Economy Watch

Monitoring India's macro-fiscal performance

May 2018

Building a better working world

Contents

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Highlights

1. Despite its robust performance since November 2017, the **overall IIP growth averaged 4.3% in FY18, slightly lower than 4.6% in FY17.**

2. **Headline manufacturing PMI rose to 51.6 in April 2018** from a 5-month low of 51 in March 2018 and **services PMI improved to 51.4 in April 2018** from 50.3 in March 2018.

3. Reversing a falling trend since December 2017, **CPI-based inflation increased to 4.6% in April from 4.3% in March due to rising prices of petrol and diesel used for transport.**

4. **Higher CPI and core CPI inflation due to rising global crude prices may prompt the RBI to consider an increase in the repo rate** in its policy reviews later in 2018.

5. As per the Ministry of Finance, **during FY18, GST revenue collection amounted to INR7.19 lakh crore. Of this, IGST accounted for nearly 50%.** Revenue collection in April 2018 exceeded INR1 lakh crore.

6. **Center's revenue expenditure grew by 15.4% while growth in capital expenditure fell by (-) 5.8% in FY18 RE.**

7. In Budget FY19, **the Center's FY18 fiscal deficit in FY18 RE turned out to be 3.6% of GDP as compared to the budgeted target of 3.2%.**

8. **Merchandise exports growth turned positive at 5.2% in April from (-) 0.7% in March 2018.** It had been falling since November 2017 from its 6-year peak of 30.5%.

Foreword

Increasing crude prices put pressure on India's macro balances

Global oil prices are on the boil again touching US$80/bbl. recently for the first time since 2014. A Bloomberg Economics Model has suggested that both demand and supply side factors account half and half for this increase. Supply shocks are arising because of the US sanctions on Iranian oil exports and crisis in Venezuela. These changes would be partially absorbed by increased supply from the U.S. U.S. crude oil output rose to a record 10.4 mb/d in March 2018, surpassing its 1970s peak and overtaking Saudi Arabia. Much of the increase has been from shale deposits, which account for nearly two-thirds of U.S. crude production. The U.S. EIA projects U.S. crude production to reach 11.3 mb/d by the fourth quarter of 2018 and average 11.4 mb/d in 2019. On the demand side, according to the World Bank, world oil consumption grew strongly in 2017, up by 1.6% y-o-y. In 2018, US oil consumption growth is expected to gather further momentum. Among other major economies, India's oil consumption growth is also picking up while that of China may moderate.

Rising crude prices may adversely affect most indicators of India's macro balance including trade and current account deficits, fiscal deficit, inflation and exchange rate. This poses a major challenge for the Indian economy where the government is likely to tilt towards an expansionary fiscal policy in the wake of the forthcoming general elections. Inflation may thus be pushed up both from the cost and demand side. CPI and WPI inflation numbers for April 2018 have already signaled an upward movement in inflation. In both cases, it is led by fuel prices. In the case of CPI, the effect is being transmitted through increased inflation in transportation, while in the case of WPI, it is coming from the increased prices of crude and mineral oils.

The fiscal deficit target may come under threat if the rising prices of POL products persuades the central government to reduce the central excise duty rates on these products. In FY18, already there has been a slippage in the fiscal consolidation path. The FY18 targeted fiscal deficit-GDP ratio was 3.2%. As per the revised estimates, using the second advance estimates of GDP, it has turned out to be 3.6%.

With the crude import bill coming under pressure, the merchandise trade account may see larger deficits which can translate into increased current account deficit. The exchange rate which appreciated to INR63.6 per US$ in January 2018, has now started to depreciate. By April 2018, it had reached a level of INR65.6 per US$. India's trade deficit rose to US$13.7 billion in April 2018 on account of the surge in global crude prices. Growth in oil imports nearly trebled at 41.5% in April 2018 compared to 13.9% in March 2018. Oil imports account for nearly a fourth of total imports at US$39.63 billion in April 2018. The trade account has remained under pressure in spite of exports showing a positive growth at 5.2% in April 2018 after four successive months of decline.

In spite of the pressures on oil supplies linked to Iran and Venezuela, steady increases in US crude production and shale based gas and oil supplies would ensure that crude prices may not rise to the 2013 levels. Analysts indicate that these may remain below US$85 per barrel during 2018. Accordingly, pressures on India's macro balances might remain within manageable limits without hurting the Indian economy excessively.

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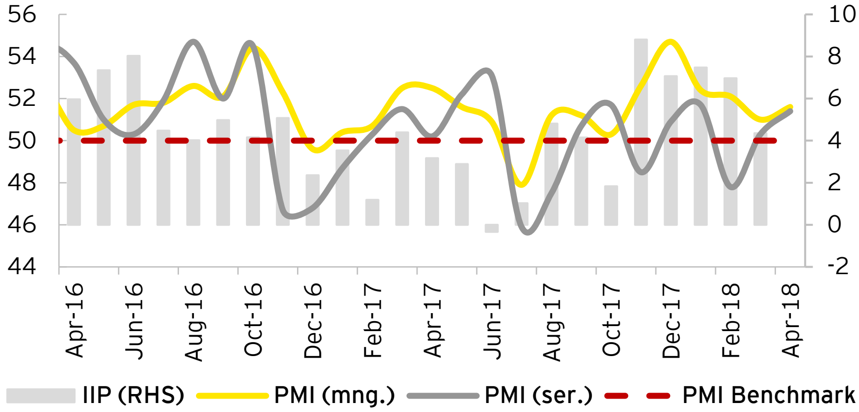
1. Growth: As indicated by IIP, industrial sector growth slowed in March 2018

A. IIP growth: At a five month low in March 2018 due to unfavorable base effect

- IIP growth moderated to a five-month low of 4.4% (y-o-y) in March 2018 from 7.0% in February 2018, largely due to unfavorable base effect (Chart 1). Despite posting an above 7% growth from November 2017 till February 2018, the average IIP growth for FY18 was at 4.3%, slightly lower than 4.6% in FY17.
- The manufacturing sector output (accounting for 77.6% of overall IIP) grew at a slower pace of 4.4% in March 2018 as compared to 8.7% in February 2018. But growth in the output of electricity and mining improved to 5.9% and 2.8% respectively in March 2018 (Table A1).
- Due to unfavorable base effect, the output of the capital goods industry, which may reflect investment demand, contracted for the first time in eight months by (-) 1.8% in March 2018 as compared to 19.5% (revised) in February 2018. Growth in the output of consumer non-durables improved to 10.9%, while that in consumer durables fell to 2.9% in March 2018 as compared to 7.3% and 7.5% respectively in February 2018. Growth in the infrastructure/construction sector also slowed to 8.8% in March 2018 from 12.6% in February 2018.
- Growth in the output of eight core infrastructure industries fell for the second straight month to 4.1% (y-o-y) in March 2018 from 5.4% in February 2018. Excluding coal (9.1%) and natural gas (1.3%), growth in the output of other key sub-industries including petroleum refinery products (1.0%), electricity (4.5%), and steel (4.7%) moderated during March 2018.

Chart 1: IIP and PMI



Despite its robust performance since November 2017, the overall IIP growth averaged at 4.3% in FY18, slightly lower than 4.6% in FY17.

Source: Office of the Economic Adviser, Ministry of Commerce and Industry, IHS Markit PMI, Markit Economics.

B. PMI: Signaled improvement in manufacturing and services in April 2018

- Headline manufacturing PMI (seasonally adjusted (sa)) rose to 51.6 in April 2018 from a 5-month low of 51 in March 2018. However, it remained lower than the recent peak of 54.7 in December 2017 (Chart 1). The recovery was led by improvement in new orders and output. Higher production in consumption and intermediate goods outweighed the decline in investment goods.

In April 2018, both, manufacturing and services PMI recovered from the levels witnessed in March 2018.

- Headline services PMI (sa) improved further to 51.4 in April 2018 from 50.3 in March 2018. Reflecting recovering output in the services sector, the employment index accelerated to its highest level in over seven years.
- Composite PMI Output Index (sa) increased to 51.9 in April 2018 from 50.8 in March 2018 due to improvement in the output of both manufacturing and services sector.

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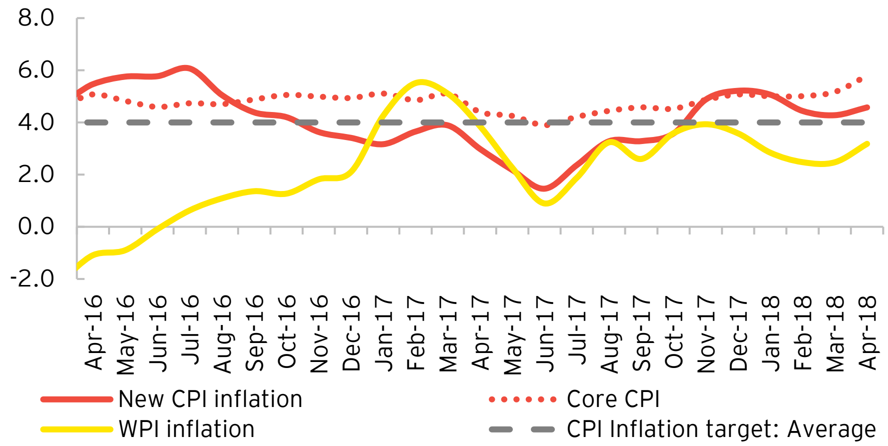
2. Inflation: CPI inflation increased to 4.6% in April 2018 for the first time in four months

Reversing a falling trend since December 2017, CPI-based inflation increased to 4.6% in April from 4.3% in March due to rising prices of petrol and diesel used for transport (Chart 2).

- Inflation in vegetables eased to a seven-month low of 7.3% in April 2018 from 11.7% in March 2018. Inflation in onions halved to a 9-month low of 32.9% in April 2018 from 66.8% in March and the pace of contraction in prices of tomatoes doubled to (-) 12.2%, a 10-month low, from (-) 6.6% in the previous month.
- Inflation in fruits and cereals strengthened in April 2018 keeping the overall consumer food price based inflation stable at 2.8% in April 2018, the same level seen in March 2018.
- Fuel and lighting based inflation declined to 5.2% in April 2018 from 5.7% in March 2018.
- Growth in prices of petrol used for transportation increased sharply to a seven-month high of 8.1% in April 2018 from 2.0% in the previous month. This contributed significantly to inflation in miscellaneous goods which reached a 15-month high of 5.0% in April from 4.2% in March 2018.
- Housing inflation remained elevated at a 47-month high of 8.5% in April 2018 as compared to 8.3% in March on account of increased HRA as part of the 7th Central Pay Commission recommendations.
- Core CPI-based inflation strengthened to 5.8% in April from 5.2% in March due to rising inflation in transport services.

