

Economy Watch



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State of the Economy



The latest IMF World Economic Outlook released in October 2017 reports strengthening of global growth. World output growth is projected at 3.6 percent and 3.7 percent in 2017 and 2018 respectively. There are indications of a pickup in investment and industrial activity; and trade performance is also gaining strength. The recovery in advanced economies (being supported by the Euro Area) and a few other large emerging economies (China) is gathering steam. The demand conditions are seen improving in the advanced economies.

According to the IMF outlook, Euro Area is expected to grow by 2.1 percent in 2017 and 1.9 percent in 2018. Further, the business and consumer confidence in the United States has been buoyant and the country is expected to expand by 2.2 percent in 2017. In Japan too, growth momentum is seen

remaining intact with expanding trade and government's fiscal support. With regard to emerging markets and developing economies, the recovery is gradually shaping up but continues to remain dispersed.

The economic situation back home remains steady. The moderation noted in the first quarter growth numbers was primarily due to adjustment impact of key structural reforms, especially the demonetisation move in November, 2016 and the implementation of Goods and Services Tax from July this year. However, these disruptions are only transient and the situation is expected to ease out going ahead. The government has been keeping a close watch on the situation and has been proactive in identifying and ironing out the challenges.

The massive infrastructure push and recapitalisation package announced by the

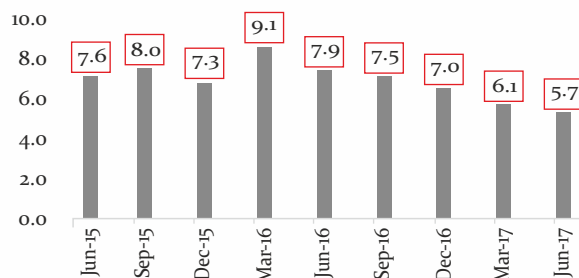
government on October 24, 2017 will lend support to growth and employment generation. The Rs 2.11 lakh crore recapitalisation package to 'clean up legacy of non-performing assets' is a landmark step and is expected to give an impetus to credit growth. Further, the latest Ease of Doing Business Report, 2018 indicates a significant jump in India's ranking. The country has moved up by 30 places and has been ranked at 100th position. This is a commendable achievement and is backed by the broad based reforms undertaken by government over the last three years.

Growth outlook for the remaining part of fiscal year is sanguine. The thrust on infrastructure sector and some resolution with regard to stressed assets should give an impetus to investments. Also, global recovery and strengthening external demand will support growth.

Gross Domestic Product

GDP Growth (% Y-o-Y)

GDP at market prices



Source: CMIE

India's Growth Projections

Reserve Bank of India: GVA Growth

April 6, 2017	7.4%
June 7, 2017	7.3%
Aug 2, 2017	7.3%
Oct 4, 2017	6.7%

Multilateral Institutes: Latest Projections

World Bank, Oct 2017	7.0%
IMF, Oct 2017	6.7%
ADB, Sept 2017	7.0%
OECD, Sept 2017	6.7%

Source: RBI, Various Multilateral Organizations

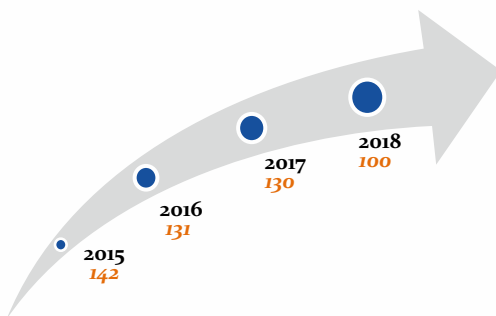
- Reserve Bank of India in its latest monetary policy report (announced on October 4, 2017) lowered India's GVA growth forecast to 6.7 percent for the fiscal year 2017-18 from 7.3 percent growth projected in the August policy announcement. The downward revision came on back of initial hiccups from GST implementation, lower kharif output estimates and uncertainty pertaining to US fiscal and monetary policy.
- Likewise, the World Bank and IMF also lowered their growth projections for India by a few notches. While the World Bank projects India's GDP to grow by 7.0 percent in 2017, IMF has put forth a forecast of 6.7 percent. Nevertheless, both institutions have commended India on the reforms undertaken over the past three years and the willingness shown by government to take up further reforms.

- The Indian government has been working assiduously towards assuring a conducive environment for businesses and the result of the measures announced has been evident in the latest ease of doing business rankings. According to the Ease of Doing Business Report, 2018 India's rank has leapfrogged 30 spots to 100th position out of 190 nations.
- The country has improved its ranking in six out of ten parameters - dealing with construction permits, getting credit, protecting minority investments, paying taxes, enforcing contracts and resolving insolvency. This is expected to further promote investor confidence and aid growth in the country. Also, India witnessed an improvement in all ten parameters as far as distance to frontier (DTF) was concerned which is very encouraging.
- Moreover, the government has announced a Rs 9 trillion stimulus for the economy

which is planned through a massive thrust to infrastructure spending (Rs 6.92 trillion) and a bank recapitalisation package (Rs. 2.11 trillion). The move will give a strong boost to growth by spurring investment activity in the economy. The additional capital to the banking sector, which remains saddled with huge NPAs, is likely to quicken the stressed asset resolution process and free the banks to undertake fresh lending.

- The Services Purchasing Managers' Index (PMI) for India has reported an improvement and expanded for the first time in three months in September 2017. The index value stood at 50.7 in September as compared to 47.5 percent in August. Likewise, Manufacturing PMI also witnessed expansion for the second consecutive month in September, pointing towards better prospects in Q2 2017-18.

Trend in India's Overall Ease of Doing Business Ranking



Source: World Bank

Ease of Doing Business - Performance of Various Parameters

Topics	DB 2018 Rank	DB 2018 DTF	Change in DTF (% points)
Starting a Business	156	75.4	↑ 1.71
Dealing with Construction Permits	181	38.8	↑ 2.63
Getting Electricity	29	85.21	↑ 0.04
Registering Property	154	47.08	↑ 0.25
Getting Credit	29	75	↑ 10.00
Protecting Minority Investors	4	80	↑ 3.33
Paying Taxes	119	66.06	↑ 18.39
Trading across Borders	146	58.56	↑ 0.95
Enforcing Contracts	164	40.76	↑ 1.86
Resolving Insolvency	103	40.75	↑ 8.00

DTF: Distance to Frontier

From Around the Globe

China

China held its 19th National Congress of the Communist Party of China between October 18 and October 24, 2017. The week-long meeting happens twice in a decade (once every five years).

The Communist Party of China (CPC) has laid a long-term guide which the party will adhere to and develop. The guide entails a two-stage development plan for the period 2020-2050 to develop China into a great modern socialist society. The first stage from 2020 to 2035 will work towards realizing socialist modernization. This will require the CPC to build on the foundation created by the moderately prosperous society. The second stage from 2035 to 2050 will involve developing China into a great modern socialist country that is prosperous, strong, culturally advanced, harmonious, and beautiful.

To improve and transform to a modernized economy, it was decided that China must focus on the real economy. China will support state capital in becoming stronger and will focus on turning Chinese enterprises into world-class, globally competitive firms. China will also leverage the fundamental role of consumption in promoting economic growth and improve the framework of regulation underpinned by monetary and macro-prudential policy. It will also ensure that interest rates and exchange rates become more market-based.

Further, the country will also focus on dwelling a harmonious coexistence with nature. For this, China will establish regulatory agencies to manage state-owned natural resource assets and monitor natural ecosystems, and develop a nature reserves system composed mainly of national parks.

During the discussions, it was also made clear that China will not close its doors to the world. The country will work towards significantly easing market access and protect the legitimate rights and interests of foreign investors.

Japan

Japan hosted snap elections on October 22, 2017 in which the incumbent Prime Minister Shinzo Abe received a decisive victory. The government's agenda includes a greater focus on developing human resources. As promised in the election pledge, Japan will utilize the additional resources from the planned consumption tax hike due in October 2019 (tax will increase to 10 percent from 8 percent as of now) for free education. This is a part of a larger effort to create a social security system that addresses the needs of all generations.

The country will also work to restore its fiscal health while helping economic growth and steadily make necessary investments.

Source: Various press articles

Index of Industrial Production

- Growth of the Index of Industrial Production (IIP) improved as per the latest data released by the Central Statistics Office. The index recorded five-month high growth of 4.3 percent in the month of August vis-à-vis 0.9 percent growth noted in the previous month. All three broad sectors - mining, manufacturing and electricity,

noticed improvement in growth during the month.

- Mining sector reported 9.5 percent growth in August as compared to 4.5 percent growth noticed in the previous month. This was the third consecutive month when the sector reported an improved performance. Likewise, growth in the manufacturing sector was reported at a five-month high of 3.1 percent in August. The sector had contracted for two straight months before

this. Major manufactured products such as pharmaceuticals, medicinal chemical and botanical products, machinery & equipment, motor vehicles, trailers and semi-trailers, food products, coke and refined petroleum products and basic metals recorded good growth during the month. Electricity also noted strong recovery in growth with the segment growing by 8.3 percent in August 2017.

Industrial Performance - Growth (% Y-o-Y)

	Aug-16	May-17	Jun-17	Jul-17	Aug-17
Index of Industrial Production	4.0	2.9	-0.2	0.9	4.3
Sectoral					
Mining	-4.3	0.3	0.4	4.5	9.5
Manufacturing	5.5	2.6	-0.5	-0.3	3.1
Electricity	2.1	8.3	2.2	6.6	8.3
Use-base industry classification					
Primary goods	-1.0	3.7	-0.2	2.2	7.1
Capital goods	0.5	-1.6	-6.6	-1.3	5.4
Intermediate goods	4.6	0.7	-0.3	-1.7	-0.2
Infrastructure/ construction goods	6.5	-0.1	0.1	3.5	2.5
Consumer durables	7.3	0.6	-2.4	-3.6	1.6
Consumer non- durables	11.3	9.7	4.7	3.6	6.9

Source: CMIE

Growth in Manufacturing Segments (% Y-o-Y)

	Aug-16	Apr-17	May-17	Jun-17	Jul-17	Aug-17
Food Products	-4.0	-3.8	0.3	-3.2	0.3	8.0
Coke & Refined Petroleum Products	0.9	1.4	5.4	-1.2	-4.1	2.8
Pharmaceuticals, Chemical & Botanical Products	34.4	30.7	27.3	19.1	18.8	16.5
Basic Metals	7.8	7.1	0.6	2.8	3.6	1.9
Fabricated Metal Products	3.9	-8.2	-13.7	-13.7	-6.0	4.3
Machinery & Equipment N.E.C.	-1.6	2.5	9.8	-2.1	-1.5	10.2
Motor Vehicles, Trailers & Semi-Trailers	0.3	-0.1	-1.3	1.7	7.0	8.2
Other Transport Equipment	17.6	8.2	11.8	8.0	10.5	11.1

Source: CMIE

- The latest numbers carry forward the turnaround seen in July and are definitely encouraging in light of the teething troubles being faced post GST implementation. The production lines are moving towards normalisation and companies are rebuilding their inventories. Also, the government has been reviewing the grievances related to GST and has already announced some relief measures for exporters and small and medium enterprises. This will augur well for industrial growth.

Sales Growth in Major Industry Sectors (% Y-o-Y)

	Commercial vehicles	Multi utility vehicles	Passenger cars	Vans	Two wheelers	Three wheelers		Tractors
						Total	Goods carrier	
Aug-16	2.5	45.4	12.6	4.5	18.6	-11.9	31.8	16.3
Apr-17	-25.0	16.9	15.4	-7.5	10.5	-6.3	2.5	19.3
May-17	-9.3	20.3	9.0	8.0	11.0	-6.8	12.4	11.7
Jun-17	-4.2	-5.2	-5.9	-9.8	4.0	-13.1	-2.1	-1.7
Jul-17	5.7	30.2	8.5	6.3	12.7	-6.6	0.7	14.4
Aug-17	14.9	8.0	3.8	8.9	15.2	7.8	7.2	34.5

Source: CMIE

- Use based classification of the index also reported better performance in most of the segments. Primary goods noted an eight-month high growth of 7.1 percent in August 2017 as compared to 2.2 percent growth noted in the previous month. Major components of primary goods index such as LPG (10.1 percent), furnace oil (8.4 percent), electricity (8.3 percent), diesel (5.7 percent) and petrol/ motor spirit (4.5 percent) witnessed good growth during the month. Together, these segments account for around 85 percent of the total primary goods index.
- Capital goods segment after contracting for four consecutive months reported a growth of 5.4 percent in August 2017. Also, this was the highest growth witnessed in five months. Agricultural tractors and commercial vehicles (constituting 16.3 percent of the total capital goods industry) recorded strong growth of 19.3 percent and 7.8 percent respectively. Other capital goods such as generators, small transformers, air filters and printing machinery also noted growth during the month. Infrastructure/ construction goods segment reported 2.5 percent growth in August 2017.
- Production of consumer goods improved in August 2017. Consumer non-durable goods grew at a three-month high growth of 6.9 percent while consumer durable goods reversed its contractionary trend to post nine-month high growth of 1.6 percent in the month of August. Sales growth of major industrial goods such as commercial vehicles, passenger cars, multi-utility vehicles, two wheelers, tractors and fertilizers hint towards some pick-up in demand conditions.
- Even though there are initial signs of recovery and the outlook with regard to industrial activity has improved (NIKKEI India manufacturing PMI reported expansion in manufacturing activity for the second consecutive month in September), it might take some time for this turn around to sustain itself after a protracted slowdown. The government's huge

infrastructure spend will bring in investments and will give a push to some of the key

industrial sectors. However, to bring in quality private investments, the country must

also improve the way it manages its PPP projects amongst other factors.

Government gets stricter on quality norms

The government is planning to tighten quality controls for consumer and capital goods to curb cheap imports. The new rules target toys, electronic goods, machinery, food processing, construction and chemicals sectors.

According to Shri Ramesh Abhishek, Secretary DIPP, work has started on war footing with quality control orders for almost every product that we are consuming in the country. The new rules will apply to both foreign manufacturers and domestic firms.

Source: Various press articles

Core Sector

- Index of the eight core industries reported five-month high growth of 4.9 percent in August 2017. The corresponding number previous month was 2.7 percent. Improved growth in coal and electricity segments along with reasonable performance in natural gas and refinery products aided growth during the month.
- Energy segment - mainly coal and electricity - performed well in the month of August 2017. Output of coal grew by 15.3 percent in August as compared to 0.6 percent growth reported in the previous month. Coal India Ltd, India's largest producer of coal, was seen pumping up its supplies. After declining for four consecutive months, production rose by 16.0 percent in August 2017. Electricity generation also improved and was seen at sixteen month high of 10.3 percent in the month of August. The corresponding number previous month was 6.5 percent. Coal based thermal energy grew at 17.1 percent during the month.
- However, it also needs to be noted that continuous incidences of coal shortage are being reported by power plants especially in the states of Rajasthan and Maharashtra. According to Central Electricity Authority (CEA), 28 out of 112 monitored thermal power plants reported coal supplies at super critical (19 plants in total)/ critical (9 plants) level as of October 9, 2017. The shortage has been triggered by a decline noted in hydel and nuclear power generation, which led to a greater thrust on thermal power generation to meet the demand. Also, a spurt in electricity consumption due to festive season led to an increase in coal demand.
- China led Asian Infrastructure Investment Bank (AIIB) and the Asian Development Bank (ADB) have agreed to co-finance USD 100 million loan to improve India's power transmission networks and expand the use of solar and wind energy. This is in line with the government's vision to move towards renewable sources of energy and reduce wastage to meet its goal of providing 'Electricity for All'.
- In the oil and gas sector, production of natural gas increased by 4.4 percent in August 2017 vis-à-vis 6.7 percent growth recorded in the month of July. Output of refinery products grew by 2.4 percent in the month of August vis-à-vis 2.7 percent contraction noted in July. In contrast, output of crude oil contracted by 1.6 percent in August 2017.

Index of Eight Core Industries: Growth (in %)

	Aug-16	May-17	Jun-17	Jul-17	Aug-17
Overall index	3.1	3.9	0.8	2.7	4.9
Coal	-9.7	-3.1	-6.8	0.6	15.3
Crude oil	-4.0	0.7	0.6	-0.6	-1.6
Natural gas	-5.9	4.5	6.5	6.7	4.4
Refinery products	2.4	5.4	-0.2	-2.7	2.4
Fertilizers	2.6	-5.9	-3.6	0.2	-0.7
Steel	16.7	3.9	5.8	9.2	2.9
Cement	3.1	-1.4	-6.3	-2.0	-1.3
Electricity	2.1	8.2	2.2	6.5	10.3

Source: CME

- The construction sectors of the economy witnessed weaker growth in August 2017.
- Output of steel reported moderation in August 2017. The segment reported 2.9 percent growth in August as compared to 9.2 percent growth recorded in the month of July. Output of cement declined by 1.3 percent in August as compared to 2.0 percent decline noted in the previous month.
- Government taking cognizance of ground level

situation announced a massive infrastructure push on October 24. The launch of umbrella Road Building Program is the biggest highway construction plan the country has ever witnessed till date.

- The program aims to develop approximately 83,677 kilometres of roads at an investment of Rs. 6.92 lakh crores by 2022. The government's Bharatmala scheme is also included under this programme. The project entails construction of

6,000 km long inter corridor and feeder routes, 2,000 km of border and international connectivity roads, upgradation of 5,000 km under the national corridor efficiency programme, 800 km of greenfield expressways, 10,000 km under the national highway development programme and 2,000 km of coastal and port connectivity roads. This is likely to give a huge boost to the construction sectors of the economy and open significant employment opportunities.

ADIA to invest USD 1 billion in NIIF

Marking the start of an attempt to raise equity in infrastructure space, Abu Dhabi Investment Authority (ADIA) has agreed to invest USD 1 billion in India's National Infrastructure and Investment Fund (NIIF). With this, ADIA - one of the largest sovereign wealth funds in the world - will not only become the first institutional investor in NIIF's master fund but also become a shareholder in National Investment and Infrastructure Limited (NIIF's investment management agency). This is a significant milestone in the operationalization of NIIF.

Source: Various press articles

Inflation

- Overall inflationary pressures eased in the month of September 2017. WPI based

inflation was reported at 2.6 percent in September as compared to 3.2 percent inflation noted in August. CPI based inflation, on the other

hand, remained at 3.3 percent for the second consecutive month in September.

Wholesale Price Index (WPI) – Growth Rate (% Y-o-Y)

	Sep-16	Jul-17	Aug-17	Sep-17
WPI Inflation Rate	1.4	1.9	3.2	2.6
Primary articles	3.7	0.6	2.7	0.2
WPI Food	6.3	2.2	4.4	2.0
Fruits & Vegetables	-0.4	13.8	27.8	9.6
Fuel & power	-2.9	4.4	10.0	9.0
Manufactured products	1.1	2.1	2.5	2.7

Consumer Price Index (CPI) – Growth Rate (% Y-o-Y)

	Sep-16	Jul-17	Aug-17	Sep-17
CPI Inflation Rate	4.4	2.4	3.3	3.3
CPI Food	4.0	-0.4	1.5	1.3
Vegetables	-7.1	-3.6	6.2	3.9
Fruits	6	2.9	5.3	5.1
Clothing & footwear	5.2	4.2	4.6	4.6
Housing	5.2	4.9	5.6	6.1
Fuel & light	3.1	4.9	5.0	5.6

Source: CMIE

- Food prices, both at the wholesale as well as retail level cooled during the month. WPI food inflation stood at 2.0 percent in September 2017 as compared to 4.4 percent inflation noted in August. CPI based food inflation softened to 1.3 percent in September 2017 as compared to 1.5 percent inflation noted in the previous month. Moderation in prices of fruits, vegetables, cereals and pulses were mainly responsible for the trend.
- Even though wholesale fruits and vegetables inflation moderated sharply from 27.8 percent in August to 9.6 percent in September 2017; inflation rates in this segment remained elevated. Price of

vegetables rose by 15.5 percent in September vis-à-vis 45.0 percent increase seen in the previous month. Major vegetables such as tomato, onion, brinjal, okra and cabbage reported double digit inflation during the month of September.

- Onions which are a staple have witnessed prices skyrocketing over the past month. However, in order to prevent possibility of further surge in onion prices, the National Agricultural Cooperative Marketing Federation has resumed procuring onions from country's largest wholesale market Lasalgaon and neighbouring Agriculture Produce Market Committees

(APMCs) under the Centre's Price Stabilization Fund. The government has also extended the ban on holding of stock beyond a prescribed limit by three months (till December).

- The extended rainfall in October has spoilt the standing kharif crop and has also delayed the sowing of new vegetable crop by two to three weeks. The farmers have had to wait extra for reduction in soil moisture to sow the new crop.
- To some extent, prices of pulses and oilseeds have helped offset the elevated vegetable and fruit prices. The government has recently announced an increase in the Minimum Support Price (MSP) for Rabi crops, 2017-18

and in fact a bonus over and above the MSP has been announced for certain crops including pulses (masur and gram) and oilseeds (mustard/rapeseed and safflower).

India is still highly dependent on imports to meet its

demand for these two products and the increase in MSP is likely to enhance production of pulses and oilseeds in the country. Agriculture Minister Shri Radha Mohan Singh has conveyed confidence in India achieving self-sufficiency in

pulses over the next two years. Citing the achievement till now, he said that production of pulses stood at a record 22.95 million tonnes in crop year (July-June) 2016-17 as compared to just 16.35 million tonnes in the previous crop year.

