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The Indian Economy Since Independence

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ABSTRACT

India, after being ruled and colonized by foreign powers, on 15th August 1947 got its independence. In this work the focus is on the economy of India especially after the independence. Currently India is one of the most attractive market. According to 2019 report, India is the fifth largest economy in terms of nominal GDP and third largest in terms of Purchasing Power Parity. At the time of independence, the country was not even self-sufficient in terms of food although it was an Agrarian economy and now it is one of the largest economies.

The project includes five parts. The part one illustrates a border picture and introduction of India. The Second part focuses on the economic history of India trough different period in history including the famous foreign power rules such as Mughal and British, analysis of Pre-independence economic situation with Drain of Wealth Theory and a closer look towards the economic situation of India at Independence. The third part elaborates economic planning of India such as Five-year Plans of India and has a depth analysis of green revolution and white revolution which made India a self-Sufficient and Self-reliable country in terms of food and dairy products. In the fourth part, the work focuses on economic reforms of India i.e. LPG reform and liberalization of Indian economy in 1991, demonetization of 2016 and its effects and forth part is a conclusion with some necessary remarks about the Indian economy.

As an Indian this project is very close to my heart. The country was called “Soney Ki Chidiya” (Golden Bird) in one time but was struggling for survival when it got its independence. But merely 73 years after independence it achieved a lot in terms of economy. This economic advancement through various thick and thin was an amazing one. India, a country who gave up its gold reserve in early 2000s just to maintain its necessary and basic imports, now, in less than 30 years of that incident, has little less than 500 billion-dollar foreign reserves. The republic of India adopted a central planning system for most of its Independent period. The 1991 economic crisis led government to liberalize its economy and open its market. This report focusses on that journey of India and a depth analysis of the economic planning and reforms of the Republic of India.

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Sourav Kumar Parida

I. Part 1: *Introduction of India*

A. Introduction of India

Bharat, that is India, officially the Republic of India is a south Asian country. The country is bounded by Himalaya in North, Indian ocean in south, Arabian ocean in southwest and Bay of Bengal is southeast. Indian share its border with China, Bhutan and Nepal to the north, Pakistan to the west, Bangladesh and Myanmar to the east. Country's biggest islands Andaman and Nicobar Islands share a maritime border with Indonesia and Thailand. Moreover, it is in vicinity of Maldives and Sri Lanka.

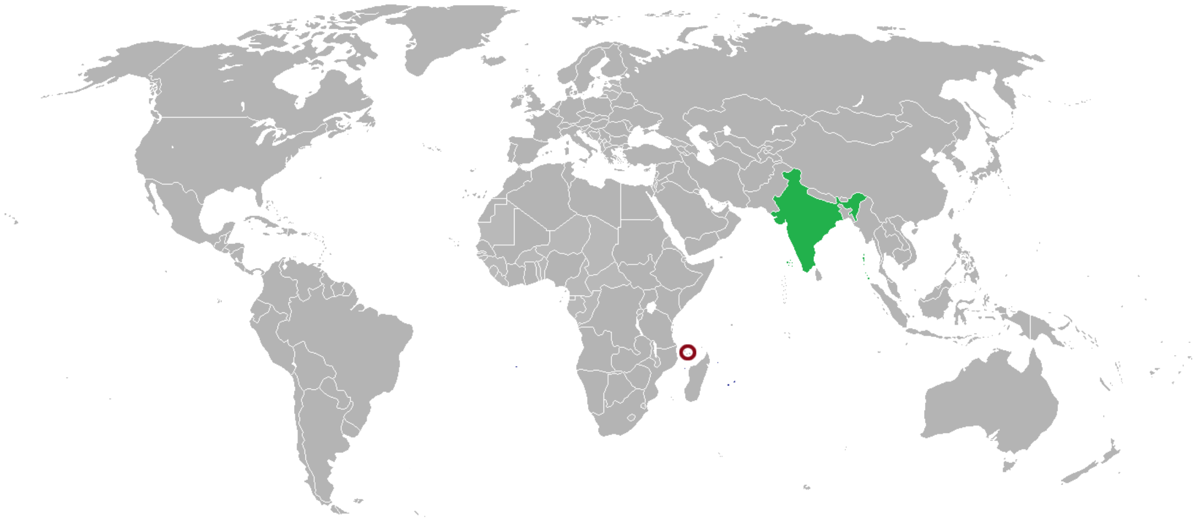


Figure 1.1:Where is India?

Source: Maps-India

Indian is the most populous democracy in the world, seventh-largest country by area and Second most populous country. It is a secular federal republic governed in a democratic parliament system. The capital of the country is New Delhi and Mumbai is the largest city and a major financial hub. It recognizes more than 20 languages as its official languages. India covers total area of 3,287,263 Km^2 (1,269,219 sq. mi) and 9.6 % of water.

Indian subcontinent has highly genetic diversity second only to Africa. It has large number of geographical diversities from snowy mountain to desert and flat lands to dense forests.

B. History

After 10th century Central Asian Muslim nomadic clans repeatedly overrun India's north-western plain and eventually established Delhi Sultanate (Morden Delhi National Capital region) in 1206. From that time till 18th century majority of mediaeval India was under Islamic rule. By early 18th century various European trading companies including British East India Company had coastal outposts in India. During this period the lines between political dominance and commercial dominance being highly blurred commercial companies started to colonise foreign lands. East India company 's control over seas, greater resources and military power with advanced weapons and technology allowed it to take control over eastern part of India, which was Bengal kingdom, by 1765 and eventually British force annex or subdue majority part of India by 1820. Then after India become a British ruled state. During this period India no longer export its raw materials to all over the world, rather it exports or forced to exports only to British empire. The 200 years of British regime crippled the economy of the country. Towards the midnight on 14th August 1947, on the eve of India's Independence Jawaharlal Nehru addressed the nation from the constitutional assembly,

"At the stroke of the midnight hour, when the world sleeps, India will awake to life and freedom."

And on 15th of August 1947 India got its independence but the cost of the independence was huge. It lost its one third of territory by the partition plan of the British Parliament, on the form of East Pakistan (Become Bangladesh in 1971 after divided from Pakistan) and West Pakistan (Pakistan).

C. Geography

India resides on the top of Indian tectonic plate and Indo-Australian plate. It lies between 6° 44' and 35° 30' north latitude and 68° 7' and 97° 25' east longitude. Total coastline measures up to 7517 km, from which 2094 km to the Lakshadweep, Andaman and Nicobar Islands and 5423 km belongs to the Indian peninsular. Indian naval hydrographic report suggests the coastline consists of 46% mudflats, 43% sandy beaches and 11% cliffs and rocky shores.

India has many rivers such as Ganges, Yamuna, Brahmaputra, Narmada, Godavari, Kaveri, Mahanadi and many mores to provide water and ecosystem. India has two archipelagos-

Andaman and Nicobar Islands (it's a volcanic chain in Andaman sea), Lakshadweep (it's a coral atoll off south-western coast). Monsoons are most pivotal factor in its economy as still large portion of Indian economy depends on the agriculture. The Himalayan on the north and Thar desert on the west controls the summer and winter monsoons. Thar desert or the great Indian desert covers an area of 200,000 sq. km and is a natural border between India and Pakistan. Forest land covers 701,673 sq. km, which is 21.35% of total area.

D. Demography

As per census report of 2011 more than 1.21 billion people are inhabitants of India. According to various data current population of India is mora than 1.35bn, which is equivalent to 17%-18% of world population. The population density is 464 per sq. km. About 35% of the population is urban. Median age of the country is 28.4 years.

India is a federal union of 28 states and 8 union territories. There is no national language of India. "Hindi" is the largest speaking language and official language of the government. "English" has the status of a subsidiary official language and is extensively used in business and administration. Each state and union territory have one or more official languages depending upon the native people, which constitution of India recognizes as "Scheduled languages" e.g. Marathi, Odia, Bengali, Gujarati, Assamese, Tamil, Telegu, Kannada and many more.

India cherish its multi culture, multi lingua, multi-ethnic and multi religious society. It has mainly Asian ethnic groups. Rigorously the country celebrates all religion.

Hinduism	79.8%
Islam	14.2%
Christianity	2.3%
Sikhism	1.7%
Buddhism	0.7%
Jainism	0.4%
Unaffiliated	0.23%
Others	0.65%

Political Map of India

Source- mapsofindia.com

Literacy rate of India is 79.31% according to census 2011. There is a large gender disparity in literacy in India according to that report. Literacy rate is 80.9% for men and 64.6% for women.

India is a federal union governed under constitution of India. It has a parliament system with two houses. Lower house is called Lok Sabha (House of people) and higher house is called Rajya Sabha (Council of states). It has multi-party system with more than 8 national parties and more than 40 regional parties. The government of India has 3 branches- Legislature, executive and Judiciary. The President of India is the ceremonial head of the Executive who is elected for 5 years. The prime minister is the head of the government and exercises the executive power. There are total of 545 seats in Lok Sabha, from which all but two are directly elected by the voters. Rajya Sabha is the permanent body of 245 members who served for 6 years.

India has a three-tier unitary independent judiciary system. Supreme court, which is in New Delhi, headed by chief justice of India is the highest hierarchical body and has original jurisdiction over fundamental rights and dispute between states and centre. Apart from supreme court there are 24 high courts and a large numbers of trial court is present.

E. Economy and Industries

According to International Monetary Fund's "World Economic Outlook Database- October 2019", in current price, India is the 5th largest country in GDP nominal with 3.2 trillion USD and 3rd largest country in GDP purchasing power parity with 12.3 trillion USD. The report also stated that per capita income in nominal term was 2,338 USD and in PPP was 9,027 USD, which is 139th and 118th in world ranking respectively. However, India is one of the fastest growing economies in the world. According to IMF India's real GDP growth is 7% in early 2020.

After India's independence it adopted a socialist economy and government followed protectionist policies till 1991. In 1991, followed by a balance of payment crisis, India forced to liberalise its economy and moved towards free market system. The nature of country's economy has changed since Independence. Initially India was an agrarian economy after independence with most of labour force employed in agriculture and agriculture sector was the largest source to Indian economy. Now service sector is responsible for the largest share of country's economy. India's massive population create a very huge market and the nation has a consumption driven economy.

According to Central Intelligence Agency (CIA) India has world's 2nd largest labour force with more than 513 million workers in 2016. India is the world's top foreign exchange remittance with more than 68 billion USD in 2017 as more than 25 million work force work abroad. Although China is an export driven economy, yet it comes in 2nd spot in remittance.

Service sector is responsible for Indian GDP with around 50%, agriculture sector less than 20% and Industrial sector around 28%. Textile, telecommunication, software, pharmaceuticals, chemicals, steel, mining are the major industries and rice, wheat, sugarcane, oil seed, cotton, jute are the major agriculture products of the nation. India is one of the biggest importers and exporter. The major export products are textile products, petroleum products, chemicals, software, jewellery, leather products and major import products include crude oil, gems, fertilizer, chemicals etc.

India's telecom industry is the second largest in the world with over 1.2 billion subscribers. It contributed over $140 billion to India's GDP in 2015, around 6.5% of nation's GDP in 2017 and expected to reach more than 8% in 2020. Under Modi government's Digital India campaign telecom industry experiencing a huge growth. Government's 100% FDI policy for telecom industry helped to grow this sector. Reliance Industries Limited, Aditya Birla Group, Vodafone Group, Bharti Airtel Limited and government of India (Bharat Sanchar Nigam Limited) are the biggest players in Indian Telecom market.

Rise in middle class income and increase young population resulted in an expanding auto market. India became the fourth largest auto market in the world in 2018. This year a total number of 3.99 million units were sold. Due to some policies the auto market saw a decline in 2018 & 2019. India is also the seventh largest manufacturer of commercial vehicle. Tax reduction on electric car to 5% is aimed to attract FDI in this sector. Major players in auto sector in India includes Tata Motors Limited, Mahindra & Mahindra Limited, Maruti Suzuki India Limited, Bajaj Auto Limited, Ashok Leland Limited.

F. India in Numbers

General

Source- Indian Government Portal

	Measure	World Rank
Total Area	3,287,263 km^2	7th
Water	9.6%	
Population (2018)	1,352,642,280	2nd
Population Density	405.3/ km^2	31st
Gini Index (2013)	33.9	79th
Human Development Index (2018)	0.647	129th
Fire Power Index	0.0953	4th
Ease of Doing Business	71.0	63rd
GDP Growth (Q3, 2019-2020)	4.7%	

Membership: UN, WTO, BRICS, SAARC, SCO, G8+5, G20, Commonwealth of Nations

Trade Organisations: WTO, WCO, WFTU, BRICS, G20, BIS, AIIB, ADB & many mores.

GDP

Source- World Bank, International Monetary Fund

Index	Measure	Reference
GDP (Purchasing Power Parity), Current Price	12.636 Trillion USD	October 2019 World rank-3rd
GDP Nominal, Current Price	3.202 Trillion USD	October 2019 World rank-5th
GDP per Capita Nominal, Current Price	2338 USD	October 2019 World rank-139th
GDP per Capita, PPP	9027 USD	October 2019 World rank- 118th
GDP Composition by end use	Household consumption: 58.7% Government consumption: 11.6% Investment in fixed capital: 27.5% Investment in inventories: 4% Exports of goods & services: 18.4% Imports of goods & services: -20.2%	2017

GDP Composition Sector wise	Agriculture: 16.8% Industry: 28.9% Services: 46.6%	2016
Private Consumption	32355.32 Billion INR	2019 Q4
Government Consumption	5754.95 Billion INR	2019 Q4
Real Private Consumption	21662.35 Billion INR	2019 Q4, Base year FY 2012
Investment	11783.79 Billion INR	2019 Q4, Base year FY 2012
Real Government Consumption	3823.38 Billion INR	2019 Q4, Base year FY 2012
Nominal GDP	51888.63 Billion INR	2019 Q4
Real GDP	36650.03 Billion INR	2019 Q4, Base year FY 2012
Real Investment	44,527,145,369,249	2017
Producer Price Index	132.64	Mar 2017, Base year 2005=100

Trade

Source- World Bank

Index	Measure	Reference
Import of Goods	41,140 Million USD	Jan 2020
Exports of Goods	25,970 Million USD	Jan 2020
Balance of Goods	-15,170 Million USD	Jan 2020
Exports of Goods & Services	9,629.95 Billion INR	2019 Q4
Real Exports of Goods & Services	7,074.07 Billion INR	2019 Q4, Base year FY 2012
Real Net Exports	-504.89 Billion INR	2019 Q4, Base year FY 2012
Imports of Goods & Services	10,752. 89 Billion INR	2019 Q4
Real Imports of Goods & Services	7,578.96 Billion INR	2019 Q4, Base year FY 2012
Net Exports	-1122.94 Billion INR	2019 Q4
Current Account Balance	-440.44 Billion INR	2019 Q3

Government

Source- World Bank

Index	Measure	Reference
Gross External Debt	39,451 Billion INR	2019 Q3
Foreign Outstanding Public Debt	925,515 Million USD	2019 Q3

Business

Source- World Bank

Index	Measure	Reference
Industrial Production	137.1	Jan 2020, Base year 2012=100
Capacity Utilization	7.9%	2019 Q4
Business Confidence	22.6%	2019 Q4
Change in Inventory	809.78 Billion INR	2019 Q4
Real Change in Inventory	646.68 Billion INR	2019 Q4, Base year 2012

Transportation

Source- Government of India, Ministry of road transport and highways, Ministry of railways, Airports Authority of India, Shipping corporation of India

	Measurement	Reference
Total Roads	5,897,671 km	March 2017
National Highways	114,158 km	March 2017
State Highways	175,036 km	March 2017
Urban Roads	526,483 km	March 2017
Rural Roads	4,166,916 km	March 2017
District Roads	586,181 km	March 2017
Total Railways Route	67,368 km	March 2017
Total Running Tracks	93,902 km	March 2017
Electrified Railways Route	25,367 km	March 2017
Electrified Running Tracks	48,239 km	March 2017
Number of Railways Stations	7,349	March 2017

Total Number of Airports	137	December 2019
International Airports	23	December 2019
Domestic Airports	104	December 2019
Custom Airports	10	December 2019
Total Coastline Span	7517 km	March 2019
Major Ports	Government owned: 12 Private: 1	March 2019
Minor Ports	187	March 2019
Total Number of Ports	200	March 2019

Communication

Source- Telecom Regulatory Authority of India

	Measurement	Reference
Total Telephone Subscribers	1.1835 billion	May 2019
Mobile Subscribers	1.161 billion	May 2019

Fixed Line Subscribers	21.29 million	May 2019
Teledensity	89.92%	May 2019
Urban Teledensity	160.79%	May 2019
Rural Teledensity	56.74%	May 2019
Internet Users	706.73 million	January 2020
Broadband Users	581.51 million	May 2019
Internet Penetration	48.48%	March 2019
World Share of Internet Users	17%	December 2018
Private Television Channels	902	March 2019
Private FM radio Stations	356	March 2019

II. Part 2: *Economic History of India till Independence*

Economy of India go through thick and thin in the test of time. Economic history suggests until 18th century India was a largest export hub as well as account for one-fourth of world economy. After 18th century during British era India went through de-industrialization and forced to surrender all its raw materials to the colonial power. During this period India's world share of GDP fall to 4%. !947 brought freedom for India with poverty and illiteracy. Before !8th century India's economy drove by exporting. But severe dent from the British regime crippled India's economy. De-industrialization and poverty in a country where population is very high, forced India to import day to day consumer needs. Green revolution (1950-1960) and white revolution (1970s) helped the country to gain the control over the import of food and milk products. After independence till 1990 India's economic growth is less than 4%. In 1991, the Prime minister P.V.Narshima Rao and the finance minister Dr. Manmohan Singh initiated the Economic liberalization of India. The Pivotal step boosts country's economy in a historical pace. India became a largest growing economy. It is a consumption driven economy.

Before understanding economy of India after independence, one must understand what India got in heritage.

India has lots of ancient civilizations. Economic history of India can be traced back to Indus valley civilization(3300BC-!300BC). Overseas trade evidence found between Indus valley and Mesopotamia. Indian subcontinent's GDP per capita was little higher than the substantial level till 1000CE. But still the GDP share in the world GDP was the highest because largest portion of world's population was in the subcontinent.

A. Economy of India from 10th century to 15th century

After 10th century India came in direct contact with Islamic rulers. Before establishing of Delhi Sultanate in 1206 and during the regime till 1526 Islam built a cosmopolitan civilization in India. It gave access to the trade in Afro-Euro-Asia region as well as exchange of technology and idea helped to shape the economy of India. Due to access to the trade route and network circulation of people, culture, technology and goods escalated. Delhi sultanate integrated Indian subcontinent and provide a secure route to trade overseas, which helped it to become a growing world system.

This period made India a textile hub. Adaptation of mechanical technology from Islamic world give a huge push to the subcontinent's production. In the late Delhi sultanate incorporation of crank handle in cotton gin appeared in India, which revolutionize the textile industry. Increased cotton production in rural areas helped to establish a large textile industry in India.

This helped growth in India's GDP per capita income. In comparison of GDP per capita income with middle east in 1500 India approaches equal to the middle east, which was 16% lower than middle east around 1 CE and 40% Lower in 1000CE.

B. Mughal Era

During this era Indian Economy touched its highest point as well as crashed to all time low. After Delhi Sultanate, Mughal (1526-1858) era began. Economy of India prospered into early 18th century. In the early stage of Mughal empire, the tax collection amount enthused the empire. In 1600 the annual income of Mughal emperor Akbar the great was estimated to 17.5 million euros. it is the result of various tax systems imposed by the emperor Akbar. The amount was higher than the tax collection of Great Britain in 1800 which was 16,000,000 euros. Akbar adopted a system which is used by King Sher shah Suri and designed by his revenue officer Raja Todar Mal. this system is known as zabti or dahsala. Under the new system he reformed the land revenue system. Which was as follow.

