

Economy Watch

Monitoring India's
macro-fiscal performance

May 2019

The EY logo is positioned in the bottom right corner of the page. It consists of the letters 'EY' in a bold, white, sans-serif font. The background of the entire page is a blurred photograph of Indian currency, including several coins and banknotes, resting on a dark wooden surface. A yellow graphic element, a triangle, is located in the top left corner, partially overlapping the text area.

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Contents



Foreword	3
1. Growth: IIP contracted by (-) 0.1% in March 2019	4
2. Inflation: CPI inflation remained low at 2.9% in April 2019	5
3. Fiscal performance: pattern of seasonality in center's fiscal aggregates	6
4. India in a comparative perspective: status and prospects	8
5. In focus: has union government's fiscal marksmanship improved over time?	9
6. Money and finance: another repo rate reduction may help in arresting the demand slowdown	14
7. Trade and CAB: growth in merchandise exports weakened to a four-month low of 0.6% in April 2019	16
8. Global growth: ADB projected growth in developing Asia and major industrial economies to ease in 2019	17
9. Index of Aggregate Demand (IAD): pointed towards weakening demand conditions	18
10. Capturing macro-fiscal trends: data appendix	19

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Highlights

1. IIP growth showed a contraction in March 2019 at (-) 0.1%, reversing the pattern of positive growth for the last 20 months.
2. PMI has also signaled a slowing down in both manufacturing and services in April 2019.
3. CPI inflation remained low at 2.9% in April 2019. However, food inflation increased to 2.9% in April 2019 from a contractionary trend until March 2019.
4. Growth in bank credit fell marginally to 13.3% (y-o-y) in March 2019 from 14.8% in February 2019.
5. Growth in exports fell to a four-month low of 0.6% in April 2019 from 11.0% in March 2019.
6. Growth in imports increased to a six-month high of 4.5% from 1.4% over the same period.
7. As a result of the relatively faster growth in imports, merchandise trade deficit expanded to an eight-month high of US\$15.3 billion in April 2019 from US\$10.9 billion in March 2019.
8. The ADB projected growth to moderate in 2019, both in developing Asia and major industrial economies.
9. Growth in developing Asia is expected to fall to 5.7% in 2019 from 5.9% in 2018. For major industrial economies, growth is projected to fall to 1.9% from 2.2%.
10. From a recent trough of US\$54.0/bbl. in December 2018, average global crude price increased to US\$68.6/bbl. in April 2019.



Foreword

Reversing ongoing demand slowdown

High frequency indicators such as Purchasing Managers' Index (PMI) and IIP indicate a broad-based demand slowdown across different sectors of the Indian economy. In April 2019, manufacturing and services PMI at 51.6 and 51, expanded at their slowest pace since August and September 2018, respectively. IIP for March 2019 contracted by (-) 0.1%, which is its lowest performance since June 2017. This contraction is primarily driven by a contraction in manufacturing which showed a contraction of (-) 0.4% in February and March 2019. In the automobile industry, production and sales witnessed a significant decline across all segments. For example, sale of passenger vehicles declined by (-) 17.1% (y-o-y) in April 2019. The quarterly demand data for 4QFY19, based on implicit growth derived by using second advance annual estimates also show the demand slowdown particularly in private final consumption expenditure (PFCE). PFCE has been falling since 2QFY19 in successive quarters from a peak of 9.8% in 2QFY19 to an estimated 8.1% in 4QFY19. On the external front, the merchandise trade data also indicate a sharp fall in export growth from 11% in March 2019 to 0.6% in April 2019. The immediate policy challenge is to stimulate demand in the economy.

On the monetary side, the RBI has already reduced the repo rate twice in succession by 25 basis points each. A significant positive response to this interest rate reduction is yet to be seen. On the fiscal side, however, the new government at the center, as soon as it is formed, is likely to be highly constrained. The revised estimates of the Interim Budget presented in February 2019 had already shown a fiscal deficit of 3.4% of GDP, that is 40 basis points above the FRBM target. Available information indicates that there may be an additional revenue shortfall compared to the revised estimates in the direct taxes. A recent analysis* had highlighted that, compared to the revised estimates, there would be a shortfall in personal income tax of INR53,290 crores and in corporate income tax of INR6,710 crores. In case of indirect taxes, including GST, the anticipated shortfall is estimated to be INR14,818 crores. This amounts to close to 0.9% of GDP. Thus, the new government is likely to be faced with a significant additional slippage in the revised estimate of fiscal deficit relative to GDP, unless there has been a substantial contraction in government expenditure in March 2019. This situation would become clear shortly when the CGA releases the annual details of center's revenues and expenditures.

One option before the new government to stimulate the economy will be to frontload expenditures of FY20, soon after it assumes office. It would do well to bring out the annual budget for FY20 as quickly as possible. One likely focus area for policy is anticipated to be the rural and agricultural sector, given the need for providing relief in view of the continuing distress of this sector, which is recognized across the board by different political parties. There may also be a case for supplementing the fiscal effort by one more dose of repo rate reduction which should also be sooner rather than later in the fiscal year. The CPI inflation rate at 2.9% in April 2019 is still well below the mean CPI inflation target rate of 4%. Furthermore, even though food and vegetable prices have started increasing from a previous sequence of contraction, the core CPI has actually fallen. A coordinated fiscal and monetary stimulus would help in reversing the ongoing demand slowdown.

On the global front, the Indian economy is likely to face more uncertainties due to the US policies targeted at China, India and Iran, among major economies. There is still a degree of uncertainty associated with Brexit. The recent export growth performance shows a significant slowdown in some of India's better performing sectors such as engineering goods and gems and jewelry. There is continued uncertainty regarding crude prices which remain under pressure. Thus, domestic policy stimuli are the key to reverse demand slowdown in the economy.

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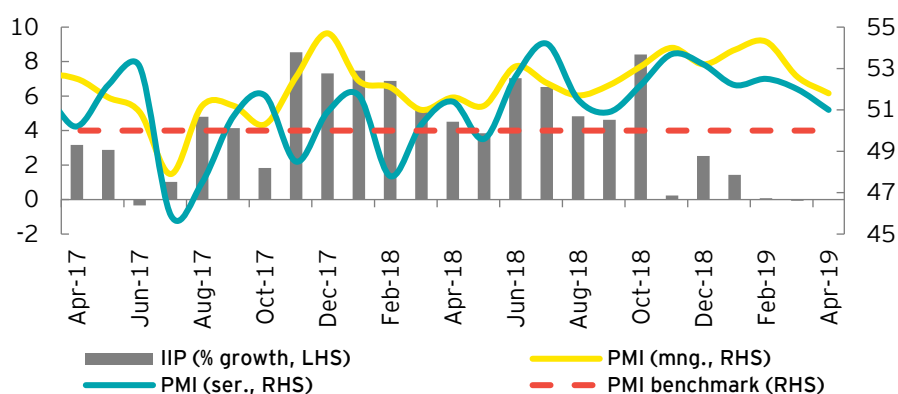
**derived using revised estimates for FY19 from Union Budget FY20 and annual actuals as per Business Standard (2 May 2019), article entitled "Centre missed tax revenue target by 11% in 2018-19"*

1. Growth: IIP contracted by (-) 0.1% in March 2019

A. IIP Growth: pointed to deceleration in industrial activity in FY19

- ▶ IIP contracted by (-) 0.1% (y-o-y) in March 2019 after posting a dismal growth of 0.1% in February 2019 (**Chart 1**), its worst performance since June 2017. This was largely due to a contraction in the output of the manufacturing sector. IIP growth averaged 3.6% in FY19, a three-year low, as compared to 4.4% in FY18, pointing to decelerating industrial activity.
- ▶ Manufacturing sector output (accounting for 77.6% of overall IIP) contracted by (-) 0.4% (y-o-y) in February and March 2019. Both mining and electricity sectors posted a positive but low growth of 0.8% and 2.2%, respectively in March 2019 (Table A1 in Data appendix).
- ▶ Output of the capital goods industry, an indicator of investment activity, contracted for the third straight month by (-) 8.7% (y-o-y) in March 2019 as compared to (-) 8.9% (revised) in February 2019. Output of consumer durables contracted by (-) 5.1% in March 2019. Growth in the output of consumer non-durables fell to a four-month low of 0.3% in March 2019.
- ▶ Growth in the output of eight core infrastructure industries increased to 4.7% in March 2019 (y-o-y) from 2.1% in February 2019. Among the sub industries, growth in the output of coal (9.1%), steel (6.7%) and petroleum refinery products (4.3%) improved in March 2019. However, the output of crude oil ((-) 6.2%) continued to contract in March 2019.

Chart 1: IIP growth and PMI



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

B. PMI: signaled a slowing down in both manufacturing and services in April 2019

- ▶ After peaking at 54.3 in February 2019, headline manufacturing PMI (seasonally adjusted (sa)) fell for the second consecutive month to 51.8 in April 2019 from 52.6 in March 2019 (**Chart 1**). Growth in new orders and output sub-indices slowed in line with the trend in overall PMI manufacturing. Employment index at 50.3 in April 2019 was the lowest in over a year.
- ▶ Falling from 52 in March 2019 to 51 in April 2019, headline services PMI (sa) was at its lowest since September 2018.
- ▶ Reflecting a slower expansion in manufacturing as well as services PMI, the composite PMI Output Index (sa) fell to a seven-month low of 51.7 in April 2019 from 52.7 in March 2019.

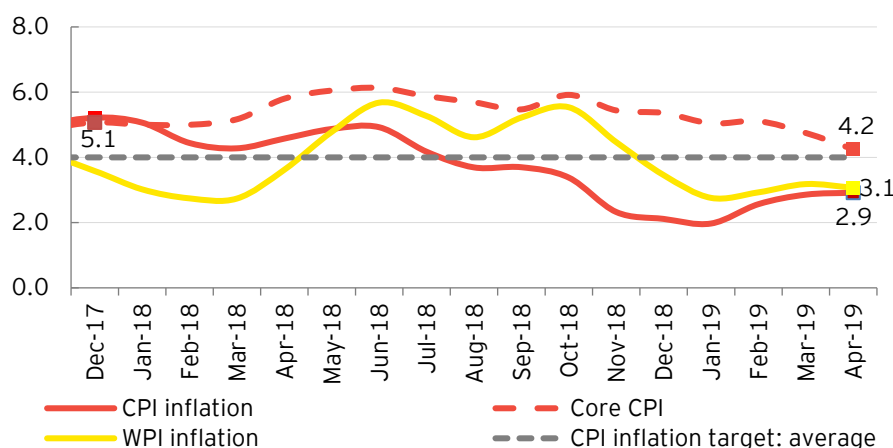
In April 2019, manufacturing and services PMI at 51.6 and 51, expanded at their slowest pace since August and September 2018, respectively.

