property and other property rights such as mortgages, pledges and similar rights; shares, debentures, stock and any other kind of participation in companies; claims to money or to any other performance having an economic value associated with an investment; intellectual property rights, in particular copyrights, patents, trade-marks, trade-names, technical process, know-how and good-will; and business concessions conferred by law or under contract permitted by law, including concessions to search for, cultivate, extract or exploit natural resources. Investors are defined as natural persons who have the nationality of either Party in accordance with its laws, and legal entities, including companies, associations, partnerships and

other organizations, incorporated or constituted under the laws and regulations of either Party and having their seats in that Party.

Further provisions of Chapters IX relate to the promotion and protection of investment, treatment of investors and investments, expropriation, compensation for damages and losses, transfers, subrogation, and the settlement of disputes between Parties and between investors and one Party.

To facilitate the establishment of China specific investment zones in Pakistan, both countries commenced negotiations to amend the bilateral FTA. The negotiations were concluded in three rounds and the protocol amending the bilateral FTA was signed during the visit of President of Pakistan to China on October 15, 2008. Pakistan has provided fiscal and other incentives for the development of the investment zones projects established therein with Chinese investment. In return China would consider to eliminate tariff on goods manufactured in the zones.

Institutional framework

Article 11 of the Agreement provides for the establishment of a Committee on Trade in Goods, comprising representatives at the level of joint secretary, director general or deputy director general. The Committee's functions include promoting trade in goods between the Parties, including through consultations on accelerating tariff elimination under the Agreement; addressing barriers to trade in goods between the Parties, especially those related to the application of non-tariff measures; monitoring and evaluating the implementation of tariff reduction schedules; and any other issue related to trade in goods, referred to by either Party.
Article 75 provides for the establishment of a Free Trade Commission responsible for supervising the implementation and interpretation of the Agreement. It is also responsible for facilitating the avoidance and settlement of disputes and the supervision of the work of all committees and working groups established under the Agreement. The Free Trade Commission meets at least once a year in regular session, or as otherwise mutually determined by the Parties.

Dispute settlement

Chapter X sets out the procedures that apply to the avoidance and settlement of disputes between the Parties regarding questions of interpretation or application of the Agreement. In the event that consultations between the Parties fail to settle the dispute an arbitral tribunal may be appointed. Article 60 provides for a forum election clause for matters falling under both the Agreement and other agreements to which both Parties are party; however, once the complaining Party has chosen the forum to settle the dispute, that forum shall be used to the exclusion of the others (exclusive forum clause).
31. The Agreement provides for detailed steps for dispute resolution, the most salient of which are synoptically described below. It requires the Parties to establish rules of procedure to ensure that they have the right to a hearing before the arbitral panel and the opportunity to present initial submissions and counter-submissions in writing. The hearings before the arbitral panel, the deliberations and preliminary report, as well as all the communications presented are confidential. The Parties may, however, disclose statements of their own positions to the public.

Trade in Services

Pakistan and China are now negotiating an Agreement on Trade in Services. Four Rounds of talks have been held so far. The text of the Agreement on Trade in Services has been finalized by both the countries. The revised final Schedules of Specific Commitments would be

exchanged in the Fifth Round, which is scheduled in December, 2008. The relevant stake holders are examining the requests for providing market access in various services sectors and sub-sectors. The negotiations on Trade in Services have been put on fast track and are likely to be concluded by the fifth round.

1.4. DEVELOPMENT PROSPECTS OF BILATERAL TRADE & ECONOMIC COOPERATION

China is of great interest to developed and developing countries, not only because of its significant role in international trade and capital flows, but also because of its rapid transformation from a centrally-planned economy into an industrialized country over just a few decades. In the presence of a global integrated market, China is of a particular importance to Pakistan both in the shape of potential market and as well as being a strong regional partner.

Trade and economic cooperation between China and Pakistan has a bright prospect. On the one hand, rapid economic growth and further deepening of trade and economic connections between the two countries have laid a sound foundation for future development. On the other hand, rapidly expanding bilateral trade and mutual investment indicates certain degree of complementarity between the two economies. And the bilateral FTA will place the two countries in a better place to fully exert each other's comparative advantages and tap cooperation potentials. Through joint efforts, bilateral trade of goods in 2011 is likely to reach 15 billion US Dollars.

While the growth in bilateral trade has been quite rapid, there exist difficulties and obstacles in developing bilateral economic and trade relations. For example, the bilateral trade concentrates on a relatively narrow range of products; as much as 90 percent of Pakistan's exports to China consisting of raw cotton, cotton yarn, cotton fabrics and synthetic textiles; Pakistan's trade deficit with China is expanding; transportation condition between the neighboring regions of the two countries does not meet the need of bilateral trade development with relatively low efficiency in custom clearance. The challenge at present is how to actively promote trade facilitation, upgrade trade structure and make bilateral trade more broad-based and diversified, and explore more areas of cooperation so as to strengthen economic relations between the two countries.

Pakistan boasts rich per capita resources and low cost of labor force with underdeveloped manufacturing industry. Pakistan will be encouraging Foreign Direct Investment in canning of fruits, vegetables, seafood and livestock products, electrical and non-electrical machinery, electronics, automobiles, textile and engineering. At the same time, the opportunities presented by China's opening-up also need to be fully

exploited by Pakistani firms. Therefore, China and Pakistan should actively promote investment facilitation and explore new forms of investment cooperation, such as setting up joint ventures in Pakistan or China to provide platform for Pakistani products to penetrate Chinese market; establishing industrial parks to encourage Chinese enterprises to make investment in Pakistan exploiting resources as well as conducting industrial and technical cooperation to promote transfer of technology, spread new managerial skills and enable Pakistani companies to remain in touch with the changing market condition. These measures will not only help enhancing manufacturing industry in Pakistan, but also promote Chinese enterprise to expand overseas markets.

In order to enhance economic and trade relations, bilateral economic cooperation should go beyond trade and investment facilitation and work to further expand the fields of cooperation by:

1. strengthening cooperation and information exchange between government departments, industrial associations and chambers of commerce, etc.;

2. fully exploring the potentials of cooperation of bilateral trade in services such as education and training, and tourism, etc.;

3. exploring comparative advantages and promote cooperation mutually beneficial in the fields such as human resource development, physical infrastructure, agriculture, environment protection, and energy;

4. improving cross-border transportation and trade financing environment to provide better and convenient conditions for enhancing bilateral trade;

5. exploring the potential of trade between the North-western part of China and the north area of Pakistan due to the availability of road routes like Karakoram Highway. Shorten the time involved in transportation and trade in perishable goods will help in broadening the scope of trade between the two countries.

6. implementing tariff reduction arrangements on trade in goods and promoting the negotiation on trade in services, ensuring the peoples and enterprises of the two countries really benefit from the bilateral FTA.

The following chapters will further analyze the potentials for further economic and trade cooperation between China and Pakistan in specific fields as trade in goods, trade in service, investment and economic cooperation in more details; identify the barriers that restrain economic cooperation between the two

countries; and put forward policy recommendations to the Governments of the two countries on how to promote future development of economic and trade cooperation.

CHAPTER No. 2

TRADE IN GOODS

2.1.STATUS QUO

2.1.1. TOTAL VOLUME OF EXPORTS AND IMPORTS AND BALANCE OF TRADE

China's overall trade in goods in 2006 amounted to US$1,761 billion, which was equivalent to 66% of the country's GDP. China thus became the third largest trading power in the world, with US$969 billion worth of exports which grew by 27% from 2005-06 and US$791 billion worth of imports which grew by 20% from 2005-06 (Table 4~~Table 4~~). The respective shares of China's exports and imports in the world's total exports and imports in 2006 were 10.86% and 8.40%. The overall merchandise trade of Pakistan in 2006 amounted to US$44.4 billion, with a trade dependency degree of 38%. Compared with the previous year, the exports of Pakistan grew by 15.4% to US$16.47 billion, and imports grew by 39.4% to US$28.4 billion (Table 5~~Table 5~~). The shares of Pakistani exports and imports in the global total exports and imports in 2006 were 0.19% and 0.32% respectively.

Since both the absolute volume and growth rate of China's exports were higher than that of its imports, the country's trade surplus reached a record high of US$177 billion in 2006 (Table 4~~Table 4~~). The case for Pakistan was the other way around. Both the absolute volume and growth rate of Pakistan's exports were lower than that of its imports, pushing the country's trade deficit to a record high of US$11.93 billion in 2006 (Table 5~~Table 5~~).

Table 4: Recent Trends of China's Overall Trade in Goods

Years	Absolute Sum (US$ bln)			Growth Rate (%)		
	Exports	Imports	Trade Balance	Exports	Imports	Trade Balance
1995	148.78	132.08	16.70	23	14.2	209.6
1996	151.05	138.83	12.22	1.5	5.1	-26.8
1997	182.79	142.37	40.42	21	2.5	230.9
1998	183.71	140.24	43.48	0.5	-1.5	7.6
1999	194.93	165.70	29.23	6.1	18.2	-32.8
2000	249.20	225.09	24.11	27.8	35.8	-17.5
2001	266.10	243.55	22.55	6.8	8.2	-6.5
2002	325.60	295.17	30.43	22.4	21.2	34.9
2003	438.23	412.76	25.47	34.6	39.8	-16.3
2004	593.32	561.23	32.09	35.4	36	26
2005	761.95	659.95	102.00	28.4	17.6	217.9
2006	969.07	791.61	177.46	27.1	19.9	74

Source: Key Indicators 2006, Asian Development Bank.

Table 5: Recent Trends of Pakistan's Overall Trade in Goods

Years	Absolute Sum (US$ bln)			Growth Rate (%)		
	Exports	Imports	Trade Balance	Exports	Imports	Trade Balance
1995	7.97	10.14	-2.17	22.3	24.2	-32
1996	8.21	11.02	-2.82	17.4	23.9	-47.9
1997	7.98	11.33	-3.35	10.8	17.1	-35.4
1998	8.36	9.69	-1.33	14.8	-6.3	56.4
1999	7.96	9.43	-1.47	4.6	6.9	-21.2
2000	8.33	9.97	-1.63	13.5	14.6	-20.3
2001	8.76	10.14	-1.37	21.4	17.4	3
2002	9.46	10.64	-1.17	4.1	1.2	17.5
2003	11.35	12.38	-1.03	15.9	12.5	15.1
2004	12.58	15.43	-2.84	11.9	25.7	-178.4
2005	14.45	20.63	-6.18	17.3	36.6	-122
2006	16.47	28.40	-11.93	15.4	39.4	-95.6

Source: Key Indicators 2006, Asian Development Bank.

2.1.2. COMMODITY STRUCTURE AND DIRECTIONS OF TRADE

Major products exported by China in 2006 included machinery, mechanical appliances and electrical equipment (42.83%), textile and textile articles (14.29%), base metals and articles thereof (8.83%), miscellaneous manufactured articles (5.71%), and transportation equipment (3.98%). The main products imported by China in the same year included machinery, mechanical appliances and electrical equipment (accounting for 41.56% of the total), mineral products (15.65%), musical instruments (7.61%), base metals and articles thereof (7.57%), chemical products (7.12%), and plastic and rubber (5.86%)[10].

Major markets for China's exports in 2006 included the United States (accounting for 21.04% of the total), Hong Kong, China (16.04%), Japan (9.47%), South Korea (4.60%) and Germany (4.16%). Main countries from which China imported were Japan (154.63%), South Korea (11.34%), the United States (7.49%) and Germany (4.79%).

On the other hand, the main products exported by Pakistan in 2006 included basic manufactures (47.92%), miscellaneous manufactured goods (28.21%), food and live animals (11.46%), mineral fuels etc. (5.00%) and chemicals (2.61%). Major products imported by Pakistan included machines, transport equipment (29.12%), mineral fuels etc. (24.19%), chemicals (14.63%), basic manufactures (11.72%), crude materials (6.61%), and food and live animals (6.07%).

Main destinations of Pakistan's exports in 2006 included the United States (accounting for 21.40%), United Arab Emirates (9.21%), Afghanistan (7.42%), China (5.44%), UK (5.19%) and Germany (4.7%). Pakistan imported mainly from China (13.73%), Saudi Arabia (10.43%), United Arab Emirates (9.70%), the United States (6.44%), Japan (5.72%), Kuwait (4.68%), and Germany (4.11%).

[10] According to data from Asian Development Bank (ADB). Commodity analysis for Pakistan is according to SITC classification, China according to HS classification.

Figure 1: Chinese Import Origins - 2006

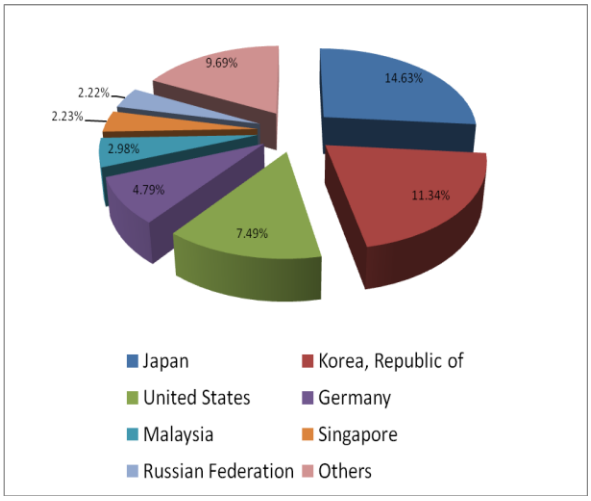
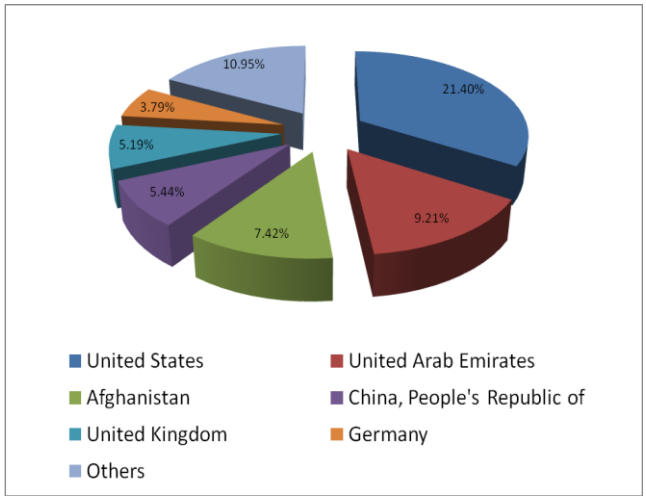


Figure 2: Pakistani Import Origins - 2006



2.1.3. CHINA AND PAKISTAN BILATERAL TRADE FLOWS

China has become Pakistan's major trading partner accounting for roughly 19% of Pakistan's total trade in 2006. Pakistan's trade with China increased from US$794.76 million in 2000 to US$3,421.57 in 2006 (Table 6~~Table 6~~). There are several factors that have contributed to the phenomenal increase in trade between the two countries in recent years. On the domestic side, four years of strong economic growth strengthening domestic demand and triggering a consequent pick up in investment spending has led to a surge in imports from China. Similarly, stellar growth in China has led to an increase in the demand for our exports, though these remain small in absolute terms. China's expanding economy has a population more than the combined population of the EU and America. On the one hand Chinese products, being more affordable, are in higher demand in Pakistani markets. On the other hand higher income of Chinese consumers is making it easier for our exports to make inroads in the Chinese economy.

Though bilateral trade with China has increased over the years it remains concentrated in a few commodities. In 2006, machinery and transport equipment (the bulk of which comprised of telecommunications equipment and general industrial machinery) and manufactured products (made up of textile yarn and fabrics and iron and steel) respectively accounted for 48 percent and 24 percent of Pakistan's total imports from China (Table 8~~Table 8~~). Similarly Pakistan's exports to China were dominated by manufactured goods (mostly comprised of textile yarn, fabrics and made-up articles), which accounted for nearly 78 percent of total exports to China (Table 7~~Table 7~~).

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Table 6: Pakistan's Bilateral Trade with China

(million US $)

Period	Exports	Share	Imports	Share
1990	66.91	1.20%	336.68	4.58%
1991	61.36	0.94%	358.44	4.23%
1992	54.12	0.74%	420.78	4.49%
1993	59.97	0.87%	436.59	4.48%
1995	121.16	1.49%	515.26	4.40%
1996	118.88	1.28%	574.27	4.73%
1997	158.20	1.81%	584.80	5.04%
1998	154.96	1.82%	422.75	4.54%
1999	180.72	2.16%	446.76	4.40%
2000	244.65	2.66%	550.11	4.97%
2001	289.38	3.13%	487.02	4.78%
2002	236.37	2.39%	698.54	6.29%
2003	259.64	2.18%	957.33	7.34%
2004	300.58	2.25%	1,488.77	8.29%
2005	435.68	2.71%	2,349.39	9.36%
2006	506.64	2.99%	2,914.93	9.77%

Source: UN COMTRADE Database - online access

Figure 3: Bilateral Trade Growth Rates: 1991 - 2005

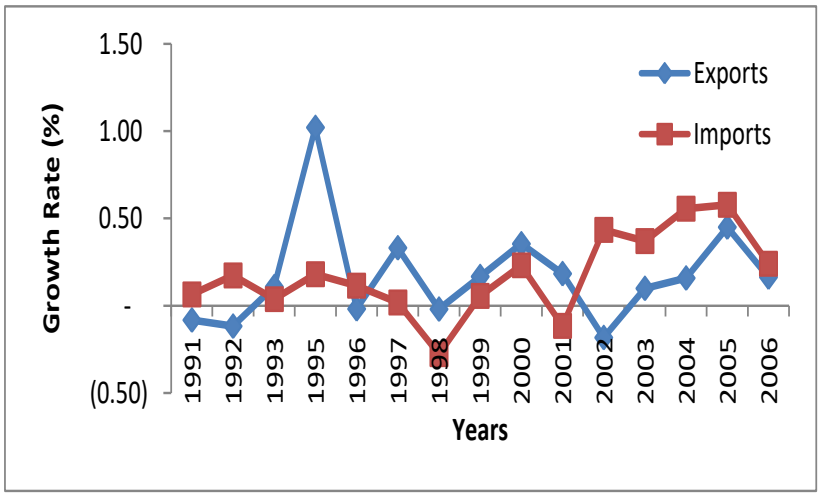

Table 7: Commodity-wise Bilateral Trade of Pakistan with China - Exports

(US $ Millions)

Prouct Category	1990		1998		2004		2006	
	Value	Share	Value	Share	Value	Share	Value	Share
Exports								
Total	66.91	100.00%	154.96	100.00%	300.58	100.00%	506.64	100.00%
Manufactured goods classified chiefly by materials	1.62	2.42%	126.59	81.70%	223.72	74.43%	393.04	77.58%
Crude materials, inedible, except fuels	50.18	74.99%	9.86	6.36%	32.30	10.75%	54.87	10.83%
Food and live animals chiefly for food	0.01	0.01%	11.90	7.68%	24.56	8.17%	29.18	5.76%
Chemicals and related products, nes	0.01	0.02%	0.20	0.13%	10.45	3.48%	20.12	3.97%
Miscellaneous manufactured articles	0.13	0.19%	0.47	0.30%	6.28	2.09%	7.05	1.39%
Machinery and transport equipment	0.14	0.22%	2.86	1.85%	2.82	0.94%	2.24	0.44%
Commodities and transactions not classified elsewhere in the SITC	0.46	0.68%	0.01	0.00%	0.33	0.11%	0.14	0.03%
Animal and vegetable oils, fats and waxes	14.37	21.47%	3.07	1.98%	0.01	0.00%	0.00	0.00%
Beverages and tobacco	-	0.00%	-	0.00%	0.10	0.03%	-	0.00%

Source: UN COMTRADE Database

Table 8: Commodity-wise Bilateral Trade of Pakistan with China - Imports

(US $ Millions)

Product Category	1990		1998		2004		2006	
	Value	Share	Value	Share	Value	Share	Value	Share
Imports								
Total	336.68	100.00%	422.75	100.00%	1,488.77	100.00%	2,914.93	100.00%
Machinery and transport equipment	94.49	28.07%	142.97	33.82%	677.73	45.52%	1,393.10	47.79%
Manufactured goods classified chiefly by materials	54.42	16.16%	71.24	16.85%	275.23	18.49%	702.61	24.10%
Chemicals and related products, nes	59.99	17.82%	155.97	36.89%	327.79	22.02%	394.28	13.53%
Miscellaneous manufactured articles	6.96	2.07%	20.91	4.95%	93.32	6.27%	188.35	6.46%
Mineral fuels, lubricants and related materials	4.14	1.23%	4.12	0.97%	54.18	3.64%	113.97	3.91%
Food and live animals chiefly for food	112.28	33.35%	23.37	5.53%	43.28	2.91%	94.36	3.24%
Crude materials, inedible, except fuels	3.88	1.15%	3.50	0.83%	13.65	0.92%	24.88	0.85%
Commodities and transactions not classified elsewhere in the SITC	0.15	0.04%	0.51	0.12%	2.70	0.18%	2.64	0.09%
Animal and vegetable oils, fats and waxes	0.38	0.11%	0.15	0.04%	0.66	0.04%	0.69	0.02%
Beverages and tobacco	-	0.00%	0.01	0.00%	0.24	0.02%	0.04	0.00%

Source: UN COMTRADE Database

The composition of bilateral trade between the two countries has undergone a shift from primary to finished goods. Food and live animals item which constituted 33% of Pakistan's imports from China in the year 1990, decreased to about 3% in 2004. On the other hand, Machinery and Transport equipment item accounted for about 28% of Pakistan's import from China in the year 1990, increasing to about 45% in the year 2004. On the export side, Crude Materials item was about 75% of Pakistan's export to China in 1990, and in 2004 it reduced to about 11%. Whereas, manufactured goods accounted for 2% of Pakistan's export to China in 1990, it jumped to about 74% in 2004.

An analysis of commodity shares in bilateral trade reveals that the highest share of exports from China to Pakistan (in 2006) is for machinery, mechanical appliances and electrical equipment. As can be seen from Table 9~~Table 9~~, three product categories, namely machinery equipment (HS 84), telecommunications and electronic products (HS 85) and vehicles (HS 87), accounted for a total of 38% of China's exports to Pakistan. In addition, such products as textiles and garments, chemical products and rubber and plastics products also played important roles in China's exports to Pakistan. The two product categories of man-made filaments (HS 54) and knitted or crocheted apparel (HS 61) accounted for a total of 9.2% of the Chinese exports to Pakistan, while organic chemicals and miscellaneous chemical products accounted for 6.2% of the total. Rubber products (HS 40) and plastic products (HS 39) accounted for 5.4%. Miscellaneous goods, which accounted for 5.9%, were tourism purchases by Pakistani citizens in China (and mainly included costumes, shoes, caps and foodstuffs).

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Table 9: Share of Top 10 Product Categories in China's Exports to Pakistan

HS Code	Commodity	2000	2006
84	Nuclear reactors, boilers, machinery, etc	18.59%	18.39%
85	Electrical, electronic equipment	10.22%	15.40%
54	manmade filaments	1.36%	8.94%
99	Commodities not specified according to kind	6.68%	5.25%
72	Iron and steel	3.23%	3.40%
87	Vehicles other than railway, tramway	2.01%	3.34%
29	Organic chemicals	5.89%	3.18%
61	Articles of apparel, accessories, knit or crochet	0.60%	3.01%
73	Articles of iron or steel	2.28%	2.90%
40	Rubber and articles thereof	3.10%	2.51%
TOTAL	ALL COMMODITIES	53.97%	66.30%

Source: UNCOMTRADE Database website

From Table 10~~Table 10~~**Error! Reference source not found.**, it can be seen that cotton yarn has always been the most important product in Pakistan's exports to China. Compared with 2000, its proportion in 2006 dropped somewhat, but it was still as high as 70.70%. With the exploitation of Pakistan's domestic mineral resources, mineral products also took up an important position in the Pakistani exports to China. The proportions of copper ores and chrome ores in 2006 were 1.49% and 5.49% respectively, while both proportions were less than 2% in 2000. Another driving force of Pakistan's exports to China is raw hides and skins and leather, the proportion of which increased from 3.81% in 2000 to 6.19% in 2006. Other important products include organic chemical products, which accounted for 3.23% in 2006, which was less than its 2000 level of 4.87%.

Table 10: Share of Top Ten Product Categories in Pakistan's Exports to China

HS 2002 Code	Commodity	2000	2006
52	Cotton	80.95%	70.70%
41	Raw hides and skins (other than fur skins) and leather	3.81%	6.19%
26	Ores, slag and ash	1.85%	5.49%
03	Fish and crustaceans, molluscs and other aquatic invertebrates	1.69%	4.86%
29	Organic chemicals	4.87%	3.23%
74	Copper and articles thereof	0.06%	1.49%
39	Plastics and articles thereof	0.85%	1.02%
12	Oil seeds and oleaginous fruits	0.00%	0.78%
13	Lac; gums, resins and other vegetable saps and extracts	0.05%	0.64%
16	Preparations of meat, of fish or of crustaceans	0.00%	0.48%
TOTAL	ALL COMMODITIES	94.13%	94.89%

Source: UNCOMTRADE Database website

The importance of machinery, mechanical appliances and electrical equipment, textiles and garments as the main driving forces for China's exports to Pakistan is also borne out by the time trend of the commodity shares (Table 9). Between 2000 and 2006, the proportion of telecommunications and electronic products in the Chinese exports to Pakistan increased from 10.22% to 15.40%, the proportion of vehicles from 2.01% to 3.34%, man-made filaments from 1.36% to 8.94%, and knitted or crocheted

apparel from 0.60% to 3.01%. On the other hand, the importance of chemical products and tourism purchases in China's exports to Pakistan has decreased remarkably. The proportion of organic chemical products dropped from 5.89% to 3.18%, rubber and articles thereof from 3.10% to 2.51%, and miscellaneous goods from 6.68% to 5.25%.

So, it can be seen that China's exports to Pakistan were more diversified than Pakistan's exports to China; indicative of the fact that China is capturing further export markets while Pakistan has traditionally focused more on a limited range primary and semi-manufactured exports. The top ten product categories accounted for 65% of China's exports to Pakistan, while the top ten product categories accounted for as high as 94% of Pakistan's exports to China. In fact, the top five product categories alone accounted for over 90% of Pakistan's exports to China.

2.2. ANALYSIS OF TRADE PATTERNS

Though a simple analysis of the structure of overall and bilateral trade flows is quite revealing of the current status of trade between the two neighboring countries, it is more instructive to examine the pattern of bilateral trade between Pakistan and China in terms of the trade specialization index (TSI)[11]. The TSI may be defined as:

$$TSI = (x_i - m_i)/(x_i + m_i) \quad (1)$$

Where x_i and m_i respectively denote the exports and imports of the ith commodity. The index varies between +1 and -1; a value closer to +1 signifies exporters (Pakistan) comparative advantage and a value closer to -1 implies comparative advantage of the trading partner (China). Table 11~~Table 11~~ reports the trade specialization indices computed at HS2 commodity classification[12]. It is evident that Pakistan has comparative advantage in only a narrow range of products (11 products at HS2) including raw materials such as cotton and raw hides and some food products. On the other hand, China has comparative advantage in a broad range of commodities (84 product categories). This pattern of comparative

[11] Amable(2000)
[12] A more detailed listing of 2-digit commodity classification and associated TSI is included in Table A.5 in the Annex

advantage is not surprising given the enormous difference between the two countries in terms of economic size and the production structure. Also, the difference in the pattern of comparative advantage indicates the existence of significant trade complementarity between the two countries.

Table 11: Trade Specialization Index 2006 - Pakistan Top 11 Categories

HS Code	Commodity	TSI
03	Fish and crustaceans, molluscs and other aquatic invertebrates	1.00
01	Live animals	1.00
26	Ores, slag and ash	0.99
52	Cotton	0.97
41	Raw hides and skins (other than fur skins) and leather	0.96
05	Products of animal origin, not elsewhere specified	0.95
14	Vegetable plaiting materials; vegetable products nes	0.83
13	Lac; gums, resins and other vegetable saps and extracts	0.81
78	Lead and articles thereof	0.80
11	Products of the milling industry; malt; starches; inulin	0.41
10	Cereals	0.30

Source: Authors calculations, based on data from the UNCOMTRADE database

2.3. INTRA-INDUSTRY TRADE

Recent decades have witnessed an upsurge in intra-industry trade i.e. trade in similar but differentiated products. Various theoretical arguments have been advanced for explaining this phenomenon. According to Grubel and Lloyd (1975), differences in the level of technology and human capital can lead to intra-industry trade even in products with identical factor input requirements. Krugman (1981) emphasizes the role of monopolistic competition and increasing returns to scale in generating intra-industry trade. More precisely, Krugman argues that industries in which increasing returns are achieved at a fairly low level of output can accommodate many producers with each producing a different brand. Under these circumstances, each country will specialize in different varieties of the product and engage in intra-

industry trade. Another major reason for increased intra-industry trade is considered to be the growth of regional integration schemes involving cross-country production sharing arrangements.[13]

In view of the importance of intra-industry trade in the context of bilateral and regional cooperation initiatives, it is important to explore the extent of intra-industry trade of the two countries. For this purpose, the Grubel-Lloyd (GL) indices of intra-industry trade have been computed based on the global trading pattern of the two countries. The GL index of intra-industry trade is defined as:

$$GL = 1 - \{(|x_i - m_i|)/(x_i + m_i)\} \qquad (2)$$

The GL index varies between and 0 and 1, where 0 indicates no intra-industry trade and 1 shows a high degree of intra-industry trade.

Table 12~~Table 12~~ reports the GL indices for both Pakistan and China's top 10 products using their global trade at HS-2 commodity classification[14]. It is clear that intra-industry trade of both countries is quite significant and occurs in a wide range of commodities. For Pakistan, among the top commodity groups with significant intra-industry trade are articles of stone, plaster and cement, furniture and bedding, man-made filaments, tools, implements and cutlery, special woven fabrics, optical equipment. In contrast, intra-industry trade of China takes place in an extensive range of commodities from plastering materials to pharmaceutical products and from machinery and mechanical appliances to photographic equipment. There is, therefore, considerable potential for expanding intra-industry trade between the two countries.

Table 12: Grubel-Lloyd Index of Intra-Industry Trade - 2005

HS Code	Commodity	Pakistan	China
68	Articles of stone, plaster, cement, asbestos, mica or similar materials	0.97	0.33
94	Furniture; bedding, mattresses, cushions and similar stuffed furnishing	0.97	0.07

[13] Under such arrangements, various stages of the production process for a specific product are undertaken in different countries giving rise to intra-industry trade.
[14] A more detailed listing of all product categories (HS2) is included in Table A.6 in the Annex

54	Man-made filaments	0.95	0.78
06	Live trees and other plants;	0.89	0.94
82	Tools, implements, cutlery, spoons and forks, of base metal	0.88	0.47
20	Preparations of vegetables, fruit or nuts	0.88	0.10
01	Live animals	0.85	0.50
08	Edible fruit and nuts; peel of citrus fruit or melons	0.85	0.76
04	Dairy produce; birds eggs; natural honey;	0.81	0.73
97	Works of art, collectors' pieces and antiques	0.80	0.27
44	Wood and articles of wood; wood charcoal	0.37	0.94
06	Live trees and other plants;	0.89	0.94
37	Photographic or cinematographic goods	0.09	0.95
17	Sugars and sugar confectionery	0.36	0.96
11	Products of the milling industry; malt; starches; inulin	0.40	0.96
52	Cotton	0.26	0.98
85	Electrical machinery and equipment and parts thereof; sound recorders and r ...	0.08	0.99
40	Rubber and articles thereof	0.20	0.99
10	Cereals	0.26	0.99
25	Salt; sulfur; earths and stone; plastering materials	0.62	1.00

Source: Authors calculations, based on data taken from the UN COMTRADE database

The above indices are based on the global trade of the two countries. It is instructive to look also at the GL indices[15] based on the bilateral trade between the two countries (Table 13~~Table 13~~)[16]. Among the major commodity groups where significant intra-industry trade has taken place on a bilateral basis are copper, food products, tools and cutlery, and carpets and floor coverings.

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Table 13: Bilateral GL Index 2006 - Top 20 Product Categories

HS Code	Commodity	GL Index
74	Copper and articles thereof	0.964
08	Edible fruit and nuts; peel of citrus fruit or melons	0.847
10	Cereals	0.700
11	Products of the milling industry; malt; starches; inulin	0.585
82	Tools, implements, cutlery, spoons and forks, of base metal	0.562

[15] These indices are simply obtained by subtracting the absolute values of the trade specialization index from 1.
[16] GL Indices for all HS2 Commodities is included in Table A.5 in the Annex.

25	Salt; sulfur; earths and stone; plastering materials	0.545
12	Oil seeds and oleaginous fruits	0.461
68	Articles of stone, plaster, cement, asbestos, mica or similar materials	0.426
42	Articles of leather; saddlery and harness	0.388
57	Carpets and other textile floor coverings	0.292
29	Organic chemicals	0.268
92	Musical instruments; parts and accessories of such articles	0.222
53	Other vegetable textile fibers; paper yarn and woven fabric of paper yarn	0.214
78	Lead and articles thereof	0.196
13	Lac; gums, resins and other vegetable saps and extracts	0.190
61	Articles of apparel and clothing accessories, knitted or crocheted	0.184
02	Meat and edible meat offal	0.177
14	Vegetable plaiting materials; vegetable products nes	0.165
62	Articles of apparel and clothing accessories, not knitted or crocheted	0.149
51	Wool, fine or coarse animal hair; horsehair yarn and woven fabric	0.129

Source: Authors calculations, based on data taken from the UN COMTRADE database

Intra-industry trade can play a pivotal role in promoting bilateral economic cooperation between Pakistan and China. This is because this type of trade can flourish even in situations where the trade and production structures of the trading partners lack strong complementarities. In this scenario, Pakistan and China can strengthen their trade linkages by devising mechanisms to promote intra-industry trade. One way to accomplish this is through bilateral production sharing arrangements that involve the initiation of part of a manufacturing process for specific good in one country and the transfer of the activity to the other country for further processing. According to Yeats (1998), production sharing arrangements have contributed to a high level of intra-industry trade within various regional trading blocs. In the same manner, both Pakistan and China can achieve greater economic integration by helping to evolve a vertically integrated production structure in sectors that are of economic significance in the bilateral context. Some of the potential areas where regional production sharing systems can be developed are leather products, textiles and clothing, and light engineering. Such arrangements would allow the two countries to specialize in different production processes within a particular industry and thus achieve benefits of specialization and scale economies.

2.4. KEY AREAS FOR CHINA AND PAKISTAN TO EXPAND MUTUAL EXPORTS

To ascertain the key areas for China and Pakistan to expand mutual exports, we can take advantage of the regional revealed comparative advantage index (RRCA) to find out the products with static comparative

advantages of both countries in the bilateral trade. On this basis, we can find out the Chinese products whose static comparative advantages in relation to Pakistan are obviously waning as Pakistani products which enjoy dynamic comparative advantage over China. Similarly, we can find out the Pakistani products whose static comparative advantages in relation to China are obviously waning as Chinese products which enjoy dynamic comparative advantage over Pakistan.

$$\text{RRCA for country A's product k} = \frac{\text{Product k's share in country A's overall exports}}{\text{Product k's share in the total of all members' intra-regional exports}}$$

In the case of bilateral trade, for a 2 digit HS prouct k, if:

$RRCA_A^{2006} - RRCA_B^{2006} > 0$, then Country A enjoys static comparative advantage in product K in relation to Country B.

Moreover, if the following three conditions are fulfilled:

$$\left(RRCA_A^{2006} - RRCA_B^{2006}\right) - \left(RRCA_A^{2003} - RRCA_B^{2003}\right) < 0$$

and:

$$\left|\left(RRCA_A^{2006} - RRCA_B^{2006}\right) - \left(RRCA_A^{2003} - RRCA_B^{2003}\right) / \left(RRCA_A^{2003} - RRCA_B^{2003}\right)\right| \rangle 20\%$$

and:

$$RRCA_A^{2006} / RRCA_B^{2006} \rangle 20\%$$

Then Country B enjoys dynamic comparative advantage in relation to Country A. Statistics for intra-regional exports, which are actually bilateral trade in the case of two countries, come from the UN COMTRADE database.

2.4.1. AREAS IN WHICH PAKISTAN ENJOYS EXPORT POTENTIALS TO CHINA

The Pakistani products with static comparative advantage[17] over China are limited in number; including the following (refer to Annex Table A.8 for more details):

- Agricultural products – Meat; fish; dairy produce; fruits; cereals; starch; animal or vegetable oil and fats; sugar;
- Mineral products - ores; mineral fuels;
- Chemicals - Pharmaceutical products;
- Textiles - Cotton yarn; carpets; costume garments;
- Leather products - Raw hides and skins, leather; leather products, handbags;

Pakistani products with dynamic comparative advantages over China include (refer to Annex Table A.9 for more details):

- Agricultural products - Dairy produce; vegetables; fruits; sugar;
- Mineral products - ores;
- Chemicals - Organic chemicals; tanning or dyeing extracts;
- Raw hides and skins;
- Pulp of wood or of other fibrous cellulose material;
- Textiles - Cotton yarn; carpets;

Evidently, although China presently enjoys trade surplus in most products in its trade with Pakistan, Pakistan has quite a few labor-intensive, land-intensive or resource-intensive products which potential for expanding exports to China, seen either from the perspective of static or dynamic comparative advantages. The main reason is that Pakistan possesses the following favorable conditions:

Firstly, the labor cost of Pakistan is much lower than that of China, and the quality of the labor force is being continuously improved. At present, both the per capita GDP and the average salary in the manufacturing industry of Pakistan are lower than that of China. According to the statistics of the ADB, the per capita GDP of Pakistan in 2005 was around US $ 700, only 40% that of China (around US$ 1,700). According to the statistics of the International Labor Organization (ILO), the average annual salary of employees in China's manufacturing industry was RMB 12,422, equivalent to US$ 1,501 based on the average exchange rate in 2003 (US$1 = RMB 8.277). By contrast, the average annual salary of

[17] In 2006

employees in Pakistan's manufacturing industry was PKR 49,364 rupees in 2002, equivalent to US $ 826 according to the average exchange rate in 2002 (US$ 1 = PKR 59.724). This was only 62% of that of China. On the other hand, according to statistics of the World Bank, the number of people in the age group between 0 and 14 in the total population of 148 million was close to 60 million in 2003, accounting for 40% of the total population. By contrast, the proportion in China was merely 23.6%. In 2003, the natural growth rate of the Pakistani population was 24.1%, much higher than the 6% level of China, These statistics show that young labor in Pakistan will be in sufficient supply in the coming 10 to 20 years. Moreover, with the fast popularization of the elementary education, the quality of the labor force in Pakistan is also being improved. According to the statistics of the World Bank, the primary school enrolment rate of Pakistan in 2004 already reached 82%, 6 percentage points higher than in 2003.

