

ENTER

Economy Watch

Monitoring India's
macro-fiscal performance

June 2021

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Prepared by Macro-fiscal Unit, Tax and Economic Policy Group, EY India

D.K. Srivastava, Chief Policy Advisor, EY: dk.srivastava@in.ey.com

Muralikrishna Bhardwaj, Senior Manager, EY: muralikrishna.b@in.ey.com

Tarrung Kapur, Manager, EY: tarrung.kapur@in.ey.com

Ragini Trehan, Manager, EY: ragini.trehan@in.ey.com



Highlights

1. India's real GDP witnessed an unprecedented contraction of (-)7.3% in FY21. Recovery started in 4QFY21 with a growth of 1.6%.
2. In May 2021, PMI manufacturing fell to a 10-month low of 50.8 while PMI services contracted to 46.4 due to COVID's second wave.
3. CPI inflation crossed RBI's 6% upper tolerance limit, increasing to 6.3% in May 2021 from 4.2% in April 2021. This followed CPI inflation of 6.2% in FY21.
4. WPI inflation reached an all-time high of 12.9% in May 2021 under the 2011-12 series.
5. As per the CGA, Center's gross taxes grew by 0.7% in FY21, an improvement upon a contraction of (-)5.5% as estimated in the RE of Union Budget for FY22.
6. Center's revenue and capital expenditure grew by 31.4% and 26.2% respectively in FY21 as compared to 17.0% and 9.7% respectively in FY20. In April 2021, the first month of FY22, there was a frontloading of center's capital expenditure which grew by 66.5% (y-o-y).
7. In FY21, Center's fiscal deficit stood at 9.2% of GDP vis-à-vis. the RE at 9.5%. Revenue deficit to GDP ratio at 7.4% was higher than the RE at 5.9%.
8. The RBI retained the repo rate for the sixth consecutive time at 4.0% in its June 2021 monetary policy review.
9. Growth in bank credit continued to remain subdued at 5.7% in April 2021.
10. Merchandise exports and imports growth (y-o-y basis) remained high at 69.4% and 73.6% respectively in May 2021 due partly to favorable base effects. Merchandise trade deficit fell to a 10-month low of US\$6.3 billion in May 2021 reflecting a pickup in external demand.
11. The World Bank projected India's FY22 real GDP growth at 8.3% while the global growth is forecasted at 5.6% for 2021.



Foreword

Supporting FY22 growth in India: fiscal stimulus with expenditure restructuring

High frequency indicators suggest that after gathering substantive momentum in the months of March and most of April 2021, the Indian economy showed signs of slowing down in May 2021 due to the impact of COVID's second wave. PMI manufacturing and PMI services fell from 55.5 and 54.0 in April 2021 to 50.8 and 46.4 respectively in May 2021. Gross GST revenues in May 2021 fell to INR1.02 lakh crore from its peak of INR1.41 lakh crore in April 2021. Number of e-way bills generated fell from a peak of 7.1 crore in March 2021 to 5.8 crore in April 2021 and further to 3.8 crore in May 2021. Bank credit posted a low growth of 5.7% (y-o-y) in the week ended 04 June 2021. CPI inflation crossed RBI's 6% upper tolerance limit, increasing to 6.3% in May 2021 from 4.2% in April 2021. WPI inflation reached an all-time high of 12.9% in May 2021 under the 2011-12 series.

In view of COVID's second wave, most domestic and international institutions and agencies have started revising their earlier FY22 growth forecasts for India. Thus, the RBI has revised downwards its forecast for FY22 real GDP growth to 9.5% from its earlier forecast of 10.5% (April 2021). The World Bank has reassessed India's real GDP growth to 8.3% from its earlier projection of 11.2% (January 2021). Many rating agencies have lowered their forecasts for India's FY22 growth. Their current assessments vary from 7.6% (Moody's*), 7.9% (SBI), 8.5% (Societe Generale) and 8-9.5% (ICRA). In this context, an important benchmark is 7.8% because if India achieves at least this real GDP growth rate, it will ensure that the level of real GDP in FY22 is not lower than that of FY20 at INR145.7 lakh crore. India's growth prospects largely depend on the discontinuation of lockdowns within the first quarter of FY22 following the COVID's surge since April 2021. Secondly, strong policy support, particularly fiscal support, is needed to uplift India's growth performance in the remaining three quarters. For this purpose, two important considerations relate to the health sector. First, the pace and coverage of vaccination and second, expansion of health sector infrastructure. Additionally, an income support program is needed for the vulnerable sections, both in the rural and urban areas to supplement the already announced extension of Pradhan Mantri Garib Kalyan Anna Yojana.

Available fiscal space may be considered in relation to center's provisional actuals (Controller General of Accounts - CGA) for FY21 and the budget estimates (BE) for FY22. CGA's data for FY21 indicate center's gross tax revenue (GTR) at INR20.2 lakh crore and net tax revenue at INR14.2 lakh crore. The likely growth in GTR for FY22 may be derived by applying a buoyancy of 0.9, which is the average buoyancy for five years before the COVID year of FY21, to the estimated nominal GDP growth of 13.9%. This nominal growth is based on assuming a real GDP growth of 9% and an implicit price deflator-based inflation of 4.5%. This gives a tax revenue growth of 12.5%. Applying this on the GTR base, the projected gross and net tax revenue for FY22 would be INR22.8 lakh crore and INR15.9 lakh crore respectively. This implies some additional net tax revenues to the center amounting to INR0.43 lakh crore as compared to the budgeted magnitude. The main expected shortfall may be in non-tax revenues and non-debt capital receipts. According to CGA, their FY21 levels were respectively at INR2.1 lakh crore and INR0.57 lakh crore. Applying a growth rate of 15.0% on these, which is close to the average growth rate during the five years preceding the COVID year of FY21, a shortfall in FY22 to the tune of INR1.3 lakh crore may arise. This is likely to be primarily due to the shortfall in non-debt capital receipts. For non-tax revenues, the shortfall in the BE may be limited in view of RBI's recently announced dividend of INR0.99 lakh crore** to the central government for the current year. In any case, the large budgeted growth of 304% in non-debt capital receipts for FY22 seems quite unlikely in view of the challenges posed by COVID's second wave. Together, the overall shortfall in total non-debt receipts comprising tax and non-tax revenues and non-debt capital receipts may be limited to about INR0.8 lakh crore, that is 0.4% of estimated nominal GDP.



Fiscal intervention to support growth may focus on the following three priorities: (a) income support measures for the vulnerable rural and urban populations, (b) additional vaccination expenditure in view of center's recent commitment for financing 75% of India's total vaccine procurement and (c) additional capital expenditure directed mainly towards expanding health sector infrastructure. In this month's In-focus entitled '**India's health sector: challenges and potential**', an extended discussion of the economic effects of investing in health sector infrastructure in India is provided. The additional support for these three priorities may respectively be kept at INR1.0 lakh crore for (a), INR0.35 lakh crore for (b) and INR1.0 lakh crore for (c) in view of the limited fiscal space. Together, these add to INR2.35 lakh crore of which around INR0.65 lakh crore can be accessed by restructuring of budgeted expenditure on other heads leaving a balance of INR1.7 lakh crore which would constitute an additionality of 0.8% points of GDP on the budgeted fiscal deficit of 6.7% of the estimated GDP. Thus, the fiscal deficit would need to be increased to 7.9% of GDP in FY22 so as to cover the revenue shortfall of 0.4% points and the expenditure additionality of 0.8% points of GDP.

D.K. Srivastava
Chief Policy Advisor, EY India

* https://ma.moodys.com/2021_6_APAC_MA_MAPAECO_APACECONOMICOUTLOOKQ2_WEB_MAP13717_ThankYou.html

** https://rbi.org.in/Scripts/BS_PressReleaseDisplay.aspx?prid=51617

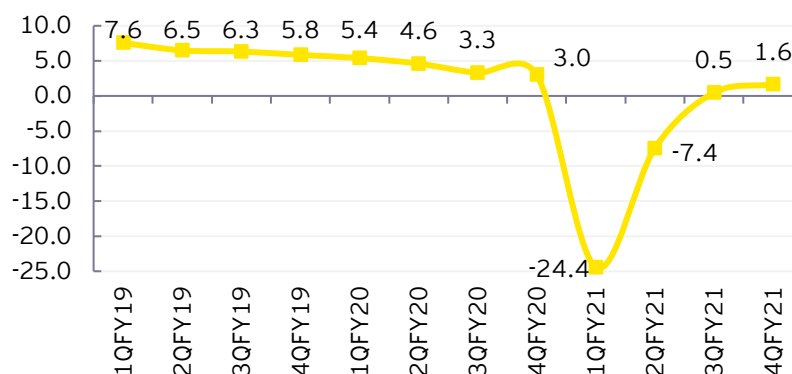


1. Growth: real GDP grew by 1.6% in 4QFY21 as compared to 0.5% in 3QFY21

Real GDP contracted to an unprecedented low of (-)7.3% in FY21

- ▶ As per the provisional estimates (PE) of National Accounts, released by the Ministry of Statistics and Programme Implementation (MoSPI) on 31 May 2021, real GDP grew by 1.6% (y-o-y) in 4QFY21 as compared to 0.5% in 3QFY21 (**Chart 1**). With this, the contraction in real GDP for FY21 stood at (-)7.3% as compared to the earlier estimate of (-)8.0%.

Chart 1: Real GDP growth (y-o-y, %)



- ▶ An improved performance on the demand side in 4QFY21 was led by a strong recovery in the growth of gross fixed capital formation (GFCF), a measure of investment demand, which grew by 10.9% as compared to 2.6% in 3QFY21 (**Table1**).
- ▶ Government final consumption expenditure (GFCE) also showed a strong growth of 28.3% in 4QFY21, although a large part of this growth may be attributable to a sharp increase in the subsidy component of the Center's expenditure.
- ▶ Private final consumption expenditure (PFCE) grew by 2.7% in 4QFY21 following a contraction for three successive quarters.
- ▶ Both exports and imports grew by 8.8% and 12.3% respectively in 4QFY21 following a contraction in six consecutive quarters.
- ▶ On the output side, real GVA grew by 3.7% in 4QFY21 as compared to 1.0% in 3QFY21.
- ▶ Only two out of eight broad GVA sectors namely, mining and quarrying and trade transport, hotels et. al., contracted by (-)5.7% and (-)2.3% respectively in 4QFY21.
- ▶ Strong recovery was seen in the growth of construction at 14.5% and manufacturing at 6.9% in 4QFY21 as compared to 6.5% and 1.7% respectively in 3QFY21.
- ▶ Growth in financial, real estate and professional services and agriculture and allied sectors slowed to 5.4% and 3.1% respectively in 4QFY21 from 6.7% and 4.5% respectively in 3QFY21.
- ▶ GVA of public administration, defense and other services grew by 2.3% in 4QFY21 following a contraction in three successive quarters.
- ▶ In FY21, overall GVA contracted to a historic low of (-)6.2% as per the PE. This is attributable to a contraction in six out of eight broad sectors in FY21. Two sectors which showed a positive growth are agriculture and allied activities and electricity, gas, water supply and other utility services.
- ▶ Nominal GDP contracted for the first time in 66 years by (-)3.0% in FY21 as compared to a growth of 7.8% in FY20. In 4QFY21, nominal GDP grew by 8.7%, improving from 5.2% in 3QFY21.

Table 1: Real GDP and GVA growth (%)

Agg. demand	2Q FY20	3Q FY20	4Q FY20	1Q FY21	2Q FY21	3Q FY21	4Q FY21	FY20	FY21 (PE)
PFCE	6.5	6.4	2.0	-26.2	-11.2	-2.8	2.7	5.5	-9.1
GFCE	9.6	8.9	12.1	12.7	-23.5	-1.0	28.3	7.9	2.9
GFCF	3.9	2.4	2.5	-46.6	-8.6	2.6	10.9	5.4	-10.8
EXP	-1.3	-5.4	-8.8	-21.8	-2.0	-3.5	8.8	-3.3	-4.7
IMP	-1.7	-7.5	-2.7	-40.9	-17.9	-5.0	12.3	-0.8	-13.6
GDP	4.6	3.3	3.0	-24.4	-7.4	0.5	1.6	4.0	-7.3
Output: major sectors									
Agr.	3.5	3.4	6.8	3.5	3.0	4.5	3.1	4.3	3.6
Ming.	-5.2	-3.5	-0.9	-17.2	-6.5	-4.4	-5.7	-2.5	-8.5
Mfg.	-3.0	-2.9	-4.2	-36.0	-1.5	1.7	6.9	-2.4	-7.2
Elec.	1.7	-3.1	2.6	-9.9	2.3	7.3	9.1	2.1	1.9
Cons.	1.0	-1.3	0.7	-49.5	-7.2	6.5	14.5	1.0	-8.6
Trans.	6.8	7.0	5.7	-48.1	-16.1	-7.9	-2.3	6.4	-18.2
Fin.	8.9	5.5	4.9	-5.0	-9.1	6.7	5.4	7.3	-1.5
Publ.	8.8	8.9	9.6	-10.2	-9.2	-2.2	2.3	8.3	-4.6
GVA	4.6	3.4	3.7	-22.4	-7.3	1.0	3.7	4.1	-6.2