Chart 2: Inflation (y-o-y; %)



Both CPI and WPI inflation increased in April 2018 due mainly to a rise in crude prices.

Source: MOSPI, Office of the Economic Advisor, GoI

WPI-based inflation increased to 3.2% in April 2018 from 2.5% in March 2018 on account of increase in inflation in food, crude and mineral oils.

- WPI-based food price inflation turned positive at 0.7% in April 2018 from 0.0% in March 2018 as inflation in potatoes rose to an 18-month high of 67.9% in April 2018 (43.2% in March), the pace of contraction in tomato prices eased to (-) 6.4% in April from (-) 26.5% in March, and inflation in fruits more than doubled to 19.5% in April, a 44-month high, from 9.3% in March.
- The rise in global crude prices inflation was reflected in the strengthening of inflation in crude petroleum and natural gas to a 14-month high of 15.5% in April 2018 from 8.2% in March 2018, and doubling of inflation in mineral oils to 12.0% in April 2018 from 5.5% in March 2018.
- As a result fuel and power based inflation rose to 7.9% in April 2018 from 4.7% in March 2018.
- WPI core inflation rose only marginally to 3.6% in April 2018 from 3.5% in March 2018.

3. Fiscal performance: Slippage in fiscal deficit compared to target in FY18

A. Tax and non-tax revenues

- According to Ministry of Finance (Press Information Bureau press release dated 2 April 2018), provisional figures of direct tax collections for FY18 show that net collections were at INR9.95 lakh crore which is 17.1% higher than the net collections for FY17.
- Net direct tax collections amounted to 101.5% of the Budget Estimates at INR9.8 lakh crore and 99% of the Revised Estimates at INR10.05 lakh crore of direct taxes for FY18.
- The growth rate for net collections for corporate income tax was 17.1% and for personal income tax was 18.9% in FY18. These imply annual buoyancies of 1.7 and 1.9 respectively.
- During FY18, total revenue collected under GST in the period between August 2017 and March 2018 has been INR7.19 lakh crore. The amounts under CGST, SGST, IGST and cess have been indicated in Table 1. The monthly GST collections are given in Table 2.
- The SGST collection during FY18, including the settlement of IGST has been INR2.91 lakh crore and the total compensation released to the states for a period of eight months during the last financial year was INR41,147 crore.

Table 1: GST revenue collection during FY18

Item	Collection (in crore)	Shares (%)
GST *of which*	7, 19, 000	100.0
CGST	1, 19, 000	16.6
SGST	1, 72, 000	23.9
IGST *of which*	3, 66, 000	50.9
IGST on imports	1, 73, 000	24.1
Cess *of which*	62, 021	8.6
Cess on imports	5, 702	0.8

Source: Ministry of Finance (PIB, press release dated 27 April 2018)

As per the Ministry of Finance, during FY18, GST revenue collection amounted to INR 7.19 lakh crore. Revenue collection in April 2018 exceeded 1 lakh crore

- Total gross GST revenue collected in the month of April 2018 is INR1,03,458 crore. The amounts under CGST, SGST, IGST and cess have been indicated in Table 3.

Table 2: Month-wise GST collection during FY18

Month	Collection (INR crore)
Aug-17	93,590
Sep-17	93,029
Oct-17	95,132
Nov-17	85,931
Dec-17	83,716
Jan-18	88,929
Feb-18	88,047
Mar-18	89,264
Average monthly collection	89, 705

Table 3: GST revenue collection in April 2018

Item	Collection (in crore)	Shares (%)
GST *of which*	1, 03, 458	100.0
CGST	18, 652	18.0
SGST	25, 704	24.8
IGST *of which*	50, 548	48.9
IGST on imports	21, 246	20.5
Cess *of which*	8554	8.3
Cess on imports	702	0.7

Source: Ministry of Finance (PIB, press release dated 27 April 2018 and 1 May 2018)

B. Expenditures: Revenue and capital

- As per the Revised Estimates of the FY19 Union Budget, total expenditure grew by 12.3% in FY18 as compared to 11.4% in FY17. As % of GDP, it has remained in the range of 12.9% to 14.9% during FY12 to FY18 BE (Table 4).
- Growth in revenue expenditure increased to 15.4% in FY18 as compared to 9.5% in FY17. Revenue expenditure as % of GDP has marginally increased from 11% in FY17 to 11.6% in FY18 RE.
- Growth in center's capital expenditure has exhibited significant volatility over the years from FY12 to FY18 RE. Capital expenditure contacted by (-) 5.8% in FY18 (RE) as compared to a strong growth of 23.4% in FY17. As % of GDP, capital expenditure has remained in a narrow and low range of 1.4% to 1.9% during FY12 to FY18 RE. Capital expenditure as % of GDP has fallen from 1.9% in FY17 to 1.6% in FY18 RE.

Table 4: Central government expenditure (growth and as % of GDP)

Expenditure item	FY12	FY13	FY14	FY15	FY16	FY17	FY18 (RE)
Total expenditure	8.3	8.5	10.9	5.2	7.8	11.4	12.3
as % of GDP	*14.9*	*14.2*	*13.9*	*13.2*	*12.9*	*12.9*	*13.2*
Revenue expenditure	9.8	8.9	10.7	6.0	5.5	9.5	15.4
as % of GDP	*13.1*	*12.5*	*12.2*	*11.7*	*11.2*	*11.0*	*11.6*
Capital expenditure	-25.8	40.9	12.4	-0.5	25.8	23.4	-5.8
as % of GDP	*1.4*	*1.7*	*1.7*	*1.5*	*1.7*	*1.9*	*1.6*

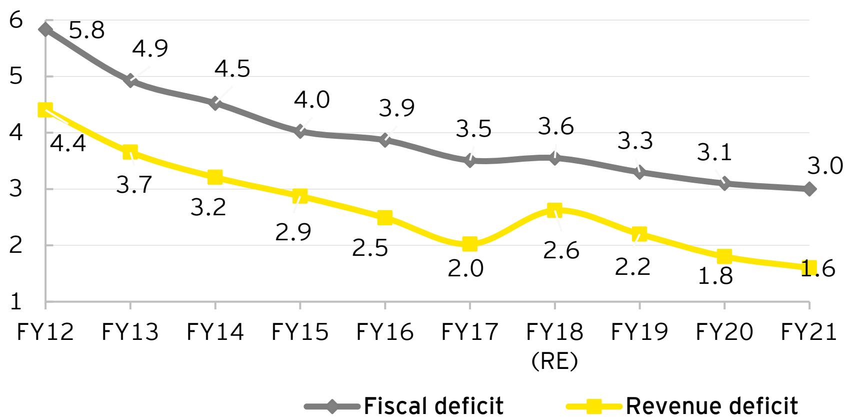
Center's revenue expenditure grew by 15.4% while capital expenditure fell by (-) 5.8% in FY18 RE.

Source (Basic data): Monthly Accounts, Controller General of Accounts (CGA), Government of India, Union Budget Documents, FY19 and CSO
Note: Actuals from FY12 to FY17 are taken from CGA

C. Fiscal imbalance

- As per the FY19 Budget, Center's fiscal deficit was revised upward from 3.2% to 3.6% of GDP for FY18 (Chart 3), if Second Advance Estimates for FY18 nominal GDP released by the CSO are taken into account. This is a significant deviation when compared to the fiscal deficit target of 3% of GDP for FY18 as recommended by the FRBM Review Committee. As per the Medium Term Fiscal Policy Statement of the FY19 Budget, achieving the 3% target has been shifted to 2021.
- The Center's revenue deficit target for FY18 was also revised up from 2.1% to 2.6% of GDP in FY18.

Chart 3: Fiscal and revenue deficit as % of GDP



In Budget FY19, the Center's FY18 fiscal deficit in FY18 RE turned out to be 3.6% of GDP as compared to the budgeted target of 3.2%.

Source: Monthly Accounts, Controller General of Accounts, Government of India, Medium term fiscal policy statement, Union Budget FY19 and CSO

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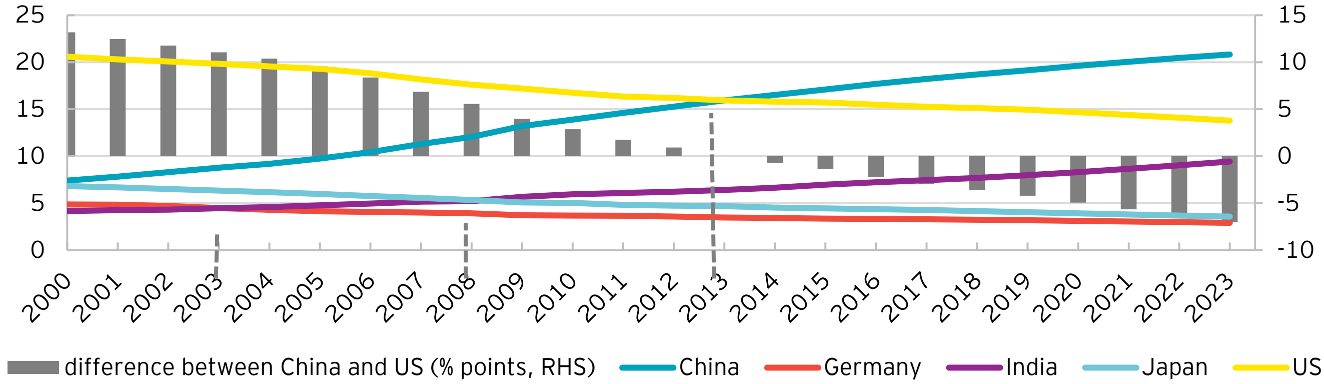
4. India in a comparative perspective: Status and prospects

Size of economy in PPP terms: *India crossed Germany in 2003 and Japan in 2008*

- Chart 4 shows that in terms of the size of economy in purchasing power parity (PPP) terms, China crossed US in 2013 and has been continuously expanding including in the projection period up till 2023. Size of an economy is indicated by the share of an economy in PPP terms in the world GDP (PPP).
- In contrast, the size of the US economy has been falling and is expected to fall further during the projection period from 2018 to 2023.
- India crossed Germany in 2003 and Japan in 2008. The size of the Indian economy has been growing since 2001. This trend is likely to continue to 2023 and beyond, progressively narrowing the gap between the relative sizes of the US economy and the Indian economy.

Chart 4: Share in world GDP at current prices, PPP (%) - Major economies



Source (Basic Data): IMF World Economic Outlook, April 2018;*Data is based on fiscal year; Note: Projections start from 2018 onward.