Secondly, both the natural conditions and the degree of mechanization for the agriculture production in Pakistan are better than in China, and the labor productivity in Pakistan's agriculture is obviously higher than that in China. According to the statistics of the United Nations Food and Agriculture Organization (FAO), the per capita arable land of the agricultural population in Pakistan was 0.8 acre in 2002, while the corresponding figure for China was merely 0.3 acre. There were 14.9 tractors used for every 1,000 acres of arable land in Pakistan, while the corresponding figure for China was merely 6.4. In 2003, the per capita value added of the agricultural sector in Pakistan was US$695, which was almost twice the US$349 level of China (based on constant 2000 US$).

Thirdly, due to dramatic crustal disturbances and frequent geological activities in Pakistan's history, rich resources in metal and non-metal mineral deposits have been formed in the country. For instance, the estimated reserve of iron ores in Pakistan is around 600 million tons, copper ores around 500 million tons and marble stones 160 million tons. The exploitation and development of these resources has just begun, and there are huge potentials for the expansion of output and exports.

Fourthly, Pakistan possesses excellent natural conditions for the development of fishery and aquiculture. Bordering the Indian Ocean and the Arabic Sea, Pakistan has one of the most productive fishing regions in the Indian Ocean. With abundant fishing products and sound ecological environment in its sea area, there are vast regions suitable for marine aquiculture.

At present, the potential for Pakistan to expand exports to China has not been fully tapped. There are mainly three reasons. Firstly, the industrial sector of Pakistan lacks diversification. There is insufficient investment, and large–scale production is yet to be realized in the manufacturing industry. According to the statistics of the ADB, the proportion of the manufacturing industry in the national economy of

Pakistan was merely 18.1% in the fiscal year 2004-2005. Since the fiscal year 2001-2002, FDI inflows into Pakistan have maintained the momentum for fast growth, reaching a record high of US$1.46 billion during the fiscal year 2004-2005. But even under such circumstances, the growth rate of gross domestic capital formation in Pakistan during the fiscal year 2004-2005 was merely 1.7%, and its proportion in GDP was merely 16.8%.

Secondly, Pakistan lacks resources and technology in the development and utilization of its mineral resources. For instance, although Pakistan boasts of 12 million tons of magnesite resources, there is not even one domestic manufacturer of fire-resistant bricks and the country basically depends on imports for fire-resistant materials.

Thirdly, the processing technologies for agricultural and aquatic products in Pakistan are relatively backward. Many foods, grains and economic crops have failed to meet international quality standards because of outdated preserving and packaging technologies, wide-spread use of fertilizers and pesticide and resulting residues. As a consequence, the export competitiveness of Pakistan's agricultural products is greatly weakened. Since most fishing boats have no refrigeration equipments, large amount of aquatic products have been wasted in Pakistan. A relatively large proportion of fish products can only be used for processing low-added-value fishing powder or be discarded, since they cannot meet the requirement for fresh, frozen or chilled fishing products in terms of freshness and appearance.

Currently, Chinese enterprises are expanding their overseas investment. According to the Ministry of Commerce of China, the country's outward FDI stock has reached US$57 billion by the end of 2005. Among this amount, however, only a total of less than US$200 million went to Pakistan. Apparently, more needs to be done to attract Chinese enterprises to invest in Pakistan. Investment from China can not only enhance the processing and manufacturing capability of Pakistan, promote the diversification of Pakistani exports to China by stimulating intra-industrial trade and intra-corporate trade between China and Pakistan, but will also increase the exports by Pakistan to third countries.

2.4.2. AREAS IN WHICH CHINA HAVE EXPORT POTENTIALS TO PAKISTAN

Chinese products with static comparative advantages over Pakistan include (refer to Annex Table A.10 for more details):

- Agricultural products – vegetables; preparations of meat or fish; preparations of vegetables or fruits; miscellaneous edible preparations;
- Chemicals - inorganic chemicals; organic chemicals; fertilizers; soap;

- Products of plastics and rubber;
- Wood and articles of wood;
- Paper, paperboard and articles thereof;
- Textiles - Silk; special woven fabrics; knitted or crocheted fabrics; footwear and headgear;
- Articles of stone or glass; ceramic products;
- Base metal and articles of base metal;
- Machinery equipment, electric power equipment and electronic products;
- Transport equipment - automobiles; aircrafts; ships;
- Precision instrument;
- Miscellaneous products - toys; furniture; musical instruments; sports requisites.

Chinese products with dynamic comparative advantages over Pakistan include (refer to Annex Table A.11 for more details):

- Agricultural products - meat; fish; oil seeds and oleaginous fruits; preparations of meat or fish; preparations of cereals, flour, starch or milk;
- Mineral products - mineral fuels;
- Chemicals - inorganic chemicals; fertilizers; pharmaceutical products; essential oils;
- Plastics and articles thereof;
- Articles of leather;
- Cork and articles of cork;
- Products of the printing industry;
- Textiles - Man-made staple fibers; costumes; headgear;
- Base metal and articles of base metal;
- Miscellaneous products - toys; musical instruments; sports requisites.

At present, Pakistan is actively promoting the diversification of its economic structure. Large-scale economic construction will generate huge demands for capital goods. In the meantime, the per capita income of Pakistan has been constantly rising. The 2005 level has increased by almost 100% compared with 1999. This will also add to the demand by Pakistani citizens for daily consumables and consumer electronic products. In these aspects, Chinese products enjoy relatively strong competitiveness. Moreover, with the constant improvement of the technological standard of China's aviation industry, the export competitiveness of Chinese aircrafts is becoming increasingly stronger. Between April 2005 and September 2006, China's Xinzhou 60 Regional Turbo-prop Aircrafts had obtained 32 contracts for exports, and the ARJ21 Regional Turbofan Aircrafts will also start its maiden flight in 2008. These two

types of aircrafts have a high quality-price ratio and the capability of flying under complex conditions like high altitude and high temperature. They are quite suitable for Pakistan's geographical and climatic characteristics.

2.5. TARIFF LEVELS OF CHINA AND PAKISTAN

In terms of MFN rates, the tariff level of China is lower than that of Pakistan. However, although the level of Pakistan's average WTO bound tariff rates are significantly higher than that of China, the difference between the actual MFN tariff levels of the two countries are much smaller. This is because Pakistan's MFN tariff rates are much lower than its WTO bound rates, and China's MFN rates are rather close to its WTO bound rates.

According to the latest news from the Chinese authorities, China's average MFN tariff level will be further reduced to 9.8% in 2007, of which the tariff level for agricultural products will be lowered to 15.2%, and the tariff level for non-agricultural products to 8.95%. The average MFN tariff level of Pakistan was 16.5% in 2004, of which the level for agricultural products was 18.7% and the level for non-agricultural products 16.2% (See Table 14~~Table 14~~ for more details).

Table 14: Simple Average Tariff Rates of China and Pakistan (%)

Products	China		Pakistan	
	Final Bound Rate	Actual MFN Rate in 2007	Final Bound Rate	Actual MFN Rate in 2004
All Products	10	9.8	52.4	16.5
Agricultural Products	15.8	15.2	97.1	18.7
Non-Agricultural Products	9.1	8.95	35.3	16.2

Source: World Trade Report 2005, WTO; The actual MFN rate of China in 2007 comes from the Chinese Customs.

According to the Free Trade Agreement signed by China and Pakistan on November 24th, 2006, the two sides plan to reduce tariffs for all commodity products in two phases since July 1st 2007. During the first phase, both sides will lower tariffs within 5 years for 85% of the products in their respective total tariff items, around 36% of which will enjoy zero-tariff within three years. The main products involved in tariff

reduction on the Chinese side include livestock products, aquatic products, vegetables, mineral products and textile products. The major products involved in tariff reduction on the Pakistani side will be beef and mutton, chemical products, machinery and electrical equipments. The second phase will start from 2012, and the two sides will strive to increase the proportion of their zero-tariff products both in terms of the number of tariff items and trade volume to 90% within a reasonably short period of time.

2.6. POTENTIALS AND OBJECTIVES FOR FURTHER EXPANDING BILATERAL TRADE

A variety of factors, including the relatively low proportion of the Sino-Pakistani bilateral trade in their respective total trade volume, the swift development of the two economies, the signing of the Sino-Pakistani Free Trade Agreement and the formulation of the Joint Program for Comprehensive Economic and Trade Cooperation, have demonstrated the huge potentials for the Sino-Pakistani bilateral trade to expand further.

2.6.1. RELATIVELY LOW PROPORTION OF SINO-PAKISTANI BILATERAL TRADE

Although great progress has been made in the development of the bilateral merchandise trade between China and Pakistan since the beginning of the 21st century (bilateral trade in 2005 increased by 2.7 times compared with 2001), the proportion of trade with Pakistan in China's overall trade is still quite low. According to statistics from the Chinese Customs, exports to Pakistan in 2005 accounted for merely 0.45% of China's total exports, and imports from Pakistan only accounted for 0.13% of China's total imports.

The trade with China plays a relatively more important role in the overall trade of Pakistan, but it is mainly due to the relatively high degree of dependency on imports from China, while the proportion of exports to China in Pakistan's total exports to the world is still not very high. According to official statistics of Pakistan, the proportion of trade with China in Pakistan's total foreign trade in the fiscal year of 2004-2005 was 11.4%, of which the proportion of imports was 14.7% and the proportion of exports 5.4%.

2.6.2. FAST GROWTH OF THE TWO ECONOMIES

In the recent five years, both economies have recorded fast growth, and the growing domestic demands will undoubtedly increase the demand for importing competitive products from each other and promote

further growth of bilateral trade. According to the statistics of the ADB, the annual GDP growth rate of China between 1990 and 2005 was as high as 9.7%. The GDP growth rate of Pakistan has also steadily increased since 2002, reaching 7.8% in 2005, a record high since 1988.

2.6.3. ESTABLISHMENT OF INSTITUTIONAL TRADE ARRANGEMENTS

The institutional trade arrangements have provided new impetus for the expansion of Sino-Pakistani bilateral trade. According to the *Early Harvest Plan* between the two countries, tariff reductions have been implemented on Chinese and Pakistani products in over 3,000 tax items since January 1st 2006. Recently, China and Pakistan signed a Bilateral Free Trade Area Agreement, which planned to start reducing tariffs and non-tariff barriers since July 1st 2007, to improve market access conditions and create better trade environments for each other. Moreover, the FTA Agreement also made stipulations for such issues as investment promotion and protection, treatment of investment, expropriation, compensation for damages and losses and settlement of investment disputes. These measures are conducive to the improvement of the investment environment and to the expansion of mutual investment between the two countries, which will promote the growth of the bilateral trade in an indirect fashion.

2.6.4. FORMULATION OF JOINT PROGRAM FOR ECONOMIC AND TRADE COOPERATION

By jointly formulating the Joint Program for Comprehensive Economic and Trade Cooperation, the two countries shall take further measures in trade promotion and trade facilitation. In the meantime, the Plan will push ahead the trade and economic cooperation between the two countries in such fields as energy, water conservation and power, transportation, petrochemicals, automobiles, textiles and telecommunications. This will not only boost China's exports of whole-set equipment, machinery and electrical equipment to Pakistan, but will reinforce the strength of the manufacturing industry of Pakistan and increase Pakistani exports to China.

Taking into consideration the aforementioned factors as well as the rapid growth of Sino-Pakistani bilateral trade in the past five years, it is realistic to predict an average annual growth rate of around 25% for the Sino-Pakistani bilateral trade in the coming five years. According to the latest statistics of the Chinese Customs, the bilateral merchandise trade between China and Pakistan amounted to 5.25 billion US Dollars in 2006. Based on such estimation, the Sino-Pakistani bilateral trade will reach approximately 30 billion US Dollars in 2015.

2.7. BARRIERS TO FURTHER EXPANDING BILATERAL TRADE

At present, there are still some institutional and policy obstacles in the bilateral trade between China and Pakistan. Eliminating these obstacles will be greatly conducive to tapping the trade potentials between the two countries.

2.7.1. INSUFFICIENT INFORMATION EXCHANGE

Although some communication and exchanges have been made between the governments of the two countries, a regular mechanism for information exchange is yet to be formed for private enterprises.

2.7.2. LACK OF MUTUAL TRUST MECHANISMS BETWEEN BANKS

Feedbacks from some Chinese enterprises show that L/C's issued by internationally renowned third-country banks' Pakistani offices were rejected by Chinese banks when the value exceeded US$200,000. It is very difficult for enterprises to settle up through normal channels. Therefore they tend to resort to informal channels.

2.7.3. LACK OF COMPLAINT AND MEDIATION MECHANISMS FOR TRADE DISPUTES

With the fast growth of bilateral trade between the two countries, breach of faith has become a frequent phenomenon. Due to the lack of complaint and mediation mechanisms, however, enterprises sometimes have nowhere to resort to when disputes arise. Some enterprises even took advantage of such loopholes to breach contracts in a malign fashion, which brought about negative impacts to the overall reputation of one country's enterprises in the other country.

2.7.4. BOTTLENECKS IN CUSTOMS CLEARANCE

Despite efforts to streamline the customs procedures in both countries, problems remain in the clearance of consignments due to weaknesses in customs administration and lack of transparency. Further simplification and transparency will greatly facilitate bilateral trade between the two countries.

2.7.5. HIGH COST OF LAND TRANSPORTATION

Firstly, the road conditions along the border of the two countries are very bad which makes it very hard for vehicles to pass. Due to lack of fund, the roads on the Pakistani side are weakly maintained. On many road areas the asphalt road surfaces have been completely ruined by landslide and mud-rock flows, Secondly, according to the current agreement between the two countries, cargo trucks of one country can

travel to the border cities within the territory of the other country, but they are not allowed to carry cargo when they return. This also constitutes barriers to lowering road transport costs.

2.7.6. SMUGGLING

Numerous cases of arms and drugs smuggling in the border areas of China and Pakistan have forced the Chinese Customs to carry out strict inspections, which to some extent lower the speed of customs clearance.

2.7.7. QUARANTINE INSPECTION EQUIPMENT

Since Pakistan is specified as an epidemic area and China's land ports with Pakistan are not equipped with necessary quarantine inspection equipments, the exports of Pakistani agricultural and aquatic products to China are impeded.

2.8. SPECIFIC MEASURES FOR TRADE PROMOTION AND TRADE FACILITATION

The joint study group proposes the two governments to the following measures to promote the expansion of bilateral merchandise trade between China and Pakistan.

2.8.1. TRANSPARENCY

The governmental institutions of the two countries should make full exchanges with each other regarding laws, regulations, and implementation procedures related to trade, including the tariff rates, customs clearance procedures, anti-dumping procedures and investigation initiations information. A free English electronic online database should also be set up to facilitate the sharing of information and the inquiries by enterprises.

2.8.2. STRENGTHENING COOPERATION BETWEEN THE INDUSTRIAL ASSOCIATIONS AND COMMERCIAL ASSOCIATIONS OF THE TWO COUNTRIES

On the basis of the existing cooperation mechanisms between the China Council for the Promotion of International Trade (CCPIT) and the Federation of Pakistan Chambers of Commerce & Industry (FPCCI), a cooperation mechanism between specific industrial associations and the business chambers should be established to strengthen information communication and exchanges. The role of the Confederation of Chinese Enterprises in Pakistan should be brought to full play.

A complaint and mediation mechanism for bilateral trade disputes should be established. It is suggested that the CCPIT and the FPCCI should hold discussions about this issue.

2.8.3. BUILDING A MUTUAL-TRUST MECHANISM BETWEEN THE BANKS OF THE TWO COUNTRIES

Since the creditability ratings of the Pakistani banks are relatively low, the establishment of such mechanisms may need the coordination by the two governments.

2.8.4. FACILITATION OF CUSTOMS PROCEDURES

In implementing the *Agreement on Cooperation and Mutual Assistance on Customs Affairs* between China and Pakistan, the two sides should establish a mechanism of annual conferences between customs authorities, strengthen information exchanges regarding customs valuation, nomenclature for the classification of goods in Customs tariffs, rules of origin, list of commodities enjoying preferential tariff rates, carry out personnel exchanges and trainings, simplify customs procedures, and jointly develop an electronic date information exchange system.

It is suggested that the customs ports at the border of the two countries should publicize the list of commodities that enjoy reduced tariffs according to the early harvest plans of the bilateral FTA, making it easy for enterprises to enquire.

2.8.5. SANITARY AND PHYTOSANITARY (SPS) MEASURES

The sanitary and phytosanitary enquiry points of the two countries established under the SPS Agreement shall set up a bilateral mechanism for further communication, including the sanitary and phytosanitary measures that needs to be undertaken as well as information regarding noncompliance with sanitary and phytosanitary requirements of importing Party

Under reasonable circumstances, both countries should consider to accept the SPS measures of each other as equivalent even if it differs from their own or from those used by other members trading in the same product.

The two countries should cooperate for mutual recognition of SPS certificates.

The two countries should establish a SPS Affairs Committee, which is composed of each side's representatives who have responsibility for sanitary and phytosanitary matters.

2.8.6. TECHNICAL BARRIERS TO TRADE (TBT)

The two countries should encourage the supervisory institutions in the field of standards to cooperate in the following ways: reinforcing the role of international standards as a basis for technical regulations; promoting bilateral institutions and regulatory information exchange and technical cooperation; and promoting bilateral coordination by appropriate agencies in multilateral and international fora on standards.

The two countries should undertake cooperation as per transparency requirements set out in WTO/TBT Agreement, and establish cooperation mechanism between enquiry points. Both sides shall provide and keep updated information about the competent authorities and will communicate any significant change in their structure, organization and division. Each side shall notify each other upon request the conformity assessment procedure and related list of products stipulated by relevant technical regulations.

Furthermore, it would be in the best interests of both countries that they should establish a Joint Committee on Technical Barriers to Trade.

The aforementioned cooperation measures related to the SPS and TBT have been written into the China-Pakistan Bilateral Free Trade Area Agreement. The concrete implementations of these measures should be listed as key contents of trade facilitation in the bilateral trade and economic development plan.

2.8.7. IMPROVING BORDER TRADE CONDITIONS

1. The two countries should advance the border road renovation project in an active way. China and Pakistan signed the *Memorandum of Understanding on the Renovation of the Kala-kunlun Road* in February, 2006, and signed the business contract for the project in November 2006. It is suggested that the two countries should accelerate the implementation of this project so as to eliminate the transport bottleneck for developing border trade.
2. The two countries should prolong the opening hours of their respective border land ports.
3. The two countries should equip the border ports with necessary quarantine inspection equipments.
4. The two countries should strengthen information exchanges between customs, border inspection and anti-drug departments to fight arms and drugs smuggling in a concerted effort.

CHAPTER No. 3

CHINA – PAKISTAN COOPERATION IN TRADE IN SERVICES

3.1. INTRODUCTION

The service sector accounts for 2/3 of global economic activity and nearly 2/5 of labor force. The timely provision of services is a basic requirement for the efficiency of the commodity producing sectors. This accounts for 10-20 percent of production costs in addition to all the costs of trading such as communications, transport, trade finance and insurance, and distribution services. The countries where the quality of services is poor and are priced high may well have negative effective rates of protection for most of the manufacturing sector. This has become all the more important in view of the falling rates of tariffs.

Poor-quality, high-priced services not only affect the current operations of manufacturers but also discourage future investment by locals and foreigners by lowering the profitability of such investment. This may be a major factor in constraining the flow of FDIs to developing countries despite access to cheap labor. In these countries, liberalization programs for sectors such as financial services, telecommunications, transport and professional services would help pave the way towards improvement of the services and the commodity producing sectors.

Trade in services is growing at a rapid pace led by telecommunications and financial and business services. International trade in services is estimated to be more than $2 trillion a year (globally) and accounts for over 20% of all international trade. There is great potential in further opening up the service sector and increasing the trade in services between China and Pakistan. This chapter highlights the current framework for service sector liberalization and trade, reviews current trends and policies and in light of the importance of the sector, pinpoints some barriers that affect performance of the sector. The chapter

concludes by pointing out potential areas for enhanced cooperation between the two countries in the service sector.

3.2. SERVICE LIBERALIZATION UNDER MULTILATERAL FRAMEWORK: THE GATS

The Generalized Agreement on Trade in Services (GATS) consists of a framework which lays down a set of general principles for trade in services. The basic principles which apply to trade in goods also apply to trade in services, but have been modified to take into account the special characteristics of trade in services. GATS requires countries to apply Most Favored Nation (MFN) treatment by not discriminating between service products and service providers of different countries and allows a transitional period of 10 years (up to January 1, 2005) during which the country rules are to be made consistent with MFN principles. The Agreement also incorporates the national treatment principle which stipulates that countries should not treat foreign service products and providers less favorably than their own (domestic) service products and providers. GATS, however does not, as in the case of trade in goods impose this as an obligation to be applied across-the-board in all service sectors, but requires countries to indicate in their schedules of concessions the sectors and the conditions subject to which such treatment would be extended.

The preceding discussion brings to light quite clearly that the fundamental objective of GATS is fair trade in services under nondiscriminatory and transparent conditions. It seeks freer, if not completely free trade in services and seeks to achieve fair trade through progressive liberalization and increased coverage of sectors in the schedules of commitments. GATS preserves the right of governments to regulate their service sectors, but at the same time it gives foreign suppliers certain rights. Where governments have not made a specific commitment, they have to adhere to the non-discrimination principle and ensure transparency and where specific commitments have been made, they are bound to give market access and national treatment to foreign service suppliers under the conditions described in their schedules of

commitments. GATS deals extensively with rights of service suppliers in the markets of other members and as such has significant implications for investment flows and the movement of personnel across borders.

GATS Article XIX.I stipulates negotiations to *"achieve a progressively higher level of liberalization…. on mutually advantageous basis" and aim at "securing an overall balance of rights and obligations"* among participating countries. GATS Article XIX.I further provides for successive rounds of negotiations for progressively higher level of liberalization in the trade in services. Pursuant to this particular GATS provision, starting point for the new round of GATS negotiations is the 1997 financial services deal in the WTO; over 100 WTO member countries had made commitments and some 70 countries had improved the commitments they had made at the end of Uruguay Round relating to the financial services, and fairly significant results were achieved.

Services negotiations officially commenced in early 2000 under the Council for Trade in Services with the Council initiating negotiating guidelines and procedures in March 2001. The Doha Declaration reaffirmed the negotiating guidelines and procedures and established the timetable and the deadline for the conclusion of negotiations as part of the single undertaking that had to be completed by January 1, 2005.

GATS applies to both private sector enterprises as well as companies owned or controlled by governments if they supply services on a commercial basis. The obligations under GATS may broadly be divided into two categories, general obligations which are applied to all service sectors; and conditional obligations applicable to sectors covered by commitments specified in the national schedules.

The supply of services is envisaged under four different modes under GATS:

1. Cross border supply – a non-resident service supplier supplying services across borders in a member's territory.

2. Consumption abroad – the freedom for a member's residents to purchase services in the territory of another member.

3. Commercial presence – the opportunity for foreign-service suppliers to establish and expand a commercial presence in a member's territory.

4. Presence of natural persons – entry and temporary stay in a member's territory of foreign individuals in order to supply a service.

The choice of supply mode is determined by technical feasibility on the one hand and barriers to trade that exist across each mode on the other [Hoekman and Mattoo (2000), UNCTAD (1995)]. Services in trade may be liberalized through reduction of regulatory barriers to market access and discriminatory national treatment across all four modes of supply.

Many developing countries have comparative advantage in the services and can export a broad range of services. At present, however, the most significant export is tourism; accounting for a large proportion of total export revenues among poorer countries [Karsenty (2000)]. The other areas of potential comparative advantage include export of energy and labor-intensive sectors such as construction etc. However, trade has been limited by trade barriers, including the reluctance of most countries to extend the visas to less-skilled occupations for the delivery of a service [UNCTAD (2000)]. Information technology–related services such as back-office processing and call centers have opened new vistas where services can be provided without any movement of persons. Obviously, success of IT exports depends on improvements in communications and transport services.

Trade in services can be rather helpful to developing countries because of three main factors. First, there are economies of scale in the provision of services and firms are able to reduce unit costs. Besides, trade in services provides differentiated services which add value for consumers [Krugman (1996)]. Second, because of economies of scale in Research and Development (R&D), an expanding market may increase the incentive for those activities, enhancing long-run growth rates [Grossman and Helpman (1991)].

Third, learning is enhanced through technological spillovers in exporting products. Moreover, trade also increases the extent of competition in the market, which lowers the market power of existing firms and brings down their price-cost markups. This is particularly important in such services, where, typically, large-scale economies exist, severely limiting competition in small economies.

The sector specific commitments so far made under GATS cover commercial presence and there is very little on measures regulating movement of natural persons as service suppliers. This lack of access creates a major imbalance in the trade in services. Horizontal commitments made by 92 WTO member countries refer to movement of natural persons in only (i) intra-corporate transferees; (ii) business visitors; and (iii) independent professionals including those providing services under services contract. These are the developed countries that have largely benefited from GATS commitments. The restrictions on movement of technicians and business persons from developing countries prevent them from participating in a variety of activities that are essential to the penetration of world markets for services. The other barriers faced by service suppliers from developing countries are:

1. Prohibition of foreign access to service markets which are reserved for domestic suppliers: nationality, residency or visa requirements can prohibit or limit the movement of natural persons;

2. Price based measures: entry and exit taxes and visa fees for the movement of natural persons;

3. Discriminatory airline landing fee, port taxes, licensing fees;

4. Tariffs on goods in which services are embodied or goods that are necessary input in the production of services (films, television programs, computer soft-wares on disc, telecommunication equipments etc);

5. Subsidies granted in developed countries including for high technology sectors as well as horizontal subsidies and investment incentives that can have a trade distorting impact on services exports from developing countries;

6. Technological standard and licensing, the licensing of commercial services and standard setting have been used to restrict entry into the industry.

7. Discriminatory access to information channels and distribution networks: for example, suppliers of the telecommunications network may discriminate by excluding certain users, charging higher fees or imposing restrictions on attaching equipment;

8. Lack of transparency in government measures and practices of mega firms and other major barriers to market access for developing countries;

9. The growing importance of financing in wining projects in export market and difficulties developing countries face in trying to tap international financial market;

10. Lack of access to procurement orders of the governments of the developed countries.

3.3. THE IMPORTANCE OF THE SERVICE SECTOR AND TRADE IN SERVICES IN CHINA AND PAKISTAN

Since China adopted the policy of reform and opening up to the outside world, its tertiary industry has grown rapidly. Between 1979 and 2006, the annual growth rate of the tertiary industry averaged 10.7% and its share in total GDP rose from 21.6% to 39.5%, second only to that of the secondary industry (48.7%) (see Table 14). At the same time, the rate of contribution to GDP growth and the share of the total employment by the tertiary industry have also risen significantly, which testify to the growing importance of the industry in the national economy.

Table 15: Changing Shares of GDP and Total Employment of Industries in China

Industry	1979 Share		2006 Share	
	of GDP	of Employment	of GDP	of Employment
Primary Industry	31.3%	69.8%	11.8%	42.6%
Secondary Industry	47.1%	17.6%	48.7%	25.2%
Tertiary Industry	21.6%	12.6%	39.5%	32.2%

Source: *China Statistical Abstract (2007)*. Primary Industry includes agriculture, fishery, husbandry and forestry. Secondary Industry includes mining, manufacturing and production of water, heat and electricity. Tertiary Industry includes every sector that is not included in the first two industries. A broadly defined service industry can be regarded as equivalent to the Tertiary Industry.

The service sector is rapidly becoming the most important sector in Pakistan's economy. In 2005-06 (financial year), the service sector contributed to 68.3% of GDP growth, and accounted for 58% of the country's GDP. As compared to 1969-70, this represented an increase of 13% (see Table 15), however, the sector's share in total employment was only 36%.

The structure of service sector in the two countries is very similar; being dominated by traditional industries such as wholesale and retail and transport and communications, though the former is more important in Pakistan than in China. Such a structure indicates that both countries are at a similar stage of service sector development.

Table 16: Structure of Services Sector in the Two Countries

Sector	China	Sector	Pakistan
Tertiary Industry	100%	Service Industry	100%
Wholesale and Retail	19%	Wholesale and Retail	37%
Transport and Communication	21%	Transport and Communication	20%
Finance and Insurance	9%	Finance and Insurance	9%
Public Administration	9%	Public Administration & Defense	11%
Real Estate	11%	Ownership of Dwellings	5%
Other Services	31%	Other Services	18%

Source: Chinese data were for year 2005 and were taken from *China Statistical Yearbook 2007*.
Pakistan Economic Survey 2005-06

The level of development of the service sector is symbolic of the degree of a country's modernization process. Against the backdrop of an ever-changing global industrial structure and the swift development

of economic globalization, the focus of international competition is shifting from trade in goods to trade in services. The vigorous development of the service industry and service trade can bring new growth stimuli to the economy, enable change in the economic growth pattern, improve industry and trade structure, enhance efficiency and employment and help achieve sustainable economic growth. Both governments have already established the development of the service sector and the service trade as an urgent and important policy objective.

In the past two decades, China's trade in services has developed rapidly, and its share in China's total foreign trade has also risen. According to Balance of Payment (BOP) statistics, China's total trade in services [18] grew from US $ 4.4 billion in 1982 to US $ 191.8 billion in 2006. China's standing in global service trade has also risen steadily; with the global ranking of service exports rising from 28th in 1982 to 8th in 2006, while the global ranking of service import improved from the 40th to 7th rank during the same period.

China trade deficit in services has been increasing in recent years. In 2006, China's service export was US $ 91.4 billion, and import volume was US $ 100.3 billion, with a trade deficit of US $ 8.9 billion, rising by 178%, 157% and 46% respectively compared with 2001[19] (see Table 16). From the trade structure perspective, the industries with the largest trade volume are travel, transportation and other business services respectively.[20]

In 2006-07 (fiscal year), Pakistan's total volume of service trade amounted to US $ 11.9 billion, of which exports were US $ 3.75 billion, while imports accounted for US $ 8.15 billion, resulting in a trade deficit of US $ 4.4 billion. As mentioned earlier, the structure of service trade in Pakistan is to some extent

[18] Excluding government services.
[19] The GATS involves four modes of supply for service trade, and BOP statistics only cover the first (cross-border supply) and the second mode (consumption abroad). For the third mode (commercial presence), the Foreign Affiliates Trade Statistics (FATS) should be used to cover the local sales volume of the overseas stockholding enterprises of the country. At present, China is working on the gathering of the statistics in this area. The fourth mode (movement of natural persons) can be approximated with the statistics of the employee remuneration under the BOP. In this regard, China's surplus in 2006 was 1.99 billion US$.
[20] Since the governmental services are not included in the GATS, the industry-specific analyses do not take government services into consideration.

similar to that of China. The most important sectors are transportation, travel and other business services (see Table 17). As one of the major labor service exporters in the world, workers' remittance is an important source of foreign exchange income for Pakistan. In this regard, it may be noted that in 2006, remittance of overseas Pakistanis to the country amounted to US $ 5.49 billion.

Table 17: Trade in Services in 2006

(Millions of US$)

Sectors	China			Pakistan		
	Export	Import	Balance	Export	Import	Balance
Total Services	91,999	100,833	-8,834	4,122	8,265	-4,143
Transportation	21,015	34,369	-13,354	1,092	3,135	-2,043
Travel	33,949	24,322	9,627	275	1,625	-1,350
Communications	738	764	-26	121	98	23
Construction	2,753	2,050	703	74	60	14
Insurance	548	8,831	-8,283	30	126	-96
Financial	145	892	-746	75	128	-53
Computer and Information	2,958	1,739	1,219	106	90	16
Royalties and License fees	205	6,634	-6,430	41	115	-74
Other Business Services	28,972	20,605	8,367	459	2,558	-2,099
Personal, Cultural, and Recreational	137	122	16	2	0	2
Government, n.i.e	579	506	72	1,847	330	1,517

Source: China State Administration of Foreign Exchange and the State Bank of Pakistan. Data for Pakistan are for fiscal year 2006-2007. "n.i.e" means not included elsewhere.

Table 18: Structure of Trade in Services in 2006

(percent)

Sectors	China		Pakistan	
	Export	Import	Export	Import
Total Services	100.00%	100.00%	100.00%	100.00%
Transportation	22.84%	34.09%	26.49%	37.93%
Travel	36.90%	24.12%	6.67%	19.66%
Communications	0.80%	0.76%	2.94%	1.19%
Construction	2.99%	2.03%	1.80%	0.73%
Insurance	0.60%	8.76%	0.73%	1.52%
Financial	0.16%	0.88%	1.82%	1.55%
Computer and Information	3.22%	1.72%	2.57%	1.09%
Royalties and License fees	0.22%	6.58%	0.99%	1.39%
Other Business Services	31.49%	20.43%	11.14%	30.95%
Personal, Cultural, and Recreational	0.15%	0.12%	0.05%	0.00%
Government, n.i.e	0.63%	0.50%	44.81%	3.99%

Source: As in Table 3.3

3.4. BARRIERS AND PROBLEMS IN THE BILATERAL TRADE IN SERVICES

According to BOP statistics, the bilateral service trade between China and Pakistan amounted to US $ 237 million in 2005, equivalent to 5.6% of the volume of bilateral trade in goods, with China in trade surplus position. Again, the main component of bilateral trade in services is transportation, travel, construction and other business services. It is worth mentioning here that the volume of bilateral trade in services is quite small as compared to its importance in overall trade of both countries. For example, in 2005, China's volume of overall trade in services is equivalent to 11.1% of its overall volume of trade in goods, while the ratio for Pakistan in financial year 2006 is 28.8%. This implies that neither country is an important trading partner in services of the other. A number of factors may have contributed to such a low level of bilateral trade in services at present.

3.4.1. UNDERDEVELOPED SERVICE INDUSTRY

Although the service sector of China has developed very swiftly, its proportion in the overall economy and growth rate still lags behind the manufacturing sector. The international competitiveness of the two countries in services trade is relatively weak, with most of the sub-sectors in trade deficit. An analysis of Revealed Comparative Advantage (RCA) indices demonstrates that Pakistan enjoys comparative advantage in transport and communications services, while China has a comparative edge in travel, construction and other business services (see Table 18). It may be noted that the structure of services trade is still dominated by traditional services such as travel and transport, while lacking strength in newly emerged services such as those based on information technology.

Table 19: Comparative Advantages of Trade in Services in China and Pakistan

Services Head	RCA		TSI
	Pakistan	China	China - Pakistan
Transportation	2.43	0.87	0.65
Travel	0.37	1.46	0.15
Communication Services	6.67	0.34	-0.90
Construction Services	0.74	1.23	0.21
Insurance Services	0.41	0.23	-0.20
Financial Services	0.42	0.03	-0.99
Computer and Information Services	0.61	0.72	-0.38
Royalties and License Fees	0.11	0.07	-0.95
Other Business Services	0.58	1.33	0.00
Individual and Entertainment Services	0.05	0.05	-
Government services, n.i.e	13.80	0.22	0.92

Note: Calculations based on statistics from the IMF, State Bank of Pakistan and the State Administration of Foreign Exchange of China. RCA figures are based on 2004 data, while the TSI is based on 2005 data. An RCA value greater than one indicates international competitiveness. TSI (Trade Specialization Index) ranges between -1 to 1, the greater the value, the stronger the bilateral competitiveness.

3.4.2. SUPPLY CONSTRAINTS TO PROVISION OF SERVICES

While most developing countries including Pakistan and China face market access barriers in the developed countries markets, they also face major supply constraints and do not satisfy the pre-conditions for building a competitive services sector. These pre-conditions include:

1. Human resource development and technological capacity building to ensure that professional and quality standards are met;

2. Upgrading the entire telecommunications infrastructure;

3. A coherent pro-competitive regulatory framework for goods and services;

4. Government support to help service firms, particularly SMEs, in improving the quality of the service they provide;

5. An increase in the financial capacity of service firms;

6. Promotion of service firms exports;

7. Use of new business technologies such as creation of alliances and networking; and

8. A presence in major markets and the capacity to exploit the opportunities offered by regional markets.

3.4.3. SMALL SCALE OF BILATERAL INVESTMENT AND TRADE IN GOODS

Trade in service is very much dependent on trade in goods, investment and economic cooperation, but at present, trade and investment potentials between China and Pakistan have not been fully tapped, which in turn affects the scale of the bilateral service trade. In 2005, total trade in goods between China and Pakistan amounted to US$ 4.26 billion, equivalent to 0.30% of the total trade of China. The bilateral service trade between the two countries only accounted for 0.15% of the total service trade of China. According to China's Ministry of Commerce, China's contractual investment in Pakistan amounted to US$ 3.67 million in 2005, with an actual investment of US $ 400,000. By contrast, the contractual investment of Pakistan in China amounted to 28.12 million US$, and the actual investment amounted to

7.68 million US$. Up to 2005, the cumulated stock of Chinese investment in Pakistan had reached 189 million US$, accounting for 0.33% of the total ODI (Outward Direct Investment) stock of China. No Chinese financial institutions such as banks established in Pakistan, and understandably the financial services for bilateral trade and investment between China and Pakistan are insufficient to meet current needs.

3.4.4. INADEQUATE SUPPORTING INFRASTRUCTURE

Although China and Pakistan share a common border, sadly due to severe natural conditions in the border region, the construction of infrastructure is insufficient, resulting in high costs for communication and transportation, which has affected the development of trade in services indirectly. For instance, although Pakistan allowed Chinese passenger vehicle to reach Islamabad, due to bad road conditions, the aforementioned services have not yet been initiated. Adverse road conditions also make it hard for large trucks to cross the border, which raises the cost of transportation. For bulk products with low added value, even if they are produced in China's Northwestern provinces, they would have to be transported by sea to reach Pakistan, which in this scenario is a fairly cumbersome and unnecessarily protracted way of arriving at the intended destination.

3.4.5. BARRIERS TO MOVEMENT OF NATURAL PERSONS

There are relatively strict visa requirements for Pakistanis to gain entry into China, and the right to approve tourist visa is reserved in Beijing, which increases cost and delays the time for application.

3.4.6. LACK OF TRANSPARENCY AND INFORMATION EXCHANGE

The two sides lack understanding and awareness of the other's market characteristics and products with comparative advantages, which also affects the exchanges and cooperation of the two sides in these areas. For instance, neither Pakistan nor China has made enough promotional efforts in tourism to each other, which helps explain why neither is an important tourist destination for the other.

