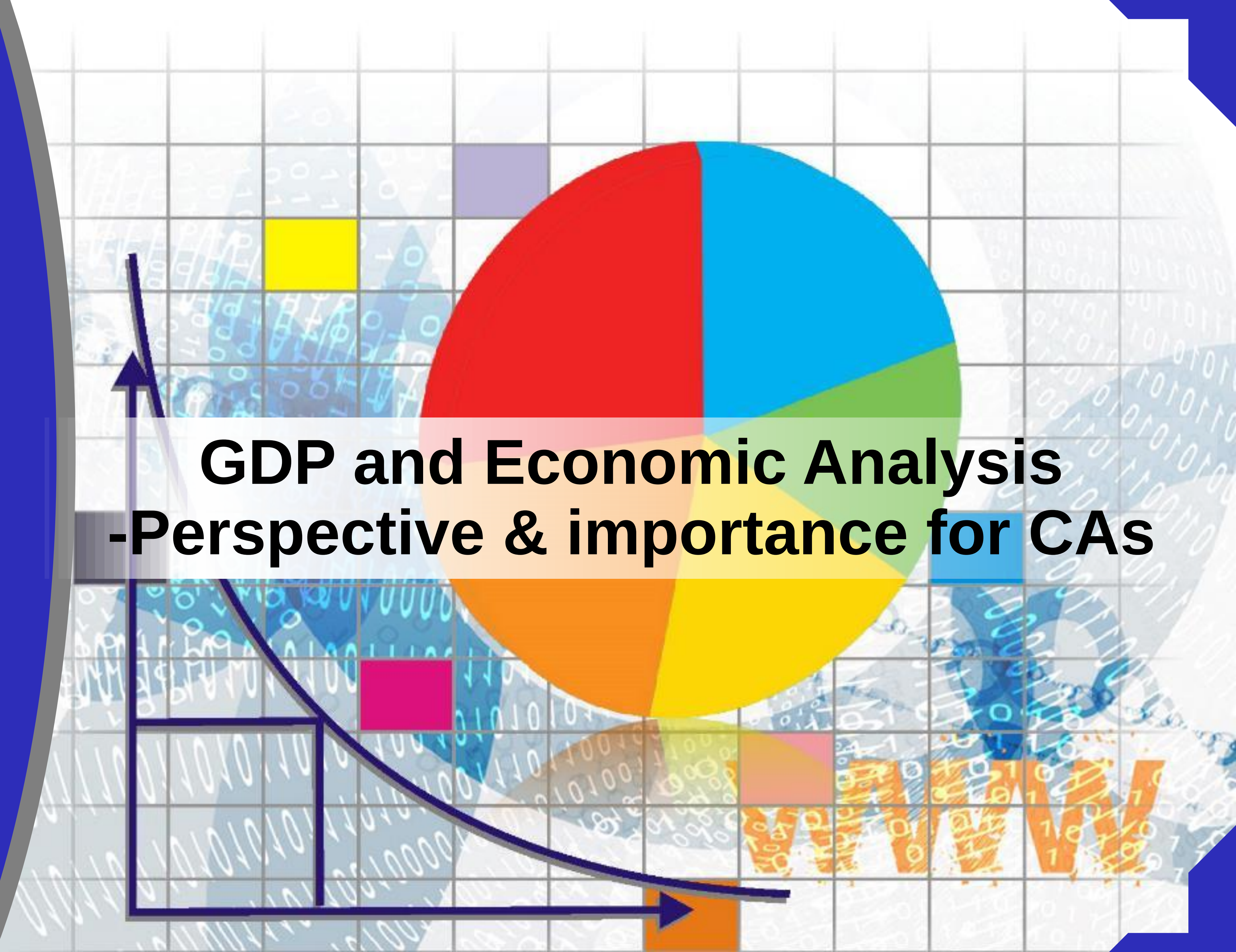
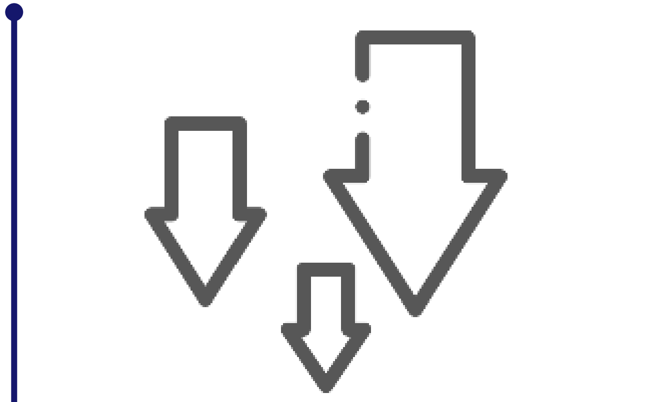
GDP and Economic Analysis -Perspective & importance for CAs



Economy during pandemic – a roller coaster ride

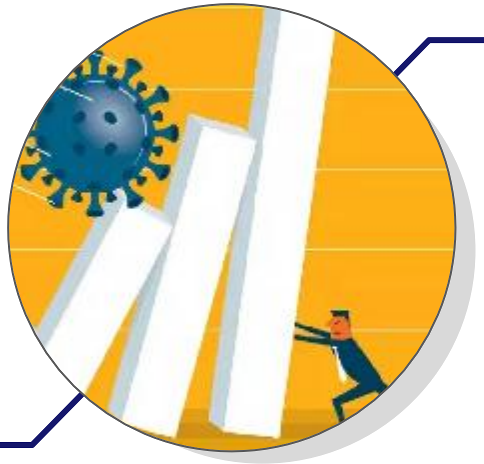
- India's April-June quarter GDP contracted by a massive 23.9 per cent year-on-year (YoY), the first GDP contraction in more than 40 years
- **The sectoral performance was as follows:**
  - Trade, hotels, transport and communication saw 47% dip
  - Manufacturing shrank 39.3%, while construction took a 50.3% hit
  - Mining output struggled at 23.3%, and electricity and gas dipped by 7%
  - The lone bright spot was agriculture, **growing at 3.4%**



- **In the same period the report card of other economies were as follows:**
  - US contracted around 9 % . UK by 21% , Germany and other majors of Europe contracted within a range 10% to 17%
  - **China GDP grew by 3.2%**
- *"The Reserve Bank of India (RBI) won't lose too much sleep on this number as it was expected. The RBI still has its focus on growth. This (GDP number) slightly improves chances of a rate cut in October. Unless the inflation comes below 5% in the next reading, the RBI still might postpone the rate cut to December," Rupa Rege Nitsure, group chief economist, L&T Financial Holdings told Reuters in a commentary on the numbers.*

Economy during pandemic – a roller coaster ride

- In line with analyst estimates for its performance in the **July-September quarter (Q2) of 2020-21**, the Indian economy **contracted 7.5 per** cent from the same quarter last year, official data released by the National Statistics Office
- This was a significant improvement over an unprecedented 23.9 per cent year-on-year contraction witnessed in the April-June quarter of this year. In the September quarter of 2019-20, the country had reported a year-on-year gross domestic product (GDP) **growth of 4.5 per cent**
- The Reserve Bank had earlier projected that India's economic contraction for full 2021-20 would be **9.5 per cent**
- Indian economy have made a V shaped recovery in contrast to the much-talked prolonged U shaped one
- India continues to be in a technical recession
- Significant drop in the rate of GDP contraction signals a revival for the economy after a major plunge in the wake of the coronavirus pandemic
- However, even with a smaller rate of contraction, the Indian economy remains one of the worst performers among 24 major countries. Apart from India, the UK has shown a contraction of 9.6 per cent, USA - -2.9, Italy -4.7 in the July-September period
- Countries such as Singapore, Japan, Germany, Hong Kong, Sweden recorded better economic growth as compared to India in Q2
- China, on the other hand, is the only country that has shown growth **at 4.9 per cent** during the same period



Can we relate to these headlines ?