General government gross debt as percentage of GDP: *In India, general government debt-GDP ratio is projected to fall in 2018*

- As per the IMF, government debt-GDP ratio in advanced economies as a group is estimated at 104.4% while that in EMDEs at 49% in 2017 (Table 5). This ratio is projected to decline marginally for advanced economies but increase for EMDEs by 2023.
- Government debt-GDP ratio in the US is expected to increase from 107.8% in 2017 to 116.9% by 2023 indicating expansionary fiscal stance. In the Euro area however, fiscal consolidation is expected to reduce government debt considerably to 71.7% in 2023 from 86.6% in 2017.
- Among the EMDEs, government debt-GDP ratio is expected to increase for China during 2017 to 2023 as rebalancing of the economy towards consumption and reform of state-owned enterprises continues.
- In India government debt-GDP ratio is projected to fall from 70.2% in 2017 to 68.9% in 2018 as the fiscal consolidation which was paused in 2017-18 is likely to resume.

Table 5: General government gross debt as % of GDP

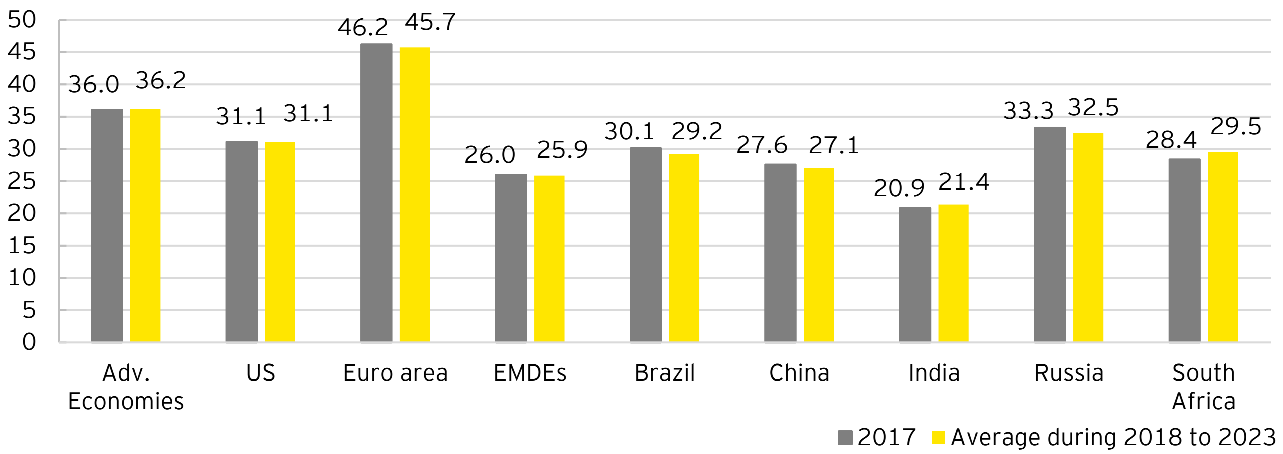
Country	2017	2018	2019	2020	2021	2022	2023
Advanced economies	**104.4**	**102.9**	**102.2**	**101.4**	**100.8**	**100.2**	**99.5**
US	107.8	108.0	109.4	111.3	113.1	115.2	116.9
Euro area	86.6	84.2	81.7	79.3	76.8	74.3	71.7
EMDEs	**49.0**	**51.0**	**52.5**	**53.8**	**54.9**	**55.8**	**56.6**
Brazil	84.0	87.3	90.2	92.7	94.6	95.7	96.3
China	47.8	51.2	54.4	57.6	60.5	63.1	65.5
India	70.2	68.9	67.3	65.8	64.3	62.9	61.4
Russia	17.4	18.7	19.5	19.9	20.0	20.1	20.4
South Africa	52.7	54.9	55.7	56.4	57.0	57.6	58.1

Source (Basic Data): IMF World Economic Outlook, April 2018;*Data is based on fiscal year; Note: Projections start from 2018 onward.

General government revenue as percentage of GDP: *India's government revenue-GDP ratio is the lowest among major countries*

- According to the IMF, general government revenue as percentage of GDP was estimated at 36% for advanced economies and at 26% for EMDEs in 2017 (Chart 5). This ratio is projected to increase only slightly on an average during the forecast period from 2018 to 2023 for advanced economies. For EMDEs, it is expected to decline marginally during this period.
- Among selected advanced and emerging economies, government revenues as percentage of GDP is the highest for Euro area followed by Russia.
- In India, government revenue-GDP ratio is the lowest at about 21% amongst the selected set of countries.

Chart 5: General government revenue as % of GDP



Source (Basic Data): IMF World Economic Outlook, April 2018;*Data is based on fiscal year; Note: Projections start from 2018 onward.

General government expenditure as percentage of GDP: *Size of government in India is the lowest among major economies*

- General government expenditure as percentage of GDP is indicative of the size of a government in an economy.
- General government expenditure as percentage of GDP for advanced economies was estimated at 38.6% in 2017 and is expected to remain almost the same during the forecast period from 2018 to 2023 (Table 6).
- For EMDEs, government expenditure-GDP ratio is expected to fall from 30.4% in 2017 to 29.2% in 2023.
- Amongst selected set of major advanced and emerging economies, the size of the government is the largest in Euro area and it is the lowest in India.

Table 6: General government total expenditure as % of GDP

Country	2017	2018	2019	2020	2021	2022	2023
Advanced economies	**38.6**	**38.7**	**38.6**	**38.5**	**38.5**	**38.6**	**38.5**
US	35.7	36.0	36.3	36.4	36.7	37.0	36.8
Euro area	47.1	46.8	46.5	45.9	45.7	45.5	45.4
EMDEs	**30.4**	**30.4**	**30.2**	**29.8**	**29.7**	**29.5**	**29.2**
Brazil	37.9	38.3	37.4	36.8	36.7	36.1	35.5
China	31.5	31.6	31.6	31.3	31.3	31.2	31.0
India	27.8	27.8	27.8	27.7	27.6	27.5	27.4
Russia	34.7	33.1	32.3	31.9	31.8	31.9	31.9
South Africa	32.9	33.2	33.4	33.6	33.7	33.9	34.0

Source (Basic Data): IMF World Economic Outlook, April 2018;*Data is based on fiscal year; Note: Projections start from 2018 onward.

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5. In focus: Terms of Reference of the Fifteenth Finance Commission: Resolving conflicting contentions

Introduction

In the context of the Terms of Reference (ToR) of the Fifteenth Finance Commission (FFC), some key aspects have come under extensive discussion. The ToR asks the Commission to use 2011 population in arriving at their recommendations instead of 1971 population, which has been the practice since the seventh finance commission. Another ToR asks the Commission to consider "whether revenue deficit grants", which have been recommended by the previous finance commissions, be given at all. Similarly, the reference to the share of 42% of the states in central taxes which was recommended by the fourteenth finance commission is unprecedented as the ToR do not usually ask a commission to reexamine a recommendation of the preceding commission. The impact of GST on the finances of the centre and the states is also of considerable contemporary importance. References to "conditionalities" on state borrowing and providing performance-linked incentives in respect of some contentious indicators are also being discussed.

Shift to 2011 population from 1971 population

If 2011 population figures replace the use of 1971 figures, ceteris paribus, states whose population grew at a rate lower than the cumulative average growth rate (CAGR) of all-state population, will lose. This group includes Kerala, Tamil Nadu, Andhra Pradesh, Odisha, Karnataka, West Bengal, Punjab, and Goa from the general category states and Assam and Himachal Pradesh from the special category states. The remaining 19 states will gain. The difference in terms of percentage points in the shares of 2011 population vis-à-vis that in 1971 population are shown in Charts 6 and 7 respectively.

Chart 6: General category states

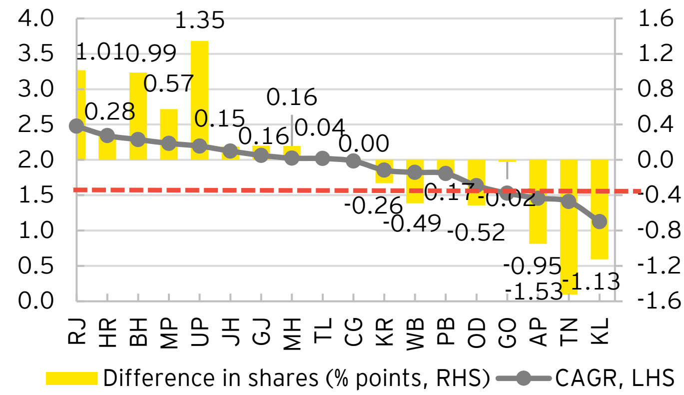
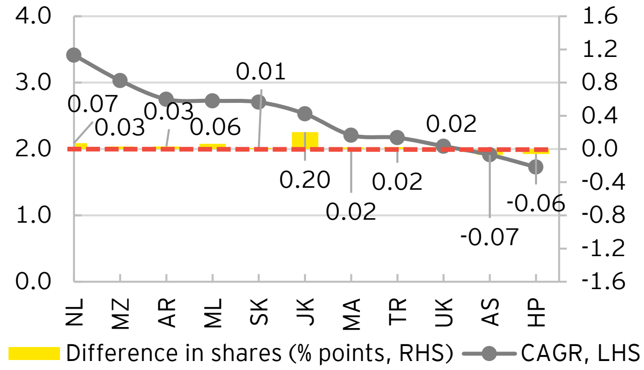


Chart 7: Special category states



Source (Basic data): MOSPI

The role of population in deriving the share of states by the successive finance commissions in different criteria has been to serve as a "scaling" factor, that is, larger the size of the population, the larger is the share of a state in the divisible pool of central taxes. In principle, these shares under each criterion are determined in per capita terms and then scaled up to cater to the entire population living in the state. The use of dated information distorts this exercise since it does not reflect the number of people actually living in a state. Fiscal transfers are made to provide services to people actually living in the states and not some imaginary population. The relative size of population changes not only because of differential growth rates of fertility/mortality rates but also due to net migration. In fact, a population bulge and the related demographic dividend arise because of a relatively faster decline in the mortality rates. States may not be penalized for improvement in mortality rates and/or migration. In fact, fiscal transfers should facilitate access to health and education services for the entire population upto an acceptable standard to ensure its efficient participation in economic growth. In this sense, the shift to the latest available census figures for determining the relative shares of states in central taxes should be considered rational and justified. No other major federation uses dated population in determining transfers to the states. Major federations like Canada and Australia with well-established fiscal transfer principles use all relevant information that is up to date as much as possible[1].

