Challenges and Prospects of Japan-India Relations in Indian Development

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INTRODUCTION

Since 1991 when India implemented economic reforms, the country has come to enjoy service-sector-led high economic growth, spearheaded by the IT-BPO industry. Subsequently, the Indian economy has shown a more vigorous expansion, marking annual growth rates of 8-9 per cent during 2005-6 to 2010-11, followed by somewhat decelerated growth rates of 6.5 per cent in 2011-12 and 5.0 per cent in 2012-13. There remains much room to be improved in the area of industrial growth and infrastructure development for assuring a high-level sustainable growth trajectory. Consequently, the National Manufacturing Policy (NMP) was launched in October 2011 to expand the share of manufacturing in GDP to 25 per cent and creating additional 100 million jobs by 2022, especially through the creation of National Manufacturing and Investment Zones (NMIZs). The Twelfth Five Year Plan (2012-17) includes investment of US$ 1 trillion in infrastructure.

India and Japan are highly complementary economies that have yet to be fully exploited. Japan has abundant capital and is highly advanced in technological skills and product development whereas India is endowed with a huge market and abundant human resources. Japan is outstanding in terms of its manufacturing abilities, whereas India presents advantages in IT services and bioinformatics. India has conspicuously expanded its trade with East Asian countries under the Look East policy since the early 1990s, whereas Japan–India trade had apparently been left behind and remained far below the potential level.

A new tide has been observed in Japan-India relations since the mid-2000s: bilateral trade began to show a rising trend, followed by a vigorous expansion of Japanese investment into India, and Japan-India Comprehensive Economic Partnership Agreement (CEPA) coming into effect in August 2011. Particularly, the following two events require much attention. First, the Delhi-Mumbai Industrial Corridor (DMIC) project was launched, to which Japan has been deeply committed. Out of twelve NMIZs, eight are along the DMIC. Second, both countries entered into

the Strategic and Global Partnership in 2006, which provides a new dimension to the strengthening of Japan-India bilateral relations. The expansion of bilateral relations based on mutual complementarities is beneficial for both countries. It might contribute considerably to strengthen the Indian manufacturing and infrastructure base.

In this article, challenges and prospects of Japan-India bilateral relations are examined, addressing recent new developments in the fields of trade, direct foreign investment (FDI), IT offshoring, and human exchanges, and Strategic and Global Partnerships, with special reference to the DMIC project.

JAPAN-INDIA MERCHANDISE TRADE ON A MODEST GROWTH

Trends in Japan-India Trade

India is characterized by diversity in all respects. This diversity can also be seen in the array of exported goods and the line of its trade partners. The top 10 trade partners are not biased to a particular region, but are instead scattered across East Asia, North America, ASEAN, and Europe. Conventionally, India's largest trade partner was the US, but in recent years, the United Arab Emirates (UAE) and China have grown rapidly in importance, and the current top three trade partners are China, the UAE and the US. The US is still the largest trade partner when looking at trade in goods and services overall: India's service exports are extremely large, and its IT-BPO exports to the US easily exceeded US$ 40 billion in 2011-12.

Before World War II, India had been Japan's major trade partner, accounting for 10–15 per cent of Japan's foreign trade at least until 1937. Major imported products from India were cotton and pig iron. Japan made a remarkable success in its modernization, overcoming competition with India in textiles and steel. Even after the War, India remained an important trade partner of Japan, accounting for 2–4 per cent of trade until 1965. In the post-War era, iron ore replaced pig iron as a major imported product from India, and Indian iron ore played a critical role in the remarkable post-War development of the Japanese steel industry at least until Japan started to import iron ore on a large-scale from Australia and Brazil. Thereafter, under the closed inward-looking regime, India had been long struggling with stagnated industrial development and was largely left behind by the global tide. Japan, however, joined OECD members in 1964, and has ridden on the track of high economic growth, becoming an economic superpower. It was since these times that Japan and India became economically estranged from each other.

India's major trade partners in the 1950s had been the UK and the US; in the 1970s the USSR and Japan also became India's major trade

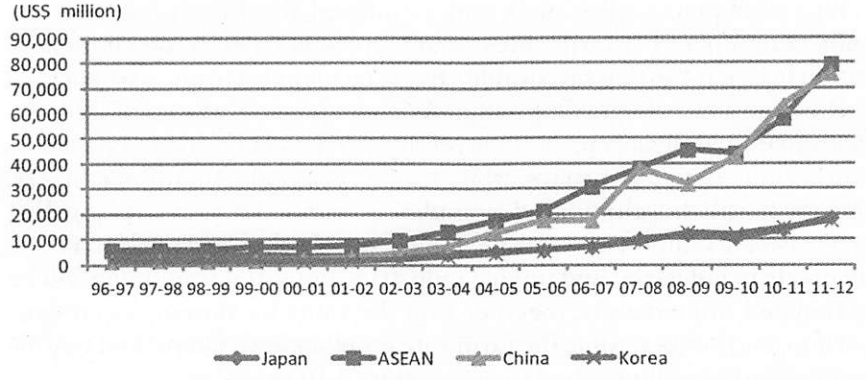
partners along with the US and the UK. This arrangement implied that before the early 1990s India's economic relations with East Asian countries had been generally weak except for those with Japan.

Along with the introduction of economic reforms in 1991, India adopted an outward-oriented policy to develop its own economy by making use of the tide of globalization. More specifically, India intended to strengthen economic ties with East Asian countries, an emerging global growth centre, under the Look East policy. Despite pursuit of the Look East policy, Indian trade with Japan has long remained stagnant.

Although total Japan-India bilateral trade amounted to US$ 4.19 billion in 1996-7, it had shrunk to US$ 3.64 billion in 2000-1 and US$3.66 billion in 2001-2 (Figure 1). It was only in 2003-4 that bilateral trade started to show an upward trend: US$ 5.36 billion in 2004-5, and US$ 18.44 billion in 2011-12. Improved bilateral trade, however, has been largely overshadowed in comparison to other bilateral trading relations such as those of India-ASEAN, India-China and India-Korea. India-Japan bilateral trade was surpassed by India-China trade in 2002-3, and even by India-Korea trade in 2005-6. In this connection, as of 2011-12, India-China and India-ASEAN trade have increased 4.1 times and 4.3 times, respectively more than that with Japan. Japan's share in all Indian trade has decreased from 5.9 per cent in 1997-8 to 2.3 per cent in 2011-12, along with a significant decline of Japan's rank in terms of total amount of trade from third to twelfth. India's share in Japan's total amount of trade, in contrast, remained less than 1 per cent during 2011-12.