The domestic laws and regulation have to some extent constituted barriers to the service trade. At present, however, both sides need to improve their transparency, accessibility and prompt updating of information and regulations.

3.5. GREAT POTENTIAL FOR ENHANCING COOPERATION IN TRADE IN SERVICES

Expanding bilateral trade in services is of great importance for China and Pakistan to promote mutual investment and trade in goods, to strengthen communications and exchanges between the two peoples, and to enhance the international competitiveness of the products and services of the two countries. Judging from the current situation, the two countries have a huge potential for cooperation in the service industry and service trade.

First of all, both governments have attached great importance to the development of the service sector and service trade. In the Eleventh Five-year Plan, China put forward the explicit objective of raising the proportion of the service sector in the overall economy, employment levels to3% and 4% respectively by 2010 in comparison with 2005, as well as enhancing the value of trade in services to US $ 400 billion in 2010. China has also introduced a series of policies to support the service industry and service trade. For instance, China has set up a special administrative department governing service trade, established a number of service export bases, strengthened the introduction of foreign investments in the service industry and further opened up the market under multilateral and regional trade arrangements.

Secondly, the very well developed trade and economic relations between China and Pakistan and in particular the swift development of the bilateral trade in goods is likely to increase trade in those service sectors that are closely related to trade in goods. China and Pakistan have signed a Free Trade Agreement on Trade in Goods, and the negotiations on the service trade agreement are also in progress. Further opening of the market on both sides can stimulate full-scale growth of the service trade.

Thirdly, the bilateral service trade between China and Pakistan is still low. If the current barriers can be eliminated through bilateral cooperation, the potential for growth in the future can be very great. For instance, if the proportion of the bilateral trade in services to trade in goods can reach the same proportion in China's overall trade, then the bilateral service trade could increase by 80% from the current level.

Fourthly, the bilateral service trade is complementary to each other. As is shown from the trade specialization index (TSI) in Table 19~~Table 19~~, China enjoys certain advantages in transportation, travel, construction, while Pakistan enjoys advantages in communications, finance, computer and IT services. Therefore, the two countries can further expand the bilateral service trade by strengthening cooperation and bringing to full play their respective advantages.

3.6. PRIORITY AREAS OF FUTURE COOPERATION

Against the backdrop of the rapidly developing trade and economic relations between the two countries, the bilateral trade in services in the coming five years is likely to grow as swiftly as trade in goods, and the proportion of trade in services in overall trade will certainly maintain the current level if not rise. Diversification of the trade structure will also be gradually realized. To achieve such an objective, the two countries need to strengthen cooperation in the following fields:

3.6.1. TRAVEL AND TOURISM SERVICES

Boasting of rich and unique tourist resources, China is the fourth largest tourist destination in the world. Travel service is the largest service exporter for China and enjoys comparative advantage in this area. In recent years, following growth of income levels, the middle class of Pakistan has begun traveling overseas for vacation and sightseeing. So far, their main destinations have been Europe and North America. Between 2000 to 2005, Pakistan outbound travel expenditure grew by a remarkable 374%. China should tap into this market by engaging in active promotional activities in Pakistan so as to

enhance the status of China as a tourist destination in the mind of the Pakistani consumers. China should strive to become one of the top choices for the Pakistani outbound tourists.

In 2006, over eighty six thousand Pakistani travelers visited China, an impressive 112% increase compared with 2000. However, the number of Pakistani travelers accounted for 0.4% of the total number of foreign travelers to China (excluding those from Hong Kong, Macau and Taiwan); roughly equivalent to the proportion of travelers in 2000. The main purpose of entry was meetings/business and sightseeing. The main mode of transport was by air and by road.

Table 20: A Structural Analysis of the Pakistani Travelers to China in 2006

Purpose of Entry	Pakistan	Asia	All Visitors	Mode of Transport	Pakistan	Asia	All Visitors
Meetings / Business	42.6%	25.0%	23.5%	Sea	3.4%	11.6%	11.5%
Sightseeing and Leisure	36.3%	51.0%	48.5%	Air	52.1%	58.5%	62.9%
Visiting Families & Friends	0.3%	0.8%	0.8%	Rail	1.3%	3.5%	2.2%
Worker & Crew	5.6%	9.4%	9.9%	Motor	9.8%	14.0%	9.3%
Others	15.3%	13.8%	17.2%	Foot	33.4%	12.4%	14.1%

Source: Calculated based on statistics from China National Tourism Administration.

Chinese outbound travel has also grown rapidly. In 2006, there were 34 million outbound travelers, while tourist expenditures amounted to over US $ 24 billion. It is estimated that by 2020, there will be more than 100 million Chinese outbound travelers, and Pakistan could become a potential market for these travelers.

Pakistan has a long history and is the junction of the Persian culture and the Indian culture, as well as that of the Islamic culture and the Buddhist culture. Aside from rich cultural and historic resources, Pakistan is also home to a variety of natural landscape including snow-covered mountains, rivers, mountainous regions, grassland, desert, tropical forests, and beaches. Pakistani tourist authorities should strengthen

publicity efforts in China through multiple means such as advertisement, conventions, promotions and media coverage to introduce its attractiveness to the Chinese tourists.

On March 24th 2003, China and Pakistan signed the *Memorandum of Understanding on the Implementation Plan for Organized Group Travel by Chinese Citizens to Pakistan*. According to BOP statistics, the sum of bilateral travel activities accounted for 12.9% of the bilateral service trade volume and exceeded 30 million US$ in 2005, with China enjoying a slight surplus.

The two countries should take active measures to improve the supply capabilities of the service facilities related to the travel industry. The two sides should liberalize the relevant services, including hotels, restaurants and tourist products, etc. The relevant government agencies and service providers can publicize the information regarding issues of most relevant concern to tourists (such as sanitation, communication, weather, safety, and so on) and take effective measures to solve the problems and dispel their worries.

Moreover, the designing and development of the tourist routes and products is also very important. For instance, the northern mountains of Pakistan are world renowned destinations for mountaineering and adventure activities, which have become very popular in China in recent years. If the Pakistani tourism authorities can design tailor-made products, it would be able to explore this niche in Chinese market. The two countries can also cooperate in designing new tourist products such as the Silk Road Tours by utilizing the neighboring advantages of the two countries to attract tourists from within as well as foreign to the two countries.

3.6.2. TRANSPORTATION SERVICES

Transportation is one of the most important service sectors and transportation services usually account for more than 20% of global trade volume in services. According to the WTO, 75% of global trade in goods is transported by sea.

Transportation is also very important in both China and Pakistan's trade in services. Transportation services account for 27.6% of total trade in services for China, second only to travel services whereas in Pakistan, transportation is the industry with biggest trade volume, accounting for 32.9% of total trade in services. However, both countries have huge deficit in this industry, especially in maritime transport.

Transportation industry is the carrier of trade in goods, and enhancing transportation capabilities and lowering transportation costs play an important role in developing bilateral trade between China and Pakistan. So far the two countries have cooperated in many aspects of transportation services.

Air Transport Services: On March 11th, 2004, China and Pakistan signed a new Memorandum Of Understanding (MOU) on expanding aviation relations between the two countries in Beijing. The MOU showed that the designated aviation enterprises of two sides could share their codes, and the number of passenger and cargo flights between the two countries would be raised from 4 flights per week to 14. Shanghai was added as a new destination for Pakistan and Lahore for China. The aviation enterprises designated by the two sides would also enjoy the fifth freedom right on their flights in the two countries.

Maritime Transport Services: The two countries signed the *Maritime Transportation Agreement* in 1966, which is still in effect today. Maritime transportation in Pakistan is mainly processed through the port of Karachi and more than 75% of the trade in goods between China and Pakistan is conducted through maritime transportation. However, the value of bilateral transportation and insurance service trade, which is closely related to the trade in goods, accounts for merely 5.6% of the total bilateral trade in services between the two countries.

Road Transport Services: In December 1993, the Chinese Government and the Pakistani Government signed the *Agreement on Road Transportation* in Beijing, as well as reaching an agreement on the relevant rules for implementation. In July 2005, the Department of Communication of the Xinjiang Uigur Autonomous Region of China signed the Implementation Rules on Passenger and Cargo Transportation between China and Pakistan with the Pakistani Ministry of Transportation. In March 2006, a delegation from the Chinese Ministry of Communication reached an agreement with a delegation from the Pakistani

Ministry of Transportation in Urumqi to raise the number of passenger and Cargo transportation routes between China and Pakistan from 4 to 6.

In 2005, international cargo transportation by road between the two countries reached 97,400 tons, with 4,700 cargo vehicles, 14,000 passengers and 1,900 passenger vehicles crossing the border, which represented growths of 649%, 422%, -14% and 73% respectively from 2001.

At present, the share of the bilateral trade in transportation services in the total service trade is still quite low and much lower than the shares of the two countries' trade in transportation with other countries. Therefore, there is great potential in the transportation service industry for the two sides to tap in. Due to lack of comparative advantage in maritime transport, the two countries should put more emphasis on cooperation in road and air transportation:

1. The two sides can strengthen the construction of the road infrastructure, especially the improvement of the road conditions in the neighboring regions between the two countries.

2. The two countries can carry out feasibility studies on the new modes of transportation (such as pipeline and railway transport) and multimodal transportation as early as possible.

3. The two countries can speed up the mutual opening up of the domestic industry so that the transportation enterprises of the two sides can gain further access to each other's market. At the same time, the two sides can consider exploring third-country market (such as in aviation and road transportation) by taking advantage of the mutual market opening.

4. China and Pakistan can strengthen cooperation and opening up of various transportation-related fields such as modern logistics (including storage, loading, packaging, processing, distribution, information and so on), as well as the construction of the logistic infrastructure.

3.6.3. CONSTRUCTION AND RELATED ENGINEERING SERVICES

China's construction industry has developed very rapidly and is the third largest construction market in the world. In 2005, the size of China's construction market was over $400 billion and was a major contributor to economic and employment growth. Meanwhile, Chinese construction and engineering companies have begun exploring the international market and become more and more competitive internationally. Since 2002, China's trade in construction services yielded a surplus for the first time and it is one of the few service sector industries with comparative advantage for China.

Pakistan's economy has grown rapidly in recent years and has a huge demand for infrastructure construction. Pakistani government increased expenditure significantly in public sector development of water, electricity, road transportation and telecom projects, and also in municipal transportation, water supply and environmental projects. The domestic real estate market is also booming. Generally speaking, Pakistan's construction market is fairly open to foreign companies and has always been one of the most important overseas markets for Chinese construction companies. On the other hand, some Pakistani firms are very competitive in the Middle East market due to low labor cost and the availability of some experienced and qualified engineers and architects.

Strengthening cooperation in construction services will be beneficial for both countries. Pakistan has a great demand for infrastructure construction whereas China enjoys growing international comparative advantage in this field and will be able to satisfy this demand at low cost with good quality. The two sides can also benefit from their respective comparative advantages by jointly exploring such international market as Middle East by combining China's strong capabilities in finance, management and equipment with Pakistan's low labor costs.

For bilateral cooperation in construction services to be successful, more emphasis should be put on the following area by both sides:

1. Give more financial and credit insurance support to Chinese construction companies operating in

Pakistan.

2. Encourage Chinese construction companies operating in Pakistan to engage in joint venture activities with local firms and transfer technology to and training personnel for local firms.

3. Increase transparency and fairness in Pakistan's construction market especially with respect to the project tendering process and enforcement of contract.

4. Allow more qualified and skilled technicians and engineers from both sides to work in each other's market under the mode of movement of natural persons.

3.6.4. FINANCIAL SERVICES

Financial services play a crucial role in an economy's growth process. The liberalization process in services has so far mainly focused on this sector. With a view to further liberalizing the financial services, a key objective of the negotiations currently underway is to obtain sufficient number of market access commitments. Many WTO member countries have a wide array of restrictions on both the cross border transactions and the participation of foreign financial institutions in local financial markets. The most common types of market access barriers on financial services are the type of legal entities allowed; participation of foreign capital; the number of suppliers in the market; and the value of transactions or assets.

Progress in the liberalization of trade in financial services would depend on a deeper understanding of the domestic advantages of liberalization by both the developed and developing countries. Some of the important advantages include: improved access by national firms to international capital markets, thus reducing their cost of capital and expanding their potential pool of capital; improved rates of return on funds invested by pension funds, thus reducing future claims on government funding; diversification of risk insured by domestic insurance carriers; promoting inward investment; and promoting overall economic efficiency.

With a view to achieving the ultimate objective of open international trade and competition in financial services, both the developing as well as developed countries will have to reform their domestic regulations. Moreover, the financial authorities will need to expand international cooperation on issues related to the prudential supervision of financial institutions under their jurisdiction. In general, the challenge of regulatory reform is to shift the nature of regulations from a system under which the financial authorities exercise supervision by authorizing specific types of transactions by financial institutions to a system under which they exercise supervision by monitoring the overall financial condition of financial institutions.

China's banking industry experienced rapid growth after years of reform. By the end of 2006, China had 3 policy banks, 5 large commercial banks, 12 joint-stock commercial banks, 113 city commercial banks, 78 urban credit cooperatives, 19348 rural credit cooperatives, 13 rural financial asset management companies, 1 postal saving bank, 54 trust companies, 70 corporate finance companies, 6 leasing companies, 1 money brokerage company, 7 automobile finance companies and 14 locally incorporated foreign bank subsidiaries. The total assets of the banking sector amounted to approximately US$5.6 trillion.

The openness of China's banking sector also increased significantly. 2006 was the last year of China's transitional period of its WTO commitments. China revised and promulgated the *Regulation on the Administration of Foreign-funded Banks* and its *Rules for Implementing the Regulation*. Geographic and customer restrictions on Renminbi business as well as all other non-prudential restrictions on foreign bank operations were lifted.

By the end of 2006, 74 foreign banks from 22 countries and regions had opened 200 branches and 14 locally-incorporated institutions in 25 cities in China; 186 foreign banks from 41 countries and regions had opened 242 representative offices in 24 cities in China. Foreign banks accounted for 2.1% of total assets of China's banking sector. Foreign institutions are also allowed to invest in Chinese banks but a single investor's share in any Chinese banking institution can not exceed 20% and if combined share of

foreign investors in any Chinese banking institution exceeds 25%, it will be treated as a foreign banking institution by the regulatory authority.

The opening up of the Chinese banking sector has also created favorable conditions for Chinese banks to operate and invest abroad. By the end of 2006, Chinese large commercial banks had set up 47 branches, 31 subsidiaries and 12 representative offices in 29 countries and regions. Their total assets amounted to US$ 226.79 billion.

There are currently 4 state-owned commercial banks, 16 private banks, 19 foreign banks and 3 specialized policy banks in Pakistan. After years of privatization and opening up, Pakistan's banking industry has made great progress with significantly higher profitability and capital adequacy and lower non-performing loan ratios. According to an IMF report, Pakistan ranks the third in the world in banking profitability, with India coming at 36th and China at 40th. The high return of its banking industry has attracted foreign attention and many well known foreign banks have participated in the privatization of Pakistani banks. In order to further consolidate the industry and make it stronger and more competitive, Pakistan has raised the minimum capital requirement for setting up banks, with the level set at approximately US$ 100 million.

The financial service industries of both countries still lag far behind those of the advanced economies. The volume of trade in financial services in both countries are low and in deficit. But the continued opening up of financial industry is presenting new opportunities for bilateral investment and trade, especially in the mode of commercial presence. With growing bilateral trade in goods and Chinese investment and construction project in Pakistan, the presence of Chinese financial institutions in Pakistan is essential for servicing Chinese companies.

Meanwhile the rapid development of banking sectors in both countries has also created opportunities for mutual investment. Pakistani banks, with their high profitability and receptive attitude towards foreign investment, can become an ideal target for the "going global" strategy of the constantly expanding Chinese banks.

Therefore, two sides should create conditions for the financial institutions to establish subsidiaries and carry out mergers and acquisitions in the other country. In the mean time, both sides should strengthen communication and cooperation among the financial institutions of the two countries in business operation, personnel training and technology assistance, etc.

3.6.5. COMPUTER AND INFORMATION SERVICES

Although the information industry of Pakistan has just got off the mark, it has demonstrated a huge potential for growth. Pakistan has a good foundation in developing the software industry and the outsourcing of services on the basis of its 17 million English-speaking population, a large expatriate community with rich technological experience, low costs of labor and broadband access. The Pakistani government regards the development of information industry as a top priority, investing huge amount in related infrastructure and human capital development and introduced a series of polices to encourage software export and service outsourcing such as long term exemption of corporate income tax and 100 percent foreign ownership.

Currently, the scale of Pakistan's information industry has reached US$20 billion. Its export markets are mainly Europe and the USA and it has been running trade surplus for quite some time. According to cross border supply figures, Pakistan's export of computer and information related services in financial year 2005 was over US$ 70 million. But if commercial presence and movement of natural persons are taken into consideration, its overall export may well be several hundred million dollars. It is estimated that the annual growth rate of export would exceed 45% in the future.

The information industry in China is also developing rapidly and occupies an important position in the Chinese economy. The advantages of China in the information industry are mainly in hardware, while the market for software reached US $ 7 billion in 2005, and the outsourcing exports of software amounted to US $ 920 million, accounting for 2.3% of the global market. The Chinese government also gives priority to the development and export of IT related services, but so far Chinese software companies still target domestic market. Most important export markets are Japan and Korea instead of Europe and America.

With the rapid development of information industry in both countries, the two sides should cooperate in the following areas to promote further development of bilateral trade in computer and information services:

1. Both sides should open the domestic market further to the other side. For example, many multinational corporations have invested in China, whose demand for software services is very large. The software and information service enterprises of Pakistan are very likely to seize their due market share in China. One Pakistani software company has already won several contracts for supplying multinational automakers in China with business software.

2. China and Pakistan can work to benefit from their respective comparative advantages. The two countries can establish cooperation and alliance among enterprises and industrial associations. Both countries can also invest in the establishment of software parks and explore third country market jointly.

3. The two sides can strengthen cooperation in information exchange, training and education to cultivate the international competitiveness of the information industries of the two countries.

3.6.6. CULTURAL AND SPORTS SERVICES

China and Pakistan have widely different history and culture, and cultural diversity is the foundation for exchanges between the two countries. Strengthening cultural and sports exchanges not only enhance the friendship between the peoples of the two countries, but also deepen mutual understanding, promote personnel exchanges and drive the development of related trade and services. The two countries should regularly hold cultural and sports exchange activities and especially activities with national characteristics. The two countries should grant each other preferential treatment to encourage trade and cooperation in the products and services related to culture, entertainment and sports.

For instance, Pakistani movies used to be quite popular in China and once enjoyed a wide viewing audience. China's movie and TV programs are making inroads in the international market, and have

gained certain exposure. The two countries can introduce their own movie and TV products to each other through expositions and program exchanges. At the same time, China and Pakistan can also cooperate in program production. For instance, China can utilize its advantages in capital, technology and equipment to cooperate with Pakistan in producing audio/video products with market potentials.

In sports, both China and Pakistan boast of world leading sports activities. The two countries can regularly hold sports games and mutual visits of the sports teams, and can carry out mutual assistance in the training and coaching on relevant projects.

3.6.7. MOVEMENT OF NATURAL PERSONS

With rapid economic growth and the continued opening up to the outside world, there is significant demand in China, and in particular by transnational corporations with investments in China, for a large number of professionals, who are proficient in English and educated in the West, in such fields as legal, accounting, consulting, education and medical services. Pakistan is rich in such talents and has cost competitiveness, and can therefore profit from service opportunities in China.

China and Pakistan should carry out the mutual accreditation and recognition of the professional qualifications and certificates so as to facilitate the provision of services by professionals in each other's market.

CHAPTER No. 4

PAKISTAN-CHINA MUTUAL INVESTMENT

4.1. INTRODUCTION

Foreign direct investment (FDI) is believed to be a key determinant of economic growth. It not only provides the necessary capital to the host economies but also brings spillover benefits including transfer of technology, productivity improvements, and introduction of better management practices. The role of investment, in general, and FDI in particular, in regional economic cooperation endeavors has increased dramatically in recent years. Most Regional Trading Agreements (RTAs) now routinely include not only trade, but investment regimes as well. Like many developing countries, Pakistan is actively encouraging foreign direct investment to enhance its growth prospects, and Pak-China investment cooperation is an important step in that direction.

This chapter aims at highlighting recent trends in foreign investment in Pakistan as well as China; identifying the impediments that exist in mutual investment, and reviewing the investment policies of both countries. The current status of bilateral investment cooperation is reviewed, and some proposals for strengthening the cooperation are presented in conclusion.

4. 2. PAST TRENDS IN FOREIGN INVESTMENT

4. 2. 1. PAKISTAN

The volume of foreign direct investment has remained low in Pakistan as compared with other developing countries such as India, China, and Thailand, though it has increased in recent years to US$4160.2 million in 2006-07 (Table 21~~Table 21~~). The major source countries for FDI in Pakistan include USA, UK, United Arab Emirates, and more recently Netherlands. The major sectors that have benefited from total FDI include telecommunications, power sector, oil and gas exploration, and financial business (Table 22~~Table 22~~). Chinese investment in Pakistan has historically remained low and only recently has it increased to US$708.9 million in 2006-07 (mainly in the auto sector).

Overall, the scale of bilateral investment between China and Pakistan is still very limited, which is incongruent with the close and friendly trade and economic relationship between the two countries. According to China's Ministry of Commerce, the non-financial investment by China in Pakistan amounted to US$4.34 million in 2005 and the actual sum of investment by Pakistan in China was US$7.68 million. Up to 2005, China had invested US $ 189 million in Pakistan, accounting for 0.33% of

the total sum of outbound direct investment by China and 1.82% of the total FDI inflow in Pakistan. According to official statistics, however, Chinese investment in Pakistan in the fiscal year of 2007 has increased significantly with an investment sum of US$712 million, becoming the third largest source of investment for Pakistan and accounting for 13.9% of the FDI inflow in Pakistan during this year.

Table 21: Inflow of Net Foreign Private Investment (FPI)

(Million US $)

Country	FY 2005			FY 2006			FY 2007		
	Direct	Port-folio	Total	Direct	Port-folio	Total	Direct	Port-folio	Total
Australia	1.6		1.6	31.3	0.0	31.3	72.0	-6.4	65.6
Canada	1.9	0.1	2.0	4.8	0.2	5.0	10.7	0.1	10.8
China	0.4		0.4	1.7	0.0	1.7	712.0	0.0	712.0
France	-3.6	0.1	-3.5	3.2	0.0	3.2	-0.1	1.5	1.4
Germany	13.1	2.1	15.2	28.6	-3.5	25.1	78.9	7.0	85.9
Hong Kong	32.3	28.9	61.2	24.0	31.2	55.2	32.6	-72.6	-40.0
Italy	0.4		0.4						
Japan	45.2	-3.5	41.7	57.0	-8.7	48.3	64.4	3.9	68.3
Korea	1.4		1.4	1.6	0.0	1.6	1.5	0.0	1.5
Netherlands	36.7	23.2	59.9	121.1	-0.7	120.4	771.8	6.2	778.0
Saudi Arabia	18.4	-0.2	18.2	277.8	0.8	278.6	103.5	0.1	103.6
Singapore	8.0	2.7	10.7	9.9	5.6	15.5	20.9	118.2	139.1
Switzerland	137.5	-10.0	127.5	170.6	11.6	182.2	174.7	-127.4	47.3
U.A.E.	367.5	49.8	417.3	1424.5	63.6	1487.8	661.5	14.9	676.4
U.K.	181.5	17.6	199.1	244.0	-19.5	224.5	860.1	960.1	1820.2
U.S.A.	326.0	47.0	373.0	516.7	303.8	820.5	913.1	853.4	1766.5
Others	355.7	-5.2	350.5	604.2	-32.9	1184.6	647.3	61.4	2179.7
Total	1524.0	152.6	1676.6	3521.0	351.5	4485.5	5124.9	1820.4	8416.3

Source: State Bank of Pakistan, Annual Report 2004-05, Volume I

Table 22: Net Inflow of Foreign Direct Investment by Sector

(Million US $)

Sector	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Oil & Gas	80.7	268.2	186.8	202.4	193.8	312.7	545.1
Financial Business	-34.9	3.6	207.4	242.1	269.4	329.2	930.3
Textiles	4.6	18.5	26.1	35.4	39.3	47	59.4
Trade	13.2	34.2	39.1	35.6	52.1	118	172.1
Construction	12.5	12.8	17.6	32	42.7	89.5	157.1
Power	39.9	36.4	32.8	-14.2	73.4	320.6	193.4
Chemical	20.3	10.6	86.1	15.3	51	62.9	46.1
Transport	45.2	21.4	87.4	8.8	10.6	18.4	30.2
Communication	N/A	12.8	24.3	221.9	517.6	1,937.7	1,898.7
Others	140.9	66.2	90.4	170.1	274	285	1,092.5
Total	322.4	484.7	798	949.4	1,523.9	3,521	5,124.9

Source: State Bank of Pakistan, Annual Report, various issues

As early as 1989, China and Pakistan signed the *Bilateral Agreement on Investment Protection* and the *Agreement on the Avoidance of Double Taxation and Tax Evasion*, which provided legal safeguard for the protection of the bilateral investment. In 2006, the leaders of the two countries signed the *Five-year Development Plan for Trade and Economic Cooperation between China and Pakistan*, putting forward the explicit plan to establish a joint investment company. In 2007, the China-Pakistan Joint Investment Corporation was formally open to business. With 200 million US Dollars of registered capital and office in Karachi, the Corporation will facilitate the investment and development by Chinese enterprises in Pakistan.

Pakistan is actively striving to promote investment relations between the two countries. For a start, a China Desk has been established in the Board of Investment, Islamabad. The Government of Pakistan, in coordination with the Embassy of Pakistan, Embassy of China, China Council for Promotion of International Trade and other business chambers & associations of China, organized four events in China. The first event was organized at Shanghai on October 16, 2003 in which about 300 businessmen participated. The second event was organized at Beijing, China on November 4, 2003. The President of Islamic Republic of Pakistan presided over the meeting. Around 575 businessmen participated in the event. During this event, Pakistani and Chinese businessmen signed 20 Joint Ventures worth US $ 250 Million.

An investment conference was organized in Hong Kong on 26th April 2004. The event was chaired by the Prime Minster of Pakistan, and was attended by about 50 participants from Pakistan's private sector and more than 200 leading businessmen from Hong Kong and China. This was followed by another event in Shanghai on 17th December 2004. Prime Minister of Pakistan, Mr. Shaukat Aziz addressed the conference, which was attended by a large gathering of Pakistani and Chinese companies.

In continuation of these economic activities, Pakistan organized a fifth event i.e. Pak-China Business Forum at Beijing in February 2006. Around 65 participants from Pakistan's private sector and more than 200 leading businessmen from China attended. The President of Pakistan, General Pervez Musharraf, chaired the Business Forum in Beijing. Ministers and senior officials from Government of Pakistan also accompanied the President of Pakistan. Twenty three MoU's worth US $555 million were signed during Pak-China Business Forum in various sectors like Financial, Infrastructure, Media, Power Generation, Urea fertilizer, Steel, Pre-fabricated Housing, Pharmaceuticals, Pesticides, Automobiles & Motorcycles and Vaccines.

Pakistan has already announced the establishment of special industrial/export processing zone for the Chinese Investors. In November 2006, the President of China visited Pakistan. During the visit 31 agreements / MoUs were signed between the public and private sectors of both countries.

Both countries are engaged in a number of joint ventures (see Table 23~~Table 23~~). During President Parvez Musharraf's visit to China in March 2006, the latter agreed to invest $12 billion in Pakistan, apart from $500 million, which will be used to establish a joint venture company. Though joint ventures with China exist in various areas such as steel, heavy engineering and motorcycles manufacturing, the bigger projects are largely in public sector and have strategic orientations. There is, therefore, a need to strengthen private investment between the two countries.

Table 23: Some Joint Ventures between China and Pakistan

Public Sector	Private Sector
1. Karakoram Highway 2. Pakistan Aeronautical Complex, Kamra. 3. Gwadar Deep Sea Port 4. Chashma Nuclear Power Plant. 5. Indus Highway. 6. Thar Coal Development 7. Saindak Metal (Copper/Gold) Project 8. Pakistan Cycle & Industrial Cooperative, Lahore	1. Saigols Qingqi Motors Ltd 2. Zhongxing Telecom (Pvt) Ltd. 3. Sino-Pak Metal Foundry in Nooriabad 4. Sehala Chemical Complex 5. Pak Glass Ltd. Glass Industry 6. Saif Nadeem Ltd 7. Haier Home Appliances

Source: Institute of Peace and Conflict Studies

4. 2. 2. CHINA

Since 1993, China has become the biggest recipient of FDI among the developing countries for many consecutive years. Till the end of 2006, China has cumulatively approved the establishment of 594,445 foreign projects, with contractual investment amounting to US$ 1,497.928 billion with US$ 703.974 billion of actually utilized foreign capital. The main sources of foreign investment into China are East Asian countries, followed by developed countries in Europe and North America and some tax havens. The top ten countries and regions account for 89.42% of the total investment.

In terms of regional distribution, foreign direct investment is mainly concentrated in the eastern part of China. By the end of 2006, Eastern China had accounted for 86.85% of the total sum of actually utilized foreign investments, while the figures for Central China and Western China were 8.79% and 4.37% respectively. Foreign investment in China is mainly in the form of sole proprietorship and joint ventures. With the gradual elimination of the restrictions on the proportion of stock held by foreign investors since China's accession into the WTO, the share of wholly foreign-owned enterprises has been on the rise. By 2007, the wholly foreign-owned enterprises accounted for 46.66% of the total sum of actually utilized foreign investments, while the Sino-foreign joint ventures and other forms of investment accounted for 35.71% and 17.63% respectively.

Table 24: Major Sources of Foreign Investments in China (end of 2006)

Country or Region	Cumulative Sum of Investment (100 Million US Dollars)	Percentage (%)
Hong Kong	2797.55	39.74
Japan	579.73	8.24
British Virgin Islands	571.64	8.12
USA	539.55	7.66
EU	533.97	7.59
Taiwan (China)	438.93	6.24
South Korea	349.99	4.97
Singapore	300.04	4.26
Cayman Islands	107.55	1.53
Samoa	75.13	1.07

Source: China Commerce Yearbook 2007.

In terms of industries, foreign direct investment in China is mainly concentrated in the manufacturing industry, but the share of the service industry has also risen somewhat in recent years. By the end of 2006, the primary industry absorbed 1.89% of the total sum of contractual foreign investments, while the secondary industry and the tertiary industry accounted for 67.38% and 30.72% respectively. The following industries are areas where foreign investment in manufacturing is relatively concentrated: the manufacturing of telecommunications equipment, computer and other electronic equipment, transportation equipment, electric machinery and equipment, textiles and garments, footwear and headgear, chemical raw materials and finished chemical products. Service industries that have absorbed large sums of foreign investment include business services, real estate, transportation services, tourism and tourism-related services, distribution services, construction and construction-related engineering services. What is noteworthy is the fact that the financial service industry has been opened up with great vigor in recent years, turning into an important field for absorbing foreign investment.

4. 3. MAJOR IMPEDIMENTS TO MUTUAL INVESTMENT

Though a combination of factors ─ privatization and deregulation, economic reforms, strong economic growth, and growing middle class ─ have helped spur FDI into Pakistan in recent years, the volume of such inflows remain far below potential. There are a variety of factors that impede the flow of foreign investment including foreign investment from China. These include inadequate physical infrastructure, problems in power supply, weak enforcement of intellectual property rights, lack of highly trained

manpower, low labor productivity, worsening law and order, weaknesses in domestic commerce, and cities that are not attuned to investment and growth.

4.3.1. INADEQUATE PHYSICAL INFRASTRUCTURE

The provision of efficient infrastructure is a pre-requisite for investment and industrial development. High quality infrastructure reduces the transaction costs of doing business and hence contributes towards the productive efficiency and competitiveness. In addition, the availability of public amenities such as health and education facilities is an important factor that influences the business climate and hence cost of doing business. In Pakistan, the availability and quality of physical infrastructure and public amenities leave much to be desired. In particular, the poor quality of transportation network continues to be a major problem faced by the Pakistani industry. Lack of repair and maintenance of the existing roads have resulted in the rapid deterioration of the road network. It is estimated that 70% of the national road network is in "fair to poor" condition, whereas 90% of the provincial network in Punjab is rated as "fair to poor". Poor road conditions not only lead to delays but also result in excessive wear and tear of transport vehicles contributing to high transportation costs. The rail network is also riddled with inefficiencies. The unsatisfactory state of the transportation network has imposed enormous costs on the economy: according to one estimate, inefficiency in transport alone is reckoned to cost the economy Rs.320 billion a year (World Bank, 2002).

4. 3. 2. PROBLEMS IN POWER SUPPLY

Despite efforts to encourage efficient utilization of energy resources, the technical, financial, and operational efficiency of the power sector has continued to deteriorate resulting in costly yet unreliable power supply. In order to minimize downtime caused by problems in power supply, firms are often forced to use their own generators which ties up their capital.

4. 3. 3. WEAK INTELLECTUAL PROPERTY RIGHTS

Secure intellectual property rights provide opportunities and incentives for firms to invest and expand, and allow the dynamic force of private initiative to be unleashed and innovation to take place. Though both China and Pakistan have put in place elaborate systems of intellectual property rights, enforcement remains lax. In the absence of effective implementation of such rights, foreign direct investment especially in the high tech sectors is discouraged.

4. 3. 4. AVAILABILITY AND QUALITY OF MANPOWER

Business efficiency and hence its competitiveness depends to a large extent on the availability and quality of a wide array of inputs including energy, and labor etc. Pakistan is deficient in skilled human resources that are vital for technological advancement. More specifically, quality of technical manpower produced in the educational institutions is poor not least because of lack of highly qualified professional teaching staff. Furthermore, the skills imparted in various polytechnics and the vocational institutions are not demand driven and resultantly most of the skilled workers who graduate from these institutions fail to get a job. The productivity of various industries is adversely affected due to lack of skilled workers and some of the industries do not get established because of the lack of requisite skilled workers.

4. 3. 5. LABOR PRODUCTIVITY

Growth in labor productivity is critical for the efficiency of the industrial sector. (Table 25~~Table 25~~) During the period 1992-2001, overall labor productivity in Pakistan grew by a modest 1.48 percent. This is quite low as compared with the labor productivity growth of the countries like India, Sri Lanka, Bangladesh, Malaysia, China Taiwan, and Korea. The labor productivity growth of the manufacturing sector of Pakistan during the same period was 2.23 per cent, which is higher than that of Bangladesh and India, but lower than that of other countries, such as Sri Lanka, China Taiwan, and Korea. Though these figures are somewhat dated, there is a high probability that growth in labor productivity has not improved much since then.

Table 25: Annual Average Labor Productivity Growth (%): 1992-2001

Sector	Pakistan	Bangladesh	Sri Lanka	India	China Taiwan	Malaysia	Korea
Overall	1.48	1.52	2.34	5.05	3.95	4.12	4.56
Manufacturing Sector	2.23	1.98	2.68	1.56	3.99	3.37	7.55

Source: APO, Asian Productivity Data & Analysis 2003. Asian Productivity Organization, Tokyo

It needs to be underlined that the main sources of labor productivity growth, viz. human resource development, R&D activities and engineering industries that provide machinery in accordance with the

factor endowments of the country, have received relatively less attention in Pakistan. We may note that sustained growth of productivity levels cannot be realized unless these activities are promoted.

4. 3. 6. LAW AND ORDER

Law and order is essential for the security of private enterprises. In recent years, however, law and order has generally deteriorated resulting in the travel advisories issued by foreign countries. Such travel advisories raise transaction costs as firms have to deal with non-availability of foreign managerial and technical expertise.

4. 3. 7. STATE OF DOMESTIC COMMERCE

A vibrant domestic commerce sector efficiently provides various services to manufacturing enterprises including marketing and distribution, sourcing of raw materials, and professional services such as accounting, and business consulting etc. In a pioneering paper, Haque (2006) pointed out the total neglect of domestic commerce in Pakistan as government policies favored a mercantilist approach based on exports. As noted by Haque (2006), "domestic commerce in Pakistan is a forgotten sector even though the labor force survey says that services which reside in this sector employs 34 percent of the labor force and it contributes to more than half of our GDP. Urban zoning remains uninformed of modern city and commercialization needs. This perhaps is the biggest constraint to serious domestic commercial development."

An underdeveloped domestic commerce sector raises cost of doing business and hence discourages foreign investment. For example, the lack of efficient supply chain raises the cost of raw material procurement. Similarly, the difficulty in obtaining quality business services is a major impediment in running efficient and cost effective business operations.

4. 3. 8. CITY DEVELOPMENT

Investment and growth take place in cities and cities that are sensitive and responsive to business needs are magnates for foreign investment. Unfortunately, however, Pakistani cities are not configured for business development and economic growth. According to Haque and Nayab (2007):

1. "All Pakistani cities appear to have no downtowns of city centers – dense areas of mixed use concentrating residential, office, commercial and entertainment within an almost walkable district.

2. There is an excess demand for most forms of city activities-education, entertainment, office, retail, warehousing and even poor and middle class housing. All these activities lack purpose-built space and are forced to be conducted in the only kind of city space that planners have been allowing for the last few years-houses. Housing for the poor, the young starting family, and the middle class is also in short supply since flats are not allowed to be built.

3. Zoning seems to favor large housing often at the expense of commercial development. Commercialization is arbitrary, cumbersome and expensive. As a result, zoning and real estate development appears to be a rent-seeking game."

Businesses have to bear the cost of inadequate development of cities. For example, the dearth of warehousing and storage space hampers inventory management that is essential for the firms to smooth out their production cycles and save precious capital. Also, lack of entertainment and other civic amenities discourage foreign visitors including business consultants.

4. 4. INVESTMENT POLICIES

4. 4. 1. PAKISTAN

Pakistan is pursuing a liberal foreign investment policy with all economic sectors open to Foreign Direct Investment (FDI); however, government permission is required for specified four industries, including arms and ammunitions, high explosives, radioactive substances, security printing like currency and mint and no new unit for the manufacturing of alcohol, except industrial alcohol. The salient features of investment policy are:

1. Equal treatment to local and foreign investors,

2. 100 % foreign equity allowed,

3. Attractive tax / tariff incentives package: only 5 per cent customs duty and zero per cent sales tax on import of plant, machinery, and equipment(PME); 50 percent tax relief (initial depreciation allowance, % of PME cost; No customs duty and sales tax on imported raw materials used in producing for exports,

4. Remittance of Royalty, Technical & Franchise Fee, Capital, Profits, Dividends allowed,

5. Protection of foreign private investment through Promotion and Protection Act, 1976, Protection of Economic Reforms Act, 1992 and Foreign Currency Accounts (Protection) Act, 1976**,** and

6. FDI in Service Sector is allowed in any activity subject to condition of prior permission/NOC or license from the concerned agencies and subject to provisions of respective sectoral policies.