Increase in Minimum Support Price (Rs. per quintal)

Commodity	Increase in MSP 2017-18 over 2016- 17	Commodity	Increase in MSP 2017-18 over 2016- 17
KHARIF CROPS		RABI CROPS	
Paddy	80 (5.4)	Wheat	110 (6.8)
Arhar(tur)	400 (7.9)	Gram	400 (10.0)
Moong	350 (6.7)	Masur (lentil)	300 (7.6)
Urad	400 (8)	Rapeseed/mustard	300 (8.1)
Groundnut in shell	230 (5.5)	Safflower	400 (10.8)
Soyabean	275 (9.9)		

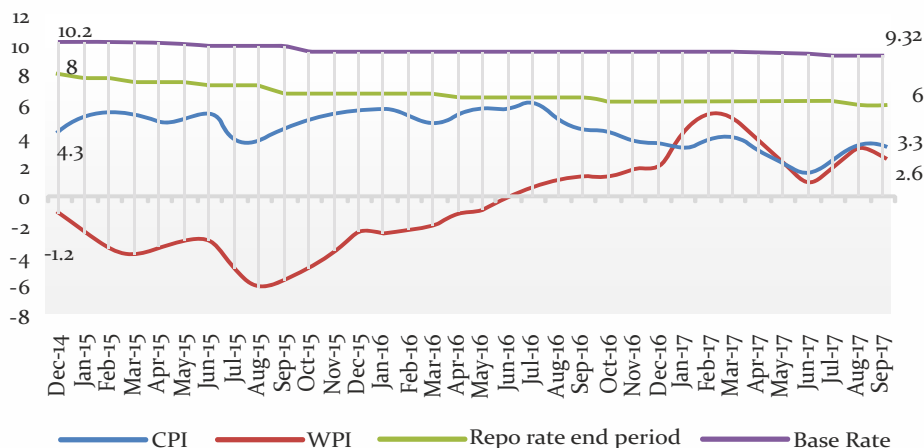
Source: Ministry of Agriculture
Data as on October 24, 2017
Figures in brackets indicate percentage increase

• Inflation in fuel and power segment moderated slightly in September 2017. Nevertheless,

it remained high at 9.0 percent. Inflation in mineral oils segment was reported at

14.8 percent while coal registered an inflation rate of 9.8 percent in September 2017.

Movement in Inflation, Repo Rate and Base Rate (%)



Source: CMIE

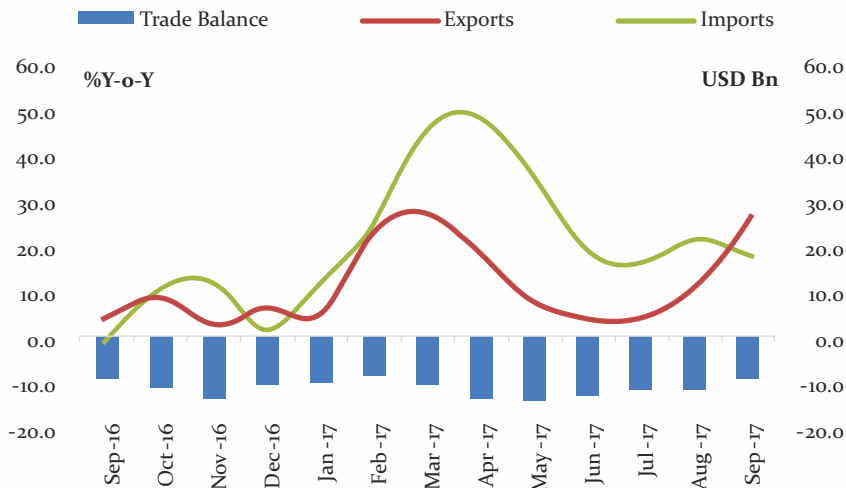
- Both, WPI as well as CPI based Inflation has been moderating and overall inflation remains well within the RBI's indicative trajectory. However, Reserve Bank of India in the latest monetary policy assessment (announced on October 4, 2017) has increased CPI inflation rate projection to 4.2%-4.6% for the second half of the year; the forecast made in August ranged between 3.5%-4.5% for the same period.
- The Reserve Bank is wary of how inflation will shape up in the remaining part of the year and cites upside risks to prices. Prices of vegetable have surged and could remain as a risk factor. Also, the first advance estimates of kharif

production poses some uncertainty. The prices of crude oil continue to firm up as well. Then implementation of Central Government HRA increase from July 2017 and farm loan waiver by States will exert an upward pressure on prices as well.

- Pressure on food prices, especially in the fruits and vegetable segments, is seasonal in nature and is expected to wane off in the coming months as supplies normalise. At this juncture, growth consideration merits equal emphasis and FICCI would urge the Central Bank to take a more balanced view especially when the industrial sector needs support. There needs to be greater

transmission of the cut in policy rates into lower lending rates for investment cycle to kick off. In fact, the Central Bank has admitted that the transmission of past rate cuts is pending. A committee was also constituted by RBI to undertake a review of the situation. The committee submitted its report to the Bank end of September 2017 and stated that the transmission from the changes in policy repo rate has been slow and incomplete under both base rate and marginal cost of funds based lending rate. The Committee suggested that the Central Bank should probably look at using an external benchmark in a time bound manner.

Trend in India's Merchandise Trade



Source: CMIE

- India's total merchandise exports grew by 25.7 percent in September 2017 and stood at USD 28.6 billion.
- Oil exports continued to notice sharp improvement and reported a growth of 40.9 percent in September as compared to 36.6 percent growth reported in the month of August. In terms of quantity, export of petroleum and crude products reported 17.8 percent growth in September 2017 and stood at 7.1 million tonnes vis-à-vis 6.0 million tonnes in September last year.
- Non-oil exports also witnessed significant improvement and registered 23.9 percent growth in September 2017 as compared to 7.0 percent growth in the previous month. Most of the commodities in the export basket witnessed growth during the month. Some of the major commodities like engineering goods (45.0 percent), inorganic, organic and agro chemicals (63.3 percent), drugs, pharmaceuticals & fine chemicals (14.7 percent), rice (45.7 percent) and electronic goods (17.6 percent) recorded high growth in the month of September. Ready made garments and gems & jewellery, the two major segments which had been performing poorly, also recovered and reported 29.4 percent and 7.1 percent growth respectively.
- India's overall imports grew by 18.1 percent in September 2017 as compared to 21.4 percent growth noted in the previous month. In absolute terms, imports stood at USD 37.6 billion in September. Oil imports, which account for more than one fifth of total merchandise imports, grew by 18.5 percent in September and were valued at USD 8.2 billion. Pace of non-oil imports slowed and registered 18.0 percent growth during the month as compared to 23.5 percent growth noted in August. Gold imports contracted by 5.0 percent in September after noticing high growth for seven straight months. Import of silver, however, expanded by 128 percent during the month. Imports of commodities, other than oil, gold and silver, remained sturdy at 19.1 percent in September 2017.
- As a result of slower growth in imports as compared to exports, trade deficit in the month of September narrowed to USD 8.9 billion as compared to USD 11.7 billion in August 2017 and USD 9.1 billion in September last year.

Exports from SEZ in fast lane, up 15.4% in Q1 2017-18

According to the data released by the Ministry of Commerce, exports from special economic zones (SEZs) paced up 15.4 per cent to Rs 1.35 lakh crore during the first quarter this fiscal. The data also revealed that SEZs attracted investments amounting to Rs 4.33 lakh crore up to June 2017.

The Government is trying to address concerns on the exports front to propel overall GDP growth. Measures such as treating supplies from the domestic market to special economic zones at par with exports under the Goods and Services Tax (GST) regime will promote exports from these zones. Additionally, to address shortage of working capital under the GST regime, the government has assured timely refunds to exporters. In a separate move, it was also decided to restore majority of the benefits under duty drawback scheme after exporters complained of erosion of competitiveness.

Source: Various press articles

Exchange Rate

- The average Rupee exchange rate appreciated vis-à-vis the US Dollar, Pound

Sterling and Japanese Yen to the tune of 3.6 percent, 2.3 percent and 11.7 percent in the month of September 2017 on a y-o-y basis.

- The exchange rate, however, depreciated by 2.6 percent y-o-y vis-à-vis Euro during the month.

Rupee Exchange Rate

	Rupees per US dollar	Rupees per Pound Sterling	Rupees per Euro	Rupees per Japanese Yen
Sep-16	66.7	87.7	74.8	65.5
Jun-17	64.4	82.5	72.4	58.1
Jul-17	64.5	83.8	74.2	57.3
Aug-17	64.0	83.0	75.6	58.2
Sep-17	64.4	85.7	76.8	58.2

Source: CMIE

Foreign Investments

- India's total foreign investments inflows for the month of August 2017 amounted to USD 9.1 billion as compared to USD 7.2 billion worth of inflows in the month of July. On a cumulative basis, foreign investment inflows stood at USD 36.0 billion during April-August 2017 vis-à-vis inflows equivalent to USD 20.1 billion noticed in the corresponding period previous year.

- Net foreign direct investments contributed largely to the buoyancy observed in August 2017. Net FDI rose by 42.1 percent y-o-y and stood at USD 8.6 billion during the month. Net FDI inflows stood at USD 3.9 billion in the month of July.

- The government remains committed to limiting cumbersome procedures and the Department of Industrial Policy and Promotion recently did away with the need of

sending FDI applications to the Department of Revenue for comments. This will ease the mechanism for processing FDI proposals.

- Net portfolio investments inflows were subdued in August 2017 after maintaining strong ground in most of 2017. Net portfolio investments contracted by 57.3 percent on a y-o-y basis and stood at USD 0.6 billion in August 2017. Inflows worth USD 3.2 billion were recorded in the previous month.

Around 600 companies line up USD 85 billion investments in India- Invest India

The government's Make in India initiative is beginning to bear fruits. According to Invest India, the government's foreign investment promotion agency, close to 600 companies are planning to invest about USD 85 billion in projects in India. Total employment generation from these projects is estimated at 700,000 over the next five years. Further, Invest India is targeting 200 companies that do not have a base in India currently. This bodes well for the economy which is currently struggling with weak private investments and unemployment.

Source: PIB, Various press articles

	(Net) Foreign Direct Investment (USD Million)	(Net) Portfolio Investment (USD Million)	Total Foreign Investment Inflows (USD Million)
Aug-16	6,036	1,339	7,374
Sep-16	6,253	2,665	8,918
Oct-16	4,167	-49	4,118
Nov-16	3,578	-6,911	-3,333
Dec-16	1,990	-4,380	-2,391
Jan-17	4,071	254	4,325
Feb-17	994	1,609	2,602
Mar-17	-68	8,935	8,868
Apr-17	1,667	2,121	3,788
May-17	3,445	5,902	9,347
Jun-17	2,125	4,428	6,552
Jul-17	3,969	3,218	7,187
Aug-17	8,579	572	9,151
Apr-Aug 2016-17	14,628	5,489	20,117
Apr-Aug 2017-18	19,784	16,242	36,026

Source: RBI

Foreign Exchange Reserves

- India's total foreign exchange reserves touched a historic high yet again. Total reserves stood at USD 399.7 billion in month ending September 29, 2017. This was USD 1.9 billion higher than USD 397.8 billion worth of forex reserves observed in the month of August. Foreign exchange reserves equivalent to USD 27.7 billion have been added since September last year.
- India's foreign currency assets increased by USD 1.8 billion in September 2017 vis-à-vis the previous month and stood at USD 375.2 billion. In total, USD 28.5 billion was added to the foreign currency assets since September 2016.
- Gold reserves at the end of September 2017 were valued at USD 20.7 billion. However, gold reserves depleted by USD 0.7 billion on a y-o-y basis during the month.
- SDRs and Reserve Tranche position stood at USD 1.5 billion and USD 2.3 billion respectively at the end of September 2017.

	Total foreign exchange reserves (USD Bn)	Foreign Currency Assets (USD Bn)	Gold (USD Bn)	SDRs (USD Bn)	Reserve Tranche Position (USD Bn)
Sep-16	372.0	346.7	21.4	1.5	2.4
Oct-16	366.2	341.9	20.5	1.5	2.3
Nov-16	361.1	337.4	20.0	1.4	2.3
Dec-16	358.9	336.6	18.6	1.4	2.3
Jan-17	363.0	339.9	19.2	1.4	2.3
Feb-17	364.3	340.6	19.9	1.4	2.3
Mar-17	370.0	346.3	19.9	1.4	2.3
Apr-17	373.3	349.1	20.4	1.5	2.3
May-17	380.1	356.2	20.1	1.5	2.3
Jun-17	386.5	362.4	20.3	1.5	2.3
Jul-17	393.7	369.9	19.9	1.5	2.3
Aug-17	397.8	373.4	20.7	1.5	2.3
Sep-17*	399.7	375.2	20.7	1.5	2.3
	Change in USD billion				
Sep-17 vis-à-vis Aug-17	1.9	1.8	0.0	0.0	0.0
Sep-17 vis-à-vis Sep-16	27.7	28.5	-0.7	0.0	-0.1

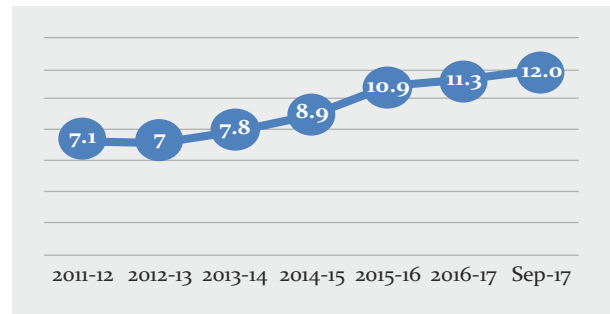
*data as on September 29, 2017
Source: RBI

Countries With Highest Forex Reserves (USD Billion)



Source: Various press articles

India's import cover of reserves (in months)



Source: RBI

Fiscal Position

- Over the period April-August 2017, fiscal deficit stood at Rs 5.25 lakh crore which amounted to 96.1 percent of the total budgeted amount. The corresponding number in the previous year was much lower at 76.4 percent. An increase in expenditure as a percent of total budget

estimates vis-à-vis the previous year and some moderation noted in the collection of revenue receipts escalated the deficit numbers.

- Total expenditure of the government increased by 18.6 percent during April-August 2017 and stood at Rs 9.5 lakh crore. Of this, revenue expenditure amounted to Rs 8.4 lakh crore which was 45.8

percent of the total budgeted amount for the entire fiscal.

- The remaining Rs 1.1 lakh crore was spent on account of capital expenditure. This was equivalent to 35.5 percent of the budgeted amount allocated towards capital expenditure this fiscal year as compared to 37.0 percent expenditure noted in the corresponding period previous year.

Indicators	Budget Estimate 2016-17	Actuals upto August 2017	% of Actuals to Budget Estimates Current	% of Actuals to Budget Estimates COPPY
	Rs. Crore	Rs. Crore	(in %)	(in %)
Revenue Receipts	1515771	409868	27.0	28.0
Tax Revenue (Net)	1227014	340612	27.8	26.6
Non-Tax Revenue	288757	69256	24.0	32.5
Total Receipts	1600203	425402	26.6	27.3
Revenue Expenditure	1837505	840799	45.8	41.0
Capital Expenditure	309230	109648	35.5	37.0
Total Expenditure	2146735	950447	44.3	40.5
Fiscal Deficit	546532	525045	96.1	76.4
Revenue Deficit	321734	430931	133.9	91.7

Source: Controller General of Accounts

- Further, the government on October 24, 2017 announced Rs 2.11 lakh crore capital infusion plan for the public sector banks spread over a period of two years to help them deal with their NPAs and capital requirements. There is a possibility that this announcement might affect our fiscal position but that would depend on how the process of recapitalisation is actually executed.
- On the revenue side, total receipts up to August 2017 recorded 8.0 percent growth y-o-y and stood at Rs 4.25 lakh crores. Tax revenue collections grew by robust 21.5 percent and stood at Rs 3.40 lakh crores at the end of August 2017. This was 27.8 percent of the total budgeted amount for the entire fiscal year. Non-tax revenue, however, declined sharply, by 34.1 percent over April-August 2017, and stood at Rs 0.69 lakh crores.
- The government is set to undertake strategic disinvestment in four public sector undertakings and is readying at least five other companies for stake sales including divesting stake in Air India. The process of valuation and final approvals has been fast tracked as the government is looking to raise its non-tax revenue to keep the deficit under check.

Government gears up to clear pending tax appeals

To eliminate huge pendency in litigation, the Central Board of Excise & Customs will redistribute tax appeals, as on June 2017, pending before the Commissioner (Appeals) Central Excise & Service Tax. The Principal Chief Commissioner and Chief Commissioner will be responsible for formulating proposals for reallocation of appeals pending with Commissioners (Appeals). The officers have been tasked to eliminate the pendency of appeals by March 31, 2018.

Source: Various press articles

- GST collection amounted to Rs 92,150 crore in September - which marked third month of implementation. However, until now on an average about 60-65 percent of the eligible tax payer have filed returns till the last day. Also, most of the states have faced a revenue shortfall during the months of July and August and the government has released Rs. 8000 crore to states to meet the GST related revenue shortfall.
- The government has been continuously reviewing the situation with regard to GST. In fact, as per discussions held in the 22nd GST Council Meeting on 6th October, 2017, GST rates were cut on 27 goods and 12 services. Also, exporters were exempted from IGST for the next six months and it was decided to initiate an e-wallet facility for exporters from April next year. Following this, at the 23rd GST Council Meeting on November 10, 2017, tax rates for 178 commodities have been reviewed.
- Moreover, the government is looking at other revenue generating areas in order to ensure continuity in spending and is confident of meeting the fiscal deficit target of 3.2 percent of GDP for 2017-18. This is encouraging as sustained public expenditure is essential in an environment where economic growth is slowing due to tepid growth in private investments and slowing consumption levels. ■

2

Expert Opinion



Consolidation of Public Sector Banks

By Prof. Charan Singh
Indian Institute of Management (IIM), Bangalore

The objective of macro policy in a country is to achieve steady rate of growth. To ensure steady growth, banks contribute to economic development by mobilizing small and scattered savings of the community and disbursing those as loans among enterprises. Banks also are not passive intermediaries and help in transferring resources to new entrepreneurs. As money deposited may generally be for short-term while the loans may generally require long-term commitments, banks also perform the role of maturity transformation. The task of managing and monitoring risks associated with lending is also crucial to banking. Thus, banks play a crucial role in economic activity, innovation and entrepreneurship.

There are two views on the relationship between finance and growth. According to one view prevalent in 19th century, enterprise leads and finance follows implying that banks do not have a leading role in growth. The other view stresses complementarity between development and capital accumulation. So banks could finance investment in physical

capital and growth in a proactive manner. In fact, in times of high credit growth from banks, in exuberance, quality standards could get compromised which are seeds to a crisis that follow thereafter. Long periods of prosperity and increasing value of investments lead to risky speculation using borrowed money. This culminates in a "Minsky Point" or a "Minsky Moment", which is the starting phase of a financial crisis where the supply of credit dries up, causing a panic in the financial system.

To finance growth there are two alternatives - domestic financing and external sector financing. The implications of external sector financing are serious because of exchange rate risk as well as political ramifications. Consequently, the burden of financing growth is largely borne by domestic financing and therefore health of the corporate world gets integrated with the balance sheet of the banking sector. The slowdown of the economy immediately gets reflected in the increase of non-performing assets of the banking system. In India, in recent past, this relationship has emerged very

transparently, especially in case of public sector banks (PSBs).

Historically, PSBs have been the backbone of Indian financial architecture since nationalization of State Bank of India (SBI) in 1955, followed by more banks in 1969 and 1980. These nationalised banks, PSBs, were created to pursue social objectives and focus on banking the unbanked. Consequently, PSBs, mainly SBI, have been in the forefront in rural areas and relentlessly pursuing implementation of welfare schemes of the government in terms of priority sector lending, and pension and insurance schemes, including those recently announced like Jan Dhan Yojana. Despite critical global conditions and turbulence in the Indian economy, PSBs have been successful in meeting their mandate of social banking and extending rural penetration.

In recent years, though the credit offtake has been lower than expected, capital adequacy of banks is relatively appropriate and deposit growth has been following a rather steady pace. However, NPAs of PSBs have increased significantly in recent quarters though the uptrend had

been brewing for some time. In fact, PSBs finance largest amount of projects in infrastructure where large volumes of resources are required. Therefore, PSBs account for a substantially large share of stressed assets in mining, iron and steel, textiles, infrastructure and aviation as compared to private sector banks because of substantially larger exposure to these sub-sectors. Interestingly, in the early 1990's, NPAs in PSBs were critically high but staged a smart recovery. In view of the fact, that NPAs in present context are explainable in terms of global meltdown or because of beggar-thy-neighbour behaviour of some neighbouring countries of India, recovery should not be a problem again, if concerted efforts are made.

To address the issue of having and nurturing healthy PSBs, on August 23, 2017, after successful merger of five associate banks in State Bank of India, the Government is encouraging amalgamation of public sector banks to facilitate consolidation leading to a strong and competitive banking environment in the country. The consolidation would be solely based on commercial considerations, and would be initiated by the banks themselves.

Earlier, in 2009, Committee on Financial Sector Assessment

(Chairman: Rakesh Mohan) had proposed that the RBI should create a conducive environment for mergers and amalgamations. The merger of PSBs into 3-4 very large and 8-10 large banks had been recommended even earlier by the Committee on Banking Sector Reforms (1998: Chairman: M. Narasimham). Along with the reforms in 1991, it was suggested that India should have fewer but stronger PSBs. Still earlier, restructuring of Indian banks through merger and acquisitions had also been recommended by other committees since 1972. Thus, issues related to consolidating Indian banking sector has been debated and discussed for many years and merger has been a preferred recommendation consistently. Consequently, in India, many banks in the past were merged with other banks. Illustratively, New Bank of India and Punjab National Bank, both PSBs, were merged in 1993. Similarly, State Bank of Saurashtra and State Bank of Indore had merged with the SBI in 2008 and 2010, respectively. In this context, recent consolidation of SBI and all its sister concerns has to be viewed as a continuum of the same process. The newly cast and renewed SBI is now having a customer base of 37 crore, network of nearly 24,000 bank branches, nearly 60,000 ATMs, 6 lakh Point of Sale (POS) machines and over 50,000

business correspondents spread across the country. More than 8.6 lakh merchants are already on board on BHIM Aadhaar, Bharat QR (quick response code) and POS, increasing the digital banking footprint. In view of its size, it has been able to streamline its operations and is offering many of its loan products at lowest lending rates amongst banks operating in India, mainly because of economies of scale.