Reliance Industries Limited

Q2 may arrest fall in GDP

.... INDIA MAY STILL ENTER TECHNICAL RECESSION

Every rating agency, barring Barclays, has projected either less contraction in India's economy in the second quarter or the same as it was earlier. The predictions differ widely as BofA Securities expected the fall in GDP at 7.8 per cent and NCAER at 12.7 per cent. CRISIL says the decline in the economy would be less than 10 per cent against its earlier estimate of 12 per cent. India's economy shrank at an unprecedented 23.9 per cent in the first quarter. As such, if projections come true, India would be in a technical recession. The numbers are scheduled to be released on Friday.

GDP contraction in Q2 (in % YoY)

	Earlier	Latest
BofA Securities	7.8	7.8
Barclays	8.0	8.5
ICRA	11-12.5	9.5
CARE Ratings	9.9	9.9
Dun & Bradstreet	5	9.9
SBI Research	12.5	10.7
India Ratings	11.9	11.9
NCAER	12.7	12.7

Economy Rebounds at Faster Pace Than Expected in Q2

After 2 consecutive quarters of negative growth, economy technically in recession for first time

Surprise Growth

GDP GROWTH (%)

Country	June qtr	Sept qtr
China	3.2	4.9
US	-9	-2.9
Indonesia	-5.4	-3.6
Sweden	-7.7	-4.1
France	-18.9	-4.3
Euro area	-14.8	-4.4
Italy	-17.9	-4.7
Austria	-14.5	-5.3
Japan	-10.3	-5.9
India	-23.9	-7.5
UK	-21.5	-9.6

Q2 GDP rose 23.2% QoQ, sharpest rebound among major economies

Core Sector Output Contracts 2.5% in Oct

Fiscal Deficit at 120% of Full-Year Target

FY21 GDP CONTRACTION ESTIMATE REVISED TO 7.5% FROM 9.5% EARLIER

Rates Unchanged, RBI Bets on Liquidity to Boost Economy

Projects retail inflation for first half of next fiscal year at 4.6-5.2%

What RBI Did

Urban Consumption Gaining Momentum

Banks Told to Raise Corp Gov Standards

Sensex Scales 45k Peak on Central Bank Move

Economic Times, Mumbai, Saturday, 28 November 2020

Core Sector Output Shrinks 2.5% in Oct

Our Bureau

New Delhi: Core sector output contracted 2.5% in October, belying expectations of modest growth after several indicators showed an uptick in the month and the decline had narrowed to 0.1% in September.

Separately, government data released on Friday showed gross tax collections were up nearly 17% in October, the first positive rise in this fiscal, indicating a pickup in demand and consumption.

"The core sector data for October disappointed, with a sharper pace of contraction of 2.5% relative to our forecast of a muted 0.5-1% year-on-year decline," said Aditi Nayar, principal economist, ICRA.

Decline in core sector was driven by natural gas (-8.6%) and crude (-6.2%) – supply side indicators – and refinery products (-17%), which also included impact of some production shutdowns.

Negative Territory

Gas, crude, refinery output show production side volatility

Cement, steel show mixed picture on construction

Electricity production rose further to 8-month high

Natural gas output shrinks for 17 months in a row, crude oil 35 months

Except fertilisers, other 7 items have contracted in Apr-Oct

Can we relate to these headlines ?

Indicator	Nov '20	Oct '20	Nov '19
GST collections (₹ L Cr)	1.04	1.05	1.03
Rail freight (MT)	109	108	100
E-way bills (million)	55.3*	64.1	53.3
Passenger vehicle sales (units)	286,353	310,294	263,773

*Till Nov 29

The good news from GDP numbers for the second, July-September, quarter is that economic contraction has come down to 7.5% from almost 24% in the first quarter. To contain contraction for the year as a whole to 10%, the fall in GDP for the second half of the fiscal must be contained at 4.5%. The growth that is underway is more than likely to achieve this target, assuring that negative growth for 2020-21 would be well below 10%. Especially if the government makes good on its stimulus promises. A word of caution, though. The pick-up in economic activity in September and October that was led by pent-up festive demand has moderated since. The growth in electricity consumption, labour participation and eway bill volumes has softened a shade. This strengthens the case for a stimulus all the more, to sustain momentum.

The difference between nominal and real GDP growth is a measure of economywide price changes. It is somewhat troubling that this has been a positive 3.5% even as the economy contracted. The change in the wholesale price index has been only 0.9%. Cascading fuel taxes and lockdown-related logistical bottlenecks could be responsible for rising prices in the midst of an economic slump and declining pressure on the currency, thanks to moderate global crude prices and a compression of the current account deficit. There must be no more talk of lockdowns, and restrictions on movement of goods must be avoided into to. Gross fixed capital formation as a proportion of GDP, in current prices, has, at 25.7%, recovered from Q1's disastrous 19.5%, but is still below the levels we saw last fiscal, these themselves being well below the desirable 30%-plus. This, too, brings us to the need for another strong dose of government-led investment.

Expenditure on public administration, defence and other services declined in Q2, compared to Q1: 11.9%, compared to 19.1%. While the tendency is for individuals to cut expenditure when revenues dip, governments cannot afford to follow that logic. It is their job to make countercyclical interventions.

Can we relate to these headlines ?

