Indo-American Chamber of Commerce

IACC

Apex bilateral Chamber for Indo-US business

September 2015

Indo-US trade: Mission 500 billion USD

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Foreword

US President Barack Obama's visit to India in January 2015 has been hailed by India and the US as a sign of the two largest democracies recognising the need of a stronger strategic partnership and the dawn of an era of economic cooperation and growth.

Our report 'Indo-US trade: Mission 500 billion USD' is driven by the belief that India and the US can create economic opportunities and build shared value for the citizens of both countries. While the two nations are currently riding a wave of momentum created by the two governments, the corporate sector can play a pivotal role in trade relations by focussing on attractive sectors, supporting small and medium-sized enterprises (SMEs) and enabling technology transfers. Additionally, the people-to-people connect between the two countries will be instrumental in taking this partnership to the next level, with an amalgamation of culture, values, and skills.

PwC's analysis of key sectors such as aerospace and defence (A&D), infrastructure and logistics, energy, services and manufacturing suggests that breakthroughs in existing methods and new solutions are possible and are required across sectors. The report also outlines how both governments will need to overcome challenges, including India's ease of doing business (EODB) and the restrictive visa policies of the US.

The world's largest economy and one of the world's fastest-growing economies are poised to create the economic partnership of the decade. At PwC, we are excited and energised by this opportunity and the mutual advantages that can benefit businesses and people of both counties. Like other journeys, this journey too will come with its set of challenges and there is no guarantee of success. But, with focussed efforts, we believe a 500 billion USD trade partnership is achievable within the coming decade.

As a global business with a 165-year history and almost 2,00,000 employees worldwide, PwC is committed towards playing its role in enabling growth in Indo-US trade relations.

Shashank Tripathi
Strategy& Consulting Leader
Pricewaterhouse Coopers India

Executive summary

Creating a 500 billion USD Indo-US trade relation

India continues to emerge as one of the most important markets in the developing world and an important trading partner for the US. This is evident by the fourfold growth in India–US trade since 2006 to 100 billion USD in 2014. However, enormous headroom exists to unshackle the real potential of the trade and develop and strengthen strategic relationship between the two nations through trade. This is increasingly important, since in the new world order, economic interests drive strategic partnerships to the mutual benefit of the world's largest and oldest democracies.

India and the US already have a multipronged strategic relationship. This paper posits that to achieve the ambition of 500 billion USD trading relationship, concerted efforts are required from all stakeholders—government leaders and investors, corporates, businesses and entrepreneurs.

Our analysis suggests that the 500 billion USD trade has to be built on three pillars—India and the US developing a common foundation on common themes, facilitation of trade led by the respective governments, and finally, corporations and entrepreneurs taking up the mantle of leading the way as new channels of doing effect value-driven business open up. These pillars need to be enabled by technology and citizen-to-citizen outreach, creating a strong and lasting foundation for this new trade order, supporting the three pillars.

Some of the key challenges in achieving this goal include India's poor record in the ease of doing business (EODB) ranking and speed of decision-making as well as the US government's restrictive visa policy and restrictions on technology transfer. To overcome these challenges, Indian and US governments need to improve the business environment, provide tax incentives and simplify regulations. Positive signs are already emerging with the government's focus on the Make in India initiative, bilateral shared forum on manufacturing, and the India-US CEO Forum. Through various interactions with industry leaders from the US and India, there is a keenness to explore areas of mutual interests.

The drivers of success cut across five key sectors that will be responsible for driving the Indo-US trade perspective—aerospace and defence (A&D), infrastructure and logistics, energy, manufacturing and services. These sectors are of the utmost importance to the Indo-US relationship. For instance, trade in the energy sector is expected to rise with India's growing natural gas imports and the US having a surplus of shale gas. GAIL has signed a 20-year sales and purchase agreement (SPA) with Sabine Pass Liquefaction LLC, US, for the supply of 3.5 million tonnes of liquefied natural gas (LNG) per year. In each of these sectors, in addition to the facilitation of trade by the government, the corporate sector can lead the way into the evolving trade relationships. Successful examples such as Boeing can provide us with a new impetus for building a flexible, adaptable and sustainable trading ecosystem.

India and US have a unique opportunity to build a strategic relationship through shared economic interests built over a strong foundation of shared democratic values, which has a potential towards solving some of the most critical problems faced by industry, governments and people across the globe.

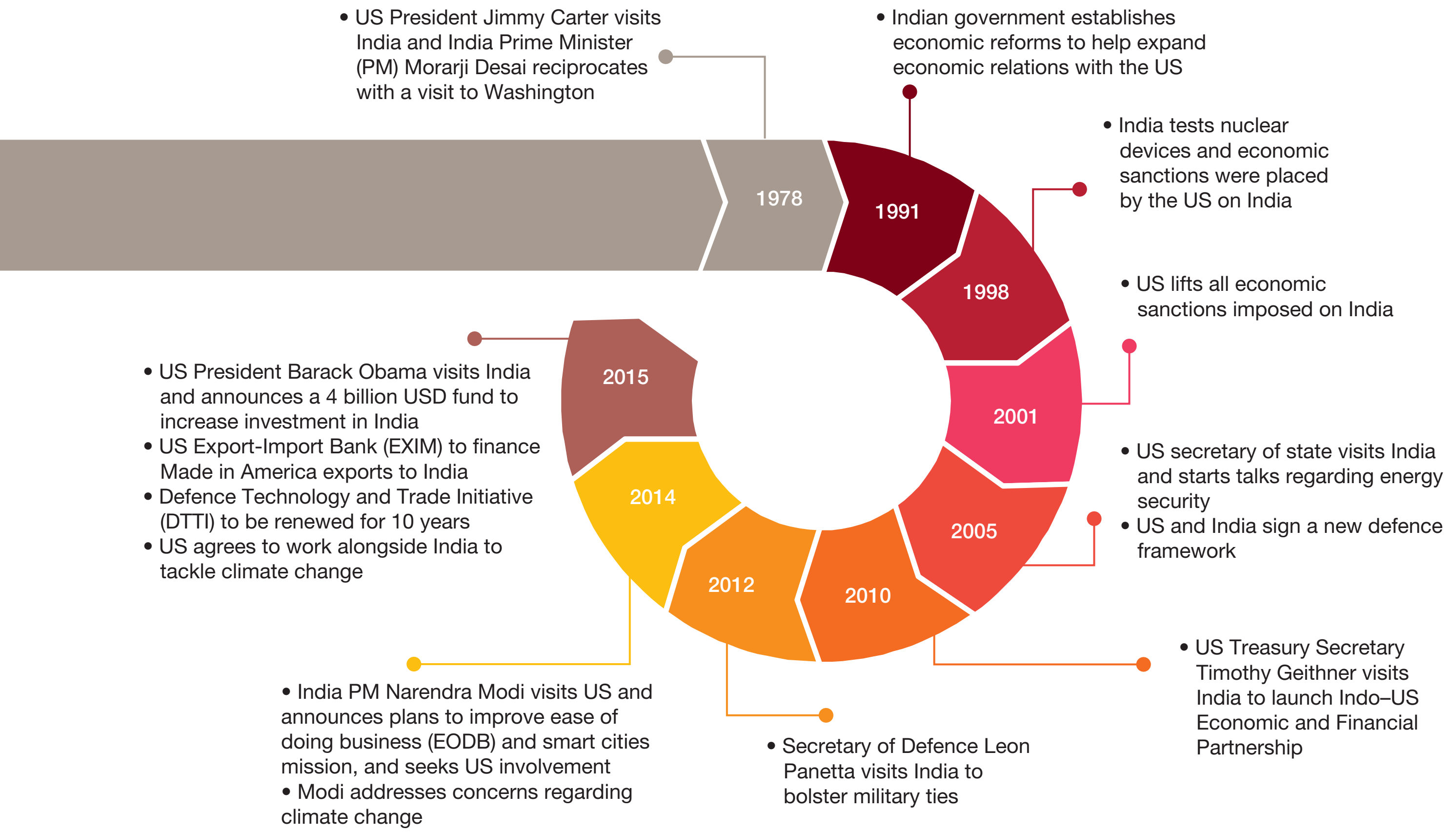
1 Background

India and the US, the largest and the oldest democracies in the world, are natural allies. Both countries are aligned on the subject of economic growth and the foundation of each is built on shared common values. The Indian democracy has sustained a heterogeneous, multilingual and secular society, as in the US. The two countries have common vital national interests in supporting one another in the global war on terror and undercutting terrorist organisations. Those in India are as attentive as those in Washington about the implications of the rise of China. On major issues connected to vital national interests and the values of liberty, India and the US will find it natural to stand together in the years to come.

The US has supported India during its formative years post-Independence. It was a leading trade partner for India in the 1950s and early 1960s. The alliance further strengthened on the political front when US President Jimmy Carter visited India in 1978. However, this relationship has not been able to reach its full potential. After India conducted underground nuclear tests in 1998, US President Bill Clinton imposed economic sanctions on India leading to mistrust between the two countries. The situation eased in 2001 when the George W Bush administration lifted all the sanctions. In 2005, the countries signed a civil nuclear agreement for peaceful nuclear cooperation. The relationship between the two countries has grown since then, evident by the fourfold growth of bilateral trade since 2006 to 100 billion USD in 2014. Both the governments are now keen and committed to further improving trade relations. The time is ripe for a new ambition to be set in its trade relations.

History of Indo-US relations

Indo-US relations (1978-2015)



Source: Public information

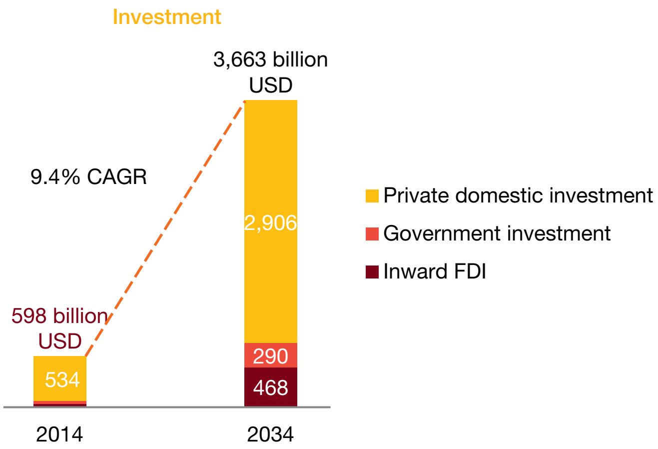
1.1. India's winning leap

India is currently a 1.9 trillion USD economy and is the world's third-largest economy after the US and China in terms of purchasing power parity. It has also gained the tenth position in nominal dollar terms. This has been possible due to the robust growth of 7.5% over the last decade which has made India an important player in the global economy. With the second-largest consumer base globally, the country has taken centre stage amongst its BRIC peers. The nation's strong services sector, consumption growth, demographics, engineering and technological prowess has earned it a special position among its global counterparts.

A measure of India's potential can be seen in the 'Future of India: The winning leap' report, which states that improvement in India's economy and human development metrics can catapult it to becoming a 4.9 trillion USD economy by 2025, and eventually a 10 trillion USD economy by 2034, growing at 9% CAGR. [1] This will be accompanied by a growth in gross domestic product (GDP) per capita from its current level of 1,490 USD to 6,800 USD by 2034.[2]

Key levers for India to achieve a 9% compound annual growth rate (CAGR) GDP growth include trade and investment; around 1.6 trillion USD worth of investment will be required by 2025 and 3.6 trillion USD by 2034 for India to transform into a 10 trillion USD economy. An important share of this investment will need to come from international sources investing in new technologies and setting up global research and development (R&D) centres in India. Foreign direct investment (FDI) inflows to India rose by 26% in 2014 to an estimated 35 billion USD. Companies in the US are looking at India with an increased interest. Google plans to invest 234.3 million USD for a new campus in Hyderabad and Walmart has planned to expand to 500 stores across India in the next 10-15 years from the current 20.

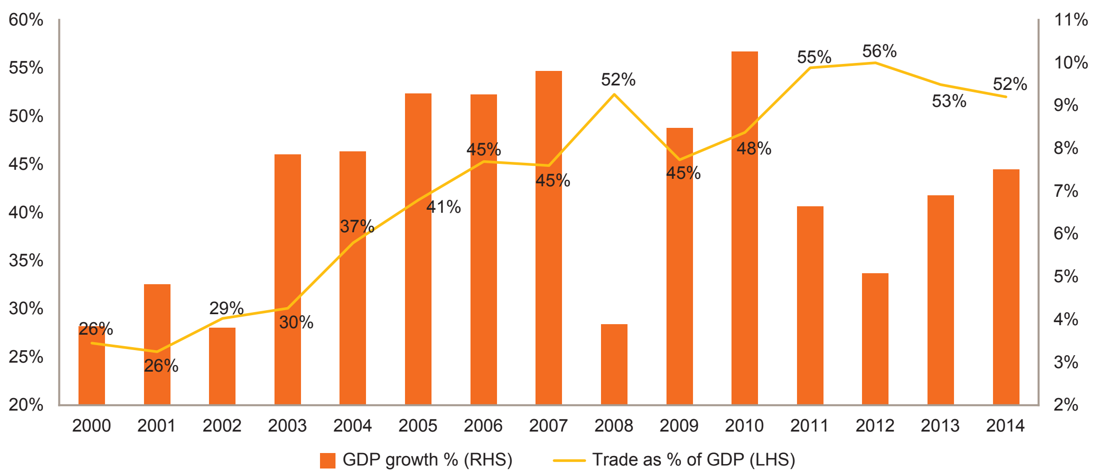
India's growing investment need in 2034



Source: PwC's Future of India report

Growth in investment will also boost the trade relationship India has with other countries. Higher investment in a country has a symbiotic relationship with trade. Historically, trade has been one of the key enablers in India's GDP growth. Trade as a percentage of GDP has increased from 26% in 2000 to 53% in 2013.[3]

GDP growth with trade as percentage of GDP-India (2000-2013)



Source: The World Bank

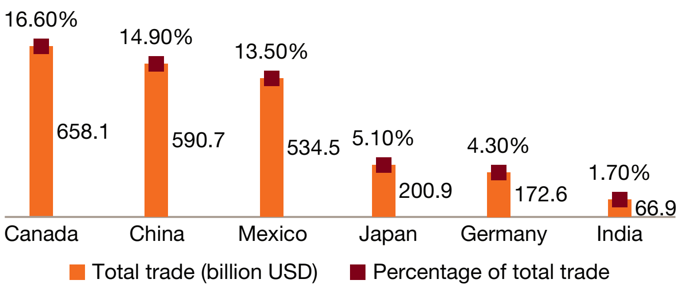
1.2. World's largest economy, the US

The US is the world's largest economy with a GDP (at current prices) of 17.4 trillion USD, contributing 23% to the global GDP in 2014. Going forward, it is expected to grow at a stable annual rate of 3-4%.

The US is also one of the largest trading nations worldwide with total exports of 1.6 trillion USD and imports over 2.3 trillion USD in 2014.[4] It has 120 exports destinations and 210 imports partners. This is backed by various trade agreements that the US has entered, which has helped the country grow its trade.

The US trade landscape has shifted from developed to emerging markets, whose contribution to the total US trade increased from 36% to 46% during 2000-2014. Currently, Canada, Mexico and China account for 45% of the US's 3.9 trillion USD trade. However, it is looking to diversify its trade partners and reduce dependence on a single economy.