Consequently, SBI has been catapulted into the top 50 banking institutions in the world, in terms of assets. It is necessary, that while SBI competes with the very best banks of the world, in terms of size, business, and branch network, there is some competition to SBI from within the country, if monopolistic practices are to be contained. Further, consolidation is not just about size but also about efficiency and synergy as economies of scale make the bank more productive, profitable and competitive. There is sufficient evidence to show that large PSBs like SBI are more efficient and perform better than small PSBs. Hence, the need for consolidation of PSBs.

Theoretically, key reasons for merger are economies of scale and scope, revenue enhancement, value maximization, efficiency gains, cost savings, diversification of

customers and assets, and also that large banks help in international recognition. However, mergers, in general, are a challenge and have to be carefully designed. Mergers can be successful in similar institutions with a similar culture like that of the SBI and its associates, but cannot be extensively adopted because it leads to job cuts, branch closures and in some cases, lowering of quality and quantity of services.

The banking in the next generation would be challenging as it would have to combine traditional brick and mortar branch network to technology driven products like mobile banking. The developments in the economy consequent to Jan Dhan Yojana, demonetization, implementation of GST would imply that vast majority of people and businesses, including MSMEs would need banking support. Thus, there would be extensive

demand for banking from erstwhile informal sector which is very large, nearly 90 per cent of the economy. To meet such tsunami-like surge in demand, consolidation of banks into a few large, robust and efficient banks is a necessity. And efforts by the Central Government towards consolidation of banks are laudable as it is expected to facilitate growth and economic prosperity by providing financial resources at competitive rates to citizens across the country. ■

Overvalued Rupee and India's Exports

By Prof. Pravakar Sahoo

Institute of Economic Growth (IEG), Delhi University

The export-led growth strategy with appropriate structural reforms comprising of liberalization, privatization and open economy policy results in sustained productivity-led growth as exports promote better resource allocation, efficient management style, economies of scale, technology spillovers and lead to efficiency of production. The phenomenal success story of Asian tigers including China in the last four decades shows one thing i.e. the success of the export-led growth. The export-led growth followed by these countries, particularly China, resulted in increased participation of these countries in the Global Value Chains (GVC), expansion of the tradable sector and sustained growth of manufacturing sector which created jobs and provided impetus to growth. In case of China, the export-led growth over a period of time significantly contributed to technology up gradation across the sectors in general and manufacturing in particular and created trade surplus improving external sector stability. One of the factors, among other structural reforms, for the

success of the export-led growth is under-valued exchange rate. The under-valued exchange rate certainly helped China to increase its share in world exports from 1 percent in 1980 to around 14 percent in 2016-17. In contrast, the appreciation of the Indian rupee over the last few quarters may have affected competitiveness of Indian exports in world markets.

India's trade based exchange rates with base year 2004-05, both real effective exchange rate (REER) and nominal effective exchange rate (NEER), show appreciation of rupee since May 2016. It is the appreciation of REER which negatively affects the competitiveness of Indian exports and exports earnings. The tight monetary policy along with positive outlook of Indian economy resulted in huge capital inflows, mostly short term in nature, have played a major role in strengthening the rupee. Since middle of 2016, there has been a gradual upsurge in the indices of exchange rates and the highest growth of around 8 percent was observed in April 2017, may be due to the huge win of the BJP in UP which created positive expectation for big ticket reforms and growth.

Apart from UP elections, the currency appreciation in last few quarters is mainly due to relaxation in the capital account and large capital inflows given the positive growth outlook of the Indian economy. In addition to that RBI has not been aggressive enough to sterilise Forex inflows arising out of capital flows. RBI's lack of interest to intervene in the market to contain rupee's appreciation along with the government's indirect support for a strong currency and India's strong growth prospect among other major economies created an expectation of appreciation of rupee. The actual appreciation along with anticipated positive outlook of rupee in turn encouraged capital inflows, particularly into the equity market. The consistent appreciation of exchange rate also indicates that the RBI would not intervene in the market to allow the rupee to slide because of domestic inflation scenario and any appreciation of rupee would also result in a proportionate increase in the return on investment

The REER value has been high mostly above 100 since 2009-10

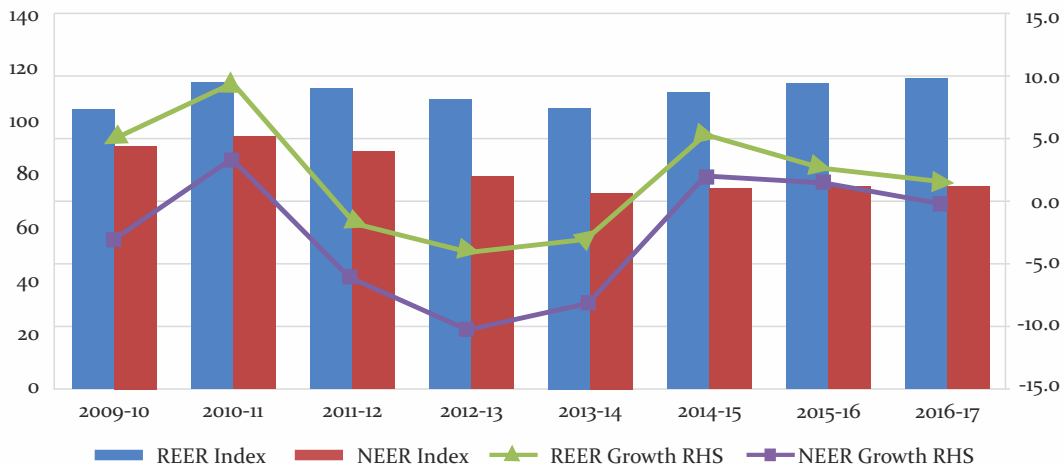
which reflects that rupee is overvalued and the exchange rate is away from the equilibrium level (see fig-1). The 36 countries based REER which matters to exports competitiveness has increased from 105 in 2013-14 to 116 in 2016-17 increasing by more than 10 per cent. Though the growth in the REER and NEER indices values have come down in recent months, the upward trend reflects the appreciation of Indian currency. The trade based 6 countries based REER has also been high and reached higher value of around 133 mid of this year from the value of 120 in March 2016 (fig-2). Figure 3 presents the inter-temporal real exchange rate across countries. India is the only country which has experienced a consistent improvement in REER over past few years. Most of exporters such as China, Japan and UK have experienced fall in real exchange rate in the month of July 2017 as compared to year 2016. REER

being more than 100 and rising reflects that it is a case of exchange rate mis-alignment in case of India which has the potential to create volatility on the external sector front and the economy. One of the lessons from the East Asian crisis is that persistent overvaluation of the exchange rate leads to crisis. In contrast, a well-managed undervalued currency regime with appropriate reforms could be hugely beneficial like what China has experienced.

In the present context, REER appreciation is bad news for Indian industry as it leads to reduced competitiveness of the exports and tradable sectors, and especially now when industries are suffering from over capacity. However, high fiscal deficit, high debt to GDP ratio gives little space to RBI to intervene in the forex market letting the rupee to depreciate as it would lead to higher inflation through exchange rate pass through. Since inflation is a very touchy

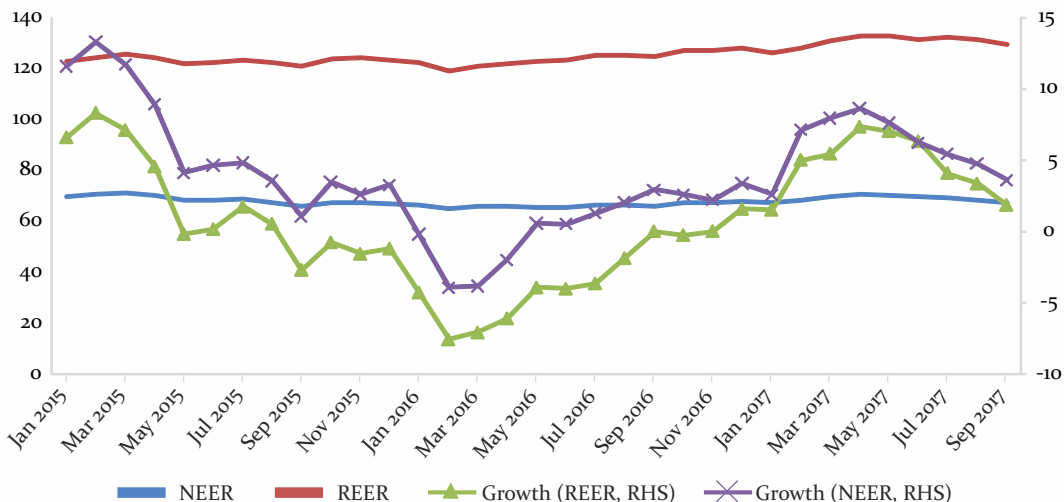
and politically sensitive subject and moreover RBI uses exchange rate mechanism to achieve its inflation targeting mandate. As per the Monetary Policy report released in April 2017, 5 percent appreciation of rupee reduces headline inflation by 10-15 points, therefore stronger rupee has been used to control inflation. India's top imports include oil, precious metals, electronics, machinery etc and rising rupee makes these imports cheaper and helps in controlling inflation. However, India's CPI inflation is based more on non-tradable baskets and influenced by supply side bottlenecks. Therefore, allowing rupee to depreciate may not affect inflation due to pass through provided the economy pursues structural reforms across sectors to improve productivity-led growth that contains inflation. But the approach towards a stronger rupee certainly hampers export-led growth momentum which is crucial for growth in medium and long term.

Fig 1: Exports Based Exchange Rate (36 Currencies, Base 2004-05)



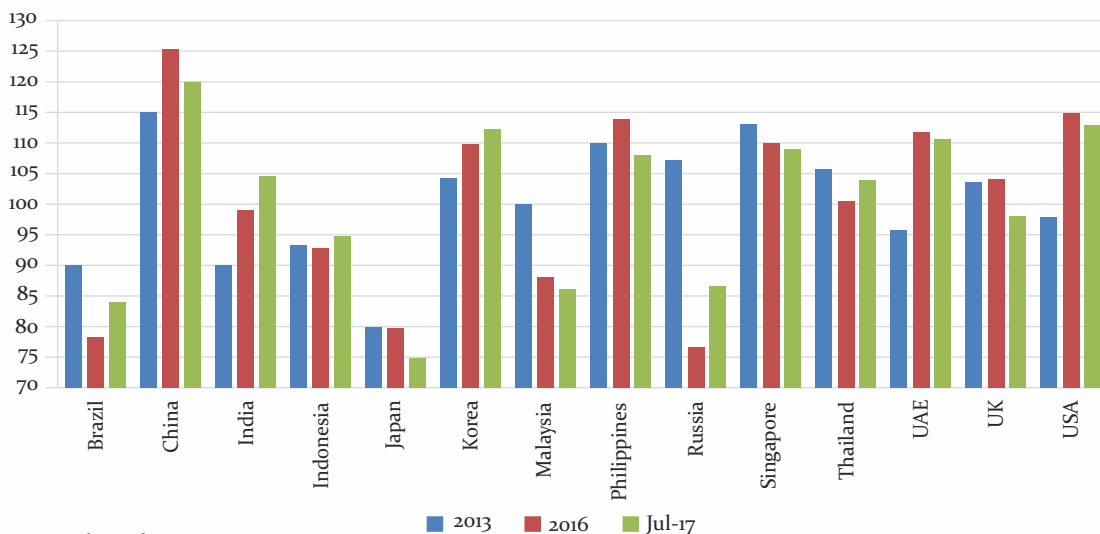
Source: Compilation from RBI

Fig 2: Exports Based Exchange Rate (36 Currencies, Base 2004-05)



Source: Compilation from RBI

Fig 3: Real Effective Exchange Rate across Countries



Source: Compilation from BIS

Strengthening rupee is hurting exporters in terms of competitiveness and profit margins. There are many industries starting from gems & jewelry, textiles, leather and agricultural products which are labour intensive and export dependent. The supply chain of

exports industries involves millions of small and medium enterprises (SMEs). Therefore, rising rupee is not good for employment as well. Even the services sector is affected by exchange rate appreciation, particularly for those whose exports earnings are foreign

currency dominated. For example, software exports where India is dominating the world market so far is experiencing profit margins that are eroding and these companies cannot increase the prices of their services to maintain profit margins/earnings because of

intense competition from other countries like Philippines. In recent years corporate earnings of some of the prominent industries such as software, pharmaceuticals, automobiles etc, which depend on exports and whose earnings are dollar denominated, in a significant way, are experiencing lower market earnings.

Though rising rupee is not a bad thing as it has helped containing inflation through cheap imports and also companies having foreign currency denominated debt, the strategy may not be right to sustain growth in the long run. The cheap imports do help contain inflation in short term but affects domestic production and jobs, particularly in

manufacturing in medium and long term. Government needs to pursue reforms along with fiscal discipline to improve productivity and manage prices. Rupee should be allowed to be at fair value so that it does not affect export-led growth. The phenomenal success of exports led growth has been witnessed on the basis of under-valued exchange rate policy in China and South East Asia. More or less, it is clear by now that Indian rupee is overvalued by 10 to 15 percent and it should be allowed to depreciate to make Indian exports competitive.

Overvalued currency may not affect not only export competitiveness but also susceptible to volatility and

there could be run on the rupee due to sudden capital outflows. If India does not improve its productivity through structural reforms to control inflation, there could be vulnerability to exchange rate given higher fiscal deficit and current account deficit. It is time to get rid of the idea that exchange rate is a symbol of pride and strength of the economy as it is hurting Indian exports, investment and large number of SMEs associated with exports sectors that create jobs. At the end of the day, the Indian economy needs to be efficient, on an expanding mode and creating jobs. Therefore it is time to correct misalignment in exchange rate and allow rupee to move towards its true value. ■

Business Conditions and not Currency Matter for Exports Growth

By Prof. Rudra Sensarma
Indian Institute of Management (IIM), Kozhikode

The rupee has been in the news for the wrong reasons. As it has been appreciating against the US dollar over the past couple of years, concerns have been expressed over its impact on exports. The dollar weakened against various currencies for a variety of reasons ranging from the Trump administration's failure to implement growth boosting fiscal policies to a rebound in the EU economy. But does a weaker greenback spell doom for India's exports? One problem with this line of argument is that its sole focus is on the rupee-dollar exchange rate, whereas the reality is that the US is only one of our many trading partners. While the rupee has appreciated by 3 percent against the US dollar in the last year, it has depreciated by 5 percent against Euro in the same period. This is important to note because the EU as a bloc is India's biggest exports market, ahead of the US. While our exports to the US was worth US\$ 42.3 billion in 2016-17, the value of our exports to the EU in the same year was US\$ 47.6 billion. Another key export destination is the UK (we exported US\$ 8.6 billion of goods to the UK in 2016-17) and the rupee has depreciated by

5 percent against the British pound in the last year.

Of course, there are concerns with respect to some other currencies. Like against the US dollar, the rupee has strengthened against the yen and the yuan. However, the single-minded emphasis on the rupee-dollar exchange rate makes for good headlines but may not portray the complete picture regarding the rupee's overall strength. The real effective exchange rate (REER) published by the RBI is a more useful metric to judge the rupee's movement. Not only does REER consider a basket of currencies instead of one, it also adjusts for price differences between India and our trade partners. Therefore, any fall in our export competitiveness due to rupee appreciation with respect to a major trade partner or rise in domestic prices gets reflected as increase in REER. Analysts use that as an indicator of overvaluation of the currency. Indeed, the performance of REER in the last year indicates a fair bit of overvaluation signaling deteriorating competitiveness of the currency. As per latest data from the RBI, the rupee may be overvalued by about 20 percent according to the export

weighted 36-currency REER and by about 17 percent according to the trade weighted 36-currency REER.

But how have our exports fared during the last one year? Contrary to what doomsayers would have us believe, exports have seen average year-on-year growth of 10 percent over the last twelve months. While this growth has come on the back of a slump in exports in the past few years but there recovery is most likely to continue over the coming months. The reason for my optimism is that, in an environment where most large exporters keep their forex exposures hedged, exchange rate has only a small role to play in export growth. The most important factor really is global demand. The World Bank has forecast global growth to be 2.7 percent in 2017 which will further strengthen to 2.9 percent in 2019. The IMF expects even higher global growth at 3.6 percent in 2017 and 3.7 percent in 2016. As the global economy keeps expanding, India's exports will continue to prosper. The recent recovery of exports is therefore an indication of an uptick in global demand which would only strengthen in the next couple of years.

There are other important factors that determine exports. Primary among them is productivity of Indian industry that affects our competitiveness in the global market. It is hard to measure productivity of the export sector alone, but according to the World Economic Forum's latest global competitiveness report (2017-18), India is the most competitive economy in South Asia, attaining 40th rank in a list of 137 countries. Surely, there is a lot more to do, especially in terms of ease of doing business in India. But the domestic business environment is slowly turning conducive for exports growth. The government's ambitious Sagarmala project is expected to boost ports sector development by increasing depths through dredging and modernizing the infrastructure at ports. The massive public investment of nearly Rs 7 trillion that has recently been approved for building highways will also help the export sector. The Bharatmala segment of the highways project will create economic corridors by connecting important cities and ports while the envisaged four-lane highways will enable

faster movement of cargo vehicles and bring down logistics costs.

One of the features of government policy has been to view the export sector as different from rest of the economy. Certainly, there are some policies such as financial incentives and special economic zones (SEZs) that benefit export oriented companies. But many of the problems of the export sector are the same as those faced by businesses in all segments of the economy. The export sector would greatly benefit if the government fixes the larger infrastructure bottlenecks across the country. In a survey that we at IIM Kozhikode conducted in South Indian states, exporters were asked about the challenges they faced. The problems cited turned out to be the generic but critical ones of poor road and rail connectivity, unreliable power supply and lack of easy access to credit. In fact, larger companies have learnt to live with these challenges as they have ways to get around them. It is the smaller companies who are hit the hardest by poor infrastructure. This is more the

case with 'soft infrastructure' such as complex procedures such as the process of filing taxes and customs clearances. The government should be sensitive to these operational difficulties and reduce the compliance costs. Availability of skilled manpower is another challenge. Particularly for the export sector, the government must set up skilling centres near SEZs so that the local people can be trained to meet the immediate requirements of industry. Labour market reforms and enabling legislation for land acquisition would help the industry.

We live in a rapidly evolving business environment. Global growth centres and consumption patterns are transforming at a fast pace. Indian businesses need to keep innovating as per changing global tastes and preferences, needs of the global value chain and also identify new markets and geographies. As the GST pangs settle down and the government starts refunding input credits, the improvement of the domestic and global business environments along with forward looking market strategies will drive significant growth in our exports. ■

3

Sector Review



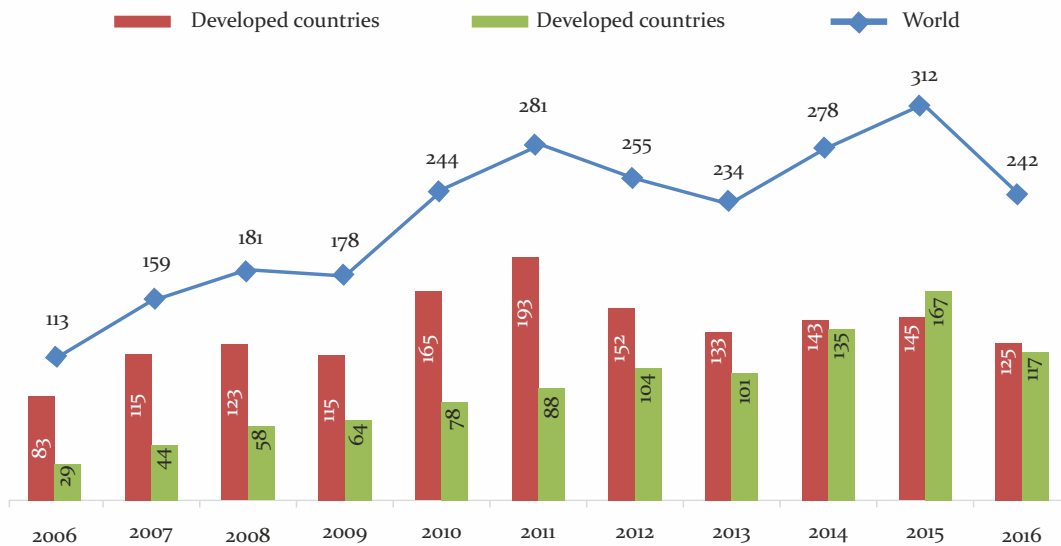
Renewable Energy Sector

The year 2016 has been once again a landmark year for the global renewable sector with renewable power capacity being added worldwide touching a new record of 138.5 GW during the year - an increase of about 9 percent from the 2015 level. Solar PV took the lead with a contribution of 47 percent to this newly installed capacity, while wind and hydropower

accounted for 34 percent and 15.5 percent, respectively. This (2016) has been the fifth consecutive year when investment in new renewable power capacity, which was to the tune of around US\$ 242 billion was almost double the investment made in fossil fuel generating capacity. Going forward, the transition towards clean energy is expected to further gather pace with the

International Energy Agency (IEA) projecting an addition of 1000 GW of clean energy worldwide over the next five years. IEA has also suggested that by 2022, clean energy will account for a third of power generation at 8000 tera watt-hours, or would be enough to meet the total current electricity demands emanating from China, India and Germany.