Suitable principles for horizontal allocation

[1] Rangarajan, C., & Srivastava, D. K. (2011). Federalism and fiscal transfers in India. *OUP Catalogue*.

A new finance commission is constituted every five years since the ground conditions change over time. Losses and gains occur to different states since the weights attached to different criteria are changed and sometimes the criteria themselves are changed. Over time, different commissions have used a range of criteria (Table 7) with different relative weights. These criteria can be grouped under four broad categories: neutral (population), redistributive (income/fiscal capacity distance), relative costs (area, infrastructure, forest cover) and fiscal incentives (demographic change, tax effort, fiscal discipline). It is the income-distance criterion which has been used by the Finance Commissions as the main vehicle to serve the purpose of equity in the context of the overall objective of equalization transfers. The population criterion is a special case of this where the redistributive or equalization content is zero. It provides the same per capita transfer to each state independent of its fiscal capacity. Income distance and population criteria have together provided weights that add in the range of 72.5 to 80 percent from the tenth to fourteenth commissions.

Table 7: Criteria and weights used by FCs

#	Type of criteria	Criteria	Relative Weight (Percent)				
			Tenth (alternative scheme)	Eleventh	Twelfth	Thirteenth	Fourteenth
1	Neutral	Population	20	10	25	25	17.5
2	Redistributive	Income/fiscal capacity distance	60	62.5	50	47.5	50
3	Relative costs	Area	5	7.5	10	10	15
		Index of infrastructure	5	7.5	-	-	-
		Forest cover	-	-	-	-	7.5
4	Incentives	Tax effort	10	5	7.5	-	-
		Fiscal discipline	-	7.5	7.5	17.5	-
		Demographic change	-	-	-	-	10

Source: Reports of 10^{th}-14^{th} Finance Commissions, Government of India.

If each state had the same fiscal capacity, the same levels of tax effort, fiscal discipline and unit costs, they would all have been given the same per capita transfers or per capita shares. Departures from this benchmark of equal per capita transfers would reflect the redistributive content of fiscal transfers as well as the differences in the fiscal and cost parameters. Such redistribution is required to augment the fiscal capacity of states so that critical public and merit services can be delivered equitably across the country. But such redistribution can entail adverse incentives unless care is taken to assess the fiscal capacity by application of an average tax effort. These considerations have led major federations such as Canada and Australia to follow the principle of "equalization" in determining fiscal transfers[2]. Under this principle, transfers aim to "equalize" fiscal capacities, enabling the states to provide services at comparable standards provided they make comparable tax effort after taking into account cost and use disabilities. This is consistent with both equity and efficiency.

In India's context, equalization is best delivered by a combination of tax devolution and grants. Tax devolution is allocated among the states by using broad criteria. Cost and use disabilities often require finer targeting for which grants are a better instrument. Here, the reference to revenue grants in the ToR assumes importance.

Discontinuance of Revenue Deficit Grants: Determining appropriate principles

The ToR asks the Commission to examine whether revenue deficit grants be given at all. This reference however does not necessarily imply that grants given under article 275(1) of the Constitution of India should be discontinued. This article enjoins the finance commission first to determine the "principles" which should govern the grants-in-aid of the revenues of the state and then determine the "sums" that are to be paid. Revenue deficit grants often did ensue in the gap-filling approach, even when moderated by application of some partial norms. This approach has been heavily criticized in the literature on fiscal transfers in India for the adverse incentives it generates. In fact, there is a strong case to discontinue revenue deficit grants based on gap filling approach but continue to recommend grants under article 275(1) based on more acceptable principles. Just preceding the reference to "revenue deficit grants" under clause 5 of the ToR, the FFC has been asked to be "guided by the principles of equity, efficiency, and transparency". These considerations are best satisfied by equalization

[2] Same as 1

transfers. It would be ideal to take this as the guiding principle and use the two instruments of transfers, namely, tax devolution and grants, to complement each other to achieve this objective in an integrated and well targeted way. Equalization grants are policy neutral and need not be sector-specific although the eleventh and the twelfth commissions used the equalization principle partially to provide sector-specific grants.

Table 8: State-wise recommended revenue gap grants (INR crore) – General category states

State	Eleventh	Twelfth	Thirteenth	Fourteenth
	2001-05	2006-10	2011-15	2016-20
Andhra Pradesh	0.0	0.0	2516.0	**22113.0**
Kerala	0.0	0.0	0.0	**9519.0**
Madhya Pradesh	0.0	470.4	0.0	**0.0**
Orissa	673.6	488.0		
Punjab	284.2	3132.7	0.0	**0.0**
Rajasthan	1244.7	0.0	0.0	**0.0**
Uttar Pradesh	1026.7	0.0	0.0	**0.0**
West Bengal	3246.1	3044.7	0.0	**11760**
Total	**6475.3**	**7135.8**	**2516**	**43392**

Source (Basic data): Reports of 11th-14th Finance Commissions, Government of India

Table 9: State-wise recommended revenue gap grants (INR crore) –Special category states

State	Eleventh	Twelfth	Thirteenth	Fourteenth
	2001-05	2006-10	2011-15	2016-20
Arunachal Pradesh	1228.0	1357.9	0.0	0.0
Assam	110.7	305.7	0.0	3379
Himachal Pradesh	4549.3	10202.4	7889	40625
Jammu and Kashmir	11211.2	12353.5	15936	59666
Manipur	1744.9	4391.9	6057	10227
Meghalaya	1572.4	1796.9	2811	1770
Mizoram	1676.3	2977.8	3991	12183
Nagaland	3536.2	5536.5	8146	18475
Sikkim	840.6	188.7	0.0	0.0
Tripura	2414.2	5494.2	4453	5103
Uttaranchal	0.0	5114.7	0.0	0.0
Total	**28883.7**	**49720.1**	**49283**	**151428**

Many of the special category states have been recipients of revenue deficit grants as shown by Table 9. These states are highly dependent on central transfers. Costs of providing services are high in these states because of the hilly terrain. They also have special fiscal needs. Their cases can continue to be covered by following the equalization principle. Grants as per Article 275 of the Constitution can be designed to take into account considerable details of and variations in state characteristics whereas horizontal sharing of central taxes depend on a limited number of criteria. Thus, while both may be instruments of unconditional transfers, grants can be finely targeted whereas sharing of central taxes can only be broadly targeted. A combination of the two instruments can serve to provide an optimal scheme of transfers.

Vertical sharing of central taxes: Is 42% excessive?

In the ToR, the Commission has been asked to reconsider states' share in the divisible pool of central taxes which was fixed at 42% by the Fourteenth Finance Commission in the light of its impact on central and state finances. This was an unprecedented increase of 10% points recommended by the Fourteenth Finance Commission in the context of discontinuance of the mechanism of plan transfers. The central government is concerned as to the narrowing of its own share in the central taxes, particularly in the light of the fact that citizens in India look towards the central government for remedies to all issues even when these pertain to state subjects.

Table 10: States' share in central taxes: Recommended and effective

Commission	Recommended share in divisible pool (%)	Effective share in gross central taxes (%)	Shortfall in effective share relative to recommended (% points)
Tenth (alternative devolution scheme)	29	27.4	(-) 1.6
Eleventh	29.5	27.1	(-) 2.4
Twelfth	30.5	26.3	(-) 4.2
Thirteenth	32	28.2	(-) 3.8
Fourteenth	42	34.9*	(-) 7.1

Source: IPFS (2015-16) and Union Budget Documents | *averaged over the period from 2015-16 to 2017-18 (RE)

In fact, the actual share of the states in center's gross tax receipts tends to be much lower than the recommended share due to the excessive use of cesses and surcharges that are excluded in calculating the divisible pool of central taxes. This is highlighted in Table 10, which shows that instead of 42%, the share of states in the gross central taxes actually amounted to about 35% only over the three year period from 2015-16 to 2017-18, for which data is available. While the share of states was increased in the central taxes, it was expected that the share of grants in transfers, which are discretionary transfers, would go down. The FFC would have to examine the increase in cesses and surcharges which has reduced the divisible pool of central taxes on the one hand and the increase rather than a decrease in discretionary grants on the other.

Goods and Services Tax: Will there be a revenue shock to states after the compensation period ends?

The FFC has been asked to examine the impact of GST on the central and state finances. The Finance Commission will have to make forecasts of the GST revenues both for the center and the states based on very limited information and while the GST structure still appears to be stabilizing. A second issue is whether the states will experience a sudden revenue shock after the end of the compensation period.

The states have been assured by the center of a 14% nominal growth over their 2015-16 actual revenues from the taxes that have been merged in SGST estimated on a cumulated basis. Assuming the nominal GSDP growth of 10 to 12% for the states, a nominal growth of 14% ensures a reasonable buoyancy in the range of 1.2 to 1.4. If actual SGST revenues are less than the protected revenues, the concerned state will be compensated to the extent of the difference. Although the GST revenue performance is expected to improve over time, the experience of the eight months in 2017-18 since GST's introduction in July 2017 indicates that most states will be beneficiaries of this compensation provision. This provision will continue for five years, that is, until June 2022. After that the states receiving GST compensation may face a revenue shock. Since the FFC's recommendation period extends up to March 2025, it may wish to consider extension of the compensation period.

Recognizing environmental externalities

In the context of determining fiscal transfers, one notable group consists of the mineral rich states, namely, Jharkhand, Odisha, Chhattisgarh, Madhya Pradesh, and Assam. These coal-rich states continue to carry a significant pollution load on behalf of the nation. These states lost the opportunity of early industrialization due to the center's policy of freight equalization whereby the transport of coal was subsidized thereby neutralizing their main location benefit. With freight equalization, many thermal power plants were set up in the southern states powering their industrial growth. Although freight equalization is now discontinued, environmental constraints beset setting up of industries in these mineral-rich states. Further, despite a coal cess being levied for mitigating the adverse environmental impact in these states, the cess revenue largely remained unspent. Now that the coal cess has been merged into the GST compensation fund, it is meant to be spent on all the states whose "protected" revenues are higher than their actual SGST revenues. Thus the coal-rich states would continue to bear an uncompensated environmental burden up to the end of the compensation period, that is, June 2022. After that, they will suffer a sudden revenue shock, since under GST, the rate of tax on coal has been halved compared to that in the pre-GST regime.

The Fourteenth Finance Commission used forest area as a factor in determining the inter-se shares of states in the divisible pool of central taxes to reflect the positive environmental role that the states with large forest areas have played for the country in providing a carbon sink. In fact, states that are both mineral-rich and also have a large forest cover play a twin environmental role for the nation- they suffer pollution with associated health and other costs while providing an environmental positive externality through their forest cover. These externalities should be recognized by the Finance Commission and these states should be suitably compensated.