Japan-India trade has almost constantly shown Japan's surplus, and sluggish bilateral trade was possibly a reflection of major commodities traded on both sides: imports from Japan were composed of, first and foremost, machinery and components, iron and steel products, consumer electronics, auto and components, precision instruments, and so forth, and India's exports to Japan exclusively concentrated on lower-value

FIG. 1. TRENDS IN INDIA'S TRADE WITH EAST ASIA



Source: Ministry of Commerce and Industry, Government of India, Export and Import Data Bank

added marine products and jewels and ornaments, of which commodities did not reflect current India's competitive and dynamic industrial structure. Recently, however, because of increased petroleum products from India, which are becoming the most important Indian export to Japan, Japan-India bilateral trade has shown signs of increasing since 2006-7 with an average annual growth rate of 21.6 per cent between 2005-6 and 2011-12. It must be noted that quite recently the annual bilateral trade showed a vigorous expansion of 33.3 per cent for two consecutive years in 2010-11 and 2011-12.

JAPAN-INDIA CEPA COMING INTO EFFECT

Since introducing economic reforms in 1991, the Look East policy has come to be advocated in India, and has been reflected in reality in the form of the Free Trade Agreement (FTA) or Economic Partnership Agreement (EPA) strategy. Under its omnidirectional diplomacy, India is widely involved in FTA/EPA negotiations with many countries and regions, but those which have been concluded and implemented to date are with countries/regions including Sri Lanka, Singapore, ASEAN, SAARC, Korea, Japan and Malaysia. The Japan-India CEPA/EPA came into effect in August 2011. It is still too early to appraise the effects of the CEPA on the movement of Japan-India trade, but it is quite likely that the CEPA provided certain favourable announcement effects on the subsequent expansion of the bilateral economic relations.

Tariffs were scheduled for elimination on 90 per cent of Indian and 97 per cent Japanese goods over ten years, compared with around 75 per cent of Indian goods in the case of India-Korea CEPA. Japan is expected to export more auto parts and steel products to India, and to import more agricultural and marine products from India.

Auto components, iron and steel products, electric and electronics parts, and general machinery are included in concessionary import items on the Indian side. For example, iron and steel products (cold and hot rolling steel plates, alloy steel, and galvanized sheet iron) are currently subject to 5 per cent tariff rates, which are scheduled to be eliminated within five years so that favourable effects on bilateral trade are expected in the near future. Regarding automobile components, the tariff rates for gearboxes and diesel engines, currently 12.5 per cent, will be reduced by half within six to eight years, while for electric and general machinery, the tariff will be eliminated completely within 10 years. Regarding concessionary import items on the Japanese side, the tariff rate for almost all goods in industrial and mining industries imported from India will be eliminated immediately, together with the rates for durian, asparagus, shrimp, and lumber, while the tariff rate for other agricultural and marine products will be diminished to zero within 7–10 years.

The treatment of generic medicine imported from India deserves

special attention. Previously, it had been actually quite difficult for India to export generic medicines to Japan, where many restrictive measures were instituted for the import of generic medicines. However, increased imports of generic medicines from India can be expected: the national treatment, on the side of Japan, is accorded for applications for registration and other approvals required for the release of generic medicine. Furthermore, some improvement has been made for the mobility of human resources, including Yoga instructors, English teachers, and Indian cuisine masters. It is expected that India–Japan bilateral trade will more than double to 25 billion by 2014 under the CEPA/EPA.

Before the Japan-India CEPA, India–ASEAN FTA had already come into effect in January 2010. India has increased its import machinery from ASEAN, with imports of parts or components showing a remarkable increase. Actually, in 2010, seven items out of the top ten imported machinery products comprised various machine-related parts, including semiconductors and thermionic tubes, office equipment parts, auto parts and components, internal combustion engines, and superheating/cooling equipment (Ushiyama 2012). This trend indicates that India has apparently incorporated itself increasingly into the East Asian regional production network, where large quantities of machine-parts are imported and exported within the region. Actually, according to a survey of the Japanese companies' activities in Asia-Oceania conducted by Japan External Trade Organization (JETRO), many Japanese companies located in Singapore and Thailand selected India as the most important country for their operations and export destination in the coming three years.[1]

It is noteworthy that while intermediate exports from East Asian countries to India have expanded, finished products exported from India destined to EU and the US have also shown a marked increase,[2] which indicates that India, while implementing omnidirectional diplomacy, has also been incorporated into the East Asian production network as an important production and exporting hub. It can be reasonably inferred that such a tendency will be accelerated when the Japan-India EPA comes to fruition.

NEW HORIZONS FOR JAPANESE INVESTMENT INTO INDIA

Trends in Japanese Investment into India

Throughout the 1990s, when India embarked on liberalization of foreign capital, the inflow of foreign capital was not particularly active, and India played second fiddle to the East Asian countries. However, with India's sustained high level of growth and the expansion of each industrial sector, its importance as an enormous market and as a production base has suddenly come to draw attention. Foreign Direct Investment (FDI), which had been trending at a scale of an annual average of US$ 4.0 billion in

the first half of the 2000s, jumped to US$ 15.7 billion in 2006-7. Portfolio investments also reached US$ 11.4 billion in 2003-4, and with some fluctuations, have continued an expansion trend.

It is in the field of investment rather than trade where we can witness a more dynamic trend in recent Japan–India economic relations. Japanese foreign direct investment (FDI) into India reached a peak of US$ 434 million in 1997, but it decreased after that in the wake of India's nuclear experiments in 1998. Japan ranked fourth, accounting for 8 per cent of the total accumulated volume of FDI inflows into India since April 2000 to March 2012. It was as recently as 2007 that Japan's FDI into India began to show conspicuous expansion. Japan's FDI into India increased to US$ 1,562 million in 2010-11 and further to US$ 2,972 million in 2011-12, ranking fourth after Mauritius, UK, and Singapore (Table 1).

Faced with stagnant markets in economically advanced countries and aggravated investment environments in China where wages are rising and industrial policies are becoming more restrictive and unpredictable for foreign companies, India has become more attractive in Japanese business circles. Until recently, Japanese companies had a negative image of India's investment environments that constituted a sense of 'psychological distance' from India. However, Korean companies' successes in gaining a large share of consumer electronics markets indicate that what Japanese companies identify as areas of concern, i.e. adverse investment environments, are not necessarily critical factors that would deter Korean or Singaporean companies.