Revenue= Average of previous 10 years of total produce

Tax= 1/3 of the revenue

Payment= The tax should be paid to the state in cash

The rural areas are the prime source of revenue collection. The revenue amount was a largely depends upon the taxes on from the agriculture and the trade. The tax amount is directly depending upon the amount of agriculture production. Akbar promoted agriculture as the highest priority. He provided and imposed various type of loan system and tax exemption system during the time of drought or flood.

the regime of Akbar was also known by its commercial expansion. The government took Following steps to encourage the trade. .1 very low custom duty on foreign trade. 2 protection and security for transactions. 3 Providing highway police called as rahdaars for the protection of the transportation of goods 4 Improve the road in Khyber Pass for the use of wheeled vehicle, which was the most used trade route between Kabul and Mughal India. 5 he also introduced new coins which are both square and circular with unique calligraphy.

His various reforms boomed Indian economy and by 1700 India became the largest economy in the world suppressing Qing China and Western Europe. In 1700 then emperor Aurangzeb reported an annual income of 100 million euros, which was more than 10 times of the annual income of His Majesty Louise XIV of France. In the peak of Mughal empire this amount collected from the 90% of Indian subcontinent which was unified under this regime. the country with 24.2% of world population was responsible for 1/4 of global industrial output. India GDP constantly increased underback the Mughal. building extensive road system and access to the international trade routes and trade blocks pushed Indian economy to all time high. India became a world export leader and directly responsible for 95% import of Great Britain. which eventually attracted Britishers to India by the late 1700. The high degree of urbanization which is around the 15% during mogul empire was more than Europe at the time.

Agriculture production increased significantly. Farmers were more attracted towards farming grains like wheat barley and rice, and gas crops like opium and cotton. In the early 18 century cultivators learned the techniques for maize and tobacco.

India exported textiles, Peppers, spices, sugar, silks and many mores to early modern Europe. till 18th century, India was the most important manufacturing center hard global trade. Steel industry, textile industry, metal ware, food industry such as sugar, oil, butter under shipbuilding were the leading industries of that time. Cotton textile manufacturing was the largest industry In India. Dhaka, which was at that time under Bengal province was the largest textile hub with1,000,000 residents. Bengal was responsible for around 80% of silk import find 50% of textile import by the Dutch. Historian Indrajit Rai estimates 17th century annual output of ship building was 223250 tons compared weight content 23061 tons produced in 19 colonies in North America.

Bengal province was responsible for 50% of the country GDP aren't 12% of world GDP at that time. This eventually attracted colonial power Great Britain to India.

C. British Rule

The British East India company arrived in Bengal during 17th century for trade. In 1757 are the battle of Plassey British is India company conquered Bengal province. Fading lines between Commercial power and political power in world politics impacted on India severely. After gaining control of the wealthiest province, and by the enormous revenue of the province British East India company expanded its controlled territory. The revenue helped them to finance the company's war in other parts of India. British East India company overruled over 35% of Indian domain from 1764 to 1857. During this time India became the raw material exporter, from exporter of the finishing goods.

historians suggested India's deindustrialization is directly responsible for industrializes and of Great Britain. Textile manufacturing industry during British industrial revolution account for the increasing of the British wealth While reason for the deindustrialization in Bengal.

From 1858 to 1947 India was under British Raj or the colonial rule. During this period massive railway projects were built in India which attracts many Indians to Join government job for the first time in history. By 1875, 55% of Indian market was absorbed by British cotton exports. British Raj forced India to remain on silver monetary standard, where British was on a gold monetary standard. From 1870s the silver based, and gold-based economies diverged dramatically where the silver-based economies suffer. This resulted in decrease in value of Indian currency rupee. Agriculture was the dominant sector in Indian economy. The founder of Tata Industries, entrepreneur Jamsetji Tata in 1890s wanted to expand the heavy industries with government funding. The British Raj refused for capital but agreed to buy surplus steel from Tata because of Britain's declining position against Germany and USA.

At that time world's fourth largest railway system was built in India during late 19th century. It was initially privately owned and operated. Realizing its military use and economic use British government was very supportive to this project. That time only unskilled workers were Indians. This project was on lease to companies for 99 years to build and operate, with option to the government to buy them earlier.

Britishers always claimed they brought prosper to India. Contradict to that;

Belgian economist Paul Bairoch published his book “Economics and world History: Myths and Paradoxes”. In this book he presented one important observation. He claimed in 1750 global GDP share of India was 25% and had higher GDP per capita income than Europe.

Appointed by the organization of economic Cooperation and Development (OECD), professor Angus Maddison studied Paul’s claim. He presented in his findings that India and china were the biggest economies in the world for almost all for past 2 millennium. According to his report India had 32% share of world GDP by 1000CE and 28%-24% till 1700. The statistical work of Maddison shows that in 1700 India’s share of world income was 22.6% and it went as low as 3.8% in 1952. Former Prime Minister of India Dr. Manmohan Singh once said,

“Indeed, at the beginning of the 20th century, the brightest jewel in the British crown was the poorest country in the world in terms of GDP per capita.”

Sir Dadabhai Naroji (1825-1917) claimed in his book “Poverty and Unbritish rule in India” that there was a continuous drained of wealth from India to Great Britain during British era. He was a scholar, trader and politician who was a Liberal party member of parliament in United Kingdom house of commons from 1892-1895. He was also the first Indian to be British MP. He presented the first estimation of the national income of India 1867-1868.

D. Drain of Wealth Theory

Sir Naroji argued during colonial rule, there was a constant and continuous flow of wealth to Britain from India on which India had not get any economic benefits. Furthermore, he estimated a 200-300 million pounds loss of India’s revenue to Britain. Following factors are responsible for drain of wealth.

- India was governed by a foreign government.
- India Funded for Britain’s occupational army as well as for the civil administration.
- Free Trade
- India could not attract the immigrants, hence no labor or capital for economic growth.
- Britishers were encouraged to take high paying jobs in India. And Britain Government allowed to take back a large portion back to their country.
- The burden of building Empire in and out of the border of India was also on India.

Railways in India was the legacy of the colonial rule. Although Naroji raised various facts that severely draw attention to the misplaced burden in Indian Economy. He furthermore added that India indeed needed to pay some tribute as payment to Great Britain for brining services like postal and railways too India. But he added that revenue generate from Railways and other services does not belongs to India rather goes to Britain's revenue. Moreover, British charged some rendered services charge.

Once he raised the question if Britain government would allow the French to take high paid lucrative jobs in India. Later he summarizes it as the Vampirism of Britain, where money being the metaphor for blood and India was the metaphor for Human.

1. Proof of concept of the theory:

India go down in Economic value chain

Before British era India was a manufacturing and exporter of the finishing goods. But from the late 18th century India was forced to deindustrialization and export of raw materials rather finished or semi-finished goods.

Raw materials-semi finished goods- finished goods-consumer

When you go forward in value chain the value creation increased and vice versa. India was pushed back in the value chain. Here is how?

- Free trade By East India Company- During company rule company was purchasing raw materials and goods with the money drained in form of tax and export it to England. The free trade was a way to exploit India.
- During trade constant undervalued of Indian goods and overvalued outside goods.
- We know that Industrialization of England began from textile Industry, which was a half-truth. England's Industrialization stands on the grave of deindustrialization of India. Scholars argued that when modern technology came India could not compete in the market and suggests that it was the reason for downfall of India's manufacturing and export.

  This argument was falsified during the careful investigation of the situation. Although India was a colony of Britain, they did not invest in industrialization during their rule.

They diverted the raw materials to England and ripping off the Economic backbone of India. They could have invested in India and take the taxes or a portion of profit margin rather they practiced slavery and capitalism.

Lack of modern technology, capital, raw materials and undervalued goods force India's de-Industrialization.

Railways

Indian railways were the crown for Great Britain, but it was a curse for India. Indian Railways made during British rule. It may summarize as the route of drain of wealth. Connecting different parts of India by railways network provide a secure and fast passage to the ports.

- Britain had a sophisticated trade route to imported raw materials and goods with undervalue price.
- Moreover, the profit from the Indian railways go to the Britain.
- High paid jobs in the sector were given to Britishers.
- India paid service charge for railways to the colonial government.
- It had been used to send the revenue and royal jewels including gold coins, silver coins and precious jewels to England.

Railways brought prosper to the Nation. But the irony was the nation was England not India. Railway was the "Back & forth wealth drain machine" for the England. Moreover, Britishers imposed 78% import duty on finished goods.

India Funded World War II for England

During 2nd world war India was under United Kingdom and known as British India. In September 1939 British India declared war on Nazi Germany. Around 2.5 million Indian soldiers were sent to fight against the Axis power and Indians fought throughout the world e.g. in China Burma India Theater, in European Theater against Germany, Against Italy and Germany in North Africa and in South Asia defending India against Japan. British Government wiped out country's food reserve and basic reserve for the war, and inflation due to military financing by British India causing the infamous Bengal Famine of 1943. Churchill's decision of not providing emergency food due to ongoing 2nd world war led to millions of deaths. The famine affected eastern part of India specially Bengal and Odisha, resulted in over 4 million deaths. British regime was directly responsible for these death as well as they dried up India's treasury as British government borrowed over billion pounds to finance the war.

By 1940 gold-silver ratio was peaked at 100:1, which also affected the India's credits towards the war financing in sterling. On July 14th, 1947, according to the Bank of England, the Indian central bank held a balance of 1,160 million Sterling pound.

Sources of Sterling 1939-1946 (million pound), India

Source- Indian Sterling Balances, Jan 1st, 1947, Bank of England

Period	Balance of Trade & Net Invisibles	War Expenditure	Other Sources	Total
September 1939-March 1940	65	2	13	80
1940-41	57	30	6	93
1941-42	73	146	6	225
1942-43	92	244	7	343
1943-44	105	289	3	397
1944-45	92	308	2	402
1945-46	70	282	3	355
Total	554	1301	40	1895

E. Indian economy at independence

Before the colonial rule India had an independent economy. Most people employed in agriculture sector, but Indian economy was defined by its manufacturing industries such as textile, metal works etc. Colonial government enforced economic policies which were of their Interest, which crippled India's economy.

Statistic 1950

Sector	Employment Rate	Contribution to national income
Agriculture	72%	50%
Services	17%	33%
Industry	11%	17%

From the above statistic (1950), low level of industrialization can be speculated, which resulted in import of 90% machine tools. Nearly 85% people belonged from rural areas and majority of them were engaged in agriculture. 72% working population employed in agriculture and related activities shows an unbalanced occupational structure. Yet, India was not self-sufficient in food production.

In 1907 the Tata Iron & Steel Company (Tisco) was incorporated. And after the second world war a few industries in the fields of paper, sugar, cement etc. came up. But a very few industrial sectors are public sectors. (e.g. Railways, communication, ports etc.). There was a lack of capital goods industry to promote further industrialization. Overall Industrial sectors growth as well as contribution to GDP was very limited.

British Introduced Railways to India in 1850. During colonial regime apart from railways other primary infrastructures such as ports, posts, telegraphs etc. were developed. The roads built during colonial period were not all-weather roads, hence created significant transportation problems in rural areas during natural calamities and monsoon. After independence India struggled for its infrastructural developments.

According to Bank of England, on 14 July 1947 Indian Central bank had the balance of £1,160 million. In 1950 the newly formed union government reported annual revenue of £334 million. The exchange rate of Us dollar was 4.79 rupees.

III. Part 3: *Economic Planning, Green revolution, White revolution*

Early post-independence era the union government of India was a liberal left-wing government under the prime minister Jawaharlal Nehru. During the on-going cold war, Nehru led a non-aligned movement and strongly supported decolonisation in Asia and Africa. Nehru's socialistic approach in politics and Soviet Union's aspiration for fostering closer relationship with Third world countries brought India and Russia closer. Although India adopted democracy but still the wound of losing the country to East India Company remained fresh. Hence government was looking for alternative economic policies. This led to a protectionist market policy as well as economic planning in India.

After independence in 1947 the newly formed union government faced severe economic issues. They realized that growth led developed market mechanism could not provide desirable outcome as the capacity of market segment was very low. Government realized trickledown effect might not possible in market led growth. Trickledown effect starts with the tax cuts in corporate, which responsible for more growth of company such as new investment, factory etc. and eventually it will boost the standard of livings of individuals in long run. They believed that government should intervene and ensure the right direction and place for investment and development. Moreover, India needed structures for transports, industries, education, healthcare, research, poverty etc., which were later addressed in a systematic step by step manners by economic planning.

A. India's five-year plan

India adopted the socialistic economic planning from Soviet Union. The first five-year plan was implemented in Soviet Union in 1928 by Joseph Stalin. In 1951, under socialist influenced of then Prime Minister Jawaharlal Nehru India drafted its first Five-Year Plan. Planning commission 0f India (dissolved in 2017) was responsible for planning a five-year economic plan and model.

Features of Indian Economic Planning:

The features can be classified in followings.

- Physical Planning: In every FYP (Five-year Plan) depending upon current necessity and situation, to achieve target the allocation of material, investment and human resources

- Indicative planning: Government encouraged people to pursue agriculture and consumer industries by subsidies and economic packages. The private sector and public sector worked together under a mixed model.
- Social Planning: The political influence of social privileged and prosperous classes reflected also in the planning. The politicization of social structure gave a limited result in raising the socially backward classes.

Objectives of Economic planning: The broad objectives of Indian planning after independence was as follows.

- Economic growth
- Dealing with Unemployment
- Eliminating poverty
- Self-reliance
- Income Inequalities reduction
- Modernization
- Sustainable growth
- Inclusiveness

B. Planning Commission:

Independent India adopted the concept of planning till 2017 for economic growth. They were pursued through Five-Year Plans. The plans were developed, monitored and executed by the Planning commission of India from 1951 to 2014 and the NITI Aayog from 2015 to 2017. Total of 12 Five -Year plans were adopted and executed in India during this period. These plans are the backbone of the economic activities and growth of Independent India. The centralized and integrated economic programs under a mixed economy played a vital role in public as well as private sectors.

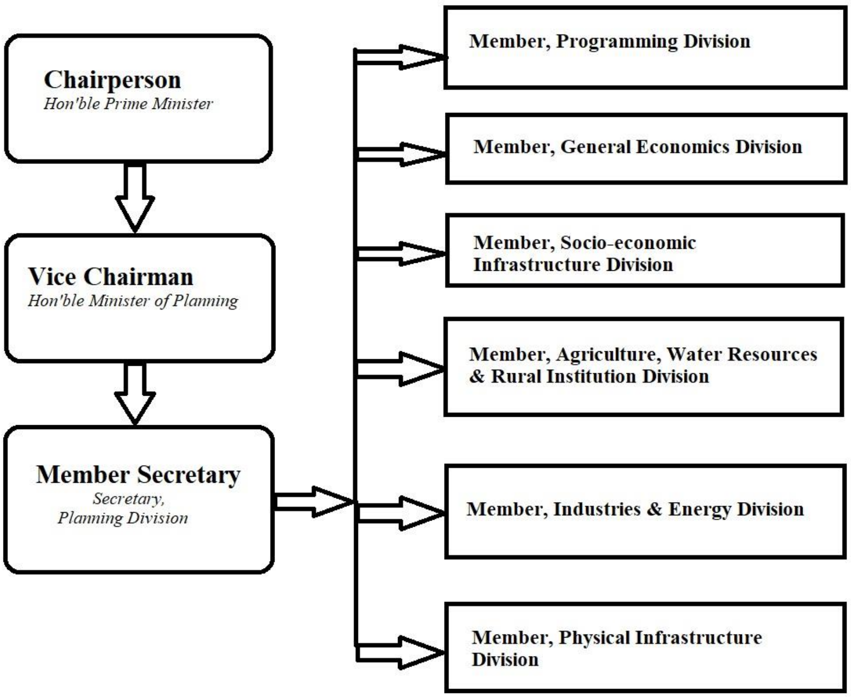
Structure and function of planning Commission:

The structure and composition of the planning commission is as followings.

- *Prime Minister*- He is the ex-officio chairman of the commission as well as presides over the commission meetings.

- *Deputy Chairman*- He is the de-facto chairman of the commission. Formulation and submission of the five-year plan to central cabinet is his responsibility. He is given the rank of a cabinet minister.
- *Member Secretary*- He is the secretary of the planning division. Usually he is a senior IAS (Indian Administrative Service) officer.
- *Finance Minister and Planning Minister*- They are the ex-officio members of the commission. Some additional central ministers can be appointed as part-time members of the commission.
- *Members*- They are given the rank of a minister of state. Usually there are 4-7 full time members who are experts in various fields such as economics, industry, agriculture etc.

Structure of Planning Commission



Functions:

Followings are the function of the commission.

- Assessment of nations capital, material and human resources.
- Assessment of possibilities of augmenting related resources to required sector. E.g. which sector has deficient in relation to the national requirement and how much resources is required to allocate for the desired target.

- Planning of effective usage of country's resources
- To define the conditions required for successfully executing the plan
- To define the nature of machinery required for successfully securing the plan
- To determine the stages on prior basis for execution of plan and allocation of resources
- To determine the factors which tends to disrupt the economic development
- Perspective planning
- Monitoring the development processes, plans and recommending necessary adjustment.
- Public co-operation in national development.

List of Five-year plans:

1. First Plan (1951–1956)
2. Second Plan (1956–1961)
3. Third Plan (1961–1966)
4. Fourth Plan (1969–1974)
5. Fifth Plan (1974–1979)
6. Sixth Plan (1980–1985)
7. Seventh Plan (1985–1990)
8. Eighth Plan (1992–1997)
9. Ninth Plan (1997–2002)
10. Tenth Plan (2002–2007)
11. Eleventh Plan (2007–2012)
12. Twelfth Plan (2012–2017)

C. First Plan (1951–1956)

The first prime minister of India Jawaharlal Nehru presented the first five-year plan in 1951. This plan was based on the Harrod-Domar model. During colonial rule the primary sectors were brutally crippled. So, after independence the first plan was focused in development in prime sector.

More than Rs. 20 billion was allocated to seven primary areas as follow,

	Sector	Fund allocated
1	Irrigation and Energy	27.2%
2	Transport and communication	24%
3	Agriculture	17.4%
4	Industry	8.4%
5	Rehabilitation of landless farmers	4.1%
6	Social services	16.6%
7	Services	2.5%

The targeted GDP growth rate was 2.1%.

- Many major irrigation projects were started during this period such as Damodar valley, Hirakud, Bhakra etc.
- To reform the higher education in the country University Grants Commission (UGC) was set up. The commission is responsible for funding and strengthen the higher education.
- To address technical institution, five major Indian Institutes of Technology (IITS) were started.
- The Indian government in associated with the World Health Organization (WHO) addresses the infant mortality and child health. This results in population growth and eventually national income increased more than per capita income.
- Paper works and contracts were signed for five steel plants.
- During this period the net domestic product increased by 15%.
- Achieved growth rate was 3.6%

D. Second Plan (1956–1961)

The second plan was based on Mahalanobis model. It focused on long run economic growth through optimal allocation of investment in productive sectors. The plan focused on importing capital goods under a closed economy.

The total amount of Rs 48 billion was allocated among various sectors under the second FYP. It was the period of heavy industrialization and rising prices. Total of five steel plants and hydroelectric power projects were established with the help of Russia (Then Soviet Union), Britain (The U.K.) and Germany (West Germany) in Bhilai, Durgapur and Rourkela respectively.