2. Inflation: CPI inflation remained low at 2.9% in April 2019

CPI inflation remained subdued at 2.9% (y-o-y) in April 2019, the same level as in March 2019 (Chart 2) despite rising vegetable prices.

- ▶ Core CPI inflation¹ fell to a 21-month low of 4.2% in April 2019 from 4.7% in March 2019.
- ▶ Inflation in consumer food prices turned positive at 2.9% in April 2019 from (-) 1.5% in March 2019 led by a slowdown in the pace of contraction in onion prices to (-) 21.7% in April 2019 from (-) 39.8% in March 2019. Prior to April 2019, consumer food prices had been contracting for nine successive months.
- ▶ Fuel and light-based inflation increased to a four-month high of 2.6% in April 2019 as compared to 2.3% in March 2019 driven by inflation in LPG which rose to a four-month high of 8.2% from 5.0% over the same period. It had earlier reached an all-time low (2012 base) of 1.2% in February 2019.
- ▶ Inflation in transportation and communication services eased to a 14-month low of 2.5% in April 2019, the sixth consecutive month of decline, from 3.0% in March 2019. The fall was driven by an increase in the pace of contraction in petrol prices to (-) 3.0% from (-) 1.8% over the same period.
- ▶ Housing-based inflation decelerated for the tenth successive month to a near six-year low of 3.4% in April 2019 from 4.0% in March 2019.

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



In April 2019, core CPI inflation eased to a 21-month low of 4.2% and core WPI inflation eased to a 28-month low of 1.9% from their respective levels of 4.7% and 2.5% in March 2019.

Source: MoSPI, Office of the Economic Advisor, Government of India (GoI)

WPI inflation fell marginally to 3.1% in April 2019 from 3.2% in March 2019 (Chart 2). This was due to a moderation in inflation in fuel and manufactured products, which more than compensated for the rising inflation in vegetables.

- ▶ Inflation as per the food price index increased to a 28-month high of 4.9% in April 2019 from 3.9% in March 2019 as inflation in vegetables rose steeply to 40.6% from 28.1% over the same period. Inflation in vegetables had earlier turned positive in February 2019 after six successive months of contraction.
- ▶ Fuel and power-based inflation eased to 3.8% in April 2019 from 5.4% in March 2019, driven by falling inflation in diesel and electricity. Inflation in electricity fell to 2.3%, a 14-month low from 5.0% over the same period.
- ▶ Inflation in manufactured products moderated to a 30-month low of 1.7% in April 2019 from 2.2% in March 2019 due to a broad-based decline in inflation across most sectors.
- ▶ WPI core inflation eased substantially to a 28-month low of 1.9% in April 2019 from 2.5% in March 2019.

¹ Core CPI inflation is measured in different ways by different organizations/agencies. Here, it has been calculated by excluding food, and fuel and light from the overall index.

3. Fiscal performance: pattern of seasonality in center's fiscal aggregates

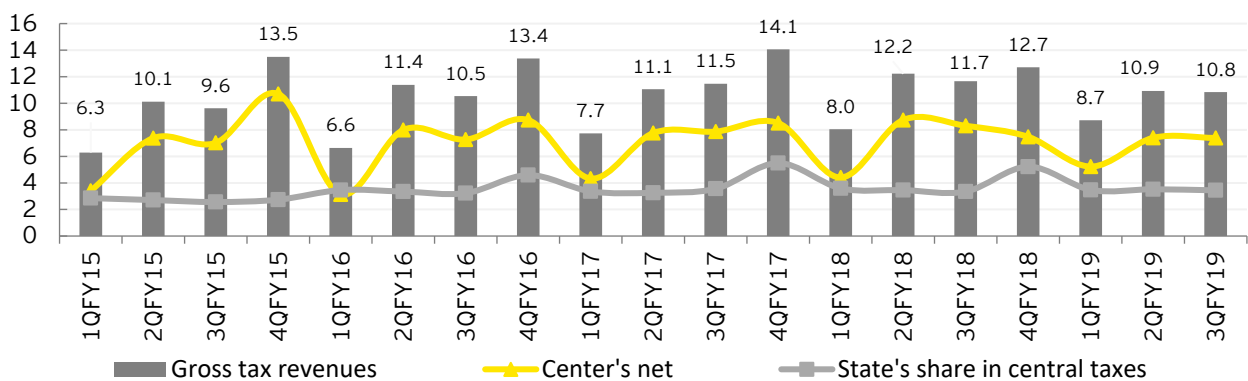
A. Tax and non-tax revenues

- ▶ Quarterly buoyancy estimates of major tax revenues indicate a tangible pattern of seasonality in the collection of revenues.
- ▶ **Corporate income tax (CIT):** **Table 1** indicates that for CIT, taking the average of four quarters to obtain an annual perspective, buoyancy remained less than 1 from FY15 to FY17. It picked up to 1.7 in FY18 and recently, it was above 2 in 2QFY19 and close to 1 in 3QFY19.
- ▶ First quarter buoyancies of CIT appear to be relatively lower compared to the other quarters except in 1QFY18. This may be due to some of the refunds that are usually made in the 1Q of the fiscal year.
- ▶ Since advance payments are made in September and December, a pickup in buoyancies in 2Q and 3Q is depicted.
- ▶ **Personal income tax (PIT):** in the case of PIT, the average buoyancy was below 1 in FY15 and FY16. It peaked to 2.1 in FY17, the year of demonetization. It has remained at or above 1 since then in all subsequent quarters.
- ▶ **Indirect tax (IDT):** **Table 1** shows that buoyancy of IDT revenues peaked in FY16 when it averaged 3.0. This can be attributed to higher revenues from excise duty on petroleum products which was facilitated due to a fall in global crude prices. However, since then, it has gradually fallen. IDT buoyancy was negative in 2Q and 3QFY19.
- ▶ Quarterly estimates of center's gross tax revenue to GDP ratio exhibit a seasonal pattern with 1Q of each year being the lowest. As expected, gross tax GDP ratio peaks in 4Q of each year due to the spike in revenues in March.
- ▶ A similar pattern is also observable in center's net tax revenue to GDP ratio. This is because the same percentage applies to all central taxes, after excluding cesses and surcharges, based on the recommendations of the finance commission.
- ▶ The difference between center's gross and net taxes comprises the state's share in central taxes. This clearly peaks in 4Q. In fact, for the first three quarters, a pre-determined ratio is applied to anticipated revenues from the central taxes and adjustments are made in the fourth quarter to account for the difference between actuals and budget estimates.

Quarter	CIT	PIT	IDT
1QFY15	0.0	1.1	0.0
2QFY15	0.9	1.0	1.0
3QFY15	0.8	0.2	0.8
4QFY15	1.4	1.0	1.8
Average	0.8	0.8	0.9
1QFY16	0.3	-0.3	3.3
2QFY16	1.6	2.2	3.0
3QFY16	0.7	1.2	3.8
4QFY16	-0.2	0.2	2.0
Average	0.6	0.8	3.0
1QFY17	0.3	4.4	2.9
2QFY17	0.1	-0.2	1.6
3QFY17	0.8	2.3	2.2
4QFY17	0.9	2.1	1.3
Average	0.5	2.1	2.0
1QFY18	2.3	1.0	1.2
2QFY18	0.5	1.9	2.7
3QFY18	2.2	1.6	0.7
4QFY18	1.7	2.2	-1.5
Average	1.7	1.7	0.8
1QFY19	-0.1	1.0	2.9
2QFY19	2.2	1.6	-1.4
3QFY19	0.9	1.2	-0.5

Source (basic data): CGA and MoSPI

Chart 3: Center's tax revenues-GDP ratio



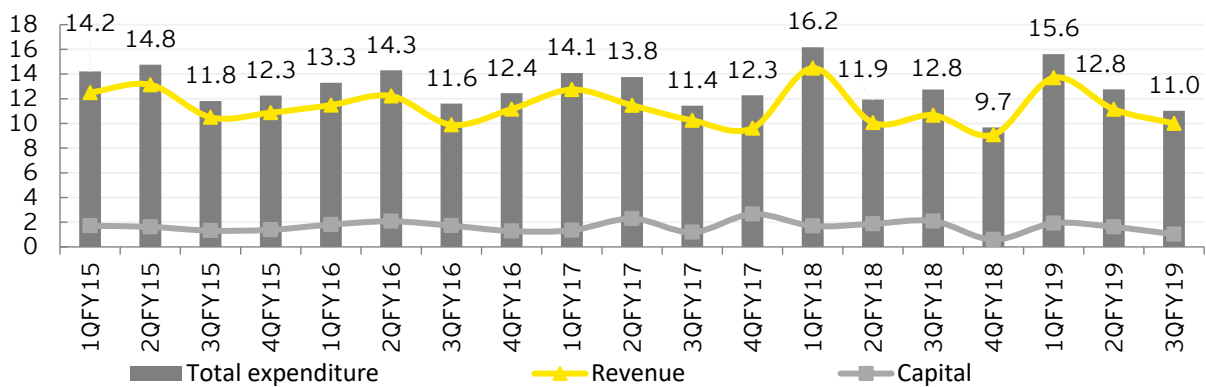
Source: Monthly Accounts, Controller General of Accounts, Government of India

Note: Direct taxes include personal income tax and corporation tax, and indirect taxes include union excise duties, service tax, customs duty, CGST, UTGST, IGST and GST compensation cess from July 2017 onwards; * IGST revenues are subject to final settlement

B. Expenditures: revenue and capital

- ▶ In the case of expenditures, the broad pattern is a front loading of expenditures in 1Q and then a bunching of expenditures in the last quarters. This pattern seems to have changed somewhat in the last two years wherein expenditure has been sharply front loaded in 1Q, after which it has tapered off in the successive quarters and maximum downward adjustment appears to have happened in the last quarter (Chart 4). This could be one reason why a noticeable demand slowdown has become visible in the 3Q and 4Q of the current fiscal year.
- ▶ A similar pattern is observed in the case of revenue expenditure which accounts for more than 87% of total expenditure on average.
- ▶ A comparable pattern is also visible in the case of capital expenditure, where expenditures taper off as we move from 1Q to the subsequent quarters except in FY17. 4Q capital expenditures are noticeably the lowest in relative terms indicating that they have borne the maximum downward adjustment whenever expenditure compression is required to limit slippage in fiscal deficit relative to the target.