Convinced, at long last, that India offers a huge domestic market and that it will grow to be a leading economic power, Japanese companies have committed to India increasingly. The number of Japanese companies in India has increased from 248 in January 2006 to 438 in January 2008, from 550 in October 2008 to 627 in October 2009, from 725 in October 2010 to 812 in October 2011, and further to 926 in October 2012 (Figure 2). A new trend is arising in Japanese investments into India, not only in the field of FDI, but also in the field of portfolio investment. Japanese investors have increasingly turned to weight Indian stocks in their financial portfolios via brokerage firms, thanks to a favourable expansion of the Indian economy. Given that domestic interest rates remain at low levels, Japanese investors are increasingly turning to foreign markets for their investment. Actually, Indian stocks are no less popular than Chinese stocks. Consequently, Japanese portfolio investment into India has increased conspicuously since 2005, although some reversal of trends has occurred under the global financial turmoil.

In fact, since the dawn of the twenty-first century, outward FDI by Indian corporations also exhibited a marked expansion as if to keep pace with the expansion in inward FDI. Indian outward FDI have kept recording more than US$ 10 billion since 2006-7. The destination of Indian outward

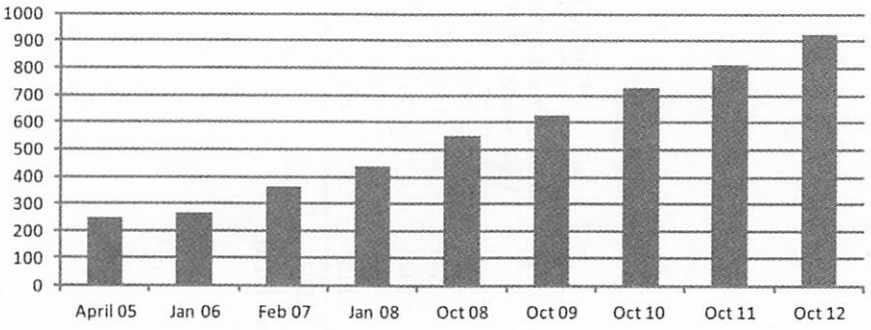
TABLE 1. SHARE OF TOP INVESTING COUNTRIES INTO INDIA: FDI INFLOWS

US$ million

Ranks	Country	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	Share of Total Inflows (April '00–March '12)
1	Mauritius	2,570	6,363	11,096	11,208	10,376	6,987	9,942	38%
2	Singapore	275	578	3,083	3,454	2,379	1,705	5,257	10%
3	UK	296	1,878	1,176	864	657	755	9,257	9%
4	Japan	208	85	815	405	1,183	1,562	2,972	7%
5	USA	502	856	1,089	1,802	1,943	1,170	1,115	6%
Total Inflows		5,546	15,726	24,579	27,309	25,834	19,427	36,504	

Source: Ministry of Commerce and Industry, Government of India, Fact Sheet of Foreign Direct Investment (FDI).

FIG. 2. NUMBER OF JAPANESE COMPANIES IN INDIA



Source: Japanese Embassy in India.

FDI is not limited to developing countries, but extends to advanced countries also, including the result of mergers and acquisitions to a large extent.[3] Regarding Indian FDI into Japan, it has remained quite limited, with a few exceptions among which Lupin's acquisition of Kyowa Pharmaceutical Industry in 2007 is included. However, it is expected to expand gradually under India-Japan CEPA especially in the fields of pharmaceutical and IT industries.

DEEPENING AND WIDENING OF JAPANESE FDI INTO INDIA

In the past, Japan's FDI into India had been lopsided in the automobile sector. According to the FDI inflow data released by the Government of India, the top sector receiving FDI from Japan during 1991 through 2005 was the transportation industry (60.4 per cent) with subsequent electrical equipment (7.2 per cent), service sectors – financial and non-financial – (3.7 per cent), ceramics (2.2 per cent), and textiles (2.0 per cent).[4] In recent years, however, not only automobile assemblers and auto-parts suppliers, but also other companies in various fields including steelmakers, pharmaceutical companies, and construction machinery producers have begun to make their presence known in India. Regarding the automobile sector, following Suzuki, all major Japanese assemblers have positioned India as the strongpoint for production of small cars and more recently Sport Utility Vehicles (SUVs) in their global strategy. Nissan and Toyota have newly released remarkably low-priced cars geared for emerging countries.

A firm presence of Japanese automobile assemblers and auto parts manufacturers strongly induces other companies engaged in steel production and logistics to come to India. All major Japanese steel producers have tied-up with their Indian counterparts to produce sheet

iron for automobiles or to set up blast furnaces in India, with Nippon Steel & Sumitomo Metal Corp. forming an alliance with Tata Steel, JFE with JSW Steel, and Kobe Steel with SAIL. Logistics companies, including Nippon Express, Hitachi Transport System and Itochu Corporation, have already begun operations in India, and shipping companies, including Mitsui O.S.K. Lines Ltd., are ready to engage with marine transportation of automobiles exported from India to Europe. In the construction machinery sector also, both Komatsu Industries Corp. and Hitachi Construction Machinery Co. Ltd. are now increasing their production in India.

Regarding the electronics appliances sector, where Japanese companies have lagged far behind Korean companies, Panasonic Corp. and Sony Corp. have become determined to make strenuous efforts to catch up with LG and Samsung with a firm commitment from top management. Panasonic Electrical Works, currently merged with Panasonic, succeeded in expanding its sales network by acquiring Anchor Electric in 2007. Panasonic has steadily expanded its share in the Indian electrical appliances market from less than 2 per cent in 2010 to 5-6 per cent in 2010, further aiming to expand its share from 10 per cent in 2012 to 25 per cent in 2018 to be the largest electrical appliances company in the Indian market. Sony, using its own production base in Malaysia, outstripped the Korean companies of LG and Samsung in the sale of flat panel display TVs in 2010. Sony has no factory in India, but it has set up its R&D centre in Bangalore. Daikin Industries Ltd., a global leader in the manufacturing of commercial use and residential air conditioning systems, is also successful in expanding its share in the air-conditioning market since it entered India in 2010.

Other promising and newly expanding areas for Japanese FDI into India include pharmaceuticals and products necessary for daily life. Currently, Japanese pharmaceutical companies are keen to establish strongholds in India, aiming to either strengthen their cost competitiveness or to enter the Indian market. Daiichi Sankyo Co. Ltd. acquired Ranbaxy Laboratories, the largest pharmaceutical company in India, in 2008. Eisai Co. Ltd. set up its manufacturing and research base in Andhra Pradesh. It is also noteworthy that many leading Japanese companies have newly started to enter into India in various fields of goods that are used daily, including foods, stationery, cosmetics, sanitary goods, and other products. For example, Kokuyo Co. Ltd. acquired the third largest Indian stationery company of Camlin in 2011 to accelerate its business expansion in the rapidly growing stationary market. Unicharm Corp. has set up its factory in Delhi in 2010 for expanding the sale of its care products in the Indian market.