Reliance Industries Limited

SBI Research Revises FY21 GDP Contraction Forecast to 7.4%

Higher Expectations

Atmanirbhar Bharat is govt's mantra for economic revival

State support

As part of the Atmanirbhar Bharat initiative, three economic packages were rolled out to help those hit by the pandemic

STIMULUS 1

₹20.9 trillion

STIMULUS 2

₹73,000 crore

STIMULUS 3

₹2.65 trillion

EXPLAINER

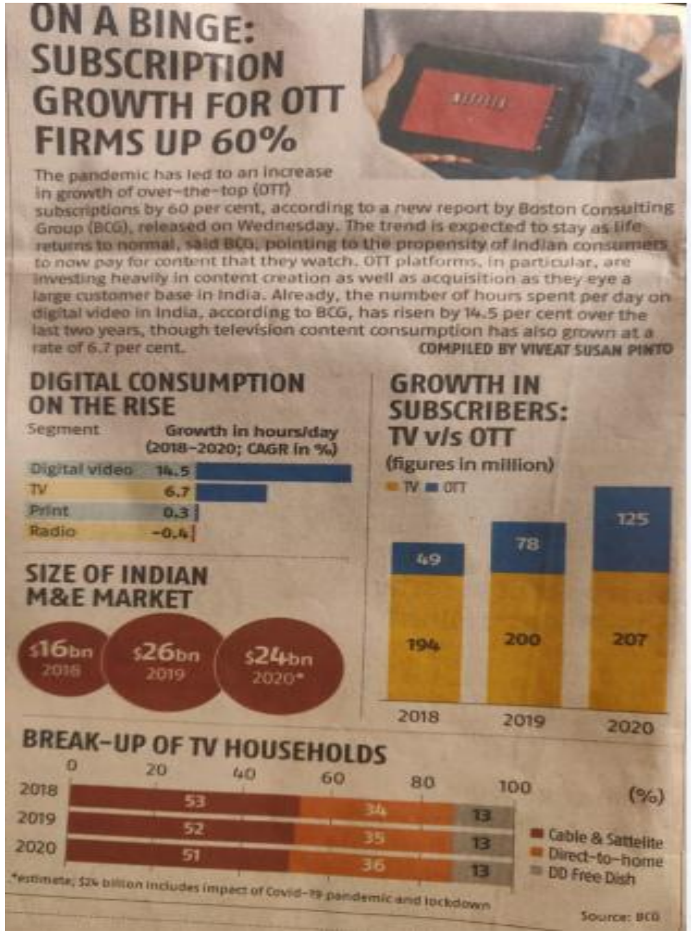
Exports Decline 9.07% in Nov; Trade Gap Narrows to $9.96 b

GOING DOWNHILL Contract for second consecutive month after seeing growth in Sept; imports drop 13.33%

Exports Under Stress

HOW KEY SECTORS FARED

Exports of rice, pharma and iron ore up, while those of petro products, engineering goods, chemicals and plastics fall



ON A BINGE: SUBSCRIPTION GROWTH FOR OTT FIRMS UP 60%

The pandemic has led to an increase in growth of over-the-top (OTT) subscriptions by 60 per cent, according to a new report by Boston Consulting Group (BCG), released on Wednesday. The trend is expected to stay as life returns to normal, said BCG, pointing to the propensity of Indian consumers to now pay for content that they watch. OTT platforms, in particular, are investing heavily in content creation as well as acquisition as they eye a large customer base in India. Already, the number of hours spent per day on digital video in India, according to BCG, has risen by 14.5 per cent over the last two years, though television content consumption has also grown at a rate of 6.7 per cent.

COMPILED BY VIVEAT SUSAN PINTO

DIGITAL CONSUMPTION ON THE RISE

Segment	Growth in hours/day (2018–2020; CAGR in %)
Digital video	14.5
TV	6.7
Print	0.3
Radio	-0.4

GROWTH IN SUBSCRIBERS: TV v/s OTT (figures in million)

	2018	2019	2020
TV	194	200	207
OTT	49	78	125

SIZE OF INDIAN M&E MARKET

$16bn 2018; $26bn 2019; $24bn 2020*

BREAK-UP OF TV HOUSEHOLDS (%)

	Cable & Satellite	Direct-to-home	DD Free Dish
2018	53	34	13
2019	52	35	13
2020	51	36	13

*estimate; $24 billion includes impact of Covid-19 pandemic and lockdown

Source: BCG

Measuring a Nation’s Well Being

- Economics has **two branches: Microeconomics & Macroeconomics**
- **Microeconomics** is the study of how individual households & firms make decisions while **Macroeconomics** is the study of economy as a whole
- **Economists analyze Macroeconomics to analyze economy**, as it provides an indication of overall well-being
- Common way to measure well-being of economy is GDP, which measures the total income of the nation
- **GDP is** basically the **final value of the goods and services** produced **within the country during a specific interval (Year or Qtr.)**. Since GDP includes only the value of final goods, this would lead to double counting, if we count intermediates

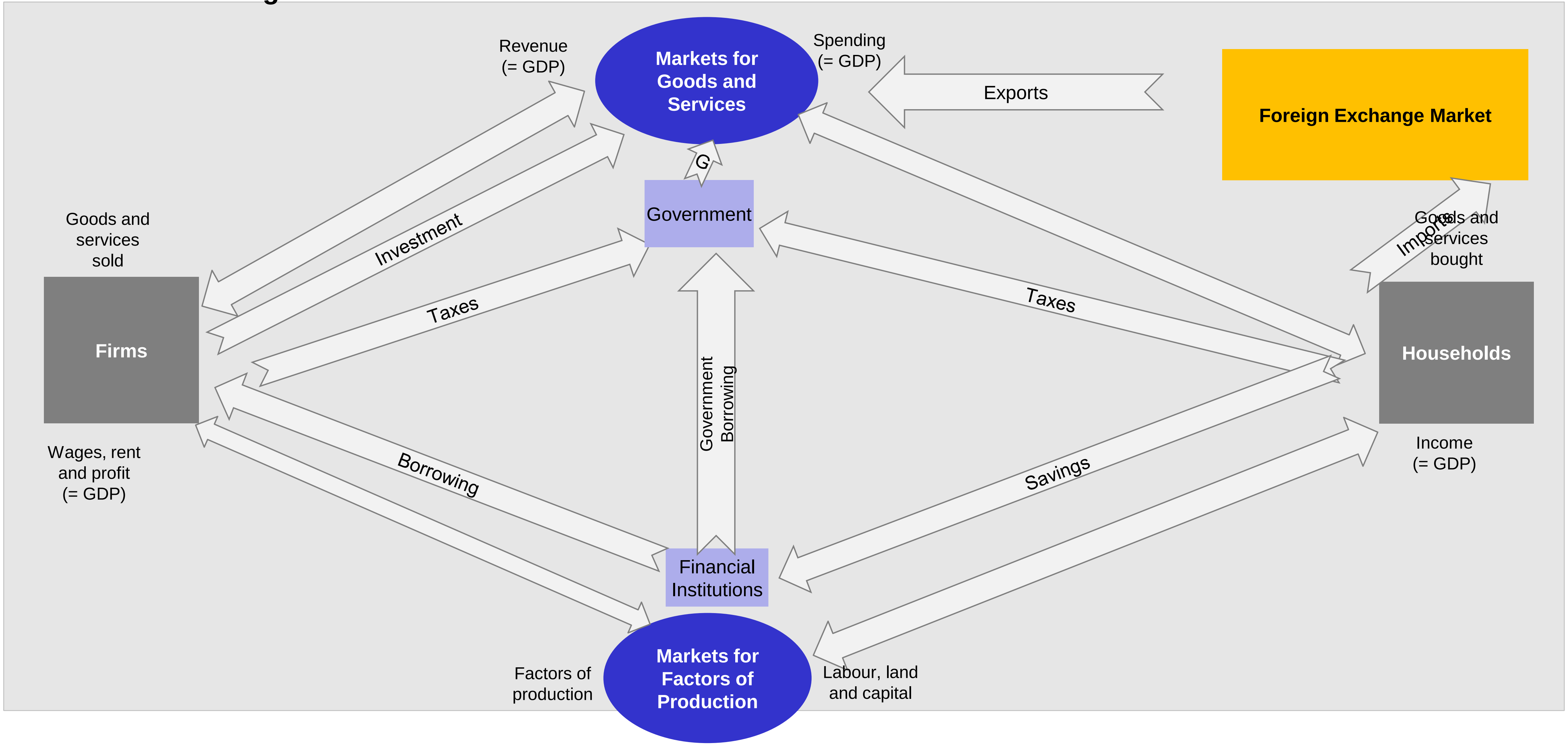
For e.g., When a paper company sells paper to greeting card company, the paper is called an *intermediate good* and card is *final good*. And value of ink, colour, labour, etc. (intermediate goods) is already in final value of goods.