Chart 4: Expenditure to GDP ratio

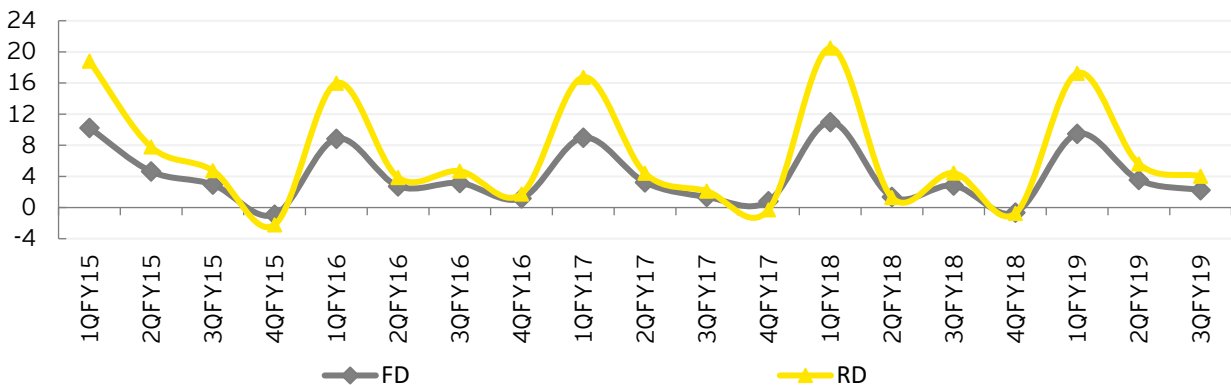


Source (basic data): Monthly Accounts, Controller General of Accounts (CGA), Government of India

C. Fiscal imbalance

- ▶ In case of fiscal deficit, the pattern of seasonality is highly pronounced. The maximum fiscal deficit occurs in 1Q (Chart 5), indicating that the financing of the frontloading of the government expenditure in 1Q is undertaken largely on the basis of borrowings from the market. As tax revenues increase in the 3Q and 4Q, the quarterly pattern of fiscal deficit shows convergence towards the annual target.
- ▶ The quarterly pattern of revenue deficit mirrors that of fiscal deficit. This indicates that a lot of borrowings undertaken in 1Q are spent on revenue expenditures which is not evenly divided throughout the year. The large revenue expenditures in 1Q may also indicate undertaking expenditures postponed from the previous fiscal year such as pending subsidy payments, etc.

Chart 5: Fiscal and revenue deficit as % of GDP



Source: Monthly Accounts, Controller General of Accounts, Government of India, Medium-term Fiscal Policy Statement, Union Budget FY19.

4. India in a comparative perspective: status and prospects

General government net lending/borrowing as % of GDP

Fiscal deficit to GDP ratio is expected to increase sharply in 2019 for both AEs and EMDEs.

- ▶ General government fiscal deficit to GDP ratio for AEs is expected to increase from (-) 2.1% in 2018 to (-) 2.4% in 2019 as the expansionary fiscal stance in AEs is expected to increase further.
- ▶ But during 2020 to 2024, fiscal deficit-GDP ratio is expected to fall gradually as a medium-term fiscal adjustment is projected for most AEs (except Euro area).
- ▶ In the US, higher discretionary spending and the reduction in effective tax rates under the 2017 Tax Cuts and Jobs Act (TCJA) is expected to increase the fiscal deficit to GDP ratio in 2019. Fiscal deficit is expected to fall marginally from 2020 onwards as some provisions in the TCJA expire after 2022.

Table 2: General government net lending/borrowing (% of GDP)

	2018	2019	2020	2021	2022	2023	2024
AEs	-2.1	-2.4	-2.2	-2.2	-2.2	-2.1	-2.0
US	-4.3	-4.6	-4.4	-4.4	-4.4	-4.0	-3.7
Euro area	-0.6	-1.0	-0.9	-1.0	-1.1	-1.1	-1.1
Japan	-3.2	-2.8	-2.1	-1.9	-1.8	-1.9	-2.1
EMDEs	-3.9	-4.7	-4.3	-4.3	-4.3	-4.2	-4.2
Brazil	-6.8	-7.3	-7.0	-6.9	-6.6	-6.2	-5.8
Russia	2.8	1.0	0.8	0.4	0.0	-0.2	-0.4
India*	-6.7	-6.9	-6.6	-6.4	-6.3	-6.2	-6.1
China	-4.8	-6.1	-5.5	-5.4	-5.4	-5.3	-5.3

Source (basic data): World Economic Outlook, IMF, April 2019

Note: forecasted for 2019 and beyond;

*data pertains to fiscal year. For example, data for 2019 pertains to the year FY20.

-ve indicates deficit and +ve indicates surplus

- ▶ In EMDEs, fiscal deficit to GDP ratio is expected to widen to (-) 4.7% in 2019 before gradually declining over the medium term. In China, fiscal deficit-GDP ratio is projected to remain high as reductions in the value-added, personal income and corporate income tax rates are expected. India's fiscal deficit to GDP ratio is projected to remain above 6% until 2024. In Russia, fiscal surplus in 2018 is expected to turn to a deficit by 2023 due to the government's plan of increased spending as well as relatively lower oil prices.

Current account balance as % of GDP

Current account surplus as % of GDP in AEs is expected to broadly narrow while current account deficit to GDP ratio in EMDEs is projected to widen.

- ▶ Among AEs, current account deficit as % of GDP in the US is expected to widen in 2019 until 2021 driven by expansionary fiscal policy.
- ▶ In the Euro area, current account surplus to GDP ratio is expected to reduce in 2019 and beyond, while in Japan, this ratio is projected to remain around 3.5%.
- ▶ Among the EMDEs, current account surplus-GDP ratio in Russia is expected to fall from 7% in 2018 to 3% by 2024 largely because of reduction in oil exports driven by the Second Vienna Agreement and modest global crude prices.

Table 3: Current account balance (% of GDP)

	2018	2019	2020	2021	2022	2023	2024
AEs	0.7	0.6	0.5	0.4	0.5	0.5	0.6
US	-2.3	-2.4	-2.6	-2.7	-2.6	-2.4	-2.1
Euro area	3.0	2.9	2.8	2.7	2.6	2.4	2.2
Japan	3.5	3.5	3.6	3.5	3.5	3.5	3.5
EMDEs	-0.1	-0.4	-0.5	-0.7	-0.8	-0.9	-0.9
Brazil	-0.8	-1.7	-1.6	-1.6	-1.7	-1.8	-1.9
Russia	7.0	5.7	5.1	4.5	4.0	3.4	3.0
India*	-2.5	-2.5	-2.4	-2.4	-2.5	-2.5	-2.5
China	0.4	0.4	0.3	0.1	0.0	-0.1	-0.2

Source (basic data): World Economic Outlook, IMF, April 2019

Note: forecasted for 2019 and beyond;

*data pertains to fiscal year. For example, data for 2019 pertains to the year FY20.

-ve indicates deficit and +ve indicates surplus

- ▶ Current account deficit in India is projected to remain at about 2.5% of GDP during 2019 to 2024 reflecting relatively higher oil import bills. In China, surplus on the current account is expected to fall and eventually turn into marginal deficit by 2023.



5. In focus: has union government's fiscal marksmanship improved over time?

Introduction

In the FY20 interim budget, for a number of items, the budget estimates were revised sharply. Available information indicates that even the revised estimates, particularly on the revenue side, may differ from the actuals tangibly. The capacity of the Ministry of Finance (MoF) to make accurate forecasts of key fiscal aggregates determines the quality and efficacy of its fiscal marksmanship. While policy variables such as the tax rates are known in advance, the tax bases depend on how the economy performs. The revenue side of the budget is therefore an interplay of policy parameters and market forces. The expenditure side is largely discretionary because the expenditures can be budgeted and spent entirely on government's discretion. However, in this case also, since governments are involved in procurement of goods and services, the nominal value of the purchases undertaken by the government depends on the prevailing prices. Furthermore, even though the MoF collects information from various ministries and departments in order to prepare the budget, actual expenditures depend on the capacities of individual departments to complete budgeted expenditures while remaining consistent with the prescribed and due processes. Ever since the central government subjected itself to Fiscal Responsibility and Budget Management Act (FRBMA) targets, it has an obligation to meet the prescribed targets and explain if there are any deviations. Governments have shown keenness to adhere to or come close to the pre-announced fiscal deficit estimates and in cases where the revenue side underperforms, governments tend to make adjustments on the expenditure side.

There is a view in the literature that after the introduction of FRBMA, government's fiscal marksmanship might have improved². It is useful therefore, from time to time, to review the quality of government's fiscal marksmanship by analyzing the quality of budget and revised estimates as predictors of the corresponding actuals. With a view to undertake such an analysis, we have reviewed the predictive quality of the budget and revised estimates of the union government's budget with respect to major fiscal aggregates covering revenue, expenditure and fiscal imbalance variables over a period of 18 years from FY01 to FY18. For convenience, we have divided these periods into four sub-periods, as detailed below:

Table 4: Sub-periods for analysis

Period 1	Period 2	Period 3	Period 4
2000-01 to 2003-04	2004-05 to 2008-09	2009-10 to 2013-14	2014-15 to 2017-18

We have evaluated the quality of forecasts by looking at the direction of error (overestimation or underestimation) and its extent as measured by percentage error in budget estimates (BE) and revised estimates (RE) relative to budget actuals (BA). The sequence of analysis is to cover the fiscal aggregates relating to revenues, expenditures and then fiscal imbalances.