US trade relations: 2014



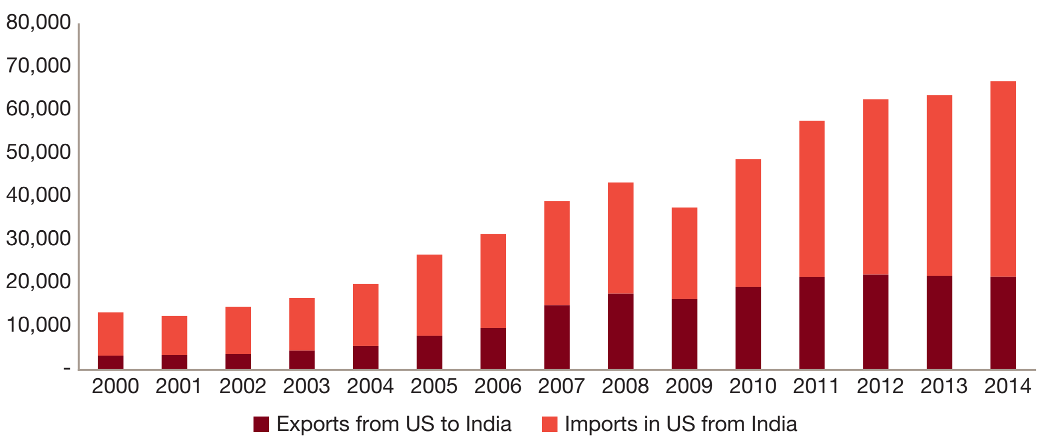
Source: United States Census Bureau

1.3. Indo-US trade relations

Indo-US trade in goods and services has crossed the100 billion USD mark and currently stands at 103 billion USD. Service trade between India and the US has grown 930% since 2002 and was estimated to be around 34 billion USD in the year 2013-2014, while merchandise trade grew at approximately 450% in the same period.

Merchandise trade

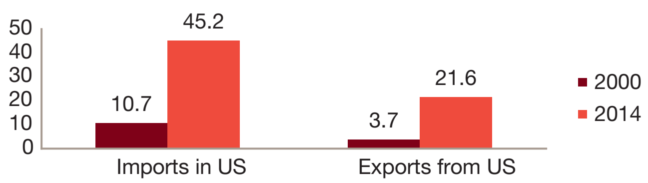
Growth in Indo-US merchandise trade (million USD)



Source: Export-Import Bank (EXIM)

Merchandise trade between India and the US has grown almost 5.5 times in the past 15 years. The general trend has been upwards, though interspersed with slight dips because of the 9/11 terror attacks and the global financial crisis of 2008. In 2012, US service imports touched 18.5 billion USD, which was a 930% increase from its 2002 level.[5]

Indo-US trade (billion USD)



Source: United States Census Bureau, PwC analysis

Of the total Indo-US trade, exports from India dominate with a 68% share. These exports have increased at a CAGR of 11% to reach 45.2 billion USD in 2014 from 10.7 billion USD in 2000. The imports from the US to India increased at 8% CAGR during the same period.

India's contribution to US trade

India's contribution to US trade (2000-2014)

Imports to the US from India			Exports from the US to India		
Year	Rank	% contribution	Year	Rank	% contribution
2000	22	0.88	2000	32	0.47
2014	10	1.8	2014	18	1.6

Source: United States Census Bureau, PwC analysis

India's contribution to US trade improved during 2000-2014. India's imports contribution to the US doubled from 0.88% to 1.8%, while its rank as an import partner shot up from 22 to 10 during the same period. Similarly, US exports to India increased threefold during this time and India's rank as a partner improved from 32 to 18. These changes were led by the macroeconomic growth in India, fuelled by a growing middle class, and increasing per capita and disposable incomes.

US contribution to India's trade

US contribution to India's trade (2000-2014)

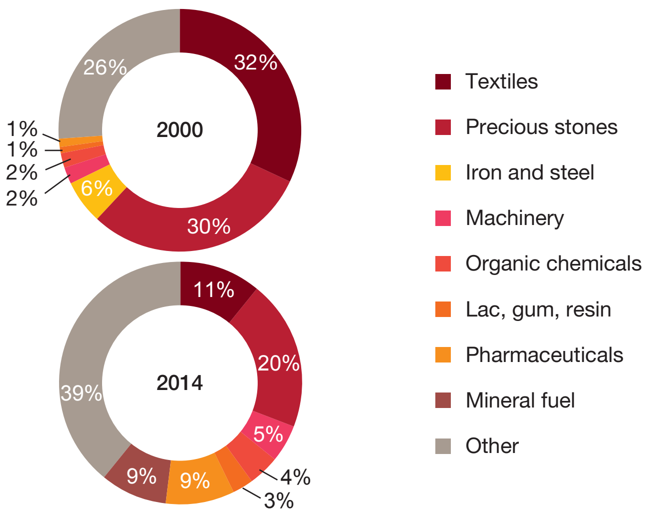
Imports to India from the US			Exports from India to the US		
Year	Rank	% contribution	Year	Rank	% contribution
2000	2	7.16	2000	1	22.8
2014	4	4.87	2014	1	13.67

Source: EXIM, PwC analysis

US contribution to Indian trade has traditionally been high. It is India's fourth-largest imports partner and the top exports destination for Indian merchandise. However, US contribution to Indian trade is declining as India is diversifying its trade partners. India has diversified its export pie to EU and China, and its imports from China, the UAE and Saudi Arabia have also grown. This is primarily due to increased dependence on fuel imports because of the rapid growth in consumption and industrialisation.

Shift in the merchandise composition

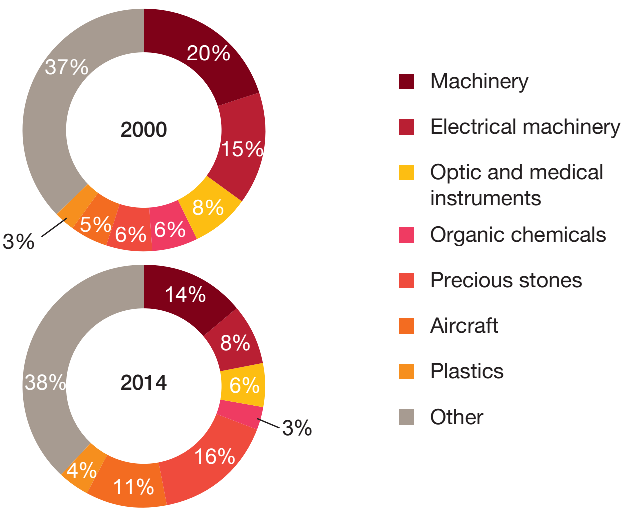
India's exports to the US



Source: EXIM

The basket of goods that were exported from India to the US has transformed since 2000, when textiles and precious stones were each 30% of the total export pie. But today, their share has decreased significantly. Precious stones are still the largest category and are almost double the value of textiles. Pharmaceuticals saw only a 1% share of exports in 2000, but now they account for 9%, primarily because of the boom in the Indian pharmaceutical industry.[6] Iron and steel exports, on the other hand, have decreased significantly. In 2000, they accounted for 9% of the total exports, but their share is minimal today.

India's imports from US



Source: EXIM

The composition of imports from the US to India has transformed during 2000-2014. The import of electrical and mechanical machinery has reduced in share because of India's increased reliance on imports from other countries like China, and in-house manufacturing of equipment. The growth of the Indian civil aviation market has increased the imports of aircraft from the US.

1.4. The need for catalysing Indo-US trade

Indo-US trade shows immense potential. The countries have complementary strengths and capabilities that can make the combined vision and ambition of 500 billion USD trade a reality. Not only will this drive the two large and vibrant economies, but it is also a necessity for cementing cross-sectoral links between them.

India and the need for capability development

India needs around 1.6 trillion USD worth of investment by 2025 to achieve its winning leap growth. A majority of this investment will be directed to sectors like technology, infrastructure, services, A&D, all of which are currently nascent in India but poised for huge growth.

While frugal adoption of foreign technologies and products has played an important role in the industrial development of India, the country currently lacks the resources to invest heavily in R&D, and faces capability and skill gaps required for an accelerated economic growth. FDI and trade can provide an opportunity to update Indian production technologies, organisational structures, and management techniques. India has a long-standing relationship with the US for technology transfer—a large share of all technology transfers to the nation has come from the US. Hence, a combination of technology transfer and trade will be the best strategy to integrate Indian local suppliers into the global production chain, thereby enhancing their quality and the export prospects.

The US: Need for trade diversification with a growing economy

Forty-five per cent of the US's 3.9 trillion USD trade is with its three partners–Canada, Mexico and China. This level of trade concentration with three trading partners exposes the US economy to risks stemming from economic and political upheavals in these countries.

The level of Chinese debt has increased from 147% in 2008 to 282%, making it higher than that of most emerging economies. Its working-age population peaked in 2012, and investment also seems to have plateaued at 49% of GDP. Moreover, the growth rate of the Chinese economy is expected to be less than 4% between 2020 and 2025, indicating a need for the US to reduce its dependence on China for trade. The recent financial crisis is an indicator of China's slowing economy and volatility. China is also recalibrating its export basket to the US given the higher wages impacting China's competitiveness in areas such as chemicals, automotive, engineering, textiles, etc.

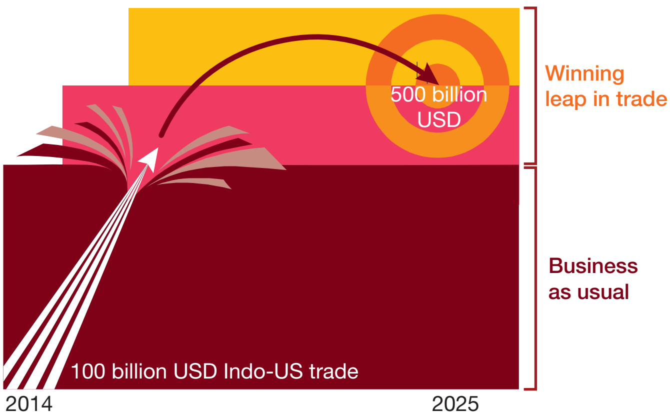
Mexico, another important trade partner for the US suffers from instability and volatility, making it a cause for concern for the US. Mexico also faces a number of institutional problems ranging from proliferation of drugs to militarisation.

A boost in Indo-US trade will allow the US to reduce this dependence and shield itself from the volatility in these countries. It will also get access to one of the fastest-growing economies in the world, with which it already shares an extensive cultural, economic and strategic relationship.

1.5. Way forward for Indo-US trade relationship

For Indo-US trade to grow to 500 billion USD in the next 10 years, the winning leap growth in trade is needed. For the past 10 years, Indo-US merchandise trade has grown at a CAGR of 13%.[7] A linear growth in trade will not be enough to enable this envisioned growth. Given the complexity and challenges that India faces and the reforms required in infrastructure, resources and policies, its key sectors must experience exponential growth.

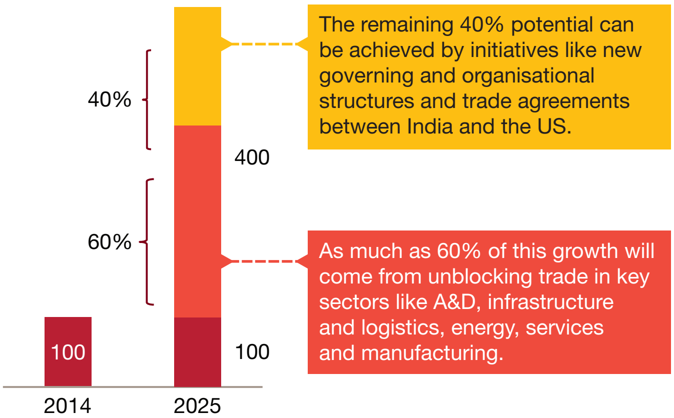
Growth in trade ambition



Source: PwC analysis

Currently, Indo-US trade stands at 100 billion USD. Achieving the increase of 400 billion USD will require not only a concerted effort to unblock existing solutions, but also new solutions and structures to drive a more efficient market and a new trading mechanism.

How new approaches can contribute to Indo-US trade



Source: PwC analysis

Unblocking trade

Sectors like manufacturing, services, energy and infrastructure will have to unblock existing solutions, such as tax cuts in energy trade and boosting manufacturing in India through the Make in India initiative, wherein US companies set up a manufacturing base in India for exports. This needs to be facilitated by improvements in India's EODB ranking, patent laws and taxation policy.

The energy trade between India and the US is currently at a nascent stage. GAIL has signed a 20-year SPA with Sabine Pass Liquefaction LLC, US, for supply of 3.5 million tonnes of LNG per year. While the Indian government has proposed to exempt LNG from the 5% import duty, the US Department of Energy (DOE) has approved export to countries with which the US does not have a free trade agreement (FTA). Hence, there is scope for the winning leap growth in the energy trade by unblocking the existing roadblocks in the years to come.

The US's largest imports apart from crude oil and petroleum products are pharmaceuticals, cellphones and household products. India is becoming a low-cost manufacturing hub and with initiatives such as Make in India, the US can look at India as its new manufacturing hub for mobiles and household products. With India's large pharmaceutical industry and the growth rate of pharmaceutical exports to the US at over 20%, India over time will also have a lion's share of total pharmaceutical imports in the US. The US may consider diversifying its imports bucket from China, and with the initiatives the Indian government is planning, this may soon become a reality. Foxconn, contract manufacturer of Apple's iPhone, is already planning to set-up its manufacturing facility in India with a proposed investment of 5 billion USD.[7]

New solutions

Our analysis suggests that up to 40% of growth can be derived from new solutions. Such solutions if successfully implemented can create new trade opportunities which will not only drive rapid growth by removing barriers to trade, but also make up a 'play to win' mindset among corporate leaders in various sectors.

Growing synergies between the IT/software and manufacturing sectors will create more room for collaboration and will help in producing next generation products and services (PwC's Industry 4.0 study explores the disruptions in industrial products/services that rely heavily on digital interventions). India's software/digital strengths and the US's product capabilities can be merged to design global products of the future.

India should try and be a part of multi-country trade agreements like the Wassenaar Agreement, which will give India access to the markets of developed countries, including the US. Implementing FTAs between India and the US can be one such solution. Trade agreements like FTAs and bilateral agreements have resulted in a better trade flow between countries and can be explored within the context of the US-India trade, making the two premier trade partners.

US trade with other countries has grown on the back of agreements like FTAs and investment agreements.

The earliest FTAs that the US signed were with Canada and Mexico (North American Free Trade Agreement (NAFTA) partners). The two are the US's largest trading partners. Since the US-Mexico FTA came in force in January 1994, US exports to Mexico increased by 443% to nearly 226 billion USD in 2013. Between 1993 and 2013, imports from Mexico increased by 602% to 280 billion USD. More recently in 2012, the US and South Korea entered the Korea-US Free Trade Agreement (KORUS FTA), which expands trade and investment flows between the two countries across a comprehensive list of sectors.

New governance and organisational structures can also be introduced to enable trade for smaller organisations such as small and medium enterprises (SMEs) that do not have access to capital, markets and other resources. Aggregators and industry bodies can be introduced to enable the SMEs to be a part of the larger Indo-US growth story.

An agreement can be reached between India and the US to enable free flow of goods, services and skilled labour, and ultimately integrate sectors by creating ecosystems. The free flow of goods can be promoted by removing non-tariff barriers and initiating a dialogue between industry associations in the priority sectors. The free flow of services can be made possible through mutual recognition agreements (MRAs) as it has been done in the Association of Southeast Asian Nations (ASEAN).