Performance incentives and policy neutrality

Under Clause 7 of the ToR, nine items are listed for consideration of performance linked incentives. Although previous commissions have also given such performance linked transfers, the list has not been so long. In this context, the FFC will have to consider a number of choices such as: (a) Covering all the items or select some, (b) Designing forward looking incentives or backward looking incentives, and (c) Using tax devolution or grants as the instrument for providing the incentives or consider these only in the assessment exercise. Finance Commission is expected to provide a symmetric treatment between the center and the states. That is why some of the items referred to under clause 7 have become contentious. While some of the items may even be ignored, we may group these into three groups as shown in Table 11. Group 1 items may be considered in the tax devolution exercise. GST tax effort can be a forward looking provision. Overall tax effort has been used as a criterion by some of the previous commissions. Population growth parameter can be used to partially neutralize the effect of the changeover to 2011 population. Most of the Group 2 items can be included in the assessment exercise relating to state expenditures. For group 3 items, grants in aid may be considered for providing the incentives, which may preferably be forward looking.

Table 11: Grouping the performance linked incentives under Clause 7 of the ToR of 15th FC

Group 1	Group 2	Group 3
▸ Efforts made by the states in expansion and deepening of tax net under GST ▸ Efforts and progress made in moving towards replacement rate of population growth ▸ Provision of grants in aid to local bodies for basic services, including quality human resources, and implementation of performance grant system in improving delivery of services;	▸ Achievements in implementation of flagship schemes of Government of India, disaster resilient infrastructure, sustainable development goals and quality of expenditure ▸ Progress made in increasing tax/non-tax revenues, promoting savings by adoption of Direct Benefit Transfers and Public Finance Management System, promoting digital economy and removing layers between the government and the beneficiaries ▸ Progress made in promoting ease of doing business by effecting related policy and regulatory changes and promoting labor intensive growth ▸ Control or lack of it in incurring expenditure on populist measures	▸ Progress made in increasing capital expenditure, eliminating losses in power sector and improving the quality of such expenditure in generating future income streams ▸ Progress made in sanitation, solid waste management and bringing in behavioral change to end open defecation

Source (Basic data): ToR of Fifteenth Finance Commission and EY team

Developing a comprehensive equalization approach

The Finance Commission has the difficult task of resolving competing claims of different groups of states. This is best done by adhering to the most appropriate principles including the principle of policy neutrality. Fiscal transfers in India have long been characterized by two major inefficiencies, namely, the use of dated population figures and a "gap-filling" approach. Implementing a comprehensive equalization approach would overcome these deficiencies. This requires estimating states' fiscal capacities reflecting their tax bases. In the case of GST, consumption rather than income would be a better tax base. This should be supplemented by the tax-bases of the non-GST taxes. To assess the expenditure needs, cost and use disabilities should be incorporated. This should capture higher health expenditures for some states like Kerala where population is aging. For the mineral rich areas, the cost of their environmental load should be incorporated. For the hilly states, remoteness would be a cost related disability. Most of India's future potential growth will be driven by the states who can effectively utilize their demographic dividends, which will be facilitated by an adequate provision of education and health services in these states. This would facilitate an accelerated growth of their fiscal capacities requiring relatively less redistribution for achieving greater equalization over time.

Full equalization in India implies considerable redistribution due to the large populations of the low fiscal capacity states (see, Rangarajan and Srivastava (2008)[3], for a detailed discussion). The Finance Commission has to take a call on the degree of equalization that may be considered feasible and deliver it using an appropriate combination of tax devolution and grants.

[3] 'Reforming India's Fiscal Transfer System: Resolving Vertical and Horizontal Imbalances', *Economic and Political Weekly*, 43 (23), 7 June 2008, pp. 47-60.

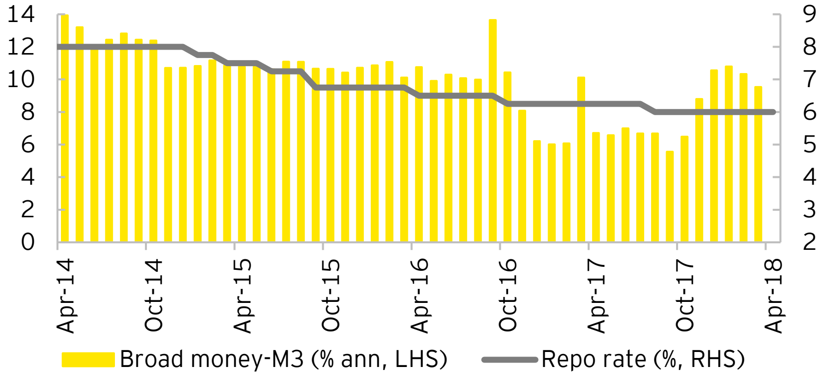
6. Money and finance: Surge in CPI inflation may prompt the RBI to consider an increase in repo rate during 2018

A. Monetary sector

Monetary policy

- The MPC has retained the benchmark policy rate at 6.0% since August 2017. While the growth momentum is now strengthening, pressure on inflation due to increase in global crude prices may prompt the RBI to consider an increase in the repo rate in its later policy reviews during the year.
- As per the April 2018 Policy Statement, the RBI had projected CPI inflation to average between 4.7% and 5.1% in 1HFY19 and then moderate to 4.4% in 2HFY19.

Chart 8: Growth in broad money and movements in repo rate



Source: Source: Database on Indian Economy, RBI.

Higher CPI and core CPI inflation due to rising global crude prices may prompt the RBI to consider an increase in the repo rate in its later policy reviews during the year.

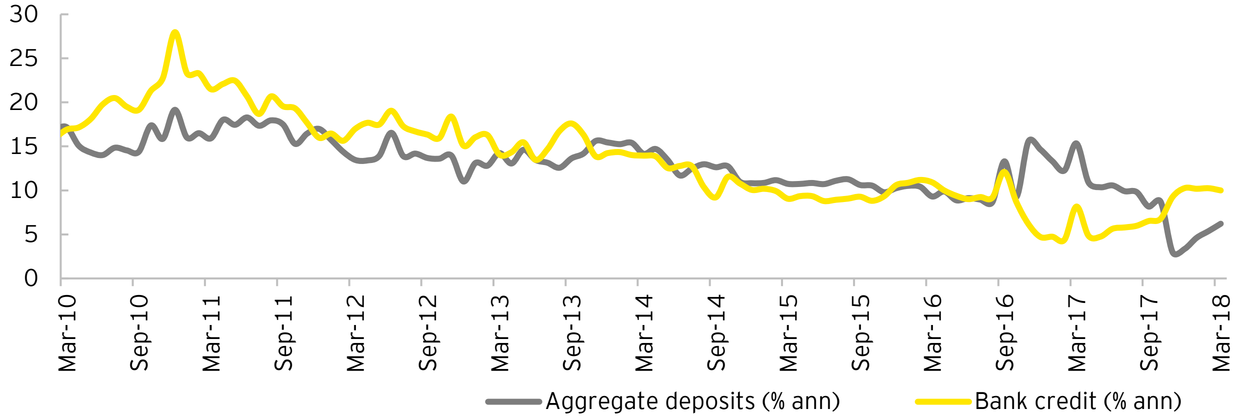
Money stock

- Broad money stock (M3) moderated to 9.5% (y-o-y) in March 2018 as compared to 10.3% in February 2018 (Chart 8). Time deposits (accounting for over 76% of the broad money stock) grew for the fifth straight month to 6.2% in March 2018 as compared to 5.4% in February 2018.
- Due to continued favorable base effect, narrow money (M1) posted a double-digit growth in March 2018 at 22.1% (y-o-y), but was lower than that in February 2018 at 32.2%. Currency in circulation (excluding non-demonetized currency) as a percentage of the total demonetized currency (indicating the extent of re-monetization) was at 108.2% by 4 May 2018.

Aggregate credit and deposits

- Credit by scheduled commercial banks posted a growth of 10% in March 2018, marginally lower than 10.2% in February 2018 (Chart 9). Even though growth in bank credit averaged at 7.5% in FY18, lower than 7.9% in FY17, its average growth was higher at around 9.5% during the 2H FY18 suggesting a pickup in domestic demand.
- Non-food credit growth fell to 8.4% (y-o-y) in March 2018 as compared to 9.8% in February 2018 as credit offtake in the industrial and services sector fell during the month. Growth in credit to the services sector, fell to 13.8% in March 2018 as compared to 14.2% in February 2018 while credit growth to industries moderated to 0.7% in March from 1.0% in February 2018.
- Personal loans, a key driver of retail sector credit, grew at a relatively slower pace of 17.8% in March 2018 as compared to 20.4% in February 2018 as growth in housing loans eased while credit for consumer-durables continued to contract for the eleventh successive month reaching a level of (-)5.2% in March 2018.
- Growth in aggregate bank deposits improved to 6.2% in March 2018 as compared to 5.4% (y-o-y) in February 2018. Average growth in deposits was lower at 7.5% in FY18 as compared to 11.6% in FY17.

Chart 9: Growth in credit and deposits



Source: Source: Database on Indian Economy, RBI.

B. Financial sector

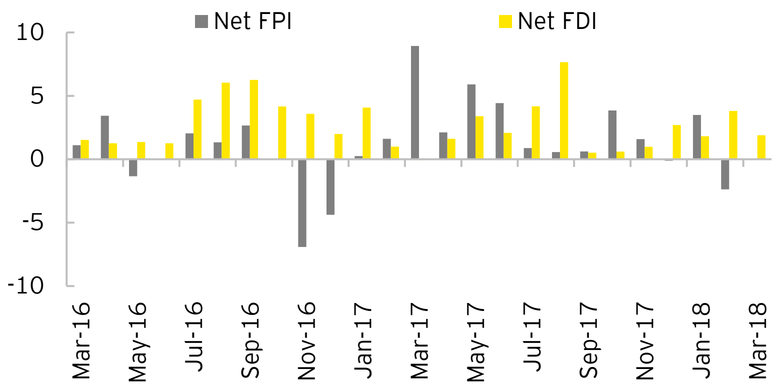
Interest rates

- Interest rates offered by banks on term deposits with a maturity of more than one year has been gradually increased to range between 6.25% and 6.75% in April 2018, thereby taking the average interest rate level to 6.5% from 6.48% in March 2018.
- The marginal cost of fund-based lending rate (MCLR) was increased in April 2018 to average at 7.88% as compared to 7.86% in March 2018.
- The average yield on 10-year government securities fell marginally to 7.55% in April 2018 from its 25-month peak of 7.61% in March 2018. Bond yields were influenced by: (a) The government's decision to reduce its market borrowings in the first half of FY19, (b) The RBI's decision to lower its inflation forecasts for FY19 and (c) The RBI's announcement to increase the limits for foreign portfolio investors to buy Indian government and corporate bonds.