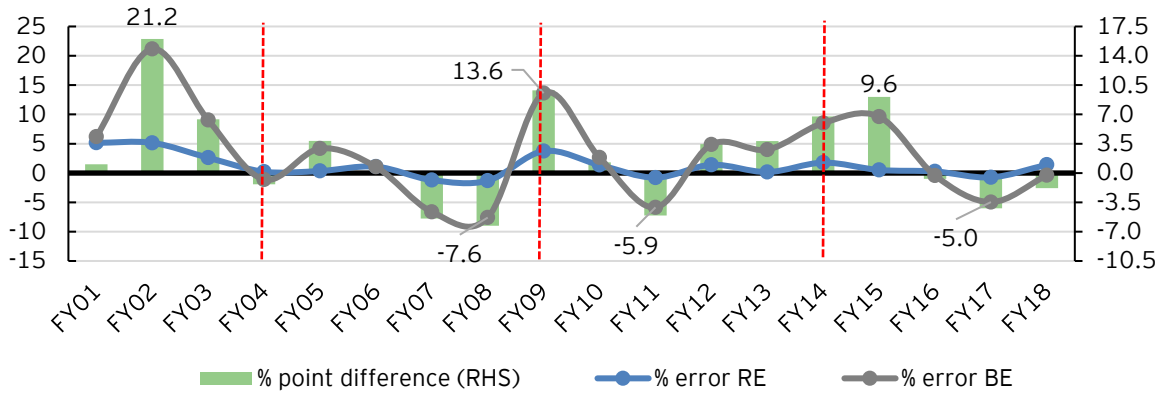
The government gets one opportunity to improve its marksmanship when the revised estimates (RE) are presented. Until recently, the central budgets were presented at the end of February. Since the fiscal year started in April, the budget was presented only one month in advance of the fiscal year. With effect from FY18 budget, the presentation of the budget was brought forward to end-January/ beginning of February so that the estimates were made two months ahead of the beginning of the fiscal year. At the time of the presentation of the budget, RE for the current fiscal year are also presented. The end-February budget presentation enabled the utilization of actual data from the CGA up to December covering a period of nine months of the fiscal year so that estimates were required only for a period of three months. After the budget presentation was brought forward, BE have to be prepared two months in advance and RE have to use estimates for four months.

Revenue aggregates

Chart 6 shows the percentage error in BE and RE relative to the actuals for center's gross tax revenues. The position of the percentage error line above the horizontal axis shows cases of overestimation. Between the four regimes considered here, on average, there is an overestimation of center's taxes in all the four periods. However, it was particularly pronounced in periods 1 and 3. The revised estimates provide a significant improvement in the quality of projection. The average errors in the BE and RE over the four periods with respect to the gross tax revenues and its major components are summarized in Table 5.

² Chakraborty, L. S., & Sinha, D. (2018). Has Fiscal Rules changed the Fiscal Behavior of Union Government in India? Anatomy of Budgetary Forecast Errors in India. *International Journal of Financial Research*, 9(3), 75-85.

Chart 6: Center's gross tax revenues: % error relative to actuals



Source (basic data): Union Budget documents, various years

Table 5: Center's gross tax revenues and major components: average % errors in RE and BE

Period	Gross taxes		Net taxes		Corporate income tax (CIT)		Income tax (PIT)		Total indirect taxes* (IDT)	
	RE	BE	RE	BE	RE	BE	RE	BE	RE	BE
Period 1	3.3	8.8	4.0	9.2	2.8	4.8	4.3	12.0	4.7	11.3
Period 2	0.5	0.9	0.7	0.9	0.9	0.3	12.5	10.3	0.7	3.1
Period 3	0.8	2.8	1.1	3.1	1.1	5.7	-0.2	-6.5	1.2	5.0
Period 4	0.4	1.0	0.5	0.02	-0.04	1.3	1.4	5.0	-8.1#	-8.7#

Source (basic data): Union budget documents, various years

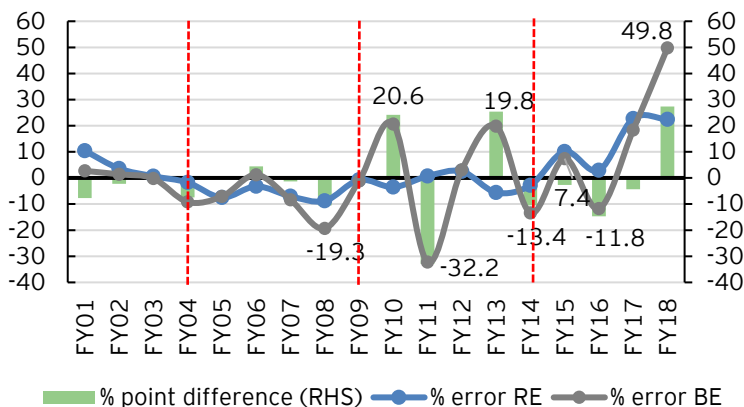
*total indirect taxes include union excise duties, customs duties, service taxes, taxes of UTs and center's GST revenues in FY18

#average % error in period 4 excluding FY18 is -0.6 for RE and -1 for BE

On the revenue side, we have looked at center's gross tax revenues and three of its major components namely, corporate and personal income taxes and total indirect taxes. Once states' share in central taxes are set aside, we get center's net tax revenues. In all cases, apart from two exceptions, throughout this period, taxes were overestimated. The magnitude of overestimation of BE was close to 9% in center's gross taxes in period 1. It improved considerably in period 2 and period 4 when the margin of error on an average was close to 1%. The RE remained overestimates in most cases but the margin of error was significantly lower. In fact the lowest margin of error was observed in period 4 when it is only 0.4% of the actuals. In the case of center's net taxes, the margins of errors were marginally higher than in gross taxes except for BE of period 4. In terms of direct taxes, the predictive quality of budget estimates is much better for CIT as compared to PIT. The average % error is also relatively high for total indirect taxes and similar in magnitude to PIT. The following broad observations can be made with respect to the predictive quality of BE for center's tax revenues:

- In general, tax revenues have been overestimated throughout the period under analysis.
- RE remain overestimates but the margin of error is reduced significantly
- CIT is predicted better as compared to PIT and total indirect taxes.
- Across periods, period 1 shows largest percentage errors on average and periods 2 and 4 show much lower errors.

Chart 7: Center's non-tax revenues: percentage error relative to actuals

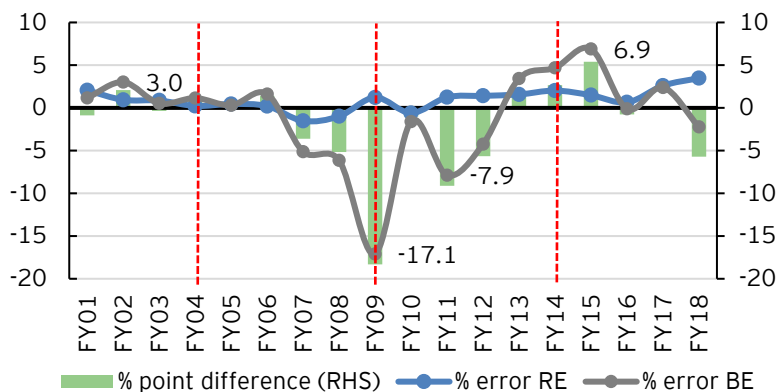


In the case of non-tax revenues, the nature of error reversed itself particularly in the earlier periods, where cases of underestimation were more pronounced with respect to both BE and RE. In periods 3 and 4, there are years of overestimation and underestimation. In period 4, the cases of overestimation became more prominent and the magnitude of errors also increased.

Source (basic data): Union Budget documents, various years

Expenditure aggregates

Chart 8: Center's revenue expenditure: % error relative to actuals

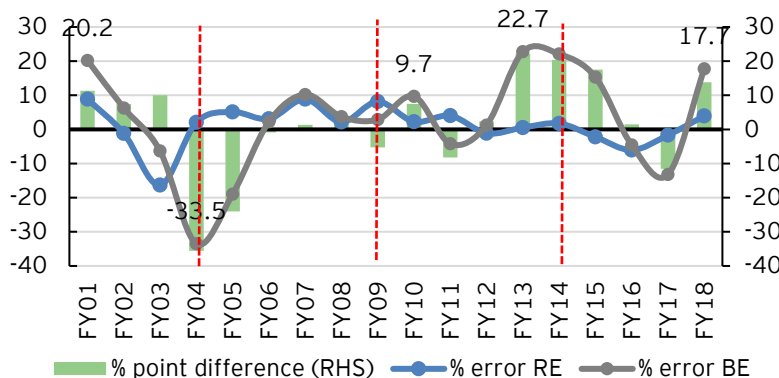


Source (basic data): Union Budget documents, various years

continued until FY12. In the case of the current government, in most years, there was overestimation of revenue expenditure. This may be largely because of the need for curtailing revenue expenditures in order to remain close to the fiscal deficit target. In this case also, we observe that RE show considerable improvement over BE in their predictive quality. The only noticeable departure in this pattern is in some of the recent years where even the RE were noticeably higher than the corresponding actuals.

In the case of center's revenue expenditure, there was considerable underestimation around FY09, which was the year of global economic and financial crisis. In fact, prior to that, the BE and RE percentage error (% error) lines had remained close to the zero error line. There was overestimation of a small magnitude. However, underestimation of revenue expenditure started from FY07 and due to the need for stimulating the economy in the wake of the crisis, expenditures were deliberately uplifted as compared to the budgeted amounts in FY09. The trend of underestimation

Chart 9: Center's capital expenditure: % error relative to actuals



Source (basic data): Union Budget documents, various years

In the case of capital expenditures, the longer term pattern indicates a larger number of years covering periods 2 and 3 and the initial years of period 4, which are cases of overestimation. Actual expenditures have turned out to be lower. Again, this may possibly be because of the need to limit departures from fiscal deficit targets which generally lead to compromising the capital expenditure. As a result, the BE and even the RE proved to be overestimates. The inter-period variations in % errors for capital expenditure and other expenditure

components are summarized in Table 6.

Table 6: Center's expenditures and major components: average % errors in RE and BE

Period	Total exp.		Capital exp.		Rev. exp		Interest payments		Pensions	
	RE	BE	RE	BE	RE	BE	RE	BE	RE	BE
Period 1	0.5	-0.02	-1.6	-3.3	1.0	1.5	-0.9	1.4	-0.7	3.9
Period 2	0.7	-5.1	5.5	0.01	-0.1	-5.3	-1.1	-2.9	-0.1	-9.4
Period 3	1.2	0.2	1.5	10.3	1.1	-1.1	1.9	2.0	-9.9	-17.7
Period 4	1.6	1.9	-1.5	3.8	2.1	1.7	0.7	2.5	-3.8	-9.3

Source (basic data): Union budget documents, various years

In the case of interest payments, the average % error has ranged from -2.9% (period 2) to 2.5% (period 4). Since interest liabilities are known in advance, even this margin of error appears to be excessive. The higher magnitude of % error in the case of pensions tends to be underestimated. The margin of error at (-) 17.7% for BE and (-) 9.9% for RE are unduly large since pension expenditures are also easily estimable in advance.

We also looked in greater detail at some of the sub-categories of expenditures under the broad heads of social and economic revenue expenditures. In particular, we looked at education, health and agriculture and rural development. This analysis covered two of the latter periods for which comparable data was available.