Research institutes were established during this period. The Atomic Energy Commission of India and the Tata institute of Fundamental research are the prominent among them.

The targeted growth rate was 4.6% and the actual growth was 4.27% during this period.

The classical liberal Indian economist B.R. Shenoy criticized the Mahalanobis strategy of promoting heavy industrialization through deficit financing and called it “a recipe for trouble”. To the confirmation of Shenoy’s statement, India faced external payment crisis in 1957.

1. Mahalanobis Strategy

The model was independently developed by Soviet economist Grigory Feldman in 1928 and Indian statistician Prasant Chandra Mahalanobis in 1953. The strategy focused on investment in building the capacity in the production of capital goods in order to achieve a high standard of consumption. This model is categorized in Neo-Marxism model of economic development. The strategy focused on followings:

- ✓ Developing a sound base through self-sufficiency and availability of resources.
- ✓ Heavy industrialization- According to the strategy India’s population pressure on land (agriculture sector) was very high. Hence the population had to shifted to other sectors. Also, productivity of labor was limited in agriculture but productivity in manufacturing is very high. Thus, he advocated for heavy industrialization and Public Sector Units which was reflected on the second Five-year plan.
- ✓ Development of capital goods.

- ✓ The growth of the consumer goods industries left to market forces.
- ✓ Import substitution- The lack of industries in India, low productivity and efficiency led to increase in demand of industrial imports, rather than industrial exports. To counter the Balance of Payments issue and to encourage the domestic industries he advocated for developing industrial structure behind tariff walls.

  The import substitution subjected to industrial led development and to achieve expected advancement of domestic capital-based industries. The protectionist policies results in capital intensive industries. The lack of competition resulted in substandard products and higher price. The technological innovation affected negatively under the import substitution.

E. Third Plan (1961–1966)

The third plan was on motion from 1961 to 1966 which followed the same strategy as second plan. The narrow concept of self-sufficiency proclaimed for the first time. The primary focus of this plan was on agriculture as well as maximizing the production of wheat. The dam constructions continued. Punjab became the leading producer of wheat.

During this period to gain co-operation of people towards welfare of the nation, an effort to bring democracy to grass-root level was made. The election for Panchayat (Village-council) were started. State were given more responsibility for development. The responsibility of secondary and higher education was given to the states, resulted in many primary schools started in rural areas. State secondary education boards, state road transportation corporations and state electricity boards were formed during this period. Thus, local road building (in rural and urban areas, state highways) and electricity became a state responsibility.

In 1962 Sino-Indian war took place between 20th October and 21st November and this one-month war exposed the weakness in the Indian economy. The event brought government's attention to the defense sector. Government realized there is not enough defense inventory neither funds to allocate for the defense. The voluntary donation for gold and money was called for. According to Manoj Joshi, a distinguished fellow at the Observer Research Foundation many donated golds ornaments and jewels still lie forgotten in the vaults of Reserve Bank of

India. The “Defense of India Fund” donation exercise increased India’s gold reserve quickly at that time.

After the war with Pakistan in 1965-66, India took a severe damage to the economy. The draught in 1965 further worsen the situation. The Inflation rate goes up due to wars and drought, which shifted focus of planning commission towards price stabilization.

The targeted growth rate was 5.6% but the actual growth rate recorded during this period was 2.4%.

F. Plan holidays (1966-1969)

The dramatic failure of the third plan forced government to declare three annual plans for the year 1966-67, 1967-68 and 1968-69. They are also known as Plan holidays (1966-69). The drought was a major problem throughout 1966-67. War, lack of resources, drought, inflation was the prominent reason for the plan holidays. To address the increase of export Indian government declared “Devaluation of rupees”. The green revolution of India started during this period to counter the import of food grains.

G. Fourth Plan (1969-1974)

In the fourth plan the focus shifted from growth to growth with stability. To address the issue the plan targeted a fluctuation in agricultural output. The green revolution in India advanced the agriculture. The plan recommended to stop the concessional imports of food grains from USA under Food for Peace (PL480) program.

Under then Prime Minister Mrs. Indira Gandhi 14 banks were nationalized in 1969.

Industrial growth was interrupted during this period as the embarked money was diverted to address the situation in East Pakistan (now Bangladesh). After the Indo-Pak war 0f 1971 and Bangladesh Liberation war (1971) USA deployed its Seventh Fleet in Bay of Bengal to warn India against extended the war to West Pakistan (Pakistan). In a partial response India performed the Smiling Buddha Underground Nuclear Test (Pokhran-1) on May 18, 1974. India became the first nation outside of Permanent Five Members to test a nuclear weapon. Officially the Ministry of External Affairs of India quoted it as a “peaceful nuclear explosion”.

The nation faced an energy crisis at the end of the plan.

The targeted growth rate was 5.6% but the actual growth rate achieved was only 3.3%.

1. Nationalization of Banks, 1969

By the 1960s the banking industry in India became an important tool for development of the national economy. The monetary regulated organization in India is called as Reserve Bank of India (RBI). But until then only State Bank of India was regulated and controlled by RBI. BY then all other banks in India were owned and operated by private persons. The large number of employer and the controlled over 85% bank deposits in country by the private owned bank sparked a debate for nationalization of banks.

Mrs. Indira Gandhi presented a paper named “Stray thoughts on Bank Nationalization” in the annual conference of All India Congress Meeting signaled the intention of the Government of India on the issue. Soon after government issued Banking Companies (Acquisition and Transfer of Undertakings) Ordinance in 1969. The ordinance stated the nationalization of 14 largest commercial banks with effect from the midnight, 19 July 1969. The bill passed in parliament and became an act by the presidential approval on 9th August 1969.

Nationalization of Banks allowed government to spread banking sectors to rural areas and economic and social development.

Flowing 14 banks were nationalized in 1969:

- Allahabad Bank
- Bank of Baroda
- Bank of India
- Bank of Maharashtra
- Central Bank of India
- Canara Bank
- Dena Bank (Now Bank of Baroda)
- Indian Bank
- Indian Overseas Bank
- Punjab National Bank
- Syndicate Bank
- UCO Bank
- Union Bank
- United Bank of India

H. Fifth Plan (1974-1979)

In the fifth plan the focus shifted from self-sufficiency to self-reliance, especially in defense and agriculture. It also stressed on poverty alleviation, employment and justice. The Indian National Highway System is introduced under this plan and many roads are widen. It helped in Increase in traffic and tourism.

In 1975, the Electricity Supply Act was amended to counter energy crisis in India. It helped central government to enter in the energy sector and invest in power generation and transmission.

Former Prime Minister Mrs. Indira Gandhi promoted the "Garibi Hatao" schemes for poverty alleviation. In the first year of plan the Minimum Needs Program (MNP) was introduced. The objective of the program to provide basic needs to the people for improvement of living standard. This was the first program directly targeted for poverty alleviation.

However, in 1978 newly elected Prime Minister rejected the Fifth-year plan.

The actual growth rate during this plan was 4.8% against the targeted growth 4.4%.

1. Minimum Needs Program

D.P. Dhar prepared and launched this Program. The program was in effect from 1974. The program aimed at social and economic development of underprivileged and underserved community. It was designed to provide basic needs to the poor. The program had two basic principles.

- To remove disparity among different areas the MNP are to be first provide in under-served areas.
- The MNP should be provided as a package through intersectoral area projects to maximize its impact.

The program has following components:

- Elementary and primary education
- Adult education programs were launched to fight with illiteracy

- Houses for landless laborers
- Nutrition
- Improvement of urban slum environment
- Rural health
- Rural electrification
- Rural water supply

Under this program government extended support of nutrition to 11 million eligible persons. In the school mid – day meal program was launched to provide food, portable water and nutrition to the children.

This program laid ground for health schemes and health center all over the country. According to this the following objectives were targeted by the end of eighth five-year plan.

- ✓ For the population of 100,000, one community health center
- ✓ For 20,000 population in tribal and hill areas and 30,000 population in plains, one peripheral health center
- ✓ For a population of 5000 in plains and 3000 in tribal and hilly areas, one sub-center

I. Rolling Plan (1978-1980)

India adopted a different kind of economic plan commonly known as "Rolling Plan" for a very short period. When the Janata Party government came to power in 1978, they rejected the fifth Five-Year Plan and launched a new sixth FYP under the Rolling Plan. The plan was on force from 1978-1980. In 1980 when Indian National Congress government came to power, they scraped the Rolling Plan mechanism and re-installed the Five-Year Plan.

According to the proposal the Rolling Plan has three kinds of plan, which were mentioned below.

- ✓ First plan targeted the present year and consists of annual union budget.
- ✓ Second plan targeted a fixed number of years, which may vary from 3 to 5 years. The plan can be changed according to requirement of national economy.
- ✓ Third plan was for long terms i.e. 10, 15 or 20 years. It was a perspective plan to address long term economy of India.

So, the rolling plans does not have a commencement or termination date.

Advantages:

The Rolling Plan has an advantage over the rigidity of Five-year Plan. It was a step by step process. The flexibility of rolling plan allowed the government to mend targets and object of the exercise according to the requirement.

Disadvantages:

It was a very complex plan. The frequent revised targets can made it very difficult to achieve the targets in five-year plan or long-term plan. Also, constant revision in planning can lead to an instability in the economy.

J. Sixth Plan (1980-1985)

In this period the focus shifted from Mahalanobis Model towards the development of agriculture. This was the transitional era when government focusing on reforming the country and it marked the beginning of economic liberalization. The soul of the plan was the high and sustained growth and self-reliance. The military Five Year Plans became a part of Planning Commission's plan from this plan onwards.

To address rural development the plan focused on consumer goods rather than capital intensive goods. The consumption goods could not create enough capital resulted in eliminating price controls and ration shops, where food grains, kerosene, sugar and other goods were provided by government with subsidies. Due to the elimination of price controls the cost of living increased and an inflation of food price.

For the development of rural areas by the recommendation of the Shivaraman Committee, on 12th July 1982 the National Bank for Agriculture and Rural Development was established. But the focus on rural development and agriculture resulted in BOP problems, high inflation, high fiscal deficit and underutilization of resources.

In order to prevent overpopulation, family planning was expanded. New energy strategy was adopted where the focus was on more usage of domestic energy sources.

Although the Sixth FYP was not a sustainable plan for coming FYP, it was a huge success to Indian economy. The actual growth rate was 5.7% during this period against targeted growth rate of 5.2%.

K. Seventh Plan (1985-1990)

The Sixth FYP resulted in steady growth in agriculture, favorable BOP and controls on the inflation which had prepared a strong base for Seventh FYP. The Seventh FYP was in motion from 1985 to 1990 and its main objective were focus on the sectors with increasing economic productivity, employment through "Social Justice" and production of food grains.

The plan was led by Prime Minister Rajiv Gandhi and laid stress on improving productivity in different sectors by upgrading technology. The plan was targeted to generate over 39 million labor force and expected employment growth rate of 4% per year.

The Seventh FYP focused on followings:

- To make India an independent economy
- Usage of modern technology (Emergence of informatics, telematics and telecommunication)
- Social justice
- Removal of oppression of weak
- To increase productivity of farmers
- Agricultural development
- Full supply of shelter, food and clothing to eligible people
- Anti-poverty programs

The expected outcomes of the Seventh plan were given below.

1. Estimated balance of payments: Export- Rs. 330 billion (USD 4.6 billion), Imports- Rs. 540 billion (USD 7.6 billion), Trade deficit – Rs. 210 billion (USD 2.9 billion)
2. Estimated Merchandise exports: Rs. 606.53 billion (USD 8.5 billion)
3. Estimated Merchandise imports: Rs. 954.37 billion (USD 13.4 billion)
4. Projection of balance of payments: Trade deficit: Rs. 347 billion (USD 4.9 billion)

The targeted growth rate was 5.0% and the actual growth rate recorded 6.01% with per capita income growth rate was 3.7%.

L. Annual plans (1990-1992)

The changing political scenario at the center postpone the Eighth plan to 1992. During this period two annual plans (1990-91 & 1991-92) were made. India went through a foreign exchange crisis in 1991 which led to economic liberalization.

M. Eighth plan (1992-1997)

In 1991, India almost bankrupt with only USD 1 billion in the foreign exchange. Under lots of pressure, then Prime Minister P.V. Narasimha Rao had to manage one of modern India's most difficult period concerning nation's economic transformation and incidents affecting national security. His Finance Minister Dr. Manmohan Singh launched the economic liberalization reforms.

Eighth plan briefly focused on the followings:

- Involvement in grassroot democracy through Panchayat rajs, Nagar Palikas and various NGOs.
- Decentralization and participation of people towards nation building.
- To control the rapid growing population.
- Poverty alleviation
- Human resource development
- Employment generation through service sectors
- Improve infrastructure
- Tourism
- Modernization of industries

The plan clearly focused on controlling the deficit and foreign debt by opening the economy. During this period on 1st January 1995, India became a member of World Trade Organization and extended the Most Favored Nation (MFN) status to WTO member countries.

Energy sector was given most priorities to and account for 26.6% of the outlay. The plan aimed to achieve a growth rate of 5.6% with the below mentioned strategy.

- To achieve the target, investment of 23.2% GDP was required.
- Incremental capital ratio= 4:1
- Investment amount needed to be raised from both domestic and foreign sources.
- Domestic sources=21.6%, foreign sources=1.6%

During this period the actual growth rate was 6.8%.

N. Ninth Plan (1997-2002)

After 50 years of Indian Independence the ninth plan came into action. Under the leadership of then prime Minister Atal Bihari Vajpayee the plan was focused on economic development of the nation by the joint efforts of public and private sectors. It aimed to explore unexplored economic potential of the nation. The outcome of the Eighth FYP ensured state's participation and ability for a faster development. This plan ensured the adequate usage of resources through a Special Action Plans (SAPs), which was responsible for the development of agriculture, social infrastructure, various policy related to water and information technology.

Budget

The outlay of the Ninth FYP saw a 33% hike in comparison with the Eighth FYP. The total outlay was Rs. 859,200 crores i.e. USD120 billion, in which center shares 57% and the 43% shared by states and union territories. In term of expenditure it was 48% higher than the previous plan.

The plan focused on correcting historical inequalities and the economic growth. It gave importance on poverty alleviation by the combination of improved policies and growth-oriented policies. The main objectives were as follows:

- Self-reliance in the agriculture sector
- To provide primary education to all the children
- To control population growth
- Poverty reduction

- To provide basic necessities like primary health center, schools etc.
- Employment generation through rural development projects and giving special priority to agriculture
- To empower the socially underprivileged classes e.g. Schedule castes and Schedule tribes and other backward classes.
- To ensure food and water for the poor
- To stable prices for acceleration in growth rate

To approach the Socio-economic development the plan focused on the past weakness of the nation. It relied on a combine effort of public and private sectors as well as all levels of government to ensure the growth of the nation. The prime strategies of the Ninth FYP were as followed:

- A structural development and transformation in the economy
- To achieve self-reliance by increasing the export
- To use scare resources efficiently for rapid growth
- Policies and plans to empower the socially disadvantaged and backward classes
- Increase employment by a combined effort of public and private sector
- To meet the challenges in the economy new measures and initiatives were made
- Make available services like railways, electricity, telecommunication etc.
- In the development process participation of grassroot institution and bodies like Nagar Palikas and Panchayat Rajs.

Performance

The Ninth Five Year Plan targeted a 6.5% of GDP growth rate with 4.2% growth rate in agriculture and 3% growth rate in industrial sector. However, during the period the country achieved 5.4% GDP growth rate and only 2.1% growth rate in agriculture sector. But the country grew at a rate of 4.5% in the industrial sector and 7.8% in service sector. Overall India reached at 6.8% annual growth rate against the target growth of 7.1%.

O. Tenth Plan (2002-2007)

The tenth plan focused on reduce regional disparities and inequalities by a regional and sectoral approach. A 20-point program launched. The main objectives of Tenth FYP were:

- To achieve 8% GDP growth rate
- To focus on reduction of gender gaps in wages and literacy by 50% by 2007
- By end of the plan (2007) reduction of poverty rate by 5%
- To provide high-quality employment to the labor force
- Expenditure= Rs. 43,825 crores (USD 6.1 billion)
- The tenth plan outlay 42.1% was for states and union territories and 57.9% for the central government. The monetary amount were Rs. 691,009 crore (USD 97 billion) and Rs. 921,291 crores (USD 130 billion) respectively.

The targeted growth was 8.1%, where the achieved growth rate was 7.7%

P. Eleventh Plan (2007-2012)

The Eleventh Plan broadly focused on education, empowerment, population control and poverty reduction. Then Prime Minister Dr. Manmohan Singh led this plan which was in force from 2007 to 2012. The objective of the tenth plan were as follow:

- Controlling population by reduce the fertility rate to 2.1
- Poverty reduction by rapid and inclusive growth
- Through renewable sources environmental sustainability
- Focus on social sectors
- To increase enrolment in higher education by 2011-12
- To provide distance education by establishing formal, non-formal distance IT educational institution
- To empower the public through skill development and proper education
- Countering gender inequality
- By 2009, provide clean drinking water
- Targeted growth rate in industrial sector was 10%, in service sector by 9% and 4% in agriculture.

Q. Twelfth Plan (2012-2017)

The Twelfth FYP was the last Five-year Plan India got. The plan was developed, proposed and monitored by Planning Commission from 2012-2014. In 2014 Government of India dissolved the Planning Commission and the plan was monitored by newly formed economic planning body “NITI Aayog”. Although there is no Five-Year Plan after the Twelfth Plan, but the Five-Year Defense Plans were continued. The latest Five-Year Defense Plan is enforced from 2017 and it will continue till 2022.

In the Twelfth prosed plan in 2011, the speculative report was aiming at 9% growth. Yet, the deteriorating global situation force Planning Commission to set the target of 8.2% but on 27th December 2012 National Development Council (NDC) approved the growth rate of 8% for the Twelfth Plan.

The plan focused on reduction of subsidy burden of Indian Government. It suggested to use Unique Identification Number (UID) as a platform for transferring cash of the subsidies. Moreover, the plan aimed for attracting private investors for the infrastructure growth and to raise investment amount of USD 1 trillion, which will ensure the subsidy burden goes down from 2% of GDP to 1.5% of GDP.

The main objectives of the plan were as follows:

- Electrification in all rural areas
- Easy and improved access for higher education
- To focus and eliminate the malnutrition among children (0-3 years)
- To create employment opportunities by 50 million in non-agriculture sector.
- Special focus on decreasing and removal of gender gap and social gap in school enrolment.
- Access of banking services to 90% households
- Providing clean drinking water to at least 50% of the rural population
- To achieve environment sustainability by increasing green cover by 1 million hectare every year

R. Green revolution

After the independence India imported food grains from USA under PL480. Although 70% population employed in the field of agriculture, India was not self-sufficient. Planning commission focused on development of agriculture and convert it into an industrial system by adopting modern method and technology. This is referred to as the green revolution of India and founded by M.S. Swaminathan.

Reasons.

1. Low productivity in agriculture: By 1960s India's traditional agricultural practice was insufficient to produce enough food for the rapid growing population. The low productivity led to food shortage across the nation.
2. Lack of finance: Farmers could not get finance in a economical rate from the money lenders or banks. The high interest rate and exploitation of farmers brought a lot of suffering for them. There was no proper financing during the green revolution. So, government helped those farmers who were under loans through lots of schemes and programs.
3. Famines: The intensified British taxation and agrarian policies in 19th and 20th century reduce the productivity in agriculture sectors. In independent India there was severe droughts in 1964-65 and 1965-66 led to food shortage and famines among the growing population of the nation.

The green revolution started in 1958 and the prime focus was to provide high yielding variety seeds, tractors, fertilizers, irrigation facilities to improve the food grain production in India. The Government of India took following steps for agricultural development and to increase productivity.