FDI and FPI

- As per provisional data, overall foreign investment inflows increased to US$1.8 billion in March 2018 from US$1.4 billion in February 2018, as FPI outflows dipped sharply in March 2018. In FY18 foreign investment inflows were higher at US$52.2 billion as compared to US$42.2 billion in FY17.

Chart 10: Net FDI and FPI inflows



Gross FDI inflows reached a historic high of US$62.1 billion in FY18 increasing from US$60.2 billion in FY17.

Source: Source: Database on Indian Economy, RBI.

- Net FDI inflows dipped to US$1.9 billion in March 2018 from US$3.8 billion in February 2018 (Chart 10). Gross FDI inflows were higher at US$62.1 billion during FY18 as compared to US$60.2 billion in FY17.
- Net FPI outflows were lower at US$0.04 billion in March 2018 as compared to US$2.4 billion in February 2018.

7. Trade and CAB: Exports growth turned positive at 5.2% in April 2018

A. CAB: Sharp deterioration in 3QFY18

CAB as a percentage of GDP reached (-) 2.0% in 3QFY18 from (-) 1.2% in 2QFY18 (Chart 11) as merchandise trade deficit rose to an 18-quarter high of US$44.1 billion from US$32.8 billion in 2QFY18.

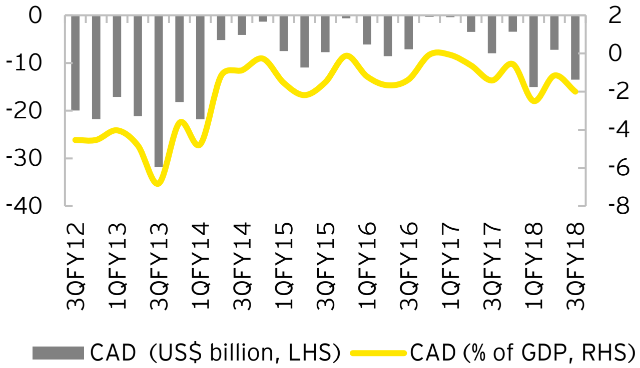
The fall in CAB during 3QFY18 was due to the combined effect of a slowdown in merchandise exports and a pickup in merchandise imports. Merchandise imports rose to an 18-quarter high driven by the impact of rising oil prices on the oil import bill. Despite subdued merchandise exports, net service exports rose to an all-time high of US$20.9 billion (Table 12). Accompanied by rising net private transfer receipts and slowing net primary income payments, net invisibles receipts climbed to an 11-quarter high of US$30.6 billion.

Table 12: Components of CAB in US$ billion

	CAB (-deficit/ +surplus)	CAB as a % of nominal GDP	Goods account net	Services account net
FY14	-32.4	-1.7	-147.6	73.0
FY15	-26.8	-1.3	-144.9	76.6
FY16	-22.2	-1.0	-130.1	69.7
FY17	-15.3	-0.7	-112.4	67.5
4QFY17	-3.5	-0.6	-29.7	17.6
1QFY18	-15.0	-2.5	-42.0	18.3
2QFY18	-7.2	-1.1	-32.8	18.4
3QFY18	-13.5	-2.0	-44.1	20.9

Source: Database on Indian Economy, RBI.

Chart 11: CAD

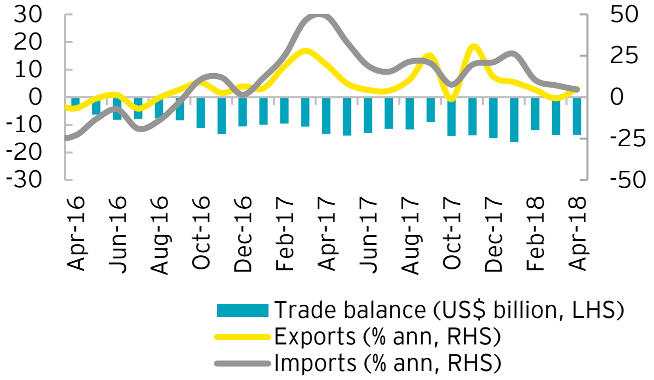


Source: Database on Indian Economy, RBI.

B. Merchandise trade and exchange rate

- Merchandise export growth turned positive at 5.2% in April from (-) 0.7% in March 2018. It had been falling since November 2017 from its 6-year peak of 30.5% (Chart 12).

Chart 12: Developments in merchandise trade



Source: Ministry of Commerce and Industry, GoI

- Exports were driven by growth in engineering goods reaching a four-month high of 17.6% in April 2018 as compared to 2.6% in March 2018 supported by a slowdown in the pace of contraction in oil exports to (-) 4.5% in April 2018 from a 19-month low of (-) 13.2% in March 2018.
- Import growth declined to 4.6% in April 2018 from 7.1% in March 2018 despite faster rise in oil imports primarily due to slowdown in imports of pearls and precious metals, machinery, electronic goods, coal and artificial resin.
- Import of pearls and precious metals contracted by (-) 36.4% in April 2018 as compared to a meagre growth of 0.8% in March 2018. Growth has declined sharply from a 21-month high of 94.0% in December. Imports of electronic goods contracted for the first time in 18 months by (-) 6.4% in April 2018 as compared to a growth of 2.5% in March 2018.
- The pace of contraction of gold imports slowed down to (-) 33.1% in April 2018 from (-) 40.3% in March 2018.
- Growth in oil imports nearly trebled to 41.5% in April 2018 from a 9-month low of 13.9% in March 2018.
- Trade deficit remained elevated and stable at US$13.7 billion in April 2018, the same level seen in March 2018. Services surplus rose to US$6.6 billion in March 2018 from US$5.6 billion in February.
- The Indian rupee depreciated further to INR65.6 per US$ in April 2018 from INR 65.0 in March 2018 partly due to FPI outflows.

8. Global growth: ADB projected steady growth prospects for emerging Asia led by India

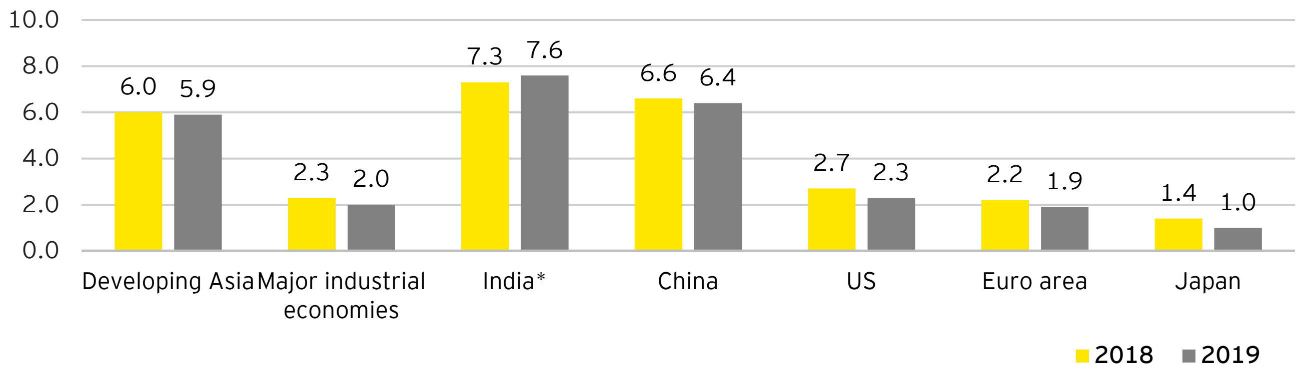
A. Global growth outlook

- As per the ADB (Asian Development Outlook, April 2018), GDP growth in developing Asia has been estimated at 6.1% in 2017 on account of a strong expansion in both external and domestic demand (Chart 13). Growth momentum is projected to moderate only slightly to 6% in 2018 and 5.9% in 2019. Domestic demand is likely to be the key driver of growth in the region in 2018 and 2019.
- Increasing from 1.5% in 2016 to 2.3% in 2017, growth in major industrial economies[4] also witnessed a recovery. Growth momentum is expected to remain strong in 2018 and 2019 led by the expected fiscal expansion in the US.
- In the US, GDP grew by 2.3% in 2017 led by private consumption. Growth is forecasted at 2.7% in 2018, moderating to 2.3% in 2019. Accelerating private consumption and a recovery in domestic investment is expected to support growth in 2018 and 2019. In its May 2018 monetary policy review, the US Fed maintained the target range for the federal funds rate at 1.5%-1.75%. However, it is expected that the steady decline in unemployment rate and upward trend in inflation from greater fiscal stimulus will prompt the Fed to advance its gradual normalization of the monetary policy.

The ADB expects growth in developing Asia to remain buoyant, moderating only slightly in 2018 and 2019. Two major challenges to growth relate to the negative impact of protectionist measures on trade growth and diminishing capital flows into the region on account of faster than expected monetary policy normalization in the US.

- Growth in the Euro area increased to 2.5% in 2017 and is projected at 2.2% in 2018, slowing to 1.9% in 2019. It is expected that investment spending would pick up on account of faster disbursement of funds under the European Union's 2014-2020 program but developments due to the scheduled exit of the U.K. in March 2019 may delay large investment decisions.
- Among the emerging economies, growth in China accelerated in 2017 on account of robust consumption and rising exports. However, it is expected to moderate from 6.6% in 2018 to 6.4% in 2019 as macroeconomic policy is tightened to put the economy on a more sustainable growth path.
- In India, growth is expected to emerge from the slowdown witnessed in 2017 and is projected at 7.3% in 2018 (FY19), increasing to 7.6% in 2019 (FY20) aided by measures to spur rural incomes and a modest pickup in investment. However, a fall in investment, particularly household investment and within that, investment in dwellings and building over the period from FY12 to FY17 poses a challenge for future growth.