The other facilities include protocol services, hotel bookings, accommodation, transport bookings, and assisting with the business itinerary, etc. for foreign investors visiting Pakistan are provided by the Board of Investment (BOI) (see Table 28~~Table 28~~ for salient features of Pakistan's investment package).

Pakistan offers a competitive tax environment to foreign investors. The normal tax rates and personal income tax rates are given here (see Table 26~~Table 26~~ and Table 27~~Table 27~~). In the manufacturing and industrial sectors, foreign investors are allowed to own 100% equity. The locations for the industrial projects can be chosen at any site within the Pakistani territory except the publicized sensitive and security-endangering areas. Moreover, NOC (Non-Objection Certificate) is no longer required from the provincial governments.

In the non-manufacturing sectors, the Pakistani Government allows foreign investors to own 100% share of the investment projects in the service industry, infrastructure, social sectors and agriculture according to their respective requirements. The capital returns are also allowed to be remitted outside the country. However, the foreign investors do need to register with the Stock Exchange Committee of Pakistan (SECP) and notify the national bank before registering in accordance with the foreign exchange administration regulations in Pakistan.

Table 26: Normal Tax Rates

Tax Year	Banking Company	Public company other than a banking company	Private company other than a banking company
2003	47%	35%	43%
2004	44%	35%	41%
2005	41%	35%	39%
2006	38%	35%	37%
2007	35%	35%	35%]

Source: Income Tax Ordinance, 2001 (XLIX of 2001), Government of Pakistan, Central Board of Revenue (Revenue Division)

Whereas the service industry is open to FDI, some formalities are still required to be fulfilled. Specific regulations apply to the opening of the telecommunications service sector. The capital contribution by the foreign investors to the company/project should not be less than 150,000 US Dollars.

In infrastructure, foreign investment is allowed in the construction of infrastructure, including the establishment of industrial parks. However, it is required that the sum of investment by the foreign investors in the company/project should not be less than 300,000 US Dollars.

The social sectors include education, occupational/technical training, human resources development, hospitals, medical services and diagnostic services. The sum of investment by the foreign investors in the company/project should also be above 300,000 US Dollars.

Table 27: Personal Income Tax Rates

Taxable income	Rate of tax.
Where taxable income does not exceed Rs.100,000	0%
Where the taxable income exceeds Rs.100,000 but does not exceed Rs.110,000	0.50%
Where the taxable income exceeds Rs.110,000 but does not exceed Rs.125,000	1.00%
Where the taxable income exceeds Rs.125,000 but does not exceed Rs.150,000	2.00%
Where the taxable income exceeds Rs.150,000 but does not exceed Rs.175,000	3.00%
Where the taxable income exceeds Rs.175,000 but does not exceed Rs.200,000	4.00%
Where the taxable income exceeds Rs.200,000 but does not exceed Rs.300,000	5.00%
Where the taxable income exceeds Rs.300,000 but does not exceed Rs.400,000	7.50%
Where the taxable income exceeds Rs.400,000 but does not exceed Rs.500,000	10.00%
Where the taxable income exceeds Rs.500,000 but does not exceed Rs.600,000	12.50%
Where the taxable income exceeds Rs.600,000 but does not exceed Rs.800,000	15.00%
Where the taxable income exceeds Rs.800,000 but does not exceed Rs.10,00,000	17.50%
Where the taxable income exceeds Rs.10,00,000 but does not exceed Rs.13,00,000	21.00%
Where the taxable income exceeds Rs.13,00,000	25.00%

Source: Income Tax Ordinance, 2001 (XLIX of 2001), Government of Pakistan, Central Board of Revenue (Revenue Division)

As far as other sectors are concerned, the government grants industrial treatment to the tourist industry, real estate, the construction industry and information industry. The machinery and equipment needed by the projects related to these industries but not manufactured locally can be imported at a tariff rate of 5% and are exempted from sales tax.

Table 28: Pakistan Investment Package

Policy Parameters	Manufacturing Sector	Non -Manufacturing Sectors		
		Agriculture	Infrastructure & Social	Services including IT & Telecom Services
Govt. Permission	Not required except 4 specified industries *	Not required except specific licenses from concerned agencies.		
Remittance of capital, profits, dividends, etc.	Allowed	Allowed		
Upper Limit of foreign equity allowed	100%	100%	100%	100%
Minimum Investment Amount (M $)	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%	50%		
Royalty & Technical Fee	No restriction for payment of royalty & technical fee.	Allowed as per guidelines - Initial lump-sum upto $100,000 - Max Rate 5% of net sales - Initial period 5 years		

* Specified Industries:
- Arms and ammunitions
- High Explosives.
- Radioactive substances
- Security Printing, Currency and Mint.

No new unit for the manufacturing of alcohol, except, industrial alcohol

PME= Plant, Machinery and Equipment
IDA= Initial Depreciation Allowance

Source: Board of Investment, Pakistan, website

4. 4. 1. 1. Preferential Tariff and Taxation

In order to maintain the country's international competitiveness in attracting foreign investments, the Pakistani Government provides the following preferential treatments for foreign and domestic investors: a

low tariff rate of 5% applies to the assembly line apparatus, machinery and equipment not produced locally. Imported assembly line apparatus, machinery and equipment are exempt from sales tax. The locally manufactured machinery equipment and assembly lines are also exempt from the 15% sales tax.

As far as the preferential taxation is concerned, the "depreciable assets" put into use in Pakistan for the first time can be allowed to enjoy a 50% starting depreciation within the first taxation year. The pre-startup expenses and expenditure are allowed to be amortized at a rate of 20% per year, and the intangible assets are allowed to be amortized within ten years. The current rates of corporate tax in Pakistan are 35% for state-owned enterprises, 39% for private companies and 41% for banking companies.

4. 4. 1. 2. Investment Facilitation Measures

All capitals, capital gains, dividends and profits are allowed to be remitted outside the country. Foreign private loans can be arranged for payment of all expenses arising from the importation of the machinery and equipment needed by the establishment of the project by foreign investors. None of these loans involve a guarantee by the Pakistani Government. The related loan agreements should be registered at and permitted by the State Bank of Pakistan. In obtaining loans for working capital, manufacturing enterprises whose majority stocks are controlled by foreign investors enjoy the same treatment as local companies.

In the manufacturing field, there is no restriction over the payment of patents and royalties. However, such agreements should be registered at the State Bank of Pakistan. A tax rate of 15% is applied to such payments. In case there is a lower tax rate in the investment agreements with other countries, the lower tax rate applies. In the non-manufacturing field, the payment of patents and royalties is also allowed subject to certain regulations.

The Government of Pakistan has signed agreements on Avoidance of Double Taxation with 52 countries including almost all the developed countries of the world (see Table 30~~Table 30~~), and signed Bilateral Agreements on Promotion and Protection of Investment with 46 countries (see Table 29~~Table 29~~). China signed this agreement with Pakistan on February 12th, 1989.These Agreements provide that:

- The Contracting Parties shall encourage investments in their respective territories by investors of the other Contracting Parties.
- Non-discrimination between local investors and foreign investors.
- Equal/non-discriminatory treatment in case of compensation for losses owing to war, other armed conflicts, a state of national emergency.

- The free transfer of investments, and income deriving there from including profits, dividends, interest income, proceeds of sales or liquidation, repayments of loans, salaries, wages and other compensation etc.
- A dispute settlement mechanism to settle any dispute between the countries with respect to the interpretation of the respective agreement.
- A dispute settlement procedure to settle any dispute between a host country and an investor of the other country.

Looking to the future, the current investment policies and the legal protection granted to domestic and foreign investors will continue to expand into new areas. The encouragement and preferential treatments provided by the government to the investors will continue to be strengthened rather than reduced. Neither will any change detrimental to the interests of the investors occur.

4. 4. 1. 3. Privatization of State-Owned Enterprises

In order to improve the long-term growth rate of the economy and employment and to bring to full play the role of the market and private sectors in the economy, the Pakistani Government has set up a special Privatization Commission in charge of the privatization affairs concerning the state-owned enterprises of the federal government. The privatization fields have been expanded from industrial projects to electricity, petroleum, gas, transportation, telecommunications, banking and insurance. Up to now, the Pakistani Government has approved and completed 165 deals with a value of 457.919 billion Rupees, for which the telecommunications industry accounts for 41%, the financial sector for 34%, the energy sector for 12% and the industrial and other projects for 13%.

Table 29: Countries having Bilateral Investment Agreements with Pakistan

S.No.	Country	Signing Date	S.No.	Country	Signing Date
1	Germany	25.11.1959	24	Tunisia	18.04.1996
2	Sweden	12.03.1981	25	Syria	25.04.1996
3	Kuwait	17.03.1983	26	Denmark	18.07.1996
4	France	01.06.1983	27	Belarus	22.01.1997
5	South Korea	25.05.1988	28	Mauritius	03.04.1997
6	Netherlands	04.10.1988	29	Italy	19.07.1997
7	China	12.02.1989	30	Oman	09.11.1997
8	Uzbekistan	13.08.1992	31	Sri Lanka	20.12.1997
9	Spain	15.09.1994	32	Australia	07.02.1998
10	Turkmenistan	26.10.1994	33	Japan	10.03.1998
11	United Kingdom	30.11.1994	34	Luxemburg	23.04.1998
12	Singapore	08.03.1995	35	Qatar	06.04.1999
13	Turkey	15.03.1995	36	Yemen	11.05.1999
14	Portugal	17.04.1995	37	Philippines	11.05.1999
15	Malaysia	07.07.1995	38	Egypt	16.04.2000
16	Romania	10.07.1995	39	OPEC Fund	24.10.2000
17	Switzerland	11.07.1995	40	Lebanon	09.01.2001
18	Kyrgyz Republic	23.08.1995	41	Morocco	16.04.2001
19	Azerbaijan	09.10.1995	42	Bosnia & Herzegovina	04.09.2001
20	Bangladesh	24.10.1995	43	Kazakhstan	08.12.2003
21	U.A.E.	05.11.1995	44	Laos	23.04.2004
22	Iran	08.11.1995	45	Cambodia	27.04.2004
23	Indonesia	08.03.1996	46	Tajikistan	13.05.2004

Source: Board of Investment, Government of Pakistan

Table 30: Countries having Double Taxation Avoidance Agreements with Pakistan

S.No.	Name of Country	S.No.	Name of Country
1	Austria	27	Malta
2	Bangladesh	28	Mauritius
3	Belarus	29	Netherlands
4	Belgium	30	Nigeria
5	Canada	31	Norway
6	China	32	Oman
7	Denmark	33	Philippines
8	Finland	34	Poland
9	France	35	Qatar
10	Germany	36	Romania
11	Greece	37	Saudi Arabia
12	Hungary	38	Singapore
13	India	39	South Africa
14	Indonesia	40	Sri Lanka
15	Iran	41	Sweden
16	Ireland	42	Switzerland
17	Italy	43	Syria
18	Japan	44	Thailand
19	Jordan	45	Tunisia
20	Kazakhstan	46	Turkey
21	Kenya	47	Turkmenistan
22	Republic of Korea	48	U.A.E.
23	Kuwait	49	U.K.
24	Lebanon	50	U.S.A.
25	Libyan Arab Republic	51	Uzbekistan
26	Malaysia	52	Azerbaijan

Source: Board of Investment, Government of Pakistan

4. 4. 2. CHINA

With increasing openness to the outside world and the enhancement of the competitiveness of domestic enterprises, the Chinese government has taken gradual steps to encourage outbound investment by domestic enterprises. Such steps can not only optimize the allocation of resources, but can drive the export of commodities and labor as well. The ultimate objective is to cultivate multinational Chinese enterprises and world renowned brands with international competitiveness.

To this end, the Chinese government has introduced a series of measures, and a policy support system for foreign investment has been formed. The Chinese government has thrice issued the *Catalogue for the Country-specific and Industry-specific Guidance of Outbound Investment*, providing orientation guidance over what countries/regions and industries the country encourages outbound investment. The choice of the investment fields is mainly determined in combination with the industrial structure and advantages of China, FDI policy and the market characteristics in the host countries in accordance with the relevant outbound investment fields encouraged by the Chinese government. The *Catalogue* aims to encourage and guide Chinese enterprises to conduct outbound investment with specific purposes.

The Chinese government has also formulated relevant policies and measures to encourage Chinese enterprises to undertake processing and trade investments as well as contracting projects overseas. China has established the System of Country-specific Report on Barriers to Investment and Business Operations, eliminating barriers to outbound investment and cooperation as well as safeguarding the legal interests of the Chinese enterprises through multilateral and bilateral mechanisms. Moreover, through the reform of the System of Outbound Investment Approval, China has also reduced the steps and simplified the procedures so as to facilitate the outbound investment by Chinese enterprises. At present, a number of commercial banks in China have developed various kinds of financial products to provide financial services for outbound investment, including loans, guarantee, and insurance, etc.

Outbound investment from China has witnessed rapid growth, starting from a low base. In 2006, China's FDI outflow reached US$21.16 billion, among which US$5.17 billion was incremental equity investment, US$6.65 billion was current profits reinvestment and US$9.34 billion was other kinds of investment, accounting for 24.4%, 31.4% and 44.2% of total respectively. China's FDI outflow and stock constituted 2.72% and 0.85% of the world's total respectively in 2006. The destination of China's FDI outflow is mostly in Asia and Latin America, with Hong Kong, Cayman Islands and the British Virgin Islands accounting for 81.5% of total China outbound FDI stock. Africa only accounts for 3.4% of the total.

The main field of outbound investments is the service industry. Until 2007, the stock of FDI outflow of the business service industry had amounted to US$17.9 billion and accounted for 21.5% of the total. The financial industry accounted for 17.2% of the total with the sum of US$15.61 billion. The wholesale and retail industry accounted for 14.3% with a sum of US$12.96 billion, mainly investments by Chinese enterprises involved in import and export trade. The manufacturing industry accounted for 8.3% with a sum of US$7.53 billion, mainly in telecommunications equipment, computer and other electronic equipment, textiles, transportation equipment, pharmaceuticals, ferrous metal metallurgy and pressing. The mining industry accounted for 19.8% with a sum of US$17.9 billion, with major investments in petroleum, natural gas, and the mining and dressing of ferrous metals and non-ferrous metals.

4.5. BILATERAL COOPERATION IN INVESTMENT AND FUTURE POTENTIALS

Both China and Pakistan are developing countries and have been beset by the problems of insufficient capital and foreign exchanges for a long time. For this purpose, the two governments have adopted incentive policies to attract foreign investments and have achieved success in this regard to a certain extent. After over 20 years of development, China no longer suffers from the problems of insufficient foreign exchanges and capitals as the capital and current accounts under the balance of payments have both been in surplus for a long time, China is now in possession of large quantities of foreign reserves and is therefore in the position to export capital. By comparison, the Pakistani economy has just taken off, and the continued development demands large quantities of capitals. Since the current account of Pakistan has been in deficit for a long time, the demand by the country for foreign exchanges and capitals is still very huge. Therefore, China and Pakistan have a complementary relationship in bilateral investments from a capital flow's perspective.

Judging from the micro-economic level, the main agent for investment is the enterprises. Only under the circumstance that the enterprises believe overseas investment can bring profits and market prospects for them, will they decide to invest overseas. In the past, due to the swift expansion of the domestic market, Chinese enterprises lacked the motivation to invest overseas, and the large-scale enterprises still considered the domestic market as the main target. Moreover, although the total volume of foreign trade of China was very large, market, distribution, brand and technologies were mainly in the hands of the multinational corporations, as a result of which there were few Chinese enterprises that were capable of carrying out international business operations.

As economic globalization further develops, the ties between the domestic market and the international market are becoming ever closer, and the competition between domestic enterprises and multinational corporations is becoming more intense. The competitiveness of a country is ultimately determined by the competitiveness of its enterprises. In recent years, the domestic market for certain products has become saturated, and the competition has been so intense that more and more Chinese enterprises are seeking opportunities to develop business overseas. It was for this reason that the Chinese Government put forward the strategy of encouraging Chinese enterprises to "go global" at the beginning of this century, introducing a series of supporting policies.

At present, some of the Chinese enterprises are already capable of internationalized operations and have the need to expand into the international market, hence they are trying to invest overseas and have achieved some success. One of the renowned cases was the purchase of the personal computer division of IBM by Lenovo Group of China, which has achieved profitability after several years of integration and is about to set up computer manufacturing plants in India and Mexico. Some large-scale state-owned enterprises have also conducted active overseas investment, merger and acquisition from the perspective of national development strategy. For instance, China Investment Corporation, which was recently set up, acquired shares of the Black Stone Group of the USA. All these indicate that the capabilities of the Chinese enterprises to invest overseas have become stronger and stronger, and the scale of investment is to become larger and larger.

Pakistan is likely to become an important destination for the outbound investment by Chinese enterprises. First of all, Pakistan has a large population and a rapidly developing economy, and is therefore a emerging market with huge potentials. Secondly, the trade and economic relations between China and Pakistan are very close. Chinese enterprises and products have enjoyed a high degree of reputation in Pakistan. Thirdly, Pakistan has a very sound business environment. As is demonstrated by research results of the World Bank, Pakistan ranks the 19th globally in the aspect of investor protection. Fourthly, Pakistan has very preferential foreign investment policies, and is very bold in the privatization of the state-owned enterprises. Some sensitive industries, such as banking and telecommunications, are also open to the outside investors. All these provide Chinese enterprises with a lot of opportunities to invest in Pakistan.

For example, Pakistan has one of the fastest growing telecommunication markets in the world after government deregulation. Its annual growth rate is 140% in recent years and is expecting to add 30 million new customers in the next three years. Foreign investment in the sector totaled US$9 billion over the last three years and four billion more is expected in the next three to four years. Against such background, China Mobile Corp. purchased 88.86% stake of Paktel with US$284 million. Paktel is the

fifth largest mobile phone operator in Pakistan with 1.5 million registered users at the end of September, 2006, a 62% increase over the same period last year. This is a first attempt by China Mobile to expand its operation internationally and hopefully will become a successful model of Go Global strategy for Chinese enterprise. As the bilateral cooperation in investment between China and Pakistan deepens, more of such examples will emerge. Some specific sectors with prospects for bilateral investment are highlighted below.

4.5.1. PRIORITY AREAS FOR FDI FROM CHINA

Pakistan offers investment opportunities in a variety of traditional and modern sectors including textiles, leather, engineering, electronics, chemicals, pharmaceuticals, telecommunication, information technology, energy, and livestock and dairy development.

4. 5. 1. 1. Textiles

The textiles and clothing sector is the mainstay of Pakistan's economy. With a 24 percent share in the value added of the manufacturing sector, the textiles sector employs 38 percent of the workforce in the industrial sector, and constitutes roughly 70 percent of total exports. In the rapidly changing global economic environment, both Pakistan and China can join hands in strengthening the competitiveness of the textiles sector. Chinese investment in this sector can lead to promotion of new products and processes to enable the industry to compete both domestically and internationally, improvement in product quality, and technology transfer. While foreign investment in all segments of the textile industry would be beneficial, a particularly promising area for establishing joint ventures is the apparel sector, especially because the sector has been very slow to introduce new technologies especially in cutting and stitching. Collaboration with foreign apparel manufacturers would help bring in new technology and shorten the learning curve for the apparel industry.

4.5.1.2. Leather Industry

Leather and leather products play a significant role in Pakistan economy. Major leather products produced in Pakistan include footwear, leather garments, leather gloves, handbags, purses, key chains, wallets etc. The recent growth of the industry is mainly due to export of value added finished leather and leather manufactures like garments gloves, footwear and sports goods. The share of Pakistan in the global leather market is around $ 0.6 billion (3%) out of the total $ 20 billion, whereas China is the leading exporter of leather. Mutual investment in the leather sector will contribute significantly to the national economies in terms of enhanced exports, learning from each others' technical expertise, and greater value addition.

4.5.1.3. Engineering Goods

Engineering industry is one of the most dynamic industries in the world having great potential for growth. It comprises base metals, metal products, mechanical machinery and transport equipment, electrical equipment, non-metals, design and engineering services. Because of changes in the consumer preferences, increase in competitive pressure and advances in technology, the engineering industry has undergone major changes all over the world. Due to sharp growth in demand as well as shortening product cycles, the investments requirement in this sector is quite high. The opportunities in the engineering sector are immense and both China and Pakistan can gain significant advantages through joint ventures.

4.5.1.4. Electronics

Electronics manufacturing is a highly and increasingly globalized activity, and is one of the world's fastest growing industries. It is a key enabler of growth and innovation, underpinning many important industries including Automotive, Information and Communication Technologies (ICT), Consumer Appliances, Defense, Biomedical Appliances and other scientific equipment and devices. While USA and Japan remain the leaders in cutting-edge technologies, many Asian economies have developed their strengths in the electronics sector, which has been a major driver of growth in these economies. Despite its huge growth potential, Pakistan has significantly lagged behind in the development of its electronics industry.

However, Pakistan is striving to take advantage of the rapid transformation of global electronics manufacturing resulting in globalization of the production process and component technologies. The global electronics production is controlled by multinationals that possess the necessary product and process technologies. Their innovative capabilities allow them to develop new electronics products at a very fast pace, so that older product lines are becoming obsolete faster than ever before. If Pakistan is to develop its electronics industry, it must attract foreign direct investment in the electronics sector.

China is a major center of electronics manufacturing. However, as the technological capabilities of China have increased, so have its labor costs. Consequently, there is an opportunity for the shifting of the labor intensive operations of electronics manufacturing to countries like Pakistan.

4.5.1.5. Chemicals

The chemical industry is the bedrock of all industries. Almost all the sectors in modern economies depend on the inputs which are produced by the chemical industries. The industry is complex and is highly capital and technology intensive. The development of the chemical industry depends upon the movement into

higher value-added products in upstream and downstream activities, feedstock availability, technology and skilled manpower. Pakistan has not yet utilized the potential of chemical sector but there is a great scope for the establishment of a dynamic and competitive chemicals sector in Pakistan through foreign direct investment.

4.5.1.6. Pharmaceuticals

Whereas Pakistan has attained a high degree of self-sufficiency in the formulation and packaging of finished pharmaceutical products, the basic manufacturing of ingredients is very small and about 90 percent of active ingredients are imported. Foreign investment expertise can play a vital role in developing the capacity to produce the essential ingredients especially where local sources are available.

4.5.1.7. Telecommunications

Telecommunications and economic growth are strongly correlated; modernization of various sectors of the economy is associated with good communication infrastructure. The telecommunication sector of Pakistan has shown a sharp growth over the last few years. The cellular telephone sector has shown even stronger growth than the fixed line telephony. Notwithstanding the significant progress telecom sector made in Pakistan in recent years, the country still lags behind many of the comparable economies in terms of fixed line density, mobile penetration, and internet usage. Since a majority of population still lacks access to telecom services, there exists an enormous potential for growth of telecom in the country, and foreign direct investment from China can play a pivotal role in the development of a high quality telecommunication infrastructure for the provision of affordable world class telecom facilities.

4.5.1.8. Information Technology

Information technology (IT) has assumed great importance in the global economic arena. The Government is providing higher priority to the development of a competitive and strong information technology sector focusing in particular on software development, e-governance, and human resource development in the IT sector. The Pakistan software industry has enormous potential to grow from its current size. The worldwide IT services market is growing at the rate of 8 percent in real terms and expected to reach about $ 910 billion by 2010. Of this, about 54 percent will consist of hardware maintenance, IT management and other services. Both China and Pakistan can capture a significant share of this lucrative market through mutual investment.

4.5.1.9. Energy

Energy has emerged as one of the most critical issues all over the world. It is particularly important for fast growing developing countries who are dependant on imports to meet a high proportion of their requirements. Whereas the sharp fluctuation in the prices of oil in the world market make the people and the governments vulnerable, the power and gas shortages also affect rather badly the output levels in the country. Frequent disruption of power and other energy supplies have tended to lead to serious crisis affecting both human and national security. A long run plan that takes into consideration both investment in conventional sources and alternative fuels in the context of a regional cooperation would go a long way in improving the energy situation.

In March 1994, the Government of Pakistan devised a new *"Policy Framework and Package of Incentives for Private Sector Power Generation Projects in Pakistan"*, whose main features were internationally competitive rates for purchase of electricity where capacity payment at the load factor of 60 percent was ensured, reduction in local currency investment requirements, and simplification of procedures. A favorable environment for private investment was created through a combination of fiscal incentives and institutional support. Among the many incentives provided for the private sector were the incorporation of fuel price as a pass through item, tax cuts, import subsidies, and foreign exchange risk insurance. In addition, to avoid bureaucratic delays, a one-window Private Power Cell (PPC) was established. To help the private investors in meeting their borrowing needs, a Private Sector Energy Development Fund (PSEDF) was created with financial assistance from the World Bank. These measures were complemented by the establishment of a regulatory body in the power sector ─ the National Electric Power Regulatory Authority (NEPRA) ─ designed to act as an overseer and 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 and almost 6500 MW were added to the capacity.

4.5.1.10. Livestock and Dairy Development

Pakistan is the 5th largest milk producing country in the world. Buffaloes and cows contribute the major share to milk production and are raised in rural subsistence and market oriented smallholdings, rural commercial farms, and peri-urban commercial dairy farms. During the last two decades, milk production has increased at a rate of over 6 percent and major milk products include cheese, ice cream, indigenous dairy products, butter, liquid milk, and dried milk. Pakistan has the potential to become a major exporter of milk and dairy products with the help of foreign investment and expertise.

4.5.2. CHINESE SPECIAL ECONOMIC ZONES IN PAKISTAN

Industrial zones or special economic zones have become popular instruments to attract foreign investment. These zones are characterized by the availability of a world class infrastructure, a regulatory regime that is conducive to private business and various fiscal incentives for foreign investors. China-Pakistan Special Economic Zone, to be established in Lahore, is the first of a total of nine economic zones that China plans to establish in the trading partner countries. The special economic zone is expected to become the preferred location for Chinese enterprises because of the increased security, quick customs clearance and efficient administrative support. A key advantage of the zone is that it can promote industrial clustering that can be instrumental in attracting investment in high value added manufacturing. Such clusters have a critical mass that helps in sharing knowledge and resources and stimulating creativity, innovation and entrepreneurship. Clusters are especially beneficial for small and medium enterprises because they provide cost-effective opportunities to deliver targeted technical assistance for upgrading technology, management and marketing. The clustering leads to greater efficiency and flexibility not attainable by individual firms operating in isolation.

4.5.3. TECHNOLOGY TRANSFER

Foreign direct investment is an important vehicle for technology transfer. Over the last few decades, China has gradually acquired technological prowess in a wide array of industries and activities, ranging from defense and strategic industries to construction of large infrastructure projects and from electronics to basic manufacturing. On the other hand, Pakistan's economy is still dominated by traditional low-value added industries and there is an urgent need to develop a dynamic, diversified, higher value added, efficient, and rapidly growing industrial sector. In this scenario, technology transfer from China can play a vital role in laying the foundation of a modern industrial sector in Pakistan. There is potential for technology transfer in the following broad industrial groups.

- Agro-processing Industries
- Textiles, Leather and Wearing Apparel
- Chemicals Process Industry
- Electrical and Non-electrical Machinery, Electronics, and Automobiles

4.5.3.1. Agro-Processing Industries

Pakistan needs to develop a food industry that emphasizes the development of value added products through greater forward and backward linkages. Cereal milling in Pakistan neither produces fortified food, nor it packages properly and, therefore, unit values of these products are low. Moreover, the products are neither standardized nor their quality is even. The processing of cereals, confectionary, biscuits and the bakery products where most of the value addition takes place is negligible. Key constraining factors include poor quality control, and lack of standardization and proper certification. Similarly, processing of sugarcane and use of by-products are not efficient either. While sugar pulp is used as fuel, molasses are exported instead of converting them into alcohol. The inability of the industry to process molasses for alcohol production has been the main element in lower efficiency levels of sugar industry because the foreign firms have sugar as a by-product and alcohol is the main product.

Processing of fruit is negligible and virtually there is no export of processed fruit from Pakistan. The slow development of fruits and vegetables is due to a number of factors including the lack of formal grading mechanism and credible accreditation of products. The fruit processing industry needs regular supplies of the fruits free from pests and diseases. Unfortunately, different types of fruits are subject to pest and disease attacks which results in waste of a large number of fruits. Whereas the technologies have been developed world over to avoid the problem, technologies exist only for mechanized agriculture, whereas most of the sector in Pakistan is unorganized. Fruit processing is also constrained by low technological capability among small scale operators and restricted extension and advisory programs to enhance know-how of the producers regarding various options.

In sum, Pakistan has been unable to benefit from the comparative advantage she had in processing of food industries in Pakistan. With a view to realizing the advantage, Pakistan can benefit from Chinese expertise in terms of product development, research and development, product standardization and grading, marketing, and managerial and technological capabilities.

4.5.3.2. Textiles, Leather and Wearing Apparel

This group of industries is the largest in Pakistan's manufacturing sector, accounting for 31.1 percent of manufacturing value added. It comprises textiles, wearing apparel and leather accounting for 24.0, 4.4 and 1.7 percent of manufacturing value added. However, the quality of product is at the lower end with little value addition. It suffers from quality and standardization and resultantly the unit values of Pakistani textiles products are way below the average international values. If Pakistan is to become a global player,

the sector needs to redefine its market and products, improve product quality, move up the value chain, lay technological foundations, and strengthen global business operations.

All the segments of the textile sector from cotton cultivation to manufacturing of garments lack modern technology barring some exceptions. Contamination in raw cotton resulting from improper picking and storage processes affects the cotton quality and is a major impediment in value addition. The technology deployed in cotton ginning is outdated, inefficient and based on local manufacturing by semi-literate mechanics. Because of the cotton varieties sown in Pakistan as well as the poor ginning processes, the producers have been forced to produce lower count yarns though they could have imported raw cotton and processed it for higher counts. Even though level of technology in the spinning industry is generally satisfactory and most of the industry is using state-of-the-art machinery and in recent years there has been BMR and new investment, there are still certain segments of the industry where BMR is required.

Most of the weaving of synthetic fabric is done on low technology power looms, with the inherent weakness of producing low quality fabric. Moreover, such machines have limited capability to handle complex fabric constructions. There is high wastage, uneven quality, and no standardization of products. Consequently it fetches very low prices. For increasing the value added, it is absolutely necessary to promote the integrated units and higher proportion of fabrics in the large scale sector. This is important because further value addition by the apparel sector would be constrained unless there is a technology shift. Modern air-jet and projectile looms, equipped with Computer Aided Manufacturing (CAM) facilities enables the machine to handle complex fabric constructions without compromising quality. Since Pakistani competitors have invested heavily in the latest water jet weaving technology, Pakistan also has to invest in such looms. Even though some big industrial establishments have installed such looms, the average technology levels remain poor.

The garments sector is characterized by limited design and product development capacity, high process losses, and inadequate investment in modern pattern making and cutting equipment. Recent technological developments in the garments sector have been in response to the growing consumer demand for new styles and improved quality products. For example, technologies such as Computer-Aided-Design and Manufacturing (CAD/CAM) are widely used across the globe. However, Pakistan still lags behind in the utilization of such technologies. The sector also suffers from not fully developed accessory industries including buttons, sewing threads, inter-lining, elastic bands, zippers, etc. Since a large number of garment manufacturers are SMEs, the weak and sometimes absence of inter-linkages between the fabrics and such SMEs also have been an impediment.

In order to enhance the value added in the industry, and strengthen the competitiveness of the textiles sector, especially in the rapidly changing global environment, Pakistan can benefit from Chinese technology that can enable production of higher value added products with better quality and promotion of new and standardized products and processes which are competitive in the world market. Another area where Pakistan can benefit from Chinese technology is synthetic textiles that play a rather important role in the world market. Not only global trade in artificial and synthetic fabrics is much larger, it is blended cotton textiles than just cotton textiles that are in greater demand.

Value addition in the leather segment is low due mainly to limited designing capacity. On the other hand, China is a major producer of footwear with a variety of designs that can compete in international markets. Pakistan's footwear industry can benefit from Chinese designing expertise. In addition, Pakistan has a significant leather tanning industry. The increase in tanneries is causing severe environmental degradation as the untreated effluent used in the tanning process is released into nearby water reservoirs and the sea. The tanneries also lead to air pollution because they burn the residuals, i.e., hair, into the atmosphere. The problem is even more acute because tanneries are located in industrial areas that contain a large percentage of population. The chrome tanning method is the most widely used process in Pakistan's leather sector. If Pakistan's leather industry is to grow at a rapid rate, it must comply with the environmental standards. A key initiative in this respect will be the wider adoption of vegetable tanning ---- an environment friendly technique --- with Chinese help.

4.5.3.3. Chemical Process Industry

The chemical industry, comprising organic and inorganic chemicals and pharmaceuticals is of great significance to the economic development. Whereas Pakistan has not been able to process the inorganic materials such as minerals, the petrochemicals could not be developed both because they are highly capital- and technology-intensive. Pakistan can develop capacity in specialty chemicals in collaboration with Chinese investors.

4.5.3.4. Metals, Machinery, Electronics, and Automobiles

Pakistan has lagged behind in the engineering industry which is both capital and technology intensive. For a start, increasing domestic steel production can provide a competitive base to the engineering sector as domestic steel production is far below demand. A steel mill can be established at Nokundi where the reserves of iron-ore at are sufficient for 15 years, but with continuous exploration there is very large likelihood of finding more reserves in the area. The availability of steel at lower price will result in lower

cost of production in the engineering industries. Similar mills can be set up at Kalabagh and other locations.

The machinery and equipment industry group is highly fragmented with deficiencies in major supporting industries such as the foundry, forging, heavy and precision machining, tooling design and fabrication. Since there is wide scope of import substitution, its development would enhance the technological choices especially in accordance with comparative advantage. There is an urgent need to focus on the development of the machinery and equipment industry group, with particular emphasis on acquiring the requisite technology.

Lack of research and development in the overall manufacturing sector and indigenous product development has stalled the designing and development of production machinery. Pakistan needs machinery in various sectors including textiles, agricultural machinery and construction sector. While there may be sufficient domestic demand, the efforts must be made to export such products. Moreover, it must be able to produce the products which are equivalent to those produced by the ones having state of art technology.

Whereas Pakistan would like to produce machines which are labor-intensive, at the same time to be competitive in the world market it must produce technologically advanced machines which would involve advanced practices of computer modeling, electronic data communication, robotics and artificial intelligence. Therefore, country must improve its technological capacities in computer and microprocessor control, sensor and precision measurements, precision casting, precision forging, heat treatment and surface treatment, high quality finishing (polishing), advanced welding, pneumatic and hydraulic systems, nano-technology, laser technology, power and advanced material processing, machine tool technology, gear making and power-train manufacturing, precision machining, plastic working of metals, plastic processing, acoustics and vibrations, friction/lubrication and the production of high quality steels for niche applications.

The upgrading of the local moulds and dies industry is critical in the engineering industry and the transfer of technology is not possible without the development of the industry. There are very few precision tooling industrial units in Pakistan. The development of other industries hinges on the development of the tooling industry. There is a need to promote and acquire complex and precision mould and dies, technological capability.

The electronics manufacturing in Pakistan mostly revolves around repair and assembly of electronics equipment. A small number of manufacturers are making small electronics gadgetry including security

systems, payphones, electronic signboards, stabilizers, uninterruptible power supplies, inverters, radio and cassette players, and dish receivers. In addition to repair and limited manufacturing of electronics equipment, some government and semi-government organizations have PCB manufacturing plants but unfortunately only few of them offer their services to private sector and that too at an exorbitant rate.

Most of our required electronics-based machinery and equipment are imported in the finished form and some home appliances such as TV, VCR, CCTV, CCD camera, refrigerator, deep-freezer, air-conditioned, etc. in the CKD kit form, to be assembled locally. However, some very limited activity in terms of indigenous design and development of uninterruptible power supplies, voltage regulators/ stabilizers, battery chargers, electric motor controllers, electronic meters, walkie-talkie sets, digital radio and telephone sets has lately been going on in the domestic industry.

Electronics is a highly innovative field where new developments are taking place at a very fast pace. In today's globally competitive business environment, electronics firms are under relentless pressure to provide innovative products in shorter time cycles, at reduced costs, and with improved quality. The electronics industry is driven by demands for products that are smaller, lighter, cheaper, and better than the ones they replace. In this scenario, countries like Pakistan that have yet to make their mark in the field of electronics have to go a long way before an electronics industry that is capable of attaining international competitiveness can be developed. China has acquired enormous capability in the electronics products and component manufacturing and transfer of such technology to Pakistan can be instrumental in developing a viable electronics sector in Pakistan.

Until 2002-03 the automobile sector of Pakistan had stagnated and showed wide fluctuations because of frequent changes in the government policies regarding the import of vehicles. However, during the last couple of years, the sector has grown rapidly due to the availability of the consumer financing at affordable rates. The increase in demand has led to higher level of output through better capacity utilization. The strong growth in domestic demand is likely to continue and this underlines the need for additional capacity. So far, automobile manufacturing is largely concentrated in assembling operations. However, there is an emerging vending industry in Pakistan that can achieve a significant position in the regional market with the help of technological expertise from China.

4.6. PROPOSALS FOR STRENGTHENING COOPERATION

4.6.1. SIGNING BILATERAL INVESTMENT AGREEMENT UNDER THE FRAMEWORK OF FREE TRADE AGREEMENT

China and Pakistan are pressing ahead with the process of the free trade agreement, have signed the Agreement on Trade in Goods, and are conducting negotiations on the Agreement on Trade in Services. It is proposed that the two countries add relevant investment agreements into the FTA arrangements to further reduce the market access barriers for investment, enrich the contents of the Sino-Pakistani Free Trade Agreement, create more favorable investment environment and to provide more business opportunities for the enterprises and investors in the two countries.