- Land reforms
- Irrigation projects and infrastructure
- Use of pesticides, insecticides and herbicides
- Use of modern machinery in agriculture
- Sprinklers and drip irrigation system
- Improved rural infrastructure
- Supply of agriculture credit

- Consolidation of holdings
- Use of vector quantity

This led to significant increase in the agricultural output and support overall Indian economy. Punjab, Haryana and Uttar Pradesh were flourished in agriculture due to the green revolution. By 1970 Punjab produced 70% of India's total food grains. The income of the farmers also increased by 60-70% and Punjab became a successful model of green revolution.

The success of the green revolution can be measured, when the fourth plan (1969-1974) suggested to stop importing foods from USA under "Food for Peace". The green revolution made India a self-sufficient and self-reliance country in the sector of agriculture and production of food grains.

S. White revolution in India

In 13th January 1970, National Dairy Development Board (NDDB) launched world's biggest dairy development program named "Operation Flood". The program was aimed to allow farmers for development and pricing controls of their own resources. The white revolution did just not focus on mass production of milk rather it focused on production by masses. The success of the program can be measured by a mere fact that from a milk deficient nation India became world's largest producer of milk and dairy related products surpassing USA in 1998. The features of the white revolution can be mentioned as below.

- Adopting new methods in animal husbandry, especially in case of cattle
- Providing better ingredients and nutrition for the animals
- On a sliding scale of India, fixing of different producer costs

Operation flood connected national milk grid with producers and consumers in more than 700 cities and towns and ensured that majority of portion paid by customers go to the producers by cutting the middleman. Moreover, it stables the price throughout year and all over the country. The prime objectives of the Operation Flood include;

- To increase milk production in the country
- To increase rural income through dairy business
- Fair price for both producers and consumers

The operation was implemented in three phases.

Phase I (1970-1980)

The operation flood Phase-1 was originally aimed to complete over 9 years from 1970-79 with a cost of Rs.116 crore. The program was planned by NDDB and the details were negotiated by EEC assistance. It was financed by selling the skimmed milk powder and butter oil donated by European Economic Community (EEC) through the World Food Program.

The Phase-I was aimed to establish mother dairies (a retail chain) and connected India's 18 premier milkshed with consumers of the metropolitan cities i.e. Delhi, Mumbai, Kolkata and Chennai. The improved and organized dairy sector in metropolitan cities, increased producers' share in the milk market and speed up the dairy animals farming in rural areas.

Phase II (1981-1985)

In the Phase-II the milkshed number increased to 136 from 18 and the outlet of milks expanded to 290 urban markets. It covered over 4,250,000 milk producers and more than 43000 village co-operatives by the end of 1985. India became self-reliance with the help of EEC gifts and World Bank loan. The domestic milk powder production reached at 140,000 tons by 1989 from 22,000 tons.

Phase III (1985-1996)

Phase- III basically focused on expanding the market and expanding various modern method and technology to the producers in rural India. Innovations of vaccine and bypassing protein feed increased the production of milk. The intensified government focus on this field and awareness program increased the women participants and women co-operatives. For co-operative members government launched different loan schemes as well as veterinary health care, insemination service and education service. In 1988-89 the milksheds number peaked at 173. During Phase-III another 30000 new dairies cooperatives were added to the existing 43000 cooperatives.

1. Aftermath

The White Revolution of India encouraged rural masses to adopt dairying as a subsidiary occupation. India become world's largest producer of milk. In 2017-18 India's domestic production of milk was about 177 million tons. During this period the production of milk gone up by 10 times from only 17million tons in 1950-51. The per capita availability was doubled and reached more than 200gms per day at the end of the white revolution. The marginal and small farmer were the direct beneficiary of the White Revolution. The government a plot project for livestock insurance in 2005-06. Various research center and breeding center were set up as well as major health schemes for livestock were launched in the country.

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(Table of dairy production)

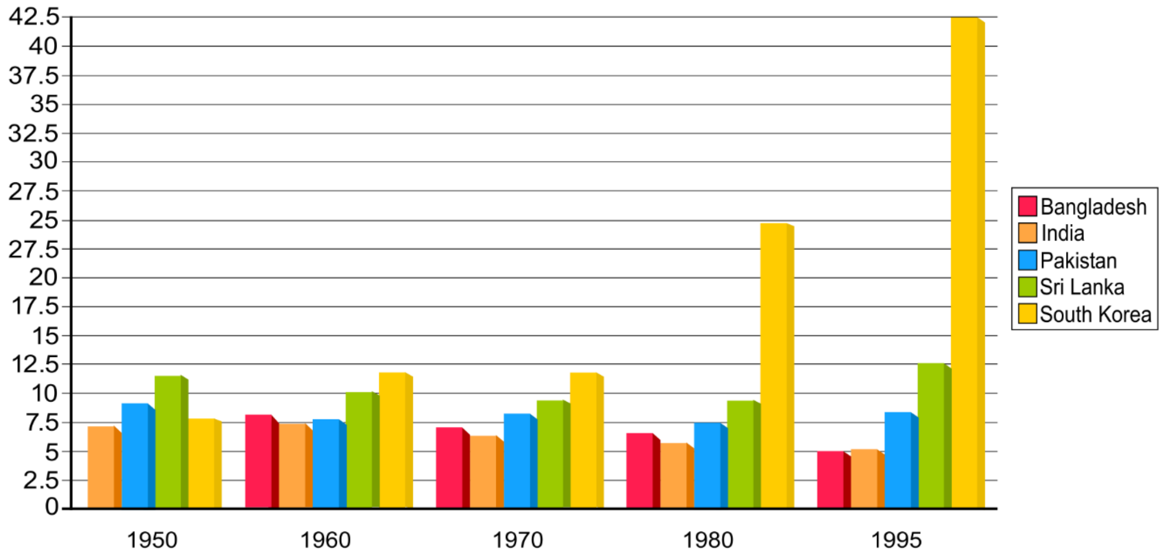
Year	Production (Million tonnes)	Per Capita Availability (gms/day)
1991-92	55.6	178
1992-93	58	182
1993-94	60.6	186
1994-95	63.8	192
1995-96	66.2	195
1996-97	69.1	200
1997-98	72.1	205
1998-99	75.4	210
1999-2K	78.3	214
2000-01	80.6	217
2001-02	84.4	222
2002-03	86.2	224
2003-04	88.1	225
2004-05	92.5	233

2005-06	97.1	241
2006-07	102.6	251
2007-08	107.9	260
2008-09	112.2	266
2009-10	116.4	273
2010-11	121.8	281
2011-12	127.9	290
2012-13	132.4	299
2013-14	137.7	307
2014-15	146.3	322
2015-16	155.5	337
2016-17	165.4	355
2017-18	176.3	375

T. Hindu Rate of Growth

The term "Hindu Rate of Growth" was coined by Indian economist Raj Krishna. It refers to the annual growth rate of Indian economy in pre-liberalization period of 1991. The growth rate was stagnated around 3.5% from 1950s to 1980s and the per capital income growth averaged at 1.3%.

Although many believed the economy of India accelerated around 6-9% after liberalization but, the growth accelerated in 1980. Asian tigers like South Korea and Taiwan had similar level of income as India in 1950s and exponential economic growth since then has made them into developed nation today.



(GDP per capita of South Asian economies and South Korea as a percent of American GDP per capita)

By the standard of developing countries India's growth rate was very low. During this period Pakistan grew by 5%, Indonesia by 6%, Thailand by 7%, Taiwan by 8% and South Korea by 9%.

Year	India	China	South Korea	Taiwan
1947	$439	$619	$770	$936
1999	$1,818	$3,259	$13,317	$15,720

(Comparison of average annual income)

In comparison with South Korea, in 1947 South Korean per capita income was less than 2 times bigger than India, by 1960 it was 4 times larger and eventually South Korean per capita income was 20 times larger than India by 1990.

U. NITI Aayog

On 1st January 2015 Planning Commission was replaced by NITI Aayog. National Institution for Transforming India (NITI Aayog) is a policy think tank of Indian Government. Its aim is to achieve sustainable development by a bottom-up approach where State Governments of

India will be involved in the economic policy making. The structure of the organization as follows:

- Prime Minister as Chairperson
- Full-time organizational framework composed of a Vice-Chairperson, four full-time members, two part-time members (from leading universities, research organizations and other relevant institutions in an ex-officio capacity), four ex-officio members of the Union Council of Ministers, a Chief Executive Officer (with the rank of Secretary to the Government of India) who looks after administration, and a secretariat.
- Experts from various field
- Governing council: It consists of Chief Ministers of all states and Lt. Governors of Union Territories.
- Regional Council: It consists of Chief Ministers of all states and Lt. Governors of Union Territories in the region to address specific issues.

The NITI Aayog has a 15-year road map as well as a 7-year vision, plan and strategy. The prime objectives of NITI Aayog are:

- To develop a shared vision of national development with the active involvement of states.
- Foster Cooperative federalism through structured support mechanisms with the states and recognizing strong states make a strong nation.
- To formulate credible plans at the village level and aggregate them at higher levels of government.
- In economic strategy and policy ensure the interest of national security
- Special attention to the underprivileged sections of the society
- To design, implement and monitor long term policies and strategies.
- Encourage engagement between key stakeholders, national and international like-minded think tanks, educational institution and policy makers.
- Creating a knowledge, innovation and entrepreneurial support system.
- To provide platform for resolution of inter departmental and inter sectoral issues
- To maintain a state-of-the-art resource center and be a repository of research on sustainable development as well as good governance.

- To monitor the implementation and provide adequate resources to strengthen probability of success and scope of delivery
- To ensure implementation of programs and initiatives by capacity building and upgradation of technology
- To undertake other activities which may be necessary for the execution of development agenda.

V. Role of RBI In Indian Economy

The Reserve Bank of India, India's central banking system controls and influences a number of macroeconomic indicators such as interest rates, inflation rate, money supply and GDP. On April 1, 1935 RBI was established. RBI plays a very vital role in economy through direct and indirect regulation as well as promoting development policies.

Issuer of Currency- RBI is the only authority in India who empowered to print new bank notes. It also effectively controls country's money supply. RBI prints money on the basis of growth in the economy to ensure the support of growth. It is also responsible for replacing old and soiled notes.

Monetary Policy- RBI is responsible for drafting and enforce monetary policy to meet the challenges of the increasingly complex economy. It ensures and regulate cost, use and availability of money and credit while keeping on focus of economic growth. To regulate the financial market and maintain stability in the economy, RBI uses various direct and indirect regulations.

Direct Regulation

1. Cash Reserve Ratio (CRR) – The commercial banks must keep a minimum amount of cash with RBI at any given point of time. This is called as Cash Reserve Ratio (CRR). RBI uses this amount in two ways to stable the economy and the market. In the time of excess liquidity CRR is used for draining the cash from the economy and In the time of fund shortage it releases the funds to meet the growth in the economy.
   As of January 2020, the current CRR is 4.0%.

2. Statutory Liquidity Ratio (SLR) – SLR is a percentage of total deposits available with the commercial bank which is to be maintained in form of gold or government securities with the RBI. RBI uses this in order to control the expansion of bank credit. E.g. the current SLR is 19.00%. Depending upon the situation RBI flex the number.

Indirect Regulation

1. Repo Rate- RBI uses Repo rate as a tool to control inflation in the economy. Repo Rate referred to the rate at which RBI is willing to lend funds to the commercial banks. In case of fund shortage with the commercial bank they can lend funds from RBI against securities. In case of inflation, RBI increases the repo rate to restrict the availability of money as it is now more expensive for banks to lend money from RBI. Similarly, in case of a deflationary environment it lowers the repo rate to increase availability of money in the economy through the commercial banks.
2. Reverse Repo Rate- Reverse Repo rate in which RBI is willing to borrow money from the commercial banks. If RBI increases the Reverse Repo Rate, commercial banks will prefer to park their money with RBI, which is provide the highest safety. Hence, the availability of money with commercial banks will decrease and it naturally leads to higher interest rate for the customers. And in case of lower Reverse Repo rate the availability of money will increase in commercial bank and the interest rate will be lower for the customers.

RBI controls the supply and availability of money in the economy through the Repo Rate and Reverse Repo Rate.

Current RBI Rates (15th February 2020)

Policy Rates and Reserve ratios

Repo Rate	5.15%
Reverse Repo Rate	4.90%
Marginal Standing Facility Rate	5.40%

Bank Rate	5.40%
CRR	4.00%
SLR	18.25%

Lending/ Deposit Rates and Market Trends

Base Rates	8.45% - 9.40%
MCLR (Overnight)	7.50% - 7.95%
Saving Deposit Rates	3.25% - 3.50%
Term Deposit Rates >1 year	6.00% - 6.40%
Money Market call Rates	3.70% - 5.25%

RBI plays very pivotal role in Indian economy. Some of the areas where RBI plays a very critical roles are given below.

- Development of banking system in the country
- Development and regulation of financial institutions
- Development of rural and backward areas
- Economic stability
- Economic growth
- Preparing Interest structure

For Socio-economic development RBI introduces various schemes and policies which benefit both the public and the government. Some of the areas prioritizes by RBI for economic development are promotion of commercial banking, cooperative banking, industrial finance, export finance and credit guarantees. It regulates and promotes differential rate of interest scheme. Moreover, to extend support for rural and agricultural sector it promotes priority credit system which also include the credit to the weaker section.

IV. Part 4: *Economic Reforms*

A. Pre-liberalization Policies of India and Effect

After Independence India's economic policies were influenced by Fabian socialism and colonial experience. Policies focused towards import substitution industrialization, state intervention in micro level of businesses, central planning and protectionism. During 1950s mining, steel, airlines, water, telecommunication, insurance etc. were nationalized.

Between 1947-1990 to set up businesses in India there were various licenses, regulations and red tapes which is commonly known as "License Raj". Under License Raj corruption flourished. License owners have a very powerful lobby which eventually established a self-perpetuating bureaucracy. Due to this system a very huge private sector emerged as four or five licenses were given for steel, electric power and communication. It resulted in huge losses for the state-owned enterprises.

The monopoly of public sector and lack of competition caused a very poor infrastructure investment. Moreover, the Customs Department and Income Tax Department became very inefficient to check the tax evasions.

Before 1980 India's annual growth of economy stagnated around only 3.5%, while during this period Pakistan, Indonesia, Thailand, South Korea and Taiwan grew by 5%, 9%, 9%, 10% and 12% respectively. At the same time India's per capita growth rate was just 1.3%.

B. 1991 Indian Economic Crisis

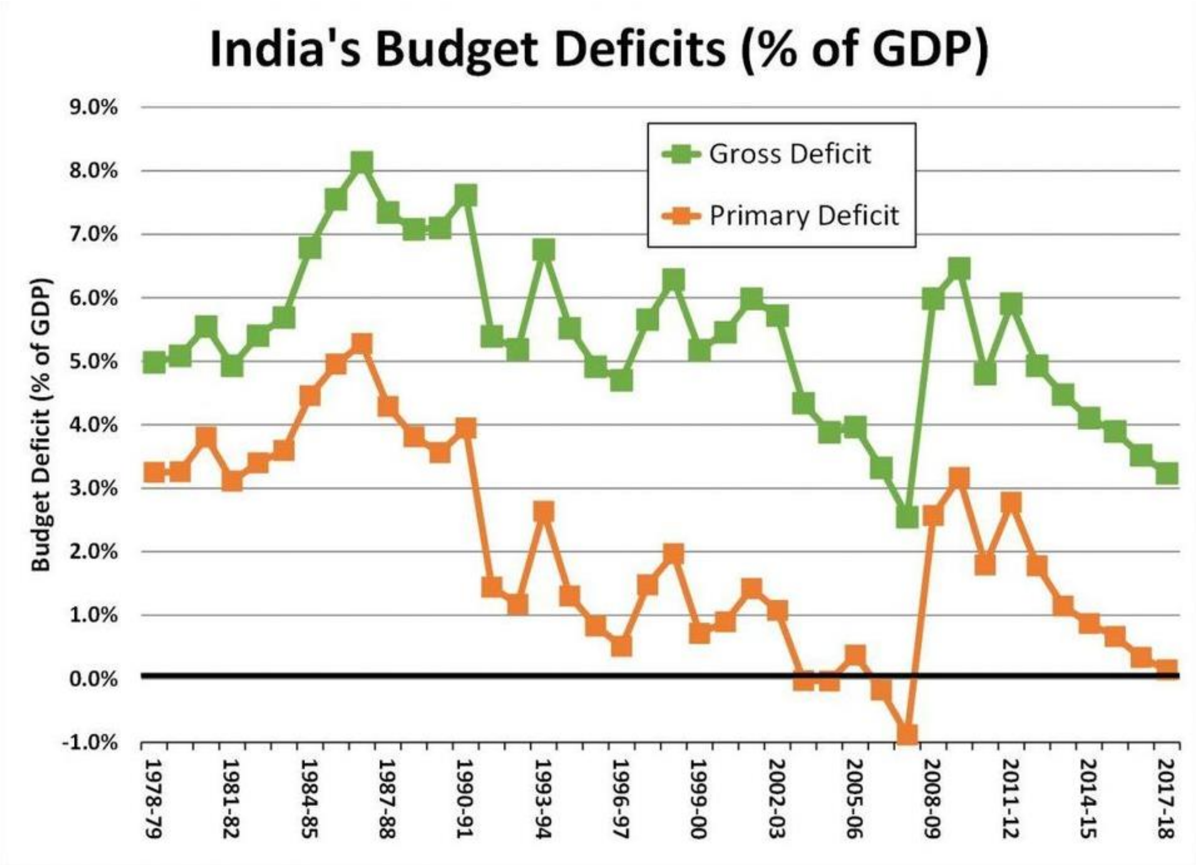
After 1985 India faced serious balance of payments issue as the imports increased sharply. Simultaneously Indian government has a large fiscal deficit which created a twin deficit problem for the nation. In July 1990 the low reserves led to a sharp depreciation of Indian currency and by the end of 1990 Indian foreign exchange reserve could barely finance three weeks' worth of imports. The government could not pass the budget in Feb 1991 and came very close to default on its financial obligations. During this crisis period Moody downgraded India's ration and World Bank and IMF also stopped their assistance.

The situation forced Indian government to airlift national gold reserves as a pledge to a conditional bailout. The liberalization of Indian economy was one of the conditions for the World Bank loan.

1. Reasons

The large and growing fiscal imbalance was the primary reason for the crisis. It occurred due to three prime reasons mentioned below.

1. External Payment Crisis: India faced a major balance of payment issues during mid-eighties. Ongoing Gulf war during this period in middle east increased India's oil import bill, export goes down and credit dried up. Over time the large fiscal deficit had a spillover effect on the trade deficit. By 1990 India had a serious external payment crisis by the culminating of trade deficit of past years.
2. Gross Fiscal Deficit: During 1980s India's gross domestic deficit increased and reached more than 8% of GDP by 1990. The gross fiscal deficit of the center alone was 6.1% of GDP in 1980-81 and it increased up to 8.4% in 1990-91. The union (both center and states) gross fiscal deficit increased from 9.0% of GDP in 1980-81 to 10.4% in 1985-86 and by 1990-91 it hit 12.4% of the GDP.
   The deficits had to be taken care by loans and borrowings which accumulated rapidly and so is the internal debt of the government. At the end of 1980-81 the internal debt of the country was about 35% of the GDP and it quickly increased to 53% of the GDP at the end of the 1990-91 financial year.
3. Devaluation of Rupee: In mid-1991 rupee's exchange rate was subjected to severe adjustment due to the gradually slide in value. The Reserve Bank of India took several actions for defending the value of currency but only managed to slow down the decline in value by expanding the foreign reserves. By mid-1991 the foreign exchange dried up. So, the Government of India permitted the devaluation of the currency. The devaluation process against the major currencies was done by two steps within three days i.e. 1^{st} July and 3^{rd} July 1991.