Economy's Income & Expenditure

- Income is used as a measure of well being because income can be used to purchase necessities and luxuries
- Goods and services purchased by the population = Standard of Living
- Higher Income = Higher Standard of Living, i.e., better Housing, Healthcare, etc.
- In the same way, we judge economy i.e., we look at the total income that everyone earning in the economy. This is the task of GDP
- GDP measures Total income and Total expenditure
- In every transaction, the buyer's expenditure becomes the seller's income. Thus, the sum of all expenditure equals the sum of all income
- The equality of income and expenditure can be seen through this **Circular flow diagram** (in next slide). This diagram describes all the transactions between the household and firms in an economy
- In the economy – market of good and services -> place of interaction of household and firms
- The firms produce goods and services which are procured by the households while the households provide factors of production (land, labour & capital) for which the firms pays the households

Economy's Income & Expenditure (Cont'd)

The Circular-Flow Diagram



Economy's Income & Expenditure (Cont'd)

- The factor Income received from household (wages rent, dividend & interest) is used to procure goods and services from the firm
- Not all incomes of household received are spent in the market for goods and services
- Some of the income is subjected to tax
- Some income will be saved -> Flow to the FIs -> pension saving, insurance & assurances, deposits in bank accounts
- Some income is spent on imports (M) and also the firms generate income from exports (X). The Exports less imports (X-M) or NX is known as Net exports
- The incomes of firms spent on Imports (M), Taxes (T) and Savings (S) are considered as leakages (from the perspective of firms)
- Governments use tax revenue and borrowings from FIs to spend (G) on Govt Services and investment on infrastructure, education, health, defense and so on representing Govt spending (G) which goes back in the circular flow
- Firms borrows from FIs to fund investments on new plant, equipment and expansion. This investment (I) flows back to the market of goods and services

Economy’s Income & Expenditure (Cont’d)

- The FIs lend money overseas and firms also borrow from FIs of other countries . The same is recorded as Net Capital Outflow (NCO)
- In theory, GDP measured through income and expenditure will lead the same result
- A common measure of showing GDP is:

  NY=C+I+G+NX

  Where,

  NY=GDP, C=Consumer spending, I=Investment Spending, G=Government Spending

  NX=Difference between import and export proceeds
- These spending’s are injections to the circular flow

GDP Components (NY=C+I+G+NX)

- **Consumption(C):** Spending on goods (Durable and Non-Durable) & services by the household
- **Investment (I):** Spending on Capital (Capital equipment ,inventory, New Housing etc.) or on goods bought for Future productive output(P&M)
- **Government Spending (G):** spending on goods & services by national and local govt but excludes transfer payments (like social security benefits to elders) because they are not made in exchange of goods & services
- **Net Exports (NX):** Spending on domestic goods & services by the foreigner *minus* spending on foreign goods & services by domestic resident. i.e., Export- Import. Import are deducted because are included in other components of GDP. **For e.g.,** If Indian household buy Car of Rs 5 lakh from Volvo, the Swedish car maker. It increase the Consumption(C) in India because car purchase are part of consumer spending simultaneously reduce net export (NX) because car is an import (export from Sweden)
- **GDP per capita:** Useful in comparing GDP across different countries.
  Arrived by *dividing* GDP by the population of that country

Measurement of GDP

- GDP includes all items whether tangible (food, clothing) or Intangible services (Healthcare) **currently produced (i.e., excludes transaction involves item produced in the past)** in the economy and sold in the market
- But there is some activities/transactions which may not appear in GDP figures, these activities are called “informal”, “shadow” or “black” economy. This affect the value of GDP

For Ex: 1. Plumber do a repair in cash and not declares this as a part of their income.

2. Transaction which are illegal and not declare to tax authorities.

- There are also some other activities which are not black or informal but still its contribution is not considered in GDP calculation as a result undervalue the true measure of well-being

For Ex: Value of work carried out by housewives, childcare work carried out by grandparents, etc.

Real vs. Nominal GDP

- Change in Total Expenditure on goods & services from one year to another can be of two ways:
  1. Due to production of larger output of goods & services (Real increase)
  2. Goods & services sold at higher prices (Nominal increase)
- As we already discussed GDP is the **value** of all final goods and services produced
  1. **Nominal GDP** measures these values using current prices
     - 1.1 Change in Nominal GDP can be due to:
       - 1.1.1 Changes in prices
       - 1.1.2 Changes in quantities of output produced
  2. **Real GDP** measure these values using the prices of a base year
     - 2.1 Changes in real GDP can only be due to changes in quantities, because real GDP is constructed using constant base-year prices

For example:

Year	Price of P(Rs)	Quantity of P(Kg)	Price of Q(Rs)	Quantity of Q(Kg)
2020	1	10	10	3
2021	2	15	15	4

Real vs. Nominal GDP (Cont'd)

Nominal GDP	Real GDP
2020: Rs 1 x 10 + Rs 10 x 3 = Rs 40	2020: same i.e., Rs 40
2021: Rs 2 x 15 + Rs 15 x 4 = Rs 90	2021: Rs 1 x 15 + Rs 10 x 4 = Rs 55

…So in real terms, GDP did not rise as much as it would seem from nominal terms

3. **Real GDP Growth Rate:** Difference between GDP across the two time periods.
4. **GDP Deflator:** Measure of the price level is the GDP Deflator. It reflects what's happening to prices, not quantity. Calculated as, (Nominal GDP/Real GDP)*100

   This can be understood with the help of an example:

   Imagine Qty rises in the economy but price remains same, in this case both Real and Nominal GDP will be same and so the GDP deflator is constant.