Skill training and education will enable the labour forces in both countries to complement and strengthen capabilities. MRAs will then be possible—they will boost the service trade, since qualifications will be standardised in both the countries, enabling free flow of service sector employees. This can also be enabled by sharing of best practices by US community colleges, which form a critical part of the US's vocational education system, with Indian skill training initiatives.

US companies can invest in manufacturing in India to develop it as an exports base for other emerging markets. The auto sector model can be replicated. Under the model, international auto manufactures have set up manufacturing bases in India and the products of many of these facilities are for exports. These facilities have led to the development of the Indian auto ancillary industry, which services the needs of international automobile manufacturers. Such a global ecosystem is possible in defence and industrial manufacturing among others, which will lead to the integration of the sectors. In the past, South Korean auto giant Hyundai Motor India became the global export hub for Hyundai Motor Company.

US are companies establishing India as their exports base for Asian and African countries.

The Indian government is focussing on developing India as a global manufacturing hub with initiatives such as Make in India. It is concentrating on enhancing the domestic value addition and technological depth in the manufacturing sector along with its global competitiveness.

It also offers an opportunity for US companies to leverage their technological expertise and labour pool in India to set up their manufacturing base in the country and make indigenous products suited for emerging market consumers. Such a base can be developed as an exports hub to serve other emerging markets in Asia and Africa.

Key quote

Strategic manufacturing, technology, and services are key to achieving the 500 billion USD bilateral trade between India and the US.

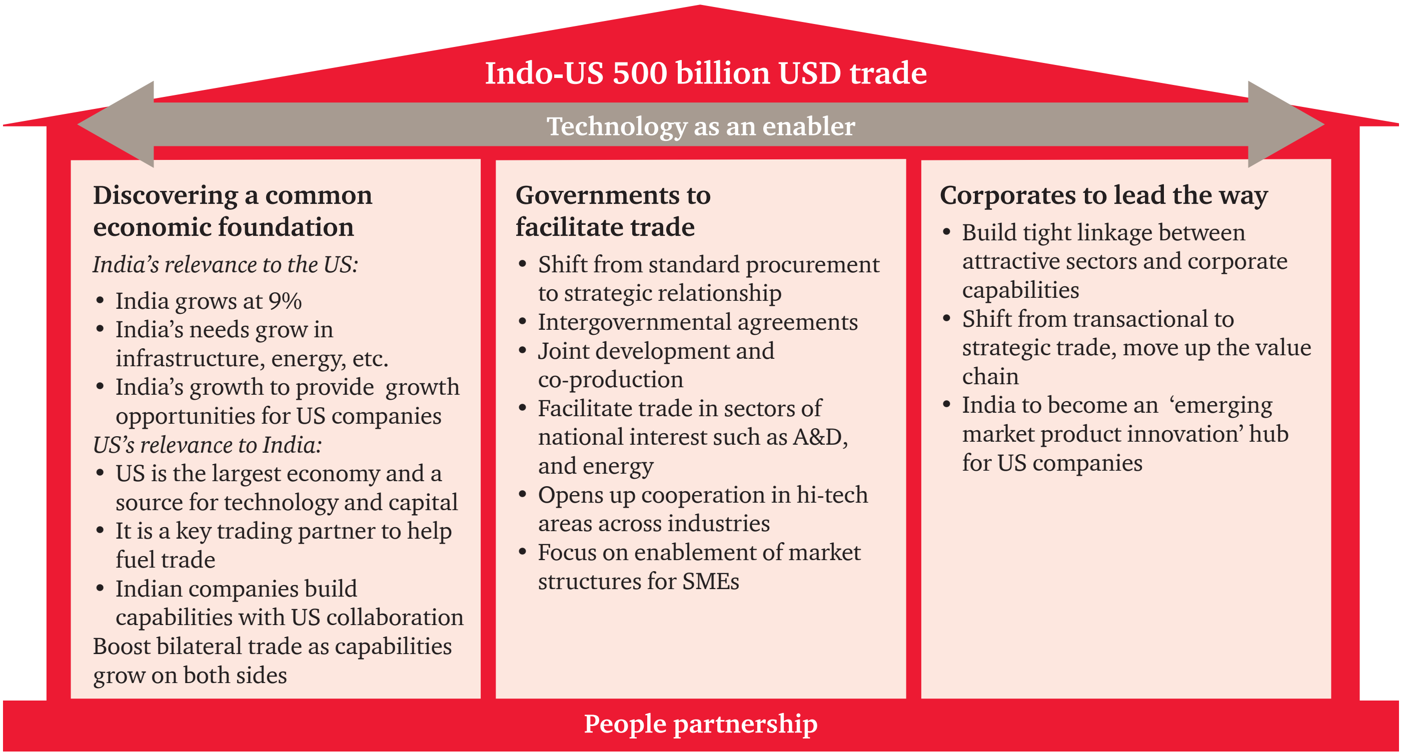
Ajay Pradhan
Managing Director, CH2M Hill

1.6. Themes for success

There are three overarching themes that will boost bilateral trade between India and the US to the 500 billion USD mark.

Themes to boost bilateral trade

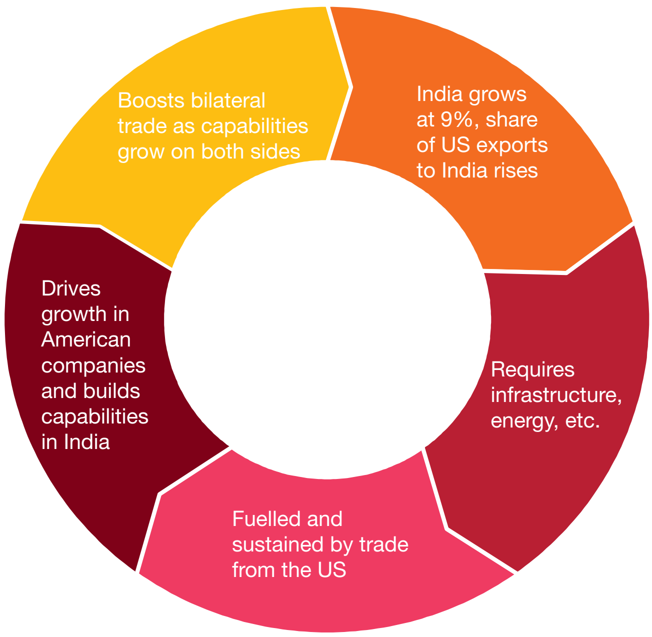
Themes for success



Source: PwC analysis

Discovering common economic foundation

Two economic giants form a virtuous circle



Source: PwC analysis

The US is a 17 trillion USD economy and is expected to grow at 4%,[9] while India's 1.9 trillion USD economy is expected to grow at 9% in the coming years. This growth can be attributed to global megatrends (rapid urbanisation, shift in economic power, demographic and social change, technological breakthroughs, climate change and resource scarcity), wherein the purchasing power of the E7 (emerging nations) will overtake the G7 (developed nations) by 2030.[10] The growth in India will be driven by rapid urbanisation as the urban population has grown almost twice as fast as India's total population.[11] To sustain this growth, India will have to provide power, modernise its urban areas and build infrastructure.

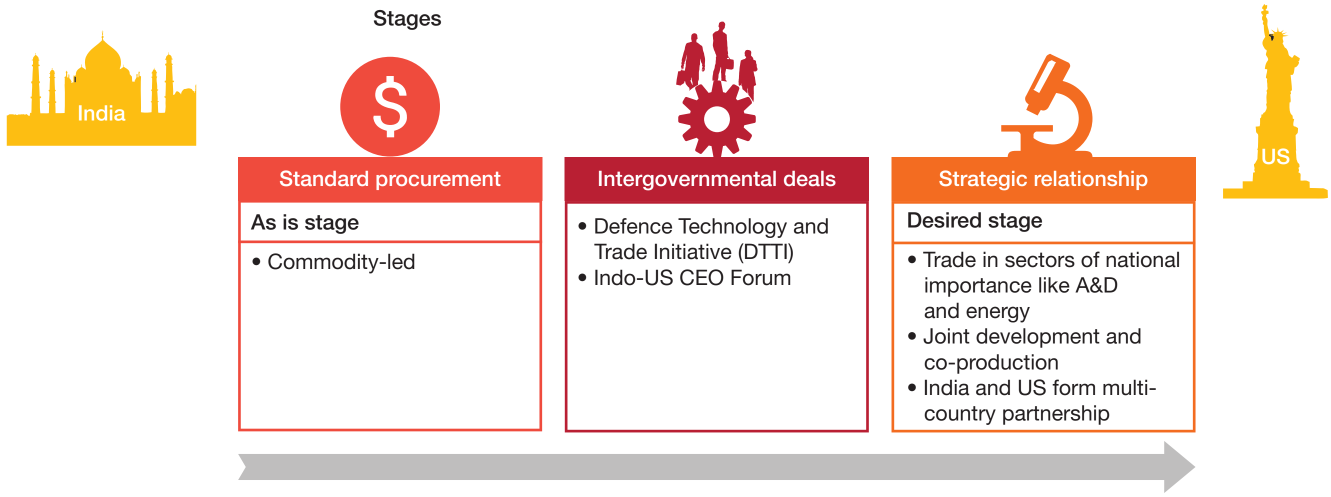
This growth for infrastructure, and products and services, presents a huge opportunity for US firms to participate in India's development. These firms can leverage their expertise to invest in digital infrastructure. They can also play a key role in energy supply, technology transfers and improving India's physical and digital infrastructure among other things. The need to localise solutions to India's problems, and at affordable rates, is an important viewpoint mentioned in this report.

Additional revenue coming in from overseas will spur growth and consumption in the US forming a virtuous circle. This cyclical flow between India's requirements and the US's expertise and involvement provides an ideal opportunity for both countries to benefit from a strong trade partnership.

The US is the largest importer in the world and provides India with a huge market for services, textiles, gems and jewellery among other things. Trade with the US can also lead to technological spillovers and building capabilities of Indian firms as US companies will use production techniques adapted to fit the Indian environment.

Governments to facilitate trade

Intergovernmental deals driving trade



Source: PwC analysis

The governments of the two countries need to make a move from standard procurement to intergovernmental agreements. This will allow for strong collaboration of the governments as well as the corporate sectors in each country. The defence technology and trade initiative in the A&D space and Indo-US CEO Forum in the manufacturing sector serve as examples. A transparent and efficient system for procurement should also be established, allowing the process to flow efficiently. Policies that allow free transfer of technology and knowledge need to be in place. In the future, the governments can explore multi-country partnerships to gain access to new markets.

Both governments have crucial parts to play in increasing the level of trade between them. This includes efforts by the Indian government to attract more US investors and companies for joint developments and co-production with India. The two nations are already working on joint developments in the defence sector. Co-production can be enabled through initiatives such as Make in India, and by improving the business environment in India. The Indian government has increased the level of foreign investment by increasing the FDI limit to 100% in sectors such as retail, telecom and medical. The US government can relax its visa policy to allow Indian professionals to be more involved in the US. Recently, 56% of L-1B visa petitions by Indians were rejected by the US which mainly affected Indian IT companies such as TCS, Infosys and Wipro.

Corporate sector to lead the way

Sector capability metric

		Countries capability		
		High	Medium	Low
Sector attractiveness	High	Civil aviation, smart cities	A&D	Real estate
	Medium	Energy (shale gas)	Electronics	
	Low	Agriculture		

Source: PwC analysis

The Indo-US relationship will cut across multiple sectors but the focus of the trading relationship should move towards the attractive sectors which have the expertise of US and Indian corporates, and which is imperative for the two countries. In terms of sector attractiveness, one should look at the size of the opportunity, sector growth rate, profitability and the macroeconomic environment. In terms of country expertise, both countries must look into capacity to service the market and pricing in comparison to similar products/services from other countries. By following this metric, trade will be highly focussed on growth sectors with corporate expertise, and result in mutually benefitting relationships between corporates and the countries being meaningful for each other in terms of trade. An ideal example is the civil aviation sector in India, where the size of the opportunity is very large, since India is planning to purchase 500 new jets over the next five years and US companies such as Boeing, Lockheed Martin and General Electric (GE) Aviation will look towards tapping this opportunity.

Fundamental shifts in the corporate sector are needed for this trade relationship to make a winning leap. This can be achieved through mutual cooperation. India's dynamic economy supported the influx of new technologies and businesses from Silicon Valley that run on asset-light business models, by partnering through unconventional channels and making judicious use of technology-enabled services. The marketplace model has seen great success with large Indian e-commerce players like Flipkart and Snapdeal; US companies such as Amazon are also rapidly establishing their foothold in India. US firm like Uber and Airbnb have disrupted the Indian market. Indian companies like Ola and OYO Rooms are following suit. Through partnerships with US firms, Indian companies can adopt alternative approaches for growth and expansion.

A strategic partnership that allows the US to leverage India's frugal engineering DNA to churn out products better suited for emerging markets will be a step in the right direction. US companies can also look at India to set up their R&D centres to start with and then move on to establishing it as their manufacturing base for exports to other Asian and African markets. Also, as Indian manufacturers shift their focus towards serving global markets, they will need to invest more in R&D and develop new technological skills to move up the value chain. This can be accomplished by Indian manufacturers collaborating more on technology and development.

Within the private sector, SMEs have a critical role to play. These firms specialise in technological expertise and have contributed approximately 30% of US merchandise exports between 1997 and 2007. These firms specialise in technological expertise and contribute significantly to the trade. However, they face challenges such as new market access, and cumbersome processes such as cross-border taxes and regulatory hurdles. The private sector can assist SMEs in resolving these challenges. They can also enable SMEs through mentorship, incubation programmes and assistance in building networks. All these combined can prove very useful for smaller firms which require advanced skill sets and guidance and assistance in the decision-making process. Another alternative for US involvement is the acquisition of these smaller Indian firms by larger US players looking to grow and expand to new markets and acquire different expertise.

Technology as an enabler

Technology will act as an enabler across the three pillars for success. It will enable better collaboration in the corporate sector and also enable the government to move towards a transparent and efficient system for procurement, licensing and other procedures.

Technology to drive the virtuous circle: India's growing middle class and rising per capita income will increase demand for higher-quality products and this will require superior technology inputs from businesses. Technology has already had a profound effect on the Indian population and the economy. The technology revolution has brought about enhanced connectivity, which has fuelled unprecedented access to information. Millions of people who earlier had few means to join the national discourse can today gain new insights into the world around them, all thanks to mobile devices and the far-reaching Internet.

Technology to enable government facilitation of trade: Technology is necessary to build efficient and easy to use systems. It will enable the government to issue e-licenses, thus reducing the time taken in granting permits and also improving the EODB ranking. Electronic case management can be implemented for filing and managing patent applications. Technology can act an important enabler in collaborations and joint developments between people from the two countries working out of remote locations. A technology-based aggregator platform can act as an enabler for SMEs to participate in Indo-US trade, reducing the hindrances they face such as access to finance and market.

Technology and the corporate sector: Businesses can experiment with new channels of sales and distribution, and leverage advance technologies in new ways. The way forward for the corporate sector in sustaining rapid growth and modernisation is joint development of advanced technologies. The US can leverage its technological know-how and help strengthen the Indian manufacturing sector's capabilities.

People partnership

Non-governmental interaction is an important part of international relations, and is integral to the Indo-US relationship. India and the US enjoy a deep, friendly, and mutually beneficial relationship. Currently, Indians form one of the largest international student populations in the US and Indian born CEO's are leading the growth of some of the largest corporations in the US, including Google, Microsoft, Adobe, Master Card, etc. There is a connection of shared democratic values and soft power in terms of popular culture with the respective film industries having a great influence on the citizens of both countries. Indian culture and achievements of Indian Americans have also contributed towards building 'brand India' in the US.