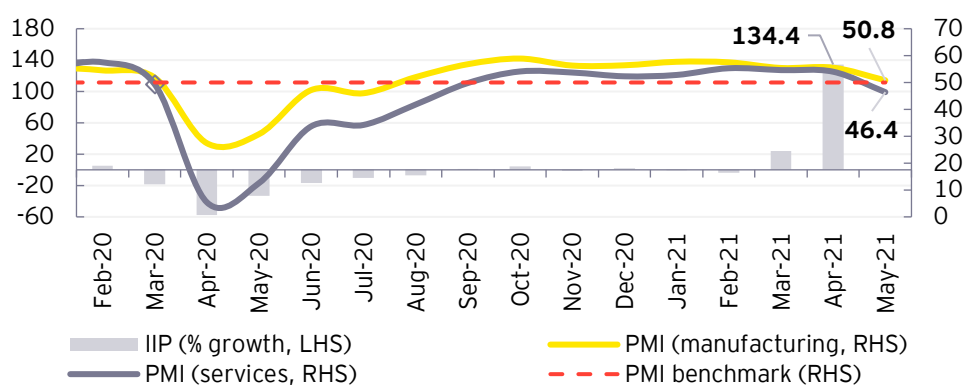
Source: MoSPI, GoI



B. IIP: growth accelerated to 134.4% in April 2021 led by strong favorable base effect

- ▶ As per the quick estimates of IIP released by the MoSPI on 11 June 2021, IIP growth increased to an unprecedented level of 134.4% in April 2021 largely due to a favorable base effect (Chart 2). In March 2021, IIP growth was at 24.1% (y-o-y). On a m-o-m basis, IIP contracted by (-)13.0% in April 2021 as compared to a growth of 12.3% in March 2021.
- ▶ Due to the nationwide lockdown imposed to contain the spread of COVID in April 2020, a large number of establishments were not operational. Consequently, these units had reported 'nil' production during the month. Therefore, the index values of April 2021 may not be strictly comparable with that of April 2020¹.
- ▶ Growth (y-o-y) in the output of manufacturing, electricity and mining sectors also surged to 197.1%, 38.5% and 37.1% respectively in April 2021.
- ▶ According to provisional estimates, output of eight core infrastructure industries (core IIP) grew at an unprecedented rate of 56.1% (y-o-y) in April 2021 (revised) due to a favorable base effect. On a m-o-m basis, core IIP contracted by (-)15.1% in April 2021 on account of lockdowns imposed in major centres of economic activities. Some of the worst hit sectors on a m-o-m basis in April 2021 include coal ((-)46.0%), steel ((-)20.1%), cement ((-)15.2%) and petroleum refinery products ((-)8.1%).

Chart 2: IIP growth and PMI



Led by a strong positive base effect, IIP growth accelerated to 134.4% in April 2021. On a m-o-m basis, IIP contracted by (-)13.0% in April 2021 as compared to a growth of 12.3% in March 2021.

Source: MoSPI and IHS Markit

C. PMI: signaled a near-stagnant expansion in manufacturing and a contraction in services in May 2021

- ▶ Headline manufacturing PMI (seasonally adjusted (sa)) fell to a ten-month low of 50.8 in May 2021 from 55.5 in April 2021 (Chart 2) due to suppressed demand resulting from COVID's second wave. New orders, the largest sub-component of the PMI index, increased at the slowest pace since August 2020.
- ▶ PMI services, at 46.4 in May 2021, down from 54.0 in April 2021, contracted for the first time in eight months due to COVID's second wave resulting in reintroduction of restrictions.
- ▶ Reflecting a near stagnation in PMI manufacturing and a contraction in PMI services, the composite PMI Output Index (sa) fell to a nine-month low of 48.1 in May 2021 from 55.4 in April 2021.

In May 2021, PMI manufacturing fell to a ten-month low of 50.8 while PMI services contracted to 46.4 due to COVID's second wave.

¹ <https://www.mospi.gov.in/documents/213904/416359//IIP%20Apr'21%20Press%20Release1623412908463.pdf/adb3ce78-ded3-5fd8-14f0-7ce538db1e24>

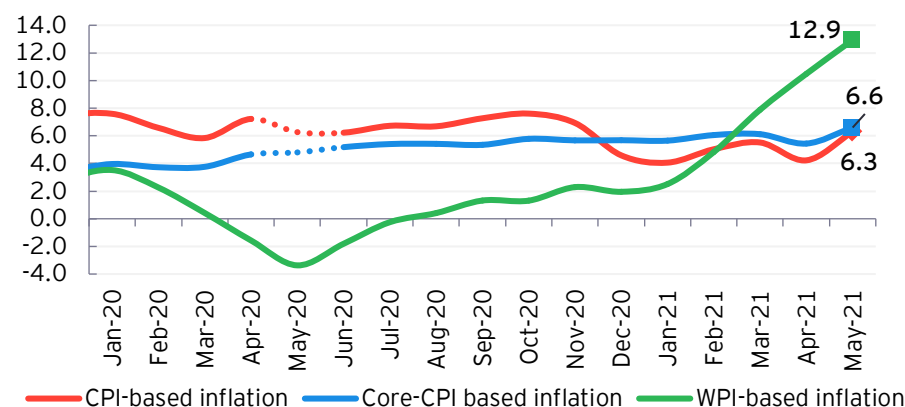


2. Inflation: CPI inflation increased to a six-month high of 6.3% in May 2021

CPI inflation increased to 6.3% in May 2021 from 4.2% in April 2021 (Chart 3) led by higher food and fuel prices and partly due to base effect.

- ▶ Consumer food inflation was at 5.0% in May 2021, a 6-month high, as compared to 2.0% in April 2021, as the pace of contraction in vegetable prices lowered to (-)1.9% from (-)14.2% over the same period.
- ▶ Fuel and light inflation was at an all-time high of 11.6% in May 2021 as per the 2012 base series.
- ▶ Inflation in miscellaneous goods increased to a 101-month high of 7.5% in May 2021 led by higher inflation in transportation and communication services which rose to 12.4% in May 2021 from 10.8% in April 2021.
- ▶ Inflation in recreation and amusement services was at an 85-month high of 6.3% in May 2021.
- ▶ Core CPI inflation² increased to 6.6% in May 2021, the highest since July 2014, from 5.4% in April 2021 partly reflecting the pass-through of fuel inflation.

Chart 3: Inflation (y-o-y, in %)



CPI inflation crossed RBI's 6% upper tolerance limit, increasing to 6.3% in May 2021 from 4.2% in April 2021. WPI inflation reached an all-time high of 12.9% in May 2021 under the 2011-12 series.

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

Note: Headline CPI inflation and inflation in certain groups for the month of April 2020 and May 2020 have been imputed by the MoSPI³; Core CPI inflation has been estimated for April 2020 and May 2020 using this imputed data

WPI inflation increased to an all-time high of 12.9% in May 2021 from 10.5% in April 2021 due to elevated global crude and commodity prices and partly reflecting unfavorable base effect.

- ▶ Fuel and power inflation increased to an unprecedented high of 37.6% in May 2021 from 20.9% in April 2021 reflecting higher prices of mineral oils including petrol, diesel and furnace oil.
- ▶ Core WPI inflation increased to a historic high of 10.0% in May 2021 from 8.3% in April 2021 led by continued higher inflation in manufactured basic metals which increased to an all-time high of 27.6% in May 2021 reflecting sustained cost push pressures.
- ▶ WPI food index-based inflation was at a 16-month high of 8.1% in May 2021 as compared to 7.6% in April 2021 due to higher inflation in manufactured food products reflecting supply side constraints due to lockdowns.

² 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 http://www.mospi.gov.in/sites/default/files/press_release/CPI%20Technical%20Note%20on%20Imputation.pdf

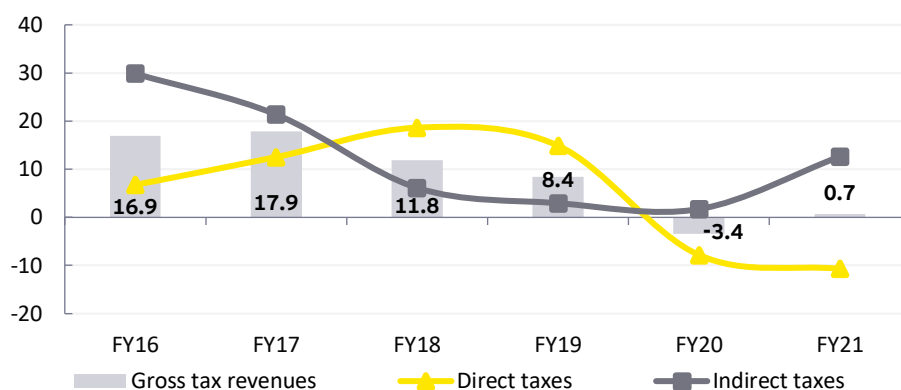


3. Fiscal performance: Center's fiscal deficit stood at 9.2% of GDP in FY21

A. Tax and non-tax revenues

- ▶ As per the Comptroller General of Accounts (CGA)⁴, Center's gross tax revenues (GTR) grew by 0.7% in FY21, better than an expected contraction of (-)5.5% as per the RE given in the Union Budget for FY22 (Chart 4). While direct taxes contracted for the second successive year by (-)10.7% in FY21, indirect taxes⁵ showed a growth of 12.7%, up from 1.7% in FY20.
- ▶ Both corporate income tax (CIT) and personal income tax (PIT) showed a contraction in FY21. CIT revenues contracted by (-)17.9% in FY21 as compared to (-)16.1% in FY20. PIT revenues showed a relatively milder contraction of (-)2.3% in FY21 as compared to a growth of 4.0% in FY20.
- ▶ Among indirect taxes, Center's GST revenues contracted by (-)8.4% in FY21 as compared to a growth of 2.9% in FY20.
- ▶ The strong growth in indirect taxes in FY21 is largely attributable to a high growth of 62.6% in union excise duties in FY21 as compared to 3.7% in FY20. Owing to relatively lower global crude prices in FY21, the Center was able to garner higher revenues by increasing excise duty rates on petrol and diesel.
- ▶ Center's customs duty revenues grew by 23.4% in FY21 as compared to a contraction of (-)7.3% in FY20.
- ▶ In April 2021, the first month of FY22, Center's GTR showed a high growth of 151.8% as against a contraction of (-)44.3% in April 2020 owing to a favorable base effect.

Chart 4: Growth in central gross tax revenues (% , y-o-y)



As per the CGA, Center's gross taxes grew by 0.7% in FY21, an improvement upon a contraction of (-)5.5% as per the RE of Union Budget for FY22.

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

Notes: (a) Direct taxes include personal income tax and corporation tax, and indirect taxes include union excise duties, arrears of service tax, customs duty, CGST, UTGST, IGST and GST compensation cess; (b) Other taxes (securities transaction tax, wealth tax, fringe benefit tax, banking cash transaction tax, etc.) are included in the center's gross tax revenues along with direct and indirect taxes, (c) IGST revenues are subject to final settlement.

- ▶ Center's non-tax revenues contracted by (-)36.2% in FY21 as compared to a growth of 38.3% in FY20. In April 2021, there was an abnormally high growth of 191.2% reflecting a favorable base effect. In April 2020, non-tax revenues contracted by (-)75.2%.
- ▶ Non-debt capital receipts (comprising disinvestment receipts and recovery of loans and advances) showed a contraction of (-)16.0% in FY21 as compared to (-)39.1% in FY20. The y-o-y growth in non-debt capital receipts in April 2021 was 1.9%.
- ▶ As per information sourced from the Department of Investment and Public Asset Management⁶, disinvestment receipts as of 24 June 2021 stood at INR3,994.33 crores, that is 2.3% of the FY22 BE.

⁴ Monthly accounts for March and April 2021 released on 31 May 2021

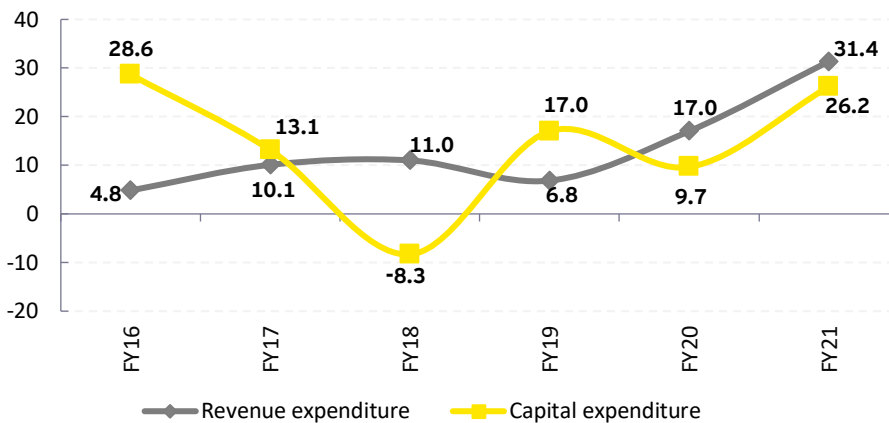
⁵ comprising CGST, UTGST, IGST and GST compensation cess, union excise duties, arrears of service tax and customs duty

⁶ <https://www.dipam.gov.in/dipam/home>

B. Expenditures: revenue and capital

- ▶ Center's total expenditure grew by 30.7% in FY21 as compared to 16.0% in FY20.
- ▶ Revenue expenditure grew by 31.4% in FY21 as compared to 17.0% in FY20 while capital expenditure showed a growth of 26.2% in FY21 as compared to 9.7% last year (Chart 5).
- ▶ In April 2021, while Center's revenue expenditure showed a contraction of (-)35.6%, there was a frontloading of capital expenditure which grew by 66.5% during the month.