2. Recovery

According to Indian Government official report, there was USD 1.2 billion foreign exchange reserve in January 1991 and depleted by half by June, which could only be enough for 3 weeks of essential imports. The nation was just weeks away from defaulting. So, Government of India decided to secure an emergency loan of USD 2.2 billion in priority basis.

The International Monetary Fund (IMF) negotiated and agreed to provide loan by pledging 67 tons of India's gold reserves as collateral security. In the midst of 1991 Indian General election in total secrecy the Reserve Bank of India had to airlift around 20 tons of gold to Union Bank of Switzerland to raise little more than USD 200 million. UBS bought the gold from State Bank of India (SBI) which was made available for sale with a repurchase option. The golds were airlifted to UBS between 21st May and 31st May 1991.

In June 1991 new government came to power which was headed by then Prime Minister Narasimha Rao and Dr. Manmohan Singh as his Finance Minister. Between 4th July and 18th July of the same year 1991 RBI had to airlift about 46.91 tons of gold to London for raising USD 400 million from Bank of England and the bank of Japan by pledging the gold. When the story broke out it created a political fallout, the national sentiments were outraged and public outcry.

Then Prime Minister in his speech, just a week after in his office, signaled to the nation and the IMF that there was no soft option given to the country. Also, he signaled that India had to open doors for foreign investors and to reduce streamline industrial policies. Then Finance Minister Manmohan Singh addressed the parliament and stated that it was a painfully necessary steps to save the day.

3. Aftermath

The economic reforms headed by then Finance Minister Dr. Singh yielded amazing results and dramatically improve the situation. Just after the crisis the Economic liberalization and LPG reform adopted by India. India repurchased the collateral gold reserves before the end of 1991. Later, India bought 200 tons of gold valued USD6.7 billion when Dr. Manmohan Singh was Prime Minister in 2009. Both Indian GDP and purchasing power parity increased around 1100% from 1991, GDP rose to US$3 trillion in 2019 from $266 billion and purchasing power parity arrive at $12trillion in 2019 compare to $1 trillion in 1991.

As per RBI report, on 6th December 2019 India had total foreign exchange reserves of USD 453 billion, which is all time high. Out of which around USD 421 billion in form of Foreign Exchange Assets (FEA), around USD 27 billion worth of gold reserves, around USD 3.6 billion reserve position in IMF and around USD 1.4 billion as Special Drawing Rights (SDRs) with IMF. Currently India has 7th largest foreign reserve in the world.

Rank	Country/ Region	Foreign Exchange Reserves (millions of USD)	Figure as of
1	China	3,115,500	January 2020

2	Japan	1,371,337	October 2019
-	Europe (ECB- Euro system)	921,279	September 2019
3	Switzerland	846,620	October 2019
4	Russia	562,300	31st January 2020
5	Saudi Arabia	500,148	November 2019
6	Taiwan	479,131	January 2020
7	India	473,001	7th February 2020
8	Hong Kong	434,200	November 2019
9	South Korea	408,800	December 2019
10	Brazil	356,884	December 2019

C. Economic Reforms in India

In 1991 when Soviet Union dissolved India lost its biggest trading partner. Ongoing Gulf war also had a major contribution towards creating a huge balance of payment problem for the country which caused the above mentioned Crissis-1991 in the country. In response to the crisis India's Finance Ministry led by Dr. Manmohan Singh started the liberalization of economy process.

1. Structural Reforms

India approached World Bank for a credit sanction on November 12th, 1991. This loan was meant for the structural reforms in the economy to enhance its global competitiveness and increase the flexibility in different segment of economy. The approved loan consists of two financial components

1. An IBDR loan of $250 million which has to be paid over 20 years
2. An IDA credit of SDR $183.8 million with maturity over 35 years which is equivalent to $250 million

2. Stabilization Measures (LPG)

India initiated the LPG reforms in 1991. LPG stands for Liberalization, Privatization and Globalization. When India approaches international banks, they prescribed India to open up the economy. In response Indian Government agreed to the terms of lending agencies and did a wide range of reforms, commonly known as LPG reforms-1991.

These measures reduce the weakness in the economy such as License Raj, monopolies and increased inflation. The policies reduced the tariffs and interest rates which attracted Foreign Direct Investments. These Various reforms were categorized as Liberalization, Privatization and globalization.

a) Liberalization

Liberalization focused on reduce restrictions which were affecting the growth and development of the nation. This would allow a competitive environment and allow private players to expand which will ultimately cause the growth of the economy. The prime objectives of the liberalization policies were

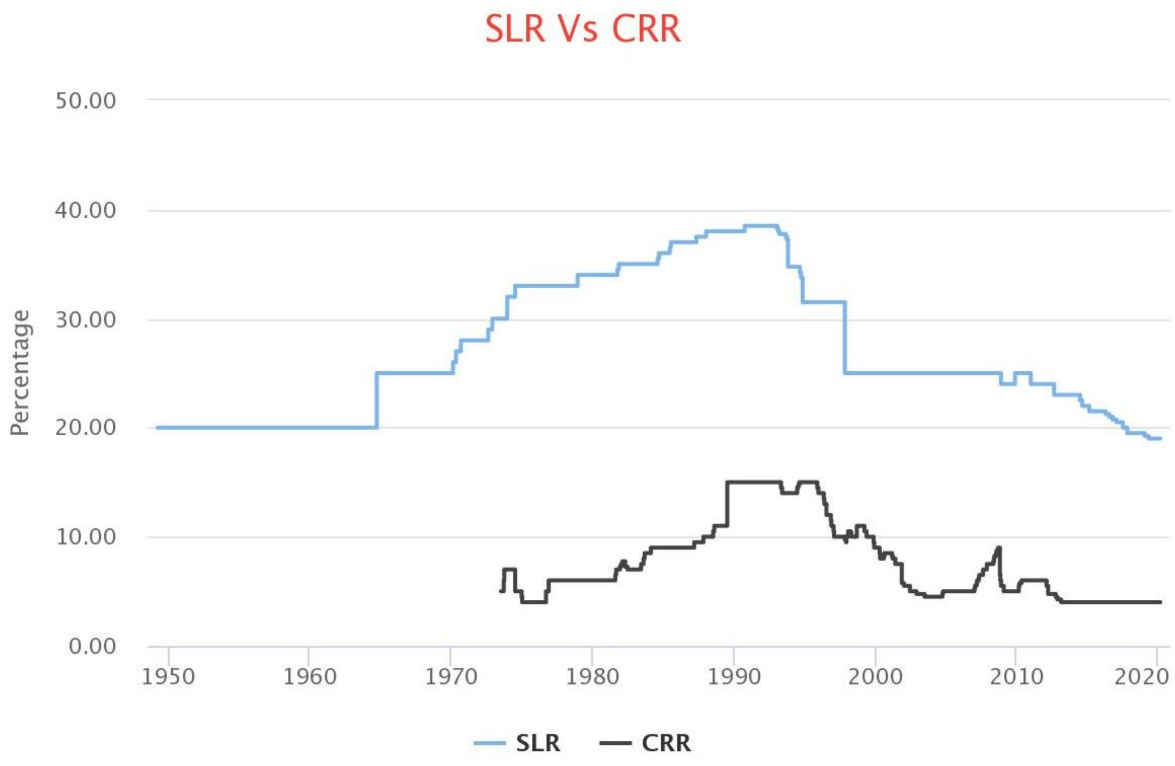
- Creating a competitiveness amongst domestic industries
- Encourage Global traded with regulated imports and exports
- To increase foreign capital
- Technological improvement
- Expand international market frontiers
- Reduce the debt burden of the country

Industrial Sector Reforms: The government abolished previously required licensing for the industries except 5 industries i.e. liquor, cigarettes, industrial explosives, defense equipment and chemical and pharmaceutical industries. Government reduced control over public sector industries from 17 to 8. Currently only 3 sectors were government control as of February 2020 i.e. railways, atomic energy and defense.

Farmers were restricted to use their lands owned by them because of reservation of production areas. After de-regulation of areas, it improved land efficiency and increased farming land. In later stage of reforms many private players entered farming sector.

The industries were allowed to expand their production capacities depending upon nature of the market, import of latest technology was encouraged and for all types of crops export were allowed.

Financial Sector Reforms: In the financial sector the SLR was reduced from 38.5% to 25% and CRR was reduced from 15% to 4.1% in the first phase. Currently SLR is at 18.25% and CRR is at 4% by mid-Feb 2020.



(Data achieved from RBI)

The increase competition in banking sector between private sector and public sector expanded the services. RBI role changed from regulator to a "facilitator" for the financial activities.

Except for the saving bank deposits, banks were allowed to set their own interest rates on commercial lending.

Fiscal Reforms: Government reduces the taxation rates and simplified the tax structure. Moreover, policy makers sealed tax evasion strategies which were followed before to skip tax. It dramatically increased government tax revenue which were used by the government to develop the undeveloped or underdeveloped areas.

Foreign Exchange Reforms: The value of rupee was devaluated to encourage exports and to discourage the imports. All import related policies and quota system were abolished. Import duties were reduced, and export duties were withdrawn.

b) Privatization

Privatization stands for when the role of the private sector companies increases, and the role of the public sector companies reduces. In this process the ownership of management shifts from government to private sector. Either by disinvestment or by withdrawing government ownership of the public sector enterprises, government enterprises can be turned in to private enterprises.

The privatization In India was targeted towards achieving the following objectives.

- To reduce debt burden on government which was peaked at 53% of GDP in 1991
- Reduce the workload of public sector companies as before privatization government owned 18 companies.
- Generate revenue through disinvestment
- Provide better and quality product to customer by create competitiveness
- Bringing foreign direct investment to India

c) Globalization

Globalization stands for when one country's economy integrated with global economy. It is an attempt to make a borderless world. It was the last step of the LPG to be implemented.

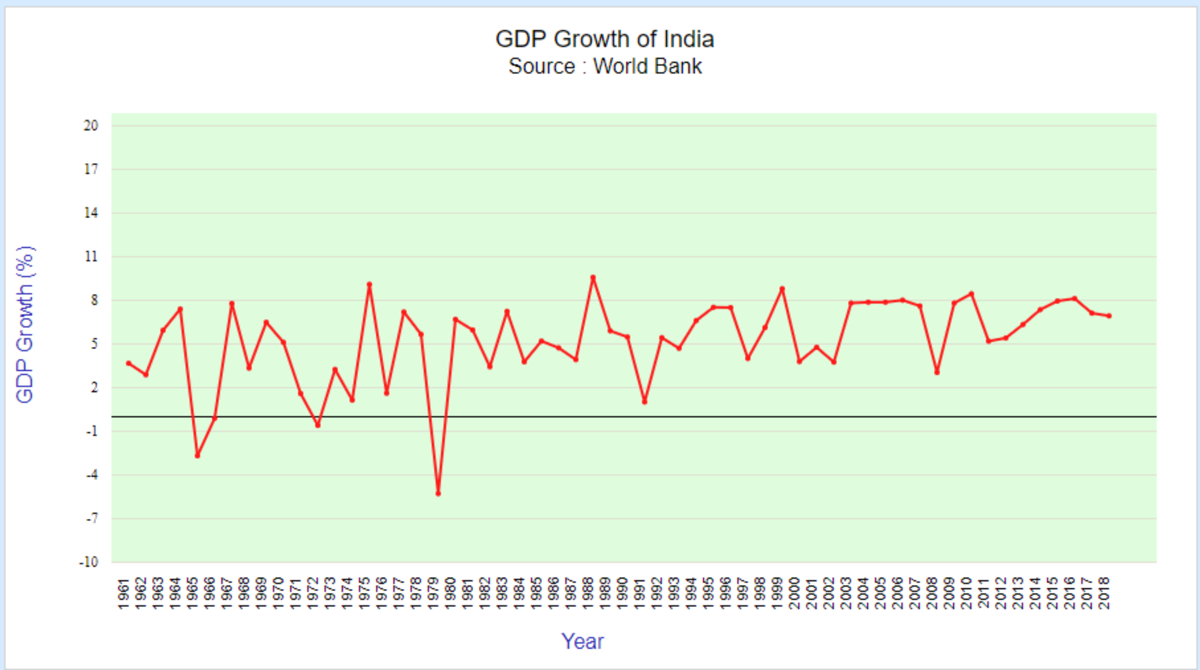
The most important achievement India got through the globalization process is through outsourcing. Service sectors boomed. India became a service hub and multiple cities became service sector hub e.g. Bengaluru, Delhi NCR, Chennai etc.

3. Later Reforms

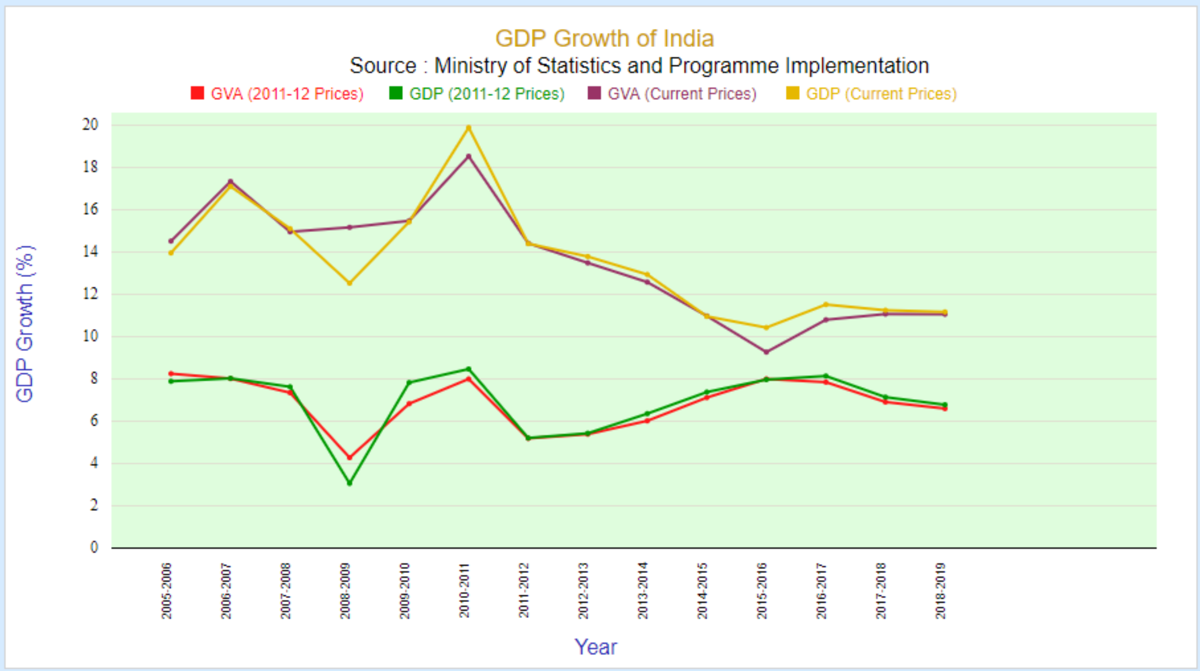
1. The reforms continue also during the next government from 1998 to 1999 and from 1999-2004. The BJP-led National Democratic Alliance under the leadership of Atal Bihari Vajpayee started privatizing multiple loss-making and under-performing business such as hotels and airports and companies like VSNL and Maruti Suzuki. The government fiscal policy focused on reducing debts and deficit. Reduction of taxes has been made. The insurance sector was opened up for the first time with allowance of 26% FDI.
2. In 2011, Congress led United Progressive Alliance-2 (UPA-2) government had initiated policies to allow 51% FDI in retail sector. Although government rolled back the decision under pressure but in December 2012 it was approved.
3. In 2015, BJP led NDA government under Narendra Modi further opened up the insurance sector by allowing 49% of FDI. The government passed the Coal Mines Special Provision Bill 2015 which ended the monopoly of government over the coal mining.
4. In2016 government passed the Insolvency and Bankruptcy Code bill in parliament budget section. It states that if insolvency can't be resolved within 18o days the assets of the borrower may be sold to repay creditors. It drastically increases the ease of doing business.
5. On July 1, 2017 government approved for uniform Goods and Service tax (GST). It created a nation-wide uniform tax structure reshaping country's economy.
6. On September 20, 2019 in the NDA-2 government Finance Minister Nirmala Sitharaman lowered the corporate tax from 30% to 22% for those who do not seek exemption and for new manufacturing company the tax rate reduced from 25% to 15%. It is expected that India will attract investment through MNCs due to these steps.
7. On February 1, 2020 Finance Minister Nirmala Sitharaman announced government's intention of disinvestment in Life Insurance Corporation of India (LIC). LIC is a 100% government owned company and has net assets of more than Rs. 31 trillion.

D. Effects of Liberalization of economy

1. GDP Growth rate



Between 1950 – 1980 India's growth rate stagnated at 3.5%. India's GDP growth rate crossed 5% mark in 1980s. But after the reform it averaged at annual growth rate of 6.6% between 1990-2010. These figures as well as the above graph alone are not conclusive evidence of how the reforms of 1991 effect on the growth rate as the India started to see a growth from early 1980s. Although the growth rate peaked after policy reforms by Planning Commission in Sixth Five Year Plan (1980-1985) but it is certain that the reforms led to economic crisis of 1991. After the crisis IMF loan and LPG reforms led a country to a stable and growing economy. Initially India's credibility for loan was doubted but so far, the nation has been a disciplined borrower.