4.6.2. STRENGTHENING SUPPORTING POLICIES

Although China and Pakistan have huge potentials for cooperation in the investment field, it could take a relatively long period of time to bring such potentials to fruition if it is left entirely to the enterprises and market forces. If the two sides hope to achieve success in a relatively short period of time, the two governments must strengthen the supporting policies or even provide direct assistance. For instance, China and Pakistan have set up a joint investment corporation to support the investment and business activities by Chinese enterprises in Pakistan. It is proposed that the domestic policy-oriented financial institutions should reinforce export credit insurance and overseas investment insurance for Pakistan, grant policy preferences and loaning support for the Small- and Medium-sized Enterprises with intentions for overseas investment and provide financing facilitation. The two countries should also concentrate on the encouragement and guidance for more enterprises to take full advantage of the preferential conditions in the bilateral trade and economic zones and cooperation on technology, manufacture and information exchanges in a wider scope.

4.6.3. ENCOURAGING LARGE-SCALE M & A PROJECTS

The large-scale state-owned enterprises in China need to adopt the strategy of internationalization. In this regard the privatization in Pakistan provides very good opportunities for them. The case is particularly true with the financial and telecommunications sectors, which are sensitive to a certain extent and involve a relatively large sum of money in investments. The two governments should make joint efforts to grant certain special policies to create facilitating conditions for the implementation of large-scale M & A projects.

4.6.4. WIDENING THE FIELDS AND MODES OF INVESTMENT

The governments should put in place measures aimed at broadening the areas of interest as well as diversifying the modes of investment. The investments can either be market-oriented (namely, used to satisfy the local requirements, upgrade the industrial structure and to expand investment in the overseas market) or based on the comparative advantages of the two sides (for instance, investments in resource exploitation or the manufacturing sector). In terms of the modes of investment, mergers and acquisitions and portfolio investment should be fully taken into account apart from the traditional greenfield investments.

For instance, the textile industries of both China and Pakistan enjoy comparative advantages. In recent years, however, China is confronted with more and more trade frictions, and the costs of labor and land are increasing continuously. There is a need to encourage textile enterprises in China to transfer part of their manufacturing capacity to Pakistan, which can not only help them open up the markets in South Asia and West Asia, but can maintain their profitability as well. On the other hand, China's investments will be helpful in improving the technological level, export and employment of the textile industry of Pakistan.

4.6.5. STRENGTHENING INTELLECTUAL PROPERTY PROTECTION

How well the intellectual property rights are protected exerts an important influence over the investment decisions of the multinational corporations. The two sides should strengthen cooperation in the protection of intellectual property rights, protect the interests of the investors of both countries through concrete measures, and encourage the investors to transfer technology and patents to the host country.

4.6.6. FACILITATION OF THE EXCHANGES OF THE BUSINESS PERSONNEL

The two countries should provide convenient entry and exit and residence conditions to the investing enterprises and investors. Such conditions can go beyond the horizontal commitments under the WTO.

CHAPTER No. 5

STRENGTHENING ECONOMIC AND TECHNOLOGICAL COOPERATION BETWEEN CHINA AND PAKISTAN

5.1. INTRODUCTION

In recent years, there has been an increasing recognition of the need for economic and technological cooperation among the developing countries. The basic concept of cooperation among developing countries is that these countries can mutually benefit from exchange of knowledge, skills, resources and technical know-how that may be difficult to acquire from the advanced industrial economies. China and Pakistan possess different characteristics in terms of the economic scale, resource endowment and domestic market, making the economic structures of the two countries complementary to each other. Bilateral cooperation between the two countries offers opportunities market expansion, creation of new industries, technology transfer and human resources development.

China and Pakistan have signed a bilateral Free Trade Agreement and Five-year Development Plan on Trade and Economic Cooperation between the two countries (2007~2011). The development of bilateral trade and investment will enlarge the demands for infrastructure and services leading to new opportunities for cooperation in broader socio-economic fields. The developmental potentials of the two countries cannot be fully tapped by liberalization alone. Therefore, the two governments should join hands in conducting multi-level cooperation in trade and investment facilitation, and should bring bilateral trade and economic relations even closer through the expansion of economic and industrial cooperation fields to promote the sustainable and stable development. Besides, China and Pakistan can also share resources to strengthen their competitiveness in third-country markets so as to achieve a win-win situation through economic cooperation. Historically, Sino-Pakistani economic relations have been dominated by cooperation between the public sectors, and there is a need to include private sector in technology transfer projects on a commercial basis.

This chapter highlights seven priority areas for future economic cooperation between China and Pakistan; institutional cooperation, cooperation in foreign contractual engineering, transportation, energy, information and communication technology, education and personnel exchanges. It also provides a broader framework for bilateral economic cooperation.

5.2. STRENGTHENING INTER-GOVERNMENTAL AND INSTITUTIONAL COOPERATION AND COOPERATION TO PROMOTE TRADE AND INVESTMENT FACILITATION

The government agencies and relevant institutions of China and Pakistan can play active roles in promoting bilateral trade and economic cooperation through enhanced policy transparency and information exchange. Transparency should be increased through mutual sharing of information for successful bilateral commercial and economic relations. The process of sharing information on market, legal environment, trade policies, investment opportunities between the relevant government departments and private contractors should be institutionalized. Authorities on both sides should take initiatives to undertake training of industry/trade bodies and hold trade exhibitions.

To this end, China and Pakistan can establish multi-level mechanisms for consultation and cooperation under the framework of the regular meeting mechanism by The Joint Group on Economic Relations and Trade, Science and Technology (JEG) so as to promote bilateral trade and economic relations and improve the level of cooperation.

5.2.1. STRENGTHENING COMMUNICATION AND COOPERATION BETWEEN THE RESPONSIBLE TRADE AND ECONOMIC DEPARTMENTS OF THE CENTRAL GOVERNMENT

Such departments as the Ministry of Commerce, General Administration of Customs General Administration of Quality Supervision, Inspection and Quarantine and the Ministry of Communications are the major government agencies in charge of promoting trade and investment cooperation between China and Pakistan. The two sides have conducted a series of cooperation and signed a number of agreements and MOUs. In the future, further communication and cooperation should be strengthened under the framework of Joint Economic Committee:

1. To fully implement the trade and investment facilitation measures in the Sino-Pakistani Free Trade Agreement.

2. In order to enhance the transparency in the laws and regulations related to trade and investment, tariff rules, customs clearance and assessment procedures, inspection and quarantine, technical standards, etc., the administrative institutions in the two countries should maintain smooth information exchange channels and timely communicate with each other.

3. To speed up the clearance of goods, the two sides should simplify and coordinate the customs clearance procedures at ports and customs, improve the handling efficiency, promote unified

system at all the ports within each country, reduce the arbitrariness in the procedure of customs clearance, and enhance cooperation in conformity procedures of SPS measures.

4. In the field of technical trade barriers affecting bilateral trade in industrial goods and agricultural products, the two sides should establish a dialogue mechanism so as to settle disputes through negotiation and consultation, remove the non-tariff barriers and form a green channel for the effective flow of commodities.

5. The corresponding agencies of the two governments should pay mutual visits, held training programs and symposiums and other activities actively on their specialized fields.

5.2.2. ESTABLISHING A MECHANISM OF COOPERATION AND DIALOGUE AT THE LOCAL GOVERNMENT LEVEL

Since the Xinjiang Autonomous Region of China borders the Gilgit Region in Northern Pakistan, the two regions have established close relations to promote trade and economic cooperation by relying on the geological advantages. In order to fully motivate the local governments and pragmatically solve the problems encountered in bilateral trade and economic cooperation in a timely manner, we recommend the following steps:

1. To absorb delegates from the local governments to participate in the JEG meetings and important bilateral negotiations.

2. To establish a mechanism of meetings and consultations directly between the corresponding local government agencies.

3. To encourage the local governments to establish a platform for business cooperation and information exchanges based on their comparative advantages and local characteristics. For instance, Xinjiang Autonomous Region of China held Expositions of Export Commodities from Xinjiang in a number of cities in Pakistan including Karachi and Lahore to introduce quality products, advantageous industries and characteristic resources in Xinjiang.

5.2.3. STRENGTHENING COOPERATION BETWEEN THE FINANCIAL MANAGEMENT AGENCIES

With the gradual development of economic cooperation between China and Pakistan, it is imperative bilateral financial cooperation be strengthened. In 2006, National Development Bank of China signed a memorandum of understanding with the Ministry of Finance of Pakistan on the establishment of a joint-venture investment company, and the two sides have signed the final agreement for the investment in

March 2007. China Export & Credit Insurance Corporation has signed the Framework Agreement on Bilateral Fund Raising Security Cooperation with the Ministry of Finance in Pakistan.

However, currently factors such as inefficient settlement channel for bilateral trade and low level of fund raising conditions hinder the full development of trade and economic potentials between the two countries. It is therefore recommended that the financial management agencies of the two countries should strengthen dialogue, experience exchanges and cooperation so as to improve the level of financial service and create a better market environment for the enterprises in China and Pakistan.

Moreover, China and Pakistan should also promote bilateral cooperation in the field of anti-money-laundering.

5.2.4. STRENGTHENING COOPERATION BETWEEN THE INDUSTRIAL ASSOCIATIONS AND IMPORT & EXPORT CHAMBERS

Non-governmental intermediary organizations and private industry associations can play a significant role through gathering data, providing information for enterprises and strengthening communication between the government and enterprises. Such role should be brought into full play. On the one hand, in 2000, the two sides in principle agreed to establish a "Pak-China Joint Business Dispute Resolving Committee" to help resolve the trade disputes in a friendly manner. However, the mechanism has not been effectively operated due to many reasons. Efforts should be made to jointly perfect the mechanism. The China Council for the Promotion of International Trade and the Federation of Pakistan Chambers of Commerce and Industry can consult each other for more specific issues. On the other hand, efforts should be endeavored to strengthen market information exchange to provide better services for the enterprises and to promote industrial cooperation and development.

5.3. COOPERATION IN FOREIGN CONTRACTUAL ENGINEERING

5.3.1. CURRENT STATUS OF COOPERATION BETWEEN CHINA AND PAKISTAN IN FOREIGN CONTRACTUAL ENGINEERING

Foreign contractual engineering is a major field in Sino-Pakistani economic cooperation[21]. According to the statistics of the Chinese Ministry of Commerce, up to the end of 2006, the cumulative value of foreign

[21] According to Chinese statistic practice, foreign economic cooperation is mainly divided into three categories:

contractual engineering, labor cooperation and designing consultancy by China in Pakistan had amounted to 10.11 billion US Dollars, with 7.72 billion US Dollars of realized turnover. The sum of foreign contractual engineering reached 9.87 billion US Dollars and the realized turnover amounted to 7.48 billion US Dollars, accounting for 97.6% and 96.9% of the total respectively (see Table 31~~Table 31~~).

Table 31: China's Economic Cooperation with Pakistan

		Foreign contractual engineering		Labor export		Design Consultancy	
		Contracted value	Turn-over	Contracted value	Turn-over	Contracted value	Turn-Over
Asia	Value	1269.3	856.7	291.1	257.4	12.7	8.2
	Ratio	80.7%	76.3%	25.9%	22.9%	1.1%	0.7%
Pakistan	Value	98.7	74.9	0.5	0.3	2.0	2.1
	Ratio	97.6%	96.9%	0.5%	0.4%	1.9%	2.7%

Source: Statistics from China's Ministry of Commerce.
Note: （time period: end of 2006，unit：100 million dollars)

Pakistan is an important market for China's foreign contractual engineering business in South Asia and developed rapidly in recent years (see Table 5.1). In 2006, the newly contracted value and realized turnover amounted to 1.93 billion and 0.9 billion US Dollars, and it is estimated that the turnover during the entire year of 2007 would reach 1 billion US Dollars. At present, there are 30-40 Chinese enterprises engaged in foreign contractual engineering and exporting of large-scale machinery & electric equipment and whole-set equipment, mainly covering such fields as communications and transportation, telecommunications, petroleum and natural gas, water conservancy and electricity, machinery production, mineral resource development and construction.

In recent years, foreign contractual engineering by Chinese enterprises in Pakistan has exhibited the following characteristics: (i) foreign contractual engineering in large-scale projects have developed rapidly. For instance, in 2006, Chinese enterprises signed 1.99 billion US Dollars of new contracts in Pakistan, of which the two telecommunications companies of Huawei and ZTE signed contracts over 0.617 billion US Dollars. (ii) Investments by enterprises in the manufacturing industry and the service industry have become an important driving force. Many contracted projects originate from newly established or expanded investment projects in Pakistan. Moreover, designing consultancy became a new

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foreign contractual engineering, labor cooperation and designing consultancy.

highlight in Sino-Pakistani economic cooperation. Of China's total overseas designing consultancy business turnover, the business turnover in Pakistan accounted for 13%.

On November 25, 2006, China and Pakistan signed a joint declaration in Islamabad. The two sides were dedicated to further strengthening cooperation in the field of infrastructure construction, and China was willing to share experience with Pakistan and to encourage Chinese enterprises to participate in the infrastructure construction in Pakistan.

5.3.2. GREAT POTENTIALS FOR FURTHER COOPERATION

5.3.2.1. Great Demand of Pakistan for Infrastructure Construction

The rapid economic growth of China and Pakistan has provided further potential for cooperation in Contractual Engineering with huge need for expansion in their physical infrastructures including transportation, water conservancy, electric power, and telecommunications, etc. In the meantime, the Pakistani government has accelerated infrastructure development, listing water conservancy, electricity and road communications as priority areas enjoying state support. Also, Pakistan has reinforced preferential policies in such fields as petroleum, telecommunications and resource development to attract domestic and foreign investment. The favorable economic development and huge demand for infrastructure investment in Pakistan provide an opportunity for the two countries to cooperate in the field of foreign contractual engineering.

Besides heavy investment in physical infrastructure of road network (will be discussed in next session), Pakistan has one of the largest canal networks in the world. Sadly enough, this huge setup has created water management issues and conservancy problems. According to a recent World Bank report [22] *"Pakistan is fast moving from being a water stressed country to a water scarce country"*. This can be attributed to high population growth, overexploitation of groundwater, water pollution in many areas, poor maintenance of most of the water infrastructure, and mismanagement. Pakistan and China can cooperate in this area as well as in construction of mini-dams to solve water shortage problem for irrigation, industrial, and domestic needs.

Construction sectors of both Pakistan and China are booming. For many decades urbanization and inflow of foreign remittances have created a surge in demand for residential buildings in Pakistan. Foreign companies have not yet been very successful in entering the Pakistani construction market. China has

[22] World Bank,(2006), Better Management of Indus Basin Waters ; Strategic Issues and Challenges, The World Bank, Washington, D.C. Jan. 2006.

accumulated considerable experience in the field of civil construction and Pakistan provides a ready market for Chinese construction companies. The fields of infrastructure, construction, manufacturing and consultancy offer commercial opportunities to the businesses and industry of the two countries; opportunities the two countries would be well advised to exploit to their full potential. The construction and consultancy companies of Pakistan and China could enter into joint ventures, consortium, etc. and work together to fully utilize their complementary skills.

China has experience of providing civil amenities to a population of more than a billion. Chinese companies can play a very important role by investing in public utilities and infrastructure development projects in Pakistan; including electric power, gas, water supply, railways, roads, ports, airports, urban roads, sewage disposal as well as waste disposal. The Chinese Government encourages the entry of foreign enterprises in infrastructure and public utilities giving them fair treatment in terms of investment, financing, taxation, use of land and foreign trade. Pakistani contractors should take advantage of the large Chinese market. It would be in each country's best interest to engage in bilateral cooperation and create an investor-friendly environment in their respective economies.

Presently in Pakistan and China, like most developing countries, public procurements are treated as a relatively unimportant, clerical, buying and selling function, and lack much needed professionalism and a competent staff. There is a dire need to introduce the professionalism that is lacking in organizations and individuals responsible for procurement through targeted capacity building activities. The governments of both countries should, by mutual agreement, address the issues of procurement regulations, and ensure that these regulations are not misused as non-tariff trade barriers. The opening up of public procurements for each country's bidders will not only address capacity-building at the level of agencies and individuals, but will also strengthen business confidence, improve transparency, help tackle corruption, and ensure quality control.

The publication of procurement opportunities promotes wide participation, which in turn reduces the risk of collusion or failure of tendering. Clear and predetermined criteria for selecting a bid can reduce opportunities for corruption. Measures should be adopted to promote integrity among procurement staff as well as among suppliers. Administrative and judicial review of the procurement process should be made available. These measures will greatly contribute to reducing corruption in public procurements. In both countries legal institutions already exist. Pakistan has Public Procurement Regulatory Authority (PPRA), whereas in China, there are Government Procurement Law (GPL), the Law on Bid Invitation and Bidding (LBIB), and Procurement Regulatory Authorities (PRAs) at various levels of government. What is needed is strict adherence to standard rules, greater exchange of information, enhanced transparency on

procedures, standards and other processes that affect creation of awareness of procedures involved in government procurement among contractors and suppliers.

5.3.2.2. Relatively open market for foreign contractual engineering in Pakistan

With insufficient investments in construction projects and low-level of development in domestic enterprises, Pakistan adopts a relatively open market access policy for foreign contractual engineering programs [23]. A system of registration is applied for foreign contractual engineering firms, while infrastructure and natural resource development projects are mainly conducted through bidding. By attracting foreign companies to participate in infrastructure construction, special emphasis is laid on the introduction of high-level construction standards and project management experience.

5.3.2.3. Potential for China and Pakistan to strengthen cooperation in infrastructure development

Both China and Pakistan enjoy comparative advantages in the field of foreign contractual engineering and labor exporting. The complementarities between the two countries on the domestic and international market outweigh the competitions. Many Chinese companies have gained a reputation as providers of large foreign contractual engineering projects with high quality, technical content and operation efficiency. In 2006, China signed 66 billion US Dollars of new contracts for foreign projects and yielded a turnover of 30 billion US Dollars, making it one of the major countries in the global overseas foreign contractual engineering. According to the statistics of the Engineering News Record of the USA, 44 Chinese enterprises ranked in the top 225 international contractors in the world in 2006, and 14 Chinese companies ranked among the 200 largest international designing companies in the world.

Similarly, in recent years, quite a few engineering firms in Pakistan have acquired the capability to undertake large engineering projects and some (such as the NPCC and NESPAK) have even won contracts in the Middle East[24] (see ANNEX IV).

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[23] According to the stipulations by the Pakistani Engineering Council, foreign contractual engineering firms should be registered at the Council annually and submit a membership fee of 50,000 rupees. For each bidding, foreign firms will have to pay 25,000 rupees for applying for the qualification certificate.

[24] Sources: Pakistan government Privatization website: http://www.privatisation.gov.pk/power/Preliminary%20Informatiomn%20Memorandum%20-Updated%20in%20July%202007.pdf, and NESPAK website: http://www.nespak.com.pk/about/intro.asp

5.3.3. MAIN PROBLEMS ENCOUNTERED BY CHINA AND PAKISTAN IN THE FIELD OF FOREIGN CONTRACTUAL ENGINEERING

5.3.3.1. The project bidding system in Pakistan needs to be improved urgently

The Chinese enterprises with foreign contractual engineering businesses in Pakistan point out that some of the existing problems in the bidding system restrict further cooperation in foreign contractual engineering between China and Pakistan, such as lack of transparency, relatively high cost of bidding documents, high deposit requirement, difficulties with claims and contract alteration, and sometimes delayed completion and difficulties with retrieving funds due to various kinds of reasons.

5.3.3.2. The strength of Chinese foreign contractual engineering enterprises needs to be reinforced

Compared with large-scale international engineering contractors, the degree of industrial concentration of Chinese engineering enterprises is relatively low, and it is imperative to improve the comprehensive competitiveness, such as the provision of a whole package of services including project planning, consultancy, designing, management and fund raising capability.

5.3.3.3. Security issue becomes a vital problem

Since Pakistan is at the forefront against terrorism and the country has complicated neighboring and domestic security situations, staffs of Chinese foreign contractual engineering enterprises are often prone to attacks by anti-government forces in Pakistan. Although the security problems are mainly concentrated in northern Pakistan, yet the frequent occurrence of terrorist attacks have brought about huge property loss and psychological harms impeding development of foreign contractual engineering in Pakistan. Some Chinese enterprises are of the opinion that, if the security problem cannot be solved, the normal operation of the Chinese foreign contractual engineering programs in Pakistan and the enthusiasm in investments in Pakistan will be seriously affected.

5.3.4. POLICY RECOMMENDATIONS

5.3.4.1. Improving the market environment for foreign contractual engineering

The development plan, management system, and bidding information are essential to enterprises engaged in foreign contractual engineering. The governments of the two countries should strengthen cooperation by exchanging management policy and market information so as to enhance the transparency of policies,

and open the government procurement market to each other, such as provide the information on construction projects in government procurements, so as to promote facilitation for the enterprises to access into each other's market.

To guarantee the smooth operation and personal safety of the foreign contractual engineering programs, security problems needs to be solved to improve the market environment in Pakistan.

5.3.4.2. Setting infrastructure construction as the key area for foreign contractual engineering cooperation between the two countries

Pakistan is now in a critical period of economic development. In March 2007, the Executive Council of the National Economic Council (ECNEC) of Pakistan approved 28 construction projects[25], involving infrastructure, communications, energy, housing, education, health and agriculture, etc. The Government planned to appropriate 106 billion rupees with 18.7 billion rupees of supporting fund from foreign countries for the aforementioned projects. In terms of the number of projects and the distribution of the funds, infrastructure ranks first with 17 projects and 62.2 billion rupees. The emphasis of the foreign contractual engineering cooperation between China and Pakistan could be laid upon the infrastructure construction, which is the field in most urgent need by Pakistan, such as transportation, electricity, telecommunications, port and water conservancy, etc.

5.3.4.3. Providing financial support with various forms of foreign contractual engineering and investment

At present, the five-year plan for Sino-Pakistani trade and economic cooperation has listed a number of infrastructure projects. Those policy-oriented financial institutions may actively provide credit support and overseas investment insurance for projects specified by inter-governmental agreements or plans.

5.3.4.4. Strengthening cooperation between the industrial trade unions to improve the bidding system

The trade unions in the two countries need to be encouraged to strengthen mutual cooperation to exchange market information, to enhance the transparency and to improve the efficiency of the bidding procedures in Pakistan. Meanwhile, the China International Contractors Association could regulate the bidding behavior of the enterprises, and sometimes recommend specialized enterprises to participate in the bidding for key projects.

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[25] According to the March 8th report by the *Business Recorder*, a Pakistani newspaper.

Enterprises from both countries can cooperate in mutually rewarding opportunities through pooling their complementary strengths by building consortia for jointly undertaking third country projects and investments. Such opportunities may exist in engineering and construction industry and other heavy industries. They could also consider entering into strategic alliances or joint ventures for exploiting the economies of scale for mutual benefit.

5.3.4.5. Opening up public procurement market

The governments of both countries should, by mutual agreement, address the issues of procurement regulations, and ensure that these regulations are not misused as non-tariff trade barriers. The opening up of public procurements for each country's bidders will not only address capacity-building at the level of agencies and individuals, but will also strengthen business confidence, improve transparency, help tackle corruption, and ensure quality control. Measures should be adopted to promote integrity among procurement staff as well as among suppliers. Administrative and judicial review of the procurement process should be made available. These measures will greatly contribute to reducing corruption in public procurements. What is needed is strict adherence to standard rules, greater exchange of information, enhanced transparency on procedures, standards and other processes that affect creation of awareness of procedures involved in government procurement among contractors and suppliers.

5.4. TRANSPORTATION COOPERATION

5.4.1. SIGNIFICANCE OF THE TRANSPORTATION DEVELOPMENT TO TRADE AND ECONOMIC COOPERATION BETWEEN CHINA AND PAKISTAN

Since China and Pakistan established diplomatic relations, the two countries have maintained a relationship of mutual trust, friendship and cooperation over the years. The cooperation in the field of transportation has become an important foundation and symbol for the comprehensive cooperative partnership between the two countries. It has served to promote the development of bilateral trade activity, and is of great economic and political significance to both sides.

Transportation plays an important role in the flow of goods and people between the two countries. The total length of the highways in Pakistan is 259,197 kilometers, and the total length of the railways is 7,791 kilometers. By the end of 2006, the total length of highways in China was 3.457 million kilometers, and the total length of the expressways was 45300 kilometers. The road transport system in the two countries has witnessed an expansion and improvement over the years. In 2006, the land freight transportation

volume in China was 14.66 billion tons, accounting for 72.1% of all transportation means. Land passenger transportation volume reached 18.6 billion person times, accounting for 91.9% of the total passenger transportation.

Moreover, road transportation is one of China's main means of transportation with the neighboring countries. In 2006, the passenger transportation of the international land transportation in China was over 7.03 million person times, and the freight transportation reached 10.3 million tons, of which there were 13245 person times of land entry and exit tourists between China and Pakistan, and the freight transportation volume amounted to 77104 tons. This has played an active and promotional role in expanding the trade and economic exchanges between China and Pakistan.

Finally, the interconnection and synergy between the transport sector and regional cooperation are obvious. On the one hand, an efficient transport service helps in eliminating spatial arbitrage and results in price uniformity across localities and regions. One the other hand, regional cooperation creates additional demand for transport service, whereas improvement in the latter areas makes cooperation more efficient and fruitful, for instance, the Kashgar region in Xinjiang and the northern areas in Pakistan. Improvement in transportation conditions along with reduction in transportation costs will allow the exploitation of the mutual advantages of the neighboring regions so as to promote the local economic development.

5.4.2. CURRENT STATUS AND DEVELOPMENT TREND OF TRANSPORTATION

5.4.2.1. More Passenger and Freight Transportation Lines

The road transport system in the two countries has witnessed an expansion and improvement over the years, as can be seen in Table 32~~Table 32~~ and Table 33~~Table 33~~. More specifically, not only has the total road network increased over time, but so has the share of paved roads in total roads.

Table 32: China's Road Transport System

	2000	2001	2002	2003	2004	2005
Goods transported (million ton-km)	..	..	678,250	709,950	784,090	869,320
Passengers carried (million passenger-km)	665,740	720,710	780,577	769,560	..	..
Roads, paved (% of total roads)	..	..	78.34	79.49	81.03	82.5
Roads, total network (km)	1,402,698	1,698,012	1,765,222	1,809,829	1,870,661	1,930,543

Source: World Bank WDI Website

Table 33: Pakistan's Road Transport System

	2000	2001	2002	2003	2004	2005
Goods transported (million ton-km)	..	..	..	..	..	..
Passengers carried (million passenger-km)	197,013	209,959	..	..	..	..
Roads, paved (% of total roads)	56	59	..	60	64.7	..
Roads, total network (km)	239,368	257,683	..	254,410	258,340	..

Source: World Bank WDI Website

In 2006, four transportation lines were newly opened for the land transportation between China and Pakistan. By the end of 2006, there were all together six international passenger and freight transportation lines between the two countries (See Table 34~~Table 34~~).

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Table 34: Land Transportation Lines between China and Pakistan

Freight Transportation	* Kashgar- Sost
	* Kashgar- Kunjirap- Islamabad- Karachi Port
	* Kashgar- Kunjirap – Islamabad – Gwadar Port
Passenger Transportation	* Kashgar- Kunjirap - Sost
	* Kashgar- Kunjirap- Gilgit
	* Tash Kurghan - Kunjirap- Sost

5.4.2.2. Rapid Development of Passenger and Freight Transportation

The road freight transportation between China and Pakistan has rapidly increased with the economic development and the ever-closer bilateral trade and economic relations. Between 2001 and 2005, the freight transportation volume and times increased by 649% and 422% respectively, which all slightly reduced in 2006. By comparison, the bilateral passenger transportation has been developing at a relatively stable pace, averaging at 15,000 person times and over 1,000 vehicles annually. In 2006, the road transportation between China and Pakistan was 77,000 tons and 3,790 cars in terms of freight transportation, and 14,000 persons and 1,900 cars in terms of passenger transportation (see Figure 4~~Figure 4~~).

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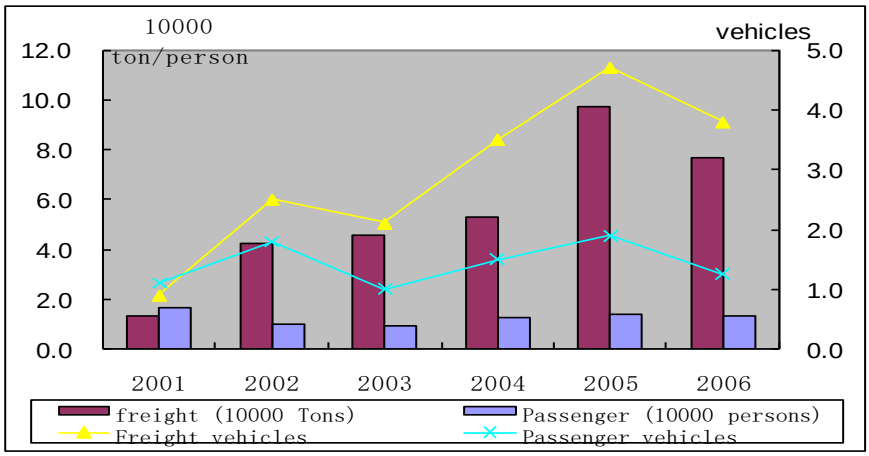
Figure 4: Land Passengers and Freight Transportation between China and Pakistan

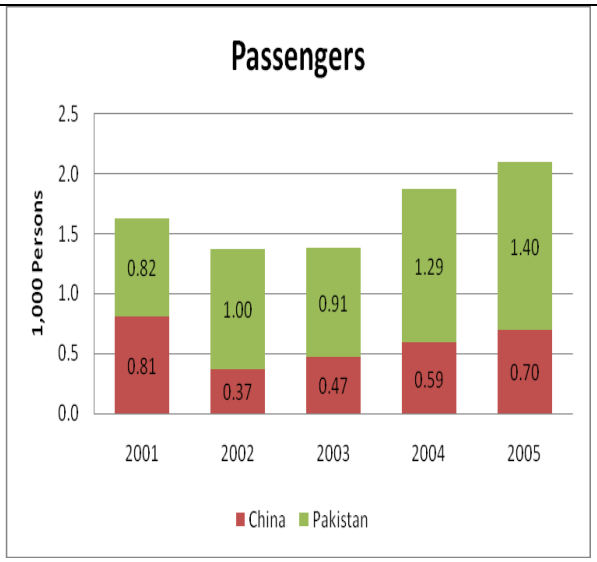


Source: Ministry of Communication, P.R. China and Xinjiang Transportation Administration Bureau.

5.4.2.3. Unbalanced Development in Passenger and Freight Transportation between China and Pakistan

The enterprises in China and Pakistan have been actively involved in bilateral land transportation. In terms of freight transportation, Chinese enterprises enjoy apparent advantages. Transportation capabilities and volume have increased rapidly, and the proportion of China in the total bilateral transportation has increased to over 95%. In terms of passenger transportation, Pakistan still plays the major role. Between 2001 and 2005, the passenger transportation by the Pakistani side increased by 100%, with its proportion in the bilateral passenger transportation increased from 50% to 66%. Transportation volume of the Chinese side has basically maintained original levels.

Figure 5: China and Pakistan in Bilateral Land Passenger and Freight Transportation



Source: Xinjiang Transportation Administration Bureau.

5.4.2.4. No direct railway link between the two countries

Transportation between Pakistan and China urgently needs improvement. Rail transport is a cheap and highly cost-effective mode of transportation However, there is no direct railway link between the two countries (Table 35~~Table 35~~ and Table 36~~Table 36~~ provide an overview of the railway system in the two countries). This greatly hinders the development of bilateral economic and trade relationships. Till such time as this bottleneck is overcome, optimal use of the Karakorum Highway should be made to promote trade over land.

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Table 35: China's Railway Transport

	1990	2000	2001	2002	2003	2004	2005
Rail lines (total route-km)	53,378	58,656	59,079	59,530	60,446	61,015	62,200
Goods transported (million ton-km)	1060100	1333606	1424980	1507817	1647558	1828548	1934612
Passengers carried (million passenger-km)	263,530	441,468	463,655	480,305	462,279	551,196	583,320

Source: World Bank WDI Website

Table 36: Pakistan's Railway Transport

	1990	2000	2001	2002	2003	2004	2005
Rail lines (total route-km)	8774.87	7791	7791	7791	7791	7791	7791
Goods transported (million ton-km)	5708.6	3612	4519	4572	5605	5004	4796
Passengers carried (million passenger-km)	19963.7	18495	19589	20782	22305	23911	23045

Source: World Bank WDI Website

5.4.2.5. Gradually-improving Transportation Conditions

The construction of the dry port at the Sost Port on Khunjerab pass near Pak-China border was completed by a Chinese company in July 2006. The port is located 87 km from Khunjarab pass and 455 km from the Chinese city of Kashgar. This facility will strengthen Pakistan-China economic relations by enabling both countries to achieve significant progress in improving transportation conditions. The speed of clearing traffic at the port has accelerated, the turnover rate of the vehicles has improved, and the economic efficiency of the transportation enterprises in the two countries has been enhanced in some measure in terms of reduced transportation costs and timing. At the same time, it helps to expand Pakistan's commerce linkages with regional countries including the Central Asian states.

5.4.3. EXISTING COOPERATION MECHANISM FOR TRANSPORTATION BETWEEN CHINA AND PAKISTAN

The existing mechanism for cooperation in transportation services between China and Pakistan has evolved over the years. The timeline of major events is as follows: In September 1981, China and Pakistan reached an agreement of principle to open the Kunjirap Port, which was open to the citizens of both countries officially in August, 1982. In December 1993, the two governments signed the *Bilateral Agreement on Automobile Transportation* in Beijing. In March 1995, China signed a transportation agreement with Pakistan, Kazakhstan and Kyrgyzstan, of which the Karachi-Islamabad-Sost-Kunjirap-Kashgar Highway is an important transportation line in a joint transportation across the four countries and a major channel for the land transportation between China and Pakistan. In July 2005, the Department of Communications of the Xinjiang Uygur Autonomous Region and the Pakistani Ministry of Communications signed the detailed implementation regulations for the automobile freight and passenger transportation between the two countries. In March 2006, the Ministries of Communications of China and Pakistan signed an agreement in Urumqi, according to which the two sides agreed to establish a

mechanism of regular bilateral meetings between the communications and transportation administrative departments in order to timely exchange information and to promote bilateral land transportation. In other words, workshop is held every year in turn in the two countries respectively.

5.4.4. MAIN PROBLEMS AND BARRIERS IN THE LAND TRANSPORTATION

5.4.4.1. The Road Conditions Restrict the Development of Bilateral Transportation

The land transportation between China and Pakistan is inefficient, costly and lacks all-weather capability, affecting the development of the trade and economic relations between the neighboring regions of the two countries.

The Karakoram Highway is insufficient to meet the development demands of bilateral trade and economic relations, due mainly to its low standard, particularly along the highway within the Pakistani territory. In 2005, the earthquake severely damaged parts of the land transportation lines within Pakistan. At the beginning of 2006, Pakistan expressed its desire to utilize the preferential loans from the Chinese government to reconstruct the whole Karakoram Highway. Although the required capital input was very huge, the Chinese side responded to the proposal and listed the project as the priority of aid projects for the reconstruction of post-earthquake Pakistan. China and Pakistan have signed a Memorandum of Understanding as well.[26] Although the conditions will be significantly improved after the completion of the Karakoram Highway reconstruction project, the fact is that the roads still need long-term maintenance, otherwise the development of the bilateral trade and economics will still be restricted.

5.4.4.2. Low Degree of Customs Clearance Facilitation

Problems such as complicated customs clearance procedures, multiple administrative bureaus and multiple stops for goods inspection have prolonged the transportation time and further raised the transportation costs.

[26] During the visit by the Pakistani President to China in February 2006, China and Pakistan signed the *Memorandum of Understanding on the Cooperation in Reconstructing the Karakoram Highway.* In November 2006, the China Road & Bridge Corporation signed the *Memorandum of Understanding on the Project of Reconstructing and Extending the Karakoram Highway* officially with the Pakistani National Bureau of Roads.

5.4.4.3. Lacking Port Infrastructure and Short Opening Time

First of all, the land port facilities are deficient, lacking for example large loaders and advanced inspection facilities. This necessitates open-case inspection leading to delays and inefficiencies. Secondly, the ownership dispute over the Sost Dry Port within Pakistan has affected the business operations of the Dry Port and the freight transportation efficiency. Thirdly, the Kunjirap Port in China is the only pass for transportation vehicles of Pakistan to enter China. Currently, the opening time of the port is between May 1st and November 30th which is not in line with the requirements by the development of the bilateral trade and economic relations.

5.4.4.4. Problems with the Implementation of the Bilateral Transportation Agreement

There are some problems with the implementation of agreements; including frequent cases of transportation without license. Since the regulations concerning the license of the international land transportation vehicles were put into effect formally, certain passenger vehicles from Pakistan are operating without licenses for cross-border transportation or transportation line signboards. Also, severe overloaded transportation. Since the transportation expenses are settled on a vehicle basis, overloading is frequently taking place, which not only exacerbates the deterioration of the road conditions, but also endangers the safety of passengers and goods.

Local traffic administrative departments propose that the traffic administrative authorities in China and Pakistan should frequently communicate with each other on the implementation status and provide relevant information concerning the transportation agreement. Efforts should be made to introduce new regulations to the transportation enterprises in both countries so that the smooth implementation of the bilateral agreements could be ensured.

5.4.5. POLICY RECOMMENDATIONS FOR THE IMPROVEMENT OF TRAFFIC AND TRANSPORTATION

The creation of an efficient, integrated, seamless transportation system that is conducive to both bilateral and transit trade would require concerted efforts of the governments and private sectors aimed at:

1. Strengthening investments in the construction of transportation infrastructure, improve conditions actively and eliminate the bottlenecks to the cross-border transportation. While reconstructing and widening the roads, China can consider more aids to Pakistan to support the daily maintenance and sustained operation of the Karakoram Highway.

2. Enhancing transparency of the customs clearance procedures should be enhanced, with less

arbitrariness and “grey customs clearance” in order to improve the efficiency of customs clearance and the economic benefits of the transportation enterprises. The two sides should also cooperate in establishing paperless clearance procedures through automation and computerization to speed up customs clearance.

3. More time for port opening. Pakistan and Xinjiang Autonomous Region of China have repeatedly called for the all-year-round opening of the port. Since the Karakoram Highway will be reconstructed into an all-weather highway and the conditions for winter opening are mature, it is recommended to realize the all-year-round opening as soon as possible.

4. To clearly stimulate vehicle and loading standards. It is suggested that the bilateral transportation agreements should establish vehicle and loading standards for the freight transportation vehicles in the two countries, including namely the length, width, height and maximum loading weight of the vehicles.