Chart 5: Growth in central expenditures (% , y-o-y)



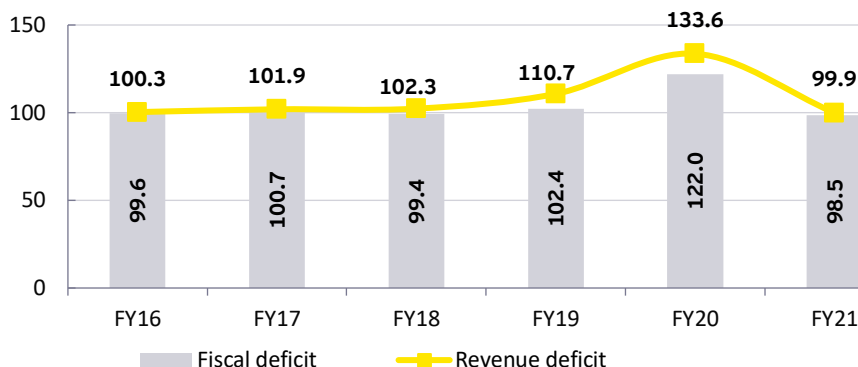
Center's revenue and capital expenditure grew by 31.4% and 26.2% respectively in FY21 as compared to 17.0% and 9.7% respectively in FY20.

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

C. Fiscal imbalance

- ▶ Center's fiscal deficit in FY21 stood at 98.5% of the RE as compared to the corresponding ratio of 122.0% in FY20 (Chart 6). This is due a sharp upward revision in the RE for FY21 and also a better performance in center's GTR relative to the corresponding RE. Fiscal deficit to GDP ratio stood at 9.2% in FY21, lower as compared to 9.5% as per the RE.
- ▶ Center's revenue deficit in FY21 stood at 99.9% of the RE as compared to 133.6% in FY20. Center's revenue deficit in FY21 was higher at 7.4% of GDP as compared to the RE at 5.9% of GDP.
- ▶ In April 2021, fiscal deficit and revenue deficit stood at 5.2% and 2.8% of the respective FY22 BE. These ratios have been the lowest in recent history, at least since FY01.

Chart 6: Fiscal and revenue deficit as percentage of annual RE



In FY21, Center's fiscal deficit stood at 9.2% of GDP vis-à-vis. the RE at 9.5%. Revenue deficit to GDP ratio at 7.4% was higher than the RE at 5.9%.

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



4. Comparative global perspective: growth in global export volume projected to recover to 7.8% in 2021

Volume of exports of goods and services

- ▶ Global volume of exports of goods and services contracted by (-)8.1% in 2020, the first time since the global economic and financial crises in 2009 when the contraction was at (-)9.9%.
- ▶ Contraction in export volumes was sharper for advanced economies (AEs) as compared to emerging market and developing economies (EMDEs) in 2020.
- ▶ In line with a projected recovery in economic activity in 2021, growth in global export volume is expected to recover to 7.8%. Growth is forecasted to taper to 3.4% by 2026 (Table 2).
- ▶ Among AEs, the UK is forecasted to show a contraction in export volume even in 2021 although milder than that in 2020.
- ▶ After a strong growth in export volumes in 2021 and 2022, growth is expected to gradually fall over the forecast period and range between 1.8% to 3.1% in 2026 for selected AEs.
- ▶ Among EMDEs, large contraction in export volumes was seen in 2020 for countries dependent on commodity and oil exports and tourism services.
- ▶ After a recovery in 2021 and 2022, a fall in the growth of export volumes is projected for all selected EMDEs except India where export growth is projected to remain constant at 7.7% during 2022 to 2026.

Table 2: Volume of exports of goods and services (% , y-o-y)

Country	2020	2021	2022	2023	2024	2025	2026
AEs	-9.5	7.9	6.4	3.9	3.4	3.0	2.9
USA	-13.0	10.5	8.3	5.1	3.7	3.2	2.9
UK	-16.7	-2.6	8.3	3.6	3.0	2.7	2.3
Euro area	-9.7	7.9	6.5	4.0	3.4	3.2	3.1
Japan	-12.3	15.0	6.2	3.0	2.7	2.2	1.8
EMDEs	-5.7	7.6	6.0	4.8	4.6	4.5	4.3
Brazil	-1.3	2.8	7.2	4.8	4.4	4.2	4.2
Russia	-7.9	3.1	5.8	3.8	1.8	1.86	1.86
India*	-8.0	11.0	7.7	7.7	7.7	7.7	7.7
China	2.0	6.9	4.3	3.4	3.9	3.8	3.8
S. Africa	-10.3	4.8	4.3	4.1	3.9	3.4	2.9
World	-8.1	7.8	6.3	4.3	3.8	3.6	3.4

Source: IMF World Economic Outlook (April 2021)

*fiscal year basis; Note: forecasts from 2021 onwards

Volume of imports of goods and services

- ▶ Global contraction in imports of goods and services is estimated at (-)8.9% in 2020 with a contraction of (-)9.1% in AEs and (-)8.6% for EMDEs (Table 3).
- ▶ In comparison, in 2009, contraction in global import volume was at (-)10.8%.
- ▶ Following the same trend as export volume, growth in global import volume is expected to recover to 9.1% in 2021, post which it is expected to fall year after year, reaching a level of 3.6% by 2025.
- ▶ Among AEs, a strong growth of 18.9% in import volumes is forecasted for the US in 2021 due to an expected boost to consumption provided by the massive fiscal stimulus.
- ▶ Among EMDEs, the sharpest contraction in import volumes in 2020 was faced by South Africa, India and Russia. In comparison, China's import volume contracted at a much slower pace of (-)1.5%.
- ▶ A double-digit growth in import volumes is expected in 2021 for all selected EMDEs except China partly due to a recovery in demand and partly due to a favorable base effect. Growth in import volumes post 2021 is expected to broadly normalize and is projected to range between 2.2% to 4.2% for selected EMDEs except India. In India's case, growth in import volume is projected to fall to 11.0% in 2022 and 9.0% in 2023 and stabilize at that level until 2026.

Table 3: Volume of imports of goods and services (% , y-o-y)

Country	2020	2021	2022	2023	2024	2025	2026
AEs	-9.1	9.1	6.4	3.6	3.2	3.0	2.9
USA	-9.3	18.9	4.6	2.7	2.6	2.2	2.0
UK	-18.1	2.3	8.7	3.5	2.7	2.5	2.3
Euro area	-9.4	5.7	7.1	4.0	3.5	3.4	3.4
Japan	-6.8	12.6	8.7	2.4	2.3	2.1	2.1
EMDEs	-8.6	9.0	7.4	5.0	4.8	4.7	4.6
Brazil	-7.7	13.7	3.5	4.9	4.2	4.2	4.2
Russia	-13.5	15.0	4.9	2.8	2.2	2.2	2.2
India*	-15.4	16.7	11.0	9.0	9.0	9.0	9.0
China	-1.5	6.9	7.5	3.5	4.3	4.1	4.1
S. Africa	-16.6	11.8	8.7	4.4	3.6	3.1	2.9
World	-8.9	9.1	6.8	4.1	3.8	3.6	3.6

Source: IMF World Economic Outlook (April 2021)

*fiscal year basis; Note: forecasts from 2021 onwards



5. In focus: India's health sector: challenges and potential

1. Introduction

India's health sector encompassing its infrastructure and services has remained chronically under-invested and under-prioritized. Under-investment pertains to government capital expenditures while under-prioritization refers to government revenue expenditures on health. The combined health expenditure of central and state governments has languished at about 1% of GDP for many decades, well below the global norm of 3%. The corresponding average for BRICS countries is 3.1%. The outcome of this is reflected in India's deficient per-capita hospital bed availability which is only 18.3% of the corresponding global average. The per-capita availability of physicians and nurses is 50% and 29% respectively of the global average. These deficiencies show up particularly in the wake of major health crises such as a pandemic. COVID's first and second waves have exposed these deficiencies. Apart from COVID affected households, the economy and fiscal resources have also suffered significantly. Augmenting government expenditure on health may start reducing deficiencies in health sector infrastructure and have a significant positive multiplier effect on the economy, supporting growth and employment. This way, reducing existing deficiencies in the health sector could benefit the rest of the economy. Under the circumstances, given the resource crunch for the central and state governments, directing efforts through the health sector would serve as a panacea.

2. Health sector: relative deficiencies

Table 4 gives availability of beds per 1000 of population in India for selected years in comparison with a set of countries which includes some of the BRICS countries as well as some of the developed countries. In this group, the availability of 0.5 hospital beds per 1000 of population in India in 2017 (latest available comparable data) is the lowest. Brazil has bed availability per 1000 of population which is nearly four times higher and China's hospital bed availability is nearly eight times higher as compared to that in India. Not only India's hospital bed availability appears to be significantly deficient, but it is also shown that this availability has fallen over time from 0.65 in 2000 to 0.53 in 2017. The reason for this fall is the higher rate of growth of population relative to the rate of growth of number of hospital beds. India's relative position is much lower than that of the world average which is 2.78 beds per 1000 population during the period 2015 to 2017.

Table 5 highlights that India has 0.8 physicians per 1000 of population, which is 50% of the world average of 1.6 in 2017. In Germany, the number of physicians at 4.2 per 1000 of population, is 5.25 times the availability in India. In Brazil and China, this ratio is 2.75 and 2.5 times respectively. India has a considerable ground to cover even though in relative terms, its position with respect to physicians is better than that with respect to availability of hospital beds. In Brazil and China, there has been a significant improvement since 2000. However, in India's case, the increase in the number of physicians per 1000 of population has been quite slow.

Table 4: Availability of hospital beds per 1000 of population - selected countries and years

Country	2000	2007	2011	2015	2016	2017	Average (2015 to 2017)
Brazil	2.8	2.5	2.3	2.1	2.1	2.1	2.12
China	1.7	2.0	2.7	3.8	4.0	4.3	4.04
France	8.0	7.1	6.4	6.1	6.1	6.0	6.06
Germany	9.1	8.2	8.4	8.1	8.1	8.0	8.06
India	0.65	0.41	0.63	0.58	0.48	0.53	0.53
Japan	14.7	13.9	13.4	13.2	13.1	13.1	13.11
UK	4.1	3.4	2.9	2.6	2.6	2.5	2.57
US	3.5	3.1	3.0	2.8	2.8	2.9	2.81
World	2.9	2.7	2.7	2.7	2.7	2.9	2.78

Source (basic data): World Bank, WHO

Table 5: Availability of physicians per 1000 of population - selected countries and years

Country	2000	2005	2010	2014	2016	2017
Brazil	1.1	1.7	1.8	NA	NA	2.2
China	1.2	1.2	1.5	1.7	1.9	2.0
France	3.4	3.4	3.4	3.2	3.2	3.3
Germany	3.3	3.4	3.8	4.1	4.2	4.2
India	0.5	0.6	0.7	0.7	0.8	0.8
Japan	2.0	NA	2.2	2.3	2.4	NA
UK	2.0	2.4	2.6	2.7	2.8	2.8
US	2.6	2.4	2.4	2.6	2.6	2.6
World	1.2	NA	1.3	NA	NA	1.6

Source (basic data): World Bank, WHO

Table 6 shows that the availability of nurses in India per 1000 population was 2.1 in 2017. For US, the availability of nurses at 14.5 per 1000 population was the highest amongst major countries. This is 6.9 times the availability in India. In Germany and France also, there was a significantly higher availability of nurses per 1000 population at 13.2 and 11.2 respectively. These are 6.3 and 5.3 times the availability of nurses in India per 1000 population. Even in Brazil, the corresponding number was considerably high at 9.7 which is 4.6 times that in India.

Table 6: Availability of nurses per 1000 of population - selected countries and years

Country	2000	2005	2010	2014	2016	2017
Brazil	3.8	3.8	7.3	8.8	9.4	9.7
China	1.0	1.0	1.5	2.1	2.5	2.7
France	7.1	8.1	9.0	10.3	10.9	11.2
Germany	10.3	11.0	11.9	12.8	13.1	13.2
India	1.2	1.3	0.9	1.4	1.5	2.1
Japan	8.7		10.3	11.5	12.0	NA
UK	8.6	9.6	8.8	8.3	8.3	8.2
US	9.5	9.9	12.6	8.8	NA	14.5
World	2.9	NA	3.1	NA	NA	NA

Source (basic data): World Bank, WHO

3. Budgetary allocation of general government: under-investment and under-prioritization

The central and state governments in India have historically been spending lower on the health sector when compared to major developed and developing economies of the world. As per the World Bank⁷, the global average general government spending on health was at 5.9% of GDP in 2018. Further, the global norm is to allocate 3% of GDP for the health sector. According to the National Health Policy 2017, India should target increasing its government expenditure on health to reach 2.5%-3.0% of GDP by 2025. The combined expenditure on health by the central and state governments has been limited to about 1.2% of GDP for India. Table 7 shows the history of budgetary allocation of resources by the central and state governments on health and family welfare since FY91. The following points can be highlighted:

- States spend the relatively larger amount on medical and public health as compared to the central government, given that health is primarily a state responsibility. During FY91 to FY21, states accounted for nearly 74.0% of the combined expenditure on average. As shown in Chart 7, the share of states had fallen to about 65.0% around FY09 but it has picked up again.
- The combined expenditure on medical and public health and family welfare has averaged 1.0% of GDP over these years. Leaving the last two years, that is, FY20 and FY21 which pertain to RE and BE respectively, the combined government expenditure on health was 1.16% of GDP as recently as FY19.