2. Impact on different sectors

Sector-wise contribution of GDP of India

Source- Ministry of Statistics and Programme Implementation (2018-2019), Planning Commission, Government of India (2004-05 series)

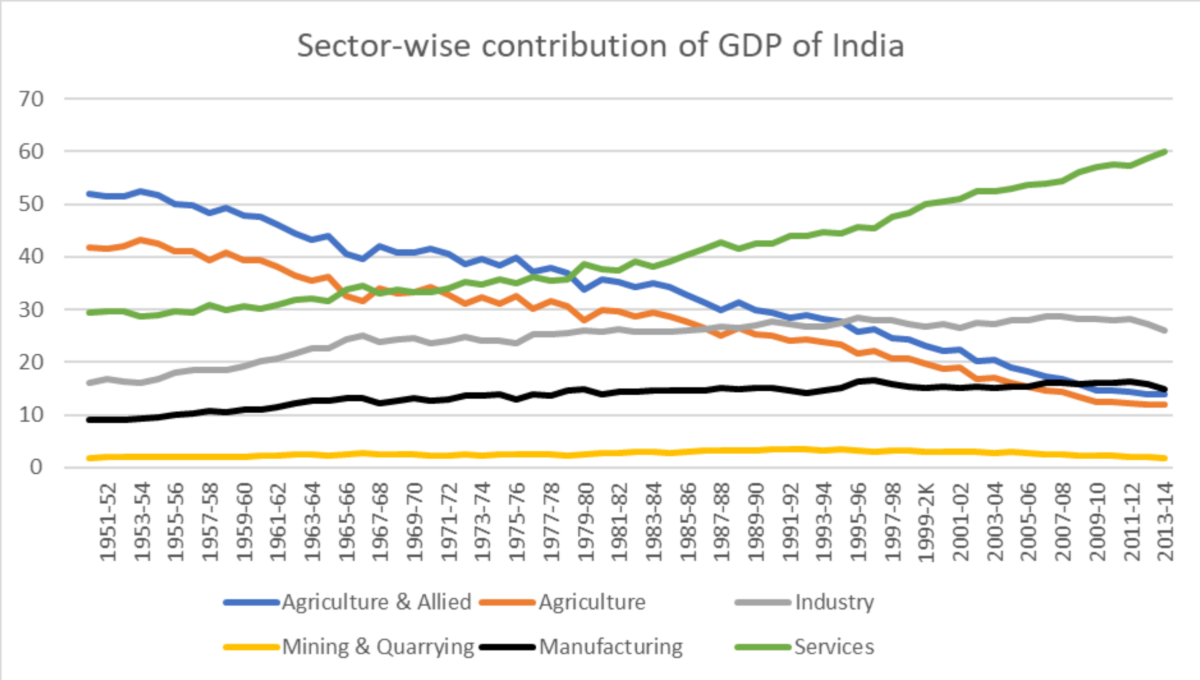
Year	Agriculture & Allied	Agriculture	Industry	Mining & Quarrying	Manufacturing	Services
1950-51	51.88	41.83	16.19	1.84	8.98	29.54
1951-52	51.45	41.54	16.69	2.02	9.05	29.63
1952-53	51.61	42.08	16.22	2.01	9.1	29.71

1953-54	52.39	43.23	16.15	1.92	9.25	28.81
1954-55	51.73	42.63	16.77	1.92	9.49	28.94
1955-56	50.01	40.95	18.07	1.9	9.98	29.62
1956-57	49.89	41.06	18.56	1.89	10.15	29.31
1957-58	48.23	39.45	18.61	2.04	10.67	30.78
1958-59	49.34	40.8	18.49	1.95	10.41	29.79
1959-60	47.8	39.34	19.33	2.01	10.88	30.6
1960-61	47.65	39.41	20.09	2.16	11	30.19
1961-62	46.25	38.1	20.8	2.21	11.58	30.85
1962-63	44.39	36.51	21.76	2.43	12.17	31.92
1963-64	43.24	35.41	22.74	2.38	12.68	32.19
1964-65	43.9	36.31	22.57	2.24	12.6	31.64
1965-66	40.53	32.61	24.38	2.6	13.2	33.76
1966-67	39.56	31.54	25.01	2.63	13.17	34.45
1967-68	42.02	34.15	23.89	2.51	12.22	33.07
1968-69	40.88	33.17	24.41	2.52	12.57	33.71

1969-70	40.85	33.39	24.62	2.48	13.07	33.28
1970-71	41.66	34.16	23.62	2.2	12.74	33.26
1971-72	40.47	32.92	23.97	2.23	13.02	34.14
1972-73	38.56	31.16	24.92	2.37	13.57	35.25
1973-74	39.54	32.32	23.99	2.3	13.56	34.82
1974-75	38.49	31.07	24.05	2.38	13.8	35.84
1975-76	39.86	32.55	23.62	2.45	12.92	35.06
1976-77	37.09	30.19	25.35	2.51	13.88	36.23
1977-78	37.98	31.61	25.24	2.41	13.72	35.38
1978-79	36.83	30.55	25.58	2.34	14.61	35.77
1979-80	33.89	27.92	26.13	2.5	14.92	38.57
1980-81	35.69	29.82	25.66	2.62	13.95	37.65
1981-82	35.35	29.6	26.23	2.82	14.28	37.49
1982-83	34.25	28.72	25.85	3.06	14.33	39.03
1983-84	34.97	29.49	25.86	2.92	14.65	38.25
1984-85	34.17	28.79	25.88	2.84	14.69	39.04

1985-86	32.91	27.69	25.94	2.88	14.55	40.36
1986-87	31.42	26.44	26.3	3.1	14.71	41.62
1987-88	29.86	25.1	26.81	3.1	15.01	42.76
1988-89	31.35	26.62	26.56	3.27	14.78	41.51
1989-90	29.89	25.18	27.1	3.32	15.16	42.58
1990-91	29.53	24.94	27.63	3.48	15.08	42.55
1991-92	28.54	24.02	27.33	3.55	14.51	43.91
1992-93	28.89	24.41	26.77	3.4	14.2	44.05
1993-94	28.24	23.83	26.73	3.26	14.59	44.76
1994-95	27.8	23.46	27.42	3.35	15.2	44.52
1995-96	25.73	21.65	28.44	3.3	16.36	45.69
1996-97	26.19	22.14	28.03	3.08	16.59	45.51
1997-98	24.47	20.59	27.95	3.24	15.91	47.53
1998-99	24.39	20.68	27.28	3.12	15.38	48.24
1999-2K	23.18	19.61	26.77	3.01	15.01	50.05
2000-01	22.26	18.71	27.25	2.96	15.46	50.49

2001-02	22.39	18.9	26.54	2.86	15.01	51.07
2002-03	20.13	16.72	27.39	2.98	15.44	52.48
2003-04	20.33	17.16	27.22	2.84	15.21	52.44
2004-05	19.03	16.04	27.93	2.86	15.25	53.05
2005-06	18.27	15.46	27.99	2.65	15.34	53.74
2006-07	17.37	14.69	28.65	2.6	16	53.98
2007-08	16.81	14.29	28.74	2.46	16.14	54.45
2008-09	15.77	13.36	28.13	2.36	15.78	56.11
2009-10	14.64	12.35	28.27	2.3	16.17	57.09
2010-11	14.59	12.42	27.92	2.25	16.17	57.48
2011-12	14.37	12.26	28.22	2.11	16.28	57.42
2012-13	13.95	11.85	27.27	1.98	15.76	58.79
2013-14	13.94	11.87	26.13	1.86	14.94	59.93



3. Impact on Industry

India's Industrial growth stagnantly around 25% after economic liberalization. Industrial sector had a very slow growth till 1990-91 which is the result of import substitution policy. After liberalization when foreign companies got the access to the Indian markets, domestic company could not compete with them. Larger economies of scale and technology gave them a competitive edge over domestic companies.

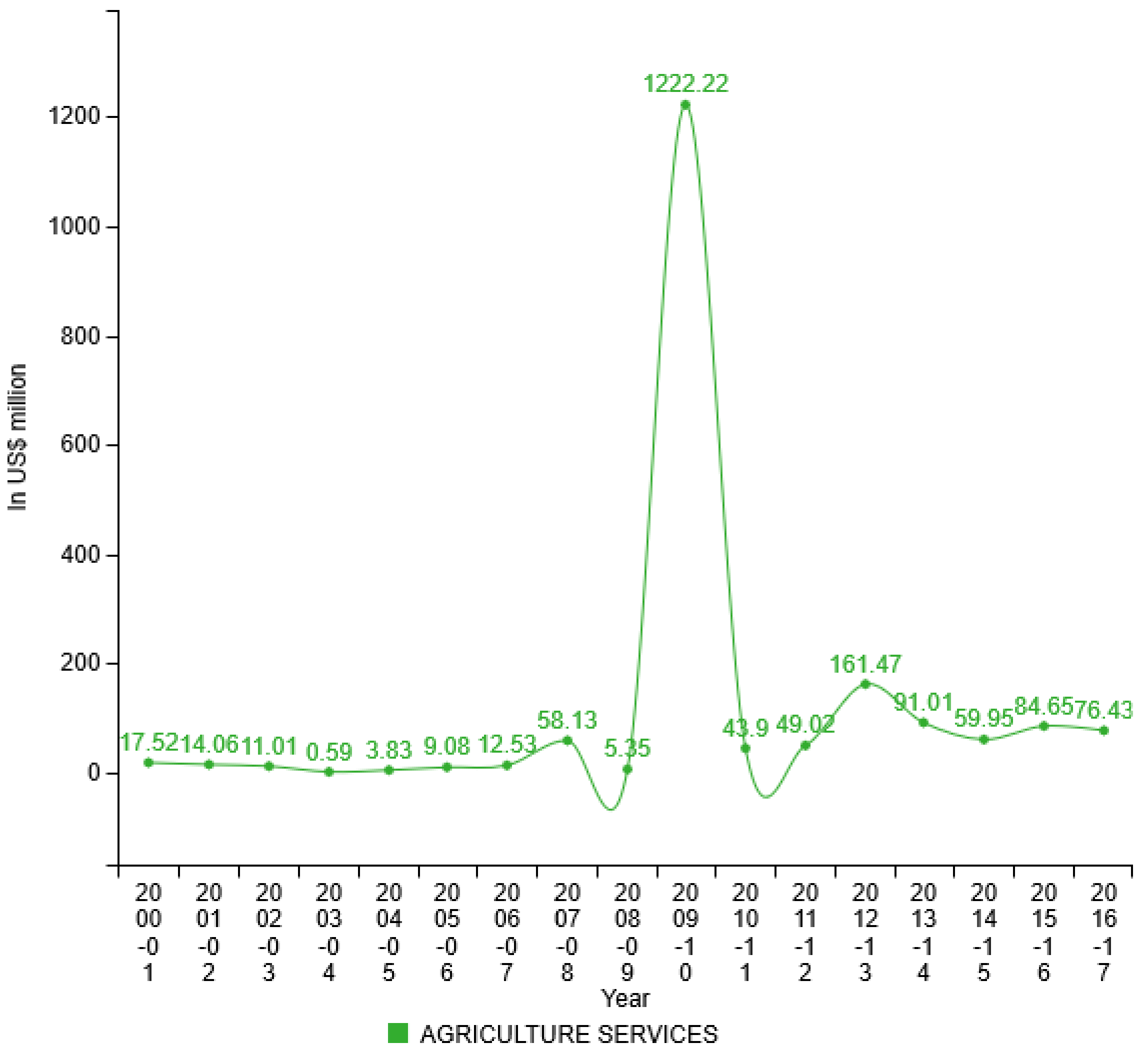
Import substitution required certain degree of investments in domestic production and should be carried out when imports were cheaper. India also started to lag in research and development two decades before the liberalization. Until then Indian Industries were more modern and advanced than china. But during these two decades China surpassed India in both innovation and Industry with a huge margin.

4. Impact on SME

After liberalization the small and medium enterprises (SME) were forced to compete with big players as government substantially cut down the reserved items list. Reserve item lists refers to the items which were exclusively reserved for the SMEs by the government to revive the SME industry after independence.

SMEs are still the backbone of Indian economy. Although it continues to contribute major portion in exports and employment but value addition, technology upgradation and innovation is still dismal. Large portion of SMEs exists on the support of government.

5. Impact on agriculture



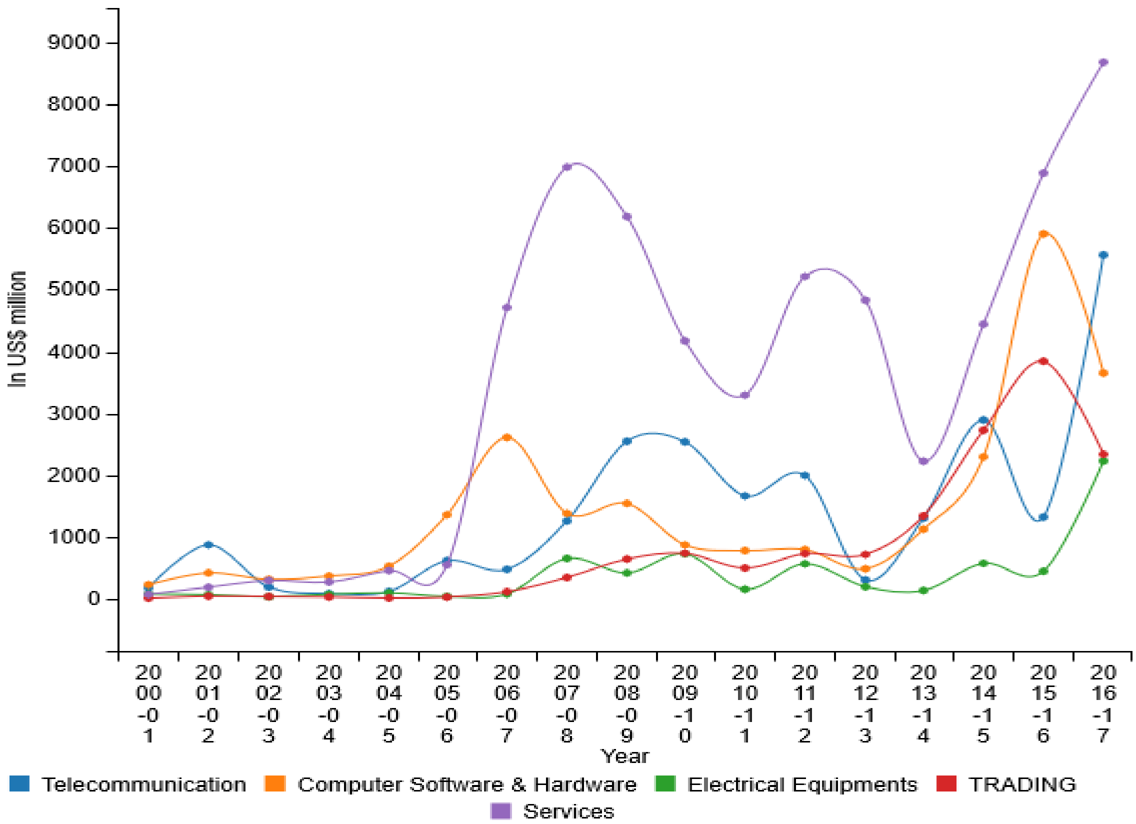
Agriculture and its allied sector saw a decline throughout the Independent India. After the liberalization the decrease rate became more and in 2013-14 it arrived at less than 14% whereas still more than 50% people are dependent upon agriculture.

There is a huge disparity in global agricultural economy. The prime reason behind this was the imbalance in economic and political power of farmers in developing and developed countries. Also, agriculture services did not attract substantial and adequate FDIs. Again, worst of all free market can't take care of agriculture sectors as most of farmers are poor and don't have any purchasing power.

Clearly, agriculture sector is the biggest failure. The worst is India has directly transited from agrarian economy to service led economy. Although the agriculture sector has not performed very well but India became a self-sufficient country. If the globalization process imposed in an inclusive, systematic and sustainable manner with farm mechanization i.e. using modern technology and equipment, it can have a multiplier effect on the economy.

6. Impact on service sector

The process of globalization regarding to service sector has been a boon for developing countries and a bane for the developed one. The economic disparities between two groups makes human resources cheaper for developing countries. As India is a cheap labor country the service sector saw a rapid growth after the reforms. Global IT revolution was the cherry on the top for Indian service sector and now India become a service led economy with around 60% share of GDP.



(Source: Ministry of Statistics and Programme Implementation India, FDI Equity Inflows in Top 5 Sectors from 2000-01 to 2016-17)

As per the given data it can be clearly observed that service sector receives the highest FDIs which is still growing strong with all-time high.

7. IT industry

After liberalization BPO, KPO, LPO and software industries boomed in the country which helped India to get a large portion of demographic dividend. Export services does not consume natural resources. Hence, it is the export of high value. Exporting services and professionals can modify economy to a true knowledge Economy.

8. Banking

Since reforms of 1991 there have been three rounds of license grant for the private banks which attracts banks such as Yes Bank, HDFC, ICICI and some other foreign banks. It raised the standard and competitiveness in banking Industry. Government launches various loan schemes as well as support schemes for the poor and the farmers. Still, public sector banks are the major lender in the country.

By opening the insurance industry, different kind of insurances such as travel insurance, home insurance etc. available in Indian market. Yet majority market share of life insurance market is in the hand of Life Insurance Corporation of India (LIC).

9. Stock market

National Stock Exchange established in 1992. Bombay stock exchange was there from 1986. The NIFTY 50 and SENSEX index by NSE and BSE respectively are considered as the pulse of India. Stock market provides a free market mechanism. Behavior of stock market is the strongest indicator of prospects of an economy.

(BSE SENSEX)

(NSE NIFTY 50)

Additionally, stock market opens wide variety of services such as hedging, Asset management, investment banking etc. which provides collectively employment to more than 100,000 people.

10. Telecom Sector

Before reform telecom sector was a government owned monopoly which provided quite substandard services. However, after reform Indian telecom companies went global and global telecom companies entered into Indian market which eventually lower the cost of the services and provide high quality service.

Similarly, after reform the modern Direct to Home (DTH) services revolutionized the television services. Global television channels provide the service in India and it also helped to improve quality of life.

11. Education and Health Care sector

After liberalization and privatization of various sectors, government pulled their hand from the social sector also. Agriculture sector (Food), education and healthcare are three basic necessities to support life. However, in developing countries these sectors fail, and most people could not afford their requirements. The free market policies, liberalization and globalization fails here miserably. The free market policies can available goods and service to the people only who can afford them.

Deregulation caused an ample number of private engineering colleges and medical colleges in India. In India world class education is available. In an overall view in private sector in education the standard is mediocre to world class but in public sector except few institutions the quality is hardly mediocre. One can avail the quality of service according to his budget.

According to "Transparency International" report, medical system in India is the most corrupt in the world. High fees structure in educational institutions forces the students to take educational loan. After graduation, job market can't absorb the majority chunk of it which leave them with no choice but practice. To repay the loan and have a decent living they lured by corruption. With lots of similar cases India got a corrupt society and system.

Up to primary level India has achieved universal enrollment. Government should focus on developing the structure and quality of education and services. Reason behind most of the corruptions are just to fulfill the basic necessities or to get a decent living. Government should proactively improve the quality of public sector educational institutions, hospitals and healthcare schemes which will drastically reduce the corruption in the system.

12. Rise of Indian Multinational Companies

After 1991 economic liberalization a fear struck that foreign MNCs with their vast pool of resources, multiple market knowledge and with proven track record will capture the Indian market and rewrite the Indian business. But Indian companies continued their strong hold in domestic markets as well as significantly increased the overseas investment. The domestic companies have grown in scale and size. Here are some of the examples of rise of Indian MNCs.'

- Bharat Forge acquired German forging company Carl Dan Peddinghaus in the end of 2003 and became the second biggest forging company in the world. It also helped Bharat Forge with an easy access to European market. Today it has 9 production facilities across six countries in Europe, North America and Asia and 35 original equipment manufacturers (OEMs) around the globe.
- Moser Baer commissioned its sixth and first in abroad, manufacturing facility in Germany in 2004. It was world's 3rd largest manufacturer of optical disc in the world. Around 2006 companies 80% revenues came from exports. In 2018 the company liquidate due to insolvency.
- In1998, Indian pharma giant Wockhardt took over loss making UK-based Wallis Laboratories for 8 million USD and within a year convert this to a profit-making entity.
- Tata motors acquired Land Rover and Jaguar cars from ford in 2008. In 2000, Tata tea acquired the world's second largest producer of tea bag, a UK-based company Tetley Tea for 431 million USD. Tata group made several other acquisitions such as Tyco global, Daewoo Commercial vehicles, Ritz Carlton hotel in Boston, Eight O' clock Coffee and many more.
- In 2005 Mittal Steel acquired Kryvorizhstal , a Ukraine based steel manufacturer for 4.8 billion USD. In 2006 Mittal acquired shares of Arcelor in 50.68 USD per share and the new company now called as ArcelorMittal. It is the largest steel maker in the world with 10% of global steel output.
- Some of the Indian textile companies struck some buy out deals in abroad such as In July 2006, Welspun India, a major producer of terry towels in the world, took over UK-based CHT Holdings, GHCL acquired Rosebys, UK's largest textile retail chain company.

E. Demonetization, 2016

The Prime Minister of India Narendra Modi announced live on air in the eve of 8th November 2016 that , all the Rs.500 and Rs.1000 were in circulation will not be valid from the midnight and the demonetized notes could be exchanged with the new Rs.500 and Rs.2000 currency notes. The demonetization exercise was targeted to counter shadow economy, funding to terrorism and the counterfeit currencies.