Chart 13: Global growth projections



Source: Asian Development Outlook, April 2018
*growth rates pertain to FY19 and FY20

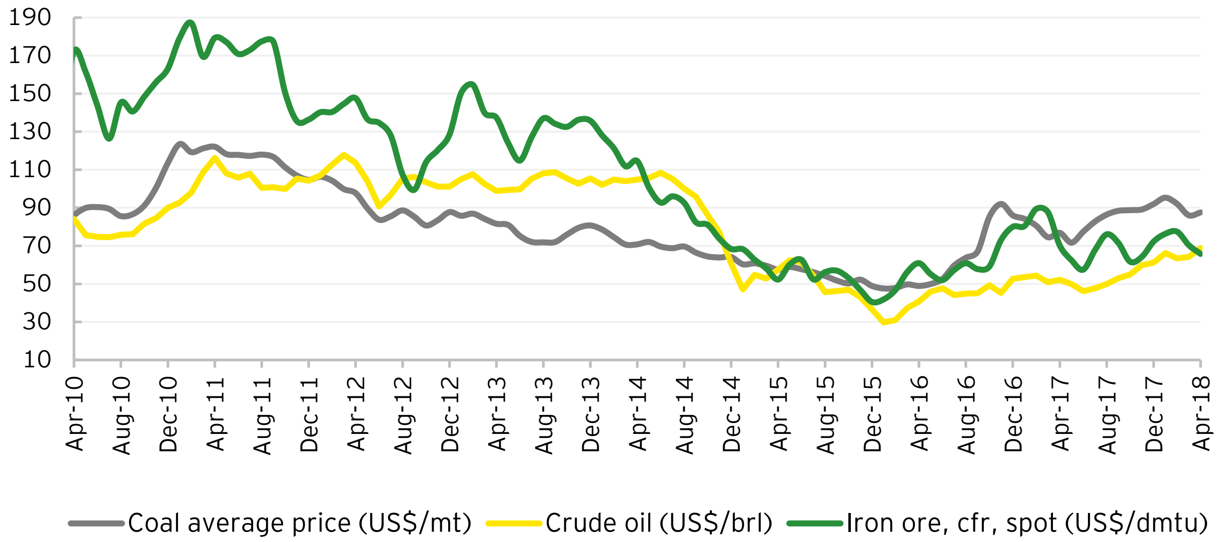
[4] US, Euro area and Japan

B. Global energy and metal prices

At US$68.8/bbl., average global crude price increased to its highest level since November 2014 on account of strong consumption, deeper than expected production cuts by the OPEC producers and US sanction on Iranian oil exports.

- At US$68.8/bbl. in April 2018, average global crude price[5] increased to its highest level since November 2014 (Chart 14). Consumption demand remained strong during the month and supply cuts by the OPEC producers have continued to remain deeper than expected. Supply shocks may further arise because of the US sanctions on Iranian oil exports and disruptions in Venezuela. The World Bank (Commodity Market Outlook, April 2018) projected the global crude prices to average US$65/bbl. in 2018 and 2019.
- Average global coal price[6] increased marginally to US$87.6/mt. in April 2018 from US$86.1/mt. in March 2018. Global coal prices had recovered in 2017 end and 2018 beginning on account of strong consumption in China due to cold weather, low inventories and production restraints. However, prices have fallen since then as the boost from winter demand has waned. According to the World Bank, global coal prices are expected to average at US$85/mt. in 2018, down slightly from 2017. Coal consumption is likely to face long-term structural declines in several consuming regions for both economic and policy reasons.
- Among the metals, iron ore price, after peaking in February 2018, fell to US$70.4/dmtu in March 2018 and further to US$65.8/dmtu in April 2018 amid rising tensions between the US and the China and weak consumption in China. The World Bank has projected the iron ore price to decline by 11% in 2018 due to oversupply.

Chart 14: Global energy and metal prices



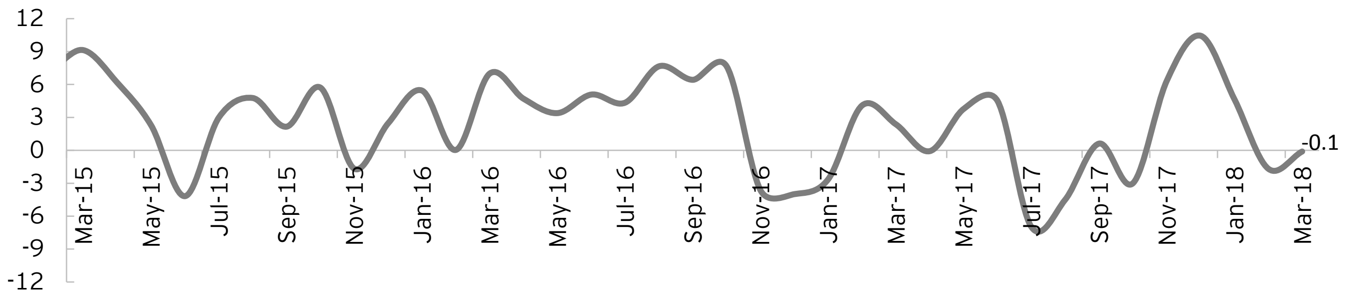
[5] Simple average of three spot prices, namely, Dated Brent, West Texas Intermediate and Dubai Fateh.
[6] Simple average of Australian, Columbian and South African coal prices

9. Index of aggregate demand (IAD): Aggregate demand continued to contract in March 2018

IAD contracted at a slower pace of (-) 0.1% in March 2018 as compared to (-) 1.7% in February 2018. Growth in IAD was lower at 1.0% during FY18 as compared to 2.9% in FY17.

- An IAD has been developed to reflect the combined demand conditions in the agriculture, manufacturing and services sectors on a monthly basis. It takes into account movements in PMI for manufacturing and services, tracing the demand conditions in these sectors. Demand conditions in the agricultural sector have been captured by movements in monthly agricultural credit off-take.
- The sectoral weights in constructing the IAD are based on their respective shares in nominal GVA in the base year (2011−12): Agriculture **(18.4)**, industry **(33.1)** and services **(48.5).**
- The y-o-y growth in index of aggregate demand contracted for the second straight month in March 2018 to (-) 0.1%, but the fall was lower as compared to (-) 1.7% in February 2018 (Chart 15). Demand conditions in both agriculture and industrial sector weakened while that in services sector improved during the month (Table 13).

Chart 15: Growth in IAD (y-o-y)



Source (Basic data): IHS Markit PMI, RBI and EY estimates

Table 13: IAD

Month	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18
IAD	110.7	117.3	122.9	122.5	117.2	123.9	121.7	119.0	124.1
Growth (% y-o-y)	-7.0	-4.5	0.6	-3.0	6.3	10.4	4.6	-1.7	-0.1
Growth in Agr. Credit	6.8	6.5	5.8	5.5	8.4	9.5	9.4	9.0	3.8
Mfg. PMI**	-3.2	2.3	1.6	0.5	3.1	4.5	0.0	2.0	1.6
Ser. PMI**	-6.5	-3.6	1.9	2.9	-4.6	0.9	1.4	-3.2	1.8

**Values here indicate deviation from benchmark value of 50. A positive value indicates expansion while a negative value implies contraction in demand.

Source (Basic data): IHS Markit PMI, RBI and EY estimates.

10. Capturing macro-fiscal trends: Data appendix

Table A1: Industrial growth indicators (annual, quarterly and monthly growth rates, y-o-y)

Fiscal year/quarter/month	IIP	Mining	Manufacturing	Electricity	Core IIP	Fiscal year/quarter/month	PMI mfg.	PMI ser.
	% change y-o-y							
FY 15	4.0	-1.3	3.8	14.8	4.9	FY15	52.2	51.7
FY 16	3.3	4.3	2.9	5.7	3.0	FY16	51.3	51.7
FY 17	4.6	5.3	4.3	5.8	4.8	FY17	51.6	51.0
FY 18	4.3	2.3	4.6	5.3	4.2	FY18	51.5	50.0
1QFY18	1.9	1.1	1.6	5.3	2.5	1QFY18	51.7	51.8
2QFY18	3.3	7.1	2.5	6.1	4.0	2QFY18	50.1	48.0
3QFY18	5.9	0.8	7.0	3.8	5.2	3QFY18	52.5	50.4
4QFY18	6.2	1.0	7.1	6.1	5.2	4QFY18	51.8	49.9
Dec-17	7.3	1.2	8.7	4.4	3.8	Jan-18	52.4	51.7
Jan-18	7.4	0.2	8.6	7.6	6.1	Feb-18	52.1	47.8
Feb-18	7.0	-0.4	8.5	4.5	5.4	Mar-18	51.0	50.3
Mar-18	4.4	2.8	4.4	5.9	4.1	Apr-18	51.6	51.4

Source: Office of the Economic Adviser- Ministry of Commerce and Industry and IHS Markit Economics.

Table A2: Inflation indicators (annual, quarterly and monthly growth rates, y-o-y)

Fiscal year/quarter/month	CPI	Food Price Index	Fuel and light	Core CPI	WPI	Food Price Index	Mfg. products	Fuel and power	Core WPI
	% change y-o-y				% change y-o-y				
FY15	5.9	6.4	4.2	5.8	1.3	4.3	2.6	-6.1	2.7
FY16	4.9	4.9	5.3	4.9	-3.7	1.2	-1.8	-19.7	-1.8
FY17	4.5	4.2	3.3	4.9	1.7	5.9	1.3	-0.3	-0.1
FY18	3.6	1.8	6.2	4.6	2.9	1.9	2.7	8.2	3.0
1QFY18	2.2	-0.9	5.3	4.2	2.3	0.5	2.7	11.2	2.3
2QFY18	3.0	0.8	5.1	4.4	2.8	2.9	2.5	8.2	2.6
3QFY18	4.6	3.7	7.5	4.8	3.8	3.5	2.7	9.1	3.1
4QFY18	4.6	3.6	6.8	5.1	2.7	0.6	3.1	4.7	3.8
Jan-18	5.1	4.7	7.7	5.0	3.0	1.7	3.0	4.7	3.7
Feb-18	4.4	3.3	6.9	5.0	2.7	0.2	3.3	4.6	4.2
Mar-18	4.3	2.8	5.7	5.2	2.5	-0.1	3.0	4.7	3.5
Apr-18	4.6	2.8	5.2	5.8	3.2	0.7	3.1	7.9	3.6

Source: Office of the Economic Adviser, Ministry of Commerce and Industry and MOSPI.