Table 7: Major components of revenue and capital expenditure: average % errors in RE and BE

Period	Revenue expenditure						Capital expenditure					
	Education		Health and water supply		Agr. and rural dev.		Defence exp.		Non-defence exp.		Loans and advances	
	RE	BE	RE	BE	RE	BE	RE	BE	RE	BE	RE	BE
Period 3	-5.3	-3.2	-7.5	1.2	-0.9	-4.7	-2.5	5.7	5.4	21.8	1.7	-13.2
Period 4	-2.7	-1.4	-6.5	-1.9	9.8	4.7	-2.6	7.4	-0.3	2.8	1.4	17.4

Source (basic data): Union budget documents, various years

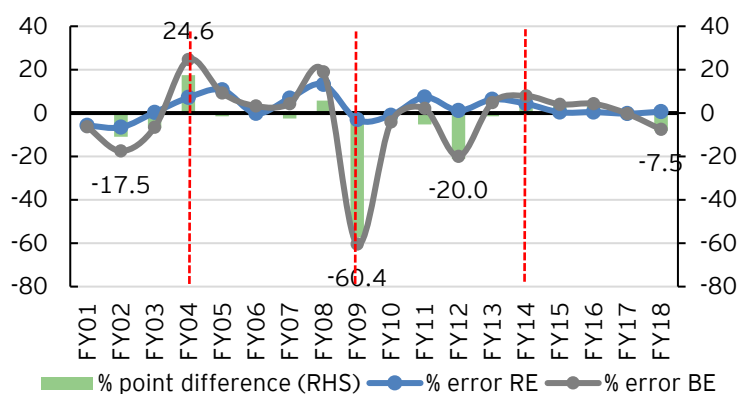
Notes: (a) Education includes general education and technical education; (b) health and water supply includes medical and public health, family welfare and water supply and sanitation; (c) agr. and rural dev. includes agriculture and allied activities and rural development

In the case of education and health, the actual expenditures on average tends to be higher than the BE as well as the RE. That is why, there is an underestimation reflected in the negative sign of the % error for BE and RE. In fact, the % error becomes higher in RE as compared to BE. This phenomenon indicates concentration of spending in the last quarter of the fiscal year, which even the RE, have not been able to capture. It is quite possible that most of education and health expenditures relate to committed expenditures which may be in the form of salaries, pensions, etc. and even when as part of an expenditure compression plan following pressures on fiscal balance, these do not succeed in the case of education and health. In the case of agriculture and rural development, which is another critical area of government spending, there is a notable difference between periods 3 and 4. Period 3 shows underestimation while period 4 shows overestimation. In fact, in period 4, the RE show that the magnitude of error has nearly doubled. This is indicative of the fact that while the spending plans focussed on agriculture and rural development may have been announced and provided in the RE, the corresponding actual expenditures turned out to be significantly lower.

Capital expenditures are divided into loans and advances and capital outlay. Capital outlay is further divided into defence and non-defence categories. In the case of loans and advances, the magnitude of prediction error in the BE is one of the highest. For period 3, it was a case of underestimation with the average % error for BE at (-) 13.2%. For period 4, it was an overestimation of BE with the magnitude of % error being as high as 17.4%. This last episode indicates that maximum adjustment relative to BE might have happened in the case of loans and advances and this adjustment took place at the time of presenting the next year's budget where RE of the current year are presented. In the context of capital outlay, the BE are overestimates for both periods 3 and 4, indicating that budgeted expenditures could not be spent. But the direction of errors changed from over to underestimation while preparing the RE in both the periods. In the case of non-defence expenditure, the average % error for BE was nearly 22% in period 3. In period 4 also, it was a case of overestimation. It is clearly indicated that when pressures of adhering to fiscal deficit targets arise, in relative terms, maximum downward adjustment is made in the case of non-defence capital expenditure and loans and advances.

Fiscal imbalances

Chart 10: Center's fiscal deficit: % error relative to actuals



Source (basic data): Union Budget documents, various years

maximum error in BE for predicting fiscal deficit was in FY09 at (-) 60.4%, immediately after the global economic and financial crisis. In fact, just one year prior to this, for the first and only time, the central government was able to achieve the FRBM fiscal deficit target of 3% of GDP. However, post the global crisis and in the wake of the

In the case of fiscal deficit, the number of years of overestimation of BE are more than the number of years of underestimation. However, in the years of underestimation (e.g., FY09 and FY12), the magnitude of error is quite high. The rationale for underestimating BEs could be an attempt towards reducing fiscal deficit so as to come close to the FRBM target. But the actuals turn out to be higher than these ambitious targets. As a result, the BEs prove to be underestimated. However, by the time the fiscal year closes and the RE are prepared, the budgeted fiscal deficit targets are adjusted upwards. Over the longer period history, the

2009 election, there was a large unanticipated slippage from the budgeted fiscal deficit target. In FY12 also, a fiscal stimulus was attempted, although it was not anticipated in the budget. That is why the magnitude of % error was high at (-) 20% in this year.

Table 8: Major components of fiscal and revenue deficits: average % errors in RE and BE

Period	Fiscal deficit		Revenue deficit	
	RE	BE	RE	BE
Period 1	-1.2	-1.4	-4.7	-6.9
Period 2	5.5	-5.0	5.6	-7.2
Period 3	3.6	-1.9	3.1	-5.3
Period 4	0.3	0.1	-1.0	0.8

Source (basic data): Union Budget documents, various years

Revenue deficit reflects the extent to which borrowing is utilized for financing revenue expenditures. A high value of this is reflective of a poorer quality of utilization of fiscal deficit. Keeping revenue deficit low relative to fiscal deficit therefore is a desirable target. For the first three periods, in preparing the BE, the revenue deficit was understated as the corresponding actuals turned out to be higher, resulting in a negative sign for the % error. This pattern is reversed in

period 4 where there is a marginal overestimation in the BE of revenue deficit. However, it is the RE which show a negative sign for this period.

Conclusion

Based on reviewing the accuracy of BE and RE as predictors of corresponding actuals, we noticed a clear improvement in union government's fiscal marksmanship over time. This improvement may be linked to the introduction of the fiscal responsibility targets among other revenues. Slippages in fiscal imbalances are tracked by analysts, domestic markets, international observers and general public, at large. The main findings may be summarized as below:

1. Central government's gross taxes have been overestimated throughout the period under review but the magnitude of % error has come down noticeably in period 2 and more recently in period 4.
2. In relative terms, budget and revised estimates for CIT are closer to actuals compared to PIT and indirect taxes.
3. In the case of non-tax revenues, % errors are relatively high in periods 3 and 4 and there have been shifts in the direction of errors. In periods 1 and 2, an underestimation is noticeable whereas in period 4 in most years, there was an overestimation.
4. In the case of revenue expenditures, the predictive quality of estimates deteriorated over time. It was maximum in the year of the global economic and financial crisis i.e., FY09. But afterwards also, particularly in the recent years, revenue expenditures were overestimated in the budgets.
5. In the case of capital expenditure, there are phases of overestimation as well as underestimation. Maximum revisions take place as we come closer to the end of fiscal years in non-defence capital expenditures in order to minimize variations from the fiscal deficit targets.
6. In the budget estimation of fiscal deficit, the number of years of overestimation of BE are more than the number of years of underestimation. However, in the years of underestimation (e.g., FY09 and FY12), the magnitude of error is quite high. In all cases, RE show a significant improvement in the predictive quality of estimation.
7. The quality of the union government's fiscal marksmanship appears to have improved. This may be partly the consequence of the need to adhere to the FRBMA targets.

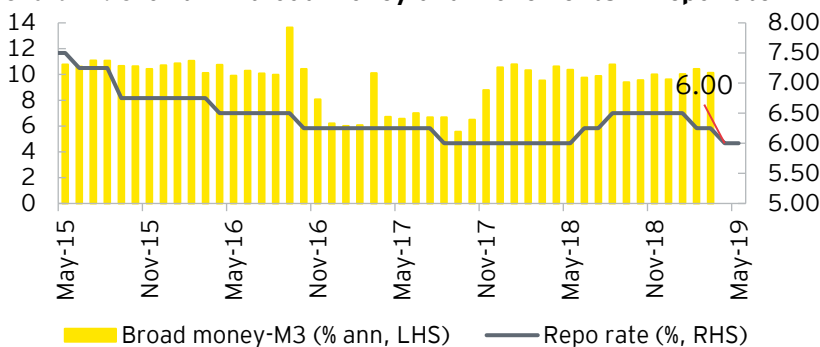
6. Money and finance: another repo rate reduction may help in arresting the demand slowdown

A. Monetary sector

Monetary policy

- ▶ The RBI, in its April 2019 monetary policy review, had lowered the repo rate by 25 basis points to 6.0% as CPI based inflation fell to significantly low levels. Although there is a reversal in CPI inflation trend in the last two months, it continues to remain well below the RBI's mean CPI inflation target of 4% and hence another rate reduction may help in reversing the ongoing demand slowdown.
- ▶ In RBI's assessment, CPI inflation outlook may face several uncertainties including (a) risk of abrupt reversal in the price of vegetable prices, (b) higher crude oil prices due to geopolitical uncertainties, (c) CPI inflation, excluding food and fuel, continuing to remain at elevated levels, (c) volatility in financial markets reflecting global growth and trade related uncertainties and (d) fiscal position of the general government.

Chart 11: Growth in broad money and movements in repo rate



Despite a reversal in the trend of CPI inflation, it continues to remain well below the RBI's mean target of 4%, thereby leaving some room for another rate reduction during its upcoming monetary policy review in June 2019.

Source: Database on Indian Economy, RBI.

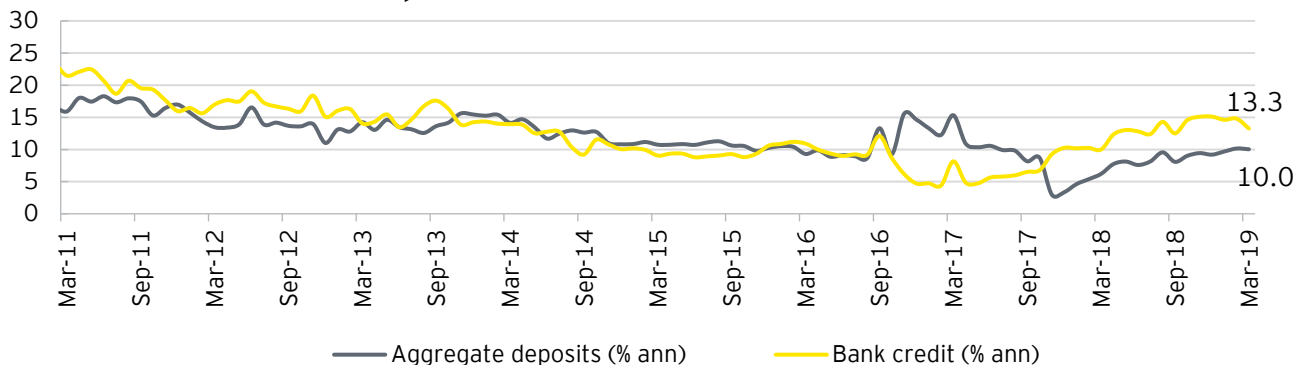
Money stock

- ▶ Growth in broad money stock (M3) marginally moderated to 10.1% (y-o-y) in March 2019 from 10.4% in February 2019 (**Chart 11**). After growing at 8.8% for three consecutive months till February 2019, growth in the time deposits increased to 9.2% in March 2019.
- ▶ Narrow money (M1) grew at a slower pace of 13.3% (y-o-y) in March 2019, moderating from 16.2% in February 2019. This was due to a fall in the growth of demand deposits to 9.0% in March 2019 from 12.2% in February 2019.