In 1978 there was a demonetization of Rs1000, Rs5000 and Rs10000 notes and this process was for the notes which were not in circulation or with the banks. But the demonetization in 2016 was also for the banknotes which are in circulation or in the hands of the people. This was followed by a shortage of cash in the economy and had a negative impact on the economy.

Note Exchange process

According to the press release of 8th November 2016 by Reserve Bank of India stated following methods for exchanging the demonetized notes with newly issued legal tenders.

- Members of public/corporates, business firms, societies, trusts etc. can exchange their holdings of old currencies on any bank branch and receive the credit into their bank accounts, starting from November 10,2016.
- Personal limit for exchange value was up to Rs4000.
- Cash withdrawal limit from bank accounts over the counter were restricted to Rs10000 per day and Rs20000 over a week from 9th November to 24th November 2016. Although any limit of online transactions was allowed.
- Cash withdrawal from ATMs were restricted to Rs.2000 till 18th November 2016 and from 19th November 2016 the limits were raised to Rs.4000.
- The exchange processes were carried out till 30th December 2016.

1. Objectives and Effects

Lets' analyze the objects and its effects on various sector and try to understand how its impact the economy.

a) Black Money:

Government estimated that around 20% of the money in circulation i.e. 3000billion INR or 45billion USD would be black money or untaxed money. With this exercise government hoped to remove this amount from the circulation permanently.

However, 2018 RBI report claimed that 99.3% of demonetized noted were deposited in the banking system. RBI stated that 15300billion INR (213 billion USD) of 15410 billion INR (215billion USD) of demonetized notes were deposited in the bank. Only 2billion USD did not return to the bank.

Certainly, the total amount which was not returned to the bank was not all of the black money. According to the experts around 10% of this money was with the NRIs (Non-resident Indian) which was not returned to the bank and around 25-30% of the unreturned money was in Nepal which government could not successfully exchanged. In the front of curtailing the black money this exercise was a huge failure.

But there was a serious question that where did the untaxed money go or how they managed to exchange it with new currency. According to Enforcement Directorate gold prices surged in post-demonetized period from 450USD to 630USD per 10grams. Co-operative banks, jewelers, automobile businesses were actively laundered money using back date entries. Also, people booked large number of Indian Railways tickets to dumped unaccounted cash. After came in the notice of the authorities and they imposed restriction to check evasion.

b) Counterfeit Currency

Eliminating the counterfeit currencies was one of the objectives of the demonetization exercise. The analysis of RBI annual report of 2018 clearly indicates that the counterfeit Rs50 and Rs100 denomination increased after the exercise. However, the demonetized Rs500 old currency and Rs1000 currency decreased in 2017-18, which was obvious. The counterfeit of newly issued denomination of RS. 500 and Rs.2000 was increased over 2017-18. After the exercise it was found that only 0.0035% of the Rs.1000 were counterfeited.

Denomination	2015-16	2016-17	2017-18
₹1	2	3	4
₹2 & ₹5	2	80	1
₹10	134	523	287
₹20	96	324	437
₹50	6,453	9,222	23,447
₹100	221,447	177,195	239,182

₹200	NA	NA	79
₹500 (Old)	261,695	317,567	127,918
₹500 (New)	NA	199	9,892
₹1000	143,099	256,324	103,611
₹2000	NA	638	17,929
Total	632,926	762,027	522,783

(Data Retrieved from RBI)

c) Terror Funding

Following the demonetization of 2016, initially the attacks and activities by the Maoist and Naxalite radical groups were decreased and the surrender rate had reached its highest due to lack of funding.

Year	Arrest	Surrender
2013	1397	282
2014	1696	676
2015	1668	570
2016	1840	1442
2017	1888	685
2018	755	284

(Source- Ministry of Home Affairs, Year-wise surrender of Maoist till may15,2018)

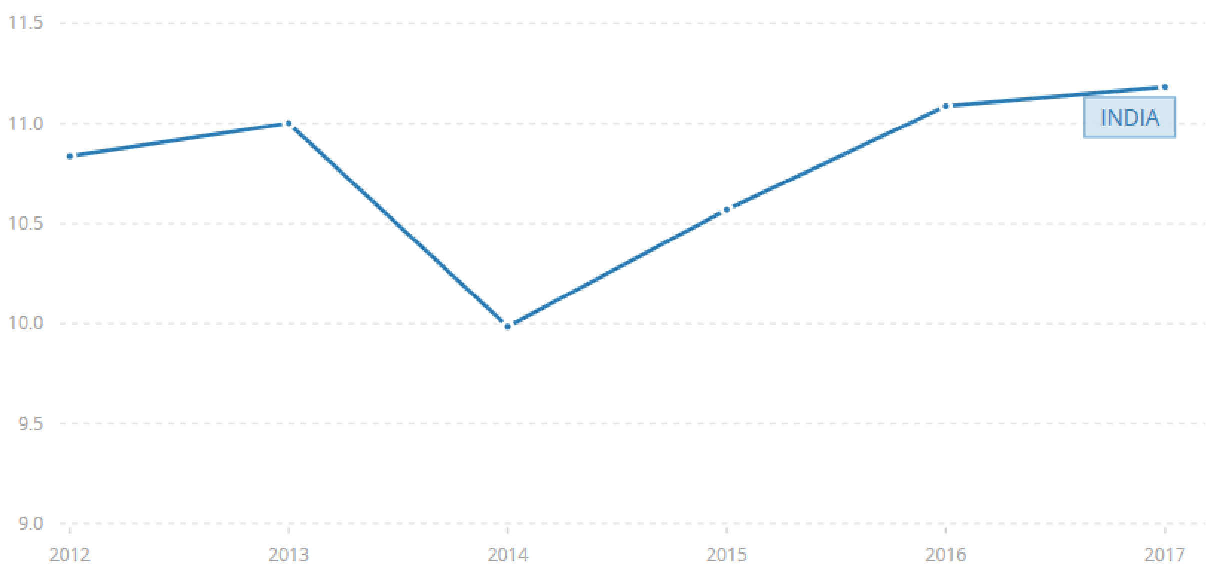
Year	Civilian Killed	Attack on Economic Infrastructure
2013	282	169
2014	222	100

2015	171	127
2016	213	79
2017	188	75
2018	173	60
2019	150	64

(Source- Ministry of Home Affairs Left Wing Extremism Division, Year-wise Civilian Killed and Attack on Economic Infrastructure by LWE)

The above report clearly states that in 2016 the surrender rate increased very highly as well as the illegal activities decreased continuously from the demonetization exercise. It was largely due to cut-off of counterfeit currencies funded for terrorism. Initially there was also a decrease in major terrorist activities in the Kashmir valley.

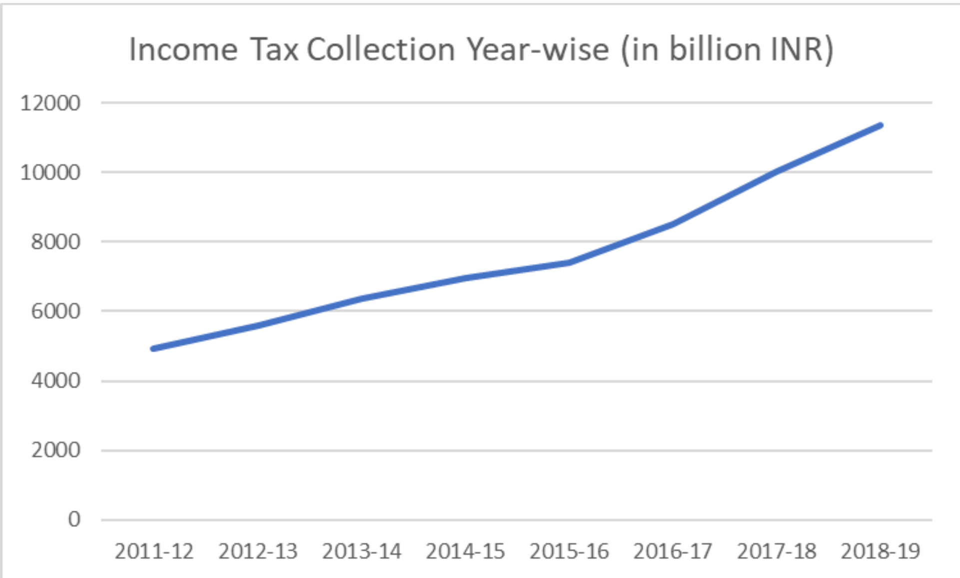
d) Tax collection



Source- World Bank, Tax to GDP ratio

Financial Year	Corporate Tax	Personal Income Tax	Other Direct Tax	TOTAL
2011-12	3228.16	1701.81	9.90	4939.87
2012-13	3563.26	2018.40	8.23	5589.89
2013-14	3946.78	2428.88	10.30	6385.96
2014-15	4289.25	2657.72	10.95	6957.92
2015-16	4532.28	2876.37	10.79	7419.45
2016-17	4849.24	3495.03	152.86	8497.13
2017-18	5712.02	4198.84	109.51	10020.37
2018-19*	6635.71	4731.21	9.93	11376.85

Source: Union Finance Accounts of respective years and reports of C&AG/Receipt Budget. * Provisional/unaudited @ Figures under Personal Income Tax include collections of Securities Transaction Tax. Direct tax collection numbers in Rs. Billion



Although many government authorities and ministers claimed that the tax collection increased due to demonetization, but the data shows otherwise. Income tax collection increased in 2017-18 financial year because of Income Disclosure Scheme in 2016. The tax to GDP ratio increased due to the expansion of tax base. We can verify this data as the total number of taxpayers increased as well as the income tax return filling numbers increased.

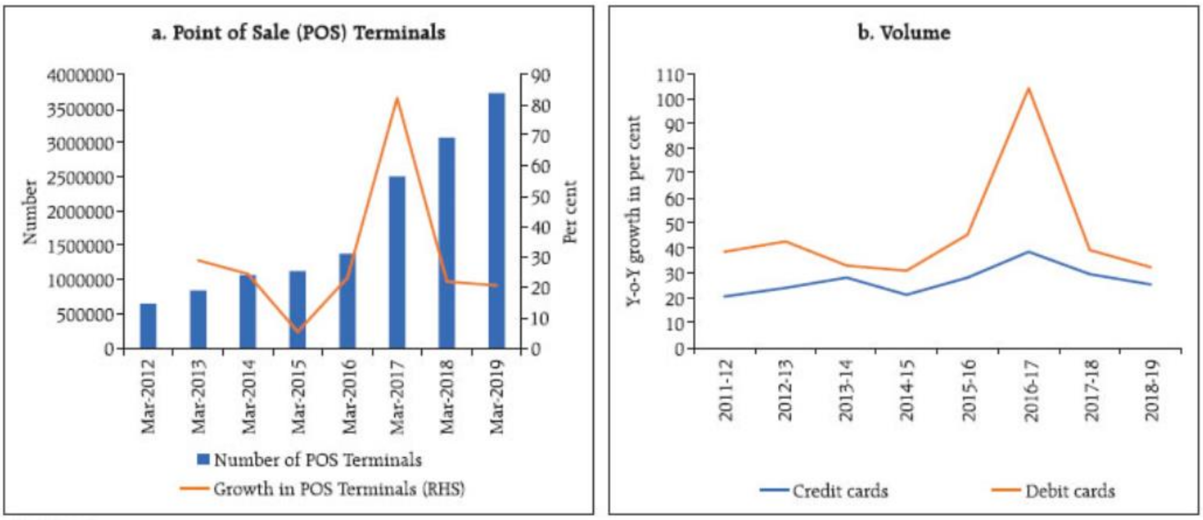
Financial Year	Number of Income tax returns filed (including Revised Return)	Number of Taxpayers
2013-14	37,974,966	52,644,496
2014-15	40,431,690	57,036,588
2015-16	46,302,430	61.388,342
2016-17	55,800,978	69,225,199
2017-18	68,706,068	74,249,558
2018-19	67,357,829	84,521,487

(Source- Finance Ministry, Income Tax Department)

The analysis of above economic data shows that there has been no radical improvement in the number of taxpayers or tax collection due to the banknote's demonetization of 2016.

e) Cashless Economy

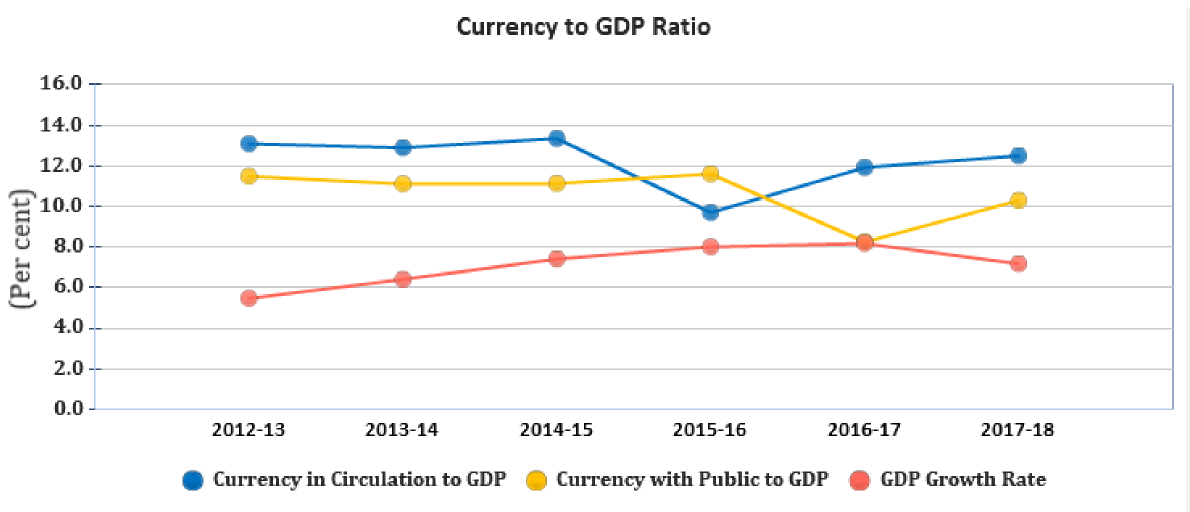
Indian economy mostly a cash transaction economy rather than digital transaction. Primarily agriculture sector and SMEs are largely cash dependent for the daily transaction. Government targeted to reduce the cash transaction and promoted digital payment systems to fight with the shadow economy and to create a cashless economy.



Source - RBI

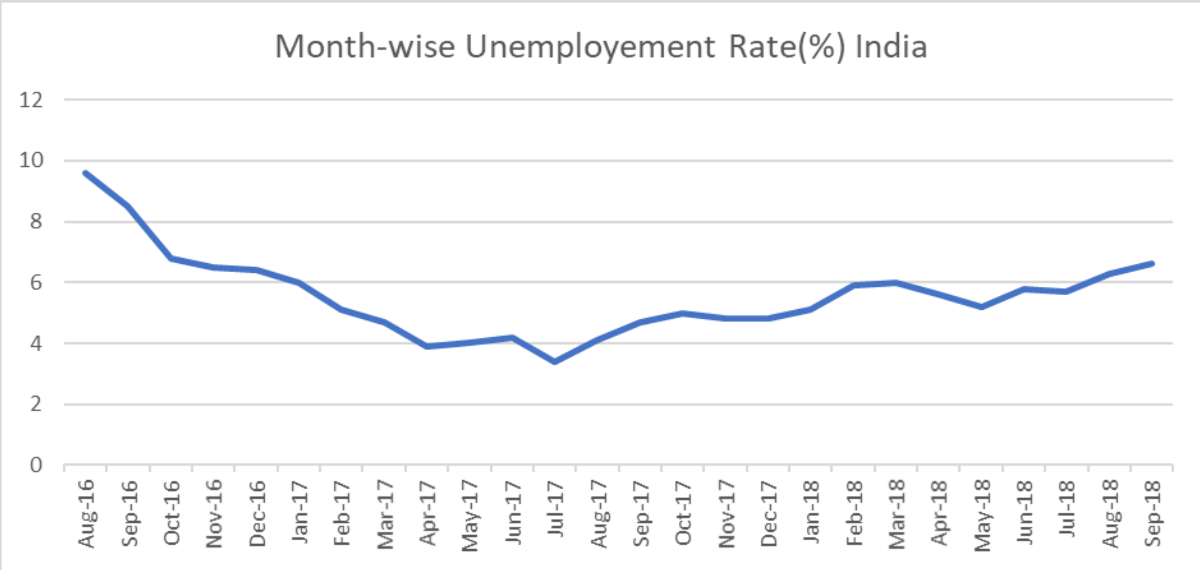
After the demonetization in November 2016 the volume of digital payments increased. It was due to majority portion of cash in economy were pulled out. RBI annual report March 2016 showed that out of Rs16.42 trillion (USD230 billion) value of total banknotes in circulation around 86% i.e. Rs14.18 trillion (USD200 billion) was in form of Rs500 and Rs1000 denominations. Following the demonetization, the cash shortage continued till mid-2017, which sharply increased digital payments and transactions. However, once the new issuance currencies were in market the digital transaction showed a sharp declined. By March 2018 the banknotes in circulation reached the total worth of Rs.18.03 trillion (USD250 billion) and by September 2018 it reached to Rs.19.5 trillion (USD270 billion). According to annual report of RBI 2019, by March 2019 there were total worth of Rs.21.41 trillion (USD300 billion) in circulation which was around 20% higher than of pre-demonetization period.

The cash shortage also decreased the currency to GDP ratio which was 12.1% in 2015-16 came down to 8.8% in 2016-17 and in 2017-18 it was 10.9%. According to some reports the ratio was 11.3% at the end of 2019. The currency to GDP ratio is little lower than the pre-demonetization period.



Source - RBI

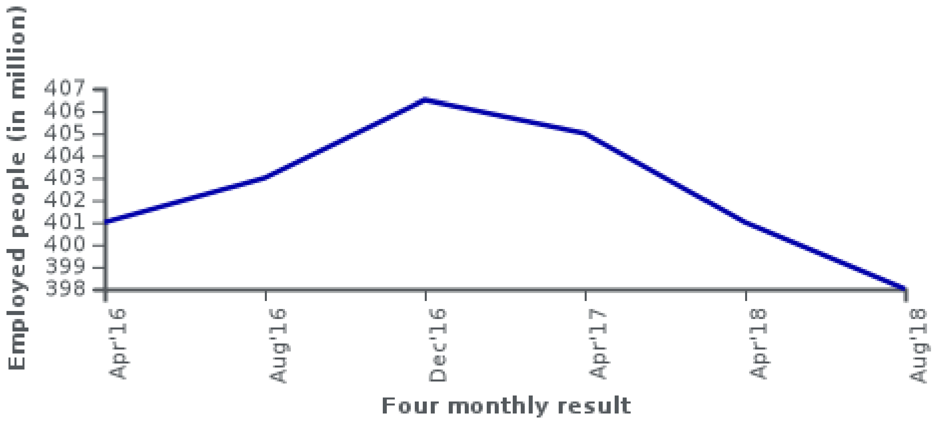
f) Employment



Source-Centre for Monitoring Indian Economy

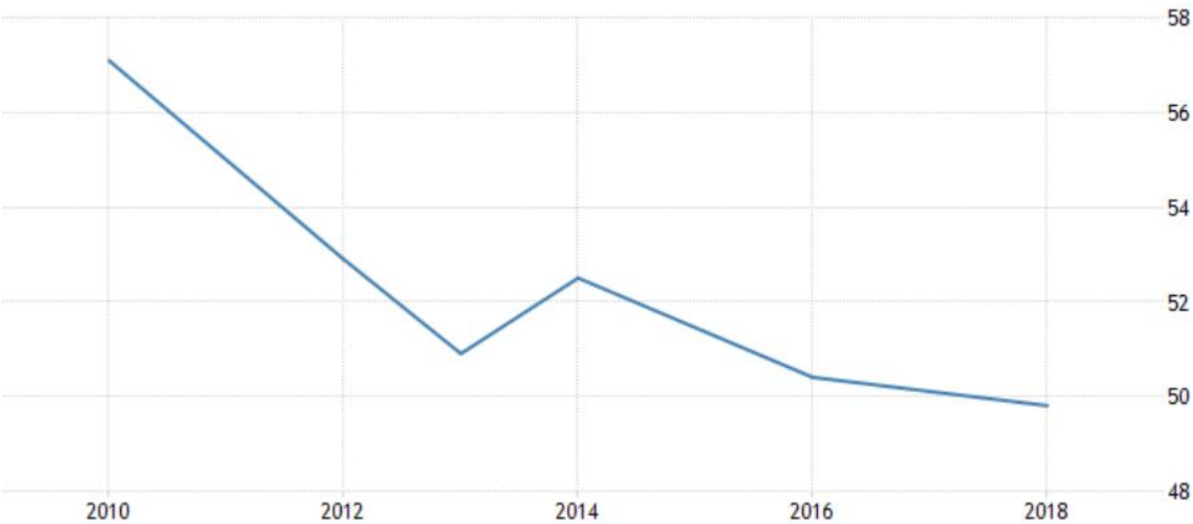
Informal sectors and unorganized sectors suffered a heavy blow due to demonetization. The wages decline as well as huge job losses observed in those sectors.