Ami Bera, co-chair of Congressional Caucus on India and Indian-Americans, has said, "The US and India share common values, and the growing partnership between the two countries makes sense."[12]

Although government cooperation is important and will remain so going forward, the relationship will be led by forward-thinking individuals. People-to-people exchanges, including entrepreneurs, executives, students, professors and scientists have enormously benefitted both countries. There are almost 3,000,000 Indian-Americans across the US and more than 1,00,000 Indian students studying in US universities. As seen time and again, the partnership of the people and businesses of the two countries has in many ways been ahead of the government-to-government engagement. By promoting linkages between entrepreneurs, scientists, professors, business leaders, and others, the US and India can work together to help create lasting solutions to business and global issues.

US President Barack Obama rightly said during his speech in the Indian Parliament that Americans helped build India and India has helped build America. Similarly, Prime Minister Narendra Modi in his speech at Madison Square Garden in New York appreciated the role of the Indian-American community as natural ambassadors of India who have successfully participated in the US technology revolution. This outreach can help India unleash its soft power that will complement its economic strength and also highlight the need to build a strategic relationship with the US.

2 Challenges and enablers in achieving growth in trade

There are a number of challenges that impede India and US from achieving the full potential that their trade partnership has. The challenges are not new; for example, the ease of doing business (EODB) has the highest attention of the government but it has still not been accomplished, given the complexity.

Operating in the Indian market is sometimes frustrating for US companies due to a multiplicity of stakeholders at different levels, long-drawn-out and time-consuming processes as well as cultural complexities. The stringent policies, investment restrictions and bureaucratic red tape in India make it a very difficult environment. Data security, IP protection and legal recourses are outdated and extremely slow, increasing business risks and recovery as well as exit options for companies wishing to invest or trade in India.

The US on the other hand, has stringent policies against technology and knowledge transfer. Such policies need to be relaxed to promote trade in sectors such as defence and manufacturing. Restricted visa policies have also resulted in discord between the economies, which is significant because of the importance of the Indian IT sector.

2.1. India

2.1.1. Ease of doing business (EODB)

According to the World Bank's EODB index, India ranks 142 out of 189 countries,[13] revealing a poor environment for business growth. This is attributed to unnecessary costs, difficulty in complying with regulations, and frequent delays in regulatory decisions. India is near the lower end of the ranking scale in areas like starting a business, paying taxes and enforcing contracts.

India's EODB ranking

India	EODB	Starting a business	Dealing with construction permits	Getting electricity	Registering property	Getting credit	Protecting investors	Paying taxes	Trading across borders	Enforcing contracts	Resolving insolvency
Rank	134	179	182	111	92	28	34	158	132	186	121
		Start-up	Getting a location			Getting finance		Daily operations		During tough times	

Where India ranks poorly (179, 182, 158, 132, 186, 121)

Source: EODB

Case study

A small-scale entrepreneur who has been in the garment export business for more than 25 years often imports silk fabrics from China against an advance licence (which allows for duty exemption). This fabric is further processed to manufacture garments for exports.

This entrepreneur received a consignment of specially printed expensive fabrics from Shanghai. However, the delivery of his consignment kept getting delayed, not just because of public and government holidays, but also because the government officials said the loaders were on a 'go slow' agitation and the goods had not been put in the customs area for inspection. To add to the entrepreneur's woes, the goods were offloaded on the tarmac due to a huge backlog.

The helpless entrepreneur tried to reach out to the civil aviation and commerce department authorities. Nonetheless, he received the consignment nine days after the shipment's arrival.

As a result of the delays on behalf of the government, the company had to:

1) Give a heavy discount to the client

2) Risk their reputation with a new client

3) Bear financial costs due to underutilised labour as the artisans had to wait for the fabric

It is quite common for shipments in India to get delayed due to outdated technology infrastructure, congestion and lack of personnel, causing financial and reputation risks, especially to small and medium business owners. A rapid change in the support infrastructure is required to increase the speed of response and facilitate businesses, if India wants to become a preferred trading partner and strengthen its global position.

The Government of India identified around 98 parameters and shared them with the state governments for necessary action to improve the EODB in every Indian state. In the time to come, the government plans to evaluate the states based on the breakthroughs achieved in the given areas.

The way forward for India is to move close to the models of countries that faced similar roadblocks and governance issues but overcame them. China, South Korea, Singapore and Bangladesh all faced similar problems. By making similar reforms in the procedures and processes, India can simplify the methods required to do business and improve its EODB rank. By doing so, there will be a stronger incentive for US companies to invest in India.

What other countries did to improve their EODB ranking

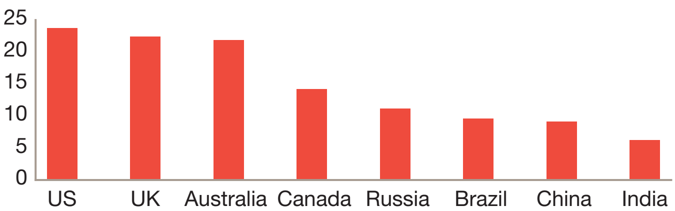
	Starting a business	Dealing with construction permits	Paying taxes	Trading across borders	Enforcing contracts	Resolving insolvency
What other countries with similar problems did	**China** • Exempted micro and small companies from paying several administrative fees from 2012-2014 **South Korea** • Introduced an online one-stop shop for starting a new business • Removed minimum capital requirement and the notary role, cut taxes, put time limits on VAT registration and made registration payment available online	**China** • Centralised pre-construction approvals • Permitted electronic application in Shanghai and Beijing **Singapore** • Allowed low risk industries to submit documents online	**China** • Unified the corporate tax regimes for domestic and foreign enterprises and clarified the calculation of taxable income for corporate income tax purposes **South Korea** • Merged several taxes, allowed joint payment of several taxes and contributions • Increased use of online tax payment • Reduced the profit tax rate	**China** • Improved trade finance by relaxing its trade credit rules **Mexico** • Made trade easier by implementing a single electronic window system **Bangladesh** • Implemented automated customs clearance procedures which have reduced the time taken for clearing goods	**China** • Amended civil procedure code to streamline and speed-up court proceedings **South Korea, Brazil** • Implemented an electronic system to file initial complaints	**South Korea** • Expedited the insolvency process by implementing a fast track process for company rehabilitation **Germany** • Adopted a new insolvency law that facilitates in-court restructurings of distressed companies and increases participation by creditors

Source: PwC's Future of India report

2.1.2. Intellectual property rights (IPR) protection

The Global Intellectual Property Center's (GIPC) International Intellectual Property (IP) Index[14] ranked India among the bottom 5 of the 30 economies studied, due to India's weak IP protection and enforcement environment. India had a score of 6.24 on the IP index compared to USA's 23.73.[15]

International IP Index country score



Source: GIPC IP Index

This was primarily due to India's lack of data protection, poor patent term extension, and the poor application and enforcement of civil remedies and criminal penalties. Furthermore, numerous limits on patents for incremental innovation, onerous patent processes, and copyright and trademark infringement are barriers to US companies considering India for investment.

Potential reforms

There is an urgent need to reform the IPR laws in India to encourage and attract foreign investment from the US. This can be enabled through fast track judicial processes and strong enforcement of IP protection laws. Some steps that can be taken are outlined below:

- Technology-driven infrastructure: Currently the patent examination, opposition and grant by the Indian Patent Office takes around 6-7 years. This can be fast-tracked with the improvised use of technology and varied methodologies. Also, features like electronic case management can enable courts and other judicial authorities to accept filings and provide online access to the filed documents, which can further speed-up the updates to dockets in the system.

- Specialised IP courts/fast track judicial process: The lengthy judicial processes in Indian courts lead to a shortened IP term. It is crucial that issues involving IPR must be resolved within appropriate time to encourage IP holders.
- Civil/criminal enforcement for IP: In India, IP offences are not considered serious offences and, therefore, there is no significant disincentive to the infringers. IP infringement in the digital environment has vastly increased with the popularity of the Internet. With the help of the police and customs officers, criminal enforcement of IP needs to be restored. Criminal and monetary sanctions for the circumvention of digital rights management (DRM) have been introduced through the 2012 amendment to the Indian Copyright Act, 1957.

This was primarily due to India's lack of data protection, poor patent term extension, and the poor application and enforcement of civil remedies and criminal penalties. Furthermore, numerous limits on patents for incremental innovation, onerous patent processes, and copyright and trademark infringement are barriers to US companies considering India for investment.

2.1.3. FDI limit

FDI caps in India restrict the transfer of technology in key sectors like A&D and hamper the proliferation of innovative practices in sectors such as insurance. FDI restrictions can be seen across several sectors and serve as a major barrier to US investment in India.

FDI caps

Sectors	Caps
Petroleum refining	49%
Teleports (DTH)	74%
Air transport	49%
Commodity exchange	49%
Insurance and sub activities	49%
Defence	49%

Source: Make in India

The benefits of favourable FDI policies are multifold. An increase in equity investment often stimulates technological transfer. Since life insurance is a capital intensive business, high FDI limits will allow insurers to innovate and offer a myriad selection of products. It will also allow India to establish itself as a manufacturing base. Yves Guillaume, president (India), Airbus Group, was quoted by a popular publication as saying, "It would be much easier for us to transfer cutting-edge technologies to a joint venture (JV) in India in which we have management control."[16]

Many of India's Asian counterparts have eased up FDI policies in the insurance sector. Indonesia and Malaysia have FDI limits of 80% and 51% respectively, and Japan, South Korea and Hong Kong all allow 100% FDI.[17]

Way forward

India needs to reduce investment barriers and encourage investment. This can be done by reducing taxation, permits and licences associated with FDI. New approaches must be adopted and promoted that create predictable, open and growth-oriented investment climates with strong institutions that enable progress. Infrastructure investment should be encouraged by developing the necessary capability and capacity through public-private partnerships (PPP). There should also be a more profound emphasis on creating robust and comprehensive international investment agreements.

2.2. The US

2.2.1. Visa policy

The US has stringent visa restrictions which have been a deterrent in Indo-US trade, especially for the Indian software industry. India suffered by far the highest number of L-1B visa denials by the US between 2012 and 2014.[18] As many as 56% of L-1B visa petitions by Indians were rejected, which is much higher than the average denial rate of 13% for all the other countries.[19] The United States Border Security, Economic Opportunity and Immigration Modernisation Bill, 2013, seeks to deny access to visas or place additional visa related restrictions including higher fees, which further impacts India.

According to India, the lack of a totalisation agreement with the US is affecting the Indian software industry, since it pays over 1 billion USD annually to the US government in the form of social security, with no benefit or prospect of refund.[20] The Indian government believes that these steps are not only discriminatory, but also create an unequal playing field for Indian IT companies.

Way forward

Reform in US visa policies will allow for easier occupational movement between India and the US and increase the level of trade between the two nations. India is also negotiating a bilateral agreement with the US to ensure that IT workers are not burdened with double taxation of income.

2.2.2. Restrictions and sanctions

Restrictions and sanctions in sectors such as pharmaceuticals and aviation have created mistrust and has led to difficulties and ambiguities in market access for Indian companies in the US.

For example, in areas such as generic drugs, the US and India have not yet reached a consensus on regulatory policies. In 2013, US Food and Drug Administration (USFDA) issued 21 warning notices concerning the quality of drugs, half of which were directed at Indian companies.[21]

Similarly in the aviation sector, US Federal Aviation Administration also downgraded India's aviation safety rating, thus impacting the plans of Indian carriers such as Air India and Jet Airways to increase the number of flights to the US.

While these restrictions are not confined in either of the sector to India, it has created consumer mistrust and led to difficulties and ambiguities in market access for Indian companies in the US.

Way forward

A dialogue needs to be facilitated to arrive at well-crafted and clear regulations. Communication is the key to reducing mistrust at both ends. Bilateral arrangement such as FTAs to get preferential market access and increase mutual trade can also help in building stronger trading relations.

2.3. Areas of disagreement between the two countries

It is natural for two international trading partners to have differing positions when it comes to policies impacting bilateral trade, etc. It is important however to evaluate the major roadblocks in the light of a strategic relationship and understand the key issues and move to a more acceptable solution wherever possible.

India and the US have had a long-standing disagreement about India's patent laws and IPR protection. This is primarily due to the significant differences of perception between the two countries.

The US Chamber of Commerce (USCC) asked its government to put India on the 'priority foreign country' list to closely scrutinise its IP laws, as it believed that India was adopting localisation to transfer technology from US companies to Indian firms and increase their market access in US.[21]

India, on the other hand, has claimed that the US-based GIPC's IPR report is skewed. According to Indian officials, around 1,500 pharmaceutical compounds or composition patents have been granted to nine firms between 1995 and 2012. According to a study by the Federation of Indian Chambers of Commerce and Industry (FICCI), losses caused by piracy in the US amount to 50 million USD. This includes piracy of Indian music and satellite TV programming content.[22]

Both countries have also raised issues in the World Trade Organisation's (WTO) Dispute Settlement Body. While the US filed a complaint regarding discrimination 'against US exports' in solar panel procurement and poultry imports by India, India raised issues related to duties on import of steel rods.

Way forward

India and the US, given the size of each, are bound to have areas of disagreement. The key is to have a fruitful dialogue to move forward on various issues and also evolve more pragmatic ways to find common ground which is acceptable to other partners. They need to align their policies and work together to create a favourable trading environment to achieve the target trade of 500 billion USD.

3 *Achievements so far*

Both governments have taken initiatives to promote trade and investment. Campaigns like Make in India and changes in FDI laws by the Indian government, and the establishment of shared forums by both governments are examples of efforts to improve relations and trade levels between the two countries. As a result, many companies have turned to India as the destination for their manufacturing bases.

EODB

- The Indian government is improving the EODB through the introduction of measures like an e-business portal, which can be used to apply for licences and will be integrated with the services of the government and its ministries
- The validity of insurance licences will be extended to three years and all tax returns will be a filed online through a unified form
- The number of forms required to be filled for export and import business has been reduced from nine to three

FDI limit

- The FDI limit in industries such as telecom, medicine and retail has been increased to 100% to promote foreign investment.[23]
- There is an investment allowance of 15% to manufacturing companies that invest more than 15.7 million USD.
- A number of export incentives like duty drawback and stamp duty exemption have been introduced to incentivise foreign investment.
- A technology acquisition and development fund will be set up to develop technologies and create a patent pool, thereby addressing IP-related issues.

Make in India

- The government plans to boost Indian manufacturing and incentivise foreign investment in the manufacturing sector through its Make in India campaign, which focusses on sectors across the spectrum of manufacturing and serves to introduce policies so as to make India a more business-friendly destination for manufacturing.

Mutual government collaboration/agreements

- The Bilateral Shared Forum on Manufacturing involves the US Department of Commerce hosting delegations from the Confederation of Indian Industry (CII) and the Indian Ministry of Commerce and Industry.
- The National Institute of Standards and Technology (NIST) support US manufacturers to innovate and grow through its Manufacturing Extension Partnership (MEP) programme. A similar programme can be run in India to foster innovative thinking and manufacturing. The NIST's manufacturing extension will start a dialogue with Indian manufacturers and promote an environment of collaboration.
- The US-India CEO Forum, which will be held in India for a second time in 2015, is geared towards sharing best practices in manufacturing and working towards a greater harmonisation of standards.