Japanese financial institutions such as commercial banks, insurance and security companies, have also come to approach the Indian market

aggressively. This has never occurred before. Until recently, the Indian subsidiaries of Japanese commercial banks were so conservative and cautious that they used to furnish funds only to Japanese companies operating in India. However, given that infrastructural development projects require a huge capital demand and knowing that Indian companies are active in their fund-raising in global capital markets, Japanese financial institutions have come to recognize the Indian market as an important target, furnishing funds to Indian companies. For example, the Bank of Tokyo-Mitsubishi UFJ has announced intensification of its investment into India as a region of strategic importance, from the current 700 billion yen to 1 trillion yen by 2014, financing not only Japanese companies but also public enterprises related to infrastructural development. Mizuho Corporate Bank has announced a tie-up with International Finance Corporation to finance infrastructure projects, while Sumitomo Mitsui Banking Corporation has acquired a 4.5 per cent stake in Kotak Mahindra Bank in 2011. In the field of insurance, Tokyo Marine & Nichido Fire Insurance Group had already formed a joint venture with the Indian Farmers Fertilizer Cooperative Limited in 2000, while Nippon Life Insurance Company has recently signed a Memorandum of Understanding (MOU) to acquire a 26 per cent stake in Reliance Capital Asset Management. In the field of securities, Nomura Asset Management Co. Ltd. purchased a 35 per cent stake in LIC Mutual Asset Management Company, a subsidiary of Life Insurance Corporation of India (LIC) in 2009 to form a joint venture, while Mizuho Securities Co. Ltd. entered into a strategic alliance with Tata Capital to promote investment banking activities and securities businesses in 2010.

Last but not least, we can witness a surge of Japanese FDI into the field of infrastructure development in India. Poor conditions in infrastructure used to constitute the most formidable barrier deterring Japanese companies from investing in India, but currently the Japanese companies have come to find major business opportunities there. Deficient infrastructure translates into a huge demand for improvement in infrastructure. India intends to invest as much as $1 trillion into infrastructural development during its Twelfth Five Year Plan. Some Japanese companies are keen to be suppliers of mechanical equipment, including power plants for Ultra Mega Power Projects and rolling stock for the Dedicated Freight Corridor (DFC). Mitsubishi Heavy Industries set up two joint venture companies with Larsen & Toubro to produce supercritical pressure boilers and turbines in 2007, with Toshiba subsequently tying-up with Jindal South West (JSW) in 2008, and Hitachi with BGR Systems in 2010. As an episode showing its determination to be firmly committed to infrastructure business in India, Hitachi held the board meeting in Delhi in December 2012, which was the first overseas board meeting in its 102-year history. Hitachi plans 70 billion yen in

investment in India by fiscal 2015. Hitachi aims to increase its revenue in India from 100 billion yen in fiscal 2011 to 300 billion yen in fiscal 2015, and double its India workforce from current 6,800 to 13,000 in fiscal 2015. Power plants, railway-related items and desalinization plants are among Hitachi's production list in India. Currently, the Delhi–Mumbai Industrial Corridor (DMIC), with DFC as its core backbone, is among the priority areas of Japanese government-sponsored investment into India, along with the newly mooted Chennai-Bangalore Industrial Corridor (CBIC) in southern India. These government-sponsored schemes provide a strong impetus to Japanese FDI into the field of infrastructure.

THE DMIC PROJECT: NEW FRONTIER FOR JAPAN–INDIA COLLABORATION

The Contour of Dmic Project

The DMIC is a State-Sponsored Industrial Development Project, aimed at developing industrial zones spanning across six states along Western India. The idea of promoting the DMIC was endorsed at the Japan-India summit meeting when Prime Minister Manmohan Singh visited Japan in December 2006. It is an ambitious infrastructure project of US$ 90 billion, with financial and technical assistance from Japan. The Concept Paper was presented to both the Prime Ministers when Prime Minister Shinzo Abe visited India in August 2007. The vision of the DMIC is to develop the region as a 'Global Manufacturing and Trading Hub'. It envisages doubling employment potential in seven years, trebling industrial output in nine years, and quadrupling exports from the region in eight to nine years (DMICDC 2011). The Dedicated Freight Corridor (DFC) between Dadri in NCR of Delhi and Jawaharlal Nehru Port (JNPT) in Mumbai, stretching an overall length of 1483 km, constitutes the backbone of the DMIC. A band of 150 km to 200 km on both sides of the alignment of the DFC is designated as the Project Influence Area (PIA) for DMIC. The PIA accounts for 13.8 per cent of total geographical area and 17 per cent of the total population of India. Under the PIA, the idea is to create 24 special industrial nodes: 11 Investment Regions with a minimum area of 200 square km and 13 Industrial Areas with a minimum area of 100 square km, along with a 4000-MW power plant, three greenfield ports, and six airports. The special industrial nodes will incorporate Special Economic Zones (SEZs), logistic bases, power plants, well-developed roads, housing and commercial centres along the DFC.

DMIC Development Corporation (DMICDC) was established under the Indian government in January 2008. The mission of DMICDC is to make a selection of projects, taking charge of the master plan and detailed feasibility studies of each project and monitoring them. It is obligated to work in partnership with the state government housing the projects. During

his visit to India in December 2009, Prime Minister Yukio Hatoyama made a contract that Japan Bank for International Cooperation (JBIC) provide US$ 75 million for establishing the Project Development Fund (PDF) under DMICDC and signed a MOU that both JETRO and DMICDC cooperate together to promote the construction of smart communities. Furthermore, during his visit to India in December 2011, Prime Minister Yoshihiko Noda expressed the Japanese government intention to provide a 450 billion yen credit and JBIC finance for the DMIC project in the next five years, and also to dispatch Japanese experts to DMICDC.[5]

As of January 2011, as many as 30 early bird projects had been presented: nine from Japan and 21 from India. Finally, in October 2012 the Ministry of Economy, Trade and Industry of Japan presented 19 prospective projects for Japan's US$ 4.5 billion facility as a final proposal. Among them, the project of water desalination and water supply to Dahez SEZ in Gujarat by the consortium of Hitachi, Hyflux and Itochu was the first to be finalized in January 2013. The 19 projects named above include seven projects for power supply, five projects for railway (metro), five projects for water supply, one project for IT (logistics data bank business plan), of which six projects are intended for constructing environmental-friendly smart communities/eco-cities covering water supply and efficient energy management system. These 19 projects are expected to be completed within five years.