Aggregate credit and deposits

- ▶ Growth in bank credit fell to 13.3% (y-o-y) in March 2019 from 14.8% in February 2019 (**Chart 12**). For the first time since FY14, growth in bank credit crossed the 10% mark and averaged 13.7% in FY19, significantly higher than the growth of 7.5% in FY18. Credit growth averaged 8.8% during FY15 to FY18.

Chart 12: Growth in credit and deposits



Source: Database on Indian Economy, RBI.

- ▶ Growth in non-food credit slowed to 12.3% in March 2019 from 13.2% in February 2019 due to a fall in credit to services sector.
- ▶ Growth in credit to services sector, although remained robust, fell to 17.8% in March 2019 from 23.7% in February 2019 while growth in credit to industries (accounting for 34% of non-food credit) increased to a 51-month high of 6.9% in March 2019 from 5.6% in February 2019. Growth in credit to agricultural sector at 7.9% in March 2019 was marginally higher than 7.5% in February 2019.
- ▶ Housing sector credit, a key driver of retail sector credit, continued to remain robust, growing by 19.0% in March 2019 as compared to 18.8% in February 2019.
- ▶ Growth in aggregate bank deposits was marginally lower at 10.0% in March 2019 as compared to 10.2% (revised) in February 2019. Bank deposits posted an average growth of 8.9% in FY19 as compared to 7.6% in FY18.

B. Financial sector

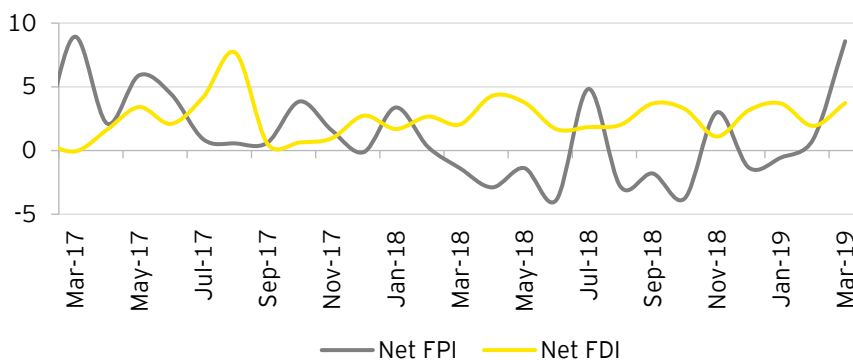
Interest rates

- ▶ Interest rates offered by banks on term deposits with a maturity of more than one year remained unchanged at 6.9% (average) in April 2019 for the sixth consecutive month.
- ▶ Commercial banks slightly lowered the marginal cost of lending rate (MCLR) to 8.28% (average) in April from 8.30% in March 2019. Despite two consecutive policy rate reductions of 25 basis points each, the pass-through to lending rates has been slow and banks have lowered the MCLR rates only by a magnitude of 10 basis points since January 2019.
- ▶ The average yield on 10-year government securities increased to 7.42% in April 2019 from 7.35% in March 2019 largely on account of a sudden spike in crude oil prices and its possible impact on the current account deficit. Uncertainties surrounding crude oil prices and the outcome of the general elections may lead to volatility in benchmark bond yields in the coming months.

FDI and FPI

- ▶ As per the provisional data released by the RBI, the overall foreign investment inflows (FIIs) rose to an all-time high of US\$12.3 billion in March 2019 as compared to US\$2.3 billion (revised) in February 2019 (**Chart 13**) due to a sharp surge in net portfolio investment inflows.

Chart 13: Net FDI and FPI inflows



Net FDI inflows were higher at US\$34.6 billion in FY19, increasing from US\$30.3 billion in FY18. However, net portfolio investments registered an outflow of US\$2.1 billion in FY19 as compared to US\$22.1 billion inflows in FY18.

Source: Database on Indian Economy, RBI.

- ▶ Net FDI inflows increased to US\$3.7 billion in March 2019 as compared to US\$2.4 billion (revised) in February 2019 (**Chart 13**). Gross FDI inflows were at a 19-month high of US\$7.5 billion in March 2019 as compared to US\$4.3 billion in February 2019.
- ▶ Gross FDI inflows reached a historic high of US\$64.4 billion during FY19, increasing from US\$61.0 billion in FY18. Net FDI inflows also increased to US\$34.6 billion in FY19 from US\$30.3 billion in FY18.
- ▶ Net FPI inflows increased to a 24-month high of US\$8.6 billion in March as compared to a net outflow of US\$0.03 billion in February 2019. During FY19, net FPIs registered an outflow of US\$2.1 billion as compared to US\$22.1 billion inflows in FY18.

7. Trade and CAB: growth in merchandise exports weakened to a four-month low of 0.6% in April 2019

A. CAB: Current account deficit (CAD) fell to 2.5% of GDP in 3QFY19

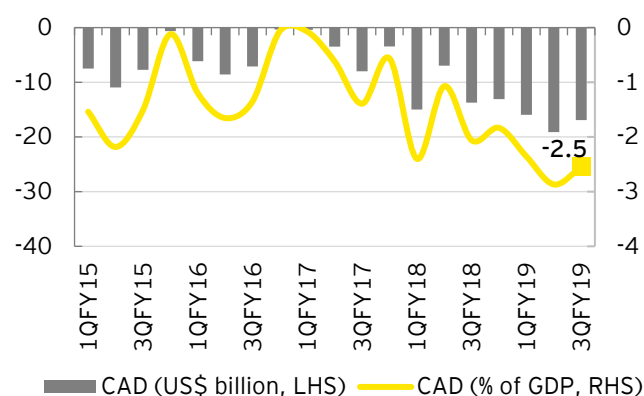
- CAD in 3QFY19 fell to 2.5% GDP from a 21-quarter high of 2.9% in 2QFY19 as net invisibles as a percentage of GDP rose to a three year high of 4.9% (**Table 9**). This was due to net services exports climbing to a three year high of 3.2% of GDP and net income transfers improving to (-) 0.9% of GDP in 3QFY19 from 3.0% and (-) 1.3% of GDP in 2QFY19, respectively. Over the same period, net merchandise exports remained stable at an elevated level of (-) 7.5% of GDP.

Table 9: Components of CAB in US\$ billion

	CAB (- deficit/+surplus)	CAB as a % of nominal GDP	Goods account net	Services account net
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
FY18	-48.7	-1.9	-160.0	77.6
4QFY18	-13.1	-1.8	-41.6	20.2
1QFY19	-15.9	-2.4	-45.8	18.7
2QFY19	-19.1	-2.9	-50.0	20.2
3QFY19	-16.9	-2.5	-49.5	21.3

Source: Database on Indian Economy, RBI.

Chart 14: CAD



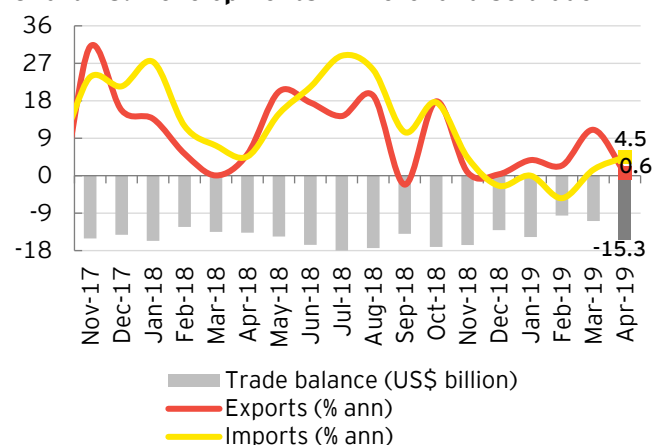
Source: Database on Indian Economy, RBI.

B. Merchandise trade and exchange rate

Growth in exports fell to a four-month low of 0.6% in April 2019 from 11.0% in March 2019. Growth in imports increased to a six-month high of 4.5% from 1.4% over the same period.

- Merchandise exports growth eased to 0.6% in April 2019 from 11.0% in March 2019 (**Chart 15**) driven by falling exports of engineering goods.

Chart 15: Developments in merchandise trade



Source: Ministry of Commerce and Industry, GoI

- Exports of engineering goods and gems and jewelry contracted by (-) 7.4% and (-) 13.4%, respectively in April 2019 as compared to a growth of 16.3% and a contraction of (-) 0.4%, respectively in March 2019. Growth in oil exports picked up to a five-month high of 30.7% in April 2019 from 6.6% in March 2019.
- Growth in exports excluding oil, gold and jewelry contracted for the first time in five months by (-) 1.3% in April 2019 as compared to a growth of 13.4% in March 2019.
- Imports' growth increased but remained low at 4.5% in April 2019 as compared to 1.4% growth in March 2019, due to a faster growth in imports of gold, electronic goods, machinery and coal at 54.0%, 4.0%, 6.5% and 4.0%, respectively in April 2019.
- Growth in oil imports reached a five-month high of 9.3% in April 2019 from 5.5% in the previous month.
- Merchandise trade deficit expanded to an eight-month high of US\$15.3 billion in April 2019 from US\$10.9 billion in March 2019. Goods and services trade deficit picked up to US\$4.3 billion in March 2019 from a 30-month low of US\$2.8 billion in February 2019.
- The Indian Rupee remained stable at INR69.4 per US\$ in April 2019 as compared to a level of INR69.5 per US\$ in March 2019.