Global Investment in New Renewable Power and Fuel Capacity (US\$ bn)



Source: REN21 Advancing the Global Renewable Energy Transition

A strong trend that is being observed in the renewables market has been the rapidly falling prices of equipment, helping in bringing down the cost of installation. This is evident from the fact that though capacity of renewables increased significantly in 2016, the cost associated with it came down by around 22 percent as compared to the previous year.

The cost of renewable power has also seen a sharp drop particularly from Solar PV and Wind. Countries like Argentina, Chile, India, Jordan, Saudi Arabia and the United Arab Emirates witnessed sharp drops in bids for Solar PV with bids in some markets being below US\$ 0.03 per kilowatt-hour (kWh). Similar trend was also observed for wind

power in countries like Chile, India, Mexico and Morocco.

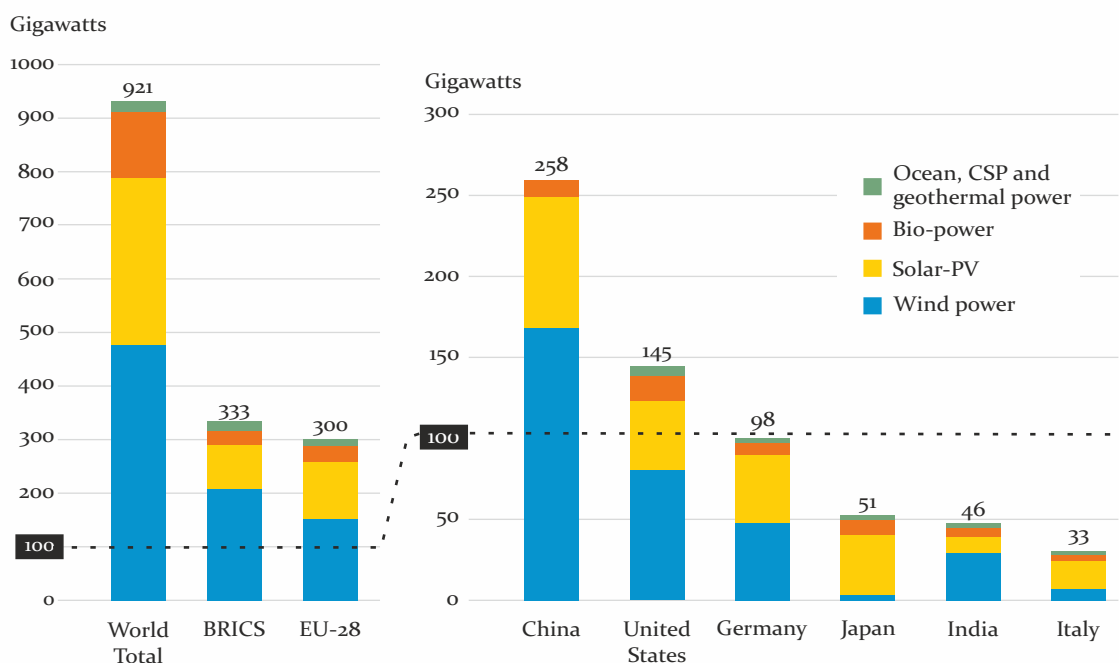
In spite of a slowdown observed in China, the country continued to record highest level of investment in renewable energy last year and is ranked first in terms of renewable capacity, accounting for more than a quarter of world renewable energy capacity today.

Renewable Energy Sector: Top Five Countries

	1	2	3	4	5
Investment in renewable power and fuels (not including hydro > 50 MW)	China	United States	United Kingdom	Japan	Germany
Investment in renewable power and fuels per unit GDP	Bolivia	Senegal	Jordan	Honduras	Iceland
Renewable power (not incl. hydro) generation or capacity	China	United States	Germany	Japan	India

Source: REN21 -Renewables 2017 Global Status Report

World Renewable Power Capacities



Source: REN21 -Renewables 2017 Global Status Report

Indian Scenario

India too is harnessing its renewable energy potential at a faster pace to meet the country's growing energy needs, attain the objective of providing power 24 by 7 to all households by 2022 and reduce the carbon intensity of electricity generation. Keeping up with the global trend, the net capacity of renewables added in India in 2016-17 exceeded that of conventional power; 12.5 GW of new renewable capacity was added in 2016-17 as compared to 10.2 GW of conventional power capacity. As of June 30, 2017, India's total renewable capacity stands at 58.3 GW, accounting for 17.7 percent of the total installed power capacity in the country. India presently has the fifth largest renewable power capacity in the world. Power generated through renewable sources also witnessed an increase of 24.5 percent in 2016-17. The trend has continued this year as well; during April-July 2017, 9.4 percent of the total electricity produced in the country has been contributed by renewable sources, this is higher than 7.5 percent share achieved in the corresponding year-ago period.

Falling tariffs

Keeping up with the global trend, India too has witnessed a continuous fall in tariffs for solar and wind power over the last three years or so. Solar power tariffs have dropped from more than Rs. 10 per unit to a low of Rs. 2.4 per unit in May 2017. *(In September 2017 however, it has increased to around Rs. 2.65 -3.36 a unit which could be attributed to implementation of the GST and higher import prices of solar panels from China.)* This drop in tariffs can be attributed to decrease in module prices, intense competition among developers and expectations of possible further fall in prices (typically a 15-20 percent annualised fall in cost of solar modules factored while bidding).

The Indian renewable sector has thus witnessed some remarkable progress over the past few years, making it among the most sought after markets in the world. The recently published Ernst and Young Renewable Energy Country Attractiveness Index has placed India at the 2nd position, behind only China. There are various factors which have made this possible for India; most important among these are discussed in the following sections.

Enabling factors

Need and commitment for clean energy

For long, India's focus was primarily on development of large-scale power capacities based on conventional sources to meet its energy requirements. However, in recent years the attention has shifted towards renewable energy sources mainly to correct the country's energy deficit scenario, enhance energy security and mitigate the risks of climate change and therefore increase the share of clean energy. Under the Intended Nationally Determined Contribution (INDC) submissions made in 2015, India has pledged to base 40 percent of its total installed power generation capacity on non-fossil fuel resources by 2030 and reduce the emissions intensity of GDP by 33 to 35 percent from 2005 levels by 2030. India is closely working towards achieving the target of increasing the country's renewable power capacity to 175 GW by 2022, which would include 100 GW of solar power, 60 GW of wind energy and 15 GW of biomass and hydro energy. As per the estimates, this increase in renewable power is expected to result in abatement of 326.22 million tonnes of CO₂ eq. /year.

Renewable Energy Capacity (GW)

	Installed capacity (as of June 2017)	Target -2022	Potential
Wind Power	32.51	60	102.8
Solar Power	13.11	100	749.0
Small Hydro power	4.38	5	19.7
Bioenergy (Biomass, Bagasse Cogeneration, waste to energy)	8.3	10	25.1
Total	58.3	175	896.6

Supportive policy environment

The transition towards non-fossil fuel capacity in India has been aided well by supportive government policies (incentives, investment promotions, others), accelerated programmes (large scale projects), technological advances leading to efficient designs, lower costs, thereby making the shift economically viable. The government has made suitable amendments in the Electricity Act and Tariff Policy for strong enforcement of 8 percent solar Renewable Purchase Obligation (RPO) by the year 2022 (under the RPO,

power distribution companies are mandated to purchase a certain amount of their power from renewable sources) and Renewable Generation Obligation (RGO) on new coal/lignite based thermal plants (new coal/lignite based thermal plants are required to procure or purchase renewable capacity as part of their RGO); exemption of renewable energy from inter-state transmission charges; and compulsory procurement of 100 percent power produced from waste to energy plants by power distribution companies (discoms). There have been other supportive initiatives

(financial) as well including allocation of Rs. 38,000 crore for a Green Energy Corridor to ensure evacuation of renewable energy (enabling flow of renewable energy into the National Grid Network); creation of Clean Energy Fund (for funding research and innovative projects in clean energy technologies); and granting infrastructure status for solar projects (to ensure easier access to credit). In addition, the renewable energy sector in India has also been provided with financial support for research and development and other programs.

Schemes/Programs in the Renewable Energy Sector

Solar Power	Wind Power
<ul style="list-style-type: none"> • Development of Solar Parks and ultra mega power projects with capacity of 40,000 MW by 2019-20 with atleast 50 solar parks with a capacity of 500 MW across the country. • Solar Rooftop Program - target of 40MW capacity addition to be done through solar rooftops. • Solar pump scheme - installing 100,000 solar pumps for irrigation purpose. 	<ul style="list-style-type: none"> • Guidelines for development of on-shore wind power projects - address all the major issues including land use permission, availability of wind resource, grid connectivity, transport logistics, environmental acceptability, micrositing, health and safety, hybridization, repowering and decommission plan.

Schemes/Programs in the Renewable Energy Sector

Solar Power	Wind Power
<ul style="list-style-type: none"> • Surya Mitra Scheme a part of the Make in India program is a 600 hours course (3 months) skill development program designed to create skilled manpower in installation, commissioning, and Operation & Maintenance of solar power plants and equipment. It plans to train 50,000 people for solar installations over next 3 years. • Guidelines for Tariff based competitive bidding process for procurement of power from grid connected solar PV power projects - Aimed to reduce risk, enhance transparency and increase affordability of Solar Power. • International Solar Alliance - is an initiative to forge a global coalition among sun rich countries to harness solar energy • Solar Cities - It is designed to support/ encourage Urban Local Bodies to prepare a Road Map to guide their cities in becoming 'renewable energy cities' or 'solar cities'. Aims at a minimum 10% reduction in projected demand of conventional energy at the end of five years. 	<ul style="list-style-type: none"> • Policy for repowering of wind power projects to promote optimum utilisation of wind energy resources by creating facilitative framework for repowering. Ageing wind turbines will be replaced with more powerful, more advanced and modern units to hike up generation figures at refurbished wind sites. • Guidelines for implementation of scheme for setting up of 1000MW inter-state transmission system-connected wind power projects - It is a scheme for non-windy states/UTs to fulfill their non-solar RPO obligation. It aims to encourage competitiveness through scaling up of project sizes and an introduction of efficient and transparent e-bidding and e-auctioning processes. • National Off shore Wind Energy Policy 2015 - It aims to support and incentivise the development of offshore wind energy in India.

Challenges

Need for huge investment:

Though significant renewable capacity has been added so far, India still needs to add another 117 GW of capacity over the next five years to reach its target of 175 GW by 2022. Achieving this high target entails massive investments (estimated capital investment of about US\$ 120 billion and equity investment of US\$ 40 billion) and building investors' confidence thus becomes paramount. The government has permitted

100 percent FDI under the automatic route for projects of renewable power generation and distribution in the country, which has helped in increasing the flow of foreign capital into the sector over the years. For the period between April 2000 and June 2017, the non-conventional energy sector received FDI worth US\$ 5.8 billion, of which around US\$ 2.8 billion were received over the past three years from April 2014 to June 2017, indicating the growing attractiveness of the Indian renewable market.

The sector has been identified as one of the strategic one under the 'Make in India' programme and accordingly various fiscal incentives and various programmes have been initiated to promote the sector. Measures are being taken to infuse investments and boost sustainable infrastructure. These include inclusion of renewable energy projects in priority sector lending norms of commercial banks (April 2015) to ease the flow of investments to the sector. The Union Cabinet has also approved raising bonds worth

Rs. 2,360 crore by Indian Renewable Energy Development Agency (IREDA), which will be used in various renewable energy projects in FY 2017-18. Earlier, the Government had allocated Rs. 4000 crores to IREDA to raise "GOI fully serviced taxable Bonds" on behalf of the MNRE, of which IREDA had raised Rs. 1640 crores. International Finance Corporation (IFC), the investment arm of the World Bank Group, is also planning to invest about US\$ 6 billion through 2022 on climate change led initiatives. The World Bank is providing IREDA US\$ 100 million for large scale solar projects under the 'Shared Infrastructure for Solar Parks Project'.

Still, institutional investment in the sector faces few barriers, such as off-taker risk (risk that the buyer/off-taker may not fulfil its contractual obligations and delay payments); currency risk (risk of loss from unexpected and volatile fluctuations in currency exchange rate) mainly for foreign institutional investors; regulatory risks; mismatch on return expectations, lack of liquid instruments to invest in renewable energy; lack of intermediaries (intermediaries are required to provide first-hand information about risk mitigation measures and opportunities in renewable

energy sector); delays in land acquisitions; low credit ratings of assets, etc.

Variable nature of renewable sources: Owing to variability in renewable energy sources like solar or wind (in case of wind, there are variations in wind velocity/speed across seasons and during the day, similar concerns also exist with sunlight availability), power generated through these sources is fluctuating in nature. This poses significant challenge for grid management, as maintaining balance between power demand and supply becomes difficult for grid systems. This is particularly true in case of Indian grid, which experiences shortfall and does not have any power reserves to meet demand in situations where supply drops due to low renewable power generation.

Falling tariffs a concern for developers: The fall in solar tariffs though has been a welcome trend for consumers and have helped in adoption of renewable energy in the country, it has also given rise to some undesired consequences for the renewable power developers. For instance, in July 2017, Solar Energy Corporation of India cancelled two tenders (first with storage capacity) which were announced last year at higher tariffs. States are also planning to take a relook at their offtake commitments (power purchase agreements (PPA) for projects

awarded at a comparatively higher tariff as per reports. Besides, there are growing incidences of delayed power purchase payments by many DISCOMs. Moreover, renewable energy developers are facing constant pressure to lower tariffs or extend discounts. All of these could impact return on projects, and failure to adhere to commitments could weaken investor confidence in the Indian renewable energy sector going forward.

The low bids in recent times suggest that developers in addition to assuming fall in costs have also factored in achieving scale of operations. There could be risk as developers could find it difficult to attain factored scale of operations and any rise in costs (module prices, currency rate, and interest rate) could impact operational costs, thereby placing the project at risk.

Dependency on import and concerns on higher input prices: Renewable power projects especially solar projects which would account for a substantial part of the capacity addition by 2022 (to increase from 13.11 GW as of June 2017 to 100 GW by 2022) face the risk of being delayed due to higher input prices. In the last 3-4 months, prices of PV modules have risen and implementation of GST at 5 percent has further increased project costs for solar power projects. India is heavily

dependent on imports for its requirement of solar modules and China is a major supplier meeting around 75 percent of India's demand. China has registered a sharp rise in energy capacity addition domestically leading to higher domestic demand resulting in lower supply for exports. This, combined with a reduced polysilicon supply in China, has led to a rise in module prices. The US is also witnessing higher demand as developers are placing advance orders (stocking up) in the midst of a demand for cap in prices of cheap imports into the US. In India too, there are concerns that imposition of anti-dumping duty on solar modules from China which could further increase prices.

Used/ Second-hand solar modules from China: Another concern is the deployment of used Chinese solar modules in the Indian energy sector. These are available at discounted rates in the Indian markets, and the developers are deploying these to meet the cost pressures and project deadlines. The Ministry of New and Renewable Energy has drafted a new set of norms and standards for all solar

equipment - domestic as well as imported, which would address this situation. Designed under the BIS Act, it would come into force after 12 months.

Failure to meet RPO: The extent of RPO compliance by the state utilities is another concern for the renewable energy industry with a number of utilities falling short of their commitments.

Way Forward

India's target to attain 175 GW of renewable energy capacity by 2022 presents enormous opportunities for stakeholders across the entire value chain. Renewable energy is expected to account for 33 percent of installed capacity and 20.3 percent of total energy requirement by 2021-22. Majority of the planned capacity addition is through solar power and India needs to develop its domestic solar power equipment manufacturing facilities to insulate it from global supply concerns and rise in prices, while maintaining quality standards.

As penetration of renewable energy increases, the challenges associated with its intermittent

nature need to be addressed. Variability and unpredictability associated with non-fossil fuel sources can be addressed through accurate forecasting and scheduling; developments in storage capacities, creation/ development of balancing and spinning reserves, etc. Five states (Andhra Pradesh, Karnataka, Chhattisgarh, Jharkhand and Uttarakhand) have notified forecasting, scheduling and deviation settlement regulations while six other states (Rajasthan, Gujarat, Madhya Pradesh, Tamil Nadu, Odisha and Manipur) have announced draft regulations for the same.

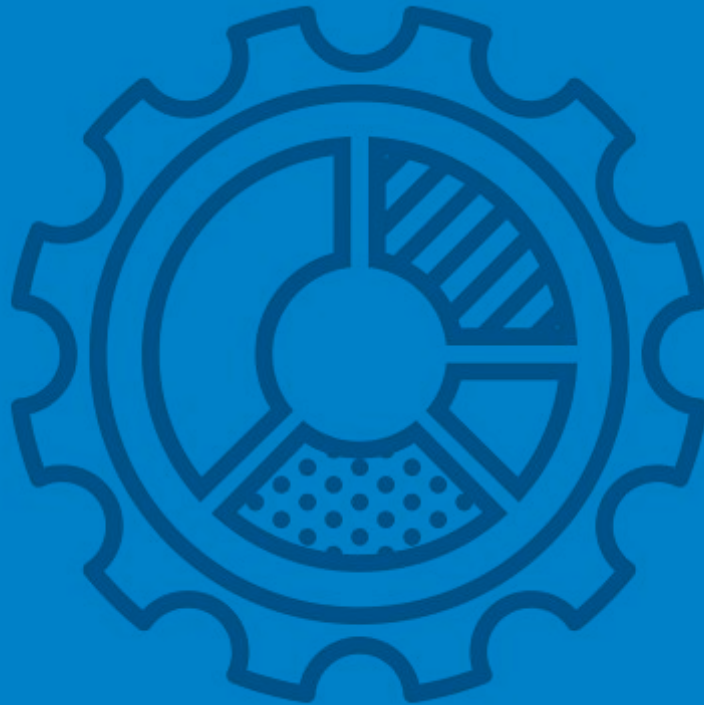
Measures are also being taken to improve transmission connectivity; work has commenced under the Green Energy Corridor project on a 1,800 km ultra-high voltage direct current link from Raigarh in Central India to Pugalur in South India.

These initial steps are in the right direction, a lot more still needs to be done for forecasting techniques, to enhance large scale grid integration, grid flexibility and developing the ancillary services market. ■

This section has been prepared by the Economic Affairs & Research Team.

4

Sector Insights



Tata Power-DDL Encouraging Rooftop Solar Adoption

By Mr. Praveer Sinha, CEO&MD, Tata Power-DDL

The Government of India has set an ambitious target of achieving 100 GW of grid interactive solar power capacity by 2020, of which 40 GW would be deployed through decentralized and rooftop-scale solar projects. Rooftop solar PV would play a prominent role in meeting the energy demands across various segments of consumers. It has already achieved grid parity for commercial and industrial consumers, and is fast becoming attractive for residential consumers as well.

Utilities are among the most critical stakeholders in any grid-connected Solar Rooftop program. Rooftop Solar PV are beneficial to distribution utilities where there is a good match in system peaks and solar peaks by injecting power at the tail-end of the distribution systems. Rooftop solar also helps in loss reduction in distribution systems as it is at load center. Given the policy and regulatory mandates for Renewable Purchase Obligations, Rooftop Solar can effectively help meet these targets.

Furthermore, given Delhi's land-locked position, the high cost and paucity of barren land within its borders and low

potential for wind or hydro power, Delhi must focus on Rooftop Solar as its primary source of renewable energy. Delhi being blessed with almost 300 sunny days with Rooftop space available for solar panels estimated to be 31 km², gives the National Capital a solar energy potential of 2.5 GW (annually approx. 3,500 million kWh).

For the development of Rooftop Solar Projects, some key initiatives undertaken by Tata Power-DDL are as follows -

- **Installation of Demonstration Solar Projects** at its own premises since 2008. Till date 15 Solar Projects with cumulative capacity of 1.77 MWp including India's first successful Megawatt Class Rooftop Solar Project in Keshavpuram Central Store
 - **Empanelment with MNRE as "SP 1 A" Channel Partner.** Tata Power-DDL is the first Power Distribution Utility to be empaneled as "Channel Partner" with MNRE
 - **Creation of Dedicated Rooftop Solar Cell**
 - **Empanelment of EPC Agencies** through Techno-Commercial competitive bidding
 - **Availability of complete details of Rooftop Solar Program on the Tata Power-DDL Website**
 - **Detailed process for Net Metering established** with integration of almost all functions of Discom operations like New Connection, Metering, Automatic Meter Reading, Billing, Network Planning, GIS, Accounting, Safety
 - **Carrying out of Intensive Reach outs programs** including - Information on Tata Power-DDL website, Leaflets to consumers, Awareness sessions for prominent IWAs and RWAs, presentations delivered to key Govt. consumers like DJB, DMRC, NDMC, designated Solar Brand Ambassadors and workshop for Educational institutions, Hospitals etc.
 - **Carrying out of Quality and Safety Audit at Site - Pre & Post project implementation**
 - **Policy Advocacy with the Delhi Govt. to facilitate Net Metering and Rooftop Solar Policy**
- 1) **Roadmap for Solar and other Distributed Energy Resources:**
- Tata Power-DDL has conducted a study on

"Business Models for Distributed Energy resources Deployment" sponsored by USTDA with a broad goal to provide Tata Power-DDL with an implementable plan to meet a portion of its future power needs using Solar and other DER technologies like Demand Response, Energy Efficiency, Grid level storage, Peak Load shifting etc. The main motivation for this study is that solar prices have been declining dramatically coupled with increasing cost of conventional power. Tata Power-DDL would like to phase in the Distributed Energy Resources gradually, eventually reaching roughly 400 MW of solar by 2025 coupled with adequate DER technologies to address variability and uncertainty of solar generation.