The DFC Project

As for the DFC project, as early as April 2005, Prime Ministers of Japan and India made a joint declaration for feasibility and possible funding of the dedicated rail freight corridors, with a view to provide a safe and efficient transportation system, running at the speed of 100 km/h. The Indian Railway's quadrilateral linking of the four metros, viz. Delhi, Mumbai, Chennai and Kolkata (Howrah) and their respective diagonals, viz. Delhi-Chennai and Mumbai-Howrah carry over 55 per cent of freight traffic. These routes are already overstretched under the situation that the rail borne traffic is growing at 16 per cent per annum. There is no other viable option for transporting bulk/heavy materials such as coal and steel than through railways. However the existing trunk routes of Howrah–Delhi on the East and Mumbai-Delhi on the West are highly saturated with line capacity more than 100 per cent (Gupta et al. 2010).

The feasibility report for both Eastern and Western Corridors was submitted by RITES Ltd. in January 2006. Dedicated Freight Corridor Corporation of India Limited (DFCCIL) was established as a 'special purpose vehicle' in October 2006, to construct and operate the two freight corridors: the Western DFC connecting the states between Haryana and

Maharashtra, and the Eastern DFC connecting the states between Punjab and West Bengal. According to a revised deadline set out in 2009, the project is expected to be completed by 2016-17. The project is to be financed in a maximum 2:1 debt-equity ratio. The Western DFC will be financed using a soft loan provided by JICA, whereas the Eastern DFC will be constructed through funds provided by the World Bank and Public Private Partnership (PPP). The Western DFC is designed for double-stack container operations, and containers will be driven by electric locomotives, although single-stack containers will be introduced into the Eastern DFC.

The Western DFC comprises three segments: (a) Dadri-Rewari, 140 km; (b) Rewari–Vadodara, 920 km; and (c) Vadodara-JNPT, 430 km. The construction work has been divided into Phase I (Rewari-Vadodara, 950 km) and Phase II (Dadri-Rewari and Vadodara-JNPT, 584 km). At the summit meeting in April 2005, Prime Ministers of Japan and India agreed that the funding offered by Japan would be made under Special Terms of Economic Partnership (STEP). The conditions of STEP loan require that at least 30 per cent of Japanese funding be used for the import of equipment and goods from Japan, and that all package contracts for the Western DFC must have a Japanese company as the prime contractor. At the subsequent summit meeting in 2008, it was confirmed that a 450 billion yen loan would be provided to the Phase I and that it was recommended that Phase II be commenced as early as possible.

The criticism arises that the DMIC, especially the Western DFC project, has taken too much time to take off. Indeed, many years have passed since the idea of the DMIC project was floated at the Japan-India summit meeting in 2005, but no major construction work had yet started by the end of 2011. Many factors are responsible for the delay of the DMIC project: some of them are traced to the Indian side, such as red tape, land acquisition problems, difficulties of coordinating the interests between six states, and so on. On the Japanese side, the most severe problem is a risk-averse behaviour among Japanese companies, especially in the field of civil engineering. The participation of Japanese major construction companies in the bidding is presumed to be indispensable to the Western DFC. Otherwise, it might be difficult to meet the requirements of sourcing 30 per cent of the contract from Japan as stipulated by STEP loan. Discouraged by bitter experiences in the Middle East and faced with unprecedentedly long distance track works at the DFC project, no major Japanese construction company dared to participate in the DFC project. It is surprising that STEP loans—tied loans in favour of Japanese companies—have contributed to the delay of the Western DFC against the background of a risk-averse behaviour among Japanese major construction companies.

Meanwhile, after a prolonged period spent for feasibility studies and

pre-qualification procedures, DFCCIL started to invite tenders for seven packages regarding the Phase I on design-build contract basis in late 2012. As of May 2013, Japanese companies had almost made a bid for each of all packages as the prime contractor. Japanese construction companies as well showed their interest in taking charge of the construction of bridges, although in certain packages competitive bidding did not take place because no plural Japanese companies made a bid there as the prime contractor in those packages. Following the MOUs which were signed between DFCCIL and the Japanese companies as prime contractors, construction works for the Phase I have finally started in 2013, which is strongly aimed to be completed by March 2017, followed soon by that of the Phase II. As for the share of the work, the Japanese contractors will provide electric locomotives, head hardened rail for the entire stretch of main line, points and crossings, and signalling system, whereas the Indian partners will take charge of most of other areas including civil, building and track works. As far as Phase II is concerned, remaining land acquisition problems loom largest, and it will get started after a two-year or three-year lag.

Implications of Additional Japanese Investment into India

Aside from the 450 billion yen loan to the Phase I of DFC, Japan has already pledged to provide a US$ 4.5 billion loan to the DMIC project. It is noted that the above loans are in addition to annual 200-50 billion yen Japan's ODA to India, which is the largest recipient of Japan's ODA since 2003-4. Looking at the slow progress at the DMIC, there is some movement among the Japanese side to place more expectations on the CBIC. Indeed, Japan has a plan to construct another DFC between Chennai and Bangalore, where many Japanese companies including Toyota and Nissan are already concentrated. Granted that the CBIC is a quite promising project, and there is much possibility that it can be more smoothly implemented compared with the DMIC, there is no reason to downgrade a huge importance of the DMIC, and every possible effort should be taken on the part of both Japanese and Indian sides to facilitate the project. Taking advantage of the DMIC project, Japan can tap an immense market in India's infrastructure development.

Taking railway for example, there is much room left for Japan to be committed to its modernization in India, including the Metro railway and the high-speed passenger corridor. The Metro connectivity railway between Ahmedabad and Dhorera is among the 19 DMIC projects of Japanese proposal. Japan has already left its footprint in Delhi Metro, which has credit of operating punctually and contributing to alleviate severe traffic congestion in Delhi. Japan's collaboration in Delhi Metro contributed to plant a new construction work culture in India: the concept

of 'safety' and 'the appointed time of delivery'. Japan has already been committed to metro railway projects on ODA basis not only in Delhi, but also in Kolkata, Bangalore, and Chennai. Further, an increasing number of large cities will introduce Metro rail system, in which possibilities of Japan-India collaboration can be highly expected.

High-speed passenger corridor is another promising area for Japan-India collaboration. According to the Ministry of Railway's white-paper Vision 2020, India has a plan to introduce high-speed trains to provide services at 250–350 km/h corridors at six corridors: Delhi-Chandigarh-Amritsar, Pune-Mumbai-Ahmedabad, Hyderabad-Dornakal-Vijayawada-Chennai, Howrah-Haldia, Chennai-Bangalore- Coimbatore-Trivandrum, and Delhi-Agra-Lucknow-Varanasi-Patna. Of the six corridors above, the Ahmedabad-Mumbai route within the DMIC is most likely to be India's first high-speed line from the standpoint of marketability, reflecting its high population density across a high-income region. Japan faces a severe competition with other countries in gaining an order, which is shown in the fact that the feasibility study was already conducted by French consulting company. Nevertheless, the Indian government places a high confidence on safe and punctual services of the Japanese Shinkansen (bullet train). At the summit meeting in November 2012 both the Prime Ministers, Singh and Noda agreed to consult on embarking on the Ahmedabad-Mumbai route.