Careful analysis of Centre for Monitoring Indian Economy (CMIE) data shows that in Jan-Apr 2016 the number of employed forces was 401 million. It increased to 403 million during May-Aug 2016 and the number of employed people further increased to 406.5 million in Sep-Dec 2016. After demonetization during Jan-April 2017 the employed work forces were 405 million. However, the market never truly recovered as the number of employed people decreased since then. According to Reserve Bank of India report there were at least 1.5 million job losses as the effect of demonetization. According to the NSSO (National Sample Survey Office), Indian Government report the unemployment rate touched 6.1% in 2017-18. However, the official report of unemployment rate of 2019 was not published yet as the survey was not completed.



Employed workforce India

Source- Centre for Monitoring Indian Economy



Labor participation rate

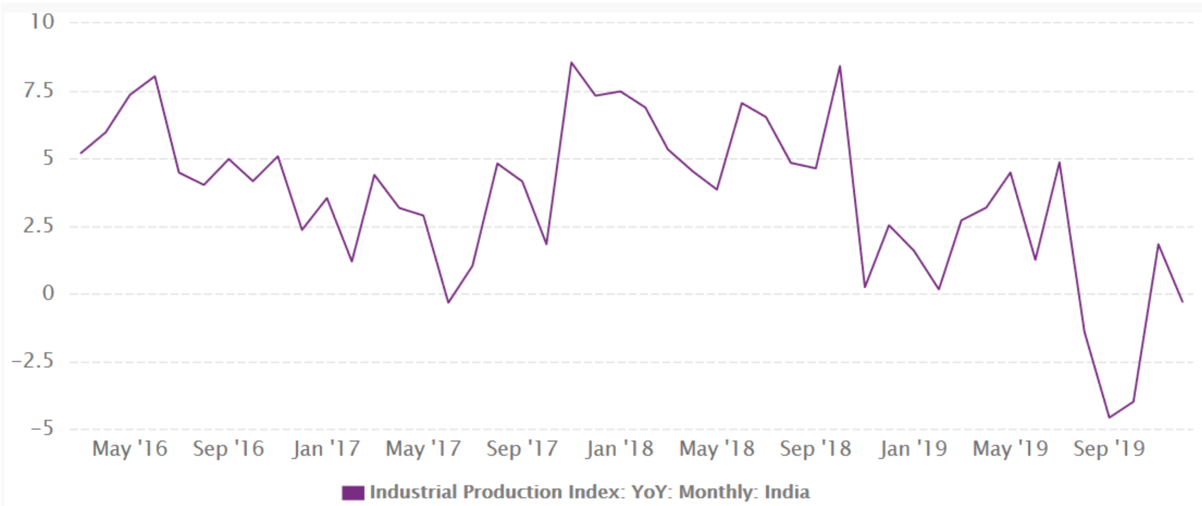
Source- Ministry of Statistics and Programme Implementation, tradingeconomics.com

g) Agriculture

Demonetization affects agriculture sector the most. Transactions involving buying seeds, fertilizer, pesticides and daily payment of wages to the labor is heavily cash dependent in India. Due to the shortage of cash in market many farmers lack in cash to carry out the farming, especially for the Rabi crops which usually sown during November.

The shortage of cash in market initially caused the crash of the prices of crops. Farmer never truly recovered from that. The bargaining power of farmers became weak. The low price offered by the market was not even recover for their investment which caused farmer protest various parts of the country.

h) Industrial Output



Industrial Production Index, India

Source- CEIC (Census and Economic Information Center)

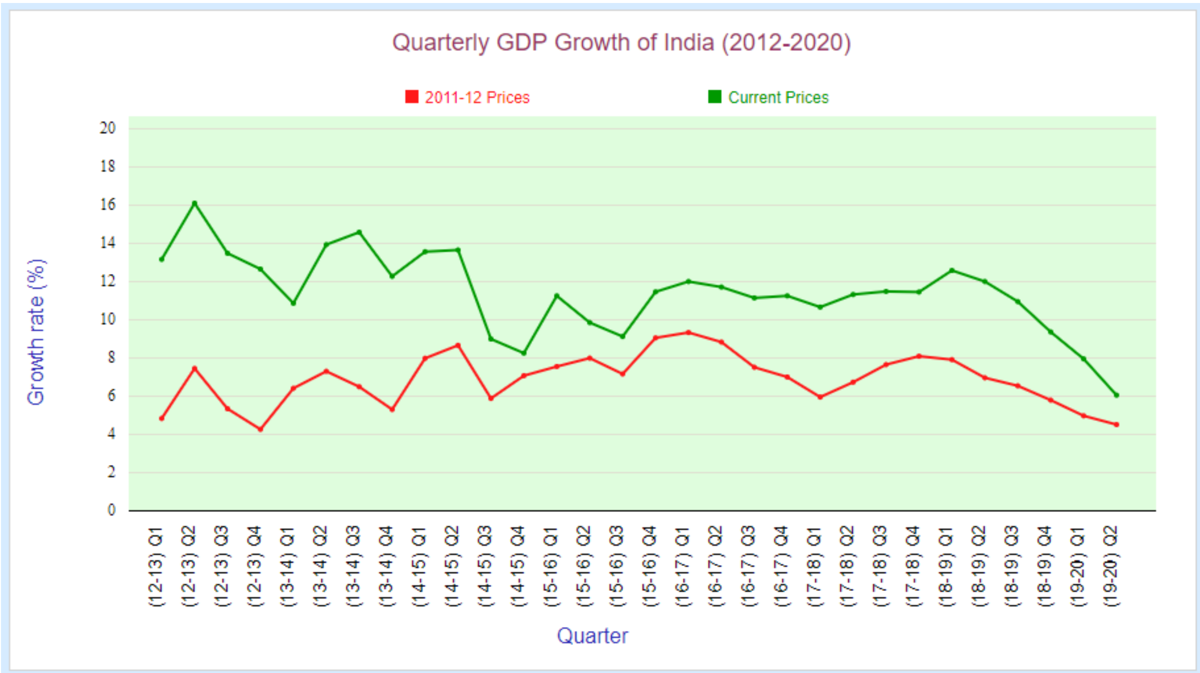
After the demonetization, the shortage of cash also affected the Industrial sector. The Nikkei Services Purchasing Manager Index (PMI) fell from 54.5 in November 2016 to 46.7 in December 2016. Before demonetization the growth of eight core sector was 6.6% which sharply declined to 4.9% at the end of November 2016. These eight core sectors such as steel, refinery, cement etc. constitutes 38% of IIP (Industrial Production index), Which resulted in overall fall of the IIP after the demonetization.

Independent reports claimed that the fall of PMI, IIP as well as inflation rate due to the shortage of money in the market. RBI report 2 years after the event claimed the exercise caused 1% of GDP vanished from Indian economy.

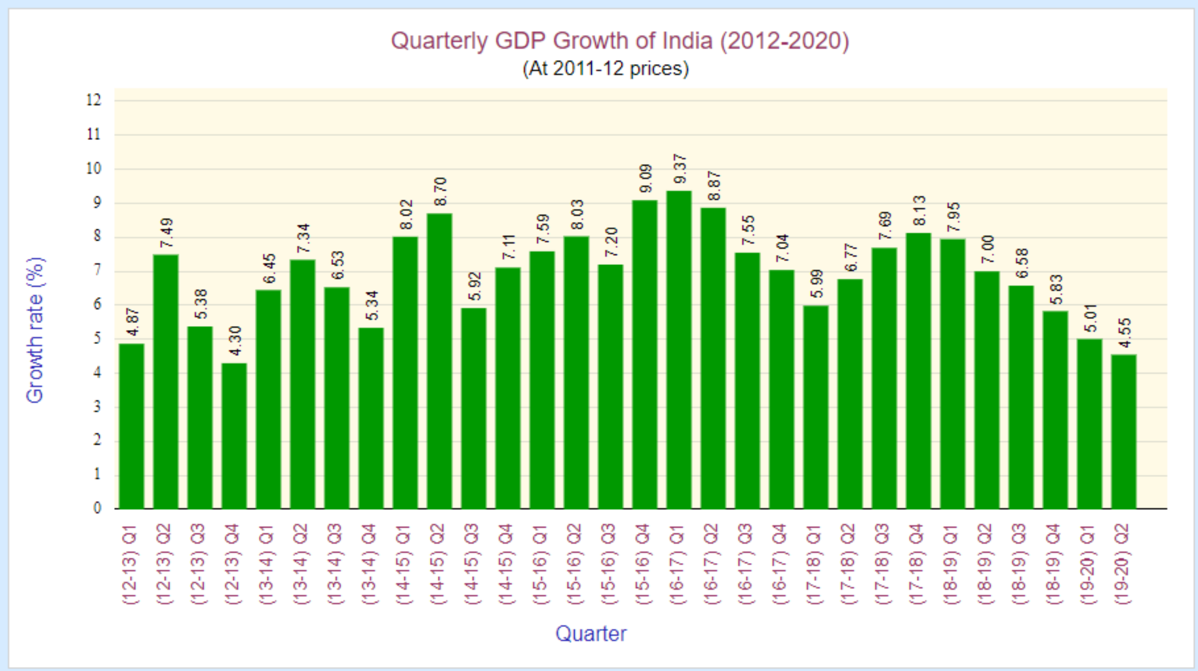
i) Real GDP growth

Real GDP growth rate India

Source- CEIC (Census and Economic Information Center)



Source- Ministry of Statistics and Programme Implementation



Source- Ministry of Statistics and Programme Implementation

In November 2016 the demonetization takes place. Various analysts, economists and several institutions like RBI, IMF and World Bank lower India's GDP growth forecast. However, the assessment of real damage during this period in term of GDP is controversial. In 2015, Indian GDP calculation base year changed to 2011-12 prices and as a deflator Wholesale Price Index (WPI) should be used instead of Producer Price Index (PPI). IMF also flagged this decision as this made the calculation very complex. Some economists claim that India's GDP growth overestimated by 1.5-2% due to this change in calculation.

So, as the change have been made there is no point of comparing the forecast GDP growth figure (Old method) with the actual figure by the government (new method). Yet, the scare was too big to hide. As the cash shortage was immediate after the announcement it also affect the Q3 of 2016-17 and it continued to go down for another six months. In Q3'16-17 the GDP growth rate fell to 7.55% from 8.87% of last quarter. In Q4'16-17 it further fell another 0.5% and was around 7.04%, in Q1'17-18 it fell more than 1% and clocked around 5.99%. Although the fell of GDP growth rate was not solely due to demonetization but also for the new Goods and Service Tax. However, during this less than 1-year period India GDP growth-rate went down by more than 2.5%.

j) Stock Market

Following the announcement of demonetization and the US presidential election resulted the share market to a six-month low in the following weeks. Just the day after the announcement the NIFTY 50 index crashed nearly 541 points and BSE SENSEX index crashed by 1689 points.

The effect on stock market was marginal during Nov-Dec 2016 but it had a negative impact on stock market returns. Data analysis of stock market showed that automotive, clothing, foods, real estate, retail, sugar, tea sectors had a decrease in sales and trades after demonetization.

k) Other effects

RBI spent total more than 160 billion Rupees to print the banknotes and paid around RS. 294.1 million to Indian Air Force to move banknotes after demonetization. It affected negatively to dividend paid by RBI to the government in 2016-17.

Year	Cost of Printing new banknotes (billion INR)	Dividend paid to government (billion INR)
2015-16	32.41	658.76
2016-17	79.65	306.59
2017-18	49.12	500

Demonetizations caused shortage of funds which impacted Mid-day Meal Scheme, as well as more than 100 people died standing on the line for the exchange and withdraw of money.

V. **Part 5**: *Conclusion*

Since independence India adopted economic planning and a socialistic approach for the growth of the nation. The growth of the country in post-independence era was full of challenges including poverty, illiteracy and lack of heavy industries. Initially focused on heavy industries and product substitution resulted in a stable growth of around 3.5% till 1980. After 1980 the growth increased but also import increased sharply, resulted in 1991 crisis in India. It was the worst economic crisis in India as foreign reserve dried up and India need to Import necessities. Since then India never looked back. By 2015 India became world's fastest growing economy with an estimation of 7.5% GDP growth rate. Although from the demonetization of 2016, followed by increasing banking NPA, COVID-19 outbreak slowed down the economy but still India as a nation has aspiration for an emerging superpower.

In the future it is expected that the world will move from fossil fuel to nuclear energy. According to United States Geological Survey report 2011 India has around 50% of world thorium reserves. India has total of 963000 tonnes thorium reserves comparing to world's total reserves of 1,913,000 tonnes. This will be a vital phase for India to become a superpower, but it also came with lots of challenges. As history saw various wars for control of the fossil fuel, similar situation will rise in future when world will enter to the clean energy era for control over the nuclear fuel. India is currently fourth largest defence power in the world according to fire power index and it is one of the largest arms importers. For the national security and power projection India lacked modern technologies in defence force. India never had an expeditionary army in her 7000 years of known history, but she suffered around 1000 years by foreign powers. To secure countries future ambition India must focus on its R&D on defence as well as upgrade the technologies. On 27th March 2019 India demonstrated its anti-satellite missile capability and became 4th country to possess this capability after USA, Russia and China.

Another challenge will be the trade route and trade blocks. India still have not proper access to Central Asia. Pakistan and China both have strategic rivalry with India makes it more difficult to access to the Central Asia. India is working on an ambitious project to build Chabahar Port in Iran and developing roadways to Afghanistan. Friendly relationship and strategic trade partnership between India & Iran as well as India & Afghanistan's democratic elected government gave India a hope for accessing the Central Asia. But recently USA sanction on Iran, China's huge line of credit to Iran as well as US-Taliban deal made India's position little weaker. Easy access to Central Asia will boost India's trade and strategic relations.

India has developed very stable relationships with world power like European Union, Japan, Russia & USA. India is also investing in improve relation and trade with African Union, the Arab World, South east Asia, Israel. Central Asia and South America. India was one of the founding members of non-aligned movement. Although, recently some analysist criticized for India being aligned towards western power, but this argument was not valid ass India still has strong relationship with Russia, Japan, Iran and middle east. India played vital role in regional affairs e.g. Indian Peace Keeping force in Sri Lanka and Bangladesh Liberation War. Moreover, India has a large contribution towards UN peace keeping forces. India's multipolarity geo-political approach was highly debated in the west. But as India never had been an aggressor to other nation can create a trust among them.

India is a booming economy. According to Ease of doing business Index India improved significantly from 134th rank in 2014 to 130th rank in 2016 to 77th in 2018 and 63rd in 2019. India's primary sector is world's second largest next to China. India is a self-sufficient and self-reliable in terms of food producing. The food processing accounts for more than 70 billion USD as gross income. Secondary sector in India is still very poor. Government is trying to make India as a global manufacturing hub by launching various schemes such as "'Make in India". In tertiary sector India is considered as world's capital for service industry. The IT industry and service sector are booming in India. English speaking, highly skilled and low-cost work force make India an attractive destination for service sector.

India has a young population with median age of 27 years old and it was projected that by 2050 it will become 38 years old. This is and will be the most significant factor in economic development of India. According to various report unemployment rate in India is more than 7%. Unless India creates jobs, the unemployed youth population can be a threat for internal security and economic instability. India's manufacturing sector has still not explored to its potential which can create more jobs. But in future due to technological improvement and help of robotics may be manufacturing sector lose its importance in creating job. Hence, India should leverage new sector such as Knowledge process Outsourcing (KPO) to create jobs for its population.

Intellectual property rights will be crucial for India to bridge the technological gaps with countries like US and China and it will significantly help the country to grow even more.

Top 10 countries with patent applications and grants, 2018

Source- World Intellectual Property organization (WIPO)

Country	Patent Applications	World Rank	Patent Grants	World Rank
China	1,542,002	1	432,147	1
USA	597,141	2	307,759	2
Japan	313,567	3	194,525	3
South Korea	209,992	4	119,012	5
European Patent Office	174,397	5	127,603	4
Germany	67,898	6	16,367	9
India	50,055	7	13,908	10
Russia	37,957	8	35,774	6
Canada	36,161	9	23,499	7
Australia	29,957	10	17,065	8

The above report clearly indicates the poor performance of India in IP rights. India's spent on R&D is around 0.7% of Indian GDP which is significantly lower than US (2.8%), Germany (3%), Japan (3.2%), Israel (4.6%), South Korea (4.5%) and China (3.2%). However, India wants to increase its R&D expenditure to 2% by 2022. Apart from funding, government and institutions should spread awareness about filing patents.

India still has key potential for high growth over next few decades. India should explore some new sectors and previously untapped sector which were mentioned above and simultaneously need huge political will to contest in global market by forging relationship with different trade blocks such as EU, Central Asia, ASEAN and African Union. But building trade relationship and access to different market will not help India to attain historical growth is not possible in near future. India is a consumption driven economy and the negative Balance of Payment indicates that the access will reduce the BoP stress on India. The most important factor is to explore more KPO sector, renewable energy sector and facilitating electric car manufacturing as well as data centre can create millions of jobs which will subsequently resulted in growth of the nation.

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Acronyms and Abbreviations

FDI- Foreign Direct Investment

BRICS- Brazil, Russia, India, China, South Africa

SAARC-South Asian Association for Regional Cooperation

SCO- Shanghai Cooperation Organisation

WFTU- World federation of Trade Unions

WCO- World Customs Organisation

BIS- Bank of International Settlements

AIIB- Asian Infrastructure Investment Bank

IMF- International Monetary Fund

ADB- Asian Development Bank

FYP- Five-Year Plan

NITI Aayog- National Institution for Transforming India

MNP- Minimum Needs Programme

RBI- Reserve Bank of India

SBI- State Bank of India

IBDR- International Bank for Reconstruction and Development

IDA- International Development Association

SDR- Special Drawing Rights

LPG- Liberalization, Privatisation, Globalization

SLR- Statutory Liquid Ratio

CRR- Cash Reserve Ratio

NDA- National Democratic Alliance

UPA- United Progressive Alliance

LIC- Life Insurance Company

BPO- Business Process Outsourcing

KPO- Knowledge Process Outsourcing

LPO- Legal Process Outsourcing

PMI- Purchasing Manager Index

IIP- Industrial Production index

BSE- Bombay Stock Exchange

ASEAN- Association of Southeast Asian Nations