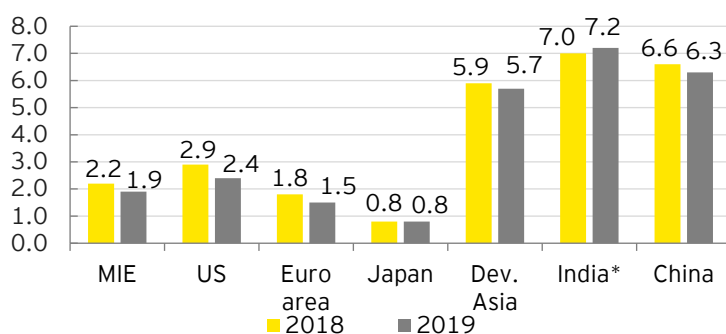
8. Global growth: ADB projected growth in developing Asia and major industrial economies to ease in 2019

A. Global growth outlook

- ▶ The ADB (Asian Development Outlook, April 2019) projected growth in developing Asia to moderate to 5.7% in 2019 from 5.9% in 2018. Growth in major industrial economies (the US, Euro area and Japan) is also forecasted to ease to 1.9% in 2019 from 2.2% in 2018.
- ▶ Growth in the US accelerated to 2.9% in 2018 due to a strong growth in domestic demand supported by accommodative fiscal and monetary policy. However, growth is expected to fall to 2.4% in 2019 as the impact of the fiscal stimulus wears off and the monetary policy becomes less accommodative.
- ▶ In the Euro area, growth is expected to fall from 1.8% in 2018 to 1.5% in 2019 largely due to continuing uncertainties regarding Brexit and trade tensions.
- ▶ Growth in Japan is projected to remain low at 0.8% in 2018 as well as in 2019. Although a slight pickup in consumption demand ahead of higher taxes in October 2019 is expected to support growth in 2019, the trade slowdown is expected to weigh on manufacturing growth.
- ▶ Growth in both India and China, the two largest economies in developing Asia was robust at 7% and 6.6%, respectively, in 2018, although lower than that in 2017. In both cases, growth in 2018 was supported by domestic demand.
- ▶ In India, growth is expected to pick up to 7.2% in 2019 supported by accommodative monetary policy and a possible income support to the agricultural sector thereby having a positive impact on domestic demand.
- ▶ In China, growth is projected to moderate further to 6.3% in 2019 due to continuing restrictions on housing markets and shadow banking, and weakening exports due to trade conflict with the US.

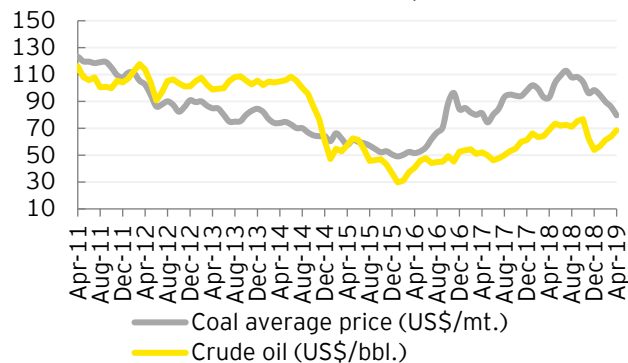
The ADB projected growth to moderate in 2019, both in developing Asia and major industrial economies. Trade tensions between China and the US, possible disorderly Brexit and uncertainty from US fiscal policy are the major challenges to growth.

Chart 16: Global growth projections



Source: Asian Development Outlook, April 2019
 Note: actuals for 2018 and forecasted for 2019
 *data pertains to fiscal year; MIE: Major industrial economies

Chart 17: Global crude and coal prices



Source (basic data): World Bank, Pink Sheet, February 2019

B. Global energy prices: global crude price rose sharply to US\$69/bbl. in April 2019

- ▶ From a recent trough of US\$54.0/bbl. in December 2018, average global crude price³ increased to US\$68.6/bbl. in April 2019 (US\$63.8/bbl. in March 2019). This could be due to output cuts from Saudi Arabia, Venezuela and Iran. The supply situation could further be adversely affected by the recently announced measure by the US of not renewing sanction waivers to countries importing Iranian oil.
- ▶ Average global coal price⁴ declined to a 23-month low of US\$79.6/mt. in April 2019 from US\$86/mt. in March 2019. The World Bank (Commodity Markets Outlook, April 2019) projected coal prices to partially recover from their current levels and average US\$94/mt. in 2019, a decline of 12.1% from 2018, reflecting the weakness in natural gas prices, as well as subdued demand.

³ Simple average of three spot prices, namely, Dated Brent, West Texas Intermediate and Dubai Fateh

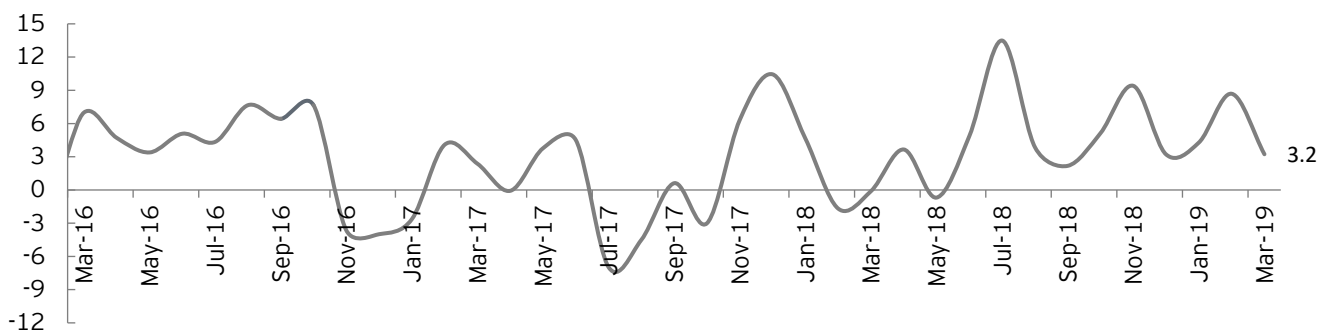
⁴ Simple average of Australian and South African coal prices

9. Index of Aggregate Demand (IAD): pointed towards weakening demand conditions

Reflecting weakening demand conditions in both manufacturing and services sector, the growth in IAD fell to 3.2% in March 2019

- ▶ An IAD has been developed by EY to reflect the monthly combined demand conditions in the agriculture, manufacturing and services sectors. It considers the movements in PMI for manufacturing and services, both measured in non-seasonally adjusted terms, 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 y-o-y growth in the index of aggregate demand fell to 3.2% in March 2019 from 8.7% in February 2019 (**Chart 18**). Demand conditions in manufacturing and services sector weakened while that in agricultural sector improved during March 2019.

Chart 18: Growth in IAD (y-o-y)



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

Table 10: IAD

Month	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19
IAD	125.6	121.8	125.6	128.8	128.3	127.9	126.9	129.3	128.1
Growth (% y-o-y)	13.5	3.9	2.2	5.1	9.4	3.2	4.3	8.7	3.2
Growth in agr. credit	6.6	6.6	5.8	8.0	7.7	8.4	7.6	7.5	7.9
Mfg. PMI**	1.7	2.2	2.9	3.8	4.9	2.7	2.7	4.4	2.2
Ser. PMI**	3.0	-1.4	1.5	4.0	2.5	2.9	1.9	2.8	2.3

**Values here indicate deviation from benchmark value of 50. A positive value indicates expansion in demand while a negative value implies contraction in demand; PMI for Mfg. and Serv. are non-seasonally adjusted.

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 16	3.3	4.3	2.9	5.7	3.0	FY 16	51.3	51.7
FY 17	4.6	5.3	4.3	5.8	4.8	FY 17	51.6	51.0
FY 18	4.4	2.3	4.7	5.3	4.3	FY 18	51.5	50.0
FY 19	3.6	2.8	3.5	5.2	4.3	FY 19	52.8	52.2
1Q FY 19	5.1	5.4	5.1	4.9	5.5	1Q FY 19	52.0	51.2
2Q FY 19	5.3	0.9	5.6	7.5	5.4	2Q FY 19	52.1	52.2
3Q FY 19	3.7	2.8	3.4	6.9	3.4	3Q FY 19	53.4	53.0
4Q FY 19	0.5	2.2	0.1	1.5	2.9	4Q FY 19	53.6	52.2
Dec-18	2.5	-1.0	2.9	4.5	2.1	Jan-19	53.9	52.2
Jan-19	1.4	3.9	1.0	0.9	1.5	Feb-18	54.3	52.5
Feb-19	0.1	2.2	-0.4	1.3	2.2	Mar-18	52.6	52.0
Mar-19	-0.1	0.8	-0.4	2.2	4.7	Apr-18	51.8	51.0

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				
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
FY19	3.4	0.1	5.7	5.5	4.3	0.6	3.7	11.6	4.2
1QFY19	4.8	2.9	6.1	6.0	4.7	1.2	3.8	12.3	4.4
2QFY19	3.9	0.7	8.4	5.7	5.0	-0.9	4.4	17.7	4.9
3QFY19	2.6	-2.0	6.7	5.6	4.5	-0.9	4.1	13.9	4.8
4Q FY19	2.5	-0.9	1.9	5.0	3.0	3.1	2.4	3.0	2.7
Jan-19	2.0	-2.2	2.1	5.0	2.8	2.0	2.8	1.8	3.1
Feb-19	2.6	-0.7	1.2	5.1	2.9	3.3	2.3	1.7	2.5
Mar-19	2.9	0.3	2.3	4.7	3.2	3.9	2.2	5.4	2.5
Apr-19	2.9	1.1	2.6	4.2	3.1	4.9	1.7	3.8	1.9

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
FY16	17.0	6.0	8.5	6.9	30.1	3.9	2.5
FY 17	17.9	6.7	21.5	12.3	21.6	3.5	2.1
FY 18	11.8	17.8	19.9	18.6	6.0	3.5	2.6
FY19 (RE over FY 18 actuals)	17.2	17.5	22.8	19.8	14.3	3.4	2.2
FY20 (BE over RE)	13.5	13.3	17.2	15.0	11.8	3.4	2.2
Cumulated growth (% , y-o-y)						% of budgeted target	
Aug-18	8.7	14.3	17.5	16.1	4.6	94.7	114.0
Sep-18	8.6	17.2	16.5	16.9	4.4	95.3	108.1
Oct-18	6.7	16.6	16.1	16.4	1.2	103.9	117.9
Nov-18	7.1	16.6	16.4	16.5	1.9	114.8	132.6
Dec-18	6.6	14.0	15.2	14.5	1.0	110.6	130.5
Jan-19	7.3	16.7	14.3	15.7	1.5	121.5	143.7
Feb-19	7.9	15.4	14.2	14.9	3.3	134.2	158.1

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.