4 Strategic sectors for growth in Indo-US trade relations

The themes for success are the key pillars that will boost bilateral trade between India and the US. The third key theme for success is developing a tight linkage between highly attractive sectors and capabilities, and sectors like A&D, energy and infrastructure which are more strategic in nature. This can help build a deeper, value-driven trade partnership.

Manufacturing and services are currently driving Indo-US trade, and can be considered as sectors that will help in accelerating the virtuous cycle of growth between the two economies.

The following sections delve into these sectors to better understand some of the key challenges and imperatives for each of them. This will help in achieving the defined trade ambition and will forge strong trade ties, leading to a collaborative and mutually beneficial economic growth for India as well as the US.

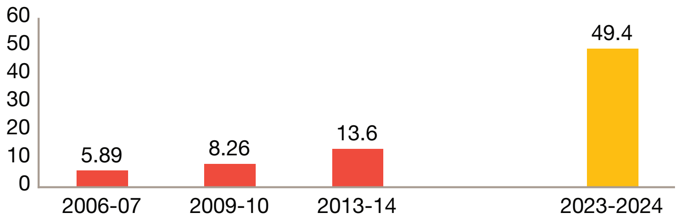
4.1. Aerospace and defence (A&D)

The A&D sector, in spite of contributing only 1.2 billion USD of the 100 billion USD trade, can be crucial in driving Indo-US trade and strategic ties as it rapidly increases in both size and share. If the US becomes India's premier trading partner in the defence sector, trade can reach up to 25 billion USD[24] and more. This can be achieved by appropriate measures by the Indian government to promote defence trade with the US, achieving synchrony between India's needs and the US's expertise and a transformation in the nature of the partnership between India and the US brought about by changes in policies and agreements between the two countries. Russia's current declining defence trade share and an impetus to India's defence spending, which is projected to reach 50 billion USD by 2024[25] can give this partnership a further boost.

India's increasing expenditure on defence

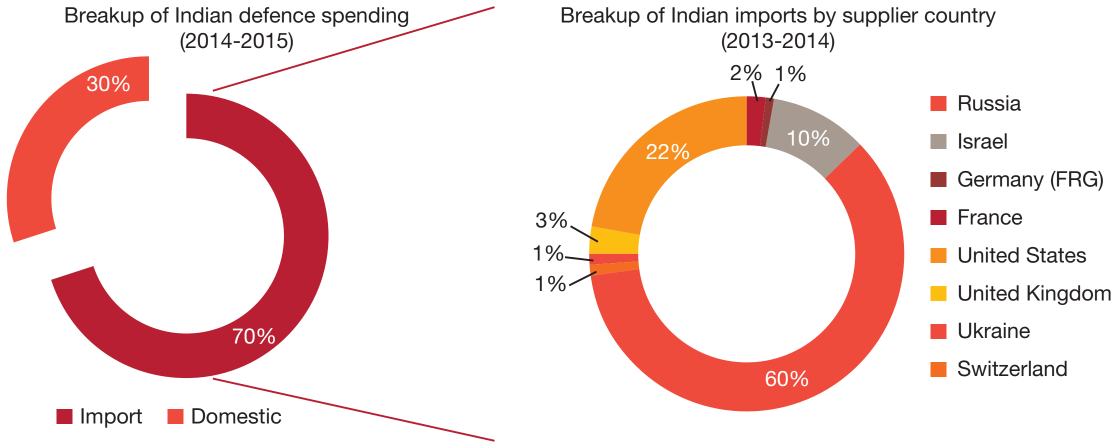
India's defence budget has been rapidly increasing over the years. A 15-year Long-Term Integrated Perspective Plan (LTIPP) was introduced in India to modernise its armed forces from 2012 to 2027. India also intends to narrow the military gap with China, due to the volatility in the south-east Asian region. Such factors have made India one of the largest arms importers in the world. Its defence capital expenditure (capex) has increased from 5.89 billion USD in 2006-07 to 13.6 billion USD in 2013-14, and is projected to increase to 50 billion USD by 2023-24.

India defence budget capex spending projection



Source: Defence budget, PwC analysis

US is India's second-largest defence equipment supplier



Source: Stockholm International Peace Research Institute (SIPRI)

India imports 70% defence equipment, of which the US is the second-largest supplier.

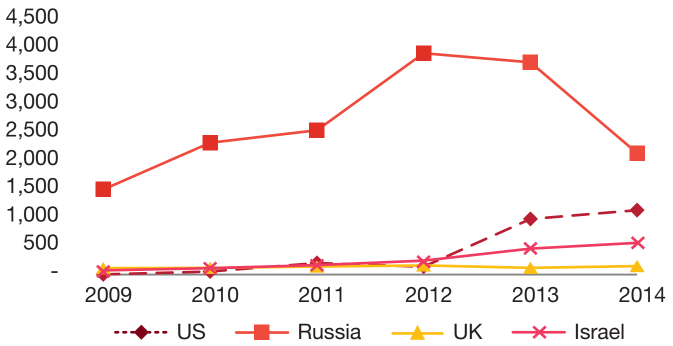
Currently, 70% of the total defence capital expenditure spend in India is contributed by imports of arms and equipment.[26] The US, which contributed to only 0.2% of defence imports in 1999-2003, is now one of the largest suppliers, second only to Russia. US companies such as GE, Boeing and Westinghouse have been operating actively in India and have established their presence here. In addition, the keen interest of other US defence companies, exhibited by their excellent participation at Aero India and DefExpo, has played an important role in taking total Indo-US defence trade from almost none to 10 billion USD over the course of a decade.[27]

India's defence imports from the US and Russia (billion USD)

Russia, India's largest supplier of arms, accounts for 60% of its total defence imports, but has seen a sharp decrease from 3.9 billion USD in 2012 to 2.1 billion USD in 2014.[28] This is mainly because of Russia's close cooperation with Pakistan, and the sanctions imposed on it after the annexation of Crimea.

While trade with Russia has been tracing a downward trajectory, the US and India have strengthened their trade partnership by signing MoUs like the Defence Technology and Trade Initiative (DTTI) in 2012 and the Joint Declaration on Defence Cooperation in 2013. An upward trend of US imports paired with a reduction of Russian imports has set the stage favourably for the US to overtake Russia and become the largest exporter of defence equipment to India.

India's defence imports (billion USD)



Source: SIPRI

Alignment of India's needs and US expertise

In the future, US companies can address nearly 60% of India's defence import needs.[29] According to the next Five Year Plan and the defence budget, the majority of India's defence spending will be focussed on aircraft and aero-engines, amounting to approximately 8 billion USD.[30] American companies such as GE, Lockheed Martin, Textron, Boeing, General Dynamics and Harris Corp have expertise in these segments and equipment. The US can capitalise on this growth in defence spend and the overlap between India's needs and the US's strengths, to become India's largest defence equipment supplier.

Transition from standard procurement to a strategic partnership

Indo-US defence trade can be augmented by moving from a system of standard procurement towards more intergovernmental agreements, eventually leading to a comprehensive strategic partnership in the coming decade.

This will involve developing transformative technology through a process of mutual cooperation and collaboration, involving:

- Developing core capabilities
- Transfer of US technologies
- Private sector involvement
- Efficient systems

This transition can be facilitated by selecting the core capabilities of each country and focussing on development within those fields. For India to be able to absorb US technology and to jointly develop high-level technologies, it will need to strengthen its infrastructure. Indian companies will need to build their core capabilities and upskill themselves for technology transfers. India also needs a transparent and efficient system for procurement and allowing the process to flow efficiently.

US corporations should also be willing to work with Indian manufacturers on joint development projects aided by regulatory changes by the US government to assist skill and technology transfer. Ultimately, this can give rise to a large defence ancillary industry in India, as in the automotive sector.

Steps in a positive direction

In 2011, the US government removed India from its previous inclusion in the Entity List of several country groups under the Export Administration Act (EAA), and elevated India out of the categories within the dual use regulations. US also added India to the preferential country group rated A2, and India became a member of the Missile Technology Control Regime (MTCR). These initiatives will build a cooperative relationship between the two nations.

The two countries have kicked off the joint manufacturing of four relatively modest military products and agreed to explore the development of two more high-end technologies, that is, aircraft carrier technologies and jet engines. The transformation of the defence partnership is clear from these agreements and point towards increased cooperation in the future.

The DTTI will shift Indo-US defence relationship from a traditional buyer-seller agreement to a more collaborative partnership. Currently, it mainly deals with the co-production of low-end technologies but eventually it will move towards the high-technology end of the spectrum. This is in concurrence with our general theme that a restructuring of the relationship is necessary. The success will speed up this transformation of the partnership.

An FDI cap increase to 49% fosters interdependence between India and the US and strengthens the foundation for a strong security relationship. A higher FDI cap is a strong incentive for US companies to invest in India's defence sector and can also create a technological spillover from US companies setting up manufacturing in India.

While these measures are in the right direction, revamping of regulations and policies on both sides is still necessary to achieve full cooperation.

Key hurdles inhibiting growth in defence trade

Numerous challenges need to be addressed for Indo-US defence trade to achieve its potential, with the majority of changes required from the Indian and the US governments. The key issues are outlined below:

- **India's FDI restrictions**: Stringent requirements, non-conducive FDI laws and lack of reinvestment opportunities are some of the major reasons for stunted US investments in India. Some of the FDI requirements that are a deterrent to foreign investments in the defence sector and need to be overcome to improve defence trade are as follows:

- The applicant company should be an Indian company owned and controlled by resident Indians
- An Indian should be the chief security officer (CSO) of the JV
- All JVs will face external security audits once in two years and cyber security audits every year

- **Offset investment**: This requires foreign companies to invest at least 30% of the contract value in India for defence deals over 55 million USD.[31] Foreign companies face a challenge in procuring from India due to an underdeveloped supplier base in the A&D sector. These companies were able to invest just 676 million USD in India between 2008 and 2014, against the mandated 1.3 billion USD and have accumulated over 35 million USD in fines during the period.[32] This has further discouraged them from investing in India.
- **Slow decision-making**: This is another concern faced by companies in the A&D sector in India. For any government procurement, tenders are floated in India. However, their realisation is delayed invariably. For instance, the procurement of artillery guns and bulletproof jackets has been pending for over a decade in India and still hasn't materialised. This acts as a deterrent for foreign firms hoping to do trade with India.
- **Strategic intergovernmental issues**: In addition to the above policies, some amount of mistrust between the two governments is caused by the close ties between India and Russia as well as the favourable treatment the US gives Pakistan. Enabling a dialogue on these issues can strengthen defence trade.
- **Stringent policies against technology transfer**: The US has stringent policies against technology and knowledge transfer that restrict Indo-US trade. Such policies need to be relaxed to promote trade in sectors such as defence

Key quote

Currently incentives are not aligned for firms in India and US to conduct trade in the A&D sector. Both Indian and US governments need to take initiatives to incentivise companies to trade more.

Anurag Garg
Director, PwC Strategy&

Key opportunities in Indo-US defence trade

- The US and Indian government's plan to jointly research and develop a next-generation protective suit for troops working in biohazardous environments, thus offering opportunities for future trade.
- They are working towards developing unmanned aircraft vehicle (UAVs) and aircraft, opening up trade opportunity
- With the Make in India initiative, the Indian government is looking to build a manufacturing ecosystem for various sectors in the country. This presents an opportunity for Indian companies to improve their quality and technological expertise to become a part of the global supply chain of foreign defence players.

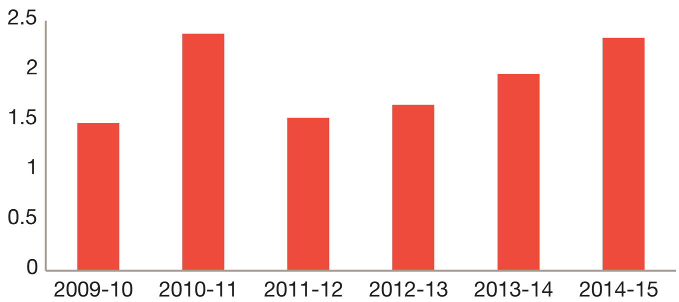
4.1.1. Civil aviation

The growth in the civil aviation industry in India has been fueled by India's growing middle class population and an increase in per capita income. Civil aviation imports from the US currently stand at around 2.5 billion USD.

The scope for further growth is immense and India is projected to become the third largest aviation market by 2020. Three hundred jets, small aircraft and 250 helicopters are to be added to the fleet. By 2030, the number of operational airports in India is expected to touch 250.

These forecasts present large potential for US companies to increase investment and trade with India. Honeywell has been involved in the training of pilots and engineers by introducing the Aero Club in India. Alcoa is a big aluminum manufacturer and the high demand of aircrafts will cause an increase in the demand levels of aircraft parts and engineers. GE aviation has announced plans to spend 300 million USD in India by developing commercial and military jets. Boeing is expected to increase its revenue share from India with this spur in growth.

India's civil aviation imports from USA (2009-2014)



Source: EXIM

4.2. Infrastructure and logistics

India's infrastructure and network of transportation forms the backbone of the economy. To sustain the momentum of rapid economic growth, India needs to improve its physical connectivity and infrastructure to the level found in some of its BRIC counterparts. It requires an expansion of state and national highways, an improvement in freight-handling capacities, primarily through railways, and needs to shift to third-party logistics systems.

Indo-US collaboration in the spheres of road networks, power, smart cities and railways—areas the US has vast technological expertise in, can power India's infrastructure growth.

India needs a winning leap in Infrastructure

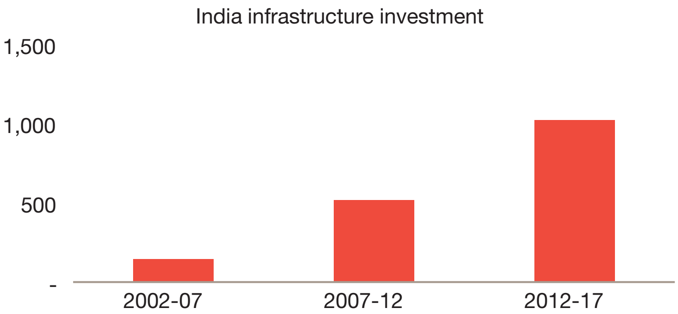
India has a very high level of logistics cost 13% of GDP as compared to 8% in most of the developed countries.[33] A key reason behind this is the population's high dependency on outdated rail and road networks. Institutional roadblocks such as corruption also increase cost. The level of inefficiency in rail freight transport has led to a passenger traffic ratio of 0.6, which is very low as compared to benchmark countries such as China (3.2) as per PwC's Future of India report.

The way forward for the infrastructure and logistics sector of India is to follow the models of the US and China. Logistics cost will need to decrease to 8%, similar to that in the US, to allow higher-than-momentum growth of the economy. To achieve this, the density of highways will have to touch 118 per 1,000 of land, while the cost of corruption (bribes) needs to reduce to just 5% of the operating expenses.[34] Freight to passenger traffic on rail networks will have to improve to the Chinese level, whereas road safety will need massive improvement.

India's growing infrastructure spend

A sevenfold increase in India's infrastructure spending will be needed from the 144 billion USD during 2002-07 to 1 trillion USD during 2012-17.[35] Of the 1 trillion USD worth of investment that India needs, a large share will have to come from the private sector, requiring the government to set up an investment-friendly environment for international companies.

India's required infrastructure spend (billion USD)



Source: The Planning Commission

According to the most recent budget, 37 billion is to be spent on a few focussed sub-sectors within infrastructure such as smart cities, roads and highways, and civil aviation. A number of US companies have technological and design expertise in these sub-sectors, e.g. IBM and United Technologies Corporation (UTC) for smart cities, and Boeing and Lockheed Martin in the aviation space.