Furthermore, China and Pakistan can further strengthen transportation cooperation by undertaking the following measures:

1. Accelerating the opening up domestic transportation markets so as to enable the transportation enterprises of the two countries to gain smooth access to the market of the other side.

2. Conducting feasibility studies into the new modes of transportation, such as pipeline transportation and railway transportation.

3. Air connectivity is a vital and an urgent requirement for the expansion of trade, tourism and people-to-people contacts. Air transport, though relatively expensive, can be used to bypass the short- and medium-term infrastructure access problems. The scope and potential to further develop air traffic between Pakistan and China exists. To strengthen bilateral cooperation in transportation services, both countries should work closely to improve logistic services and reduce delays at airports.

Box 5.1: Long-term Vision for Sino-Pakistani transportation cooperation

Pakistan has the geographical and strategic advantage that it provides the only road link between China and Middle East. As such, if China desires greater direct over-land access to these fledgling markets, Pakistan is in the unique and ideal position to provide such a passage. This fact alone indicates the extent of the unexploited potential in transportation services between the two countries. Incidentally, Pakistan's cargo transportation service is one of the cheapest in the world. In this regard physical infrastructure needs to be modernized. Broadening of Karakoram Highway and development of Gawader Seaport is already in progress. A network of highways and rail will connect this port with China as well as with major cities of Pakistan. The transport and logistic services provided by Pakistan will greatly enhance the competitive edge of Chinese exports especially to Middle East and Africa, and reduce transportation costs for Chinese imports to these countries. The Government of Pakistan (GOP) has decided to launch the National Trade Corridor Improvement Program (NTCIP) with a view to bringing transport services on a par with international standards and thereby reduce the cost of doing business as well as enhance the country's export competitiveness and industrialization. The project would involve huge investments in the coming years and thus offers an opportunity for both countries to join hands in making it a success.

There is also a vast potential for increasing the volume of transit trade between China Pakistan. It is expected that a new door for transit trade will be opened with China when Gwadar Port starts working on a full scale.

The distance from Kashgar to Chinese east coast ports is 3,500 km, whereas the distance from Kashgar to Gawadar is only 1,500 km. There are huge benefits to China of using Gawadar for western China's imports and exports. There is also significant potential for Pakistan's growing freight industry. The Sust dry port on Khunjerab pass near Pak-China border was completed by a Chinese company in July 2006. The port spread over 201 canals and situated at an altitude of 11,000 feet above sea level, is located 87 km from Khunjarab pass and 455 km from the Chinese city of Kashgar. This facility will strengthen Pakistan-China economic relations as well as expand Pakistan's commerce linkages with regional countries including the Central Asian states. Ideally similar facilities should be provided at all the commercial nodes of the highways.

Container Port Traffic

(TEU: 20 foot equivalent units)

Country	2000	2001	2002	2003	2004	2005
China	41,000,000	44,726,084	55,717,488	61,898,336	74,725,444	88,548,473
Pakistan	..	878,892	..	787,559	1,269,373	1,390,827

Source: World Bank WDI Website

5.5. ENERGY COOPERATION

5.5.1. COMMON CHALLENGE OF ENERGY SHORTAGES FACED BY CHINA AND PAKISTAN

As all other economies in the world, both China and Pakistan rely heavily on fossil fuels for energy supply (see Table 37~~Table 37~~ and Table 38~~Table 38~~). With the fast growth of the two economies, both are confronted with the challenge of energy shortages. Although China's total volume of energy reserves is quite big, the country's per capita energy resource is merely one half that of the world average. For example, China's per capita exploitable reserves of petroleum and natural gas were merely 10% and 5% of the world average level respectively (in 2003). Since the country became a net importer of petroleum in 1993, its degree of import dependency (or the ratio of net imports to apparent consumption) of petroleum has increased rapidly from 7.6% in 1995 to 34.5% in 2003 and then to 47% in 2006. According to the forecast of China's National Planning Center of Petroleum and Natural Gas, the country's degree of import dependency on natural gas will also exceed 50% by 2020.

Table 37: China's Electricity Production and Consumption

(billion kWh)

Series	2000	2001	2002	2003	2004
Consumption	1,253.47	1,360.00	1,516.28	1,776.09	2,054.57
Production	1,355.60	1,471.66	1,640.48	1,907.38	2,199.60
Production Sources (% of total)					
Coal	78.30	76.21	77.47	79.42	77.89
Hydroelectric	16.41	18.85	17.55	14.87	16.07
Natural gas	0.47	0.37	0.28	0.29	0.36
Nuclear	1.23	1.19	1.53	2.27	2.29
Oil	3.40	3.22	3.01	3.01	3.26

Source: WDI Database website

Table 38: Pakistan's Electricity Production and Consumption

(billion kWh)

Series	2000	2001	2002	2003	2004
Consumption	51.579	53.551	55.663	60.531	64.63
Production	68.125	72.43	75.704	80.83	85.699
Production Sources (% of total)					
Coal	0.35	0.39	0.31	0.24	0.20
Hydroelectric	25.24	26.15	29.52	33.33	29.95
Natural gas	31.97	34.32	35.67	48.51	50.73
Nuclear	2.93	3.16	2.30	2.18	3.26
Oil	39.51	35.98	32.20	15.73	15.85

Source: WDI Database website

The energy production volume of Pakistan is relatively small, and the country also needs to import large amounts of energy every year. During the fiscal year 2004-2005, Pakistan imported approximately 7.8 million tons of crude oil, 5.2 million tons of petroleum products and 2.8 million tons of coal. The total value exceeded US $ 5 billion, accounting for around 30% of the total national imports. As can be seen from Table 39~~Table 39~~, the energy demand in Pakistan is expected to grow rapidly in the future, the gap between supply and demand will become increasingly bigger, and the degree of import dependency is set to rise.

Table 39: Gap between Energy Supply and Demand by Pakistan

(Million Tonnes Oil Equivalent)

	2005	2010	2015	2020	2025	2030
Supply	54	76	99	127	168	220
Demand	54	79	120	177	255	361
Gap	0	3	22	50	87	141

Source: Mid- and Long-term Energy Development Plan of Pakistan (2005-2030)

5.5.2. PROGRESS IN BILATERAL ENERGY COOPERATION

The energy cooperation between China and Pakistan has made significant progress. China has assisted Pakistan with the construction of a nuclear power plant with an installed capacity of 300,000 kWh (Chashma-1), which was already launched into operation in September 2000. Another nuclear plant with the same installed capacity, Chashma-2, has also started since April 2005.

Moreover, many Chinese companies have entered Pakistani market of petroleum and natural gas exploration, development and related services. For instance, CNPC Services & Engineering Corp. completed a project of refined oil pipelines with a total contract sum of 350 million US Dollars in Pakistan in 2004. The BGP International, the Greatwall Drilling Company, the China National Logging Corporation (CNLC) and Sichuan Petroleum Administration, which are all under the CNPC Group, completed a business turnover of nearly 40 million US Dollars in 2004 in the petroleum and natural gas service market in Pakistan, including petroleum & natural gas exploration, drilling and logging. They also signed new service contracts worth over 30 million US Dollars.

In February 2006, China and Pakistan signed the Framework Agreement on Cooperation in the Field of Energy between the National Development and Reform Commission of the People's Republic of China

and the Ministry of Petroleum and National Resources of the Government of the Islamic Republic of Pakistan, in which the Pakistani side indicated its interest in the construction of refineries, natural gas terminals, petroleum & natural gas storage and transshipment facilities. China welcomed the aforementioned proposals and agreed to assist Pakistan with the development of the petroleum & natural gas industry.

Cooperation in thermal electricity is also in progress. The Shenhua Group Corporation of China has selected a Block in Thar coalfield to set up a 3,000 Mega Watt Power Complex in several phases. The investment involved in this massive power complex is estimated at US $ 3 billion.

Box 5.2: Chashma Nuclear Power Plant

The "Chashma Nuclear Power Plant" has been designed and built in collaboration with People's Republic of China, and is being operated and maintained by Pakistani scientists and engineers, delivering full power of 300 Mew to the national grid since September 15th 2000. With the Karachi Nuclear Power Plant also operational since 1971, Pakistan is the only country in the Muslim World operating nuclear power plants. Nuclear power is safe, economical and environment-friendly. Further it is an essential ingredient and stabilizing factor in our energy options.

Stamp to commemorate Chasma Nuclear Power Plant: Date of Issue (March 29, 2001)

Due to emission of greenhouse gases from fossil fuel plants and is resultant effect towards global warming, there is a growing consensus in the developed countries for the revival of the nuclear power industry. With worldwide reserves of fossil energy resources approaching their limits it is essential for Pakistan to pursue a sustainable programme for development of self-reliance in energy production.

The Chashma Nuclear Power Plant is pressurized water reactor (PWR) type. It is located near Chashma Barrage on the left bank of River Indus, 32 kilometers south of Mainwali City, 280 kilometers south-west of Islamabad and 1,160 kilometers north-east of Karachi. The plant site has been thoroughly investigated and found suitable in accordance with international standards by domestic as well as international experts. Seismic aspect has also been reviewed by International Atomic Energy Agency, (IAEA), who found the site suitable for construction of nuclear power plant.

Source: www.pakpost.gov.pk

5.5.3. DIRECTIONS FOR FURTHER COOPERATION

In order to meet the common challenge of energy shortages, it is proposed that China and Pakistan strengthen their cooperation in the following fields in the coming five years.

5.5.3.1. Joint development of fossil energy resources in Pakistan

Pakistan enjoys a relatively large estimated reserve of petroleum, natural gas and coal. However, restricted by its technical capacities and shortages of funds, the country has yet to make any substantial progress in the exploration and exploitation of energy resources. According to Table 40~~Table 40~~, Pakistan's proven reserves of coal accounts for less than 2% of the country's total estimated reserves, and the annual exploitation quantity accounted for merely 0.1% of the proven reserves of coal. The proven reserves of petroleum account for merely 1% of the total estimated reserves, and the annual exploitation quantity of natural gas accounts for less than 3% of the proved reserves. Since China boasts of rich experience and mature technology in the exploration and exploitation of petroleum, natural gas and coal, including the tapping of offshore petroleum and natural gas resources, there is ample room for China and Pakistan to cooperate in the field of exploration and development of fossil energy, including not only the contracting of specific projects, but technological cooperation in such fields as petroleum & natural gas exploration, refinery, pipeline transportation and storage as well. In order to strengthen bilateral collaboration, a Sino-Pakistan energy trade cooperation association and a joint investment company could be established.

Table 40: Reserves and Exploitation Quantities of the Fossil Energy in Pakistan

Fossil Energy	Estimated Reserves	Proven Reserves in place	Annual Exploitation Quantity
Coal			
(100 Million Tons)	1850	33	0.033
Share of Reserves	n/a	1.8% of estimated reserves	0.1% of proven reserves
Petroleum			
(100 Million Barrels)	270	3	0.226
Share of Reserves	n/a	1.1% of estimated reserves	7.5% of proven reserves
Natural Gas			
(1,000 Billion Cubic Meters)	8	1.188	0.034
Share of Reserves	n/a	14.9% of estimated reserves	2.9% of proven reserves

Source: Mid- and Long-term Energy Development Plan of Pakistan (2005-2030)

5.5.3.2. Development and utilization of renewable energy and clean energy

Since fossil fuels such as petroleum, natural gas and coal are not renewable and the use of petroleum and coal pollutes the environment, there is a need to have to improve the proportion of renewable energy and clean energy in the total energy consumption within the national economy so as to realize sustainable development. At present, both China and Pakistan are striving in this direction. China plans to raise the proportion of renewable energy and nuclear energy in the total energy supply from the current level of 7% to 15% in 2020. Pakistan also plans to raise the proportion of renewable energy and nuclear energy in the total energy supply to 5.4% in 2020 and then to 6.7% 2030 (see Table 41~~Table 41~~ for more details). In order to fulfill the aforementioned goals, the two countries can cooperate in the following aspects:

1. The two governments should adopt encouraging measures to promote cooperation between the two countries' enterprises in engineering construction, technological service, equipment supply and project management in the fields of renewable energy and clean energy.

2. The two countries should strengthen technological cooperation in the fields of small hydro-power technologies, wind power technologies, solar power technologies, sea power technologies, earth thermal energy technologies and biomass energy technologies.

Table 41: Energy Supply Structure of Pakistan

Year	Petroleum	Natural Gas	Hydro-power	Coal	Renewable Energy	Nuclear Energy
2004	30.0%	50.0%	12.7%	6.5%	0.0%	0.8%
2010	26.0%	49.0%	13.9%	9.0%	1.1%	0.9%
2020	25.7%	45.0%	12.0%	15.0%	2.2%	3.2%
2030	18.5%	45.0%	10.8%	19.0%	2.5%	4.2%

Source: Mid- and Long-term Energy Development Plan of Pakistan (2005-2030)

5.5.3.3. Exchange of experiences in energy management

Both Pakistan and China are reforming their domestic energy management systems, relaxing state controls and trying to be more open to both the private and foreign investors. The two countries should conduct more exchanges and share useful experiences in establishing a more efficient energy management system.

5.6. INFORMATION AND COMMUNICATION TECHNOLOGY

5.6.1. IMPORTANCE OF IN INFORMATION AND COMMUNICATION TECHNOLOGY

There exists a positive and reinforcing link between economic development and advances in telecommunications. An efficient communication system is essential for promoting commercial exchange, fostering national integration and increasing regional and global trade. Experience has shown that higher telecom service quality, greater levels of tele-density, lower prices and improved customer choice go hand in hand with economic development and growth. Like other sectors of the economy, information and communication technology sector can get a significant boost from bilateral cooperation. Such mutual cooperation will contribute to policy transparency and credibility, capacity building, and development of common technical standards. Digital connectivity and e-commerce have shown a tremendous expansion during the last decade and the boom is expected to continue in the future. Millions of unconnected potential consumers and small gestation period offers high incentives for investment, and trends in investment in the telecommunication sector in Pakistan support this (see Table 42~~Table 42~~ and Table 43~~Table 43~~). Information and Communication Technology is one of the major sectors of mutual interest between Pakistan and China. There is great potential for Pakistan in Chinese market, whose scale is estimated to increase to more than 6 billion US dollars in 2007.

Table 42: Investment and Revenue in China's Telecommunication

(%)

	2000	2001	2002	2003	2004	2005
Investment (share of revenue)	69.78	68.65	49.10	48.23	41.69	35.06
Revenue (Share of GDP)	3.21	3.39	3.51	3.39	3.30	3.17

Source: World Bank WDI Website

Table 43: Investment and Revenue in Pakistan's Telecommunication

(%)

	2000	2001	2002	2003	2004	2005
Investment (share of revenue)	19.47	11.14	11.72	11.89	..	..
Revenue (Share of GDP)	1.82	1.87	1.96	2.12	2.34	2.48

Source: World Bank WDI Website

5.6.2. ACHIEVEMENTS IN BILATERAL COOPERATION

China and Pakistan has made huge progress in telecommunications cooperation. In 2004, Huawei Corporation of China and the Pakistan Telecom Co. Ltd jointly started the construction of the nationwide CDMA/WLL network in Pakistan. In 2005, ZTE Telecommunications Corp. of China invested 350 million US Dollars in Pakistan to establish a research and development center. In 2006, Huawei Corporation won a 550-million-US-Dollar contract from Ufone, the second largest mobile phone operator in Pakistan, to establish a nationwide GSM network. In 2007, China Mobile purchased Paktel, the fifth largest mobile telephone operator in Pakistan, with 284 million US Dollars. In 2007, Huawei won the bid for the IPTV project of Pakistan Telecom, the largest comprehensive operator in Pakistan, to provide end-to-end solutions including middle ware, live broadcast headend, VOD system, content protection system, set top boxes, operation support system and whole-set bearer network equipment (DSLAM, router and switches). Huawei and ZTE now account for 20% of the telecommunications market in Pakistan.

5.6.3. PROSPECTS FOR FURTHER COOPERATION

5.6.3.1. Telecommunications

International voice traffic in both countries has been on the rise since 2000, both in terms of minutes per person and total number of minutes. The number of mobile phone subscribers has been increasing exponentially as the market is developing and previously untapped resources are being utilized (Table 44~~Table 44~~ and Table 45~~Table 45~~).

Table 44: China's Telecommunications Trends

	2001	2002	2003	2004	2005
International voice traffic (minutes per person)	4.34	2.68	6.28	4.62	..
International voice traffic (out and in, minutes)	5,523,215,000	3,427,130,000	8,085,751,000	5,983,000,000	..
Mobile phone subscribers	144,820,000	206,005,000	269,953,000	334,824,000	393,428,000
Telephone mainlines	180,368,000	214,222,000	262,747,000	311,756,000	350,433,000
Telephone subscribers	325,188,000	420,227,000	532,700,000	646,580,000	743,861,000

Source: World Bank WDI Website

Table 45: Pakistan's Telecommunication Trends

	2001	2002	2003	2004	2005
International voice traffic (minutes per person)	8.70	11.45	..	..	..
International voice traffic (out and in, minutes)	1,230,000,000	1,658,700,000	..	..	..
Mobile phone subscribers	742,606	1,698,536	2,404,400	5,022,908	12,771,200
Telephone mainlines	3,252,000	3,655,474	4,047,423	4,502,230	5,277,546
Telephone subscribers	3,994,606	5,354,010	6,451,823	9,525,138	18,048,750

Source: World Bank WDI Website

There exists great potential for further cooperation between China and Pakistan in the telecommunications field. In recent year, the domestic telecommunications market of Pakistan has experienced rapid growth. Up to May 2005, the total number of mobile phone subscribers reached 10.5 million, a 34-fold increase over the end of 2000. However, in view of the over 150 million national population of Pakistan, it is quite obvious that the telecommunications market is to experience a fairly long period of rapid growth, which provides an important opportunity for the two countries to expand cooperation further in the telecommunications market.

On the other hand, since Pakistan is a mountainous country with remote villages accounting for about 70% of its total land area, the difficulties for remote areas to communicate with the outside world due to lack of telecommunication infrastructure are one of the major barriers to poverty reduction of the country. To provide telecommunications services to the mountainous areas is a technologically challenging task and it also requires large sums of investment. China possesses rich experiences in this very aspect. Between 2004 and August 2007, the Chinese Project of "Phone Services for Every Village" has newly opened phone services to an accumulated number of 66,500 administrative villages originally without phones, most of which are located in poverty-stricken remote areas. This has raised the percentage of administrative villages with phone access in China to 99.21%. During this process, China developed the SCDMA-400M wireless access system, which was specifically designed to meet the telecommunication needs in rural areas. The Chinese Government also organized a number of telecommunications enterprises to share the cost of satellite telecommunications infrastructure construction, effectively reducing investments by the enterprises and hence the satellite phone fares. All these successful experiences can be applied to Pakistan.

5.6.3.2. IT Products Manufacturing

China and Pakistan also have good prospects for cooperation in the field of manufacturing of such IT products as personal computers. Due to the low level of informatization, the improvement of Pakistan's overall technological level and innovation capabilities and hence the development of the national economy are restricted by the Digital Divide. Enhancing the popularity of computers and the Internet has become an urgent necessity. Chinese computer manufacturers boast of strong manufacturing capacities, which is complementary to the huge market potentials of Pakistan.

Since Pakistan has not acceded to the Information Technology Agreement and maintains a high tariff for imported computers, the processing and assembling of computers by Chinese enterprises in factories established in Pakistan will be conducive to lowering the price of whole-set computers in Pakistan and thus will be helpful to accelerating the popularization of computers. Chinese enterprises can also enter the export processing zones in Pakistan to reinforce the competitiveness of their products by taking advantage of the low-cost benefits of the low cost of local labor force. Their products can be exported either to third countries or back to China.

5.6.3.3. Software

In the software industry, mutual investment will be the major direction for Sino-Pakistani cooperation, and will yield win-win results for both countries. For software enterprises in Pakistan, the attractiveness of China mainly lies in its huge market scale. The market scale of China's software industry amounted to 480 billion Yuan in 2006, and it is expected to exceed 1,000 billion Yuan by 2010.

For Chinese software enterprises, the main attractiveness of Pakistan lies in its low human resource cost. The annual compensation of an IT software programmer in Pakistan is only 2,500 US Dollars, while software industry employees in China received an average annual income of 52,784 Yuan in 2005, equivalent to 6,440 US Dollars if we use the average exchange rate of 2006 (1 US Dollar = 8.19 Yuan). This is 2.5 times the salary of Pakistani programmers. With an English speaking population of as much as 17 million, Pakistan also enjoys language advantages in software programming.

For software companies in both countries, bilateral investments can enjoy preferential policies like reduced taxes and low land lease expenses. They can also enjoy the benefits of proximity to market and better adaptation to local needs. For instance, the Techlogix Company of Pakistan invested in the Zhongguancun Software Park in Beijing in 2003, and in 2006, the business volume completed by the Chinese subsidiary from the delivery perspective accounted for one third of the company's global total.

5.6.4. POLICY RECOMMENDATIONS

In order to fully tap the potentials of China and Pakistan's cooperation in the fields of information technology and telecommunications, it is proposed the two sides adopt the following measures:

The two sides can make full use of the existing bilateral cooperation mechanisms. Through the Sino-Pakistan Working Group on Economic Cooperation and the Working Group on Information and Telecommunications Cooperation between the Chinese Ministry of Information Industry and the Pakistani Ministry of Information Technology and Telecommunications, information communication, and in accordance with the contents of bilateral cooperation, experience exchanges and cooperation consultation in the field of information technology and telecommunications should be strengthened, taking the forms of international symposiums, business forum, investigative tours and exchanges.

The investment promotion institutions of the two governments should make joint efforts at strengthening publicity to attract Chinese telecommunications and IT enterprise to invest in Pakistan, especially in the 5 established IT Industrial Parks and the to-be-established Chinese Economic Special Area in Pakistan.

The two sides should encourage Chinese enterprises to establish IT Product Research and Development Centers in Pakistan. A good case in point was the IT Joint Laboratory established by Huawei Corp. and the Pakistani Ministry of Science and Technology. The center aims to provide Pakistan with new- and hi-tech products, equipments and talent training.

The two sides should encourage Chinese enterprises and institutions of higher learning to establish special technical schools in Pakistan in the fields of IT hardware and software so as to help the country to train technicians and software engineers in the IT Industry.

Both Pakistan and China need to take significant steps to enhance telecom connectivity and bring down the costs of telecom tariff between the countries. The ease and reduced cost of connectivity would enhance efficiency of business transactions between the two countries.

Poor knowledge of domestic products is another area in which targeted intervention is needed. Several domestic products are at least as good as similar products imported from western countries but domestic producers lack the financial muscle to engage in large-scale marketing and distribution. Governments as well as consumers are sometimes not aware of such products. Our governments, consumer groups and other civil society organizations should take appropriate steps for better consumer education. Information technology can play an important role here.

5.7. EDUCATION AND PERSONNEL EXCHANGES

Improving the quality of human resources is the key for a country to promote its technological progress and achieve sustainable economic growth, and education is the key to determine the quality of human resources. On the other hand, personnel exchanges are the foundation for economic, trade and technological cooperation. Only through exchanges can we build up mutual trust, strengthen understanding of each other and conduct cooperation in a smooth manner.

5.7.1. CURRENT STATUS OF COOPERATION

China and Pakistan have made substantial progress in the cooperation regarding education and personnel exchanges. The exchange of students between Pakistan and China has largely been through government scholarships. During past years many Chinese students have been coming to Pakistan to study English, Urdu, Fiqh, and social sciences. Pakistani students prefer to go to China to study acupuncture and other traditional medicines.

In April 2005, China Scholarship Council signed with the Pakistani Higher Education Commission the Memorandum of Understanding on the Project of Postgraduate Students with Pakistani Government Scholarships to China, according to which the Pakistani Higher Education Commission will select and dispatch 1,000 young university teachers and researchers to pursue Ph.D degrees in China between 2005 and 2009, and China Scholarship Council will be responsible for the recruitment and administration of the project students for their stay in China. In November 2006, China pledged in the Joint Declaration by the People's Republic of China and the Islamic Republic of Pakistan to provide teacher and administrators to a science university and a media university to be established by Pakistan, to gradually expand the scale of exchange students and visiting scholars, and to invite 500 Pakistani youths to attend exchange activities in China within the next five years.

5.7.2. AREAS FOR FUTURE COOPERATION

In the coming five years, it is proposed that the two countries shall cooperate in the following fields:

1. Pakistan has rich experience in international exchange of English speaking higher education professionals and teachers in the fields of IT, engineering technology, medical care, economics, and finance. These professionals enjoy a reputation for high quality and can provide useful services in their related areas The opening up of China's educational field has generated great opportunities for Pakistani education services providers. Chinese and Pakistani enterprises should strengthen cooperation in the field of outsourcing in manufacturing and services. China has great

potential in undertaking projects internationally, Pakistani and Chinese enterprises can cooperate in contracting outsourcing business in manufacturing and services for mutual benefit.

2. The personnel of agricultural departments, agricultural economic organizations and research institutions of the two countries should pay more visits to each other to exchange their experiences in agricultural development, bilateral and multilateral trade status and agricultural research. They could also jointly organize training courses. Colleges, universities and research institutions of the two countries can hold seminars and academic conferences, and conduct exchanges and joint research in innovation and management in agricultural science and technology, bio-technology, industrialization and information technology.

3. The two countries should encourage institutions of higher learning to conduct various forms of exchange activities such as mutual visits of teachers, student exchanges, experience exchanges, academic discussions and cooperative research to learn from each other's experience and to enhance mutual understanding.

4. The language barrier is a big impediment to bring the people of China and Pakistan closer. Huge efforts from both sides are needed to overcome this barrier. Chinese language schools in Pakistan and Urdu schools in China should be promoted.

5. The Hope Project is a social charity undertaking initiated by the Chinese Youth Development Fund to mobilize civil financial means to assist children without schooling in poverty-stricken areas to go back to school. Between 1989 and 2000, a cumulative total number of 8,355 primary schools were funded through this project to assist approximately 2.296 million children without schooling. Pakistan can borrow from the experience of China in this regard to develop similar activities in Pakistan to mobilize civil funding and donations for elementary education.

6. The adequate and effective technological and vocational training is of great importance to a nation's economic development. Be it to spread new crop plantation technologies, culture techniques and forestry plantation technologies among farmers, or to cultivate specialized technicians for the development of the manufacturing industry, technological and vocational training is indispensable. China and Pakistan can carry out exchanges of experience and cooperation in this field to promote the development of the technological and vocational training in both countries.

7. Distance education covers a large area with a low cost, and can effectively make up for the disadvantages of the inadequate educational resources in the economically underdeveloped areas and help reduce poverty through narrowing educational gaps between different regions. The market scale of distance education in China exceeded 10 billion Yuan in 2005, and the country is now actively applying distance education to Western China. Pakistan can borrow from the experience of China to develop distance education in remote areas.

8. In light of the fact that the education sector of Pakistan is fully open to foreign investments and the foreign enterprises can take 100% of the shares, Chinese enterprises can be encouraged to conduct cooperative schooling in Pakistan or to invest in establishing private schools.

5.8. A BROADER FRAMEWORK FOR ECONOMIC COOPERATION

While the free trade agreement is expected to boost bilateral trade between the two countries, the countries can enhance economic cooperation across a wide spectrum of activities including, for example, banking, information exchange among commerce chambers, and collaboration among research institutions. In addition, the two countries can extend cooperation in agricultural and rural development, electronics, infrastructure and energy resources, SME development, and development of cities as engines of growth, human resource development, and research and development.

5.8.1. COOPERATION IN BANKING AND FINANCIAL SECTOR

Both China and Pakistan have experienced strong growth underpinned by macroeconomic stability. The central banks of the two countries play an important role in macroeconomic management. Cooperation between the two central banks and other financial institutions in the private sector will benefit both countries in terms of learning from each others experiences and putting in place a business friendly environment in the financial sector. Such cooperation would also be beneficial in terms of policy coordination.

5.8.2. COOPERATION AMONG BUSINESS AND COMMERCE CHAMBERS

The role of the governments is to create an enabling environment for enhanced trade, investment and economic cooperation. However, the private sectors have to undertake initiatives that can benefit the two economies. In this respect, it is absolutely essential that formal links be established among the chambers of commerce in both countries to create opportunities for private businesses to interact and share information.

5.8.3. NETWORKING AMONG RESEARCH INSTITUTIONS

A number of research institutions in various fields are working in the two countries. These research institutions have accumulated a wealth of experience that can be shared with each other to the mutual benefit of both countries. There needs to be a formal mechanism which allows the research institutions in both countries to network and collaborate with each other of issues of mutual interest.

5.8.4. INDUSTRIAL COLLABORATION

There is considerable potential in the industrial sector where the two countries can collaborate, especially in a longer term perspective. For example, the pattern of production will change as both countries move up the development ladder entailing opportunities for relocation of industries. As a matter of fact, China is poised to move up the development ladder in that it is now moving away from labor intensive production to more capital and skill intensive production such as electronics. There is thus an opportunity for Chinese businesses to relocate their labor intensive operations in Pakistan.

5.8.5. DEVELOPING CITIES AS ENGINES OF GROWTH

Growth takes place in cities and urban centers. The cases of Shanghai in China and Karachi in Pakistan are cases in point. Both countries share the need for developing cities as growth poles. As both countries embark on this task their mutual cooperation would greatly help each other.

5.8.6. DOMESTIC COMMERCE

In the past, the focus of bilateral economic cooperation initiatives has been almost entirely on international trade despite significant prospects for economic cooperation in the area of domestic commerce. In both countries domestic commerce contributes significantly to national output and is a major source of employment. Both countries can extend cooperation in developing an efficient domestic commerce sector focusing on wholesale and retail trading, warehousing and domestic transport services.

5.8.7. SME DEVELOPMENT

The development of a vibrant small scale sector is one of the key objectives of Pakistan's industrial policy. China has also witnessed unprecedented growth in the small scale sector. The two countries can adopt a joint approach to developing the SMEs and exchange their development experiences in this vital segment of the economy.

5.8.8. AGRICULTURAL AND RURAL DEVELOPMENT

The agriculture sector plays a key role in Pakistan's economy. However, agricultural productivity is low and the rural areas remain underdeveloped. Both China and Pakistan can extend cooperation in agricultural and rural development to their mutual advantage.

5.8.9. RESEARCH AND DEVELOPMENT

Empirical evidence has shown that countries that have invested in research and development have tended to grow faster. Research and development in both countries takes place in public and private sectors. There is a need to open up formal channels for collaboration among public and private entities engaged in research and development.

CHAPTER No. 6

SUMMARY AND CONCLUSIONS

6.1. INTRODUCTION

This joint study provides a comprehensive review of economic developments and prospects in China and Pakistan including economic structure and performance, the reform process and key features of the economies as well as external orientation. It also focuses on the current status and institutional arrangements of the trade and economic cooperation between the two countries, and provides an assessment of potential for trade and economic cooperation between the two countries.

Chapter 2 provides a review of trends in bilateral trade in goods and identifies major traded commodities for both countries. The chapter presents an analysis of trade patterns based on Trade Specialization Index for 2005.Trends in bilateral intra industry trade flows are analyzed using Grubel Lloyd (GL) index for 2005 and top 20 product categories are identified by the GL index for 2006. Key areas where China and Pakistan can expand mutual exports are also highlighted based on estimates of Regional Revealed Comparative Advantage ratios (dynamic as well as static) in 2006. Tariff levels are discussed and the potential for further expansion of trade is identified along with a review of barriers to trade expansion along with specific measures to promote and facilitate trade.

Chapter 3 covers trade in services between China and Pakistan; the current status of services trade cooperation between the two countries, the GATS framework as it applies to China and Pakistan, followed by the importance of the sector for the growing Chinese and Pakistani economies. The chapter also highlights the barriers and problems in bilateral trade in services between the two countries, and points to the great potential for enhanced cooperation in this area. The chapter concludes by identifying several priority areas for future cooperation in services trade.

Recent trends in foreign investment in Pakistan as well as China are highlighted in Chapter 4. This is followed by identification of the impediments that exist in mutual investment, and review of the investment policies of both countries. The current status of bilateral investment cooperation is also explored, and some proposals for strengthening this cooperation are also presented.

Chapter 5 of the study deals with seven priority areas for future economic cooperation between China and Pakistan; institutional cooperation, cooperation in foreign contractual engineering, transportation, energy,

information and communication technology, education and personnel exchanges. It also provides a broader framework for bilateral economic cooperation.

6.2. SUBSTANTIVE FINDINGS

Pakistan is actively pursuing the policy of enhancing bilateral and regional economic cooperation. Of particular interest to Pakistan are its trade and economic relations with its neighbor and long-standing friend China. In April 2005, Mr. Musharraf, the then President of Pakistan and Premier Wen Jiabao of China reached a consensus to jointly work out the Joint Program for Comprehensive Economic and Trade Cooperation between the two countries. Since China and Pakistan established diplomatic relations 57 years ago, both countries have enjoyed a lasting friendship and affinity. The friendly and cooperative relations between China and Pakistan have become a typical model for the friendly coexistence of developing countries and neighboring countries.

Investments by Chinese firms in infrastructure, automobiles, textiles and foreign assistance have opened a new era of economic relationships between the two countries and led to an increase in bilateral trade. Pakistan is a key market for Chinese overseas contract engineering projects and labor export. In recent years, the sustained rapid development of the Pakistani economy and expanding market demand have provided hard-won opportunities for Chinese contractual engineering projects and exports of large electrical and machinery equipment. Many important projects are examples of economic cooperation and embodiment of the friendship between the two countries. In November 2006, the leaders of the two countries attended an inauguration ceremony of Pakistan Haier-Ruba Economic Zone, the first overseas industrial zone established by China.

Through concerted efforts by both sides, China and Pakistan have concluded a number of agreements and institutional arrangements in fields such as trade, investment and economic & technical cooperation. Significant progress has been achieved in trade and economic cooperation. On November 24, 2006, China and Pakistan signed free trade agreement. The architecture of the bilateral Free Trade Agreement includes trade in goods and investments in the first phase, including the reduction of non-tariff barriers to trade. And, the negotiation on trade in services was launched in 2007 to enlarge the coverage of the FTA. This is the third free trade agreement signed by China with another country. It will be beneficial for both countries as the FTA will ensure trade creation by fully tapping their comparative advantages, ensuring consumer sovereignty and welfare, providing increased competition, and a stimulus to investment; enabling more efficient utilization of economic resources; and enhanced regional cooperation and security

in Asia. The Pak-China FTA will be beneficial for Pakistan in terms of textiles and clothing, surgical goods etc while other sectors in the short term will face stiff competition as China is producing a variety of other goods at low cost due to relatively cheap labor and economies of scale. But in the long term, competition will increase efficiency of the domestic producers.

Trade and economic cooperation between China and Pakistan has bright prospects, with rapid economic growth and further deepening of trade and economic connections between the two countries having laid a sound foundation for future development.

While the growth in bilateral trade has been quite rapid, there exist difficulties and obstacles in fully exploiting bilateral economic and trade opportunities and bilateral trade remains concentrated in a relatively narrow range of products. Pakistan's trade deficit with China is expanding; transportation conditions between the neighboring regions of the two countries do not meet the need of bilateral trade development and there is relatively low efficiency in custom clearance. The challenge at present is to determine how best to actively promote trade facilitation, upgrade the trade structure and make bilateral trade more broad-based and diversified, while also exploring additional areas of cooperation.

The composition of bilateral trade between the two countries has undergone a shift from primary to finished goods. An analysis of commodity shares in bilateral trade reveals that the highest share of exports from China to Pakistan (in 2006) is for machinery, mechanical appliances and electrical equipment. In addition, such products as textiles and garments, chemical products and rubber and plastics products also played important roles in China's exports to Pakistan.

It is evident that Pakistan has comparative advantage in only a narrow range of products (11 products at HS2) including raw materials such as cotton and raw hides and some food products. On the other hand, China has comparative advantage in a broad range of commodities (84 product categories) and difference in the pattern of comparative advantage indicates the existence of significant trade complementarities between the two countries.

It is clear that intra-industry trade of both countries is quite significant and occurs in a wide range of commodities. There is, therefore, considerable potential for expanding intra-industry trade between the two countries.

Pakistani products with static comparative advantage[27] over China are limited in number; including the following; agricultural products, mineral products, pharmaceutical products, textiles and leather products. Pakistani products with dynamic comparative advantages over China include: agricultural products, mineral products, chemicals, raw hides and skins, pulp of wood or of other fibrous cellulose material and textiles.

At present, the potential for Pakistan to expand exports to China has not been fully tapped due to three reasons; lack of diversification in Pakistan's industrial sector, the inability to develop and utilize mineral resources and the backward nature of processing technology in the agricultural sector.

Chinese products with static comparative advantages over Pakistan include part of agricultural products, chemicals, products of plastics and rubber, wood and articles of wood, paper, paperboard and articles thereof, textiles, articles of stone or glass, ceramic products, base metal and articles of base metal, machinery equipment, electric power equipment and electronic products, transport equipment, precision instrument and miscellaneous products. Chinese products with dynamic comparative advantages over Pakistan include part of agricultural products, mineral products, chemicals, plastics and articles thereof, articles of leather, cork and articles of cork, products of the printing industry, textiles, base metal and articles of base metal, transport equipment and miscellaneous products.

The structure of service sector in the two countries is very similar; being dominated by traditional industries such as wholesale and retail and transport and communications, though the former is more important in Pakistan than in China. Such a structure indicates that both countries are at a similar stage of service sector development.

Neither country is an important trading partner in services of the other. A number of factors may have contributed to such a low level of bilateral trade in services at present; that is to say an underdeveloped service industry, several supply constraints to the provision of services, small scale of bilateral investment and trade in goods, inadequate supporting infrastructure, barriers to the movement of natural persons and lack of transparency and information exchange.

Judging from the current situation, the two countries have a huge potential for cooperation in the service industry and service trade as both governments attach great importance to the development of the fledgling service sector and improving the level of service trade, the swift development of trade in goods

[27] In 2006

will likely lead to an increase in services trade, the level of bilateral service trade is quite low and complementary in nature.

The major sectors that have benefited from FDI in Pakistan include telecommunications, power sector, oil and gas exploration, and financial business. Chinese investment in Pakistan has historically remained low and only recently has it increased with investments mainly in the auto sector.

Both countries are currently engaged in a number of joint ventures, in various areas such as steel, heavy engineering and motorcycles manufacturing. The bigger projects are largely in public sector and have strategic orientations, so there is a need to strengthen private investment between the two countries.