The study has explored different business models with different solar incentives policies and tariffs, and for different base case conditions. The key business models included third party, customer or utility owned and financed systems. Solar incentive policies include net energy metering (NEM), feed-in-tariff (FiT) and capex subsidy.

2) Policy advocacy with DERC:

Tata Power-DDL has actively advocated for the net metering policy and has **partnered with DERC to formulate** Net Metering Guidelines and Regulations for Delhi. Net metering system would help consumers

to reduce their electricity bill by allowing them to feed the excess power generated by their solar PV into the grid.

Tata Power-DDL has been closely involved with the Delhi Dialogue Commission in drafting the **State Solar Policy released on 7th June, 2016.**

Impact of the Policy Advocacy:

- **Delhi government** will facilitate **capital subsidy, 30 per cent at present**, provided by Ministry of New and Renewable Energy (MNRE), to the **domestic consumers** for which the **exercise of empanelment of vendors is already under process.**
- **Net metering Incentives:** It provides for **Generation Based Incentive (GBI) of Rs2 per unit for domestic households** for installation and generation of solar power on **first come, first served basis.** It will be **applicable** to solar plants which **generate more than 1100 units per KW per annum.**

Rooftop Solar Program for consumers:

Tata Power-DDL has conceptualized a business model after studying various models across the world. It is a **first-of-a-kind project by a DISCOM in India** to launch solar Rooftop program with **no tariff or financial implications** and all the while

providing significant benefit both to consumers as well as to the environment with green, sustainable source of energy through standardization of quality and cost for the project.

3) Aggregation of demand on behalf of Consumer and Open Tendering for solar Project developers to provide best market rates below MNRE benchmarked Price to Tata Power-DDL Consumers:

In order to facilitate the consumers for installation of Rooftopsolar projects, Tata Power-DDL has undertaken open competitive techno-commercial bidding procedure to empanel implementation agencies which will install solar projects on turnkey basis with optional comprehensive AMC for solar plants for a period of 5 or 7 or 10 years.

Eleven Agencies, that are empaneled with Ministry of New & Renewable Energy, Govt. of India as channel partner, have been shortlisted as empaneled vendor for Tata Power-DDL Consumers.

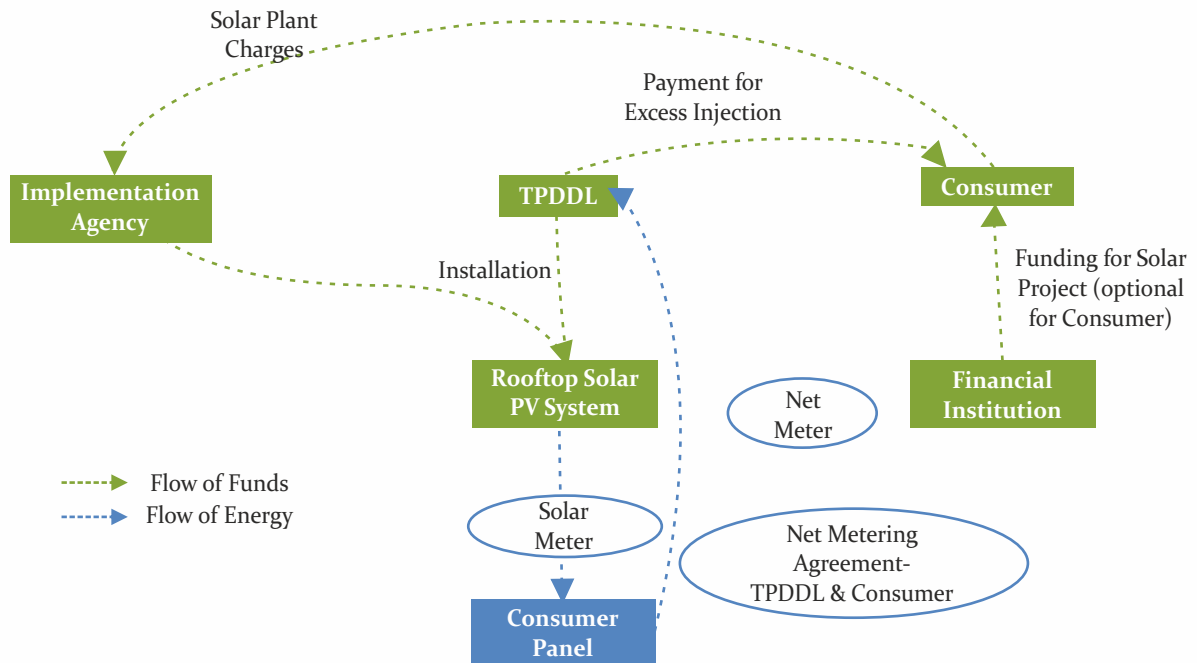
All empaneled agencies will be available for installation of Solar Projects of capacity ranging from 1 kWp to more than 500 kWp at Tata Power-DDL's Consumer's premises at attractive prices determined through competitive bidding. Total numbers of 150 cases with cumulative solar capacity of 6.70 MW have been

installed and another 5 MW projects are in pipeline as on date under the programme.

Tata Power-DDL Initiative:
Tata Power-DDL's mission is

to provide our consumers with the most comprehensive end-to-end solutions and get them on the path of significant savings for the next 25 years.

The following model has been adopted in line with DERC's Net Metering Guidelines for our consumers:



4) Awareness Programs for different segments of consumers like Hospitals, Schools & Institutes and Industries:

Tata Power-DDL has been continuously putting effort towards enhancing the use of solar power among its consumer base and contributes towards the national solar mission.

Intensive Reach-out programmes have been carried out in the form of

Information on Tata Power-DDL website, Leaflets to consumers, Awareness sessions for prominent IWAs and RWAs, presentations delivered to key Govt. consumers like DJB, DMRC, NDMC, designated Solar Brand Ambassadors and workshop for Educational institutions, Hospitals etc.

In line with this initiative, Tata Power-DDL has conducted workshop for Hospitals, health care centres, Schools &

Institutes. The workshop was attended by more than hundred representatives of Hospitals & Education Institutes. Discussion over the peak load timing, reduction of the electricity bill through solar power generation, various government Incentives for different segment of consumers took place.

Tata Power-DDL has been creating awareness among different segments of consumers regularly through

different mediums like consumer meets, District wise awareness camps, Interaction session with Various Residential Welfare Association (RWAs), Industrial Welfare Association (IWAs).

5) Focus on Research & Development for continuously improvising the performance and Reliability of the system: Battery Energy Storage System & Hybrid Inverter

Tata Power-DDL has always been a pioneer in testing and adopting new technologies. As a stepping stone towards implementing smart grid practices for power distribution utilities, a smart Grid Lab has been established for the demonstration of various foundational & operational technologies.

Further, considering the increased penetration of RE into the Indian grid, Tata Power-DDL is actively working on exploring new and advanced technologies which will support smooth integration of RE into the grid. Working on the similar lines, a pilot project on integration of 10 MW Battery Energy Storage System (BESS) in our grid has been planned. The BESS is designed to quickly ramp up and ramp down and store excess energy during off peak hours and utilizing the same during peak hours.

Application of BESS would assist Tata Power-DDL in dynamically balancing the load with the increase in the penetration of electric vehicle & Renewable powers.

Further, Tata Power-DDL has planned to test the hybrid solar Inverter through which excess generation of solar power at consumer's premise will be stored in the battery and can be used during night hours. The hybrid Inverter will be tested for analysing its working in Indian environmental condition.

6) Bihar Micro Grid:

Apart from Rooftop Solar, Tata Power-DDL is focusing on the rural electrification through Solar Micro grid. There are many villages in the country which are still not electrified yet due to various challenges. Hence, Tata Power-DDL has come forward in the initiative of rural electrification and has partnered with Massachusetts Institute of Technology (MIT), General Electric and Tata Trust to establish two solar micro-grids in Bihar. About 190 hutments with a population of 1000 are going to be benefitted from each of these projects.

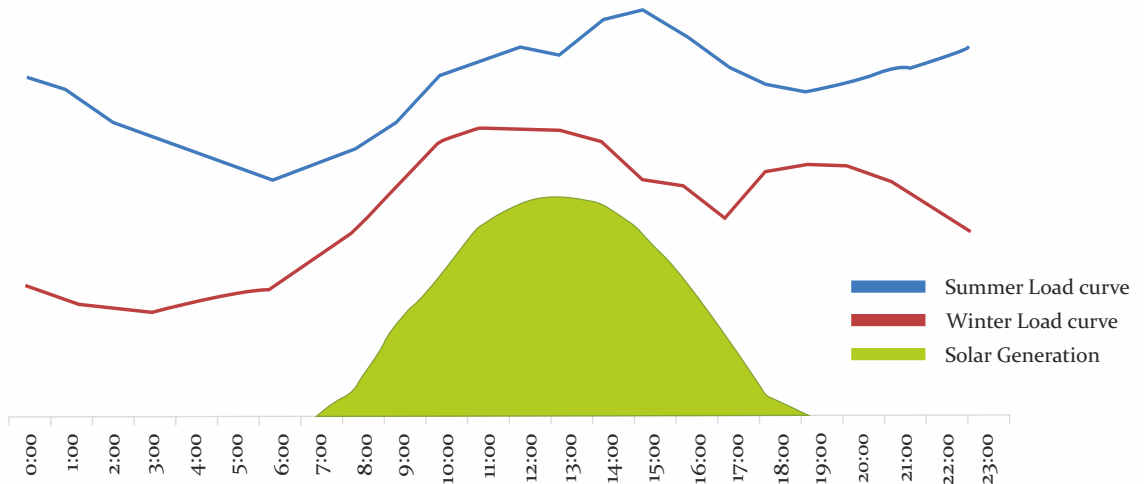
7) Managing Peak Load through Renewable Integration, Automated Demand Response & Battery Storage:

Tata Power-DDL has a peak

load capacity of nearly 1900 MW out of which 10 percent is of the peak capacity can be met by renewables, majorly Solar.

The peak demand is increasing every year which means more Power Purchase will have to be tied up. As the peak requirement is for few hours/periods only the total quantity of power tied up remains unutilised rest of the time, more so when the average cost of electricity is increasing due to shortage during peak and surplus during non-peak hours.

Hence, there is an urgent requirement to integrate distributed renewable sources of energy at the consumer end in order to address the major challenges like rising peak load & large variation in load curve. Considering the summer & winter load curve of Tata Power-DDL, about 80 percent solar generation off-sets normal hours and 20 percent off-sets the peak hour load for ToD consumers. Also, it has been estimated that the peaking of Rooftop solar generation is partly co-existent with the peak demand of Discom. After meeting the end user demand, the excess solar energy generated during off-peak hours can be stored in the battery energy storage system and later can be used during peak hours.

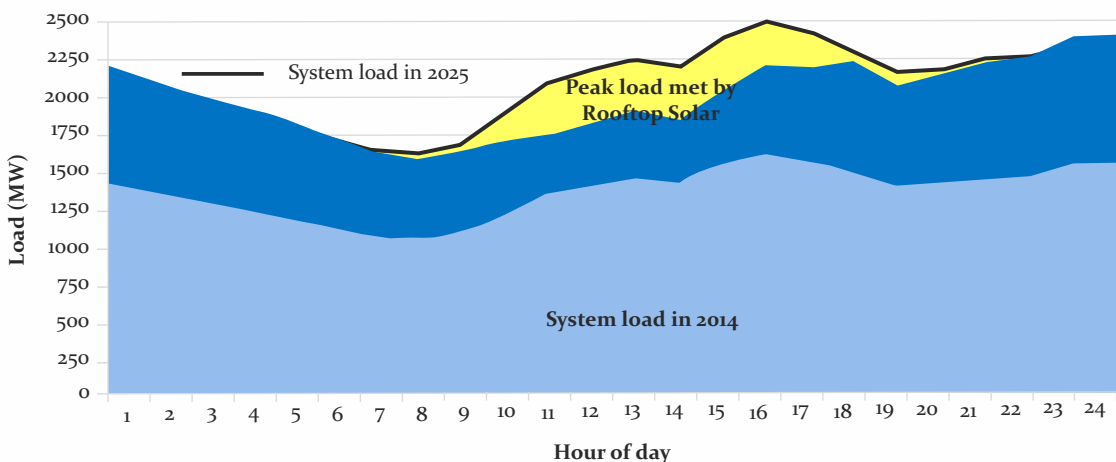


One of the key strategic initiatives taken by Tata Power-DDL is the implementation of Automated Demand Response (ADR) among high end consumers. The objective is to manage the peak demand in an optimal way. As per the current scenario, electricity and peak demand is expected to rise exponentially in the coming years. Through ADR peak load demand can be clipped and during the peak

hour's non-critical demand will be met through distributed sources of energy. The project shall help Tata Power-DDL to meet contingencies in the procurement of power and also avoid load shedding across consumer segments through voluntary load reduction by the participating consumers. Further to increase consumer participation, suitable incentives have been provided in the

scheme proposed by Tata Power-DDL on the time duration on which a consumer responds to a DR event.

Tata Power-DDL has planned to increase ADR capacity upto 65 MW till 2024 and also to integrate it with Meter Data Management System. This will help to address the issue of uncertainty and variability of Solar Projects.



Solar Generation Forecast with System Load

As mentioned in the above figure, Rooftop Solar generation will greatly contribute in meeting system load in coming

years. Benefit of Solar Generation will be two fold. It helps in energy savings. Since Delhi has approx. 300 Sunny days, generation will be significantly high. Also it will

help to reduce afternoon peak demand of the system. Thus there will be capacity savings and Tata Power-DDL will be able to contain requirement of system capacity enhancement. ■

India's Renewable Sector: The Show Must Go On

By Mr. Sanjeev Aggarwal, CEO&MD, Amplus Solar

Nowadays front pages of all newspapers appear to be incomplete without news on another first being achieved by Renewable Energy (RE). On one hand renewable energy tariffs have been touching new lows, at the same time renewable capacity additions are touching all-time highs. In the twelve month period ending March 2017, India added close to 11 GW of new renewable energy capacity. As a result renewable energy installed base has risen to nearly 60 GW or 1/6th of India's total installed power generation capacity.

Rise of RE

This is a result of industry changes spanning one and a half decades. Renewable power capacity additions till the recent part were largely driven by fiscal incentives extended by the central and state governments. These incentives included excise duty exemptions and income tax benefits.

In the early stages, wind power was given incentive to promote the industry. The industry and scale of operations changed post 2004 as wind manufacturers expanded vertically and provided a turnkey solution to the asset owners seeking tax breaks. As a result annual wind

installations grew to 2,000-2,500 MW by 2014.

The next major milestone was the introduction of the National Solar Mission (NSM) in 2010. Solar power which was the smallest component of the Indian energy mix before that is now on track to becoming one of its main constituents. The credit for this drastic transformation goes to the supportive regulatory framework and favorable investment climate created by the Government of India coupled with the global drop in solar module prices.

At the same time, RE tariffs have fallen dramatically so much so that latest bid tariffs (INR 2.44 / unit for solar and INR 2.64 / unit for Wind) are equal to or below even conventional sources of power generation. This reduction has come about largely due to three key factors.

Firstly, as fiscal incentives were withdrawn or were phased out, the industry has seen a change in the nature of project owners. Project owners no longer invest solely for tax shelter purposes but rather view RE as the core business itself. As a result, whereas the RE Industry was extremely fragmented 5-6 years back, there has been a visible consolidation. The largest RE owner has moved from 250 MW

of operating capacity in 2009 to 1,500 MW+ as of today. Individual plant sizes have also gone up from 10 MW to 500 MW+. These larger players have been able to tap efficiencies of scale across cost of capital as well as project costs.

Secondly, in the case of solar PV equipment especially, prices have decreased as installations have picked up pace. Solar module prices have fallen as much as 80 percent over the last six years. With solar modules constituting nearly 70 percent of the overall project cost, solar PV installation costs have come down in a dramatic manner.

And lastly, the introduction of NSM also brought with it competitive bid based capacity award for renewable projects. Earlier this year, Government of India initiated its first wind auction which allowed states without wind resources to procure wind power through competitive bidding. Competitive bidding freed up market forces allowing the off-takers to discover the most optimum pricing at the time of bidding.

Future Prospects

Going forward, Government of India has set an ambitious target of achieving 100 GW of solar

capacity and 60 GW of Wind capacity by 2022. This is equivalent to adding one-third of the current total power generation capacity in a short span of six years. 100 GW of solar power would require investment of roughly US\$94 billion, 1,214 sq km of land area, 650 sq km of rooftops, 15 GW of annual additions. While market dynamics are positive there are dark clouds on the horizon.

One of the key success factors for this mission to succeed will be the financial health of government distribution companies ('DISCOM'), the largest consumer of the RE projects. The Government has initiated the UjjwalDiscom Assurance Yojana (UDAY scheme) wherein state governments take over DISCOM's existing debt while the DISCOM itself is obligated to implement operational improvements. Having said that, the benefits of the scheme are likely to take time to percolate through and unless the scheme

succeeds India is unlikely to be able to achieve the ambitious target.

Additionally, the infirm nature of RE capacity translates to large capacity augmentation requirement and an imperative for developers to ensure accurate and on time scheduling and forecasting.

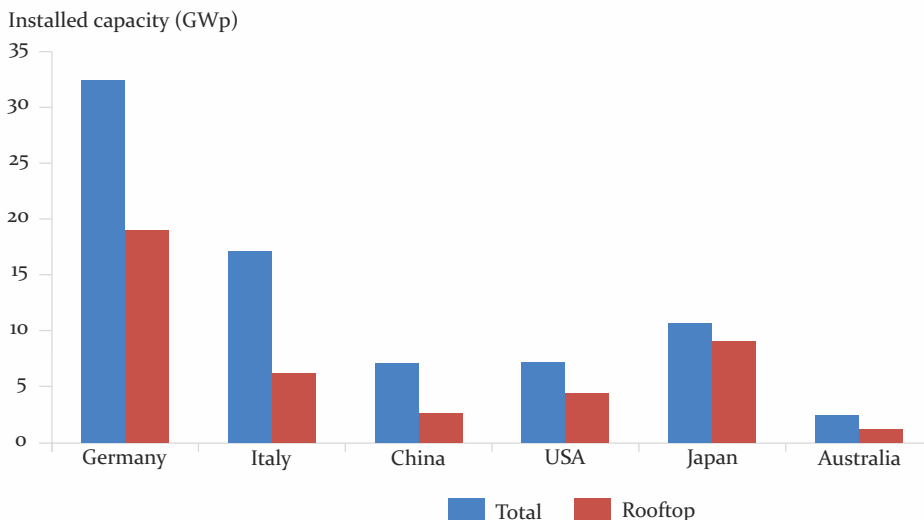
Another key area of focus is the depth of the debt market for RE projects. Currently traditional project financing sources are struggling with legacy balance-sheet issues. As a result there are select sets of lending institutions that are actively lending to RE projects. Due to a lack of depth, RE projects are often unable to secure the most optimum financing.

As may be noted the GoI target can be achieved provided there is concerted action from all market participants across policy makers, project owners, investors, lenders as well as power off-takers. Without a firm action plan, these targets would remain only an aspiration.

The Silver Lining

Having said that one market segment offers a ready solution - Rooftop solar. Rooftop solar is naturally insulated against market related risks (including land acquisition, DISCOM health and evacuation capacity). In fact, despite relatively higher capital costs, rooftop solar systems are a cheaper source of power vis-à-vis grid power for Commercial & Industrial users making it an economically viable alternative for these power consumers and also makes the unused rooftop spaces productive.

Rooftop solar's ability to drive capacity expansion is most evident in Germany. Germany is the leader in solar PV installation with 1.5 million photovoltaic systems (majority installation on residential and commercial rooftops) and 78 percent of its energy demand coming from renewable energy and this despite its sunniest regions receiving only 1,600-1,800 sunny hours per year.



Data as of 2014

As a comparison, India receives on an average 3,500-4,000 sunny hours per year. According to a market study by TERI, the estimated realistic market potential for rooftop solar PV in urban settlements of India is about 124 GW. This is significantly higher than GoI's targets of 40 GW. Considering these estimates the annual market for rooftop / off-grid is

expected to reach anywhere between 5-7 GW.

Although the economic imperative is in place, the government needs to sustain the focus on rooftop solar and ensure it draws up a long term strategy outlining and implementing regulations (compulsory utilisation of rooftop space) and incentives

(net metering and feed-in tariff etc.) for distributed (rooftop) solar.

With increasing focus on efficient operations of the power market, promoting rooftop solar may well be the key to India realizing its solar power potential and emerge as the largest rooftop solar market in the world. ■

5

Global Insights



Solutions for small and medium-sized enterprises' difficulties in accessing finance - Asian Experiences

Small and medium-sized enterprises (SMEs) account for over 96 percent of all Asian businesses and provide two out of the three private sector jobs and on an average around 42 percent of the GDP or manufacturing value added. SMEs being the backbone of the Asian economy, they should be provided with all the support to ensure their smooth functioning and enhancing economic growth in the countries. Limited access to bank credit has emerged as a structural problem in the region as per a survey carried out by the Asian Development Bank. It also reveals a declining trend in bank lending to SMEs since the 2008-09 global financial crisis. There are added concerns of possible negative effect on bank's lending to SMEs as countries (PRC, India, Indonesia and Republic of Korea) introduce Basel III norms.

ADB in its paper, '**Solutions for small and medium-sized enterprises' difficulties in accessing finance - Asian Experiences**', highlights the difficulties SMEs face in accessing finance and provides remedies for mitigating them. The paper also provides operational examples from developed Asian economies such as Japan, The Republic of Korea,

and developing Asian economies such as Thailand with a view to them being implemented in the rest of Asia.