IT OFFSHORING AND HUMAN EXCHANGES

Issues of Japan's IT Offshoring to India

The Indian IT-BPO sector maintains its status as a leading industry even under global recession. The year 2011-12 was a landmark year for the Indian IT-BPO sector as its aggregate revenue crossed US$ 100 billion, with an annual growth rate of 14 per cent. As a proportion of India's GDP, the aggregate revenue increased from 1.2 per cent in 1997-8 to 7.5 per cent in 2011-12. Exports (excluding hardware) continue to be the mainstay of the sector, accounting for over 78 per cent of aggregate revenue at US$ 69 billion. Its share in the total Indian exports (merchandise and services) increased from less than 4 per cent in 1997-8 to almost 25 per cent in 2011-12 (NASSCOM 2012). USA continues to be a dominant market, accounting for 62 per cent of the total for the Indian IT-BPO sector exports with UK subsequently at 16.9 per cent in 2011-12 (NASSCOM 2012).

Japan is globally ranked as the second largest IT services market with an estimated annual turnover of 100 billion. However, IT collaboration between Japan and India remains far below the potential level. For India, Japan accounts for less than 2 per cent of its total software and IT services exports. It was quite natural for Indian IT companies to target Japan as

a potentially important market. In fact, major Indian IT companies, including Tata Consultancy Services (TCS), Infosys, and Wipro have come to Japan since the early 1990s, but they are still struggling to penetrate the Japanese market.[6]

Japan is renowned for its manufacturing industries and hardware production. Today, however, hardware and software are merging, and the importance of software in the manufacturing industry has increased especially in leading-edge sectors, which signifies that Japan's strength in hardware manufacturing might decline without software development capabilities. As a matter of fact, Japan now faces an acute shortage of the quality IT engineers to meet these demands.[7] Such a phenomenon has become accentuated since 2007, when many IT engineers belonging to the baby boomer generation began to retire. Nevertheless, Japanese companies overall have failed to tap Indian IT capabilities sufficiently.

Generally speaking, Japanese companies are strongly inclined to pursue in-house procurement. There are many factors standing as obstacles against IT collaboration between Japanese companies and Indian IT vendors, which can be summarized as follows (Kojima and Kojima 2007). First and foremost, Japanese companies, under the so-called 'integral architecture' rather than 'modular architecture', usually start software development with loosely defined requirements and specifications and change them frequently to meet the quality levels and final configurations, which makes collaboration with foreign engineers or slicing off software merely for outsourcing purposes difficult. Second, ambiguous expressions (based on a tacit understanding) observed in requirements, specifications, and documents have caused severe problems including fatal errors when it comes to transmitting business requirements or technological specifications, if done with entities outside Japan. Third, Japanese companies have been deficient in clearly defined strategy for what is to be outsourced and how to manage the divide process. Fourth, Japanese companies tend to treat overseas IT vendors as their subcontractors: such 'client-subcontractor relationship' has long been the norm of the software industry in Japanese domestic outsourcing. IT vendors must learn the customer's unique and specific business technology and development technology and adapt everything to the customer's business environment, which must be hard for Foreign IT vendors to emulate. Fifth, successful offshoring requires good communication and comprehension capability on different background. Steeped in a monolithic culture, most Japanese are poor in understanding different cultures or multi-cultural contexts.

When looking offshore, Japanese people prefer to turn to China, although numerous advantages apply to using Indian IT capabilities. India enjoys good esteem in high-quality control/management capability, wide scope of IT skills covering open to mainframe environments and rich global

experience, and its intellectual property regulations are more reliable than those of China. According to the estimates conducted by PricewaterhouseCoopers (PwC) for the Japanese IT services market in 2008, in-house or in-land sourcing was decisively dominant, while offshoring accounted for only 3 per cent of the total IT services market. As for the destination of Japan's IT offshore investment, still 60 per cent of Japanese companies have outsourced to China and only 19 per cent to India (NASSCOM and PricewaterhouseCoopers 2008). Main reasons for Japan not using India fully include language barriers and cultural misunderstandings, scarcity of Indian residents in Japan, scarcity in globalized human resources on the side of Japan, and different software development styles—characterized as an *integral approach* rather than a modular one—including ambiguity in requirement specifications among Japanese companies.

While Indian IT companies are struggling to expand their activities for customers in Japan, we should not lose sight of new trends emerging in Japan-India IT relations. Faced with a stagnant domestic market attributable to declining birth rates, Japanese companies are under pressure to globalize their respective businesses. Because they must function globally to an increasing degree, it is increasingly becoming a natural choice for them to tie up with Indian IT companies or tap Indian IT capabilities directly by setting up their captive centres in India. For example, as recently as May 2012, Mitsubishi Corporation, Japan's largest trading company, set up a joint venture with TCS Japan. Mitsubishi has an intention to optimize its IT infrastructure for overseas offices deployed around the world by tapping the TCS knowhow and networks, while TCS aims to assist Japanese companies in globalizing their IT environments, thereby expanding the revenue in Japan from the current fewer than 100 million to 500 million within four to five years. It is no secret that Nissan, Japan's second largest automobile assembler, is already highly committed to tapping Indian IT capabilities. Nissan employs 2000 engineers at its Technology Centre in India, which would soon boost its ranking up to that of three other R&D centres in the USA, UK, and Japan in terms of its capacity to develop a whole new car. Nissan also deepens its relationship with TCS as a co-development partner. TCS provides IT support to Nissan's main development centres in the world by taking advantage of its Global Network Delivery Model.[8] Sony has already set up an R&D hub in Bangalore, which increased its employees by three times to 1000 in the past three years. With a view to consolidate its global IT system, Sony decided to reallocate its IT operation services from Japanese IT vendors to Indian IT vendors in 2012.

Japanese IT giants have been following the closed *keiretsu* model, resting on the top of a multi-layered subcontracting system. However, under the necessity of either reducing their operating costs or responding to the

needs of their clients by expanding their focus globally beyond Japan, Japanese IT giants, including NTT Data, NTT communications, Fujitsu and NEC, have set up their IT centres in India. For example, both NTT Data and Fujitsu have come to hold 4000-5000 IT engineers in their IT centres through the acquisition of American IT companies. Even in the case of Japanese subsidiaries of IBM and Accenture, they are increasingly turning to Indian IT resources through offshoring to their Indian counterparts.