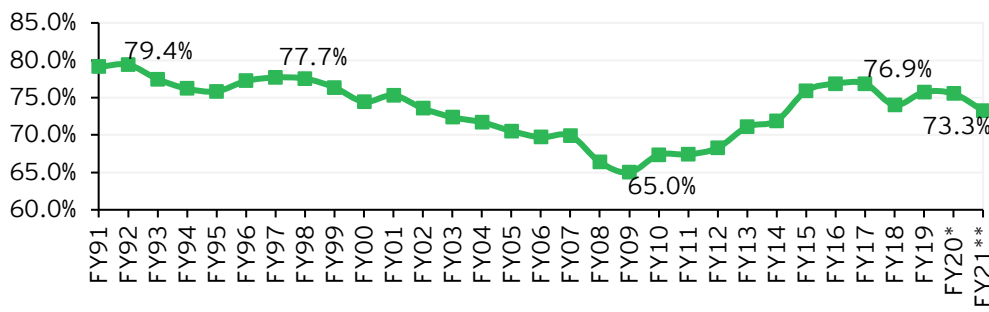
Table 7: expenditure by center and states on medical and public health and family welfare

Year	Center	States	Combined	Center	States	Combined
	INR Crore			% to GDP		
FY91	1273	4822	6,095	0.22	0.84	1.06
FY92	1382	5330	6,712	0.21	0.80	1.01
FY93	1722	5925	7,647	0.23	0.78	1.00
FY94	2148	6880	9,028	0.25	0.79	1.03
FY95	2413	7577	9,990	0.23	0.74	0.97
FY96	2542	8622	11,164	0.21	0.72	0.93
FY97	2751	9581	12,332	0.20	0.69	0.88
FY98	3174	10962	14,136	0.21	0.71	0.91
FY99	3993	12896	16,889	0.23	0.73	0.95
FY00	5012	14602	19,614	0.25	0.73	0.99
FY01	5291	16140	21,431	0.25	0.75	1.00
FY02	5977	16627	22,604	0.26	0.72	0.98
FY03	6521	17094	23,615	0.26	0.69	0.95
FY04	7195	18235	25,430	0.26	0.65	0.91
FY05	8191	19617	27,808	0.26	0.62	0.87
FY06	9578	22031	31,609	0.26	0.61	0.87
FY07	10913	25375	36,288	0.26	0.60	0.85
FY08	14637	28908	43,545	0.30	0.59	0.89
FY09	18502	34353	52,855	0.34	0.62	0.96
FY10	20515	42335	62,850	0.32	0.66	0.99
FY11	23756	49139	72,895	0.31	0.64	0.95
FY12	26290	56609	82,899	0.30	0.65	0.95
FY13	26942	66301	93,243	0.27	0.67	0.94
FY14	29060	74404	1,03,464	0.26	0.66	0.92
FY15	30626	96534	1,27,161	0.25	0.77	1.02
FY16	33121	110077	1,43,199	0.24	0.80	1.04
FY17	37671	125189	1,62,860	0.24	0.81	1.06
FY18	51382	146383	1,97,764	0.30	0.86	1.16
FY19	52954	165377	2,18,331	0.28	0.88	1.16
FY20	62397	192636*	2,55,033	0.31	0.95	1.25

Source (basic data): Expenditure budget, Union Budget (several years) and RBI
*pertains to revised estimates

⁷ <https://databank.worldbank.org/reports.aspx?source=2&series=SH.XPD.GHED.GD.ZS&country=#>

Chart 7: States' share in combined expenditure on health and family welfare



The central and state governments should both increase their expenditures on medical and public health and family welfare by 2.4 times the FY20 expenditure levels so as to enable the government health expenditure in India to reach the target of 3.0% of GDP.

Source (basic data): Expenditure budget, Union Budget (several years) and RBI
*pertains to revised estimates and ** pertains to budget estimates

4. Current health allocation: center and selected states

COVID's second wave has put a spotlight on India's under-capacity in health infrastructure. Given the likelihood of a third COVID wave, there is an urgent need to ramp up health and related infrastructure by enhancing the number of hospitals and hospital beds, sources of oxygen supplies, and manufacture of COVID vaccines and drugs. Center's FY22 budget has provided for INR71,269 crore for the Ministry of Health and Family Welfare (MoHFW). This included a budgeted capital expenditure of INR2,509 crore. In contrast, in FY21 (RE), the total health and family welfare expenditure was INR78,866 crore, implying a fall of INR7,597 crore in FY22 budget. In the budgeted capital expenditure for health also, there was a fall of INR1,725 crore as compared to the RE of FY21 at INR4,234 crore. These magnitudes may be inadequate for an economy challenged by COVID for two successive years. The low priority accorded by the state governments to health services reflects in its low share in the total expenditure of individual states which ranges from 4.2% (Punjab) to 9.1% (Assam) as shown in column 9 of Table 8. The allocation for the health sector covering both capital and revenue expenditures could be increased substantially by reprioritizing expenditures.

Table 7: expenditure on health services by center and selected states

#	Center/State	2016-17	2017-18	2018-19	2019-20	2020-21 (RE)	2021-22 (BE)	2020-21 (% share of HE in state's TE)*	2020-21 (RE)	2021-22 (BE)
1	2	3	4	5	6	7	8	9	10	11
Center's expenditure on Health and Family welfare (INR Crore)										growth rate (%)
1	Revenue	36,447	48,315	50,592	60,730	74,633	68,760	--	22.9	-7.9
2	Capital	1,224	3,067	2,361	1,667	4,234	2,509	--	154.0	-40.7
3=1+2	Total	37,671	51,382	52,954	62,397	78,866	71,269	--	26.4	-9.6
Total expenditure on medical, public health and family welfare by selected medium and large states (INR Crore)										
4	AP	6,438	6,389	7,400	7,538	9,570	14,088	6.2%	26.9	47.2
5	AS	3,197	4,442	4,642	5,334	8,809	8,132	9.1%	65.1	-7.7
6	BH	5,493	6,182	7,318	7,674	11,171	13,012	6.2%	45.6	16.5
7	CH	3,292	4,008	3,757	4,671	6,521	5,902	8.0%	39.6	-9.5
8	GJ	7,700	8,516	9,984	10,283	11,232	11,304	7.2%	9.2	0.6
9	HR	3,044	3,376	4,011	4,983	6,240	7,317	6.4%	25.2	17.3
10	JH	2,479	2,858	3,371	3,138	4,338	4,445	6.4%	38.2	2.5
11	KA	6,883	8,117	9,477	9,160	11,947	12,235	6.6%	30.4	2.4
12	KL	5,988	6,482	7,099	7,539	7,971	8,782	6.8%	5.7	10.2
13	MH	10,724	12,175	13,006	14,692	19,539	19,060	5.8%	33.0	-2.4
14	MP	5,940	7,449	7,738	9,580	9,467	11,619	5.9%	-1.2	22.7
15	OR	4,729	4,927	5,703	6,185	8,776	9,340	8.3%	41.9	6.4
16	PB	2,890	2,748	3,244	3,244	3,734	4,532	4.3%	15.1	21.4
17	RJ	8,252	10,000	11,861	12,145	13,394	16,269	7.0%	10.3	21.5
18	TN	8,641	10,436	12,489	12,321	18,214	19,111	7.3%	47.8	4.9
19	TS	4,940	5,031	5,375	6,182	5,665	5,868	4.2%	-8.4	3.6
20	UP	15,784	16,904	18,102	19,957	20,582	32,009	6.4%	3.1	55.5
21	WB	8,262	8,856	9,678	10,739	12,727	12,756	7.1%	18.5	0.2
22 =Total (4 to 21)		1,14,676	1,28,894	1,44,256	1,55,368	1,89,897	2,15,781	-	22.2	13.6
23=3+22	Overall	1,52,347	1,80,276	1,97,210	2,17,765	2,68,763	2,87,050	-	23.4	6.8
Memo										
Share of center in overall		24.7%	28.5%	26.9%	28.7%	29.3%	24.8%	--	--	--
Share of states in overall		75.3%	71.5%	73.1%	71.3%	70.7%	75.2%	--	--	--

Source (basic data): Union Budget documents various years and RBI and State wise Finance Accounts
*HE and TE refer to state's health expenditure and total expenditure respectively.



5. Health sector: inter-sectoral linkages and multipliers

Expenditure augmentation into the health sector will result into positive benefits for other critical sectors of the economy. We can study these interlinkages by looking at the structure of gross value added (GVA) as well as the input-output matrix. The input-output matrix shows both backward and forward linkages. With respect to GVA, we can briefly list out major channels through which different output sectors are likely to be affected if government expenditure on the health sector is increased. These interlinkages are highlighted in Table 9.

Table 8: Linkages of health sector with key GVA sectors

#	GVA Sectors	Channels of linkages
1	Agriculture and allied activities	<ul style="list-style-type: none"> ▶ Most inputs for ayurvedic and allopathic medicines are drawn from herbs and plants ▶ Vaccine making process involves segments of both animal husbandry and plants especially tobacco
2	Mining and quarrying	<ul style="list-style-type: none"> ▶ Minerals such as mica, zinc, gold, silver, copper etc. are used as inputs for medicines and drugs ▶ Metals and minerals are also used for manufacturing various medical instruments
3	Manufacturing	<ul style="list-style-type: none"> ▶ Drugs and pharmaceuticals, vaccine production ▶ Medical instruments, devices, equipment ▶ Medical oxygen related equipment, ▶ Vehicles (ambulances, mobile hospitals etc.) ▶ Medical consumables ▶ Textiles and garments ▶ Electrical and electronic appliances
4	Electricity, gas, water supply and other utility services	<ul style="list-style-type: none"> ▶ Electricity, gas and water supply are critical in the functioning of hospitals and other medical facilities
5	Construction	<ul style="list-style-type: none"> ▶ Physical health infrastructure including hospitals and other health facilities such as diagnostic centers ▶ Construction of Medi-cities (consisting of health facilities, residential facilities, pharmacies, dual-use structures such as hotels-cum hospitals, dual use stadium etc.) ▶ Creation of educational facilities for training and education of health personnel ▶ Road connectivity to the above listed facilities
6	Trade, hotels, transport, tourism, communications et.al	<ul style="list-style-type: none"> ▶ Retail outlets for medical and pharmaceutical provisions ▶ The retail outlets are fed by a network of drug manufacturers and wholesale dealers ▶ Network of transport services including ambulance services, mobile hospital services, oxygen tankers and the chain of transportation maintaining the supply lines between the manufacturers, wholesalers and retailers dealing with medical and pharmaceutical products. ▶ Warehousing facilities for storing vaccines as well as drugs including cold storage chains ▶ Communication service inputs into health facilities, tele-medicine etc. ▶ Medical tourism
7	Financial and real estate and professional services	<ul style="list-style-type: none"> ▶ Medical or health insurance, payment gateways etc. ▶ Professional services of doctors, nurses and paramedics and other hospital-related staff ▶ Services of bio-medical waste disposal
8	Public administration, defence and other services	<ul style="list-style-type: none"> ▶ Public sector's direct participation in terms of publicly provided health services and financial support (includes center, state governments and public sector entities) ▶ Privately provided health services (part of 'other services') ▶ Provision of educational/training services through chain of institutions to physicians, nurses, paramedics and other staff (by both public and private sector)

Source: EY (authors' compilation)

Table 9 indicates that all the output sectors namely, agriculture, industry and services, have clear linkages with health sector expenditures. Manufacturing will respond strongly to augmentation of health sector expenditure because the effects operate through various important products. Services also have important linkages and will have a high positive impact on skilled employment.



Table 10 shows the linkages, from the input and the output sides, of increase in final demand of medical and health sector. On the input side, it is shown that an increase in expenditure in this sector will have a major positive impact on demand for drugs and medicines. On the output side, sectors that will respond positively are insurance services, medical and health services and construction and construction services.

Table 9: Share of major inputs in medical and health sector and output shares of various sectors

#	Sectors	Inputs from other sectors	Sectors	Output of Medical and health sector
1	Drugs and medicine	39.6%	Insurance services	61.2%
2	Financial services	1.9%	Medical and Health	31.4%
3	Land transport	1.1%	Construction and construction services	3.9%
4	Trade	0.8%	Other services	1.8%
5	Other Business services	0.6%	Others	1.6%
6	Electricity	0.4%		
7	Construction and construction services	0.1%		
8	Total Input	45.8%		
9	NIT	2.0%		
10	GVA	52.2%		
11	Total Output	100.0%	Total intermediate use	100.0%

Source (Basic data): Input-output transactions matrix (2015-16), Brookings

Table 11 summarizes the sectoral multipliers capturing direct and indirect effects of a unit increase in health expenditure as also expenditures on important related sectors namely construction and construction services and electrical appliances.

The sectoral multiplier associated with government expenditure including both revenue and capital was estimated at 1.2 for professional services including education and health (see Economy Watch March 2018 edition⁸). Vaccination expenditure may in fact have a higher multiplier effect since the estimated multiplier value cited here relates to a 'normal year'. However, a successful COVID vaccination program is directly linked to restoration of economic activities after a period of disruption. As such, the vaccination expenditure multipliers are likely to be significantly high since these should be considered in the context of what is known in economics as a 'structural break'.

Table 10: Selected sectoral direct and indirect effects of increasing expenditure on the health, construction and electrical appliances sectors

Sectors	Multipliers
Medical and Health	
Crude petroleum	0.05
Organic heavy chemicals	0.16
Drugs and medicine	0.46
Medical and Health	1.00
Construction and construction services	
Petroleum products	0.06
Iron and steel foundries	0.08
Construction and construction services	1.02
Land transport	0.08
Trade	0.13
Real estate services	0.06
Electrical appliances	
Petroleum products	0.07
Iron and steel casting & forging	0.07
Non-ferrous basic metals (including alloys)	0.23
Electrical appliances	1.00
Electricity	0.09
Land transport	0.07
Trade	0.11
Other Business services	0.08

Source (basic data): Input-output transactions matrix (2015-16), Brookings
Notes: The multiplier effect of investment in health infrastructure can be assessed by measuring the increase in total output as a result of a unit increase in input from a specific sector. The multipliers can be estimated using the inverse of the 'I-A' matrix where 'I' is an n×n identity matrix and 'A' is the n×n input coefficients matrix. 'n' refers to number of commodities which in this case is 130. The 130×130 transactions matrix for India published by Brookings for 2015-16 was used for the purpose of estimating the multipliers.