There are a variety of factors that impede the flow of foreign investment including foreign investment from China. These include inadequate physical infrastructure, problems in power supply, weak enforcement of intellectual property rights, lack of highly trained manpower, low labor productivity, worsening law and order, weaknesses in domestic commerce, and cities that are not attuned to investment and growth.

Priority Areas for FDI from China include textiles, leather, engineering goods, electronics, chemicals, pharmaceuticals, telecommunications, information technology, energy and livestock and dairy development. Foreign direct investment is an important vehicle for technology transfer. There is potential for technology transfer in the following broad industrial groups; agro-processing, textiles, leather and wearing apparel, chemicals process, electrical and non-electrical machinery, electronics and automobiles.

Government agencies and relevant institutions in China and Pakistan can play active roles in promoting bilateral trade and economic cooperation through enhanced policy transparency and information exchange.

There exists great potential for further cooperation in the field of foreign contractual engineering on account of great demand in Pakistan for infrastructure construction, relatively open market for foreign contractual engineering in Pakistan and the potential for the two countries to strengthen cooperation in the field of infrastructure development.

Main problems encountered by China and Pakistan in the field of foreign contractual engineering include an underdeveloped and relatively inefficient project bidding system in Pakistan, some weaknesses in Chinese foreign contractual engineering enterprises and lack of adequate security measures for the protection of foreign nationals.

Energy cooperation between China and Pakistan has made significant progress. China has assisted Pakistan with the construction of a nuclear power plant with an installed capacity of 300,000 kWh (Chashma-1), which was already launched into operation in September 2000. Another nuclear plant with the same installed capacity, Chashma-2, has also started since April 2005. Moreover, many Chinese companies have entered Pakistani market of petroleum and natural gas exploration, development and related services. Cooperation in thermal electricity is also in progress. Prospects for further cooperation between China and Pakistan exist in the areas of telecommunications, IT product manufacturing and software development.

6.3. POLICY RECOMMENDATIONS

6.3.1. SURVEY OF ECONOMIC DEVELOPMENTS AND BILATERAL TRADE AND ECONOMIC COOPERATION

In order to enhance economic and trade relations, bilateral economic cooperation should go beyond trade and investment facilitation and work to further expand the fields of cooperation by:

1. strengthening cooperation and information exchange between government departments, industrial associations and chambers of commerce, etc.;
2. fully exploring the potentials of cooperation of bilateral trade in services such as education and training, and tourism, etc.;
3. exploring comparative advantages and promoting cooperation in mutually beneficial fields;
4. improving cross-border transportation and trade financing environment;
5. exploring trade potential between the North-western part of China and the north area of Pakistan; and
6. implementing tariff reduction arrangements on trade in goods and promoting the negotiation on trade in services.

6.3.2. BILATERAL TRADE IN GOODS

At present, there are still some institutional and policy obstacles in the bilateral trade between China and Pakistan. Eliminating these obstacles will be greatly conducive to tapping the trade potentials between the two countries.

1. Insufficient information exchange
2. Lack of mutual trust mechanisms between banks
3. Lack of complaint and mediation mechanisms for trade disputes
4. Bottlenecks in Customs Clearance
5. High cost of land transportation
6. Smuggling
7. Lack of Quarantine Inspection Equipment

The joint study group proposes to the two governments ~~to~~ the following measures to promote the expansion of bilateral merchandise trade between China and Pakistan:

1. Increasing transparency
2. Strengthening cooperation between the industrial associations and commercial associations of the two countries
3. Building a mutual-trust mechanism between the banks of the two countries
4. Facilitation of customs procedures
5. Cooperation in Sanitary and phytosanitary (SPS) measures,
6. Cooperation in Technical barriers to trade (TBT), and
7. Improving border trade conditions

6.3.3. CHINA – PAKISTAN TRADE IN SERVICES

Against the backdrop of the rapidly developing trade and economic relations between the two countries, the bilateral trade in services in the coming five years is likely to grow as swiftly as trade in goods, and the proportion of trade in services in overall trade will certainly maintain the current level if not rise. Diversification of the trade structure will also be gradually realized. To achieve such an objective, the two countries need to strengthen cooperation in the following fields:

6.3.3.1. Travel and Tourism Services

The two countries should take active measures to improve the supply capabilities of the service facilities related to the travel industry and liberalize the relevant services, including hotels, restaurants and tourist products, etc. Moreover, the designing and development of the tourist routes and products is also very important. The two countries can also cooperate in designing new tourist products by utilizing the neighboring advantages of the two countries to attract tourists from within as well as foreign to the two countries.

6.3.3.2. Transportation Services

1. The two sides can strengthen the construction of the road infrastructure, especially the improvement of the road conditions in the neighboring regions between the two countries.

2. The two countries can carry out feasibility studies on the new modes of transportation (such as pipeline and railway transport) and multimodal transportation as early as possible.

3. The two countries can speed up the mutual opening up of the domestic industry so that the transportation enterprises of the two sides can gain further access to each other's market. At the same time, the two sides can consider exploring third-country market (such as in aviation and road transportation) by taking advantage of the mutual market opening.

4. China and Pakistan can strengthen cooperation and opening up of various transportation-related fields such as modern logistics (including storage, loading, packaging, processing, distribution, information and so on), as well as the construction of the logistic infrastructure.

6.3.3.3. Construction and Related Engineering Services

1. Give more financial and credit insurance support to Chinese construction companies operating in Pakistan.

2. Encourage Chinese construction companies operating in Pakistan to engage in joint venture activities with local firms and transfer technology to and training personnel for local firms.

3. Increase transparency and fairness in Pakistan's construction market especially with respect to the project tendering process and enforcement of contract.

4. Allow more qualified and skilled technicians and engineers from both sides to work in each other's market under the mode of movement of natural persons.

6.3.3.4. Financial Services

The two sides should create conditions for the financial institutions to establish subsidiaries and carry out mergers and acquisitions in the other country. In the mean time, both sides should strengthen communication and cooperation among the financial institutions of the two countries in business operation, personnel training and technology assistance, etc.

6.3.3.5. Computer and Information Services

1. Both sides should open the domestic market further to the other side. For example, many multinational corporations have invested in China, whose demand for software services is very large. The software and information service enterprises of Pakistan are very likely to seize their due market share in China. One Pakistani software company has already won several contracts for supplying multinational automakers in China with business software.

2. China and Pakistan can work to benefit from their respective comparative advantages. The two countries can establish cooperation and alliance among enterprises and industrial associations. Both countries can also invest in the establishment of software parks and explore third country market jointly.

3. The two sides can strengthen cooperation in information exchange, training and education to cultivate the international competitiveness of the information industries of the two countries.

6.3.3.6. Cultural and Sports Services

The two countries should regularly hold cultural and sports exchange activities, especially activities with national characteristics. The two countries should grant each other preferential treatment to encourage trade and cooperation in the products and services related to culture, entertainment and sports.

6.3.3.7. Movement of Natural Persons

China and Pakistan should carry out the mutual accreditation and recognition of the professional qualifications and certificates so as to facilitate the provision of services by professionals in each other's market.

6.3.4. MUTUAL INVESTMENT

The following proposals are suggested for Strengthening Cooperation:

6.3.4.1. Making Full Use of Bilateral Investment Agreement as an Intergral Part of FTA

China and Pakistan have signed a Free Trade Agreement on trade in goods and investment. The two countries have also renegotiated the investment chapter of the Agreement. It is proposed that the two countries should make full use of the opportunities provided for investment in manufacturing and services sectors.

6.3.4.2. Strengthening Supporting Policies

If the two sides hope to successfully increase bilateral investment in a relatively short period of time, the two governments must strengthen the supporting policies or even provide direct assistance. For instance, the domestic policy-oriented financial institutions should reinforce export credit insurance and overseas investment insurance for Pakistan, grant policy preferences and loaning support for the Small- and Medium-sized Enterprises with intentions for overseas investment and provide financing facilitation. The two countries should also concentrate on the encouragement and guidance for more enterprises to take full advantage of the preferential conditions in the bilateral trade and economic zones and cooperation on technology, manufacture and information exchanges in a wider scope.

6.3.4.3. Encouraging Large-scale Mergers and Acquisitions Projects

The large-scale state-owned enterprises in China need to adopt the strategy of internationalization. In this regard the privatization in Pakistan provides very good opportunities for them. The case is particularly true with the financial and telecommunications sectors, which are sensitive to a certain extent and involve a relatively large sum of money in investments. The two governments should make joint efforts to grant certain special policies to create facilitating conditions for the implementation of large-scale M & A projects.

6.3.4.4. Widening the Fields and Modes of Investment

The two sides should provide more market information to broaden the fields and diversify the modes of investment. The investments can either be market-oriented (namely, used to satisfy the local requirements, upgrade the industrial structure and to expand investment in the overseas market) or based on the comparative advantages of the two sides (for instance, investments in resource exploitation or the manufacturing sector). Mergers and acquisitions and portfolio investment should also be encouraged apart from the traditional greenfield investments.

6.3.4.5. Strengthening Intellectual Property Protection

The two sides should strengthen cooperation in the protection of intellectual property rights, protect the interests of the investors of both countries through concrete measures, and encourage the investors to transfer technology and patents to the host country.

6.3.4.6. Facilitating the Exchanges of Business Personnel

The two countries should grant the investing enterprises and investors with more lax and convenient entry & exit and residence conditions. Such conditions can go beyond the horizontal commitments under the WTO.

6.3.5. ECONOMIC AND TECHNOLOGICAL COOPERATION

The following measures are suggested for strengthening cooperation between government departments:

1. Strengthening Communication and Cooperation between the Responsible Trade and Economic Departments of the Central Government
2. Establishing a Mechanism of Cooperation and Dialogue at the Local Government level
3. Strengthening Cooperation between the Financial Management Agencies
4. Strengthening Cooperation between the Industrial Associations and Import & Export Chambers.

Some policy recommendations in the area of bilateral cooperation in foreign contractual engineering:

1. Improving the market environment for foreign contractual engineering

2. Setting infrastructure construction as the key area for foreign contractual engineering cooperation between the two countries

3. Providing financial support with various forms of foreign contractual engineering and investment

4. Strengthening cooperation between the industrial trade unions to improve the bidding system

5. Opening up public procurement market

The creation of an efficient, integrated, seamless transportation system that is conducive to both bilateral and transit trade would require concerted efforts of the governments and private sectors aimed at:

1. Strengthening investments in the construction of transportation infrastructure, improving conditions actively and eliminating bottlenecks to cross-border transportation. While reconstructing and widening the roads, China can consider more aid to Pakistan to support the daily maintenance and sustained operation of the Karakoram Highway.

2. Transparency of the customs clearance procedures should be enhanced, with less arbitrariness and "grey customs clearance" in order to improve the efficiency of customs clearance and the economic benefits of the transportation enterprises. The two sides should also cooperate in establishing paperless clearance procedures through automation and computerization to speed up customs clearance.

3. Pakistan and Xinjiang Autonomous Region of China have repeatedly called for the all-year-round opening of the port. Since the Karakoram Highway will be reconstructed into an all-weather highway and the conditions for winter opening are mature, it is recommended to realize the all-year-round opening as soon as possible.

4. The bilateral transportation agreements should establish vehicle and loading standards for the freight transportation vehicles in the two countries, including namely the length, width, height and maximum loading weight of the vehicles.

Both sides should adopt following measures to further strengthen bilateral cooperation in transportation:

1. Accelerating the opening up of domestic transportation markets so as to enable the transportation enterprises of the two countries to gain smooth access to the market of the other side.

2. Conducting feasibility studies into the new modes of transportation, such as pipeline transportation and railway transportation.

3. Air connectivity is a vital and an urgent requirement for the expansion of trade, tourism and people-to-people contacts. Air transport, though relatively expensive, can be used to bypass the short- and medium-term infrastructure access problems. The scope and potential to further develop air traffic between Pakistan and China exists. To strengthen bilateral cooperation in transportation services, both countries should work closely to improve logistic services and reduce delays at airports.

In order to meet the common challenge of energy shortages, it is proposed that China and Pakistan strengthen their cooperation in the following fields in the coming five years:

1. Joint development of fossil energy resources in Pakistan

2. Development and utilization of renewable energy and clean energy

3. Exchange of experiences in energy management.

To fully tap the potentials of China and Pakistan's cooperation in the fields of information technology and telecommunications, it is proposed the two sides adopt the following measures:

1. The two sides can make full use of the existing bilateral cooperation mechanisms for experience exchanges and cooperation consultation in the field of information technology and telecommunications should be strengthened.

2. The investment promotion institutions of the two governments should make joint efforts at strengthening publicity to attract Chinese telecommunications and IT enterprise to invest in Pakistan, especially in the 5 established IT Industrial Parks and the to-be-established Chinese Economic Special Areas in Pakistan.

3. The two sides should encourage Chinese enterprises to establish IT Product Research and Development Centers in Pakistan.

4. The two sides should encourage Chinese enterprises and institutions of higher learning to establish special technical schools in Pakistan in the fields of IT hardware and software.

5. Both Pakistan and China need to take significant steps to enhance telecom connectivity and bring down the costs of telecom tariff between the countries.

6. Poor knowledge of domestic products is another area in which targeted intervention is needed. IT can play an important role in this area.

In education and personnel exchanges, it is proposed that the two countries shall cooperate in the following fields in the coming five years:

1. Pakistan has rich experience in international exchange of English speaking higher education professionals and teachers in the fields of IT, engineering technology, medical care, economics, and finance. Pakistani and Chinese enterprises can cooperate in contracting outsourcing business in manufacturing and services for mutual benefit.

2. The personnel of agricultural departments, agricultural economic organizations and research institutions of the two countries should pay more visits to each other to exchange their experience in agricultural development, bilateral and multilateral trade status and agricultural research.

3. The two countries should encourage institutions of higher learning to conduct various forms of exchange activities such as mutual visits of teachers, student exchanges, experience exchanges, academic discussions and cooperative research to learn from each other's experience and to enhance mutual understanding.

4. The language barrier is a big impediment to bring the people of China and Pakistan closer. Huge efforts from both sides are needed to overcome this barrier. Chinese language schools in Pakistan and Urdu schools in China should be promoted.

5. The Hope Project is a social charity undertaking initiated by the Chinese Youth Development Fund to mobilize civil financial means to assist children without schooling in poverty-stricken areas to go back to school. Pakistan can borrow from the experience of China in this regard to develop similar activities in Pakistan to mobilize civil funding and donations for elementary education.

6. The adequate and effective technological and vocational training is of great importance to a nation's economic development. China and Pakistan can carry out exchanges of experience and cooperation in this field to promote the development of the technological and vocational training in both countries.

7. Distance education covers a large area with a low cost, and can effectively make up for the disadvantages of the inadequate educational resources in the economically underdeveloped areas and help reduce poverty through narrowing educational gaps between different regions. Pakistan can borrow from the experience of China to develop distance education in remote areas.

8. In light of the fact that the education sector of Pakistan is fully open to foreign investments and the foreign enterprises can take 100% of the shares, Chinese enterprises can be encouraged to conduct cooperative schooling in Pakistan or to invest in establishing private schools.

While the free trade agreement is expected to boost bilateral trade between the two countries, the countries can enhance economic cooperation across a wide spectrum of activities including:

1. Cooperation in Banking and Financial Sector

2. Cooperation among Business and Commerce Chambers

3. Networking among Research Institutions

4. Industrial Collaboration

5. Developing Cities as Engines of Growth

6. Domestic Commerce

7. SME Development

8. Agricultural and Rural Development

9. Research and Development

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ANNEX

TABLES

Table A.1: Sectoral Shares in Gross Domestic Product

	Sector	1969-70	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
A	**Commodity Producing**	**61.6**	**48.7**	**47.9**	**47.6**	**48.4**	**48.7**	**47.2**	**46.7**
	1 Agriculture	38.9	24.9	24.1	24.0	22.9	22.4	21.3	20.9
	(a) Major Crops	23.4	8.5	8.0	8.2	7.8	8.4	7.5	7.6
	(b) Minor Crops	4.2	3.3	3.1	3.0	2.9	2.7	2.6	2.4
	(c) Livestock	10.6	11.9	12.0	11.7	11.2	10.6	10.6	10.4
	(d) Fishing	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.3
	(e) Forestry	0.1	0.7	0.7	0.7	0.6	0.4	0.2	0.2
	2 Mining and Quarrying	0.5	2.4	2.4	2.5	2.6	2.7	2.6	2.6
	3 Manufacturing	16.0	15.7	15.9	16.3	17.3	18.3	18.9	19.1
	(a) Large Scale	12.5	10.3	10.4	10.6	11.7	12.9	13.4	13.6
	(b) Small & Household	3.5	5.4	5.6	5.6	4.2	4.1	4.2	4.2
	(c) Slaughtering	0.0	0.0	0.0	0.0	1.4	1.3	1.3	1.3
	4 Construction	4.2	2.4	2.4	2.4	2.0	2.1	2.1	2.3
	5 Electricity and Gas Distribution	2.0	3.3	3.0	2.5	3.7	3.2	2.3	1.8
B	**Services**	**38.4**	**51.3**	**52.1**	**52.4**	**51.6**	**51.3**	**52.8**	**53.3**
	6 Transport, Storage and Communication	6.3	11.6	11.4	11.4	10.9	10.4	10.4	10.3
	7 Wholesale and Retail Trade	13.8	17.9	17.8	18.0	18.2	18.7	19.1	19.1
	8 Finance and Insurance	1.8	3.1	3.5	3.3	3.4	4.0	5.0	5.6
	9 Ownership of Dwellings	3.4	3.2	3.2	3.1	3.0	2.9	2.8	2.7
	10 Public Administration and Defense	6.4	6.2	6.4	6.6	6.3	5.9	6.0	6.0
	11 Social Services	6.7	9.3	9.8	9.9	9.7	9.5	9.5	9.6
GDP (fc)		**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Source: Economic Survey of Pakistan 2006-07

Table A.2: Pakistan's Growth of Foreign Trade

(million US $)

Year	Exports	Growth	Imports	Growth
1990	5,573		7,356	
1991	6,517	16.9%	8,483	15.3%
1992	7,304	12.1%	9,363	10.4%
1993	6,878	-5.8%	9,740	4.0%
1994	7,509	9.2%	9,129	-6.3%
1995	8,158	8.6%	11,704	28.2%
1996	9,322	14.3%	12,141	3.7%
1997	8,717	-6.5%	11,595	-4.5%
1998	8,498	-2.5%	9,311	-19.7%
1999	8,383	-1.4%	10,159	9.1%
2000	9,201	9.8%	11,068	8.9%
2001	9,246	0.5%	10,198	-7.9%
2002	9,900	7.1%	11,103	8.9%
2003	11,930	20.5%	13,049	17.5%
2004	13,379	12.1%	17,949	37.6%
2005	16,050	20.0%	25,097	39.8%
2006	16,933	5.5%	29,823	18.8%

Source: UNCOMTRADE Database

Table A.3: Principal exports and imports products

Export Products	Trade Value (Millions)	Share in Total	Import Product	Trade Value (Millions)	Share in Total
Cotton	3,601.01	21.3%	Mineral fuels, oils, distillation products, etc	7,680.29	25.8%
Other made textile articles, sets, worn clothing etc	3,242.51	19.1%	Nuclear reactors, boilers, machinery, etc	3,343.98	11.2%
Articles of apparel, accessories, knit or crochet	1,902.21	11.2%	Electrical, electronic equipment	3,081.30	10.3%
Articles of apparel, accessories, not knit or crochet	1,348.32	8.0%	Vehicles other than railway, tramway	1,732.67	5.8%
Cereals	1,152.34	6.8%	Iron and steel	1,392.83	4.7%
Mineral fuels, oils, distillation products, etc	841.23	5.0%	Organic chemicals	1,177.94	3.9%
Articles of leather, animal gut, harness, travel goods	680.37	4.0%	Plastics and articles thereof	1,128.63	3.8%
Raw hides and skins (other than fur skins) and leather	317.72	1.9%	Animal, vegetable fats and oils, cleavage products, etc	878.80	2.9%
Toys, games, sports requisites	304.73	1.8%	Sugars and sugar confectionery	717.44	2.4%
Carpets and other textile floor coverings	246.13	1.5%	Aircraft, spacecraft, and parts thereof	626.20	2.1%
TOTAL	**16,932.87**		**TOTAL**	**29,825.75**	

Source: UN COMTRADE Database

Table A.4: Pakistan's Principal Export Markets and Import Suppliers (2006)

Export Market	Trade Value (Million US $)	Share in Total	Import Supplier	Trade Value (Million US $)	Share in Total
USA	4,343.42	25.65%	U. A. E.	3,408.36	11.43%
U. A. E.	1,241.82	7.33%	Saudi Arabia	3,033.23	10.17%
Afghanistan	991.50	5.86%	China	2,914.93	9.77%
United Kingdom	935.87	5.53%	USA	1,885.80	6.32%
Germany	697.54	4.12%	Kuwait	1,881.20	6.31%
China, Hong Kong SAR	678.73	4.01%	Japan	1,872.41	6.28%
Italy	621.63	3.67%	Germany	1,190.28	3.99%
China	506.64	2.99%	India	1,114.99	3.74%
Spain	476.32	2.81%	Indonesia	808.94	2.71%
Netherlands	433.86	2.56%	Malaysia	765.85	2.57%
TOTAL	**16,932.87**		**TOTAL**	**29,825.75**	

Source: UN COMTRADE Database

Table A.5: Trade Specialization Index - All Commodities in 2006

HS Code	Commodity	TSI
03	Fish and crustaceans, molluscs & other aquatic invertebrates	1.00
01	Live animals	1.00
26	Ores, slag and ash	0.99
52	Cotton	0.97
41	Raw hides and skins (other than fur skins) and leather	0.96
05	Products of animal origin, not elsewhere specified	0.95
14	Vegetable plaiting materials; vegetable products nes	0.83
13	Lac; gums, resins and other vegetable saps and extracts	0.81
78	Lead and articles thereof	0.80
11	Products of the milling industry; malt; starches; inulin	0.41
10	Cereals	0.30
74	Copper and articles thereof	-0.04
08	Edible fruit and nuts; peel of citrus fruit or melons	-0.15
82	Tools, implements, cutlery, spoons and forks, of base metal	-0.44
25	Salt; sulfur; earths and stone; plastering materials	-0.45
12	Oil seeds and oleaginous fruits	-0.54
68	Articles of stone, plaster, cement, asbestos, mica or similar materials	-0.57
42	Articles of leather; saddlery and harness	-0.61
57	Carpets and other textile floor coverings	-0.71
29	Organic chemicals	-0.73
92	Musical instruments; parts and accessories of such articles	-0.78
53	Other vegetable textile fibers; paper yarn and woven fabric of paper yarn	-0.79
61	Articles of apparel and clothing accessories, knitted or crocheted	-0.82
2	Meat and edible meat offal	-0.82
62	Articles of apparel and clothing accessories, not knitted or crocheted	-0.85
51	Wool, fine or coarse animal hair; horsehair yarn and woven fabric	-0.87
39	Plastics and articles thereof	-0.90
71	Natural or cultured pearls, precious or semi-precious stones	-0.92
36	Explosives; pyrotechnic products; matches	-0.92
20	Preparations of vegetables, fruit or nuts	-0.93

(contd.)

HS Code	Commodity	TSI
63	Other made up textile articles; sets; worn clothing and worn textile articl ...	-0.93
90	Optical, photographic, cinematographic, measuring, checking, precision, med ...	-0.93
95	Toys, games and sports requisites; parts and accessories thereof	-0.93
27	Mineral fuels, mineral oils and products of their distillation	-0.94
30	Pharmaceutical products	-0.95
76	Aluminum and articles thereof	-0.95
55	Man-made staple fibers	-0.95
72	Iron and steel	-0.96
60	Knitted or crocheted fabrics	-0.96
18	Cocoa and cocoa preparations	-0.96
99	Commodities not specified according to kind	-0.96
70	Glass and glassware	-0.97
59	Impregnated, coated, covered or laminated textile fabrics	-0.97
56	Wadding, felt and non-wovens; special yarns, twine, cordage, ropes and cabl ...	-0.97
21	Miscellaneous edible preparations	-0.97
96	Miscellaneous manufactured articles	-0.97
73	Articles of iron or steel	-0.98
07	Edible vegetables and certain roots and tubers	-0.98
40	Rubber and articles thereof	-0.99
54	Man-made filaments	-0.99
32	Tanning or dyeing extracts	-0.99
94	Furniture; bedding, mattresses, cushions and similar stuffed furnishing	-0.99
58	Special woven fabrics; tufted textile fabrics; lace, tapestries; trimmings; ...	-0.99
19	Preparations of cereals, flour, starch or milk; bakers' wares	-0.99
87	Vehicles other than railway or tramway rolling stock	-0.99
69	Ceramic products	-1.00
84	Machinery and mechanical appliances; parts thereof	-1.00
48	Paper and paperboard; articles of paper pulp, of paper or of paperboard	-1.00

(contd.)

HS Code	Commodity	TSI
49	Printed books, newspapers, pictures and other products of the printing indu ...	-1.00
28	Inorganic chemicals	-1.00
44	Wood and articles of wood; wood charcoal	-1.00
65	Headgear and parts thereof	-1.00
38	Miscellaneous chemical products	-1.00
64	Footwear, gaiters and the like; parts of such articles	-1.00
17	Sugars and sugar confectionery	-1.00
33	Essential oils and resinoids; perfumery, cosmetic or toilet preparations	-1.00
89	Ships, boats and floating structures	-1.00
34	Soap, organic surface-active agents	-1.00
85	Electrical machinery and equipment and parts thereof; sound recorders and receivers	-1.00
50	Silk	-1.00
04	Dairy produce; birds eggs; natural honey;	-1.00
06	Live trees and other plants;	-1.00
09	Coffee, tea, matΦ and spices	-1.00
15	Animal or vegetable fats and oils	-1.00
22	Beverages, spirits and vinegar	-1.00
23	Residues and waste from the food industries	-1.00
24	Tobacco and manufactured tobacco substitutes	-1.00
31	Fertilizers	-1.00
35	Albuminoidal substances; modified starches; glues; enzymes	-1.00
37	Photographic or cinematographic goods	-1.00
43	Fur skins and artificial fur; manufactures thereof	-1.00
45	Cork and articles of cork	-1.00
46	Manufactures of straw, of esparto or of other plaiting materials	-1.00
47	Pulp of wood or of other fibrous cellulose material	-1.00
66	Umbrellas, sun umbrellas, walking sticks, seat sticks, whips, riding-crops	-1.00
67	Prepared feathers and down and articles made of feathers or of down	-1.00
75	Nickel and articles thereof	-1.00
79	Zinc and articles thereof	-1.00
80	Tin and articles thereof	-1.00

(contd.)

HS Code	Commodity	TSI
81	Other base metals; cermets; articles thereof	-1.00
83	Miscellaneous articles of base metal	-1.00
86	Railway or tramway locomotives, rolling-stock and parts thereof	-1.00
88	Aircraft, spacecraft, and parts thereof	-1.00
91	Clocks and watches and parts thereof	-1.00
93	Arms and ammunition; parts and accessories thereof	-1.00
97	Works of art, collectors' pieces and antiques	-1.00

Source: Authors calculations, based on data taken from the UN COMTRADE database

Table A.6: GL Intra Industry Trade Indices - 2005

HS Code	Commodity	Pakistan	China
68	Articles of stone, plaster, cement, asbestos, mica or similar materials	0.97	0.33
94	Furniture; bedding, mattresses, cushions and similar stuffed furnishing	0.97	0.07
54	Man-made filaments	0.95	0.78
06	Live trees and other plants;	0.89	0.94
82	Tools, implements, cutlery, spoons and forks, of base metal	0.88	0.47
20	Preparations of vegetables, fruit or nuts	0.88	0.10
01	Live animals	0.85	0.50
08	Edible fruit and nuts; peel of citrus fruit or melons	0.85	0.76
04	Dairy produce; birds eggs; natural honey;	0.81	0.73
97	Works of art, collectors' pieces and antiques	0.80	0.27
58	Special woven fabrics; tufted textile fabrics; lace, tapestries; trimmings; ...	0.75	0.48
96	Miscellaneous manufactured articles	0.74	0.30
90	Optical, photographic, cinematographic, measuring, checking, precision, medical equipment	0.74	0.68
24	Tobacco and manufactured tobacco substitutes	0.71	0.83
7	Edible vegetables and certain roots and tubers	0.70	0.29
21	Miscellaneous edible preparations	0.66	0.60
93	Arms and ammunition; parts and accessories thereof	0.64	0.18
25	Salt; sulfur; earths and stone; plastering materials	0.62	1.00
19	Preparations of cereals, flour, starch or milk; bakers' wares	0.61	0.48
56	Wadding, felt and non-wovens; special yarns, twine, cordage, ropes and cabl ...	0.60	0.90
73	Articles of iron or steel	0.59	0.46
66	Umbrellas, sun umbrellas, walking sticks, seat sticks, whips, riding-crops	0.54	0.02
55	Man-made staple fibers	0.54	0.85
51	Wool, fine or coarse animal hair; horsehair yarn and woven fabric	0.53	0.92
49	Printed books, newspapers, pictures and other products of the printing indu ...	0.52	0.55

(contd.)

HS Code	Commodity	Pakistan	China
30	Pharmaceutical products	0.51	0.82
65	Headgear and parts thereof	0.50	0.02
26	Ores, slag and ash	0.48	0.08
35	Albuminoidal substances; modified starches; glues; enzymes	0.46	0.80
32	Tanning or dyeing extracts	0.44	0.89
39	Plastics and articles thereof	0.43	0.70
53	Other vegetable textile fibers; paper yarn and woven fabric of paper yarn	0.42	0.87
41	Raw hides and skins (other than fur skins) and leather	0.41	0.49
11	Products of the milling industry; malt; starches; inulin	0.40	0.96
13	Lac; gums, resins and other vegetable saps and extracts	0.39	0.71
44	Wood and articles of wood; wood charcoal	0.37	0.94
17	Sugars and sugar confectionery	0.36	0.96
88	Aircraft, spacecraft, and parts thereof	0.36	0.20
89	Ships, boats and floating structures	0.35	0.19
91	Clocks and watches and parts thereof	0.33	0.71
99	Commodities not specified according to kind	0.32	0.89
46	Manufactures of straw, of esparto or of other plaiting materials	0.31	0.01
70	Glass and glassware	0.28	0.73
69	Ceramic products	0.28	0.11
02	Meat and edible meat offal	0.27	0.88
64	Footwear, gaiters and the like; parts of such articles	0.27	0.06
18	Cocoa and cocoa preparations	0.26	0.76
52	Cotton	0.26	0.98
10	Cereals	0.26	0.99
60	Knitted or crocheted fabrics	0.24	0.68
16	Preparations of meat, of fish or of crustaceans	0.24	0.01
27	Mineral fuels, mineral oils and products of their distillation	0.23	0.43
78	Lead and articles thereof	0.22	0.28
74	Copper and articles thereof	0.22	0.38
92	Musical instruments; parts and accessories of such articles	0.21	0.24
76	Aluminum and articles thereof	0.20	0.90
15	Animal or vegetable fats and oils	0.20	0.16
40	Rubber and articles thereof	0.20	0.99

(contd.)

HS Code	Commodity	Pakistan	China
59	Impregnated, coated, covered or laminated textile fabrics	0.20	0.90
14	Vegetable plaiting materials; vegetable products NES	0.19	0.84
33	Essential oils and resinoids; perfumery, cosmetic or toilet preparations	0.18	0.59
83	Miscellaneous articles of base metal	0.16	0.30
95	Toys, games and sports requisites; parts and accessories thereof	0.15	0.06
36	Explosives; pyrotechnic products; matches	0.14	0.03
09	Coffee, tea, mate and spices	0.14	0.09
29	Organic chemicals	0.14	0.60
22	Beverages, spirits and vinegar	0.13	0.73
67	Prepared feathers and down and articles made of feathers or of down	0.13	0.15
12	Oil seeds and oleaginous fruits	0.12	0.29
5	Products of animal origin, not elsewhere specified	0.12	0.36
23	Residues and waste from the food industries	0.11	0.54
50	Silk	0.10	0.18
57	Carpets and other textile floor coverings	0.10	0.13
34	Soap, organic surface-active agents	0.09	0.86
37	Photographic or cinematographic goods	0.09	0.95
71	Natural or cultured pearls, precious or semi-precious stones	0.09	0.77
85	Electrical machinery and equipment and parts thereof; sound recorders and r ...	0.08	0.99
84	Machinery and mechanical appliances; parts thereof	0.07	0.78
43	Fur skins and artificial fur; manufactures thereof	0.06	0.23
28	Inorganic chemicals	0.06	0.82
38	Miscellaneous chemical products	0.05	0.75
81	Other base metals; cermets; articles thereof	0.05	0.44
87	Vehicles other than railway or tramway rolling stock	0.05	0.85

(contd.)

HS Code	Commodity	Pakistan	China
63	Other made up textile articles; sets; worn clothing and worn textile articles	0.05	0.02
48	Paper and paperboard; articles of paper pulp, of paper or of paperboard	0.04	0.94
31	Fertilizers	0.02	0.50
03	Fish and crustaceans, molluscs and other aquatic invertebrates	0.02	0.80
86	Railway or tramway locomotives, rolling-stock and parts thereof	0.02	0.14
42	Articles of leather; saddlery and harness	0.02	0.04
79	Zinc and articles thereof	0.02	0.55
72	Iron and steel	0.02	0.73
47	Pulp of wood or of other fibrous cellulose material	0.02	0.01
62	Articles of apparel and clothing accessories, not knitted or crocheted	0.01	0.05
61	Articles of apparel and clothing accessories, knitted or crocheted	0.01	0.04
80	Tin and articles thereof	0.01	0.73
75	Nickel and articles thereof	0.00	0.25
45	Cork and articles of cork	0.00	0.77

Source: Authors calculations, based on data taken from the UN COMTRADE database

Table A.7: Bilateral GL Index - 2006

HS Code	Commodity	GL Index
74	Copper and articles thereof	0.964
08	Edible fruit and nuts; peel of citrus fruit or melons	0.847
10	Cereals	0.700
11	Products of the milling industry; malt; starches; inulin	0.585
82	Tools, implements, cutlery, spoons and forks, of base metal	0.562
25	Salt; sulfur; earths and stone; plastering materials	0.545
12	Oil seeds and oleaginous fruits	0.461
68	Articles of stone, plaster, cement, asbestos, mica or similar materials	0.426
42	Articles of leather; saddlery and harness	0.388
57	Carpets and other textile floor coverings	0.292
29	Organic chemicals	0.268
92	Musical instruments; parts and accessories of such articles	0.222
53	Other vegetable textile fibers; paper yarn and woven fabric of paper yarn	0.214
78	Lead and articles thereof	0.196
13	Lac; gums, resins and other vegetable saps and extracts	0.190
61	Articles of apparel and clothing accessories, knitted or crocheted	0.184
02	Meat and edible meat offal	0.177
14	Vegetable plaiting materials; vegetable products nes	0.165
62	Articles of apparel and clothing accessories, not knitted or crocheted	0.149
51	Wool, fine or coarse animal hair; horsehair yarn and woven fabric	0.129
39	Plastics and articles thereof	0.104
71	Natural or cultured pearls, precious or semi-precious stones	0.083
36	Explosives; pyrotechnic products; matches	0.080
20	Preparations of vegetables, fruit or nuts	0.070
63	Other made up textile articles; sets; worn clothing and worn textile articles	0.069
90	Optical, photographic, cinematographic, measuring, checking, precision, medical equipment	0.068
95	Toys, games and sports requisites; parts and accessories thereof	0.065

(contd.)

HS Code	Commodity	GL Index
27	Mineral fuels, mineral oils and products of their distillation	0.058
05	Products of animal origin, not elsewhere specified	0.052
30	Pharmaceutical products	0.050
76	Aluminum and articles thereof	0.050
55	Man-made staple fibers	0.048
72	Iron and steel	0.043
60	Knitted or crocheted fabrics	0.042
41	Raw hides and skins (other than fur skins) and leather	0.042
18	Cocoa and cocoa preparations	0.041
99	Commodities not specified according to kind	0.036
70	Glass and glassware	0.033
59	Impregnated, coated, covered or laminated textile fabrics	0.031
56	Wadding, felt and non-wovens; special yarns, twine, cordage, ropes and cabl ...	0.031
21	Miscellaneous edible preparations	0.029
96	Miscellaneous manufactured articles	0.028
52	Cotton	0.027
73	Articles of iron or steel	0.019
07	Edible vegetables and certain roots and tubers	0.018
40	Rubber and articles thereof	0.013
54	Man-made filaments	0.013
32	Tanning or dyeing extracts	0.013
26	Ores, slag and ash	0.009
94	Furniture; bedding, mattresses, cushions and similar stuffed furnishing	0.008
58	Special woven fabrics; tufted textile fabrics; lace, tapestries; trimmings; ...	0.007
19	Preparations of cereals, flour, starch or milk; bakers' wares	0.007
87	Vehicles other than railway or tramway rolling stock	0.007
69	Ceramic products	0.005
84	Machinery and mechanical appliances; parts thereof	0.005
48	Paper and paperboard; articles of paper pulp, of paper or of paperboard	0.004

(contd.)

HS Code	Commodity	GL Index
49	Printed books, newspapers, pictures and other products of the printing industry	0.004
28	Inorganic chemicals	0.004
44	Wood and articles of wood; wood charcoal	0.003
65	Headgear and parts thereof	0.001
38	Miscellaneous chemical products	0.001
64	Footwear, gaiters and the like; parts of such articles	0.001
01	Live animals	0.000
17	Sugars and sugar confectionery	0.000
33	Essential oils and resinoids; perfumery, cosmetic or toilet preparations	0.000
89	Ships, boats and floating structures	0.000
34	Soap, organic surface-active agents	0.000
85	Electrical machinery and equipment and parts thereof; sound recorders and r ...	0.000
03	Fish and crustaceans, molluscs and other aquatic invertebrates	0.000
50	Silk	0.000
04	Dairy produce; birds eggs; natural honey;	0.000
06	Live trees and other plants;	0.000
09	Coffee, tea, mate and spices	0.000
15	Animal or vegetable fats and oils	0.000
22	Beverages, spirits and vinegar	0.000
23	Residues and waste from the food industries	0.000
24	Tobacco and manufactured tobacco substitutes	0.000
31	Fertilizers	0.000
35	Albuminoidal substances; modified starches; glues; enzymes	0.000
37	Photographic or cinematographic goods	0.000
43	Fur skins and artificial fur; manufactures thereof	0.000
45	Cork and articles of cork	0.000
46	Manufactures of straw, of esparto or of other plaiting materials	0.000
47	Pulp of wood or of other fibrous cellulose material	0.000
66	Umbrellas, sun umbrellas, walking sticks, seat sticks, whips, riding-crops	0.000
67	Prepared feathers and down and articles made of feathers or of down	0.000

(contd.)