India is projected to become the third-largest aviation market in the world by 2020,[36] and it plans to add 250 new airports in the next five years. With very few players in the aviation sector, airport operations become a major area where US companies can bring in their expertise.

Smart cities

The Indian government has announced its plan to build 100 smart cities in the country. These are complex projects with diverse needs including housing developments, telecom infrastructure and comprehensive technology integration with government support. US companies such as IBM and UTC, with their expertise in the fields of large-scale technology integration, can assist with the development of these cities in India.

Moreover, the US government has already committed its support to building three Indian smart cities. The the US Trade and Development Agency (USTDA) signed MoUs with Uttar Pradesh, Rajasthan and Andhra Pradesh for cooperation to support the development of three smart cities. The USTDA will contribute funds for feasibility studies and pilot projects, study tours, workshops or trainings, and other projects. This involvement of the US to improve the infrastructure in India is a positive signal of increased teamwork.

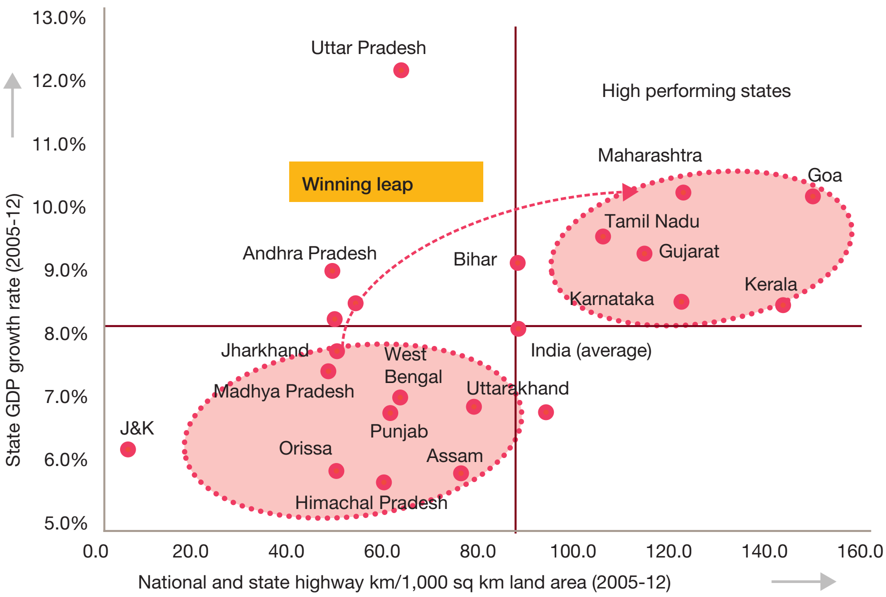
Indian highways

Currently, 40% of villages in India do not have access to all-weather roads. Connectivity between major cities is missing in many cases. The government has taken up these issues as urgent and is working towards building new inter-city expressways.

More than 40% of the freight is carried by national highways, which contribute to just 2% of the nation's total road network. As economic growth further accelerates in India, traffic flows will intensify, causing the national highways to be inefficient. This will increase the cost of logistics.

The importance of national and state highway connectivity is demonstrated by the strong correlation between national and state highways and GDP growth. States with well-connected physical infrastructure attract more investment, especially in core areas such as manufacturing.

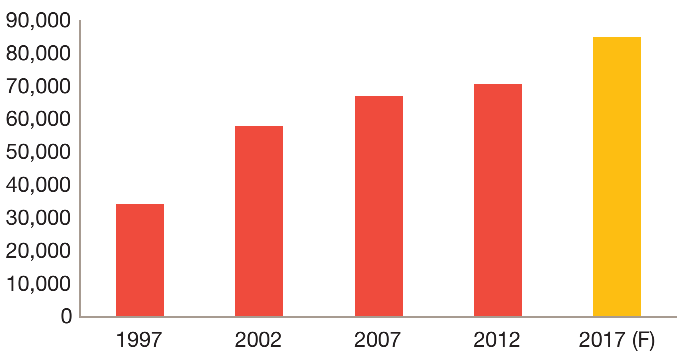
States with better national/state highway connectivity have a higher growth rate



Source: PwC's Future of India report

In the development of roads and highways, there is a thrust on PPPs. Raising the FDI cap to 100% in the roads sector serves as a strong incentive to boost foreign investment. The planned spending on roads through PPPs in the next five years is expected to be 31 billion USD.[37]

The national highway network in India



Source: National Highways Authority of India (NHAI), PwC analysis

The spending on developing highway infrastructure has led to significant improvements in the transport sector. The length of national highways has increased from 58,000 km in 2003 to 93,000 in 2014.[38] The sale of passenger vehicles, the number of highway projects and the share of infrastructure in the total banking fund have all seen a tremendous improvement from their 2003 levels.

Increasing connectivity 2003-2014

	FY 2003	FY 2014
Length of the national highway network (km)	58,112	92,851
Sale of passenger vehicles (in million)	0.71	2.5
Highway projects awarded	677	3,700
Share of infra in total banking fund (%)	2.3	14.8

Source: India Brand Equity Foundation (IBEF)

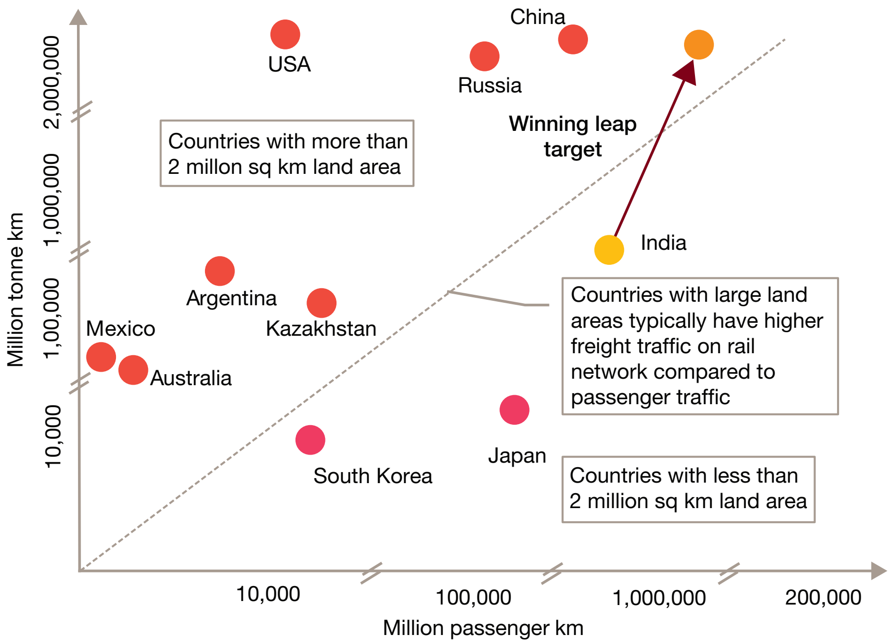
US companies can play a great role in India's infrastructure boom. Technology from the US can be used across the infrastructure space, ranging from toll plazas to security and surveillance on the highways. US companies can also bring their project management capabilities to India. Turner, a US-based leader in the project management space entered the Indian market in 2007. Many such companies can offer their expertise to Indian brick and mortar companies. This will enable them to build India's infrastructure efficiently.

Indian Railways

As much as 28% of the total freight in India is currently transported by rail.[39] Improved railway infrastructure can play a great role in increasing the share of freight and decreasing the logistics cost substantially. Growing freight traffic is taking a toll on road networks, stressing the need to reassess its freight modal mix. There are certain inherent flaws in the system:

- India is ranked fourth in terms of rail route km globally, but in terms of freight traffic carried per km, it ranks eighth, which highlight its sub-optimal freight-passenger mix on the rail network.
- Cross-subsidisation between freight rates and passenger rates: The government hikes freight rates by 3% every year to cross-subsidise passenger tariffs.
- Most rail terminals in India are antiquated with low flexibility in terms of carrying varied products.

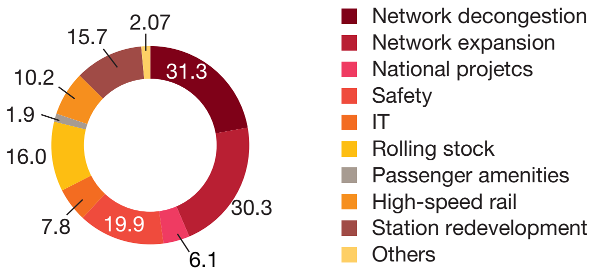
Countries with larger area should have higher freight traffic on railways



Source: PwC's Future of India report

The Government of India has undertaken a five-year railway transformational plan and envisaged an investment of 133 billion USD over the next five years.[40] The broad areas of focus are expansion of current capacity, modernisation of infrastructure, and decongestion and expansion of network. Through this proposed increase in investment, the government is looking to increase the daily passenger capacity from 21 million to 30 million, track length by 20% to 1,38,000 km, and annual freight capacity to 1.5 billion tonnes from the current 1 billion tonnes, over the next five years.[41]

Indian Railways proposed investment plan 2015-2019 (billion USD)



Source: Rail budget

Indian Railways, with an annual demand of 5,500 coaches,[42] is planning to pursue the PPP for setting up new coach factories. GE, Alstom SA, Bombardier Inc. and Siemens AG had all shown interest or have already set up manufacturing facilities in India.

Steps in the right direction

Both governments have made several initiatives to strengthen the level of collaboration towards infrastructure development. Growth of trade in infrastructure can be achieved by implementing the following:

- Infrastructure collaboration platform: This will act as a catalyst by identifying several critical infrastructure needs which will facilitate a substantial increase in US industry participation in sectors like power, water, sanitation, transport and safety.
- Intra-regional infrastructure development: Through this, critical ports, rail, aviation and intermodal infrastructure projects that advance linkages will be identified and promoted.
- Financing infrastructure development: The USTDA announced its plan to invest 15 million USD in infrastructure planning activities in India over the next five years.
- Improving railway infrastructure: US locomotive technology, equipment to monitor rail system assets, and US best practices can play a key role in modernising India's railway network.

Key hurdles

- Financing opportunities: The lack of financing opportunities in India makes it difficult to acquire capital to move forward with large-scale infrastructure development projects. India's infrastructure investment need is 1 trillion USD by 2017 and the government is short of funds.Furthermore, its current bond market is underdeveloped and dominated by the government with only few state-owned financing organisations like Infrastructure Finance Company, International Lease Finance Corporation and IDFC.
- Land acquisition laws: The complex land acquisition laws in India make it difficult for a company to develop infrastructure. Land for infrastructure projects can only be acquired through the consent of 80% of the families affected, leading to long delays. Some 80-90% of construction projects suffer due to delays,[43] with an average delay time of 1-1.5 years.

Key opportunities in infrastructure

- Opportunity exists for US firms to participate in the design, development, project management and information and communications technology (ICT) development activities in the upcoming smart cities in India and also modernise the infrastructure in existing urban centres.
- To support rapid urbanisation, the Indian government needs to upgrade transportation infrastructure such as railway. US firms can provide their expertise as well as invest in metros and monorails across growing cities.
- The Indian government is trying to attract investment in the infrastructure space from foreign pension funds.[44] US pension fund investments can look at recalibrating the PPP model often used in Indian infrastructure development to supplement government financing.

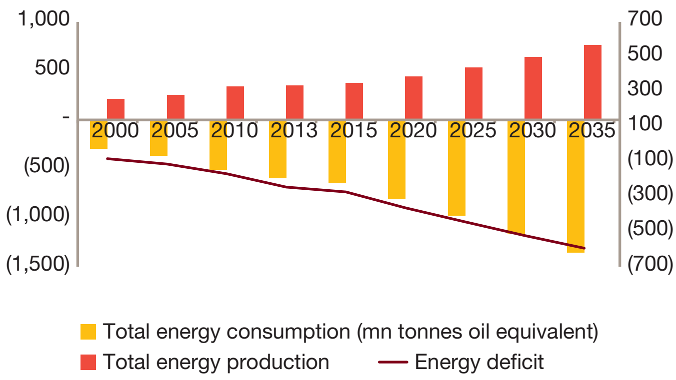
4.3. Energy

India has a low penetration of electricity due to inefficient grid networks and large dependence on coal for power generation. Increased manufacturing and urbanisation has further widened this energy deficit. The shale gas boom in the US is a great opportunity to fuel India's growing energy demand. The US can focus on natural gas and LNG exports to India, as India is shifting its focus towards cleaner sources of energy. India's 175 GW renewable energy target[45] can be achieved with the involvement of US companies.

India needs to make a winning leap in energy

Today, more than 300 million people in India do not have access to electricity.[46] The need for power, driven by the increase in manufacturing, urbanisation and mechanised agriculture, is expected to rise. The current power consumption in India is 672 kWh per capita, which is much lower than its global counterparts. By 2034, India can make power accessible to 100% of its population and increase the per capita consumption up to 1,800 kWh per capita. This will require diversification of its energy mix and adoption of new technologies.

India's energy production and consumption forecast (2015-2035)

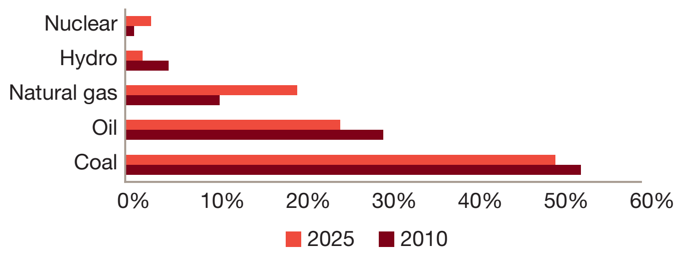


Source: BP Energy Outlook

Going forward, the growing consumer demand in India will put pressure on the energy deficit of the country. While the total energy production in India has increased from 214 million tonnes of oil equivalent in 2000 to 375 million tonnes of oil equivalent in 2015,[47] the total energy consumption has also increased from 296 to 647 million tonnes of oil equivalent in the same period.[48] The total energy deficit is expected to grow further as the energy consumption has outpaced production and has created an opportunity for trade.

Natural gas opportunity

Changing share of consumption (2010-2025)



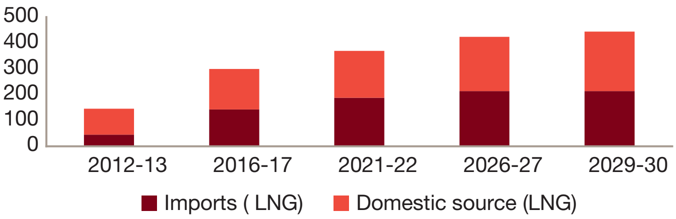
Source: Petronet LNG Limited, India, Meeting demand challenges of an emerging LNG market: India

A large percentage of power plants in India are coal-based. Despite having the fifth-largest coal reserve in the world, India is the third-largest importer of coal.[49] The limited production of coal poses major challenges to the energy sector. India is not yet limiting the use of coal though it causes extensive carbon emissions from thermal power plants and will need to define a strategic plan to use fuels to limit the emissions.

Forecasts show that the composition of primary energy supply sources to meet demand in fertilisers and power, industrial and domestic fuels in India will witness a shift away from oil and coal towards natural gas. The natural gas share was 11% in 2010, which in one of the scenarios projected, is expected to rise to 20% in 2025.[50] The share of coal is projected to decrease by a few percentage points as production challenges confront India and the preference for cleaner efficient sources like natural gas increases. The increase in the demand for natural gas will be met by imports, the pace of which will be determined by development of infrastructure.