⁸ https://assets.ey.com/content/dam/ey-sites/ey-com/en_in/topics/tax/economy-watch/2018/ey-economy-watch-march-2018.pdf



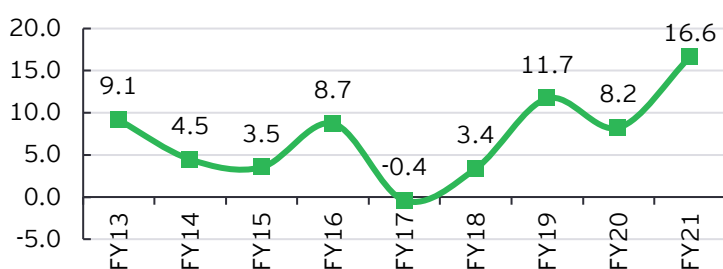
6. Health sector and exports

Growth in health sector related exports (excluding services) has remained volatile over the period FY12 to FY20 averaging 6.1%. In FY21, the pandemic year, its growth sharply increased to a nine year high of 16.6% (Chart 8A) due to growing demand for COVID related drugs and vaccines. The share of health sector related exports in total exports has also risen from 5.0% in FY13 to 8.9% in FY21 (Chart 8B). In fact, as per the data released by the Ministry of Commerce and Industry, India has a positive trade balance of drugs and pharmaceutical products indicating that India is a net exporter of these products. In FY21, the trade surplus of drugs and pharmaceutical products was close to US\$18.0 billion as compared to US\$8.0 billion in FY12, increasing at a CAGR of 9.5%.

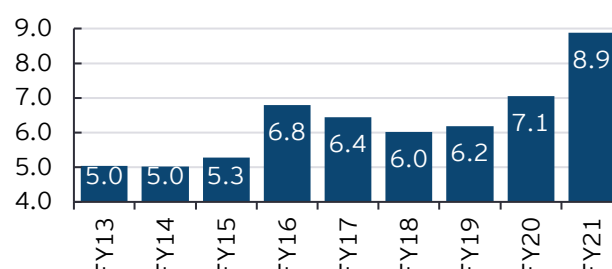
According to a FICCI-EY 2019 report⁹, India is one of the leading destinations for Medical Value Travel (MVT) owing to competitive advantages in providing affordable and quality curative treatments. The number of medical tourists in India grew at a CAGR of 31.4% to 6.97 lakhs¹⁰ over the period 2015 to 2019. In 2019, this was about 6.4% of total tourist arrivals in India¹¹. The dominant source regions for medical tourism were West Asia which constituted 22.4% of total medical tourists, followed by Africa at 14.5%, Southeast Asia at 13.1% and Eastern Europe at 5.2%. Further, there is potential to attract international patients from the UK and the USA which together constituted only about 0.2% of total medical tourist arrivals in India in 2019. Going into the future, India can consider investing into health sector capacity not only within India but also in many countries wherefrom families travel to India for treatment. As the world population ages, this is a sector that offers significant growth potential for India in the future.

Chart 8: Exports of health sector related goods

(A) Growth (% , y-o-y)



(B) Share in total merchandise exports (%)



Source (basic data): Ministry of Commerce and Industry

Notes: Health sector goods includes medical appliances and devices, and drugs and pharmaceuticals

7. Role of public sector in provision of health services

In recent times, India has been sourcing nearly 80% of its vaccine requirement from the domestic private sector or through imports¹². However, till 2008, three public sector units namely Central Research Institute (CRI), BCG Vaccine Laboratory (BCGVL), and Pasteur Institute of India (PII) together supplied approximately 80% of India's vaccines administered through the Universal Immunization Programme. Some of the public sector units involved in vaccine manufacturing became dormant in recent years. These can be reactivated for accelerating COVID vaccine production program. As per information provided by the Central Drugs Standard Control Organization (CDSCO)¹³, there are 21 major firms in India which are involved in the production of human vaccines, seven of which are in the public sector. Details of these major public sector firms are given in Table 12. Some of these public sector entities have already entered into agreements with Bharat Biotech to produce Covaxin and have also been given grants by the Center under its 'Mission Covid Suraksha' scheme.

Covaxin was developed by Bharat Biotech in collaboration with the National Institute of Virology (NIV), which is a public sector R&D institute affiliated to the Indian Council of Medical Research (ICMR), an agency under the control of MoHFW. Both ICMR and Bharat Biotech jointly own the intellectual property (IP) of Covaxin¹⁴. As per recent media reports, ICMR will earn a royalty of 5% on the net sales of Covaxin¹⁵. This co-ownership provides the Center the authority to persuade other public and private sector firms to co-produce Covaxin through technology transfer from Bharat Biotech.

⁹ Advantage Healthcare India 2019; <https://ficci.in/spdocument/23136/FICCI-EY-Report-on-MVT.pdf>

¹⁰ <https://www.financialexpress.com/lifestyle/travel-tourism/medical-tourism-in-india-sees-recovery-amid-covid-19-pandemic/2101384/>

¹¹ <https://tourism.gov.in/sites/default/files/2021-05/INDIA%20TOURISM%20STATISTICS%202020.pdf>

¹² <https://www.straitstimes.com/asia/south-asia/india-to-boost-covid-vaccine-production-with-three-more-manufacturers>

¹³ https://cdsco.gov.in/opencms/export/sites/CDSCO_WEB/Pdf-documents/biologicals/facilitiesLIST.pdf

¹⁴ <https://www.thehindu.com/news/national/icmr-to-get-royalty-from-covaxin-sale/article34474504.ece>

¹⁵ [ICMR denies Covaxin's MoU and Funding Details under the RTI Act | SFLC.in](https://www.thehindu.com/news/national/icmr-to-get-royalty-from-covaxin-sale/article34474504.ece)

Table 11: Key public sector undertakings involved in production of human vaccine

#	Details of public sector unit	COVID related initiatives
1	Bibcol (Bharat Immunologicals and Biologicals Corporation Limited), Bulandshahr District, Uttar Pradesh Ownership: Government of India (GoI) Vaccines produced: BoPV (Polio)	The firm has entered into a technology agreement with Bharat Biotech to start production of 10-15 million doses of Covaxin per month by November 2021. It has been provided a grant of INR30 crores by the Center.
2	Haffkine Bio-Pharmaceutical, Mumbai, Maharashtra Ownership: Government of Maharashtra Vaccines produced: mOPV and bOPV (Polio)	The firm entered into an agreement with Bharat Biotech to produce up to 20 million doses of Covaxin on a monthly basis ¹⁶ . Financial support of INR65 crores is being provided by the center ¹⁵ . Production is slated to begin from November 2021 ¹⁷ .
3	Human Biological Institute (division of Indian Immunologicals (IIL), a subsidiary of NDDDB), Hyderabad (Telangana); Ooty (Tamil Nadu); Medak district (Telangana) Ownership: GoI Vaccines produced: Rabies, DTP, TT, DT & Hepatitis-B	The firm has entered into a technology transfer agreement with Bharat Biotech to produce approximately 10-15 million ¹⁸ doses of Covaxin per month from September 2021. It has also been provided a grant of INR60 crores from the Center. The firm had earlier tied up with Griffith University (Australia) in April 2020 to develop a vaccine for COVID-19 ¹⁹ . No further information is available.
4	HLL Biotech (subsidiary of HLL Lifecare), Chennai, Tamil Nadu Ownership: GoI Vaccines produced: Hep B, DTWP-HepB-Hib	The firm owns an 'Integrated Vaccine Complex' (IVC) in Chengelpet set up in 2012 with a capacity to produce 585 million doses ²⁰ per year which is lying idle since its establishment. The center has recently indicated that it will find a partner to operationalize the IVC ²¹ .
5	BCG vaccine, Chennai, Tamil Nadu Ownership: GoI (Directorate General of Health Services (DGHS) under MoHFW) Vaccines produced: BCG, Tuberculine	According to certain media reports ²² the firm's lab, which is currently being used to manufacture anti-TB vaccines, may not be suitable for producing the 5ml COVID-19 vaccine since the lab has 2ml filling units. The facility may be upgraded to suit the COVID-19 vaccine production requirement.
6	Pasteur Institute of India, Coonoor, Nilgiris district (Tamil Nadu) Ownership: GoI (autonomous entity under MoHFW) Vaccines produced: DTP, TT, DT & inactivated rabies vaccine	According to media reports ²¹ , the Centre is being pursued by the Government of Tamil Nadu to use this institute's facility for producing COVID-19 vaccines, especially the downstream process which does not require BSL-3 level standards.
7	Central Research Institute, Solan, Himachal Pradesh Ownership: GoI (DGHS under MoHFW) Vaccines produced: DTP, yellow fever, JE, TT, DT, Concentrated DTP Vaccine	NA

Notes: Location implies location of vaccine manufacturing unit

Source (basic data): Central Drugs Standard Control Organization, DGHS, MoHFW; media reports

Haffkine, Bibcol and IIL together aim to produce up to 50 million doses of Covaxin by December 2021²³. Together they have received a central grant of INR155 crore¹⁶. In addition, a grant of INR65 crore was also made to Bharat Biotech²⁴ to repurpose one of its production facilities in Bengaluru to produce Covaxin.

However, the capabilities of three key PSUs namely CRI, BCGVL and PII, which used to supply approximately 80% of total vaccines administered in India till 2008, still remain untapped. Further, the potential of HLL Biotech's 'Integrated Vaccine Complex' (IVC) in Chengelpet set up in 2012 with a capacity to produce 585 million doses²⁵ of vaccine per year also remains unutilized.

¹⁶ <https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1718791>

¹⁷ <https://pib.gov.in/PressReleaseDetail.aspx?PRID=1718332>

¹⁸ <https://www.newindianexpress.com/cities/hyderabad/2021/may/29/hyderabad-indian-immunologicals-limited-to-supply-rawmaterial-for-vaccine-to-bharat-biotech-2308913.html>

¹⁹ <http://indimmune.com/images/iil-news/Covid.pdf>

²⁰ <https://theprint.in/india/india-needs-vaccines-now-but-this-govt-plant-in-tamil-nadu-has-been-idle-for-9-years/631770/>

²¹ <https://www.thehindu.com/news/national/tamil-nadu/centre-to-find-partner-to-operationalise-chengalpattu-vaccine-complex-tn-cm-against-any-further-delay/article34706261.ece>

²² <https://timesofindia.indiatimes.com/city/chennai/state-eyes-pasteur-institute-tn-park-to-ramp-up-vax-production/articleshow/83018308.cms>

²³ <https://www.hindustantimes.com/india-news/haffkine-biopharma-to-produce-228-million-covaxin-doses-annually-101622631005212.html>

²⁴ https://www.business-standard.com/article/current-affairs/covaxin-capacity-scaled-up-to-500-million-doses-a-year-bharat-biotech-121051700007_1.html

²⁵ <https://theprint.in/india/india-needs-vaccines-now-but-this-govt-plant-in-tamil-nadu-has-been-idle-for-9-years/631770/>



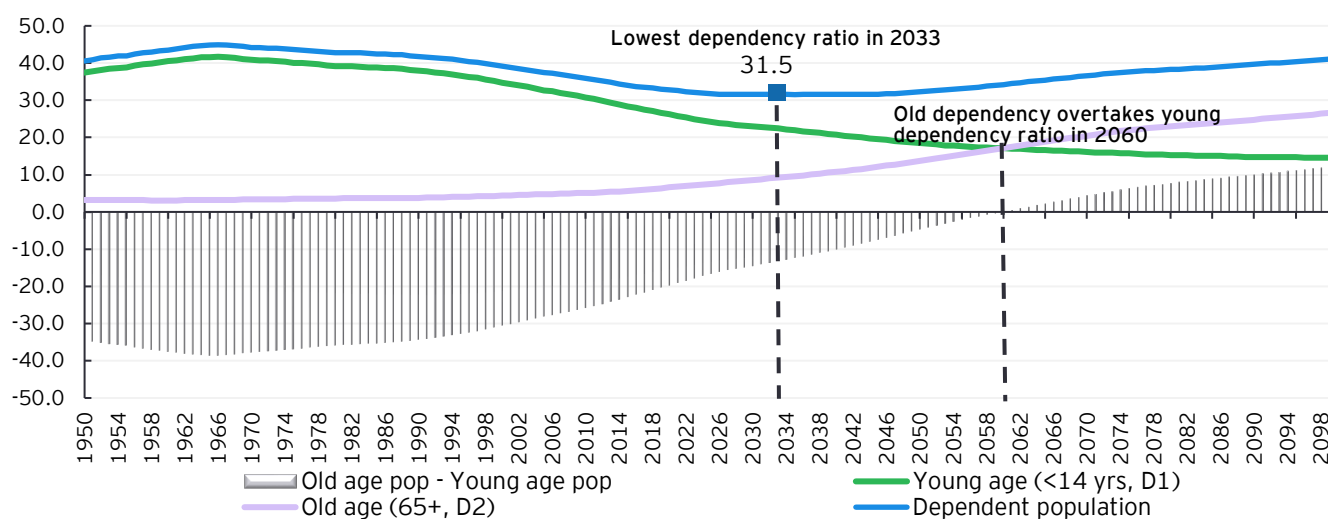
The government took an important step on 03 June 2021 when it announced the finalization of arrangements to procure 30 crore doses of a COVID-19 vaccine, currently in Phase 3 clinical trials, being developed by Biological-E, a Hyderabad based private vaccine manufacturer. The vaccine doses would be manufactured over the period August-December 2021. The Center has paid an advance of INR1500 crore for the doses²⁶.