SMEs' Difficulties in Accessing finance

Banks which are the main source of financing in Asian economies (70 percent of the Indian, 80 percent of the Chinese, and 90 percent of Malaysian financial systems are bank loans) have been cautious about lending to SMEs as they find it difficult to evaluate SMEs in the absence of a solid accounting system. This has caused SMEs in Asia to borrow money at higher rates of interest or by offering costly collateral. ADB in the note adds that start-ups particularly find difficulty in raising money from banks due to strict Basel capital requirements.

Information asymmetry is one of the major hindrances/ challenges for SMEs looking to access cheap finance which is further aggravated by the lack of information infrastructure. There is a need to develop a comprehensive information infrastructure for SMEs, more so with the introduction of Basel Capital Accord which has stringent norms.

The paper mentions that Bank

of Japan conducts a quarterly survey, Tankan, with the intention of providing an accurate picture of the business trends in Japan, and comparison of access to finance in small and medium sized enterprises with that of large enterprises is one of the outputs of the survey. ADB in the paper suggests that other Asian central banks should also carry out similar surveys on a periodic basis to provide an accurate picture of access to finance for SMEs.

Remedies for Tackling SMEs' Difficulties in Accessing Finance

Diversifying channels of financing, development of SME credit risk databases, Credit Bureaus and SME credit rating are some remedies that have worked in some Asian countries for tackling the SME problem of accessing finance and ADB suggests expanding the same to other Asian countries.

- **Diversifying Channels of Financing**

ADB in the paper mentions about three methods for easing SME financing: development of credit guarantee schemes by governments, establishing specialized banks for SMEs

and introducing community-based financing schemes.

1. Development of Credit Guarantee Schemes by Governments

Credit guarantee scheme (CGS) has been used for decades in various forms across countries to aid fund flows into targeted sectors and groups that have

difficulties in raising funds. Through these schemes, an enterprise can avail funds beyond its own collateral limits, however, there are associated costs, which are charged through fees and/or subsidized by the government or by a third-party institution. CGS consists of at least 3 parties; borrower, lender and

guarantor, where borrower is often an SME or micro-enterprise seeking debt capital and the guarantor (Credit Guarantee Corporation) usually is the government or trade association. In the event of a SME defaulting, the Credit Guarantee Corporation covers a certain percentage of the lenders' losses.

Credit Guarantee Schemes Employed by Countries

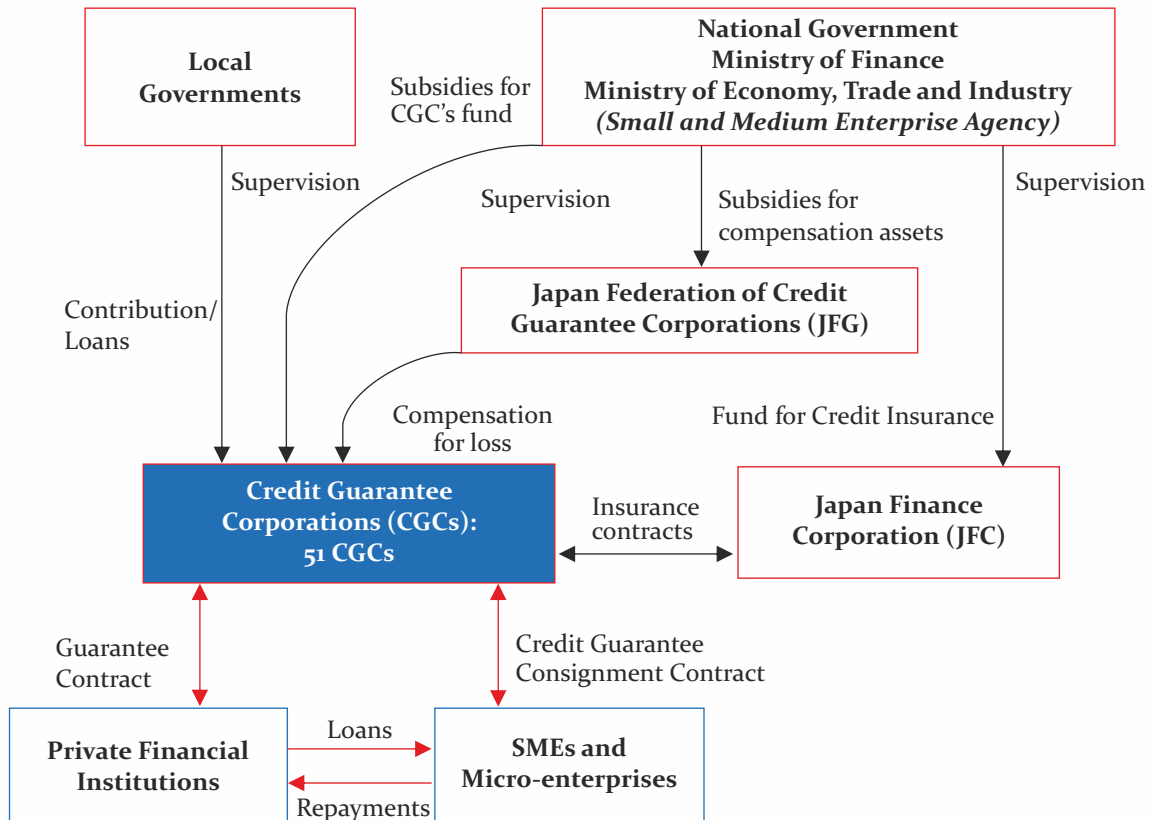
Country	Details
India	In 2000, India launched the Credit Guarantee Fund Scheme for Micro and Small Enterprises as a partial guarantee scheme; it provides cover up to 75 percent of the amount in the event of default of the credit facility extended.
Indonesia	Indonesia's People's Business Credit (Kredit Usaha Rakyat, or KUR launched in 2007 guarantees 70-80 percent of the credit facility extended in the event of a default.
Kazakhstan	Kazakhstan's Damu Entrepreneurship Development Fund is a partial guarantee scheme which provides cover upto 70 percent (up to 85 percent for first time entrepreneurs) of the credit extended.
The Republic of Korea	Korea Credit Guarantee Fund (KODIT) credit guarantee scheme provides guarantee (70-5 percent) SME loans to cover the default risk of the borrowers; and Korea Technology Finance Corporation (KOTEC) was founded to enhance technological competitiveness of SMEs and provides guarantee cover of over 80 percent to companies applying or developing new technology.
Philippines	Small Business Guarantee and Finance Corporation was formed to function as a financing champion to SMEs and covers guarantees, wholesale lending (for SMEs and microfinance), and retail SME lending. The Credit Surety Fund Program (CSF) is a credit guarantee program initiated by the Bangko Sentral ng Pilipinas to aid MSMEs access credit.
Thailand	Thai Credit Guarantee Corporate (TCG) introduced the Portfolio guarantee scheme in 2009 to stimulate bank loans for SMEs.

ADB in the report states that 36.6 percent of the SMEs in Japan are guaranteed by CGSs and the same guarantee coverage

ratio (80 percent) is provided to all banks which are lending to SMEs. It adds that the optimal situation would be to

differentiate banks based on their creditworthiness and the rate should vary based on economic conditions.

Credit Guarantee Scheme (Japan)



Source: Japan Federation of Credit Guarantee Corporations (JFG 2014).

- **Specialized Banks for SME Financing (SME Bank)**

Shinkin Banks in Japan and Industrial Bank of Korea are two examples of specialised banks discussed by ADB in the paper. Shinkin banks are deposit taking co-operative banks that specialise in financing SMEs that operate within the same region as them. While they can accept deposits from anyone, they have to restrict the share of

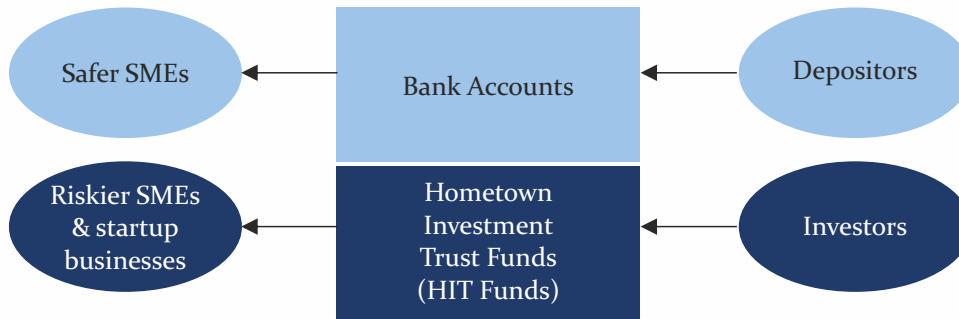
loans to non-member SMEs to 20 percent. They have played a significant role in the development of SMEs and have provided 14.7 percent of total loans to SMEs in Japan.

The Industrial Bank of Korea was established in 1961 and as of December 2015, SME loan balance accounted for 77.3 percent of the bank's total loan balance and has share of 22.34 percent of SME loan balance market.

- **Development of Hometown Investment Trust (HIT) Funds for Risky SMEs**

ADB in the paper suggests creation of community based funds (or hometown investment trust funds) to promote lending to start-up companies and riskier borrowers, such as SMEs. Here the associated risks would be borne by investors as the trust funds would not be guaranteed by a deposit insurance corporation.

Utilizing HIT Funds for Investing in Riskier SMEs and Startups



HIT fund: Hometown investment trust funds.

Source: Yoshino and Taghizadeh-Hesary (2014a).

The paper cites the case of Japan, where the Financial Services Agency (FSA) monitors and supervises the activities of the micro-investment Internet companies that provide the platform for introduction and investment matchmaking of HIT funds. Project owners can access these internet companies, which undertake some sort of due diligence about the background of the project owner, quality of products and expected returns, and carry out the project assessment.

There are three main advantages of a HIT fund: first, it contributes to financial market stability by lowering information asymmetry; second, it is a stable source of risk capital; and third, it contributes to economic recovery by connecting firms and households with SMEs that are worthy of their support. It also

creates employment opportunities at the SMEs as well as for the pool of retirees from financial institutions who can help assess the projects.

In terms of functioning, HITs are different from conventional crowd funding or venture capital; the first differentiator being the 'warm feeling' extended to borrowers, as in case of HITs, investors sympathize with the companies/project owners and their efforts, and they do not solely seek profits; second, the investors are eager to receive products or services that the project generates, e.g. electricity, agricultural products, fish, etc. and third is the "transparency" that exists in HIT funds.

- **Development of SME Credit Risk Databases, Credit Bureaus, and SME Credit Rating**

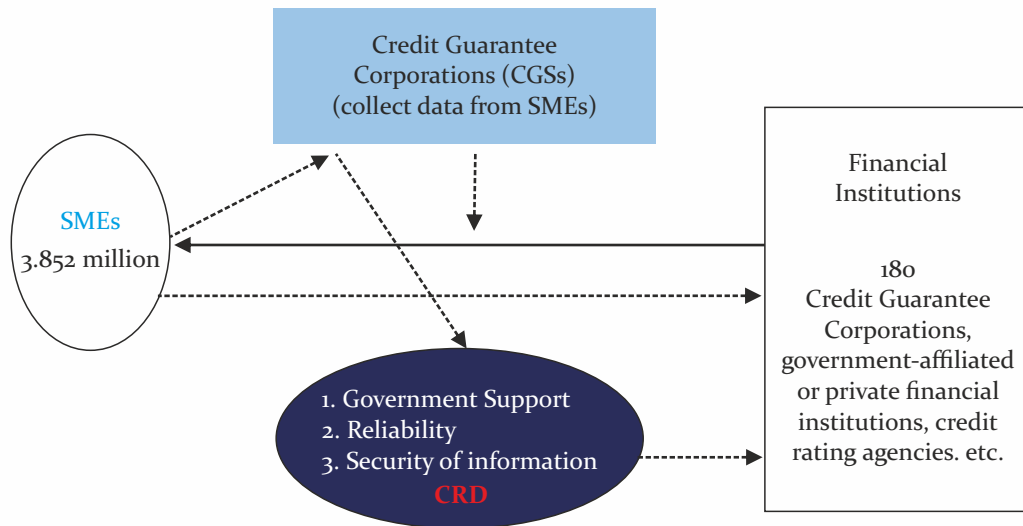
Taking the example of Japan's

Credit Risk Database (CRD), the ADB paper shows how SMEs can be rated based on financial and non-financial data (using statistical analysis), which are generally difficult to assess.

Credit Risk Database (CRD) (Japanese Experience)

Japan's CRD association was established in 2001 to facilitate fundraising for SMEs and improve their operational efficiency, and it receives active support from both private and public sectors. The CRD which covers over 500,000 incorporated and sole-proprietor SMEs is used by credit guarantee corporations and private financial institutions when they create a joint guarantee scheme.

Credit Risk Database of Small and Medium-Sized Enterprises



CRD = Credit Risk Database; SME = small and medium-sized enterprise.

Note: Numbers of financial institutions are as of 1 April 2016. Number of SMEs shows all SMEs in Japan at the end of FY2014.

Source: Authors, CRD website,⁹ source of number of SMEs: (JFG, 2015).

The paper adds that CRD-member financial institutions use scoring models to evaluate creditworthiness, check validity of internal rating systems, and align loan pricing with credit risk. In addition, the CRD association provides consulting services to support management of SMEs. ADB states that if such systems to accumulate and analyse credit risk data, which could aid in accurate credit risk assessment of SMEs, could be established in other parts of Asia, it would not only enable SMEs raise funds from the banking sector, but also give them access to the debt market by securitizing their claims.

National Credit Bureau (Thai experience)

The paper then cites the case of Thailand's National Credit

Bureau (NCB), which collects and processes credit information of clients of financial institutions. Initially, the government supported the establishment of two credit bureaus for collecting and assembling credit information and payment history of the clients of financial institutions; and for serving credit inquiries to financial institutions with clients' consent. Later, in 2005, the two credit bureaus merged and became the National Credit Bureau.

SME Credit Rating

The third remedy the paper discusses for addressing the SME financing concerns is development of SME credit rating and the development of CRD is a step towards creating the infrastructure for improved

credit rating of SMEs. ADB in the paper discusses the comprehensive credit rating method (developed by Yoshino and Taghizadeh-Hesary) which employs statistical analysis techniques (principal component analysis and cluster analysis) on various financial variables/ratios of a sample group of SMEs. Based on the analysis of the financial ratios (which covers all characteristics of SMEs including activity, profitability, coverage, leverage, and liquidity), the SMEs are classified into three groups: financially healthy SMEs, medium-risk SMEs, and financially risky SMEs.

As per the analysis, for SMEs in the financially healthy group, banks can lend them more money by charging low rates of

interest with no required collateral, while credit guarantee corporations can charge them lower premiums when guaranteeing the allocated credit. While for SMEs in the high-risk group, banks can charge higher rates of interest with greater collateral requirements. If an SME's performance improves and it moves into a lower-risk group, banks can change their interest rates from high to low, accordingly.

ADB in the paper then discusses about a similar SME data analysis done by using NCB data for Thai SMEs, where a credit rating scheme for SMEs was developed by using data on lending by banks to SMEs when access to other financial and non-financial ratios was not possible. They employed statistical techniques on five variables from a sample of Thai SMEs from the NCB database and classified them into subgroups based on their financial health.

Conclusion

Some of the measures taken by Asian countries to address the concerns associated with information asymmetry associated with SMEs which have been discussed in the paper, can be employed by banks and financial institutions in other Asian economies to tide over the constraints limiting SMEs access to finance. These schemes have been fairly successful in the countries they have been employed. ■

The full paper can be accessed at:

<https://www.adb.org/publications/solutions-smes-difficulties-accessing-finance-asian-experiences>

Using Commodities as Collateral for Finance (Commodity-Backed Finance)

Access to credit is a key issue for the agriculture sector in emerging markets and lack of acceptable collateral is often cited as the key constraint for the same. In many economies, use of farmland as collateral is hindered by absence of land titles or by inefficient land markets, while lack of mechanisation and absence of legal and regulatory framework or limited secondary markets for equipment hinders mortgaging or leasing out of equipment. This has led many countries including Latin America, South Asia and East Africa to explore use of agricultural commodities as collateral and they have developed credit products for the same. Agricultural commodity has the advantage of having an established value as well as a market that provides scope for quick liquidation of the collateral in the event of a loan default. The World Bank studies this segment in its policy note, *'Using Commodities as Collateral for Finance (Commodity-Backed Finance)'* which discusses some forms of commodity-backed finance instruments, requirements for commodity-backed finance and

recommendations for developing systems for commodity-backed finance.

Use of commodities as a collateral is more common for post-harvest finance (pledge of existing inventories) as securing existing commodities is easier or less challenging than securing commodities that are yet to be produced. This allows borrowers to secure better priced credit after harvest as compared to riskier and more expensive credit pre-harvest. Post-harvest finance also proves beneficial to traders and processors by enabling them to purchase the needed commodities during harvest when their seasonal financing needs are significant. It enables producers, producer associations and producer co-operatives in two major ways: one, by strengthening their price negotiation power in the market and second, by enabling them to pay their members on time without having to wait for actual sale of the products. The World Bank note indicates that commodity backed finance could contribute significantly to food security by making agricultural credit and professional storage more accessible.

Commodity-Backed Finance Instruments using Inventories as Collateral

Warehouse receipt systems (WRS), collateral management agreements (CMA), and stock monitoring agreements (SMA) are the three main types of commodity-backed (inventories) finance instruments used widely across the world. Under the WRS, the warehouse operators (licensed and inspected third-party warehouses) issue receipts as evidence that specified commodities of stated quality and quantity have been deposited at a particular location by named depositor(s). In this system, the warehouse operator holds the stored commodity in safe custody, while the depositor can use the receipt as collateral to borrow from banks. Banks provide funding at a discount to the value of the warehouse receipt, which could range from 50 to 80 percent of the value of the crop. Storage and financing costs, price volatility, robustness of the system and trust on the warehouse operator are the reasons for the discount. This system is in place in several countries including Argentina,

Brazil, Colombia, Cote d'Ivoire, Ghana, India, Indonesia, Kenya, Malawi, Mexico, South Africa, Tanzania, and others. To enable functioning of this system, most economies have a dedicated legal and regulatory framework and a warehouse licensing and inspection authority.

CMA is a three-party agreement between the commodity owner/borrower, the collateral manager, and a bank (although in some cases a fourth party, the buyer is added). Here the collateral management company issues a certificate of deposit that the borrower can use as collateral to obtain a loan and when the goods are sold, the bank gets paid first and then authorizes the collateral manager to release the inventories to the new owner. The certificate of deposit can be registered at a collateral registry for greater security. CMAs can be used in countries that do not have a formal WRS, but they can also coexist with a WRS. Trust is a key issue/concern in CMAs; trust between the three parties and particularly on the specific collateral management company, the note states. The collateral manager is generally a professional firm usually comparatively large and well-capitalized and skilled to manage inventories and enjoys the trust of the bank. Some banks have their own fully-owned subsidiary collateral management company so they can exert better control

over its operations (e.g., Banorte in Mexico).

SMA as the name suggests, is an agreement in which an inspection company periodically monitors inventory levels (and sometimes the quality) of commodities stored or shipped to a location, with the aim of ensuring traceability. SMAs are often used by traders and processors who hold inventories in their own warehouses to obtain seasonal credit for purchasing crop after harvest, while banks use the services of a stock monitoring or inspection company (periodic monitoring e.g., weekly or even daily) when the inventories are stored/held on the owners premises.

The note mentions that for banks, SMA is a less secure form of collateral as compared to WRS and CMA. Generally banks tend to arrange SMAs with clients they have other financial dealings with and whom they trust. Citing instances/cases, the note states that the degree of control over monitoring varies; in Ethiopia, banks hold the key to the warehouse, and a bank employee is on standby to open the warehouse as needed, even though that warehouse belongs to the trader or cooperative; in Vietnam, banks post employees during working hours to supervise the warehouse of a processor or trader whose inventories they finance; and in Mexico, stock monitoring is done by employees of a company

hired by the bank to inspect warehouses randomly at least once a week. It is often processors who prefer SMAs as they need the convenience of accessing inventories on their premises to continue with their production.

The policy note states that CMAs and SMAs tend to rely on the usual contractual laws of the country and do not need enactment of specific legislation, while WRS has specific laws and regulations. Another differential point is that while CMAs and SMAs are often accessible only to more established players (already having a track records with banks) and tend to be concentrated in the country's main city or port; a WRS can in theory offer access to commodity-backed financing to a wider range of market players, such as producers or smaller traders and processors.

Other Financing Agreements using Future Production as a Pledge

Crop receipts and value chain finance in contract farming are the other types of commodity financing agreements which use future (pre-harvest) production as pledge.

Crop Receipts is a form of pre-harvest finance instrument that permits/allows farmers to access credit by pledging a future

crop. While it has a number of benefits, there are also numerous pre-conditions such as crop insurance, price hedging mechanism etc. as banks need to manage a lot of risks in order to become comfortable in lending against such future crop pledges. The note cites CPR (*Cedula Producto Rural*) system in Brazil as an example of this system, where most of the beneficiaries of crop receipts tend to be medium and larger commercial farmers. There have been some efforts to pilot crop receipts in certain large markets in Eastern Europe and Central Asia; however crop receipts are not common outside Brazil.

Value chain finance in contract farming is another form of pre-harvest finance which relies on new technologies in logistics, communication, and product traceability, to get large buyers in contact with smallholder producers. It is used within tight value chains and large buyer contracts (formally or informally) to purchase from farmers and provide them with technical assistance, inputs, crop monitoring, price certainty, etc. In such circumstances, banks may be willing to finance farmers using such contracts as collateral. Side selling is the biggest risk in value chain financing, in which the farmers deliver their crops to a buyer other than the one which provided pre-harvest finance, the note states. These risks can be reduced mainly through good

monitoring of farmers by the buyers and having a well organised and tight value chain (including central processing, premiums for quality, addressing perishability, links to high-value markets, etc.). Some relevant examples of well organised and tight value chains are dairy, poultry, and sugar finance in India, cotton finance in West Africa, and fruit and vegetable finance in South Africa, among many others. They can also be found in aquaculture and high-value cash crops.