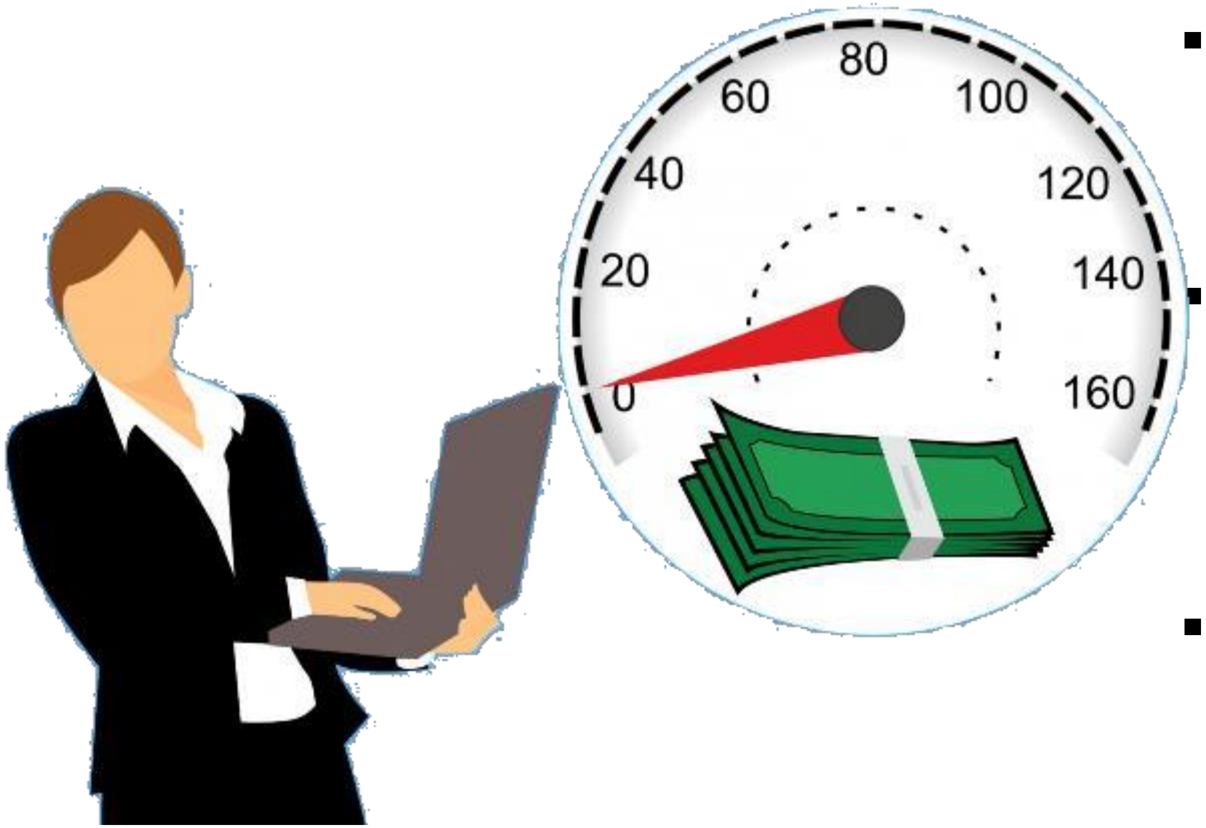
   Now if vice versa of the above happens, Nominal GDP rise but Real GDP remains same, so the GDP deflator rises as well. Notice in both the case GDP Deflator reflects what's happening to prices

Chain Linking

- In Real GDP, GDP is calculated using the price that existed at a particular base year this can lead to inconsistencies because circumstances change
- To overcome these problems “Annual chain linking” method is used which calculates GDP based on prices in the previous year

Other Measures of Income

- **Gross National Product (GNP)**: Total income earned by the permanent residents and **also includes income that domestic citizens earn abroad**
- **Net National Product (NNP)**: is GNP *minus* Depreciation of the assets held by a country



- **National Income (NY)**: Income earned by the residents in the production of goods and services. i.e., NNP *minus* Indirect Taxes
- **Personal Income (PI)**: NY + Income received but not earned (like social security payments) + Interest income – Retained earnings – Corporate income tax
- **Disposable Personal income (DI)**: Represents what people actually have that they can spend i.e., PI *minus* Personal Income Taxes

Limitation of GDP as a Measure of Well-Being

- There are many things that are not measured by GDP but contribute to economic well-being like:
  - The **exclusion of nonmarket transactions**

    Ex: Value of goods & services produced at home and volunteer work.
  - **Environment Quality**

    Ex: Due to eliminating environmental regulation firm could produce more goods & services without considering the effects on pollution, here

    the GDP might rise but well-being would fall.
  - **Distribution of income**

    Ex: Society in which 100 people have annual incomes of Rs 50,000 has GDP of Rs 5 Million and GDP per capita of Rs 50,000,so does a society in which 10 people earn Rs 5 Lakh and 90 suffer with nothing at all.

The Economics of Happiness

- Prof. Richard Layard identified some key factors that may contribute to “happiness” like relaxing, praying, worshipping, eating, watching TV etc. Also, other factors like level of education, health, level of income can all be contributory factors
- If our current measure is not reflecting the factors that can contribute to making someone “happy”, then we look for other measures and one of the measure is **Measure of Domestic progress (MDP).** The MDP consider many of these factor that GDP calculation do not consider

For Ex: It assign negative effect to various social & environmental impacts of growth such as pollution, cost of crime.

International Differences in GDP and Quality of Life

Reliance Industries Limited

GDP, Life Expectancy and Literacy

The table shows GDP per person (measured in US dollars) and two measures of the quality of life for 13 countries

Country	GDP per capita (Current US$) 2015	Life expectancy at birth (males and females) total years (2013)	Literacy rate (% of people over 15), adult total (2013)
United States	54,629	79	99
Germany	47,627	81	99
United Kingdom	45,603	81	99
Russia	12,735	71	100
Mexico	10,230	77	94
Brazil	11,384	74	91
China	7,594	75	94 (2010)
Indonesia	3,492	71	93 (2011)
India	1,595	66	69 (2011)
Pakistan	1,334	67	57 (2012)
Bangladesh	1,092	71	60
Mozambique	602	50	51 (2012)
Niger	427	58	15 (2012)

The table also shows life expectancy (the expected life span at birth) and literacy (the percentage of the adult population who can read). These data show a clear pattern. In rich countries, such as the United Kingdom.

Source: World Bank and UNICEF

Saving and Investment in the National Income Accounts

- GDP (denoted as Y) is divided into four components of expenditure: consumption (C), investment (I), government purchases (G) and net exports (NX)

$$Y = C + I + G + NX$$

- This equation is an identity because every rupee of expenditure that shows up on the left-hand side also shows up in one of the four components on the right-hands side. Because of the way each of the variables is defined and measured, this equation must always hold. Sometimes we make this clear by using an identify sign, with three bars, instead of the usual equals sign with two bars.

$$Y = C + I + G + NX$$

- A closed economy does not engage in international trade, imports and exports are exactly zero. Therefore, net exports (NX) are also zero which leaves the identify:

$$Y = C + I + G$$

Saving and Investment in the National Income Accounts (Cont'd)