Challenges for Human Exchanges

The promotion of human exchange is vital for the improvement of mutual understanding and thereby consolidating further expansion of Japan-India relations. It is noteworthy that there are as many as 3 million Indian-Americans, most of whom are professionals, playing an indispensable role in deepening and cementing ties between India and the USA. Regrettably, the level of people-to-people exchange between India and Japan is far from satisfactory when viewed from any perspective, which presents a remarkable contrast with that between Japan and China (Table 2). Regarding the level of student exchange, it must be noted that the number of Chinese students studying in Japan amounted to almost 87,573 in 2011, while Indian students were only 573: they are even outnumbered not only by Bangladeshi and Sri Lankan students staying in Japan, but also by Indian students staying in China.[9] Improving scholarship and Japanese language training schemes for Indian students, increasing the number of lectures given in English at Japanese universities, and providing attractive career paths for Indian graduates to apply for expanded employment opportunities in Japanese companies are urgently necessary to attract more Indian students to Japan.

Table 2. Human Exchanges among Japan, India and China

Categories (A)	Japan-India (B)	Japan-China (C)	Ratio (C)/(B)
Number of Japanese Visitors (2010)	170,000	3,710,000	1/23
Number of Foreign Vistors to Japan (2010)	70,000	1,410,000	1/20
Number of Foreign Students in Japan (2011)	573	87,533	1/153
Number of Japanese Residents (2009)	4,000	127,000	1/32
Number of Foreign Residents in Japan (2010)	22,497	687,156	1/30
Number of People Learning Japanese Language (2009)	18,000	827,000	1/46
Sister/Friendship Cities (2010)	5 pairs	337 pairs	1/67
Number of Direct Flights (Summer 2010)	17 per week	556 per week	1/33

Source: Japanese Embassy in India

We must also devote attention to the fact that current human exchanges between Japan and India are lagging behind even those of India and Korea. The number of Indian visitors to Korea and vice versa amounted to around 70,000 in 2009, and the number of Korean residents in India amounted to 8,518 in 2010, almost two times the number of Japanese residents in India in that year (Kabe 2012). Furthermore, we must incorporate consideration of the temporary aftermath of the Great Eastern Japan Earthquake in March 2011, which reduced the number of Indian IT engineers working in Japan from around 15,000 to 7,000. Many Indian IT engineers have not yet returned to Japan.

Currently, Japanese companies are desperately in need of young people who are qualified in promoting businesses in emerging economies. Some Japanese MNCs, including JFE, IHI, and Toshiba, which fully recognize the necessity of globalized personnel to brush up their English communications skills and enhance multicultural understanding, have started to send a certain number of their employees to India for training.

Strategic and Global Partnership

What is noteworthy in recent Japan-India relations is that bilateral strategic dialogues covering security issues are steadily advancing *pari passu* with the expansion of bilateral economic relations. Japan froze grant aids for new projects (except for emergency, humanitarian and grassroots assistance) and suspended yen loans for new projects when India conducted nuclear tests in 1998. It was the visit to India by Prime Minister Yoshiro Mori in May 2000 that marked a starting point for subsequent improvement of bilateral relations. It is noteworthy that the 'Global Partnership between Japan and India' was launched, which confirmed that the two countries would work together by pooling their strengths and expertise not only to benefit their mutual national interest but also the remainder of the world.

Later, at the time when Prime Minister Junichiro Koizumi visited India in April 2005, the 'Japan-India Partnership in a New Asian Era' was launched, keeping an eye on reinforcing the strategic focus of the global partnership between the two countries. The Eight-fold Initiative was confirmed in the above Partnership for realizing the full potential of their partnership.[10] The Eight-fold Initiative is quite important in terms of providing far-reaching and detailed directions for the subsequent expansion of Japan-India relations. Japan, wishing to take more weight on the 'ASEAN+6' framework for an Asian Economic Community rather than the 'ASEAN+3 (Japan, China and Korea)' framework as promulgated by China, succeeded in inviting India along with Australia and New Zealand as the founding members of the East Asian Summit when it was formed in Kuala Lumpur in December 2005.

At the summit meeting between Prime Ministers Singh and Prime Minister Abe held in Tokyo in December 2006, the 'Joint Statement Towards Japan-India Strategic and Global Partnership' was announced. It is noteworthy in the joint statement that to establish a Strategic and Global Partnership between the two countries, the importance of political, defence and security matters was reaffirmed along with comprehensive economic partnership, science and technology initiative, people-to-people exchanges, and regional and multilateral cooperation. It was confirmed that both prime ministers would visit each other every other year. India is the first case for Japan to make an official promise of mutual visitation, while for India it is the second case after Russia. Since then, along with the prime minister's mutual visitation, strategic dialogue by foreign ministers, national security dialogue by defence ministers, and other various ministerial levels of exchange including economic policy dialogue between Japan's Minister for Economy, Trade and Industry and India's Minister for Industry and Commerce have been held annually. Current governmental exchanges might represent the most active period ever in the history of Japan–India relations. Based on a strategic partnership, both governments have come to forge close cooperation in economic and national security spheres.

The Japan–India Strategic and Global Partnership have gained much importance against the background of geopolitical change in Asia triggered by China's emergence. India had frosty relations with China after the 1962 border war, but since the beginning of the twenty-first century, thanks to its pragmatic diplomacy, India's economic relations with China have been showing a remarkable expansion. At the same time, China's advancement into the Indian Ocean under so-called 'string of pearls' strategy caused some concern in India. Japan–China relations have become strained over the rightful possession of the Senkaku Islands under Japanese administration. The September 2010 Senkaku incident, namely, the collision of a Chinese trawler with Japan Coast Guard' patrol boats, with China's subsequent announcement of embargo on the export of rare earths to Japan left a strong impression to Japan: Japan imports 80 per cent of its total rare earths from China. The eruption of anti-Japanese movement in September 2012 and the frequent invasion of Japanese territorial waters around the Senkaku Islands by Chinese patrol boats have complicated the management of bilateral relations with China.

Given that China will undoubtedly increase its presence as a big player in a global basis under the one-party rule of the Communist Party, it will be increasingly necessary to guide China to take action in accordance with the rules of international community. In this sense, it is important to strengthen partnerships among the leading democratic powers, i.e., bilateral Japan-US and Japan-India relations, and also the trilateral Japan-US-India relation.