According to a press release by the Center, the government is supporting development of five to six COVID-19 vaccine candidates, some of which are now close to licensure and introduction in public health systems²⁵.

8. India's ongoing demographic evolution: building for future

Looking towards the unfolding demographic transition in India, the role of health expenditure becomes even more critical. India's working age population is expected to peak at around 2033 when its share is estimated to be 68.5% in total population. After that, the share of working age population would start to fall and the share of dependent population would increase. This is shown in Chart 8.

Chart 9: Share of old age vs young age population in total population



Source (basic data): UN World Population Prospects 2019

The share of young age dependent population (D1) is shown to steadily fall stabilizing around 14.0% towards the end of the century. On the other hand, the share of old age dependent population (D2) will be steadily increasing, requiring progressively higher healthcare expenditures. The crossover year is projected to be 2060. Thus, by 2060, India should invest adequately in health sector infrastructure to take care of the health needs of its aged population which will be more than one fourth of its total population closer towards the end of the century.

9. Concluding observations: preparing for subsequent COVID waves

Relative to global benchmarks, India is deficient in the number of physicians, nurses and hospital bed availability per 1000 population which are at 0.8, 2.1 and 0.53²⁷ respectively. This may largely be attributable to a long period of under-investment in health sector infrastructure and under-spending on health services by the central and state governments. In FY22, there is a strong case for not only correcting this long-term under-prioritization but also getting positive outcomes in the broader economy. Given the fiscal constraints, the available space for fiscal stimulus is quite limited. Therefore, government's effort in augmenting expenditure should be highly targeted. The primary focus of fiscal stimulus should be on the health sector. This will not only enable meeting the short-term need arising from the continued second wave and possible third wave of COVID but also support growth and employment in the economy in the short run. Such health sector capacity expansion is justified in the long run from the view point of not only the ageing global population where India will have a significant role to play in exporting health services but also to cater to India's own ageing population towards the latter decades of this century.

²⁶ Press release ID 1723933 dated 3 June 2021; <https://www.pib.gov.in/PressReleasePage.aspx?PRID=1723933>

²⁷ These numbers pertain to 2017 as sourced from WHO



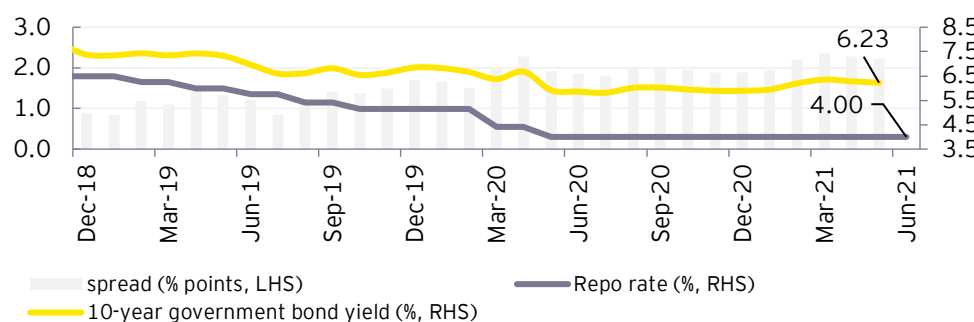
6. Money and finance: the RBI retained the repo rate at 4.0% in June 2021 monetary policy review

A. Monetary sector

Monetary policy

- ▶ The RBI retained the repo rate for the sixth consecutive time at 4.0% (Chart 10) in its monetary policy review held on 4 June 2021 and consequently the reverse repo rate also remained unchanged at 3.35%. Further, the RBI continued to maintain an accommodative policy stance in order to support the economic revival.
- ▶ In RBI's assessment, the CPI inflation trajectory in the coming months is expected to be influenced by considerable uncertainties owing to the following factors: (a) rising international commodity prices, particularly crude, (b) heightened logistic costs and (c) persistent input cost pressures emanating from petrol and diesel prices given the taxes and duties on these are not adjusted downwards. However, active supply side interventions and gradual easing of localized lockdowns across states may mitigate disruptions to supply chain, partly reducing the cost pressures.

Chart 10: movements in the repo rate and 10-year government bond yield



The RBI retained the repo rate for the sixth consecutive time at 4.0% in its June 2021 monetary policy review.

Source: Database on Indian Economy, RBI

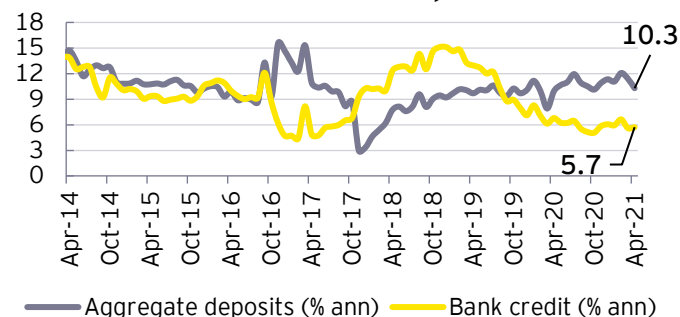
Money stock

- ▶ Growth in broad money stock (M3) fell to a 14-month low of 9.9% in May 2021. This was due to a slower growth in both time deposits and narrow money (M1). Growth in time deposits fell to 8.3% in May 2021, its lowest since March 2020.
- ▶ Growth in M1 also moderated to 14.8% in May 2021 as compared to 16.2% in April 2021 due to slower growth of currency in circulation and demand deposits. Demand deposits grew at a slower pace of 16.3% in May 2021 as compared to 17.0% in April 2021 while growth of currency in circulation at 9.9% in May 2021 was the lowest since October 2017.

Aggregate credit and deposits

- ▶ Growth in bank credit continued to remain subdued at 5.7% in April 2021, although marginally increasing from 5.6% in March 2021 (Chart 11).
- ▶ Growth in non-food credit increased to 5.4% in April 2021 from 4.9% in March 2021 when it had fallen to a 49-month low.
- ▶ Sectoral deployment of bank credit²⁸ indicates that the outstanding credit to industries posted a low growth of 0.4% in April 2021, similar to the level in March 2021. Within the industrial sector, growth in credit to infrastructure grew by 3.4% in April 2021, falling from 3.6% in March 2021. Credit to iron and steel and cement sectors contracted sharply to historic lows of (-)19.1% and (-)14.7% respectively in April 2021.

Chart 11: Growth in credit and deposits



Source: Database on Indian Economy, RBI

²⁸ As per RBI, data on sectoral deployment of bank credit collected from select 33 scheduled commercial banks accounts for about 90% of the total non-food credit deployed by all scheduled commercial banks



- ▶ Growth in credit to services sector also fell to an unprecedented low of 0.7% in April 2021. Growth in credit to agricultural sector continued to post a double-digit growth of 12.2% in April 2021, although it was marginally lower than 12.3% in March 2021.
- ▶ Growth in personal loans, a key driver of retail loans, increased for the second consecutive month to 12.8% in April 2021 from 10.2% in March 2021.
- ▶ Growth in aggregate bank deposits moderated to 10.3% in April 2021 from 11.4% in March 2021 led by a fall in the growth of time deposits.

B. Financial sector

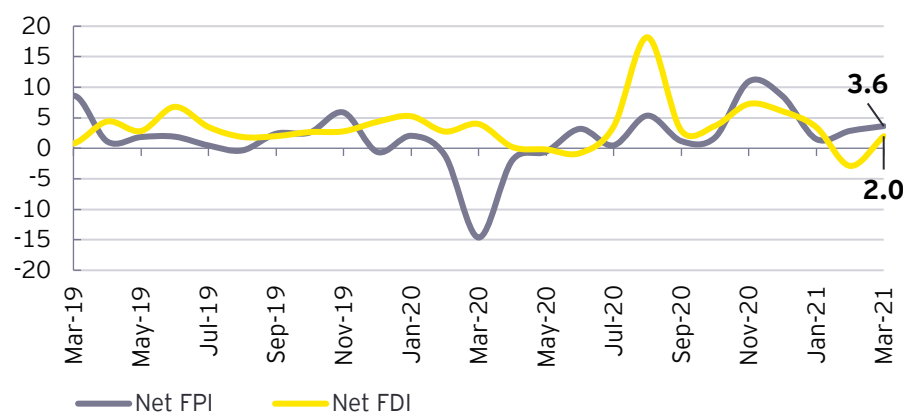
Interest rates

- ▶ As per the data released by the RBI on 4 June 2021, the average interest rate on term deposits with a maturity of more than one year was retained at 5.20% in May 2021, with the actual rate ranging from 4.90% to 5.50%. The deposit rates were last lowered in August 2020 to average 5.21%.
- ▶ The average MCLR has remained unchanged for the fifth successive month at 6.80% in May 2021, ranging between 6.55% and 7.05%.
- ▶ The average yield on 10-year government bonds fell marginally to 6.23% in May 2021 from 6.28% in April 2021 (Chart 10). This was despite the center announcing a significantly higher borrowing program amounting to INR7.24 lakh crore in 1HFY21²⁹. The RBI's sustained liquidity augmenting measures may have impacted the benchmark bond yields in May 2021.
- ▶ WALR on fresh rupee loans by SCBs increased marginally to 8.10% in April 2021 from 8.03% in March 2021.

FDI and FPI

- ▶ As per the provisional data released by the RBI on 17 May 2021, overall foreign investment (FI)³⁰ inflows amounted to US\$5.6 billion in March 2021 as compared to outflows of US\$(-)0.05 billion (revised) in February 2021 due to higher net FDI and FPI inflows. In FY21, overall FI inflows reached a historic high of US\$80 billion.

Chart 12: Net FDI and FPI inflows (US\$ billion)



Net FDI inflows were at a historic high of US\$43.4 billion in FY21 while net FPI inflows at US\$36.8 billion was the highest since FY15.

Source: Database on Indian Economy, RBI

- ▶ Net FDI inflows amounted to US\$2.0 billion in March 2021 as compared to net outflows amounting to US\$(-)2.9 billion in February 2021. Gross FDI inflows increased to US\$4.6 billion in March 2021 from US\$4.3 billion in February 2021. In FY21, net FDI inflows were at US\$43.4 billion, increasing marginally from US\$43.0 billion in FY20.
- ▶ Net foreign portfolio investment (FPI) inflows increased to US\$3.6 billion in March 2021 from US\$2.8 billion in February 2021 thereby taking the total net FPI inflows in FY21 to US\$36.8 billion. This was the highest net FPI inflows since FY15 when it was at US\$42.2 billion.

²⁹ https://www.rbi.org.in/Scripts/BS_PressReleaseDisplay.aspx?prid=51364

³⁰ Foreign Investment (FI) = net FDI plus net FPI



7. Trade and CAB: merchandise trade deficit narrowed to US\$6.3 billion in May 2021

A. CAB: current account posted a deficit of (-)0.2% of GDP in 3QFY21

Current account recorded a deficit for the first time in four quarters at (-)0.2% of GDP in 3QFY21 as compared to a surplus of 2.4% in 2QFY21 (Chart 13, Table 11). Net merchandise trade deficit was at (-)4.7% of GDP in 3QFY21, as compared to (-)2.3% in 2QFY21. Merchandise exports relative to GDP dipped to 10.4% in 3QFY21 from 11.9% in 2QFY21. Merchandise imports relative to GDP were at 15.1% in 3QFY21 as compared to 14.2% in 2QFY21. Net invisible receipts fell to 4.4% of GDP in 3QFY21 from 4.7% of GDP in 2QFY21 reflecting the moderation in net transfers to 2.6% of GDP.

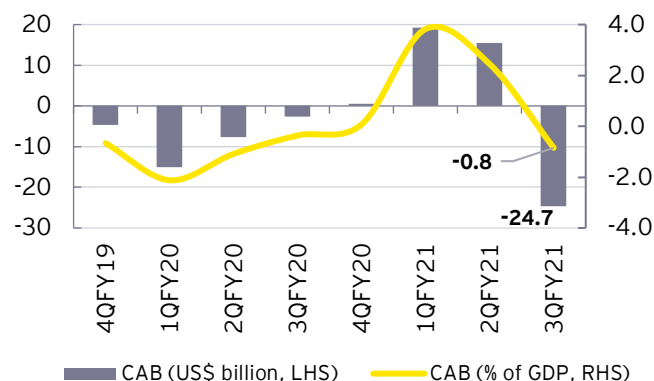
Table 12: Components of CAB in US\$ billion

Fiscal year	CAB as % of nominal GDP	CAB	Goods account net	Invisibles* net
FY17	-0.7	-15.3	-112.4	97.1
FY18	-1.8	-48.7	-160.0	111.3
FY19	-2.1	-57.3	-180.3	123.0
FY20	-0.8	-24.7	-157.5	132.8
4QFY20	0.1	0.6	-35.0	35.6
1QFY21	3.7	19.0	-10.8	29.8
2QFY21	2.4	15.1	-14.8	29.9
3QFY21	-0.2	-1.7	-34.5	32.8

Source: Database on Indian Economy, RBI

Note: (-) deficit; (+) surplus; *invisibles include services, current transfers and income components

Chart 13: CAB



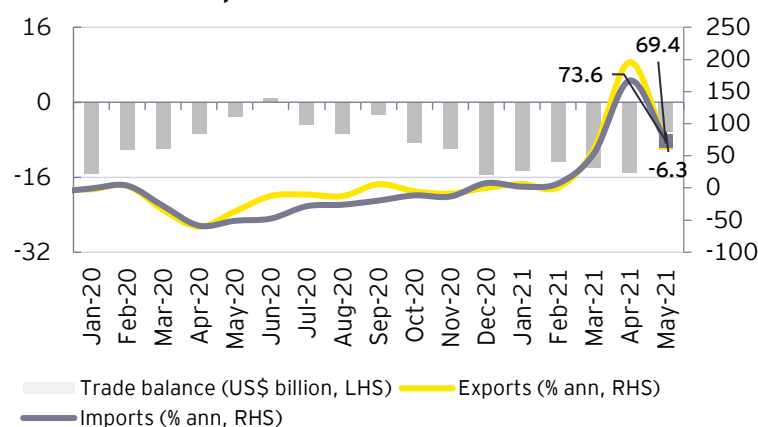
Source: Database on Indian Economy, RBI

B. Merchandise trade and exchange rate

Merchandise trade deficit fell to a 10-month low of US\$6.3 billion in May 2021.