Another form of value chain finance is **Receivable finance**, in which farmers obtain finance from banks with an invoice from the buyer issued after they deliver their crop that promises payment at a later date (e.g. In 30, 60 or 90 days). The main risk for receivable finance from the bank's perspective is that the buyer may default on his payments. Several countries including Chile, China, and Mexico have dedicated receivable finance platforms that enable various financial institutions to finance invoices and receivables.

Requirements for Commodity-Backed Finance

Commodity-backed finance usually needs the following:

1. Legal and regulatory framework
2. Institutional support to an agency in charge of licensing and inspecting warehouses.

3. Support to storage infrastructure and warehousing practices. Support consists in providing capacity building to warehouse or collateral managers to improve their technical skills. In some countries, governments provide financing through commercial banks for the upgrade, rehabilitation, or even construction of warehouses that cater to smallholder farmers (e.g., Mexico, Mozambique, and Sri Lanka).
4. Better awareness and capacity in the use of commodities as collateral.

Recommendations for Developing Systems of Commodity-Backed Finance

World Bank in its note suggests some general recommendations for countries that are in early stages of developing systems to use commodities as collateral. The specifics on the exact content and implementation arrangements would depend on the individual country and market.

1. Scoping study to assess existing practices, policy framework, and incentives for market participants to use inventories as collateral, as well as the appetite of stakeholders, notably financial institutions.
2. Assessment of the conditions, ownership, and management of storage facilities, particularly focusing on public third-party warehouses.

3. Creating/raising awareness, concept promotion, and advocacy among the various stakeholders (such as banks, bank regulators, the government, producer organizations, and agribusinesses).
4. Development and dissemination of industry standards for warehouses, collateral management companies, stock monitoring companies, inspection and licensing procedures, etc.
5. Promotion of the use of professional collateral management services and stock monitoring services; strengthening of the industry association for collateral management and stock monitoring companies; and provision of dedicated training (e.g., through an academy) and licensing/certification for warehouse operators and stock monitoring staff to ensure high professional standards and procedures that would instil trust in the system.
6. Provision of training for banks and bank regulators to explain the use of commodities as collateral for lending and design of appropriate financial products and procedures; identification of business development leads among value chains through commissioning of market studies to show opportunities for lending.
7. Exploration of options for introducing electronic warehouse receipts, certificates of deposit, and receivables/invoices along with associated platforms.
8. Support to legal and regulatory reforms if and when needed.
9. Support to the warehouse licensing and supervision body, if applicable. ■

The full paper can be accessed at:

<http://documents.worldbank.org/curated/en/619781498850171182/pdf/P162945-06-30-2017-1498850170464.pdf>

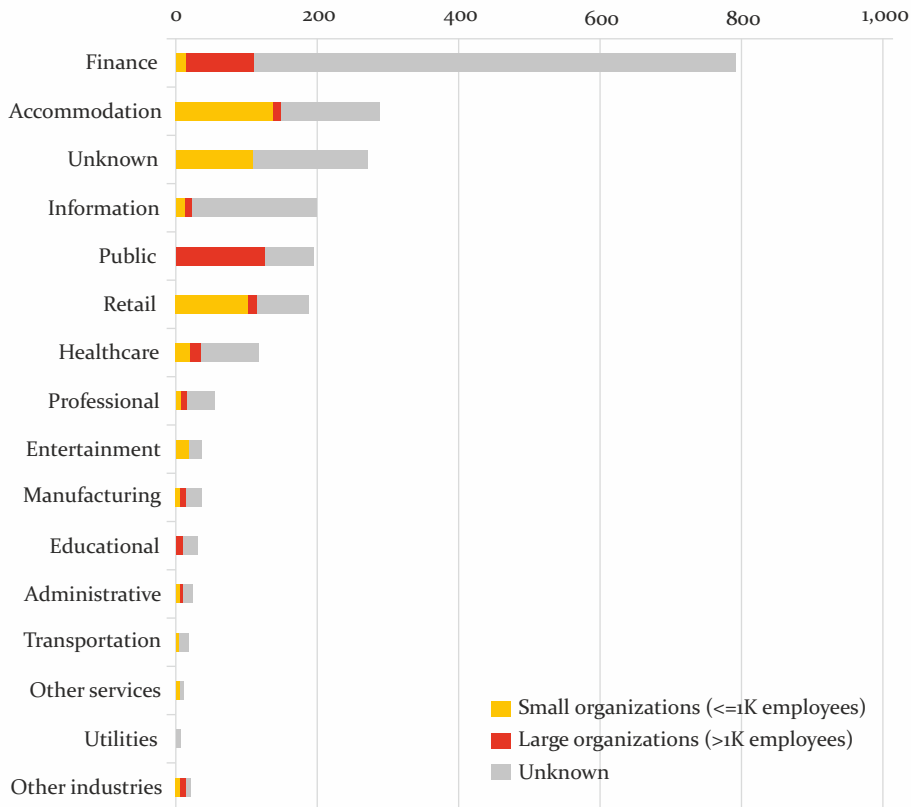
Cyber Risk, Market Failures and Financial Stability

Cyber attacks against financial institutions and financial market infrastructure are becoming more common and more sophisticated, with the financial services sector by far being the largest target sector with confirmed data losses. Risk

assessment of cyber attacks is very complicated given its dynamic nature and constant evolution, and the fact that the internet is largely anonymous further exacerbates the problem. In addition, there are also structural difficulties in estimating the cost and

likelihood of cyber-attack events as enterprises generally do not reveal the exact scale and scope of cyber attack. Over time, risk awareness has increased and firms are actively investing in cyber security and to some extent are transferring and pooling their risks through cyber liability insurance policies.

Incidents with Confirmed Data Loss per Industry(2015)



Source: Verizon. IMF staff illustration.

IMF paper titled '**Cyber Risk, Market Failures, and Financial Stability**' discusses why the private market can fail to provide the socially optimal level of cyber security and explores how systemic cyber risk interacts with other financial stability risks. Further, the paper examines the current regulatory framework and supervisory approaches, and identifies information asymmetries and other inefficiencies that hamper the detection and management of systemic cyber risk. The paper

further discusses the policy measures that can increase the resilience of the financial system to systemic cyber risk.

Cyber Risk Aggregation and Intertemporal Effects

The paper highlights that for long, firms including financial services institutions viewed cyber risk mainly as an internal IT security problem; however over time, this has evolved to include operational risks to the firms' immediate business

partners including counter parties and third parties to which certain cyber security activities have been outsourced. In line with this, internal risk management processes and controls have extended to cover firms and customers that are immediately related to the firm's business.

The different levels of risk aggregation in the cyber domain has been captured in the table, where they have been ranked by the degree of control an individual institution may have over these sources of risk.

Cyber Risk Aggregation Levels

	Description	Examples
Internal communication and information technology (IT)	Organization's internal IT systems	Hardware, software, servers, staff, data.
Counterparties and business partners	Risks due to dependence on other parties, or direct interconnections.	Relationship between financial institutions (e.g., through interbank lending); joint ventures; associations.
Outsourcing and contracting	Contractual relationships with external service providers, inducing concentration risk.	IT and cloud providers; outsourced legal, HR, or consulting activities
Technological externalities	Disruption from or to new technologies which are not well understood.	Internet of Things; automatization of services; artificial intelligence.
Upstream infrastructure	Disruptions to basic infrastructure that the financial system relies on.	Electricity; telecommunication; internet access.
Feedback loops	Interrelationships between technologies and industries may give rise to cascading effects.	Unknown relationships suddenly become visible; dynamic range of failures.
External shocks	Risks arising outside the system and control of institutions, affecting large parts of cyberspace.	International conflicts; viruses, pandemics. Nearly impossible to predict.

The industry has attempted to control risk arising from external dimensions (technological externalities and upstream infrastructure) through regulations and standards. At the same time, risks arising from unanticipated external shocks require some form of government intervention

and cannot be managed either by the private market or through ex-ante regulations.

Cost estimation of cyber events

There is significant uncertainty with respect to potential financial impact of cyber events, IMF report states. While there

are both direct and indirect costs involved with cyber attacks, more than 90 percent of the total costs are attributable to indirect factors. These costs manifest over time (could be several years) in four phases: Prevention, Reaction, Impact management and Business recovery & remediation, which further complicates cost estimation.

Cost of Cyber Events

Phase	Description	Examples
Prevention (continuously)	<ul style="list-style-type: none"> • Cybersecurity costs (preventative safeguarding of systems and data) • Regulatory compliance cost 	<ul style="list-style-type: none"> • Opportunity cost
Reaction (immediate)	<ul style="list-style-type: none"> • Technical investigation • Stop intrusion and initiate recovery of systems • Customer notification 	<ul style="list-style-type: none"> • Cost of operational disruption • Opportunity costs • Loss in revenue • Loss in equity value
Impact management (Short-term)	<ul style="list-style-type: none"> • Adjustment to infrastructure and processes • System and data recovery • Damage reduction • Post-breach customer protection • Initiation of cyber audit • Attorney and litigation cost 	<ul style="list-style-type: none"> • Opportunity costs • Loss in revenue • Loss in equity value • Customer loss (turnover)
Business recovery and remediation (medium to long term)		<ul style="list-style-type: none"> • Increased funding costs • Lower future demand for breached firm's services • Redesign of business processes and systems • Rebuilding relationships, reputation and brand value • Investment in better security systems and preparedness capabilities

Citing the Verizon (2017) survey, IMF paper states that in the US, revenue losses and long terms cost of losing customers together account for three quarters of the estimated total cyber event cost. Citing a Cisco (2017) survey, it states that around 60 percent of attacked firms report revenue and customer losses of up to 20 percent, and close to 10 percent report losses exceeding 80 percent of revenue. Opportunity costs show a similar pattern.

Impact Estimates for Cyber-Attacks

There is no generally accepted framework that organisations can use to estimate and report the impact of cyber events, IMF paper states. Impact estimation is affected by both non-availability and non-usability of data. Many cyber attacks are reported late or firms withhold information about cyber events fearing adverse effects on the firms' reputation. Also, historic data is likely to be a poor indicator of future vulnerabilities or potential losses as cyber risk is evolving at a fast pace, the paper adds. Available global cyber loss estimates exhibit a wide range extending from US\$ 250 billion to US\$ 1 trillion, the paper mentions. While the vulnerabilities to cyber attacks and potential losses for a country increases with greater inter-connectivity and digitisation, the net effect is still likely to be positive, it adds.

Cyber Risk Management

IMF paper suggests three options for risk management: Risk reduction, Risk avoidance and Risk transfer.

Risk Reduction: Risk can be reduced to a level that is consistent with the firm's preferred risk profile and could involve the implementation of a range of security measures that can be physical (fences, locks), digital (security software like fire walls and data encryption), or human control measures (security training; role-based access rules). Risk mitigation activities can also include preparedness and business continuity planning. These security measures are costly and often affect the systems usability and performance.

Risk avoidance: It can involve redesigning the way activities are carried out and may mean implementing, adapting or changing products or processes. However, as it is a dynamic process with new technologies and processes, this could create new vulnerabilities.

Risk transfer: It can involve buying cyber liability insurance or transferring the operational risk to a third-party service provider.

Market Failures

Markets can fail to provide a

socially optimal level of security due to information asymmetries, misaligned incentives, externalities, coordination failures and risk concentration, IMF paper cautions. Further, there is still debate as to which approach works best in preventing the market from failing, ex-ante regulation and ex-post liability.

Information Asymmetries: Information asymmetries in cyber risk are driven by a range of factors and can induce both moral hazard and adverse selection problems, which in turn can undermine the functioning of the system. Cyber risk being a global risk, IMF paper states that international policy coordination is needed for facilitating coordination, supporting information sharing, and designing coordinated policies.

Strategic Complementarities, Coordination Failure, and Externalities: IMF paper states that, externalities mainly arise when one institution's behaviour's side effects affect the net risk borne by others. Investment in cyber security creates positive externalities within the same network (firms and organisations in the network), which is related to strategic complementarities. Software flaws also create common exposure to cyber security risk and network externalities arise when a

community of software users operate in the same large network, or use the same software or technologies. If positive externalities persist, then firms have incentives to free ride by under-investing in their own cyber security, the paper highlights.

Economies of Scale, Barriers to Entry and Risk Concentration

The market for cyber security services is dominated by a relatively small number of companies providing similar or indistinguishable products or services to an entire industry. In part, this concentration can act as a barrier to entry for new companies, even if they have a superior technology (but an unproven track record). Also, such oligopolies among providers can create correlated risks and common exposures for financial institutions, the paper states. It adds that there would be systemic effects across the entire financial industry in case the protection fails. Insurance provision may also lead to a build-up of concentration risk.

IMF cites the example of US, where the largest 3 insurance writers cover 40 percent of the market and top 15 insurers serve 83 percent of the market. Since it is a specialized industry with a relatively small number of providers, there is a risk of the insurance industry itself being at a financial stability risk in the

event of a widespread and coordinated cyber event. The paper highlights the fact that direct premiums for cyber insurance rose by one third year-on-year to US\$ 1.3 billion and is estimated to increase to US\$ 20 billion by 2020. Direct loss ratio of cyber insurance policies is around 50 percent, though it has recently seen a decrease. So far, the insurance industry has managed to fully cover incoming claims and make a profit-in part by building in sizable cushions in its premiums to account for these risks.

Interactions of Cyber-Related Market Failures and Financial Stability

Risk management in financial institutions has been focused on idiosyncratic risk, which has meant insufficient attention in countering systemic cyber risks arising from the dependence on complex infrastructure or disruptions to critical information. Systemic risk arises where risk exposures are common or correlated across financial institutions. The main sources of systemic cyber risk to financial institutions are common exposures to access vulnerabilities, risk concentration, risk correlations, or contagion effects (including through reputational channels).

As the connections between cyberspace and real economy intensify-amid a widely expected

further increase in interdependency, inter connectivity and complexity-the probability for an external shock to transfer to the financial system and become a systemic event is likely to increase even if steps are taken to mitigate these risks, IMF paper observes.

Financial Regulation of Cyber Risk

Cyber Risk as an Operational Risk

Regulation of the financial services sector aims to promote long term economic growth and minimize the costs and negative externalities from financial instability. To remain effective, regulation may need to adapt to new technological developments and risk factors such as cyber risk, the IMF paper recommends. Given the pervasive role of technology in finance, regulators have established minimum standards for management of IT-related risks as a subset of operational risk. The standards have traditionally focussed on risk management including those that relate to handling operational disasters (i.e. recovery and business continuity planning). The paper suggests that firms should adopt an integrated and risk based approach to the management of IT-related risks which are identified, managed, and reported through the risk management function.

Risk management standards for IT-related risks are established by international standards-setting bodies (SSBs) and applied on a sectoral basis. For globally active financial services firms, SSBs have established a regulatory framework that sets minimum standards to encourage better risk management and allocate capital for unexpected losses, including risks from information technology. The existing framework for banks consists of a variety of guidance elements such as: Basel Core Principles, the Principles for the Sound management of Operational Risk, buttressed by the Basel Capital Accord and various guidance papers dedicated to the topic of IT security and information management. Given the high reliance on technology in the securities and derivatives markets, explicit standards for cyber resilience have been implemented.

Risk management standards for general IT-related risks are mature but cyber risks pose new challenges as they are different to traditional IT-related risks. The changing distribution channels and nature of cyber-related incidents require the regulations and supervisory approach to adapt to a rapidly changing risk profile, recommends the IMF paper.

The G7 has taken the first step toward standardized requirements for cyber risk and has developed a set of non-binding, high-level

fundamental elements designed for financial sector private and public entities. The elements include Cybersecurity Strategy and Framework; Governance; Risk and Control Assessment; Monitoring; Response; Recovery and Information Sharing. Regulators and financial institutions can customise for themselves based on their own operational and threat landscape and legal and regulatory requirements, while public authorities within and across jurisdictions can use the elements to guide their public policy, regulatory, and supervisory efforts.

A reliable cyber risk reporting system is crucial and National authorities and regulations need to provide the right incentives to ensure cyber events are reported in a timely and accurate way, the paper suggests. The paper further advocates that due to the criminal nature of cyber-attacks, regulators will need to coordinate with relevant law enforcement agencies to ensure timely response, both from the legal and financial institution sides. Ideally there would be formal arrangements for a two-way exchange of information between law enforcement agencies and regulators, it adds. Supervisors should have the capacity and authority/flexibility to adapt their approach to cyber risk supervision in response to the fast-evolving nature of threats.

Measures to Strengthen Resilience to Cyber Risk

Reducing Access Vulnerabilities while Boosting Resilience:

IMF paper highlights some basic measures which firms can take to address idiosyncratic cyber risk. These include application of white listing (only run pre-approved software on firms' computers); use of standardized secure system configurations (since complex configurations are more difficult to defend); having processes in place to patch system and application software within a short period; and limiting the number of individuals with administrator privileges. It adds that increased resiliency to cyber threats and attacks require education efforts to change institutions' mindsets. The financial services industry needs to take particularly strong measures to defend internal systems and prevent data breaches. Importantly, the relationships with counter parties, third-party security services, and upstream infrastructure should be controlled through contracts and agreements and integrated into broader risk management processes.

Lessening Information Asymmetries

Data collection and sharing,

better risk modelling, and a forward-looking perspective with respect to new or emerging risks is needed, recommends the IMF paper. Scenario analysis can help institutions understand potential risks, how these may transmit, where investments need to be made, and how best to respond when systems are breached. This gives rise to a clear public role to define cyber-related terms and standards, collect information, aggregate it to preserve confidentiality, and then disclose that information. First, to ensure that the classification of cyber events is consistent across firms and countries, there is a need to develop a common terminology and identical definitions of cyber risk terms. Second, information sharing should be institutionalized among law enforcement, supervisors, regulators and the private sector. And third, to overcome the industry's concerns about

information sharing and potential reputational effects, individual firms' information must be anonymized and/or aggregated to a level that gives sufficient insights into the financial consequences of cyber-attacks and breaches while preserving confidentiality of firm-specific information. Finally, information and data should be made publicly available such that firms, supervisors, and regulators can use these sources as inputs into their risk management frameworks and models, and improve surveillance and early warning frameworks.

Designing Effective Policies

IMF in the paper states that Cybersecurity risk needs to be managed using both ex-ante regulation and ex-post liability and it is important to find the right balance of ex-ante regulation and ex-post liability

to improve resiliency without stifling innovation. In addition, regulatory architecture needs to continuously adapt and be refined to keep pace with evolving cyber risks, even if these create compliance costs for the affected institutions. Also, the risk management techniques need to be adequately incentivised.

Address Coordination Failures and Manage Systemic Cyber Risk

As cyber risk is not limited by political and geographical barriers, international policy co-ordination is needed and international organisations like the Bank for International Settlements, the Financial Stability Board, or the IMF-can play a key role for facilitating coordination, supporting information sharing, designing coordinated policies, and helping solve disputes. ■

The full paper can be accessed at

<https://www.imf.org/en/Publications/WP/Issues/2017/08/07/Cyber-Risk-MarketFailures-and-Financial-Stability-45104>



GDP grew by 5.7 percent in Q1 FY18

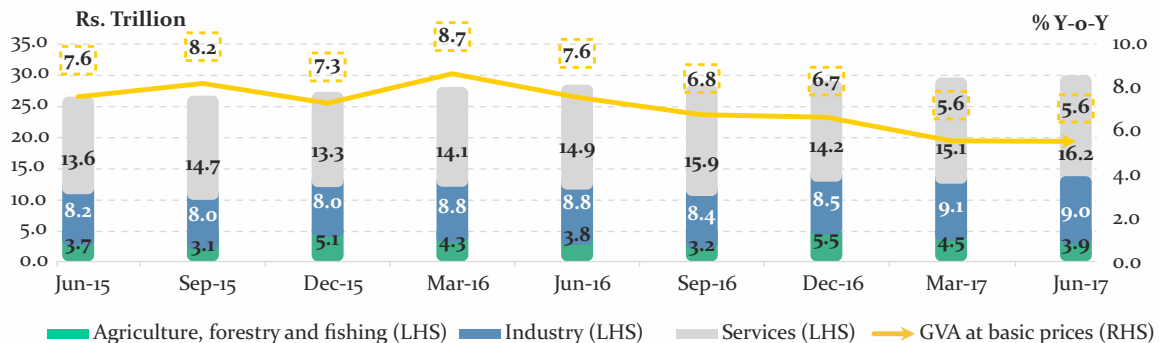
- India's GDP growth slowed to a thirteen quarter low in Q1 FY18, registering 5.7 percent growth as against 7.9 percent growth registered in Q1 FY17. Likewise, GVA at basic prices moderated sharply to grow by 5.6 percent in Q1 FY18, as compared to 7.6 percent growth noted in the corresponding period previous year.
- Growth in agriculture (and allied activities) sector was recorded at 2.3 percent in

Q1 FY18 as compared to a growth of 2.5 percent in the corresponding period previous fiscal. Industry growth during the quarter was hit hard and the sector grew by only 1.6 percent in the Q1 FY18 which was the lowest since June 2012. Services sector continued its quarterly recovery trend and recorded 8.7 percent growth in Q1 FY18.