Reliance Industries Limited

- To see what this identity can tell us about financial markets, if we take Y, on the left hand side of the equation, to the GDP, we can subtract from this things that are consumed (Consumption spending and government spending). To retain the equation, we must also subtract C and G from the right hand side, which gives:

$$Y - C - G = (C - C) + I + (G - G)$$

$$Y - C - G = I$$

- Given Y – C – G = S we can substitute this into equation

$$S = I$$

- To understand the meaning of national saving, it is helpful to manipulate the definition a bit more. Let T denote the amount that the government collects from households in taxes (a withdrawal from the circular flow) minus the amount it pays back to households in the form of transfer payments (such as social security payments). We can then write national saving in either of two ways

$$S = Y - C - G \quad \text{(or)} \quad S = (Y - T - C) + (T - G)$$

Government Policies

Reliance Industries Limited

Fiscal Policies

- ✓ **Fiscal policy, measures** employed by governments to stabilize the economy, specifically by manipulating the levels and allocations of taxes and government expenditures. **Fiscal measures** are frequently used in tandem with monetary **policy** to achieve certain goals
- ✓ **Fiscal policy** is therefore the use of **government spending**, taxation and transfer payments to influence aggregate demand. These are the **three tools** inside the **fiscal policy** toolkit

Monetary Policies

- ✓ Monetary policy is the macroeconomic **policy** laid down by the central bank. It involves management of money supply and interest rate and is the demand side economic **policy** used by the government of a country to achieve macroeconomic objectives like inflation, consumption, growth and liquidity
- ✓ The three instruments of monetary policy are **open market operations**, the **discount rate** and **reserve requirements**. **Open market operations** involve the buying and selling of government securities
- ✓ The central bank use **four** tools to achieve its **monetary policy** goals: the discount rate, reserve requirements, open market operations, and interest on reserves. All **four** affect the amount of funds in the banking system

Concept Check – GDP

Question 1

Which of the following is a macroeconomic variable?

A. The price of a BigMac meal relative to that of a Whopper hamburger

B. The number of employees of British Airways

C. The average wage rate of production workers at Boeing

D. The price of a dollar in terms of euro

E. The price of IBM stock

Question 2

The GDP of a country in a given year __________.

A. Includes the value of goods and services produced in the past and resold in that year

B. Includes the value of intermediate goods imported into the country

C. Does not include the value of any intermediate good produced in the country

D. Does not include the value of the country's exports

E. Includes the value of goods and services currently produced in that year in the country

Question 3

Aggregate income in an economy is always equal to the aggregate expenditure on the goods and services produced in that economy because __________.

A. Every dollar spent on the goods and services produced in the economy is a dollar earned by the economy's households as wages, rents, or profits

B. Households spend all their income as soon as they receive it

C. The dollars that are spent on the goods and services produced in the economy but not earned as income are not counted as part of aggregate expenditure

D. Households eventually spend all their income

Question 5

GDP deflator is a measure of the price level for the goods and services __________.

A. Imported into a country

B. Produced in a country

C. Consumed in a country

D. Exported from a country

Question 7

In country M, households have been going to restaurants for half of their meals and for the rest they have been enjoying their own cooking at home. This year, habits have changed and households are having only one quarter of their meals in restaurants. Assume that the total expenditure on all other goods and services remains unchanged from last year.

As a result of this change, the GDP of country M __________.

A. Goes up this year

B. Goes down this year

C. Does not change this year

D. May go up or down this year

Question 8

Mr X purchases a house of Rs 3 crore. The house has some leakage. He did leakage proofing (Rs 5 lakhs material cost) ,painted the house (paint Rs 10 lakhs and mason Rs 1 lakhs). Mr Y a interior designer helped him to choose the colour of paint etc. and charged Rs 50,000

The purchase of __________.

A. A used house does enter GDP

B. Materials for painting & Water proofing + Mason improving a enter GDP

C. Both a used house and the materials + mason for improving a used house enter GDP

D. A used house does not enter GDP, but the purchase of water proofing , paints , mason and interior designer does

Question 9

An Indian company buys a new machine made in Britain by a Japanese company. No additional resources are used in India for the investment. The machine is made entirely with British labor and British-made parts. Assume that other activities in India, Britain, and Japan are unaffected by this purchase.

As a result, __________.

A. Britain's GDP increases, but Indian and Japanese GDPs remains unaffected

B. Japan's GDP increase, but British and Indian GDPs are unaffected

C. The GDPs of all three countries increase

D. India's GDP increases, but Japanese and British GDPs are unaffected

Question 10

Total public and private consumption and investment in a country may add up to more than the total of the country's GDP because __________.

A. Public investment expenditure is not included in GDP

B. In addition to these, GDP includes budget surplus, which can be negative

C. In addition to these, GDP includes net exports, which can be negative

D. These types of expenditure include intermediate goods that not included in GDP

Question 11

Last year in country C, the GDP was $3000 billion, private consumption was $2000 billion, investment was $300 billion, and government expenditure was $600 billion.

How much was the net exports of country C last year?

A. -$100 billion

B. -$10 billion

C. $0 billion

D. $10 billion

E. $100 billion

Question 12

In macroeconomic analysis, why does one have to distinguish between consumption and investment expenditures?

A. Investment expenditure is included in GDP, but consumption expenditure is not

B. Consumption and investment expenditures are determined by different factors

C. Consumption expenditure has many sub-components, but investment does not

D. Consumption expenditure is included in GDP, but investment expenditure is not

Question 13

Suppose that the aggregate income in a country is $100 billion, aggregate private consumption is $60 billion, and total tax payment is $20 billion.

How much does the private sector save in this economy?
(Answer in billions of dollars.)

This year, country K has a budget deficit of $30 billion, taxes are $70 billion, and government expenditures are $80 billion. How much did the government spend in providing transfers?

A. $0 billion

B. $20 billion

C. $40 billion

D. More information is needed

Question 14

This year in Country L, GDP is $500 billion, private consumption is $300 billion, government expenditure is $100 billion, and trade surplus is $20 billion. How much is total (public and private) domestic savings?