- ▶ Merchandise exports and imports growth (y-o-y) remained high at 69.4% and 73.6% respectively in May 2021 due partly to favorable base effects (Chart 14). Compared to May 2019 levels, exports grew by 7.6% reflecting a pickup in external demand. Imports contracted by (-)15.0% in May 2021 compared to May 2019 levels.
- ▶ On a y-o-y basis, exports growth of petroleum products, gems and jewelry, and engineering goods were at 227.3%, 179.1%, and 53.0% respectively in May 2021. However, as compared to May 2019 levels, while exports of engineering goods and petroleum products grew by 15.9% and 3.2% respectively, exports of gems and jewelry contracted by (-)13.0% in May 2021.
- ▶ Similarly, petroleum products, pearls and precious stones, and electronic goods imports experienced high y-o-y growth rates of 171.1%, 486.7% and 47.3% respectively in May 2021 due largely to favorable base effect. Compared to May 2019, however, oil and electronic goods imports contracted by (-)24.0% and (-)12.1% respectively whereas pearls and precious stones imports grew by 34.2% in May 2021.
- ▶ Although the y-o-y growth in exports and imports excluding oil, gold and jewelry was high at 46.5% and 43.4% respectively in May 2021, compared to May 2019, they showed a growth of 11.9% and a contraction of (-)1.1% respectively in May 2021.
- ▶ The rupee appreciated to INR 73.3 per US\$ in May 2021 from INR74.5 per US\$ (average) in April 2021 led by the dovish stance of the Federal Reserve and less aggressive intervention by the RBI.

Chart 14: Developments in merchandise trade



Source: Ministry of Commerce and Industry, Gov



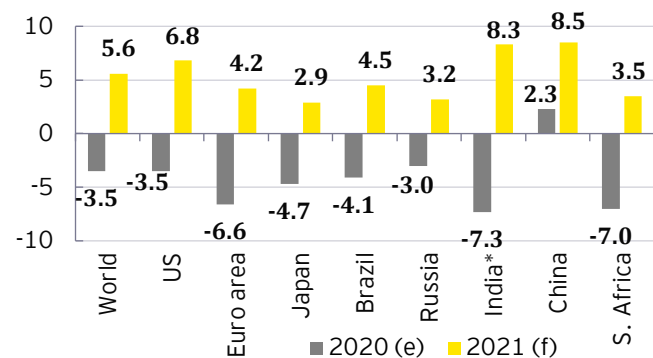
8. Global growth: World Bank projected global growth at 5.6% in 2021

A. Growth outlook

- ▶ The World Bank estimated a global contraction of (-)3.5% in 2020 with AEs contracting by (-)4.7% and EMDEs by (-)1.7% (**Chart 15**).
- ▶ Global growth in 2021 is projected to recover to 5.6% with China and the US contributing over one-quarter of the global growth. The recovery in 2021 is expected to be uneven due to highly unequal vaccine access.
- ▶ In AEs, growth is projected to strengthen to 5.4% in 2021 led by stronger than expected growth in the beginning of this year, faster vaccination, additional US fiscal support and release of pent-up demand.
- ▶ The US growth at 6.8% in 2021 is forecasted to outperform that of other major AEs due to its more rapid vaccine rollout and larger fiscal support.
- ▶ In the Euro area, a slow and inconsistent vaccine rollout and stringent mobility restrictions have constrained the pace of recovery in the first half of 2021. However, with an expected recovery in the second half of 2021, the full year growth is projected at 4.2%.
- ▶ Following a contraction of (-)4.7% in 2020, Japan's economy is projected to recover to 2.9% reflecting firming domestic activity alongside robust external demand.
- ▶ In many EMDEs, elevated COVID cases, obstacles to vaccination, and a partial withdrawal of macroeconomic support are expected to offset some of the benefits of strengthening external demand and elevated commodity prices. Growth in EMDEs is projected at 6.0% in 2021.
- ▶ In China, growth is projected to rebound to 8.5% in 2021 owing to expectations of stronger foreign demand.
- ▶ India and Brazil have been disproportionately affected by the recent outbreaks of the pandemic. Although growth is projected at 8.3% in 2021 for India, this masks significant expected economic damage from COVID's second wave.

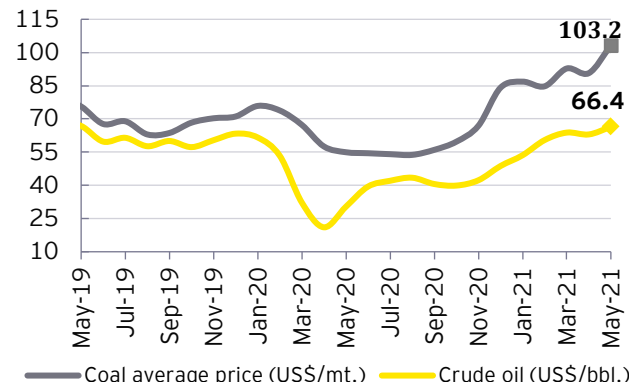
The World Bank has projected global growth at 5.6% in 2021 with India's growth forecasted at 8.3% for FY22.

Chart 15: Growth projections (%)



Source: Global economic prospects, World Bank (June 2021)
(e): estimated, (f): forecasted; *data for India pertains to fiscal year

Chart 16: Global crude and coal prices



Source (basic data): World Bank, Pink Sheet, June 2021

B. Global energy prices: average global crude price increased to a two-year high of US\$66.4/bbl. in May 2021

- ▶ Average global crude price³¹ increased to a two-year high of US\$66.4/bbl. in May 2021 from US\$63.0/bbl. in April 2021 supported by economic recovery and the prospects of fuel demand growth as vaccination particularly in developed countries accelerated (**Chart 16**). The International Energy Agency (IEA), in its Oil Market Report for June 2021, estimated global oil demand to return to its pre-pandemic level of 8.6 mb/d by the end of 2022, rising to 5.4 mb/d in 2021 and a further 3.1 mb/d next year.
- ▶ Average global coal price³² also increased to US\$103.2/mt. in May 2021, its highest level since October 2018 when it was at US\$104.5/mt.

³¹ Simple average of three spot prices, namely, Dated Brent, West Texas Intermediate and Dubai Fateh

³² Simple average of Australian and South African coal prices

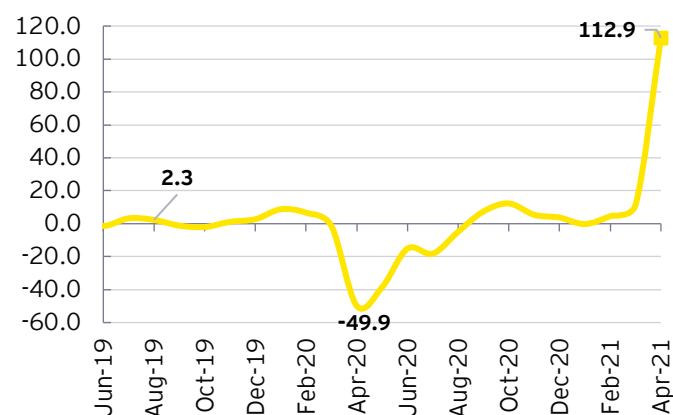


9. Index of Aggregate Demand (IAD): grew by 112.9% in April 2021 owing to favorable base effect

Led by a favorable base effect, IAD grew to a historic high of 112.9% in April 2021

- ▶ EY developed an IAD 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.
- ▶ IAD grew to an unprecedented level of 112.9% in April 2021 led by favorable base effect (**Chart 17**).
- ▶ During April 2021, demand conditions in agricultural and industrial sectors remained strong. However, demand conditions in the services sector moderated sharply during the month.

Chart 17: growth in IAD (y-o-y)



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

Table 13: IAD

Month	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21
IAD	118.5	133.4	141.7	136.8	136.3	137.8	144.3	140.7	135.2
Growth (% y-o-y)	-4.9	7.5	12.3	5.4	3.7	-0.2	4.6	11.5	112.9
Growth in agr. credit	4.9	5.9	7.4	8.5	9.4	9.9	10.2	12.3	12.2
Mfg. PMI**	2.1	8.0	9.4	6.5	6.9	7.8	8.0	5.5	5.0
Ser. PMI**	-9.7	0.5	7.2	3.6	2.2	2.3	8.6	5.6	0.6

**Values here indicate deviation from the 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



11. 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							
FY18	4.4	2.3	4.7	5.3	4.3	FY18	51.5	50.0
FY19	3.8	2.8	3.8	5.2	4.4	FY19	52.8	52.2
FY20	-0.8	1.6	-1.4	0.9	0.4	FY20	52.3	51.9
FY21	-8.6	-7.8	-9.8	-0.5	-7.0	FY21	50.2	41.7
1QFY21	-35.6	-22.3	-40.3	-15.8	-23.8	1QFY21	35.1	17.2
2QFY21	-5.7	-7.0	-6.3	0.1	-4.8	2QFY21	51.6	41.9
3QFY21	1.7	-3.2	1.8	6.7	-0.4	3QFY21	57.2	53.4
4QFY21	5.9	-0.2	6.6	9.2	2.9	4QFY21	56.9	54.2
Jan-21	-0.6	-2.4	-0.9	5.5	1.3	Feb-21	57.5	55.3
Feb-21	-3.4	-4.4	-3.7	0.1	-3.8	Mar-21	55.4	54.6
Mar-21	24.1	5.9	28.3	22.5	11.4	Apr-21	55.5	54.0
Apr-21	134.4	37.1	197.1	38.5	56.1	May-21	50.8	46.4

Source: MoSPI, 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				
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	11.5	4.2
FY20	4.8	6.7	1.3	3.8	1.7	6.9	0.3	-1.8	-0.4
FY21	6.2	7.7	2.7	5.5	1.3	3.9	2.7	-8.0	2.2
1QFY21	6.6	9.9	1.7	4.9	-2.3	3.4	0.0	-17.4	-1.0
2QFY21	6.9	9.7	2.9	5.4	0.5	5.5	1.3	-9.2	0.5
3QFY21	6.4	7.9	2.2	5.7	1.9	4.0	3.3	-8.1	3.0
4QFY21	4.9	3.5	3.9	5.9	5.1	2.9	6.5	2.5	6.3
Feb-21	5.0	3.9	3.5	6.1	4.8	3.6	6.1	2.0	5.9
Mar-21	5.5	4.9	4.4	6.1	7.9	5.6	7.8	9.7	7.5
Apr-21	4.2	2.0	8.0	5.4	10.5	7.6	9.0	20.9	8.3
May-21	6.3	5.0	11.6	6.6	12.9	8.1	10.8	37.6	10.0

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

* The CPI for April and May 2020 has been imputed

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 % of GDP	Revenue deficit % of GDP
FY 18 (CGA)	11.8	17.8	19.9	18.6	6.1	3.5	2.6
FY 19 (CGA)	8.4	16.2	13.1	14.9	3.0	3.4	2.4
FY20 (CGA)	-3.4	-16.1	4.0	-7.8	1.7	4.6	3.3
FY21 (CGA)	0.7	-17.9	-2.3	-10.7	12.7	9.2	7.4
FY 22 (BE over FY 21 RE)	16.7	22.6	22.2	22.4	11.4	6.8	5.1
Cumulated growth (% , y-o-y)						% of budgeted target	
Sep-20	-21.6	-39.7	-21.8	-31.4	-12.0	114.8	125.2
Oct-20	-16.8	-36.7	-16.9	-27.3	-7.0	119.7	126.8
Nov-20	-12.6	-35.7	-12.3	-24.4	-2.4	135.1	139.9
Dec-20	-3.2	-15.4	-6.2	-11.2	4.2	62.7 [#]	60.6 [#]
Jan-21	-1.0	-14.9	-5.5	-10.5	7.5	66.8 [#]	62.7 [#]
Feb-21	-0.7	-16.2	-4.2	-10.4	7.8	76.0 [#]	71.6 [#]
Mar-21	0.7	-17.9	-2.3	-10.7	12.7	98.5 [#]	99.9 [#]
Apr-21	151.8	65.9	76.7	72.2	325.5	5.2	2.8

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 % of revised targets for FY21, fiscal and revenue deficits until November 2020 are as % of FY21 budget targets.