- On the expenditure side, gross capital formation expanded by 8.5 percent in the Q1 FY18 on

the back of higher growth in valuables* (204.0 percent). Gross fixed capital formation grew by modest 1.6 percent in Q1 FY18 vis-à-vis 7.4 percent in Q1 FY17. Private consumption spending moderated and grew by 6.7 percent in Q1 FY18 vis-à-vis the first quarter of FY17. However, government consumption improved slightly and reported 17.2 percent growth in Q1 FY18 vis-à-vis 16.6 percent in Q1 FY17.

Quarterly Growth in GVA and its Components



Source: CMIE

Growth in Major Industrial Sectors (% Y-o-Y)

Quarter ending	Mining & quarrying	Manufacturing	Electricity, gas, water supply & other utility services	Construction
Jun-15	8.3	8.2	2.8	6.2
Sep-15	12.2	9.3	5.7	1.6
Dec-15	11.7	13.2	4.0	6.0
Mar-16	10.5	12.7	7.6	6.0
Jun-16	-0.9	10.7	10.3	3.1
Sep-16	-1.3	7.7	5.1	4.3
Dec-16	1.9	8.2	7.4	3.4
Mar-17	6.4	5.3	6.1	-3.7
Jun-17	-0.7	1.2	7.0	2.0

Source: CMIE

Quarterly Growth in GDP and its Components (% Y-o-Y)

Quarter ending	Jun-16	Sep-16	Dec-16	Mar-17	Jun-17
GDP @ market prices	7.9	7.5	7.0	6.1	5.7
Private Final Consumption Expenditure	8.4	7.9	11.1	7.3	6.7
Government Final Consumption Expenditure	16.6	16.5	21.0	31.9	17.2
Gross Capital Formation	6.6	2.0	1.0	-2.3	8.5
Gross Fixed Capital Formation	7.4	3.0	1.7	-2.1	1.6

Industrial sector witnessed the most disappointing growth in the latest data released by the CSO. Manufacturing, which accounts for almost two-thirds of industrial output, witnessed weak growth of 1.2 percent in Q1 FY18. This can largely be attributed to the uncertainty surrounding implementation of Goods and Services Tax which impacted industrial production in the first quarter as companies destocked.

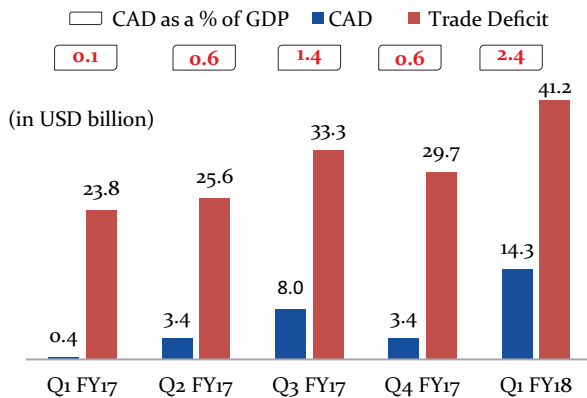
The RBI has taken the slowdown into account in its fourth bi-monthly monetary policy statement and has downwardly revised India's GVA growth to 6.7 percent for 2017-18 from 7.3 percent estimated earlier. IMF and the World Bank have also revised their growth estimates for India but have cited the recent moderation only as a blip. They allude to the ground breaking reforms

undertaken over the past one year as the forces that will drive growth, going forward. The same is also reflected in the latest Ease of Doing Business ranking, 2018 where India has leapfrogged 30 spots to rank 100 among 190 countries. FICCI is also confident that impact of major reforms (such as GST) is only transient which will wane off in the coming quarters. ■

CAD stood at 2.4 percent of GDP in Q1 FY18

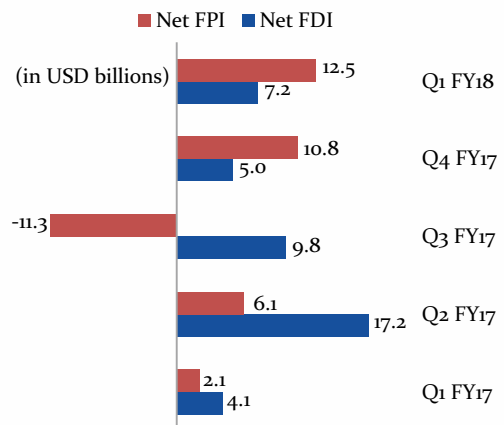
- India's Current Account Deficit rose sharply to USD 14.3 billion in Q1 FY18 as compared to USD 0.4 billion in Q1 FY17. As a proportion of GDP, CAD rose to 2.4 percent in Q1 FY18 from 0.1 percent in Q1 FY17.
- Net foreign direct investment increased by 75.6 percent in Q1 FY18 and stood at USD 7.2 billion, as compared to USD 4.1 billion in Q1 FY17. This was followed by an even sharper increase in net foreign portfolio investments, which stood at USD 12.5 billion in Q1 FY18 vis-a-vis USD 2.1 billion in Q1 FY17, a 495.2 percent YoY increase.
- As on 20th October 2017, India's foreign exchange reserves stood at USD 399.9 billion.

Snapshot of Trends in India's Current Account Balance



Source: RBI

Net FDI and FPI Inflows



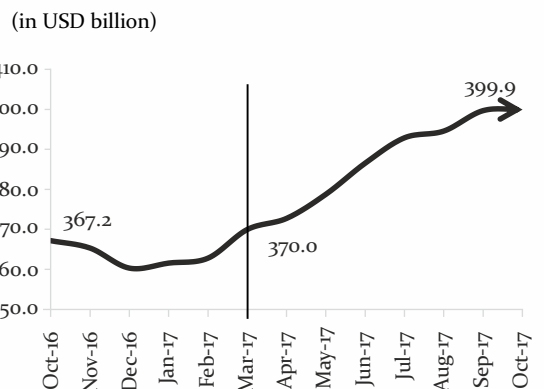
Source: CMIE

Balance of Payments-Key Indicators

USD Billion	FY17	Q1 FY18	Q1 FY17	Q2 FY17	Q3 FY17	Q4 FY17
Current account	-15.2	-14.3	-0.4	-3.4	-8.0	-3.4
-Goods	-112.4	-41.2	-23.8	-25.6	-33.3	-29.7
-Services	67.5	18.2	15.7	16.2	17.7	17.6
Net Foreign Direct Investments	35.9	7.2	4.1	17.2	9.8	5.0
Net Foreign Portfolio Investments	7.9	12.5	2.1	6.1	-11.3	10.8

Source: CMIE

Forex Reserves



Source: CMIE

CAD was high on account of the trade deficit which widened to USD 41.2 billion in Q1FY18 from USD 23.8 billion in Q1FY17, primarily due to significant increase in imports of both gold and petroleum. Even as net earnings from services improved from USD 15.7 billion to USD 18.2 billion YoY for the same period, private transfers

improved only marginally to USD 14.6 billion in Q1FY18 from USD 14.1 billion in Q1FY17 on the back of low growth in remittances.

The trade deficit for Q2FY18 has widened by 32 percent YoY to USD 32.2 billion YoY from Q2FY17. Even though exports witnessed a significant rise in this quarter, imports too rose

sharply on the back of higher oil import bills caused by rising global oil prices. It is also expected that the domestic economic activity will be resilient, leading to higher foreign investment inflows, helping to finance the deficit. The CAD is thus expected to grow wider in Q2FY18, but remain largely manageable. ■

IIP grew by 4.3 percent in August 2017

- Index of Industrial Production grew by 4.3 percent in August 2017 after witnessing flat growth of 0.9 percent in the previous month. On a cumulative basis, the index reported 2.2 percent growth during April-August 2017 vis-à-vis 6.0 percent growth reported in the corresponding period previous year.
- Both, mining and electricity reported strong growth during the month. Index for mining sector grew by 9.5 percent in August 2017 as compared to 4.5 percent growth registered in the previous month.

Electricity generation expanded by 8.3 percent in August 2017 as compared to 6.6 percent growth noted in July 2017. Manufacturing activity also witnessed a recovery in August 2017. The sector recorded five month high growth of 3.1 percent during the month.

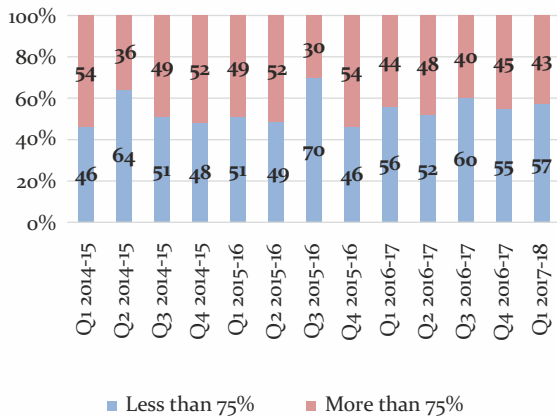
- As per use based classification of industrial production, primary goods noted 7.1 percent growth in August 2017 vis-à-vis 2.2 percent growth noted in the previous month. Infrastructure /construction goods grew by 2.5 percent in

August 2017 vis-à-vis 3.5 percent growth in July 2017. Growth in capital goods recovered and recorded 5.4 percent growth in August.

- Consumer goods segment noticed improvement and reported 4.5 percent growth in August 2017 as against 0.3 percent growth witnessed in the previous month. Consumer durables registered nine month high growth of 1.6 percent while consumer non-durables segment noted 6.9 percent growth during the month.

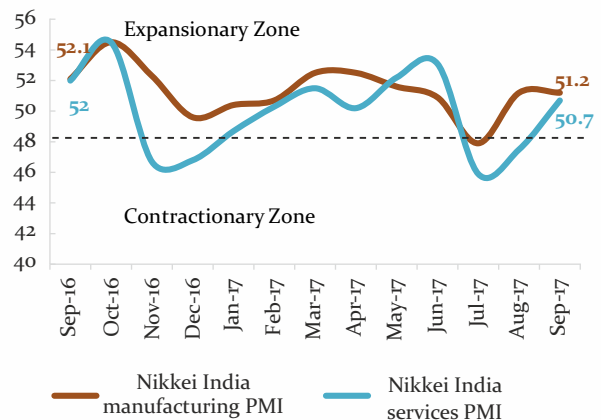
Capacity Utilization Rate FICCI's Business Confidence Survey

(Proportion of Respondents)



Source: FICCI Business Confidence Survey, Aug 2017

Purchasing Manager's Index Value



Source: CMIE

Industrial Performance-Monthly (% Y-o-Y)

% growth rate	Aug-16	May-17	Jun-17	Jul-17	Aug-17
Index of Industrial Production	4.0	2.9	-0.2	0.9	4.3
Sectoral					
Mining	-4.3	0.3	0.4	4.5	9.5
Manufacturing	5.5	2.6	-0.5	-0.3	3.1
Electricity	2.1	8.3	2.2	6.6	8.3
Use-base industry classification					
Primary goods	-1.0	3.7	-0.2	2.2	7.1
Capital goods	0.5	-1.6	-6.6	-1.3	5.4
Intermediate goods	4.6	0.7	-0.3	-1.7	-0.2
Infrastructure/ construction goods	6.5	-0.1	0.1	3.5	2.5
Consumer durables	7.3	0.6	-2.4	-3.6	1.6
Consumer non-durables	11.3	9.7	4.7	3.6	6.9

Source: CMIE

Improved growth in manufacturing along with stronger growth in mining and electricity led to a better industrial performance. As industry tides over the transition issues related to GST, the production schedules have started normalizing.

Amidst the ongoing festive season, there are indications that the demand situation in the

economy is strengthening with several lead indicators of economic activity pointing towards an improvement. Purchasing Manager's Index-one such indicator- displays improvement in both manufacturing as well as services sector in the economy. However, as per the latest Business Confidence Survey, only 43 percent of the

respondents were operating above 75 percent of installed capacity. We hope that the improvement seen across indicators lead to better capacity utilization rates, going ahead.

It is important that the revival in manufacturing is sustained for investments to pick up. As demand increases, capex cycle would restart which would also have an impact on job creation. ■

WPI eases to 2.6 percent in September 2017

- WPI based inflation cooled to 2.6 percent in September 2017 from 3.2 percent inflation reported in the previous month. Moderation in prices of primary goods, mainly food prices, eased overall inflationary pressures.
- WPI food group index inflated by 2.0 percent in September 2017 vis-à-vis 4.4 percent inflation noted in the previous month. Prices of food grains deflated by 5.9 percent in September 2017. Further, prices of fruits & vegetables increased by 9.6 percent in

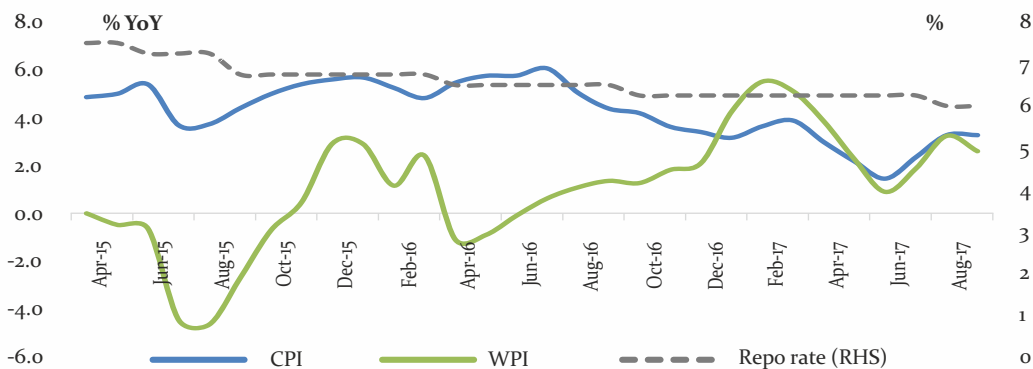
September 2017 as against 27.8 percent increase noted in the previous month. Conversely, prices of milk and eggs, meat & fish rose by 4.1 percent and 5.5 percent respectively in September 2017 vis-à-vis 3.9 percent inflation witnessed in each segment in August 2017.

- Inflation in fuel and power segment moderated slightly in September 2017. Nevertheless, it remained high at 9.0 percent. Inflation in mineral oils segment was reported at 14.8 percent while coal registered an inflation rate of

9.8 percent in September 2017. Prices of manufactured products increased for the second consecutive month in September 2017. The segment noted an inflation rate of 2.7 percent in September 2017 vis-à-vis 2.5 percent inflation noted in the previous month.

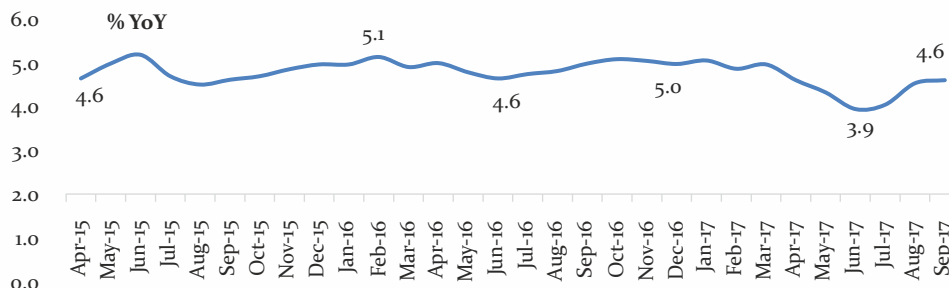
- Retail CPI inflation was reported at 3.3 percent in September 2017 which was the same as that reported in the month of August. Fuel & light, housing and clothing & footwear reported marginal increase in prices during the month.

Trend in CPI and WPI Inflation



Source: CMIE

Core CPI index (excluding food and fuel & light)



Source: CMIE

Both WPI as well as CPI based inflation have been moderating and overall inflation remains well within the RBI's indicative trajectory. In fact, even core inflation rate remains under 5 percent. CPI core inflation (excluding food and fuel & light group) was reported at 4.6 percent in September 2017

vis-à-vis 4.5 percent in the previous month. The corresponding number in September 2016 was 5.0 percent.

With inflation broadly under control, we feel that there is a need for greater balance in our monetary policy approach. Growth consideration merits equal emphasis and FICCI would

urge the Central Bank to take a more balanced view especially when the industrial sector needs support to improve its growth performance that is also vital for generating jobs.

We need an accommodative monetary policy at this juncture and hope RBI brings down the policy rate in the forthcoming bi-monthly monetary policy. ■

Key WPI Components (% change Y-o-Y)

	Sep-16	Jul-17	Aug-17	Sep-17
Primary articles	3.7	0.6	2.7	0.2
Food group	6.3	2.2	4.4	2.0
Fruits & Vegetables	-0.4	13.8	27.8	9.6
Food grains	11.7	-7.5	-7.2	-5.9
Fuel and power	-2.9	4.4	10.0	9.0
Manufactured products	1.1	2.1	2.5	2.7

Source: CMIE

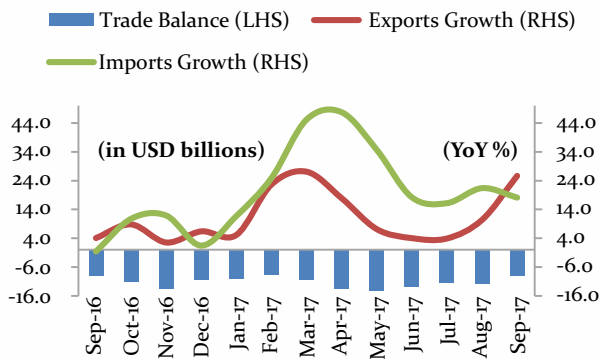
Key CPI Components (% change Y-o-Y)

	Sep-16	Jul-17	Aug-17	Sep-17
CPI Food	4.0	-0.4	1.5	1.3
Fruits	6	2.9	5.3	5.1
Cereals & products	4.3	4.0	3.9	3.7
Clothing & footwear	5.2	4.2	4.6	4.6
Housing	5.2	4.9	5.6	6.1
Fuel & light	3.1	4.9	5.0	5.6

Trade deficit stood at USD 9.0 billion in September 2017

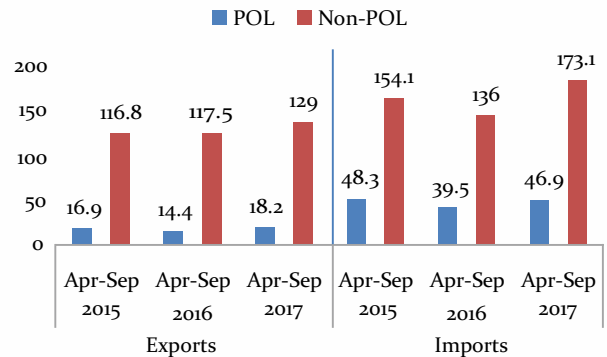
- India's trade deficit widened to USD 32.2 billion in Q2FY17, up from USD 24.4 billion in Q2FY16. Trade deficit in September 2017 fell marginally, to USD 9.0 billion from USD 9.1 billion in September 2016.
- Total merchandise exports grew by 25.7 percent to USD 28.6 billion in September 2017, up from USD 22.8 billion last year. Exports of petroleum products grew by 40 percent to USD 3.6 billion in September 2017 from USD 2.6 billion in September 2016. Non-oil exports grew by 24 percent, to USD 25 billion in September 2017 from USD 20.2 billion last year.
- Total merchandise imports for the month of September 2017 amounted to USD 37.6 billion, 18.2 percent higher from USD 31.8 billion in September 2016. Oil imports saw a YoY growth of 18.4 percent and non-oil imports grew by 18 percent for September 2017.

Trend in India's Merchandise Trade



Source: CMIE

Oil and Non Oil Trade (in USD Billion)



Source: CMIE

Exports have now grown continuously for fourteen months ending September 2017. In September 2017, the top ten commodities, which constitute 82 percent of India's merchandise exports grew positively on a YoY basis, with commodities like Engineering Goods, Petroleum Products,

Chemicals and Rice growing at or above 40 percent.

Imports too have risen as India's oil import bill increased due to the rise in global oil price and high imports of gold.

India's merchandise exports for H1FY18 are USD 147 billion, growing by 11.4 percent YoY.

India should aim at reaching highest level of exports in the last five years, which was USD 315 billion in FY14. In order to achieve this, exports in H2FY18 will have to be USD 168 billion, growing by 16.7 percent YoY.

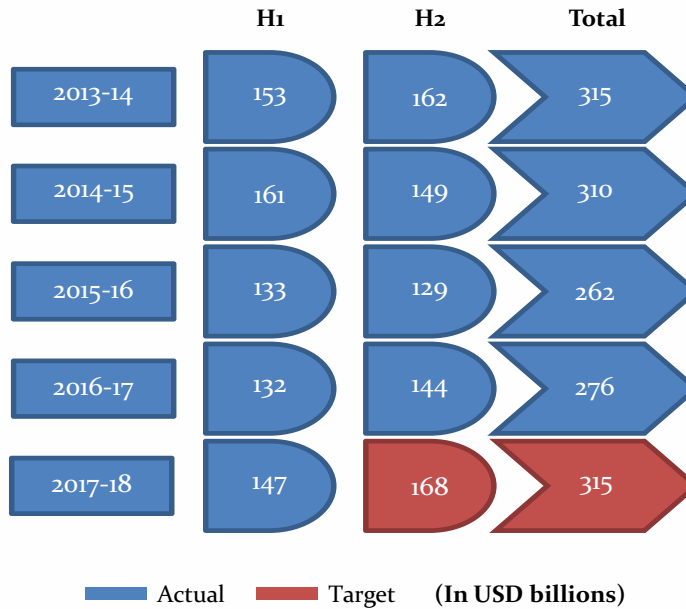
The world output is expected to expand in 2017 and 2018

and trade volumes are also projected to increase in 2017

and 2018. As the future outlook for global trade is positive,

this target for India's exports is achievable. ■

Export Target for FY 2018



Source: CMIE and FICCI Research

FEDERATION OF INDIAN CHAMBERS OF COMMERCE AND INDUSTRY

Industry's Voice for Policy Change

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