A. $120 billion

B. $150 billion

C. $80 billion

D. $100 billion

GST Indicators

August 6, 2021

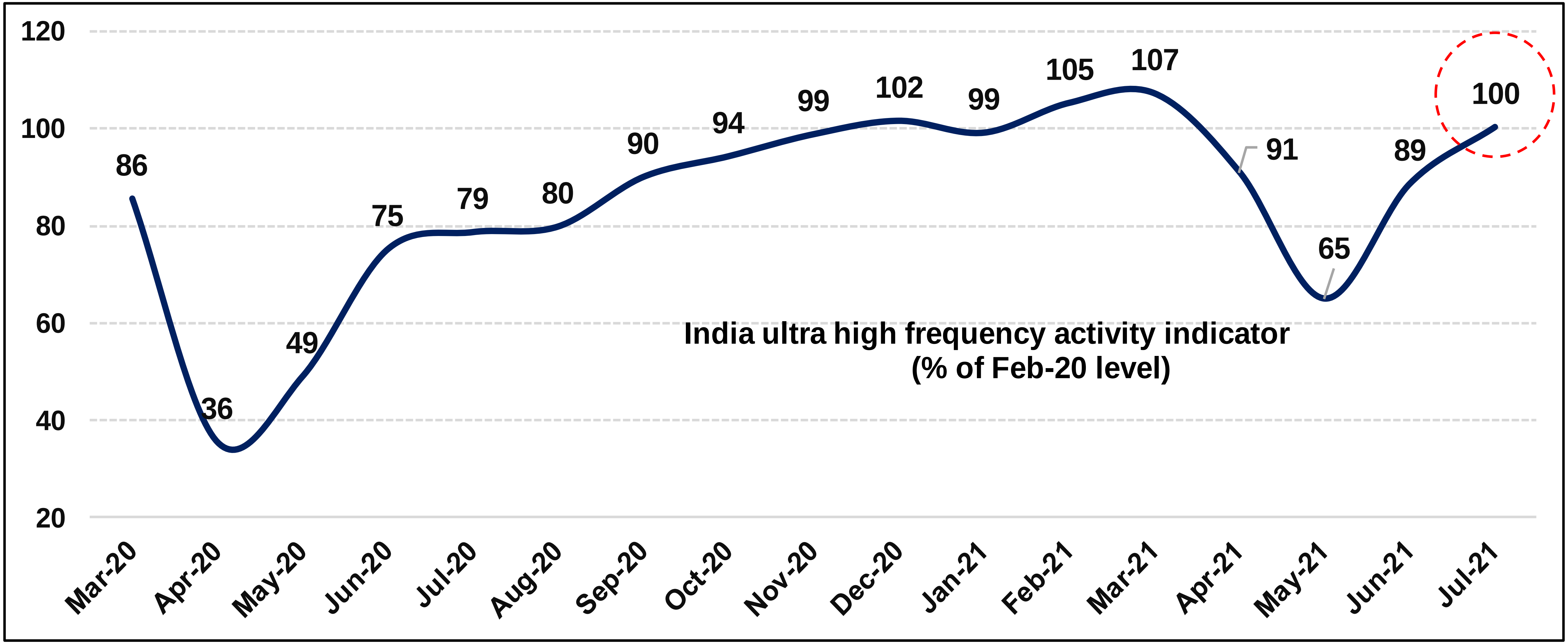
GST Indicators

- PMI Indicators
- Mobility
- Automotive sales
- Card Spending
- Electrical Demand
- Railway freight
- Bank credit
- Deposit growth
- Exports
- Imports
- GST collection
- Core Production
- 2 wheeler sales
- Tractor sales
- 3Wheeler sales
- 3-wheeler sales
- Petrol & Diesel consumption
- IIP
- Credit growth
- CP growth
- Bond Sales
- And Many other ….

Aggregate Economic Indicator at Pre-Covid Level for July

Reliance Industries Limited

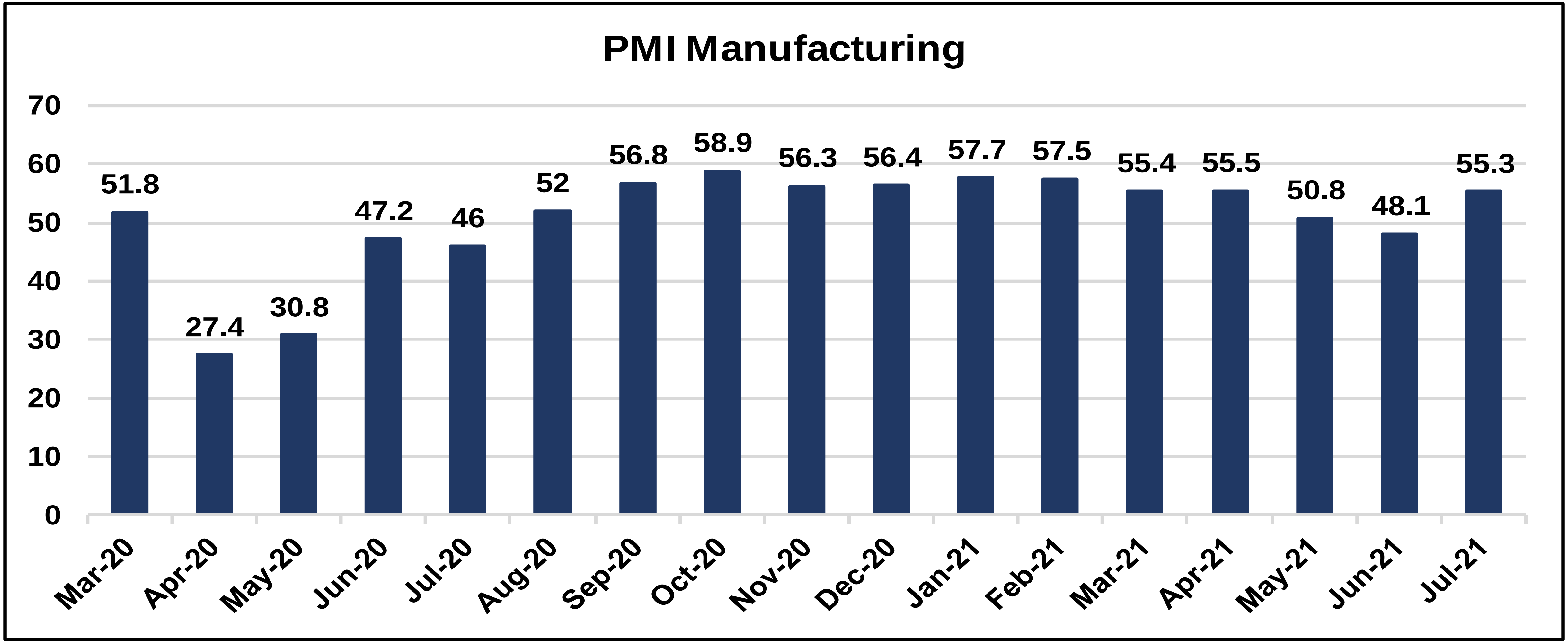
Our aggregate economic activity indicator shows full normalization in July



Note: *The indicator is calculated using 9 ultra high frequency economic indicators*