Table A3: Fiscal indicators (annual growth rates, cumulated monthly growth rates, y-o-y)

Fiscal year/month	Gross tax revenue	Corporate tax	Income tax	Direct taxes*	Indirect taxes**	Fiscal deficit	Revenue deficit
						% of GDP	% of GDP
FY15	9.3	8.7	8.7	8.7	9.8	4.0	2.9
FY16	17.0	6.0	8.5	6.9	30.1	3.9	2.5
FY17	17.9	6.7	21.5	12.3	21.6	3.5	2.1
FY18 (RE over Budget Actuals)	13.4	16.3	21.0	18.3	8.6	3.5	2.6
	Cumulated growth (%, y-o-y)					% of budgeted target	
Jul-17	17.1	24.2	18.8	21.1	13.9	92.4	131.5
Aug-17	20.0	15.5	13.3	14.2	23.6	96.1	133.9
Sep-17	19.9	11.3	16.4	13.5	23.0	91.3	118
Oct-17	18.9	11.8	16.2	13.8	21.1	96.1	124.7
Nov-17	16.5	12.4	15.3	13.7	18.3	112.0	152.2
Dec-17	17.3	17.1	17.0	17.1	17.3	104.4 (RE)	102.2 (RE)
Jan-18	17.0	19.0	17.5	18.4	15.6	113.7 (RE)	109.4 (RE)
Feb-18	**15.8**	**19.7**	**17.7**	**18.8**	**13.0**	**120.3 (RE)**	**119.5 (RE)**

Source: Monthly Accounts, Controller General of Accounts-Government of India, Union Budget Documents.
*Includes corporation tax and income tax **includes customs duty, excise duty, service tax, CGST, UTGST, IGST and GST compensation cess.

Fiscal Year/ Month	CGST	UTGST	IGST	GST compensation cess	Total GST
	INR crore				
FY18 (RE)	2, 21, 400	-	1, 61, 900	61, 331	4, 44, 631
FY19 (BE)	6, 03, 900	-	50, 000	90, 000	7, 43, 900
	Monthly tax collection (INR crore)				
Jul-17	-	-	34	-	34
Aug-17	15, 253	-	70,918	7,749	93,920
Sep-17	15, 135	-	30, 395	8024	53, 554
Oct-17	31, 187	21	18, 370	8031	57, 609
Nov-17	23, 839	75	18, 627	7103	49, 644
Dec-17	24, 215	216	17, 142	7899	49, 472
Jan-18	23, 133	193	19, 402	8024	50, 752
Feb-18	**43, 091**	**89**	**-19, 725**	**8197**	**31, 652**

Source: Monthly Accounts, Controller General of Accounts-Government of India, Union Budget Documents.

Table A4: Monetary and financial indicators (annual, quarterly and monthly growth rates, y-o-y)

Fiscal year/ month	Repo rate (end of period)	Fiscal year/ quarter/ month	M1	M3	Bank credit	Agg. deposits	10 yr. Govt. B Yield	Net FDI	Net FPI	FX reserves
	%		% change y-o-y				%	US$ billion	US$ billion	US$ billion
Jun-17	6.25	FY15	11.3	10.9	11.0	12.1	8.3	31.3	FY15	341.6
Jul-17	6.25	FY16	13.5	10.1	9.7	10.5	7.7	36.0	FY16	355.6
Aug-17	6.00	FY17	3.1	10.1	7.9	11.6	7.0	35.6	FY17	370.0
Sep-17	6.00	FY18	22.1	9.5	7.5	7.5	7.0	31.2	FY18	424.4
Oct-17	6.00	1QFY18	1.3	7.0	5.1	10.6	7.0	7.1	1QFY18	386.5
Nov-17	6.00	2QFY18	1.6	5.6	6.1	9.3	6.6	12.4	2QFY18	399.7
Dec-17	6.00	3QFY18	45.8	10.6	8.8	4.9	7.1	4.3	3QFY18	409.4
Jan-18	6.00	4QFY18	22.1	9.5	10.1	5.4	7.5	7.5	4QFY18	424.4
Feb-18	6.00	Dec-17	45.8	10.6	10.3	3.4	7.4	2.7	Jan-18	417.8
Mar-18	6.00	Jan-18	39.3	10.8	10.2	4.6	7.2	1.8	Feb-18	420.6
Apr-18	6.00	Feb-18	32.2	10.3	10.2	5.4	7.6	3.8	Mar-18	424.4
May-18	6.00	Mar-18	22.1	9.5	10.0	6.2	7.6	1.9	Apr-18	420.4

Source: Database on Indian Economy-RBI.

Table A5: External trade and global growth

Fiscal year/quarter /month	External trade indicators (annual, quarterly and monthly growth rates)						Calendar year	Global growth (annual)		
	Exports	Imports	Trade balance	Ex. rate (avg.)	Crude prices (avg.)	Coal prices (avg.)		World GDP	Adv. econ.	Emer. econ.
	% change y-o-y		US$ billion	INR/US $	US$/ bbl	US$/ mt		% change y-o-y		
FY15	-1.3	-0.5	-137.7	61.1	83.2	65.9	2012	3.5	1.2	5.3
FY16	-15.6	-15.2	-117.7	65.5	46.0	52.7	2013	3.3	1.2	5.0
FY17	5.1	0.9	-108.2	67.1	47.9	70.4	2014	3.4	1.9	4.6
FY18	10.0	19.9	-156.8	64.5	55.7	85.6	2015	3.4	2.1	4.3
1QFY18	10.6	32.8	-40.1	64.5	49.4	75.3	2016	3.2	1.7	4.4
2QFY18	13.4	19.1	-32.1	64.3	50.2	85.9	2017	3.8	2.3	4.8
3QFY18	13.1	16.1	-42.7	64.7	58.7	90.0	2018*	3.9	2.5	4.9
4QFY18	3.9	13.9	-42.0	64.3	64.6	91.2	2019*	3.9	2.2	5.1
Jan-18	9.1	26.1	-16.3	63.6	66.2	95.3	2020*	3.8	1.7	5.1
Feb-18	4.5	10.4	-12.0	64.4	63.5	92.1	2021*	3.8	1.7	5.1
Mar-18	-0.7	7.1	-13.7	65.0	64.2	86.1	2022*	3.7	1.5	5.0
Apr-18	5.2	4.6	-13.7	65.6	68.8	87.6	2023*	3.7	1.5	5.0

Source: Database on Indian Economy- RBI, Pink Sheet-World Bank and IMF World Economic Outlook April 2018; * indicates projections

Table A6: Macroeconomic aggregates (annual and quarterly real growth rates, % change y-o-y)

Fiscal year/quarter	Output: Major sectors									IPD inflation
Fiscal year/quarter	GVA	Agr.	Ming.	Mfg.	Elec.	Cons.	Trans.	Fin.	Publ.	GVA
FY15	7.2	-0.2	9.7	7.9	7.2	4.3	9.4	11.0	8.3	3.6
FY16	8.1	0.6	13.8	12.8	4.7	3.7	10.3	10.9	6.1	1.0
FY17 (1st RE)	7.1	6.3	13.0	7.9	9.2	1.3	7.2	6.0	10.7	2.9
FY18 (2nd AE)	6.4	3.0	3.0	5.1	7.3	4.3	8.3	7.2	10.1	3.0
3QFY16	7.3	-2.3	12.0	14.8	3.9	4.3	10.4	10.2	6.9	1.8
4QFY16	8.7	1.5	10.5	12.7	7.6	6.0	12.8	9.0	6.7	1.6
1QFY17	8.3	4.3	10.5	9.9	12.4	3.0	8.9	10.5	7.7	1.2
2QFY17	7.2	5.5	9.1	7.7	7.1	3.8	7.2	8.3	8.0	2.3
3QFY17	6.9	7.5	12.1	8.1	9.5	2.8	7.5	2.8	10.6	2.8
4QFY17	5.6	5.2	6.4	5.3	6.1	-3.7	6.5	2.2	17.0	5.4
1QFY18	5.6	2.7	1.8	-1.8	7.1	1.5	8.4	8.9	13.2	2.3
2QFY18	6.2	2.7	7.1	6.9	7.7	2.8	9.3	6.4	5.6	2.8
3QFY18	6.7	4.1	-0.1	8.1	6.1	6.8	9.0	6.7	7.2	3.8

	Expenditure components						IPD inflation
Fiscal year/quarter	GDP	PCE	GCE	GFCF	EX	IM	GDP
FY15	7.4	6.4	7.6	2.6	1.8	0.9	3.3
FY16	8.2	7.4	6.8	5.2	-5.6	-5.9	2.1
FY17 (1st RE)	7.1	7.3	12.2	10.1	5.0	4.0	3.5
FY18 (2nd AE)	6.6	6.1	10.9	7.6	4.4	9.9	3.0
3QFY16	7.3	9.9	6.4	4.9	-9.1	-10.1	2.2
4QFY16	9.0	11.8	2.4	3.9	-1.6	-3.7	1.6
1QFY17	8.1	8.3	8.3	15.9	3.6	0.1	2.7
2QFY17	7.6	7.5	8.2	10.5	2.4	-0.4	2.9
3QFY17	6.8	9.3	12.3	8.7	6.7	10.1	3.8
4QFY17	6.1	7.3	31.9	-2.1	10.3	11.9	6.0
1QFY18	5.7	6.6	17.1	1.6	5.9	16.0	3.3
2QFY18	6.5	6.6	2.9	6.9	6.5	5.4	3.4
3QFY18	7.2	5.6	6.1	12.0	2.5	8.7	4.4

Source: National Accounts Statistics, MOSPI.

List of abbreviations

Sr. no.	Abbreviations	Description
1	AD	Aggregate demand
2	ADB	Asian Development Bank
3	bbl.	Barrel
4	CAB	Current account balance
5	CGA	Comptroller General of Accounts
6	CGST	Central Goods and Services Tax
7	CPI	Consumer Price Index
8	CSO	Central Statistical Organization
9	Disc.	Discrepancies
10	dmtu	Dry metric tonne unit
11	EMDEs	Emerging market and developing economies
12	EXP	Exports
13	FC	Finance Commission
14	FII	Foreign investment inflows
15	FPI	Foreign portfolio investment
16	FY	Fiscal year (April–March)
17	GDP	Gross domestic product
18	GFCE	Government final consumption expenditure
19	GFCF	Gross fixed capital formation
20	GoI	Government of India
21	GST	Goods and Services Tax
22	GVA	Gross value added
23	IAD	Index of Aggregate Demand
24	IEA	International Energy Agency
25	IGST	Integrated Goods and Services Tax
26	IIP	Index of Industrial Production
27	IMI	Index of Macro Imbalance
28	IMP	Imports
29	IPD	Implicit price deflator
30	LAF	Liquidity adjustment facility
31	MCLR	Marginal cost of funds based lending rate
32	m-o-m	Month-on-month
33	mt	Metric tonne
34	MPC	Monetary Policy Committee
35	NDU	Non-departmental undertaking
36	NEXP	Net exports (exports minus imports of goods and services)
37	PFCE	Private final consumption expenditure
39	PMI	Purchasing Managers' Index (reference value = 50)
40	RE	Revised estimate
41	ToR	Terms of Reference
42	UTGST	Union territory goods and services tax
43	WPI	Wholesale Price Index
44	y-o-y	Year on year

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