The expansion of the natural gas supply is contingent on capacity of additional LNG regasification is demanded and the same is responded by development of terminals, a nationwide pipeline network and transnational pipelines. These installations would lead to increased efficiency and economies of scale allowing for the increased usage of natural gas.

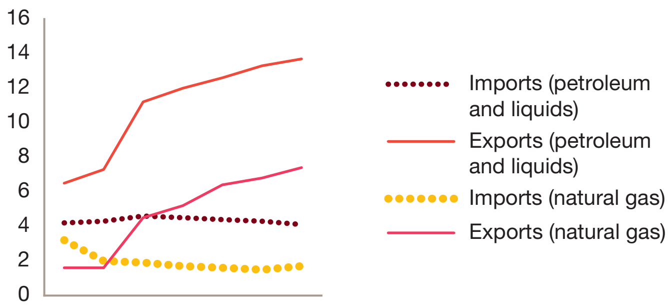
Growing imports of natural gas (million metric standard cubic metres per day (mmscmd))



Source: Petronet LNG Limited, Planning Commission

Global exports of natural gas from the US were 1.6 million metric tonnes per annum (mmtpa) in 2012 and 2013 but are projected to rise to 7.4 mmtpa by 2040 due to rise in shale gas production. At the same time, imports of natural gas by India are expected to increase from 44.6 mmscmd in 2012-2013 to 214 mmscmd in 2029-2030.[51]

Import and export of natural gas and petroleum and liquids (mmtpa) from the US (2012-2040)



Source: BP Energy Outlook

India's renewable energy focus

India has expressed its desire to focus on renewable sources of energy, especially solar. The government is providing a 30% subsidy to solar PV projects and an additional state government subsidy of 10-20%. One of the major goals of the government in the renewable energy sphere is to multiply the solar capacity from current 20 GW to 100GW by 2022.

The government of India is planning numerous initiatives to boost the investments in the renewable energy sector. According to the national scheme on draft solar parks, the Ministry of New and Renewable Energy (MNRE) will setup 25 solar parks with a total capacity of around 500 MW to 1,000 MW.[52] Power Grid Corporation of India has also planned green energy corridors for transmission of power generated from renewable energy rich states. The Indian government provides a mix of tax and non-tax benefits to promote renewable energy to create an enabling investment climate for foreign companies including income tax holiday for 10 years.[53] Hundred per cent FDI in renewable energy is permitted, thus opening up this sector up to all US companies and other foreign players.

Steps in the right direction

Steps have already been taken to increase the levels of LNG imports from the US through a number of agreements between GAIL and the US private sector. GAIL has signed a 20-year SPA with Sabine Pass Liquefaction for a supply of 3.5 million tonnes of LNG per year.[54] A terminal service agreement has also been confirmed with Dominion Cove Point LNG for 2.3 million tonnes per year. There is an agreement in place to import natural gas worth 2.5 billion USD per year from the US.

Both governments have also been working together to further increase LNG trade. The Indian government has proposed to exempt LNG from the 5% import duty[55] indicating its intention to increase LNG imports. The U.S. Department of Energy has also approved export of LNG from seven liquefaction terminals, for exports to countries with which the US does not have an FTA, including India.

Such initiatives have allowed LNG trade between the US and India to increase to current levels.

Key hurdles

- FTA: The absence of an FTA between the US and India means that gas exports from the US to India need approval from the DOE on a case-by-case basis.
- Middle Eastern competition: India's proximity to large Middle Eastern LNG suppliers and Australia means that the shipping cost is lower when compared to shipments from the US.
- Stringent licensing processes: The US market, though open and liberal, has stringent licensing processes, making it unappealing to many foreign players.
- LNG purchase contract terms: The commercial terms of LNG purchase contracts may make the imports unviable in our low commodity price regime.

Key opportunities

- With India's consumption of coal and oil as sources of energy shifting to natural gas, and the US surplus of shale gas resources expected in the future, opportunity exists for shale gas trade
- According to PwC's Future of India report, around 24-30% of power generated in India is lost during transmission and distribution. Technology transfer from US companies can help identify and reduce these losses
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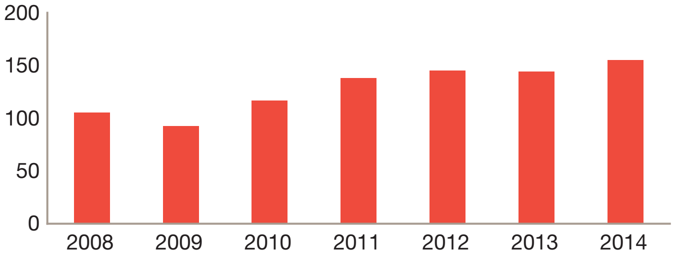
4.4. Services

The service sector has played a major role in India's growth over the past two decades and contributes to 53% of the GDP.[56] The service trade between India and the US has grown 930% since 2002 and currently stands at 34 billion USD.[57] The potential for increasing this further is vast and critical in achieving the 500 billion USD target for the total Indo-US trade. India has a large untapped financial services market, which is expected to grow rapidly over the next decade due to government initiatives towards financial inclusion. India also needs vast improvements in banking infrastructure, which can be achieved through the involvement of the highly mature US financial sector. Indian IT services can also expect rapid growth due to increased spends of US financial service companies.

India and the US in global service market

India's service exports (billion USD)



Source: The World Bank

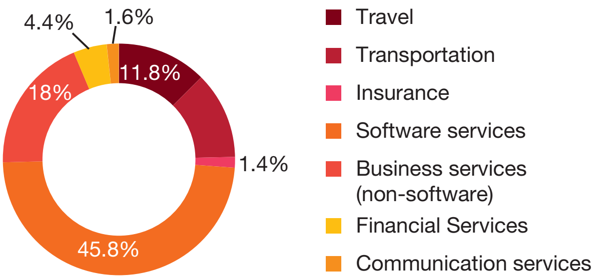
The size of the US economy makes it the largest importer of commercial services, accounting for 10% of the total global service imports.[58] This aligns with India's increasing service export market which is currently the sixth-largest in the world. The rapid growth of India's commercial services export is evident from its rise from 92 billion USD in 2009 to 155 billion USD today.[59] India, at present, accounts for 3% of the total export of services around the globe.

India's software industry

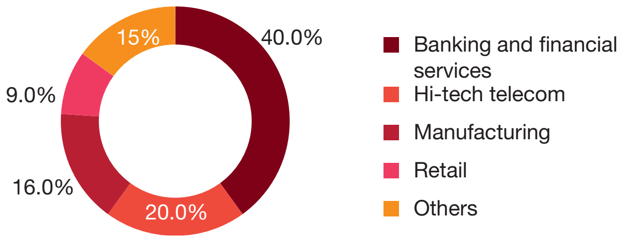
Of the total service exports from India, software services forms nearly half of the services exports and is growing at a CAGR of 19%.

India's service export share

India's service exports share (2013-2014)



Share of total IT- BPO exports



Source: Reserve Bank of India (RBI), PwC analysis

Share of total IT-BPO exports

Source: National Association of Software and Services Companies (NASSCOM)

The banking and financial services sector accounts for 40% of India's total software exports.[60] Business services, the second-largest sector, is growing at a rapid pace of 13%. Over 2.8 million professionals are employed by the software industry in India. In 2012, over 2,30,000 new jobs were created in this sector alone.[61]

US banks are focussed on improving their IT infrastructure. Since 2012, the IT spends of US banks has increased steadily, and this trend is expected to continue. With the advent of mobile technology and the shift towards mobile banking, the focus of increased IT spending is more on improvements in the online and mobile banking software. Expenditure on mobile and online banking—the top two areas of IT spends—is expected to grow at a pace of around 7%. Data analytics is another upcoming segment which will gain importance, in terms of banking spends, in the near future.

Even regional banks like PNC, SunTrust and KeyBank currently spend around 1.5 billion USD on IT, and outsource approximately 20% of the services.[62]

Major players in the banking, financial service and Insurance (BFSI) sector in India are domestic software giants such as TCS and Infosys, and global companies like Cognizant, who have a large Indian workforce.

TCS

Revenue: 15.5 billion USD

Revenue from the US: 53%

Revenue from banking and financial services sector: 43%

Software/technology for mobile and online banking:

Mobile banking technology BaNCS provides enhanced access to its users. The software has seen success in China and is in the top 40 best core banking solutions. It is currently being offered to Zions Bancorporation, among other banks in the US.

Infosys

Revenue: 8.7 billion USD

Revenue from the US: 60%

Revenue from banking and financial services sector: 27%

Software/technology for mobile and online banking:

Bank of America is one of Infosys' largest clients. Their trademark software Finacle, a mobile banking solution, has recently been offered to US banks. This new offering will increase its foothold in North America.

Challenges

The Indian IT sector has seen a long and healthy growth period but faces many internal and external challenges today:

- Foreign competition: Countries like the Philippines, China, and others in Eastern Europe and Latin America pose a threat to Indian IT exports. These countries are emerging as large export hubs for technology services and are providing services to many US firms.
- Rising wages: India has been losing the price advantage with wages in the Indian IT sector rising at a rate of 10%, causing the cost advantage to reduce. Additionally, concerns have been raised regarding the quality of services provided on account of a high labour turnover of 10-20%.
- US firms building in-house capabilities: Indian IT companies face competition not only from US giants like Accenture and IBM but also from smaller start-ups from Silicon Valley. They are develop their technologies in-house and are growing through numerous acquisitions.

Key opportunities in the services sector

India needs to invest in IT R&D to add value to its offerings. To strengthen this sector, Indian IT companies need to focus on the following:

- Big data and machine to machine (M2M) technology. These new areas will help India grow its service trade.
- Digital transformation impacting B2B, B2C, B2G. This offers a great opportunity for India-based companies.
- The tech start-up ecosystem in India is now having global model mindset wherein they are scaling up to serve the global markets (e.g. Zomato, Cardekho, etc). With Indian start-up ecosystem becoming more vibrant, it offers opportunity for US based venture capital funds to invest in the segment

India's financial services

Access to banking services is essential to maintain India's strong economic growth. In 2011-12, only 35% of adults in India had access to a formal bank account. According to the Future of India report published by PwC India, The percentage of Indians who have access to banking services will need to increase to 70% by 2024 and 90% by 2034 to achieve the 10 trillion USD economy target. This will require expanding the banking services access to additional 650 million adults.

The two major problems hindering this growth are limited infrastructure access and the dominance of cash-based transactions in the economy. The lack of infrastructure available is seen in the form of low branch density and low number of ATMs present.

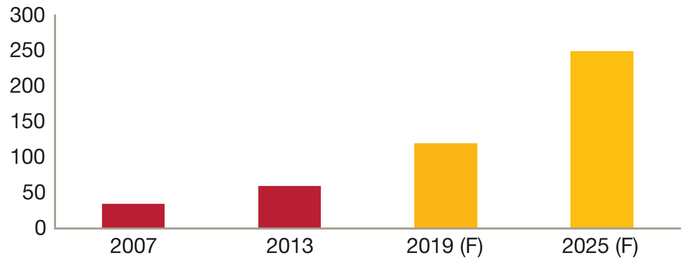
The weakness of branch density is exhibited by the fact that there are only 30,000 branches serving almost 6,00,000 villages in India.[63] India will need to increase its branch density from its current level of 114 branches per million adults to the levels of high income organisation for Economic Co-operation and Development (OECD) countries of 300 branches per million adults to significantly improve access to its banking services.

The US has been unable to transfer its banking capabilities to India as seen by the presence of only three banks - Citibank, JP Morgan and Bank of America. One of the major deterrents is the 20% FDI cap in state-owned banks in India, which control 70% of the banking sector. State-owned banks are cash-strapped and require heavy capital injections to function efficiently. Strong US investments can be mutually benefitting.

India also has a low number of ATMs which contribute to the weak infrastructure of the banking sector. Currently, India has 141 ATM machines per million adults. This statistic will need to jump to 180 ATMs per million adults by 2024 and eventually to 420 by 2034,[64] thus entering the same league as the upper middle income countries. The US is home to many ATM manufacturers like Diebold, IBM, Tidel, Tranax and Triton. Diebold has been active in the Indian market through its ATMs management for Axis Bank and is assisting Bank of Baroda in bringing smart ATMs into India. The involvement of US ATM manufacturers can give US companies access to a new and fast-growing market. These companies can also use India to test out new solutions like solar ATMS and help reduce costs of setting up ATMs drastically. These solutions can then be taken to other similar emerging markets.

India's insurance sector

India's life insurance market (billon USD)



Source: Insurance Regulatory and Development Authority (IRDA)

The Indian insurance market is lagging behind its global counterparts and is in urgent need of reforms. Currently, the insurance penetration in India is 3.9% of the GDP, which is significantly lower than the global average of 6.3%. Developed countries like the US have an insurance penetration of 7.5%, and Japan stands at 11%.[65] Despite its large population, India accounts for only 1.5% of the world's insurance premiums. This projects the weakness of the Indian insurance industry and the huge untapped potential present for foreign insurance companies.

The recent insurance bill has increased the FDI limit in the insurance sector from 26% to 49%. This incentive to foreign investors is expected to drive capital infusion of 3 billion USD in the near term and 10 billion USD in the medium to long term. The total size of the market is expected to touch 250 billion USD by 2025[66] from its current level of 60 billion USD.

4.5. Manufacturing

With the growth of urban India and the rapid industrialisation across sectors, manufacturing will play a vital role in India's development. Shifting focus from low-tech to high-tech industries is critical. It is also important to climb up the value chain and shift the focus to value added products. To emerge as a dominant force in the world market, India will need to increase its value-added manufacturing from 12% of the GDP to 25%.

While India's current competitiveness is perceived to be lower than China, Germany and the US, industry leaders believe that in the next five years India can emerge as one of the top two, with the help of a robust manufacturing strategy, changes in FDI laws, and improving business conditions in India.

Indo-US trade

The total bilateral trade of goods between India and the US was 67 billion USD, with Indian exports to the US amounting to 45 billion USD.[67] The largest exports from India were precious stones, followed by textiles and pharmaceuticals. Among imports in India, precious stones and metals held the highest share, of which diamonds were the most important component. Aircraft contributed to 11% of the pie because of dominant companies like Boeing in the aviation market.

Sub-sectors within manufacturing

The main avenues for the growth of manufacturing and trade between India and the US are textiles, precious stones, pharmaceuticals, aircraft and machinery. The strong capabilities of each country within a particular sector help in establishing a mutually beneficial trade partnership. India's large textile and pharmaceutical market can contribute heavily to US consumers, while India's infrastructure can use assistance from the US machinery and aviation companies.

Textiles

India's textiles export worth 40 billion USD has made it the second-largest textile exporter in the world after China.[68] The future growth opportunities for textile manufacturing and exports are immense. Increasing labour costs in China is making it less attractive to foreign buyers who are now looking for cheaper replacements. The relatively low labour cost in India can address this concern. The increasing non-compliance of a large number of factories in large textile export hubs like Bangladesh, and the high credit cost making it difficult for manufacturers to expand in Vietnam, allows India to emerge as a front runner in textile exports. Additionally, US buyers consider India as a safe and reliable option for their sourcing. However, this sector can be prone to new trade agreements under discussion such as the Trans Pacific Partnership (TPP), which will adversely impact India.