Fiscal year/month	CGST	UTGST	IGST	GST compensation cess	Total GST (Center)
	INR crore				
FY 2021 (RE)	4,31,000	-	-	84,100	5,15,100
FY 2022 (BE)	5,30,000	-	-	1,00,000	6,30,000
Monthly tax collection (INR crore)					
Sep-20	37,171	243	-290	6,810	43,934
Oct-20	42,901	136	192	7,840	51,069
Nov-20	39,803	132	7,612	8,029	55,576
Dec-20	43,040	144	12,408	8,248	63,840
Jan-21	44,666	324	6,769	8,332	60,091
Feb-21	66,641	410	-37,308	9,349	39,092
Mar-21	56,818	322	-10,358	8,431	55,213
Apr-21	55,458	161	4,787	9,187	69,593

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	Bank credit	Agg. deposits	Net FDI	Net FPI	Fiscal year/ quarter/ month	M1	M3	10-year govt. bond yield	FX reserves
	%		% change y-o-y		US\$ billion			% change y-o-y		%	US\$ billion
Jul-20	4.00	FY18	7.5	7.5	30.3	22.1	FY18	21.8	9.2	7.05	424.4
Aug-20	4.00	FY19	13.7	8.9	30.7	-0.6	FY19	13.6	10.5	7.68	411.9
Sep-20	4.00	FY20	9.4	9.9	43.0	1.4	FY20	11.2	8.9	6.80	475.6
Oct-20	4.00	FY21	5.9	11.0	43.4	36.8	FY21	16.1	11.7	6.04	579.3
uNov-20	4.00	1QFY21	6.4	10.5	-0.8	0.6	1QFY21	17.7	12.3	6.15	506.8
Dec-20	4.00	2QFY21	5.7	11.1	24.6	7.0	2QFY21	18.6	12.2	5.95	542.0
Jan-21	4.00	3QFY21	5.6	10.8	17.0	21.2	3QFY21	19.6	12.4	5.91	580.8
Feb-21	4.00	4QFY21	6.0	11.5	2.5	8.0	4QFY21	16.1	11.7	6.16	579.3
Mar-21	4.00	Jan-21	5.9	11.1	3.5	1.5	Feb-21	19.0	12.8	6.20	584.6
Apr-21	4.00	Feb-21	6.6	12.1	-2.9	2.8	Mar-21	16.1	11.7	6.35	579.3
May-21	4.00	Mar-21	5.6	11.4	2.0	3.6	Apr-21	16.3	10.6	6.28	588.0
Jun-21	4.00	Apr-21	5.7	10.3	--	--	May-21	14.8	9.9	6.23	598.2

Source: Database on Indian Economy - RBI

Table A5: External trade and global growth

External trade indicators (annual, quarterly and monthly growth rates)							Global growth (annual)			
Fiscal year/ quarter/ month	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		
FY18	10.6	20.9	-159.0	64.5	55.7	90.8	2011	4.3	1.8	6.4
FY19	8.6	10.6	-182.3	69.9	67.3	100.4	2012	3.5	1.2	5.4
FY20	-5.1	-8.2	-157.4	70.9	58.5	70.4	2013	3.5	1.4	5.1
FY21	-7.3	-17.4	-98.6	74.2	43.8	67.2	2014	3.5	2.1	4.7
1QFY21	-36.7	-52.4	-9.1	75.9	30.3	55.7	2015	3.4	2.4	4.3
2QFY21	-5.6	-24.8	-14.3	74.4	42.0	54.6	2016	3.3	1.8	4.5
3QFY21	-4.5	-5.6	-34.0	73.8	43.6	70.2	2017	3.8	2.5	4.8
4QFY21	19.6	18.4	-41.1	72.9	59.3	88.1	2018	3.5	2.2	4.5
Feb-21	0.7	7.0	-12.6	72.8	60.5	84.8	2019	2.8	1.6	3.6
Mar-21	60.3	53.7	-13.9	72.8	63.8	92.8	2020	-3.3	-4.7	-2.2
Apr-21	195.7	167.1	-15.1	74.5	63.0	90.7	2021*	6.0	5.1	6.7
May-21	69.4	73.6	-6.3	73.3	66.4	103.2	2022*	4.4	3.6	5.0

Source: Database on Indian Economy - RBI, Pink Sheet - World Bank and IMF World Economic Outlook April 2021.

* Indicates projections.


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
FY18 (3rd RE)	6.2	6.6	-5.6	7.5	10.6	5.2	10.3	1.8	8.3	4.5
FY19 (2nd RE)	5.9	2.6	0.3	5.3	8.0	6.3	7.1	7.2	7.4	4.5
FY20 (1st RE) [§]	4.1	4.3	-2.5	-2.4	2.1	1.0	6.4	7.3	8.3	3.3
FY21(PE) [#]	-6.2	3.6	-8.5	-7.2	1.9	-8.6	-18.2	-1.5	-4.6	3.4
4QFY19	4.9	-0.4	1.5	1.6	5.2	6.6	6.4	8.9	8.4	3.9
1QFY20	5.0	3.3	-1.3	0.6	6.9	3.7	6.2	8.8	5.6	4.6
2QFY20	4.6	3.5	-5.2	-3.0	1.7	1.0	6.8	8.9	8.8	2.0
3QFY20	3.4	3.4	-3.5	-2.9	-3.1	-1.3	7.0	5.5	8.9	3.4
4QFY20	3.7	6.8	-0.9	-4.2	2.6	0.7	5.7	4.9	9.6	3.2
1QFY21	-22.4	3.5	-17.2	-36.0	-9.9	-49.5	-48.1	-5.0	-10.2	2.8
2QFY21	-7.3	3.0	-6.5	-1.5	2.3	-7.2	-16.1	-9.1	-9.2	2.2
3QFY21	1.0	4.5	-4.4	1.7	7.3	6.5	-7.9	6.7	-2.2	3.2
4QFY21	3.7	3.1	-5.7	6.9	9.1	14.5	-2.3	5.4	2.3	4.9

Source: National Accounts Statistics, MoSPI

[§] Growth numbers for FY20 are based on the first revised estimates (RE) of NAS released by the MoSPI on 29 January 2021 over the second RE of NAS for FY19, #FY21 growth numbers are based on the provisional estimates released by MoSPI on 31 May 2021 over the second revised estimates for FY20 released on 26 February 2021.

Fiscal year/quarter	Expenditure components						IPD inflation
	GDP	PFCE	GFCE	GFCF	EX	IM	GDP
FY18 (3rd RE)	6.8	6.2	11.9	7.8	4.6	17.4	4.0
FY19 (2nd RE)	6.5	7.6	6.3	9.9	12.3	8.6	3.7
FY20 (1st RE) [§]	4.0	5.5	7.9	5.4	-3.3	-0.8	3.6
FY21(PE) [#]	-7.3	-9.1	2.9	-10.8	-4.7	-13.6	4.6
4QFY19	5.8	6.6	8.1	4.4	11.7	0.6	-1.1
1QFY20	5.4	7.6	1.8	13.3	3.0	9.4	4.0
2QFY20	4.6	6.5	9.6	3.9	-1.3	-1.7	1.6
3QFY20	3.3	6.4	8.9	2.4	-5.4	-7.5	3.1
4QFY20	3.0	2.0	12.1	2.5	-8.8	-2.7	5.6
1QFY21	-24.4	-26.2	12.7	-46.6	-21.8	-40.9	2.8
2QFY21	-7.4	-11.2	-23.5	-8.6	-2.0	-17.9	3.3
3QFY21	0.5	-2.8	-1.0	2.6	-3.5	-5.0	4.8
4QFY21	1.6	2.7	28.3	10.9	8.8	12.3	7.0

Source: National Accounts Statistics, MoSPI

[§] Growth numbers for FY20 are based on the first revised estimates (RE) of NAS released by the MoSPI on 29 January 2021 over the second RE of NAS for FY19, #FY21 growth numbers are based on the provisional estimates released by MoSPI on 31 May 2021 over the second revised estimates for FY20 released on 26 February 2021.



List of abbreviations

Sr. no.	Abbreviations	Description
1	AD	aggregate demand
2	AEs	advanced economies
3	Agr.	agriculture, forestry and fishing
4	AY	assessment year
5	Bcm	billion cubic meters
6	bbl.	barrel
7	BE	budget estimate
8	CAB	current account balance
9	CGA	Comptroller General of Accounts
10	CGST	Central Goods and Services Tax
11	CIT	corporate income tax
12	Cons.	construction
13	CPI	Consumer Price Index
14	COVID-19	Coronavirus disease 2019
15	CPSE	central public-sector enterprise
16	CRAR	Credit to Risk- weighted Assets Ratio
17	CSO	Central Statistical Organization
18	Disc.	discrepancies
19	ECBs	external commercial borrowings
20	EIA	US Energy Information Administration
21	Elec.	electricity, gas, water supply and other utility services
22	EMDEs	Emerging Market and Developing Economies
23	EXP	exports
24	FAE	first advanced estimates
25	FC	Finance Commission
26	FII	foreign investment inflows
27	Fin.	financial, real estate and professional services
28	FPI	foreign portfolio investment
29	FRBMA	Fiscal Responsibility and Budget Management Act
30	FY	fiscal year (April–March)
31	GDP	Gross Domestic Product
32	GFCE	government final consumption expenditure
33	GFCF	gross fixed capital formation
34	Gol	Government of India
35	G-secs	government securities



Sr. no.	Abbreviations	Description
36	GST	Goods and Services Tax
37	GVA	gross value added
38	IAD	Index of Aggregate Demand
39	IBE	interim budget estimates
40	ICRIER	Indian Council for Research on International Economic Relations
41	IEA	International Energy Agency
42	IGST	Integrated Goods and Services Tax
43	IIP	Index of Industrial Production
44	IMF	International Monetary Fund
45	IMI	Index of Macro Imbalance
46	IMP	imports
47	INR	Indian Rupee
48	IPD	implicit price deflator
49	J&K	Jammu and Kashmir
50	MCLR	marginal cost of funds-based lending rate
51	Ming.	mining and quarrying
52	Mfg.	manufacturing
53	m-o-m	month-on-month
54	Mt	metric ton
55	MoSPI	Ministry of Statistics and Programme Implementation
56	MPC	Monetary Policy Committee
57	NEXP	net exports (exports minus imports of goods and services)
58	NPA	non-performing assets
59	NCLT	National Company Law Tribunal
60	OECD	Organization for Economic Co-operation and Development
61	OPEC	Organization of the Petroleum Exporting Countries
62	PFCE	private final consumption expenditure
63	PIT	personal income tax
64	PMI	Purchasing Managers' Index (reference value = 50)
65	PoL	petroleum oil and lubricants
66	PSBR	public sector borrowing requirement
67	RE	revised estimates
68	PSU/PSE	public sector undertaking/public sector enterprises
69	RBI	Reserve Bank of India
70	SLR	Statutory Liquidity Ratio
71	Trans.	trade, hotels, transport, communication and services related to broadcasting
72	US\$	US Dollar
73	UTGST	Union Territory Goods and Services Tax
74	WALR	weighted average lending rate
75	WPI	Wholesale Price Index
76	y-o-y	year-on-year
77	1HFY20	first half of fiscal year 2019-20, i.e., April 2019-September 2019

Our offices

Ahmedabad

22nd Floor, B Wing, Privilon,
Ambli BRT Road, Behind Iskcon
Temple, Off SG Highway,
Ahmedabad - 380 059
Tel: + 91 79 6608 3800

Bengaluru

12th & 13th floor
"UB City", Canberra Block
No.24 Vittal Mallya Road
Bengaluru - 560 001
Tel: + 91 80 6727 5000

Ground Floor, 'A' wing
Divyasree Chambers
11, O'Shaughnessy Road
Langford Gardens
Bengaluru - 560 025
Tel: + 91 80 6727 5000

Chandigarh

Elante offices,
Unit No. B-613 & 614
6th Floor, Plot No- 178-178A,
Industrial & Business Park, Phase-I,
Chandigarh - 160002
Tel: + 91 172 671 7800

Chennai

Tidel Park, 6th & 7th Floor
A Block, No.4, Rajiv Gandhi Salai
Taramani, Chennai - 600 113
Tel: + 91 44 6654 8100

Delhi NCR

Golf View Corporate Tower B
Sector 42, Sector Road
Gurgaon - 122 002
Tel: + 91 124 443 4000

3rd & 6th Floor, Worldmark-1
IGI Airport Hospitality District
Aerocity, New Delhi - 110 037
Tel: + 91 11 4731 8000

4th & 5th Floor, Plot No 2B
Tower 2, Sector 126
NOIDA - 201 304
Gautam Budh Nagar, U.P.
Tel: + 91 120 671 7000

Hyderabad

THE SKYVIEW 10
18th Floor, "SOUTH LOBBY"
Survey No 83/1, Raidurgam
Hyderabad - 500 032
Tel: + 91 40 6736 2000

Jamshedpur

1st Floor, Shantiniketan Building
Holding No. 1, SB Shop Area
Bistupur, Jamshedpur - 831 001
Tel: + 91 657 663 1000

Kochi

9th Floor, ABAD Nucleus
NH-49, Maradu PO
Kochi - 682 304
Tel: + 91 484 433 4000

Kolkata

22 Camac Street
3rd Floor, Block 'C'
Kolkata - 700 016
Tel: + 91 33 6615 3400

Mumbai

14th Floor, The Ruby
29 Senapati Bapat Marg
Dadar (W), Mumbai - 400 028
Tel: + 91 22 6192 0000

5th Floor, Block B-2
Nirlon Knowledge Park
Off. Western Express Highway
Goregaon (E)

Mumbai - 400 063
Tel: + 91 22 6192 0000

Pune

C-401, 4th floor
Panchshil Tech Park
Yerwada
(Near Don Bosco School)
Pune - 411 006
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