As a proportion of revised estimates FY20

Fiscal year/month	CGST	UTGST	IGST	GST compensation cess	Total GST (center)
	INR crore				
FY 2019 (RE)	5,03,900	-	50,000	90,000	6,43,900
FY 2020 (BE)	6,10,000	-	50,000	1,01,200	7,61,200
Monthly tax collection (INR crore)					
Aug-18	36,047	327	5,199	7,405	48,978
Sep-18	29,862	109	14,753	7,850	52,574
Oct-18	47,951	126	-14,215	7,724	41,586
Nov-18	34,398	76	9,037	7,936	51,447
Dec-18	43,075	585	-9,368	7,700	41,992
Jan-19	35,066	126	9,511	8,435	53,138
Feb-19	35,908	105	4,453	8,173	48,639

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

Note: IGST revenues are subject to final settlement.

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. bond yield	Net FDI	Net FPI	Fiscal year/quarter/month	FX reserves
	%										% change y-o-y
Jun-18	6.20	FY16	13.5	10.1	9.7	10.5	7.7	36.0	-4.1	FY16	355.6
Jul-18	6.25	FY17	3.1	10.1	7.9	11.6	7.0	35.6	7.6	FY17	370.0
Aug-18	6.50	FY18	22.1	9.5	7.5	7.5	7.0	30.3	22.1	FY18	424.4
Sep-18	6.50	FY19	13.3	10.1	13.8	8.9	7.7	34.6	-2.1	FY19	411.9
Oct-18	6.50	1Q FY19	18.1	9.8	12.7	7.8	7.8	9.8	-8.1	1Q FY19	406.1
Nov-18	6.50	2Q FY19	14.6	9.4	13.1	8.6	7.9	7.5	0.2	2Q FY19	400.5
Dec-18	6.50	3Q FY19	12.7	9.6	14.9	9.2	7.7	7.5	-2.1	3Q FY19	393.4
Jan-19	6.50	4Q FY19	13.3	10.1	14.2	10.0	7.4	9.8	8.0	4Q FY19	411.9
Feb-19	6.25	Dec-18	12.7	9.6	15.1	9.2	7.4	3.2	-1.3	Jan-19	398.2
Mar-19	6.25	Jan-19	14.5	10.0	14.6	9.7	7.3	3.7	-0.6	Feb-19	399.2
Apr-19	6.00	Feb-19	16.2	10.4	14.8	10.2	7.4	2.4	0.0	Mar-19	411.9
May-19	6.00	Mar-19	13.3	10.1	13.3	10.0	7.3	3.7	8.6	Apr-19	418.5

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)						Global growth (annual)			
	Exports	Imports	Trade balance	Ex. rate (avg.)	Crude prices (avg.)	Coal prices (avg.)	Calendar year	World GDP	Adv. econ.	Emer. econ.
	% change y-o-y		US\$ billion	INR/US\$	US\$/bbl.	US\$/mt		% change y-o-y		
FY16	-15.6	-15.2	-117.7	65.5	46.0	54.7	2012	3.5	1.2	5.3
FY17	5.1	0.9	-108.2	67.1	47.9	73.0	2013	3.3	1.2	5.0
FY18	10.6	20.9	-159.0	64.5	55.7	90.8	2014	3.4	1.9	4.6
FY19	8.7	9.5	-176.4	69.9	67.3	100.4	2015	3.4	2.1	4.3
1Q FY19	14.2	13.5	-44.9	67.0	71.4	101.9	2016	3.2	1.7	4.4
2Q FY19	9.5	21.2	-49.4	70.2	73.0	109.6	2017	3.8	2.4	4.7
3Q FY19	5.7	6.1	-46.9	72.1	64.3	99.7	2018**	3.7	2.3	4.6
4Q FY19	6.0	-1.2	-35.2	70.5	60.5	90.2	2019**	3.5	2.0	4.5
Jan-19	3.7	0.0	-14.7	70.7	56.6	94.9	2020**	3.6	1.7	4.9
Feb-19	2.4	-5.4	-9.6	71.2	61.1	89.8	2021*	3.6	1.7	4.9
Mar-19	11.0	1.4	-10.9	69.5	63.8	86.0	2022*	3.6	1.5	4.8
Apr-19	0.6	4.5	-15.3		68.6	79.6	2023*	3.6	2.3	4.7

Source: Database on Indian Economy - RBI, Pink Sheet - World Bank and IMF World Economic Outlook Update, October 2018; *Indicates projections as per October 2018 database, **Indicates projections as per January 2019 WEO update.

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

Fiscal year/quarter	Output: major sectors									IPD inflation
	GVA	Agr.	Ming.	Mfg.	Elec.	Cons.	Trans.	Fin.	Publ.	GVA
FY16#	8.0	0.6	10.1	13.1	4.7	3.6	10.2	10.7	6.1	1.2
FY17 (2nd RE) #	7.9	6.3	9.5	7.9	10.0	6.1	7.7	8.7	9.2	2.7
FY18 (1st RE)#	6.9	5.0	5.1	5.9	8.6	5.6	7.8	6.2	11.9	3.9
FY19 (AE)*	7.0	3.8	0.8	8.3	9.4	8.9	6.9	6.8	8.9	4.5
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	6.0	7.1	18.8	6.1	8.1	-3.9	5.5	1.0	16.4	5.1
1QFY18	5.6	3.0	1.7	-1.8	7.1	1.8	8.4	8.4	13.5	2.3
2QFY18	6.1	2.6	6.9	7.1	7.7	3.1	8.5	6.1	6.1	2.9
3QFY18	6.6	3.1	1.4	8.5	6.1	6.6	8.5	6.9	7.7	3.8
4QFY18	7.6	4.5	2.7	9.1	7.7	11.5	6.8	5.0	13.3	2.9
1QFY19	8.0	5.3	0.1	13.5	7.3	8.7	6.7	6.5	9.9	4.6
2QFY19	6.9	3.8	-2.4	7.4	9.2	7.8	6.8	6.3	10.9	4.7

Source: National Accounts Statistics, MoSPI

*Growth numbers for FY19 (AE) are calculated over the provisional estimates for FY18 as per the first advance estimates of NAS released by MoSPI on 07 Jan 2019

Growth numbers based on the revised estimates of NAS released by MoSPI on 31 January 2019

Fiscal year/quarter	Expenditure components						IPD inflation
	GDP	PFCE	GFCE	GFCF	EX	IM	GDP
FY16#	7.4	6.4	7.6	2.6	1.8	0.9	3.3
FY17 (2nd RE)#	8.0	7.4	6.8	5.2	-5.6	-5.9	2.1
FY18 (1st RE)#	8.2	7.3	12.2	10.1	5.0	4.0	3.5
FY19 (AE)*	7.2	6.1	10.9	7.6	4.4	9.9	3.0
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	3.4	23.6	4.2	6.6	6.6	4.5
1QFY18	5.6	6.9	17.6	0.8	5.9	18.5	2.6
2QFY18	6.3	6.8	3.8	6.1	6.8	10.0	3.0
3QFY18	7.0	5.9	6.8	9.1	6.2	10.5	3.8
4QFY18	7.7	6.7	16.8	14.4	3.6	10.9	2.9
1QFY19	8.2	8.6	7.6	10.0	12.7	12.5	5.1
2QFY19	7.1	7.0	12.7	12.5	13.4	25.6	4.5

Source: National Accounts Statistics, MoSPI

*Growth numbers for FY19 (AE) are calculated over the provisional estimates for FY18 as per the first advance estimates of NAS released by MoSPI on 07 Jan 2019

Growth numbers based on the revised estimates of NAS released by MoSPI on 31 January 2019

List of abbreviations

Sr. no.	Abbreviations	Description
1	AD	aggregate demand
2	AEs	advanced economies
3	Agr.	agriculture, forestry and fishing
4	bcm	billion cubic meters
5	bbl.	barrel
6	BE	budget estimate
7	CAB	current account balance
8	CGA	Comptroller General of Accounts
9	CGST	Central Goods and Services Tax
10	CIT	corporate income tax
11	Cons.	construction
12	CPI	Consumer Price Index
13	CSO	Central Statistical Organization
14	DGA	Director General of Hydrocarbons
15	Disc.	discrepancies
16	dmtu	dry metric ton unit
17	ECBs	external commercial borrowings
18	EIA	US Energy Information Administration
19	Elec.	electricity, gas, water supply and other utility services
20	EMDEs	Emerging Market and Developing Economies
21	EXP	Exports
22	FAE	first advanced estimates
23	FII	foreign investment inflows
24	Fin.	financial, real estate and professional services
25	FPI	foreign portfolio investment
26	FRBMA	Fiscal Responsibility and Budget Management Act
27	FY	fiscal year (April–March)
28	GDP	Gross Domestic Product
29	GFCE	government final consumption expenditure
30	GFCF	Gross fixed capital formation
31	GoI	Government of India
32	GST	Goods and Services Tax
33	GVA	gross value added

34	IAD	Index of Aggregate Demand
35	IEA	International Energy Agency
36	IGST	Integrated Goods and Services Tax
37	IIP	Index of Industrial Production
38	IMF	International Monetary Fund
39	IMI	Index of Macro Imbalance
40	IMP	imports
41	INR	Indian Rupee
42	IPD	implicit price deflator
43	MCLR	marginal cost of funds based lending rate
44	Ming.	mining and quarrying
45	Mfg.	manufacturing
46	m-o-m	month-on-month
47	mt	metric ton
48	MoSPI	Ministry of Statistics and Programme Implementation
49	MPC	Monetary Policy Committee
50	NEXP	net exports (exports minus imports of goods and services)
51	OECD	Organisation for Economic Co-operation and Development
52	ONGC	Oil and Natural Gas Corporation Limited
53	OPEC	Organization of the Petroleum Exporting Countries
54	PFCE	private final consumption expenditure
55	PIT	personal income tax
56	PMI	Purchasing Managers' Index (reference value = 50)
57	RE	revised estimates
58	RBI	Reserve Bank of India
59	SLR	Statutory Liquidity Ratio
60	Tcf	trillion cubic feet
61	Trans.	trade, hotels, transport, communication and services related to broadcasting
62	US\$	US Dollar
63	UTGST	Union territory goods and services tax
64	WPI	Wholesale Price Index
65	y-o-y	year-on-year
66	2HFY19	second half of fiscal year 2018-19, i.e., September 2018-March 2019
67	1HFY18	first half of fiscal year 2017-18, i.e., April 2018-September 2018

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