Pharmaceuticals

India is one of the fastest-growing pharmaceutical markets in the world and has established itself as a global manufacturing and R&D hub. The rapid growth of the pharmaceutical export industry provides an opportunity for Indo-US trade of pharmaceuticals to grow. Currently, India exports pharmaceuticals to over 200 countries across the world and the total value of pharmaceutical exports from India was around14.84 billion USD in 2013-14.[69]

The US accounts for nearly 40% of the global pharma sales of 980 billion USD.[70] India's drug makers export more than 4 billion USD of products to the US out of their annual exports of around 15 billion USD, accounting for 26% of the total pharmaceutical exports from India in 2014-15.This is expected to increase to 35% this financial year because of the government initiatives undertaken to boost trade of pharmaceuticals. Large firms like Ranbaxy Laboratories, Sun Pharmaceutical Industries, Dr. Reddy's Laboratories and Lupin account for around 3 billion USD of exports to the US. The remaining comes from dozens of medium and small-sized drug makers.

Lupin CFO Ramesh Swaminathan told a newspaper that delays in regulatory approvals and consolidation of pharmacy players are among the challenges in the US market.[71] The JV between the second-largest US wholesale distributor Cardinal Health and CVS Caremark in December 2013, and the US pharmacy McKesson's acquisition of US distributor Celesio in January 2014, have given rise to dominant players with a higher bargaining power, which has resulted in pricing pressures for generic companies.

Other issues hampering trade in this sector include the perception of lack of compliance and poor-quality of generic drugs made in India, especially amongst doctors. While Indian companies have already taken measures such as complying with USFDA standards for exports, voluntary withdrawals of unsuitable drugs, and bar-coding to increase traceability. Awareness programmes and workshops with drug regulators as well as physicians and doctors are also required to further build trust.

Gems and jewellery

Key quote

The gems and jewellery sector is perfect for Indo-US trade to drive 'brand India' and will also benefit from the over 80 billion USD US jewellery retail sector. Joint ventures with US retailers and Indian manufacturers will ensure quality products at the most competitive prices. At the same, it will also strengthen manufacturing capabilities and create employment for traditional Indian artisans.

Sanjeev Agarwal
CEO, Gitanjali Exports

India is a large diamond manufacturing hub and is the largest importer and processor of rough diamonds in the world. Raw diamonds are imported to India and cut and polished in diamond manufacturing hubs like Surat. The Indian government is giving this sector a thrust by setting up gems and jewellery parks in special economic zones (SEZs) in Mumbai and Surat to boost this industry. The US is one of the largest diamond exporters in the world and exports roughly 21 billion USD worth of diamonds worldwide. This accounts for almost 15% of the total diamonds exported internationally. India's massive diamond processing capabilities with the US's large diamond supply is ideal for taking the trade in precious stones to high levels.

Gold is an important export from the US and contributes 76% of the total precious stone export pie to India. India is the largest exporter of gold jewellery owing to its large number of skilled goldsmiths and low cost labour in the country.

The gems and jewellery industry faces several issues such as limited supply infrastructure, high import dependence and regulatory curbs. Though its employment and GDP contribution is high, there is no dedicated ministry to oversee this sector in India. This has led to various challenges for key players such as low technology adoption and limited research-led innovation. The ratio of manual to machine-oriented work in the industry is estimated to be around 70:30 for jewellery manufacturing and 40:60 for diamond processing.[72] Even in diamond cutting and polishing, Indian companies use less technology compared to their global counterparts. Opportunities exists for US companies to collaborate with Indian jewellery value chain players to invest in the industry.

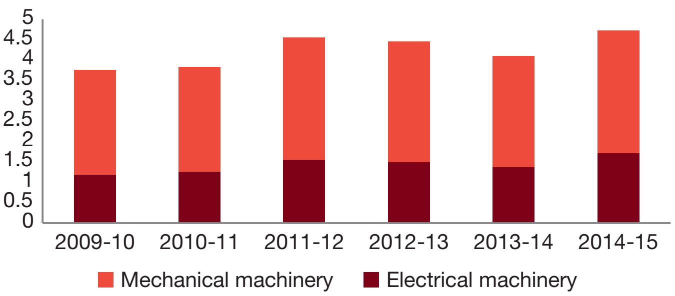
The Indo-US relationship can also grow in the gems and jewellery segment wherein US retailers and Indian jewellery manufacturers participate to set up jewellery hubs within India. These hubs can serve as captive production units for US retailers who can benefit from the competitive manufacturing prices of the Indian market. Indian manufacturers, on the other hand, can benefit from the global know-how of US retailers, mindset with a global outlook, and efficient backend processes for stock management, stock flow and management information system (MIS) management.

Currently, US retailers are only focussing on the US market, with limited focus on Europe. The relationship will also facilitate their expansion in developing markets of South-east Asia and the Middle East.

Machinery

India's infrastructure developments and manufacturing improvements have led to an increase in machinery imports from the US. The US mechanical machinery is of sound quality and is a large contributor to the total import pie of India. The largest components within machinery imported from the US were engines and jet parts, along with telephone and telegraph equipment.

India's machinery imports from the US (billion USD).



Source: EXIM

However, the challenge here arises from the growing levels of Chinese machinery imports in India. Over the course of five years, Chinese electrical machinery imports have increased from around 10 billion to over 16 billion USD, while mechanical machinery imports have increased from 6 billion to 10 billion USD over the same period. Similarities between particular items between US and Chinese imports is a serious threat to the growing trade in this sector.

US-based SMEs hold huge potential for trade

Small businesses play a vital role in the US economy. They contributed to 46% of the private nonfarm GDP in 2008.[73] Of the high patenting firms (15 or more patents in a 4 year period), small businesses produce16 times more patents per employee than large patenting firms.[74] They make up 37% of high-tech employment.[75] SMEs were responsible for 33% of the goods exported from the US in 2012.[76] US-based SMEs have a huge potential to export high-technology products to India, but currently, 58% of SMEs posted sales in only one foreign country—Canada, the most popular destination.[77] SMEs are especially dependent on government initiatives to open foreign markets. Unlike larger companies, most SMEs do not possess offshore business affiliates that can be used to overcome trade barriers and gain market access. Opening up of trade barriers and removing regulatory hurdles for SMEs to trade with India will open up huge opportunities for trade on both sides.

Growth of SMEs in US exports

SMEs accounted for approximately 30% of known US merchandise exports between 1997 and 2007 with their exports of 306.6 billion USD in 2007. While these firms faced typical resource constraints and challenges–scarcity of financial and human resources, limited understanding of exports destination, they followed an aggregator model with export intermediaries who use their products/ services in sales abroad. The US government also helped them mitigate some of the risk associated exports and several US government agencies like the Export-Import Bank of the United States, Overseas Private Investment Corporation (OPIC), Small Business Administration (SBA) and commerce instituted formal programmes to facilitate SME exports.

With support from both governments and the private sector, a similar exports model can be implemented to boost Indo-US SME trade.

Source: United States International Trade Commission. (January 2010). Small and medium-sized enterprises: Overview of participation in US exports

Key quote

SMEs in the US are keen to explore India as an attractive destination and might have products/services which are more competitive than MNC peers. Ease of doing business will be the key for this constituent as they don't have the support staff to take care of regulatory hurdles.

Alok Verma
Director, PwC Strategy&

Initiatives to boost Make in India initiative

- The Indian government is trying to improve the EODB environment in India with the introduction of measures such as an online business portal to apply for licenses. The portal will be integrated with the services of the government and its ministries.
- FDI limits in industries such as telecom, medicine and retail has been increased to 100% to promote foreign investment. A number of export incentives like duty drawback and stamp duty exemption have been introduced to incentivise foreign investment. A technology acquisition and development fund will be set up to develop technologies and create a patent pool, thereby addressing issues relating to IP.
- The government plans to boost Indian manufacturing and incentivise foreign investment in the manufacturing sector through its Make in India initiative which focusses on sectors across the manufacturing spectrum and serves to introduce policies to make India a more business-friendly destination for manufacturing.
- The bilateral shared forum on manufacturing involves the US Department of Commerce hosting delegations from the CII and the Ministry of Commerce and Industry of India. The National Institute of Standards and Technology (NIST) support US manufacturers to innovate and grow through its Manufacturing Extension Partnership (MEP) programme. A similar programme must be implemented in India to foster innovative thinking and manufacturing.
- The US-India CEO Forum will be held in India for the second time in 2015, and is geared towards sharing the best practices in manufacturing, and working towards a greater harmonisation of standards

These incentives and initiatives by the government have produced desirable results across various sectors. Large companies like Samsung, Suzuki, and Sanofi SA have expressed their desire to invest and set up factories in India. First Solar and Foxconn, both US companies, have shown interest in developing plants in India.

Key challenges

The main challenges facing the growth of Indo-US trade in the manufacturing sector are related to India's inhibitive policies and laws, weak infrastructure, and stiff competition from China and other East Asian countries. Overcoming these hurdles will require heavy government involvement and a large contribution from the private sector.

- **EODB**: This is one of the primary concerns of foreign investors since India is ranked 142 in the World Bank's Ease of Doing Business Index. Starting a business, paying taxes and enforcing contracts are some areas in which Indian policies are prohibitive.
- **Poor infrastructure**: India's low ranking of 54 in the World Bank's Logistics Performance Index[78] and the many infrastructure issues present in India is discouraging to foreign investors. Additionally, logistics costs are 13% of the GDP in India, compared to 6-8% in developed countries.
- **Competition**: Cheap labour and high productivity in markets such as China and Vietnam make it extremely competitive for the Indian manufacturing sector. As per reports on manufacturing competitiveness, China consistently ranks higher, through key drivers such as low cost of labor and materials, strong supplier network and large government investments in manufacturing and innovation

Key opportunities

- As the Indian government increases its focus on developing a manufacturing hub in India, opportunity exists for US companies to participate in the sector through their technological expertise, especially in sectors like gems and jewellery, which are currently facing a significant technology gap.
- Pharmaceuticals are one of the top imported commodities in US, while India exports pharmaceuticals to over 200 countries worldwide. This presents an opportunity for Indian pharmaceutical companies to increase trade with the US.

5 Roadmap to enable 500 billion USD trading relation

To take Indo-US trade to the next level and reach the 500 billion USD mark, a significant thrust from both sides is needed. This involves initiating more trade missions and removing barriers that affect the trade and investment, to make the partnership significant on a global scale in the long run. While many roadblocks may arise in the course of time, the commonalities of interests are immense, and the following imperatives are necessary to convert this potential into a functional reality.

5.1. Key imperatives

Government

India

- **FDI caps**: Needs to increase FDI caps in sectors such as insurance and defence. It also needs to cut down on the local content requirement in the defence
- **EODB**: Must make efforts to improve India's EODB rank. This can be done by reducing the time taken for a company to get the required permits and licenses, and allowing for stronger enforcement of contracts.
- **Patent laws**: Must take measures to remove the limits on patents for incremental innovation. There is also a need for stronger enforcement of laws to stop copyright and trademark infringement.
- **Infrastructure**: Physical connectivity infrastructure, quality and institutional challenges drive logistic costs. India needs to improve its infrastructure and physical connectivity to be able to grow at 9% and reduce its logistics cost to enable trade.

The US

- **Visa policy**: Fifty-six per cent of the L-1B visa petitions by Indians were rejected by the US. The biggest users of this visa are Indian IT companies like TCS, Infosys and Wipro. Visa policies need to be changed through talks to increase the level of involvement of Indian professionals in the US.
- **Restrictions**: Pharmaceuticals and aviation segments have been affected by US restrictions on Indian companies. In areas such as generic drugs, the US and India haven't been unable to reached a consensus on regulatory policies. The US Federal Aviation Administration has also downgraded India's aviation safety rating, thus impacting the plans of Indian carriers such as Air India and Jet Airways to increase the number of flights to the US. Such restrictions have created mistrust and led to difficulties and ambiguities in the market access for Indian companies in the US. Such policies need to be reviewed to build trust between the two trading partners to enable increased trade.
- **Trade agreements**: The US has FTAs in effect with 20 countries. The US is also in negotiations for a regional, Asia-Pacific trade agreement and has a series of bilateral investment treaties (BITs) to help protect private investment, develop market-oriented policies in partner countries, and promote exports. Efforts need to be made to enter trade agreements and treaties with India to enable free trade.

Corporate sector

India

- **Trade bodies**: Industry leaders believe that trade bodies in India are not as adept as their global counterparts in solving specific trade issues, and need to be more proactive.
- **Innovative business models**: With India's ever-changing business scenario, firms need to be flexible and adaptive. This can be done through asset light business models that use unconventional channels and technology as key enablers.
- **Growth innovation mindset**: Companies can achieve this by adopting a value-growth mindset, and investing in R&D. Ecosystems have been created in the automobile space where foreign players have set up their manufacturing base, and Indian auto ancillary players can create ecosystems to feed these manufacturing facilities. This can be done in sectors such as A&D and manufacturing.
- **Data security**: India is an outsourcing hub for many US companies and sensitive information resides on the servers of Indian companies. Investments need to be made in the right processes and technologies to prevent, protect, detect, and respond to risks to have dynamic security practices in place.

The US

- **Technology transfer**: US companies need to be open about technology transfer with Indian firms as it will enable the growth of trade at a rapid pace.

People

People-to-people ties between India and the US have always been robust and play a major role in bringing the governments and corporates together.

Currently, the flow of people is one major way, but Indian universities and institutions are actively trying to attract foreign students to India. Mumbai University ruled 15% seats in colleges to be set aside for foreign students.[79] Other initiatives like the US-India art and cultural exchange centre facilitate the exchange of naturally-talented artists who do not have the adequate resources. The government has introduced many initiatives such as Incredible India and Atithi Devo Bhava (the guest is equivalent to God) to attract foreign tourists to India. India has opened up visa on arrival for US citizens. This free flow of people will enable deeper human bonds between citizens of the two countries and enable the governments and corporate sector to play their role well.

To take this a step further, India and the US need to conduct joint programmes to facilitate the exchange of education, skills, and capabilities. This can be done with the active participation of educational institutes and organisations through quotas, involvement of corporates through apprenticeship programmes, national and state incentives, and dual country certifications. In addition, building an attractive tourism sector, supported by easier travel and visa policies, can also help in the diffusion of cultures in building a strong people partnership.

Long-term plan

Both countries should together lay out a long-term vision to form a strategic relationship. They should form a partnership with minimal interference to trade and investment. The US and India should work towards having one of the largest trading relationships by laying the groundwork for strong investment treaties and comprehensive economic packages. The two largest democracies in the world should move beyond mere trading and economic relationships and towards long-term partnerships. This partnership will go a long way in addressing challenges the world is facing, including climate change and terrorism, and will also create a balance of power in the South-east Asia region.

5.2. Beyond trade

The US and India are both large democracies with similar strategic goals. A strategic trading relationship is only the first step in creating a more meaningful partnership between two countries with similar ideologies. This can not only lead to deeper engagement in areas such as space exploration, climate change and counter-terrorism, but also build a stronger people partnership and bring together dynamism and new thinking to create solutions to some of the most pressing problems the world is facing.

Some steps have already been taken by both governments across different frontiers. The US is now aiming to take a leap into the next big frontier of space exploration with India. Richard Verma, US ambassador to India, said, “We look forward to path-breaking work between NASA and ISRO on deep space exploration to Mars and beyond.”

Climate change is another area where India and the US are collaborating. India Prime Minister Narendra Modi and US President Barack Obama made personal commitments to work together to pursue a strong global climate agreement in Paris. EXIM Bank of US is exploring projects with the Indian Renewable Energy Development Agency (IREDA) of up to 1 billion USD in clean energy.

However, this can just be the beginning of a long and powerful relationship if the governments and the corporate sector build lasting and sustainable ties, and secure it with the foundation of a strong and vibrant people partnership.

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