HS Code	Commodity	GL Index
75	Nickel and articles thereof	0.000
79	Zinc and articles thereof	0.000
80	Tin and articles thereof	0.000
81	Other base metals; cermets; articles thereof	0.000
83	Miscellaneous articles of base metal	0.000
86	Railway or tramway locomotives, rolling-stock and parts thereof	0.000
88	Aircraft, spacecraft, and parts thereof	0.000
91	Clocks and watches and parts thereof	0.000
93	Arms and ammunition; parts and accessories thereof	0.000
97	Works of art, collectors' pieces and antiques	0.000

Source: Authors calculations, based on data taken from the UN COMTRADE database

Table A.8: Pakistani Products Static Export Potential in 2006

HS Code	Commodity
11	Products of the milling industry; malt; starches; inulin
22	Beverages, spirits and vinegar
10	Cereals
15	Animal or vegetable fats and oils
42	Articles of leather; saddlery and harness
04	Dairy produce; birds eggs; natural honey;
02	Meat and edible meat offal
25	Salt; sulfur; earths and stone; plastering materials
61	Articles of apparel and clothing accessories, knitted or crocheted
63	Other made up textile articles; sets; worn clothing and worn textile articles.
08	Edible fruit and nuts; peel of citrus fruit or melons
62	Articles of apparel and clothing accessories, not knitted or crocheted
27	Mineral fuels, mineral oils and products of their distillation
55	Man-made staple fibers
52	Cotton
13	Lac; gums, resins and other vegetable saps and extracts
30	Pharmaceutical products
57	Carpets and other textile floor coverings
17	Sugars and sugar confectionery
41	Raw hides and skins (other than fur skins) and leather
14	Vegetable plaiting materials; vegetable products nes
36	Explosives; pyrotechnic products; matches
03	Fish and crustaceans, molluscs and other aquatic invertebrates
56	Wadding, felt and non-wovens; special yarns, twine, cordage, ropes and cables
54	Man-made filaments
19	Preparations of cereals, flour, starch or milk; bakers' wares
12	Oil seeds and oleaginous fruits
09	Coffee, tea, mate and spices
26	Ores, slag and ash
47	Pulp of wood or of other fibrous cellulose material
93	Arms and ammunition; parts and accessories thereof

Source: Authors calculations, based on data from UN COMTRADE website

Table A.9: Pakistani Products Dynamic Export Potential in 2006

HS Code	Commodity
04	Dairy produce; birds eggs; natural honey;
07	Edible vegetables and certain roots and tubers
08	Edible fruit and nuts; peel of citrus fruit or melons
17	Sugars and sugar confectionery
18	Cocoa and cocoa preparations
22	Beverages, spirits and vinegar
26	Ores, slag and ash
29	Organic chemicals
32	Tanning or dyeing extracts
36	Explosives; pyrotechnic products; matches
41	Raw hides and skins (other than fur skins) and leather
47	Pulp of wood or of other fibrous cellulose material
54	Man-made filaments
56	Wadding, felt and non-wovens; special yarns, twine, cordage, ropes and cables
57	Carpets and other textile floor coverings
63	Other made up textile articles; sets; worn clothing and worn textile articles
93	Arms and ammunition; parts and accessories thereof
99	Commodities not specified according to kind

Source: Authors calculations, based on data from UN COMTRADE website

Table A.10: Chinese Products with Static Export Potential in 2006

HS Code	Commodity
97	Works of art, collectors' pieces and antiques
46	Manufactures of straw, of esparto or of other plaiting materials
44	Wood and articles of wood; wood charcoal
79	Zinc and articles thereof
76	Aluminum and articles thereof
91	Clocks and watches and parts thereof
92	Musical instruments; parts and accessories of such articles
96	Miscellaneous manufactured articles
85	Electrical machinery and equipment and parts thereof; sound recorders and r ...
01	Live animals
64	Footwear, gaiters and the like; parts of such articles
40	Rubber and articles thereof
90	Optical, photographic, cinematographic, measuring, checking, precision, med ...
87	Vehicles other than railway or tramway rolling stock
94	Furniture; bedding, mattresses, cushions and similar stuffed furnishing
06	Live trees and other plants;
88	Aircraft, spacecraft, and parts thereof
73	Articles of iron or steel
16	Preparations of meat, of fish or of crustaceans
70	Glass and glassware
65	Headgear and parts thereof
21	Miscellaneous edible preparations
32	Tanning or dyeing extracts
66	Umbrellas, sun umbrellas, walking sticks, seat sticks, whips, riding-crops
20	Preparations of vegetables, fruit or nuts
34	Soap, organic surface-active agents
74	Copper and articles thereof
48	Paper and paperboard; articles of paper pulp, of paper or of paperboard
50	Silk
35	Albuminoidal substances; modified starches; glues; enzymes
29	Organic chemicals
84	Machinery and mechanical appliances; parts thereof
78	Lead and articles thereof
05	Products of animal origin, not elsewhere specified
72	Iron and steel
23	Residues and waste from the food industries
80	Tin and articles thereof

(contd.)

HS Code	Commodity
67	Prepared feathers and down and articles made of feathers or of down
69	Ceramic products
18	Cocoa and cocoa preparations
95	Toys, games and sports requisites; parts and accessories thereof
43	Fur skins and artificial fur; manufactures thereof
33	Essential oils and resinoids; perfumery, cosmetic or toilet preparations
81	Other base metals; cermets; articles thereof
89	Ships, boats and floating structures
51	Wool, fine or coarse animal hair; horsehair yarn and woven fabric
39	Plastics and articles thereof
82	Tools, implements, cutlery, spoons and forks, of base metal
45	Cork and articles of cork
28	Inorganic chemicals
59	Impregnated, coated, covered or laminated textile fabrics
86	Railway or tramway locomotives, rolling-stock and parts thereof
58	Special woven fabrics; tufted textile fabrics; lace, tapestries; trimmings; ...
71	Natural or cultured pearls, precious or semi-precious stones
38	Miscellaneous chemical products
68	Articles of stone, plaster, cement, asbestos, mica or similar materials
75	Nickel and articles thereof
07	Edible vegetables and certain roots and tubers
31	Fertilizers
24	Tobacco and manufactured tobacco substitutes
49	Printed books, newspapers, pictures and other products of the printing indu ...
60	Knitted or crocheted fabrics
37	Photographic or cinematographic goods
83	Miscellaneous articles of base metal
99	Commodities not specified according to kind
53	Other vegetable textile fibers; paper yarn and woven fabric of paper yarn

Source: Authors calculations, based on data from UN COMTRADE website

Table A.11: Chinese Products with Dynamic Export Potential in 2006

HS Code	Commodity
02	Meat and edible meat offal
03	Fish and crustaceans, molluscs and other aquatic invertebrates
05	Products of animal origin, not elsewhere specified
06	Live trees and other plants;
09	Coffee, tea, mate and spices
12	Oil seeds and oleaginous fruits
14	Vegetable plaiting materials; vegetable products nes
16	Preparations of meat, of fish or of crustaceans
19	Preparations of cereals, flour, starch or milk; bakers' wares
20	Preparations of vegetables, fruit or nuts
24	Tobacco and manufactured tobacco substitutes
25	Salt; sulfur; earths and stone; plastering materials
27	Mineral fuels, mineral oils and products of their distillation
28	Inorganic chemicals
30	Pharmaceutical products
31	Fertilizers
33	Essential oils and resinoids; perfumery, cosmetic or toilet preparations
35	Albuminoidal substances; modified starches; glues; enzymes
37	Photographic or cinematographic goods
39	Plastics and articles thereof
42	Articles of leather; saddlery and harness
43	Fur skins and artificial fur; manufactures thereof
45	Cork and articles of cork
49	Printed books, newspapers, pictures and other products of the printing indu ...
51	Wool, fine or coarse animal hair; horsehair yarn and woven fabric
53	Other vegetable textile fibers; paper yarn and woven fabric of paper yarn
55	Man-made staple fibers
58	Special woven fabrics; tufted textile fabrics; lace, tapestries; trimmings; ...
59	Impregnated, coated, covered or laminated textile fabrics
60	Knitted or crocheted fabrics
61	Articles of apparel and clothing accessories, knitted or crocheted
62	Articles of apparel and clothing accessories, not knitted or crocheted
65	Headgear and parts thereof
67	Prepared feathers and down and articles made of feathers or of down
68	Articles of stone, plaster, cement, asbestos, mica or similar materials
71	Natural or cultured pearls, precious or semi-precious stones
75	Nickel and articles thereof
78	Lead and articles thereof
80	Tin and articles thereof

(contd.)

HS Code	Commodity
81	Other base metals; cermets; articles thereof
82	Tools, implements, cutlery, spoons and forks, of base metal
83	Miscellaneous articles of base metal
86	Railway or tramway locomotives, rolling-stock and parts thereof
92	Musical instruments; parts and accessories of such articles
95	Toys, games and sports requisites; parts and accessories thereof

Source: Authors calculations, based on data from UN COMTRADE website

ANNEX I: SOCIO-ECONOMIC SITUATION IN PAKISTAN[28]

Macroeconomic stability and strong economic growth during the last few years have enabled the country to show some progress in social sector development. Pakistan has done reasonably well, relative to other counties at a similar level of human development, in terms of progress in the social sector. According to the recently conducted Pakistan Social and Living Standards Measurement Survey (PSLM) FY05, the positive trends in most of the social indicators have gathered pace during FY02-05 compared to the FY99-02 period.

In the UNDP Human Development Report 2005, Pakistan has been up-graded from among low human development countries to medium human development countries. It is now ranked 135 amongst 177 countries as compared to the 142nd position in 2002. The improvement in HDI ranking of Pakistan was the highest amongst SAARC members. Progress in all the three components of the Human Development Index (HDI), namely income, education, and health, contributed towards this achievement.

The Pakistan Social and Living Standards Measurement (PSLM) Survey indicates that the most of the indicators like major source of drinking water, the type of toilet used, and enrolment in various levels in schools have shown significant improvement over the last four years. Pakistan's modest success can be attributed to the employment generated by the recovery of the agriculture with growth of 7.5 percent on the back of improvement in the availability of water for irrigation purposes. The housing and construction provided substantial additional employment opportunities. This sector through backward and forward linkages with other building material industries helped in poverty reduction by generating employment opportunities for the poor households.

Despite these improvements, Pakistan continues to face challenges in terms of high unemployment and infant mortality rates, and under provision of basic facilities to a sizable segment of the

[28] This section draws heavily on the Economic Survey of Pakistan, various issues.

population. Unemployment, despite declining to 6.9 percent by 2005-06 (1st Quarter)[29] is still high. The mortality rates for infants and children under 5 year of age are the worst amongst SAARC members. Similarly, education indicators are also not very encouraging and a majority of the population still does not have access to basic facilities such as sanitation and safe drinking water, etc. Moreover most of the social indicators show high regional and gender disparity.

The government is cognizant of these challenges and is according high priority to human development, as is evident from the fact that social sector development has been made an integral part of the government's Medium Term Development Framework (MTDF) 2005-10. Also, the Poverty Reduction Strategy Paper (PRSP) reflects Pakistan's commitment to reducing poverty: poverty and social sector related expenditures under PRSP have increased over 120 percent in the last four years.

Infrastructure

Infrastructure plays a central role in the achievement of higher growth rates. There is strong evidence in literature with reference to the higher returns of infrastructure to investment and hence, growth. Transport and communication, being important elements of infrastructure services, are essential in maintaining higher growth rates and competitiveness. Transport and communication sector in Pakistan account for about 11 percent of GDP, 16 percent of fixed investment, 6 percent of employment and about 15 percent of the Public Sector Development Program.

There is potential for bilateral cooperation in infrastructure development. With this in view, the following sections describe in detail the state of infrastructure in Pakistan.

[29] According to the results of Latest Labor Force Survey (LFS).

Transport

The transport system in Pakistan consists of roads network, railways, air transport ports and shipping services.

Road Network

The road network in Pakistan is expanding at much faster pace compared to other modes of transportation, road networks registered 47% increase in the last ten years. The total length of roads in Pakistan is 258,340 km. During the out-going fiscal year, the length of the high typed road network increased by 1.8 percent but the length of the low type network declined by 209 percent (Pakistan Economic Survey, 2005-06). Currently, there are 18 major inter-provincial links called the national highways, including the motorways. This network comprises only around 3 percent of Pakistan's total road network but country's 80 percent commercial traffic plies on it. This underlines the importance and utility of the network and the urgent need for its further expansion.

Some of the major on-going and proposed projects are mentioned below:

- Lyari Expressway Project to be (completed during the year 2007)
- Dualization of Karachi Northern Bypass (to commence soon).
- Karachi-Hyderabad Superhighway (M-9) is being upgraded to a 6- lane motorway.
- Islamabad – Peshawar Motorway (M-1) is in progress
- Islamabad–Burhan Section (37 Km) and Rashakai – Charsadda Section (23 Km) have been completed and the entire motorway will be opened to traffic in June 2007
- National Highway Improvement Program (NHIP) is in progress for rehabilitation, up-gradation and preservation of N-5 at a cost of Rs. 17 billion,
- Work on Satra Mile – Lower Topa DCW (N-75) is scheduled for completion by June 2007.

- Construction of Lowari Rail Tunnel Project has also been undertaken
- Work on DG Khan-Rajanpur Section (106 Km) is in progress and work on Sara-e-Gambila-Malana Section (117 Km) recently been awarded
- The 196 Km Gwadar – Turbat – Hoshab Road is near completion
- Construction of Hoshab – Panjgur – Nag - Basima - Sorab Road is going to commence within the next few months
- Kalat-Quetta-Chaman Road (247 Km) is already in progress

The Karakoram Highway (KKH) connects China and Pakistan across the Karakoram mountain range. It is the highest paved international road in the world. With an altitude of 4,693 metres (15,397 feet), it is highest paved international border crossing in the world, It connects China's Xinjiang region with Pakistan's Northern Areas through the Khunjerab Pass. The Karakoram Highway was built by the governments of Pakistan and China, and was completed in 1986. Under a proposed agreement, China will buy 10 million tons of Liquefied Natural Gas (LNG) from Iran each year over the next 25 years. KKH would be the shortest and safest land route to ship Iranian LNG to western China. Pakistan can be turned into China's "energy corridor" for Chinese energy imports from the Middle East, Persian Gulf and Africa.

Pakistan Railways

Pakistan Railway has played an important role in country's economy by providing the service of large scale movement of freight as well as passenger traffic. However Pakistan Railway network has been deteriorating over the years due to factors like lack of investment, financial constraints, operational inefficiency, over-staffing and mismanagement. Not surprisingly, Pakistan Railways continue to under-perform. During the period 1995-2006, the share of Railways in respect to passenger traffic declined from 10.9 percent to 9.9 percent. Similarly there has been a decline from 6 percent to 3.9 percent in freight traffic.

To improve the efficiency of railways, a modernization program has been launched both for its infrastructure and rolling stock. Since 2000-01 Pakistan Railways has shown a good performance in respect of both passenger traffic and freight traffic. An average increase of 5.6 percent in terms of passenger traffic and 8.3 percent per annum in terms of freight traffic has been achieved.

The Government is planning to convert Pakistan Railways into state owned corporation beside conversion of all non-core units into companies/autonomous bodies. The improvement and provision of connectivity to Iran and India, the upcoming Gwader Port to Afghanistan and Turkmenistan have also been initiated. For a start, the feasibility studies for construction of Chaman to Kandhar (107 km) have been completed and the one for Kandhar to Khushka (Turkmenistan) has also been planned (Pakistan Economic Survey 2005-06).

The railway infrastructure within country is also undergoing a phase of improvement. A 78 km track will be doubled on Lodhran- Khanewal section. The work of doubling of track on Khanewal-Raiwind has been started during the current year. Track renewal of 115 km of rails and 290 km of sleepers, have been considered for the main line from Karachi-Khanpur. Various other schemes include the replacement of broken down cranes, the strengthening of bridges, an underpass in Renald Khurd (Pakistan Economic Survey 2005-06).

Ports

Karachi is the main port of Pakistan and handles more than 65 percent of the entire national trade. It is a deep natural port with 11 km long approach channel providing safe navigation to 75,000 DWT tankers and modern container vessels. The port has 30 dry and 3 liquid product handling berths, including a dedicated Container Terminal at the East & West Wharves. Karachi Port has also handled cargo volume of 28.6 million tonnes during the year 2004-05. However, during the first nine months of the current year i.e. July-March 2005-06, the port handled a cargo volume of 24.57 million tonnes as compared to the 21.84 million tonnes handled in the corresponding period last

year. Considering this, cargo volumes have increased by 12.5 percent over the last year. (Pakistan Economic Survey 2005-06)

Port Muhammad bin Qasim is Pakistan's first industrial and multi-purpose deep-sea port. The port has been developed on the coastal line of Arabian Sea. It is located in Indus delta region at a distance of 50 Kilometers South East of Karachi. The port is well connected to all over the country through modern modes of Transportation i.e. rail, road and has been playing an important role in the economic uplift of the country. Port Qasim offers the following facilities:

- Handling of sea-borne trade (Imports & Exports)
- Warehouse facilities
- Provision of land and infrastructure facilities for establishment of port-based industrial and commercial units.

In addition, Minora and Pasni mainly act as fish ports.

Hyderabad, Lahore, Rawalpindi, Sialkot, Peshawar, Quetta and Faisalabad are the dry ports for handling imports/exports of the country. The Sust dry port on Khunjerab pass near Pak-China border was completed in July 2006. The port is spread over 201 canals and is situated at 11,000 feet above sea level. It has been built by a Chinese company. The port is located 87 km from Khunjarab pass and 455 km from Chinese city Kashgar. This port will strengthen Pakistan-China economic relations as well as expand Pakistan's commerce linkages with the regional countries including Central Asian states.

Gawadar Port has been developed as an international seaport with the assistance of Chinese government. Estimated cost of Phase I and II is US $ 248 million and US $ 524 million respectively. The construction of Gwadar deep-sea port is part of a larger development plan which includes building a network of roads connecting Gwadar with the rest of Pakistan, such as the 650 km Coastal

Highway to Karachi and the Gwadar-Turbat road (188 km). This network of roads connects with China through the Indus Highway. Pakistan, China, Kazakhistan, Kyrgizstan and Uzbekistan are developing extensive road and rail links from Central Asia and the Chinese province of Sinkiang to the Arabian Sea coast.

Airports

There are 42 airports in the country being managed by Civil Aviation Authority. Out of these, 5 airports viz Lahore, Karachi, Islamabad, Peshawar and Quetta are international airports. The construction of Allama Iqbal Terminal Complex, Lahore has recently been completed at the cost of Rs. 10.3 billion. This terminal can handle 6.5 million passengers per annum. Rahim Yar Khan and Bahawalpur airports have been upgraded for operations of Boeing aircrafts. Construction of new Islamabad international airport is planned and the proposed new airport is expected to play a major role in the national aviation sector. The airport shall be developed by the Civil Aviation Authority on self-finance basis with a total cost of Rs. 18 billion on 3200 acres. The Civil Aviation Authority is also going to undertake the development of the New Gwadar International Airport through Public Sector Development Programme (PSDP), at a total estimated cost of Rs. 3,650 million. The airport is planned for B-747 aircraft operations for meeting all the future requirements of Gwadar city. A new international airport, initiated by the local business community, is underway in Sialkot. The project is on a build-own-and-operate (BOO) basis and would cater to the commercial needs of the area for the exports of leather and surgical goods. The work on these new airports is in progress and their effective operation is anticipated by the end of the current calendar year.

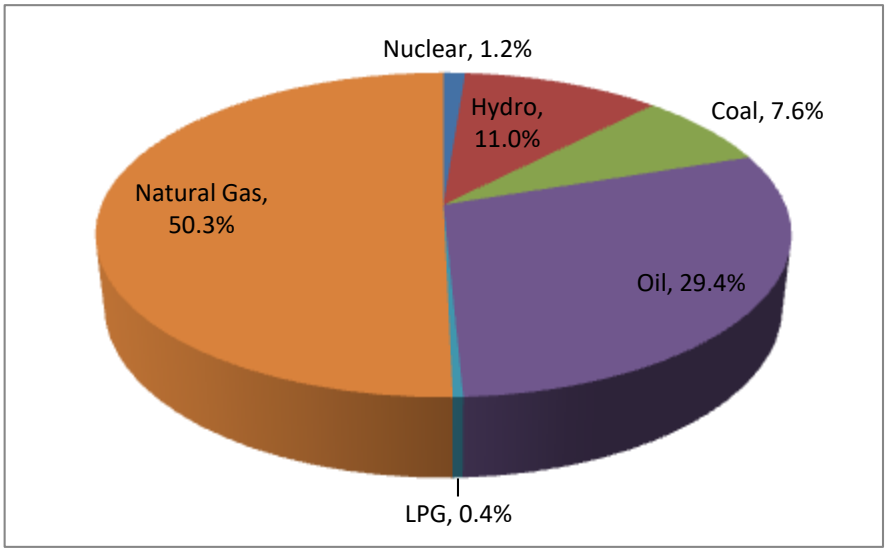
Energy

The role of energy sector is important in a modern economy. A cheap, abundant and environment-friendly source of energy is essential for rapid economic growth. According to the International Energy Outlook 2001, the actual growth of the world energy consumption increased from 207

quadrillion Btu in 1970, to 382 quadrillion Btu in 1999. It is anticipated that the increasing trend in energy consumption will continue and is expected to reach up to 607 quadrillion Btu in 2020.

Pakistan's Primary energy supplies for the year 2004-05 amount to 55.5 million tonnes of oil equivalent (MTOE) as compared to 50.8 MTOE, in 2003-04. Electricity, gas, petroleum and coal are the main components of energy sector. Oil and gas form the bulk of primary commercial energy supply mix of Pakistan, contributing 80.1% of total energy supply (oil: 29.4%, gas: 50.3%, LPG: 0.4 %). The other sources include; coal: 7.6%, hydro electricity: 11.0% and nuclear electricity: 1.2%. (Pakistan Energy Yearbook, 2005) (see Figure A.1).

Figure A.1: Pakistan's Primary Energy Supplies 2004 - 05



Source: Pakistan Energy Yearbook 2005

Pakistan's energy demand far exceeds its indigenous supplies, so Pakistan has to depend on oil imports. The crude oil and petroleum products import for the year 2004-05, amounted to about 8.3 million tonnes and 5.7 million tonnes, respectively with actual amount of payments US$ 2,606 million and US$ 1,998 million, respectively. The total annual oil import bill for the year 2004-05 was US$ 4,604 million (Pakistan Economic Survey, 2005-06).

Electricity

The total installed capacity of electricity generation which was 19,389 MW during the year 2004-05 increased to 19,439 MW in 2005-06 showing a marginal increase of 0.3 percent. Following main public sector organizations are involved in power generation, transmission and distribution of electricity in the country.

- The Water and Power Development Authority (WAPDA)
- Karachi Electric Supply Corporation (KESC),
- Karachi Nuclear Power Plant (KANUPP) and
- Chashma Nuclear Power Plant

There are also the Independent Power Projects (IPPs) which are involved in power generation only.

The total installed capacity of WAPDA, hydel as well as thermal, was 11,363 MW during July-March 2005-06. Out of this, hydel accounts for 56.9 percent or 6,463 MW, thermal accounts for 43.1 percent or 4,900 MW, followed by the IPPs 5,858 MW or 30.1 percent, KESC's (1,756 MW) or 9.0 percent and nuclear 462 MW of the total installed capacity.

The household sector has been the largest consumer of electricity, accounting for 44.3 percent of total electricity consumption, followed by industrial (29.1 percent), agriculture (12.8 percent), other government sector (7.3 percent), commercial (5.8 percent), and street lights (0.6 percent). [Percentages are 10 years average].

Nature has gifted Pakistan with tremendous natural resources. The estimated of potential hydel electricity is estimated to be approximately 41722 MW. Most of this lies in the North West Frontier Province, Northern Areas, Azad Jammu and Kashmir and Punjab. This abundant hydel potential is still untapped and needs to be harnessed.

Nuclear Electricity

Pakistan Atomic Energy Commission is the organization responsible for development of nuclear electricity in the country. At present, two nuclear power plants are in operation: one is Karachi Nuclear Power Plant (KANUPP) with a capacity of 143 MW, in operation since 1971. The other is Chashma Nuclear Power Plant with a capacity of 325 MW. It has been in commercial operation since September 15, 2000. The construction of CHASNUPP unit-2 is in progress This plant is expected to be completed in 2011.

The Government of Pakistan has approved an "Energy Security Plan" in 2005.The plan has been formulated in order to meet the increasing demand of electricity. According to this plan a nuclear capacity of 8,800 MW will be achieved by 2030. The plan envisages, to increase the share of nuclear electricity from 3.3 percent in 2004-05 to 8.0 percent in 2030.

China has already provided Pakistan the nuclear reactor (Chashma-I). Now China has agreed to provide another nuclear power plant—Chashma-II—which will be sited next to Chashma-I. It will take five years before Chashma-II becomes operational. In addition, Pakistan is in talks with Beijing to for more cooperation in this area.

Oil

Pakistan's oil refining capacity is 95.56 million barrels per year against the consumption of 109.35 million barrels. This gap has made import of refined oil an imperative. Pakistan is heavily dependent on oil imports. The import of crude oil for the year 2004-05 was about 61.87 million barrels, with value of 2,606 million US$. The import of petroleum products was 42.49 million barrels costing US$1,998 million.

Pakistan has a large and prospective basin for mineral oil (onshore and offshore) with sedimentary area of 827,268 sq. km. Presently, about 844 million barrels crude oil reserves have been discovered of which 535 million barrels have already been produced. A potential of total endowment of

hydrocarbons has been estimated as 27 billion barrels of oil and 282 trillion cubic feet of gas. Over 620 exploratory wells have been drilled by various national and international exploration and production companies. These efforts have resulted in over 177 oil and gas discoveries. Domestic production capacity of crude oil was 66,079 barrels per day during the year 2004-05.

Transport sector is the highest user of oil (61.5%), followed by power production (23.5%). Structure of oil consumption in other sectors during the year 2004-05 is as follows: agriculture (1.0%), industry (10.5%), domestic (1.3%) and government (2.2%).

Natural Gas

Natural gas was first discovered in 1952 at Sui in Balochistan province which is the most significant and largest gas reservoir in the country. So far about 52 TCF (trillion cubic feet) of gas reserves have been discovered, and out of this 19 TCF have already been utilized . Daily gas production during the year 2004-05 was about 3.7 billion cubic feet. The transporting, distributing and utilizing infrastructure for natural gas in Pakistan is well developed and integrated of with 9,063 km transmission and 67,942 km of distribution and service lines network.

The sectoral consumption of natural gas during the year 2004-05 was as follows: power (43.7%), fertilizer (16.4%), cement industry (1.2%), general industry (19.5%), household consumption (14.8%), commercial (2.3%) and Transport in the form of CNG i.e. compressed natural gas (2.1%).

The Trans-Afghanistan Pipeline

The Trans-Afghanistan Pipeline (or TAP) is a proposed natural gas pipeline being developed by the Asian Development Bank. The pipeline will transport Caspian Sea natural gas from Turkmenistan through Afghanistan, into Pakistan and the Indian Ocean. The Afghan government is expected to receive 8% of the project's revenue. TAP will be constructed alongside the highway running from Herat to Kandahar, and then via Quetta and Multan in Pakistan. The cost of this international

infrastructure is estimated at US$3.5 billion (2005 figures). Proponents of the project see it as a modern continuation of the Silk Road.

The deal on the pipeline was signed on 27 December 2002 by the leaders of Turkmenistan, Afghanistan and Pakistan and in 2005 Asian Development Bank submitted the final version of feasibility study designed by British company Penspen.

Compressed Natural Gas (CNG)

Pakistan has become the leading country in Asia and the third largest user of CNG in the world, after Argentina and Brazil (Pakistan Economic Survey, 2005-06). CNG is now fast emerging as an acceptable vehicular fuel in place of oil. Up to May 2006 930 CNG stations were operational in the country. About 200 more are under construction. It is estimated that by the end of April 2006, about one million vehicles have been converted on CNG as against 700,000 vehicles converted during last year, showing an increase of 43 percent. This industry has created 20,000 jobs. The small differential in the price of diesel oil and CNG, and several engineering and management problems related to conversion of bus fleets are two main obstacles. In order to address these problems, the government is working on a programme which will start initially in selected cities where CNG city-buses will be put on road. The programme will then be extended to cover other urban centres. The programme will also include infrastructure development and manufacturing of CNG buses.

Coal

Coal constitutes about 7.6 % of Pakistan's primary energy supplies. Total potential coal reservoirs of Pakistan are estimated to be around 185 billion tones. A major part of these reservoirs i.e. about 175 billion tonnes are located in Thar desert, This makes Sindh province the 5th largest single coal field in the world. Power generation offers a great scope for large scale utilization of coal. A power plant of 150 MW capacity is in operation in Sindh province using Lakhra coal. The structure of coal consumption during 2004-05 was as follows: Brick kilns (49.5%), Cement and other industry

(32.1%), Power (2.3%), Coke use (16.1%). The domestic sector could be made ready market for coal. An extensive campaign to utilize huge indigenous coal resource to meet ever-increasing national energy needs is on way.

Telecommunications

An efficient communication system is essential for promoting commercial exchange, fostering national integration and increasing regional and global trade. During the past years the communication technology has grown rapidly. In order to foster healthy competition, investment friendly environment and greater employment, the government has adopted liberalization and deregulation policies in the telecom sector.

The communication sector has grown rapidly in the past few years. The number of telephone lines available to each hundred persons (overall teledensity) rose to 35.40 percent in December 2006 from just 3.66 in 2001-02. Similarly, mobile phone density has reached 32.66 in January 2007. During first three quarters of 2005-06, foreign investment in the telecom sector has crossed US $ 1 billion.

Simplified licensing regime, Mobile Number Portability, licensing in AJ&K and NAs, mobile theft regulations and rural telecom development have contributed to the strong growth in the telecom sector. A new Class Value Added License (CVAL) regime has been introduced. under which more than 15 possible individual licenses have been merged into two distinct license categories i.e. Data type and Voice type. The PTA has initiated to licenses since 20th October 2005, issuance of CVAL has been initiated and several licenses has been issued under the new regime. Besides, existing value added service licenses are being converted into new CVAL licensing.

By the end of November 2006 there were six cellular companies having more than 46 million subscribers across the country.

ANNEX II : INVESTMENT OPPORTUNITIES IN PAKISTAN

Following are some potential areas where mutual investment opportunities exist.

Oil & Gas

- Onshore and offshore activities
- Exploration
- Production of explored wells
- Pipelines

Energy and Power

- Hydel
- Coal Based

IT Projects

- IT City
- IT Training Centers
- Call Centers
- Software
- Cell Phone
- E-Commerce

Agri & Agro-based Projects

- Corporate & Integrated Agriculture - Earth Moving & Leveling Equipment

- Water Conservation & Irrigation Equipment - Pesticides Manufacturing
- Livestock Farming - Cattle Feed
- Dairy Farming - Leather Products
- Sea Food Processing - Byproducts of Sugar Industry
- Cool Chains & Refrigerated Transportation - Frozen Concentrated Citrus Juice
- Agricultural Machinery - Mango & Guava Pulps and Juice
- Tomato Juice

Textiles

- Garments Industry
- Knitwear Industry
- Relocation of Industry
- Fire proof tents, carpets
- Value Addition & Quality Control

Infrastructure

- Urban Mass transit Projects
- Airports
- Port Facility
- Motor way

Waste Management & Recycling

- Water Supply
- Construction Projects

Industrial Infrastructure

- Development of Industrial Zones in Private Sector
- Industrial Development Centers for Capacity Building of SMEs

Health Projects

- Hospitals
- Diagnostic Centers

Mining & Minerals

- Thar Coalfield development
- Mining & Mineral Processing

  (Iron Ore, Coal, Lead, Zinc, Chromite, Dolomite, Natural Gas, Lime Stone Magnesite, Silica Sand, Gypsum Anhydrite, Bauxite, Gems)

- Steel Mill based on local Iron Ore

Privatization

- Oil and gas
- Information Technology (IT)
- Telecommunications

- Banking, Finance, Insurance
- Aviation
- Industries
- Power

Service Sector

- Departmental Stores (Chain)
- Insurance: Health, Crop; Cattle;
- Floods/Natural Hazards
- Flight Kitchens - Air Aviation

Tourism Projects

- Disneylands
- Beach Resorts (Karachi-Makran Coastal Highway)
- Hill Resorts
- Tourist Hostels/Complexes

Other Industries

- Automotive Parts
- Relocation of Electronic Industry (Home Appliance)
- Edible Oil

Afghanistan – Related Projects

- Rail link with Afghanistan and CARs
- Gas Pipeline from Turkmenistan through Afghanistan
- Industrial/Export Processing Zones (close to Afghan Border)
- Power export.

ANNEX III： PROGRAM LIST OF FIVE-YEAR PLAN FOR ECONOMIC AND TRADE COOPERATION

The plan is signed during President Hu Jintao's visit to Pakistan in November 2006, and the program list is issued in April 2007.

Sector	Projects	Type
Agriculture	1. Water Saving Irrigation and Technical Training (B)	Public/Private
	2. Seeding Technology Transfer and Production Base. (B)	Public/Private
	3. Pesticide (B)	
	4. Agricultural Technology Training (C)	Public/Private
	5. Fruit and vegetable Processing (D)	Public Private
Communication	6. Railway Locomotives and vehicles Technological Cooperation (A)	Public
	7. Urban rapid rail (B)	Public/Private
	8. Passenger Coaches Assembly (C)	Private
	9. Urban Traffic Signaling System (C)	Public/Private
	10. China-Pakistan Communication and Transportation Links (Roads, Railways, Oil and Gas Pipelines and Optic Fibre Lines) (D)	Public/Private
	11. Pre-feasibility Study for rail link between Havalian to Pak-China Border (D)	
	12. Karakoram Highway upgrading(A)	Public
	13. Gwadar Port development (B)	
	14. Technological Exchanges and Services(D)	Public

	15. Karachi Port infrastructure Development (D) 16. Port Qasim infrastructure development (D) 17. Urban Parking Facilities (C)	Public Public/Private Public Public Private
Education	18. Vocational and Technical Training(B) 19. Education exchange programs (including the Confucius Institute, jointly setting up colleges in Pakistan) (B)	Public Public
Energy	20. Wind-power cooperation(A) 21. Nuclear Power Generation (C) 22. COASTAL Oil Refinery (D) 23. Rajdhani 132-MW Hydro-power (A) 24. SHAHZAD Joint-Venture Power Station (C)	Public/Private Public Private Private Private
Environment	25. Urban Water Supply and Waste Water Treatment (C) 26. Urban Solid Waste Treatment (C)	Public Public/Private
Finance	27. China-Pakistan Joint Investment Company(A)	Public
Industry	28. Pakistan Haier Industrial Park (A) 29. Pramod-Qingqi Motorcycle Expansion(A) 30. Auto Production and Assembly(B) 31. Gwadar Port Energy and Economic Zone (D) 32. Industrial high-tech Parks and economic zones (D)	Private Private Public/Private Public/Private Public/Private

	33. Load vehicle production and assembly(B)	Private
	34. Manufacturing of Auto Parts (C)	Private
	35. CNG Gas Station Network (C)	Private
	36. CNG Bus Manufacturing (C)	Private
	37. Engro Chemical's 50,000–ton PVC Equipment and Supporting Facilities(D)	Private
	38. FATIMA Fertilizer(D)	Private
	39. ALNOOR Fertilizer(D)	Private
	40. TRANSASIA Engineering (D)	Private
	41. ENGRO Gas Power Station Construction(D)	Private
	42. Proposal for establishing Special Industrial Zones and High-Tech Parks in Pakistan (C)	Public/Private
Information Technology	43. ZTE (Pakistan) Technology Park Development (B)	Private
Infrastructure Development	44. Real State Development(C)	Private
	45. Large Shopping Centre (construction and running) (D)	Private
	46. Gwadar International Airport (C)	Public
	47. Proposal for Chinese participation in development and reconstruction of earthquake affected areas (C)	Public
Petroleum & Natural Resources	48. Punjab Kala Bagh Chichali Iron Mine Development (D)	Public
	49. Balochistan Dalbandin Iron Mine Development(D)	Public
	50. Balochinstan Nokkundi Iron Mine Development(D)	Public
	51. Balochistan and North West Frontier Chromium-Iron Development (D)	

	52. Thar Coal and Power (D) 53. LNG &LPG Cooperation(D) 54. Sonda-Jherruk Coal mine and Power Plant (C)	Public Public Public/Private Private
Telecommunication	55. Backbone Optic Fibre Transmission on Northern Pakistan (C) 56. Ufone mobile network expansion (A)	Public Private
Textile Industry	57. Chemical Fibre Production (D) 58. Viscose Fibre Production (D) 59. Textile Technology (D)	Private Private Private
Tourism	60. Gwadar Seashore Resort Development (D) 61. Mid to High-end Hotel (construction and running) (D)	Private Private

* **Categories:**

Category A is comparatively mature

Category B is Conditions well-placed and proactive follow-up possible

Category C is Prospective yet still under deliberation

Category D is Projects meriting further study on a priority basis

- The above list consists of Public and Private sector projects.
- The private sectors are in touch with the Chinese companies directly and not through the public sector.

ANNEX IV: FOREIGN CONTRACTUAL ENGINEERING COMPANIES – PAKISTAN

National Power Construction Corporation (NPCC)

Main area of operation during the last three decades had been Middle East with concentration in Saudi Arabia with contracts worth over US$ 600 million secured and completed.

National Engineering Services Pakistan (NESPAK)

It is registered with a number of international funding agencies such as IBRD, ADB, IDB, etc. To date NESPAK has undertaken 2,772 projects out of which 2,380 are domestic and 392 are overseas projects located in Afghanistan, Azerbaijan, Bangladesh, Bahrain, Benin, Cameroon, Chad, Dominica, Gambia, Ghana, Guinea, Iran, Iraq, Kazakhstan, Kyrgyzstan, Nepal, Nigeria, Oman, Qatar, Republic of Yemen, Saudi Arabia, Senegal, Sierra Leone, Somalia, Sudan, Syria, Tajikistan, Tanzania, Thailand, Turkey, Turkmenistan, UAE and Uzbekistan.