Prime Minister Noda's visit to India in December 2011 strengthened bilateral relations in the fields of economy and national security. The joint statement announced then underscored the growing importance of India–Japan Strategic and Global Partnership. In the field of security issues, primarily to preserve sea lanes in the Indian Ocean, both governments agreed to conduct joint military exercises between the Indian Navy and the Japanese Maritime Self-Defence Forces, with the intention of coping with troublesome piracy off the coast of Somalia and the growing Chinese influence in the Indian Ocean. In fact, maritime joint exercises started in 2012. Regarding rare earth minerals, which are critical resources especially for high-tech industries, the Japanese government has reached an agreement with India, the second largest producer after China, to launch a collaborative development project which will help Japan alleviate negative effects of overdependence on China. In the economic sphere, both leaders signed an agreement to increase the maximum dollar currency swap arrangement five times up to 15 billion from previous limits, which is expected to mitigate negative effects of the weakening Indian rupee. Both governments also agreed to make every possible effort to restart negotiations for the Japan-India Nuclear Agreement that was suspended following the unexpectedly severe accident at the Fukushima No. 1 nuclear plant caused by the Great East Japan Earthquake in March 2011. India places high expectations on Japanese nuclear technologies because it has the intention of expanding nuclear generation with a view to diversification of its energy sources.

Furthermore, as already described above, the Japanese government pledged to offer a total amount of US$ 4.5 billion in loans in the next five years for implementing the DMIC project, and expressed its intention to cooperate with the Chennai–Bangalore Industrial Corridor. Prime Minister Singh welcomed the desire expressed by Noda that Japanese technology be used for future high-speed railways in India. It is important to note that such a gigantic scheme can be realized only amidst steadily progressing formation of the Japan-India strategic partnership.

CONCLUSION

India used to be an important trade partner for Japan before World War II, and later during the 1950s and the first half of the 1960s. Thereafter, India came to struggle with stagnated industrial development under the closed inward-looking regime, with Japan and India becoming economically estranged from each other. Along with the introduction of economic reforms in 1991, India adopted an outward-oriented policy, but India–Japan trade showed no favourable expansion and came to lag behind India's trade with ASEAN, China, or Korea. It is only after 2003-4 that

bilateral trade started to show an upward trend. It is expected that the Japan-India CEPA coming into effect in August 2011 can give further momentum to its expansion.

It is in the field of FDI where a more dynamic trend is taking place in recent Japan-India economic relations. Japanese FDI into India is widening and deepening. In the past, it was lopsided in certain manufacturing sectors including automobiles and electrical appliances, but it has recently expanded widely into other areas, including financial services and infrastructure. The expansion of Japanese FDI into India is highly anticipated to bolster the Indian manufacturing sector by bringing a high-quality production base and upgrading the skill-level of labourers. The tide of Japanese FDI into India is apparently irreversible. Currently, Japanese companies are at the crossroads. Faced with stagnant markets in Japan, many Japanese companies are under pressure to go global, devoting great attention to rising economies. With investment risk in China rising under wage hikes and precarious bilateral Japan–China relations, India is becoming another promising candidate as a favourable investment destination.

Japan and India entered into a Strategic and Global Partnership in 2006, which marked a new era in the bilateral security as well as economic relations. After many years of preparation, the construction works of the DMIC/DFC project have finally started in 2013. It is no exaggeration to say that the DMIC project could not take shape if it were not for the framework of Japan-India Strategic and Global Partnership. The summit meeting taking place every year under the framework of Strategic and Global Partnership has been instrumental in confirming and enforcing the Japanese commitment for the DMIC/DFC project. The greatest efforts possible should be taken under the PPP basis on both sides to fructify an unprecedentedly large-scale DMIC project along the right lines. Many challenges lie ahead in the areas of land acquisition, coordinating projects among six states, and streamlining permits and clearances.

As for Japan-India IT collaboration, Indian IT companies have not been successful in tapping the Japanese market because of language barriers and the inclination of Japanese companies tilted toward in-house procurement. Recently, under the pressure to globalize their business, there is a growing tendency among Japanese companies to reach out to India not only to tap Indian IT capabilities but also to enhance their intercultural skills. However, as exemplified by the number of student exchanges, Japan-India people-to-people exchanges are still extremely limited, which constitutes a missing link for additional expansion of bilateral relations. To consolidate Japan-India collaboration further and bring huge benefits for both countries, people-to-people exchanges should be promoted using every possible channel.

NOTES

1. To put it more precisely, in the case of Japanese companies located in Thailand (644 companies replied), India ranked first (21.8 per cent), followed by Japan (14.4 per cent), and Indonesia (14.3 per cent); in the case of Japanese companies in Singapore (141 companies replied), India ranked first (28.4 per cent), followed by Indonesia (19.9 per cent), and China (12.8 per cent). See JETRO 2010.
2. Intermediate products exported from East Asia to India had been expanding from US$ 5.89 billion to US$ 41.89 billion during 1999–2009, while finished goods exported from India to EU and the USA increased from US$ 5.89 billion to US$ 19.67 billion, and US$ 5.47 billion to US$ 11.88 billion, respectively. See Ministry of Economy and Industry 2011, p. 101.
3. During the period 2004-9, FDI in the US by Indian corporations included 127 cases of Greenfield investment totalling US$ 5.5 billion and leading to 16,586 jobs. See Jain and Jain 2010.
4. See Governments of Japan and India, 2006, Chapter 4.
5. JBIC was allotted a 26 per cent stake in DMICDC in August 2012.
6. The major India IT companies set up their subsidiaries in China later than Japan, where they have a much larger presence than in Japan. Taking the example of TCS, its employees in Japan still amount to fewer than 500, while its employees in Chinese subsidiaries exceeded 1500 in 2011.
7. According to a survey made by the Information-Technology Promotion Agency of more than five hundred IT companies in Japan, the percentage of those IT companies which felt a quantitative shortage of IT engineers declined from 75.6 per cent in 2007 to 48.8 per cent in 2008 attributable to the recession triggered by the Lehman shock, but as many as 87.0 per cent and 84.5 per cent of them acknowledged a qualitative shortage of IT engineers in 2007 and 2008, respectively. See Information-Technology Promotion Agency 2010.
8. The Global Delivery Model is TCS's industry benchmark that allows the Company to deliver services seamlessly and uniformly to global customers from multiple global locations in India, China, Europe, North America and Latin America.
9. Indian students accepted in China were already as numerous as 5,694 in 2006. Currently it is estimated to increase to around 9,000, including numerous students studying in medical courses. Indian medical candidates chose to study in China, attracted by lower education fees and wider entrance acceptance.
10. The Eight-fold Initiative includes the following items: (1) enhanced dialogue and exchange, (2) comprehensive economic engagement, (3) enhanced security dialogue and cooperation, (4) science and technology initiative, (5) cultural and academic initiative and strengthening of people-to-people contacts, (6) cooperation in ushering a new Asian age, (7) cooperation in UN and other international organization, and (8) responding to international challenges.

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