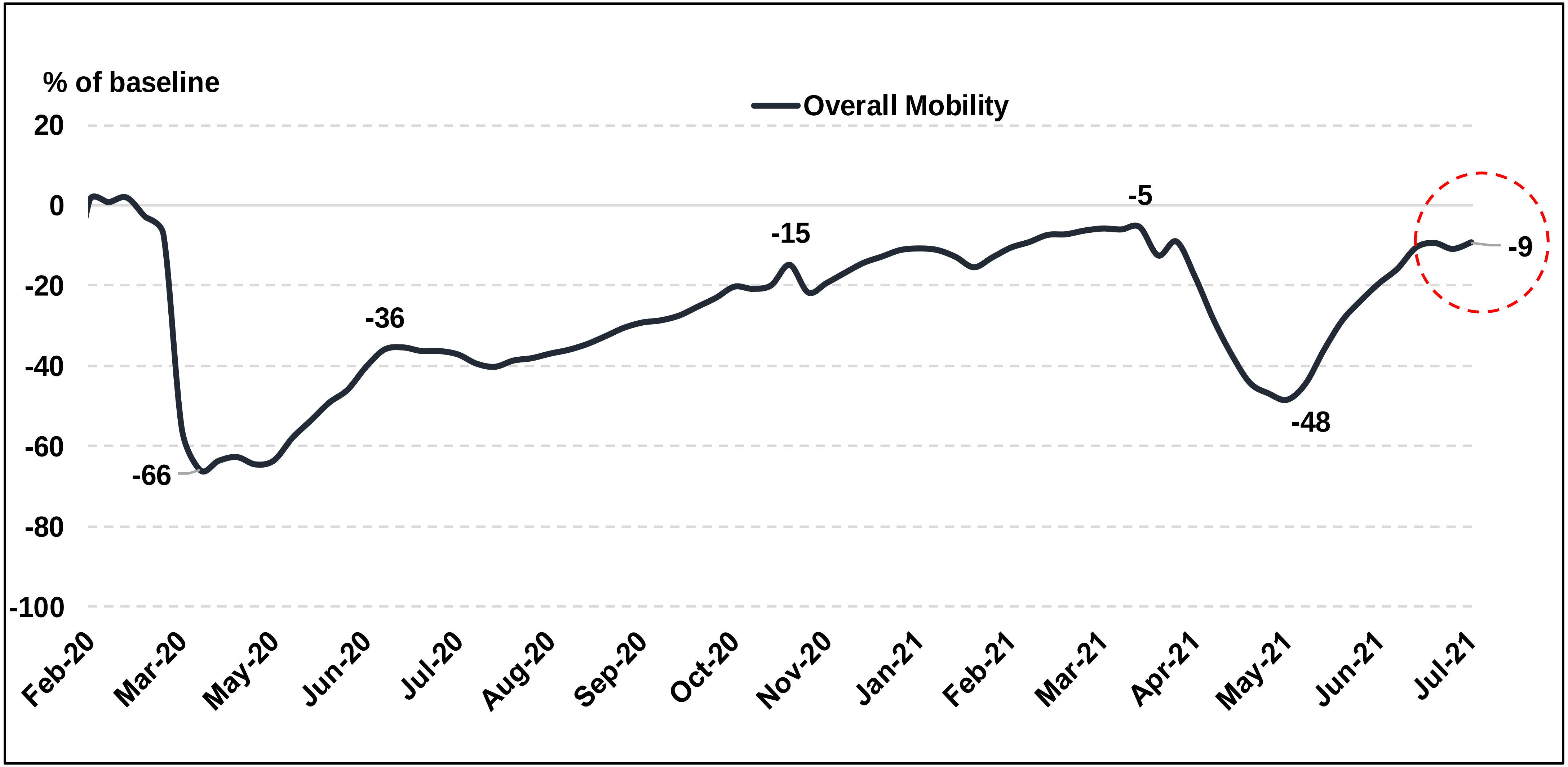
PMI manufacturing recovered sharply and back in expansion zone in July

PMI manufacturing at Mar-Apr levels and back in expansion zone in July



Note: *A reading above 50 indicates expansion*

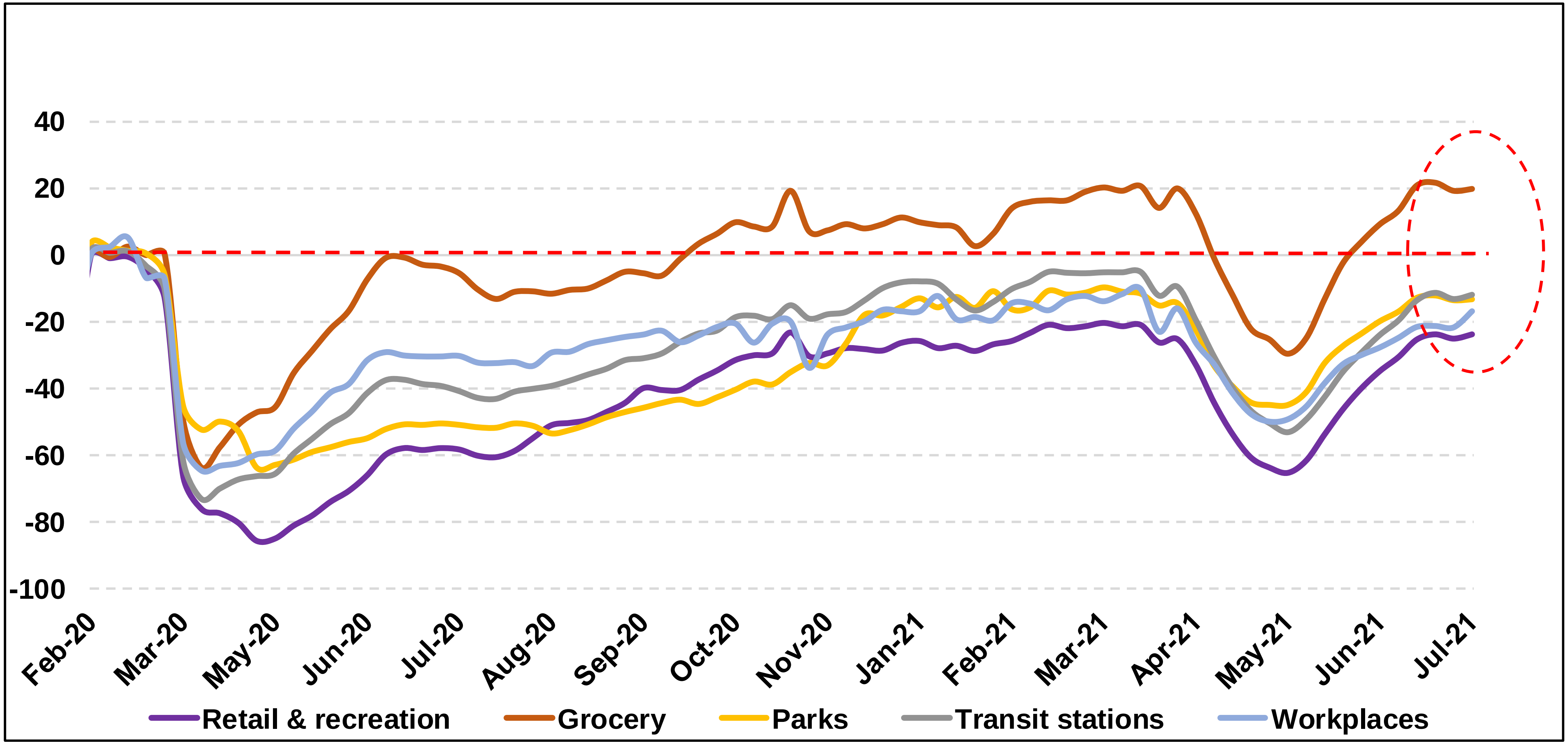
Mobility at 90% of pre-COVID level but still below post-first wave high



Mobility at 90% of pre-COVID level

Note: *Latest data as of 30th July*

Broad-based flattening witnessed across almost all components of mobility



Broad-based flattening in mobility

Note: *Latest data as of 30th July*

July sales data indicates strong recovery for PV/CV segment as 2W still lags

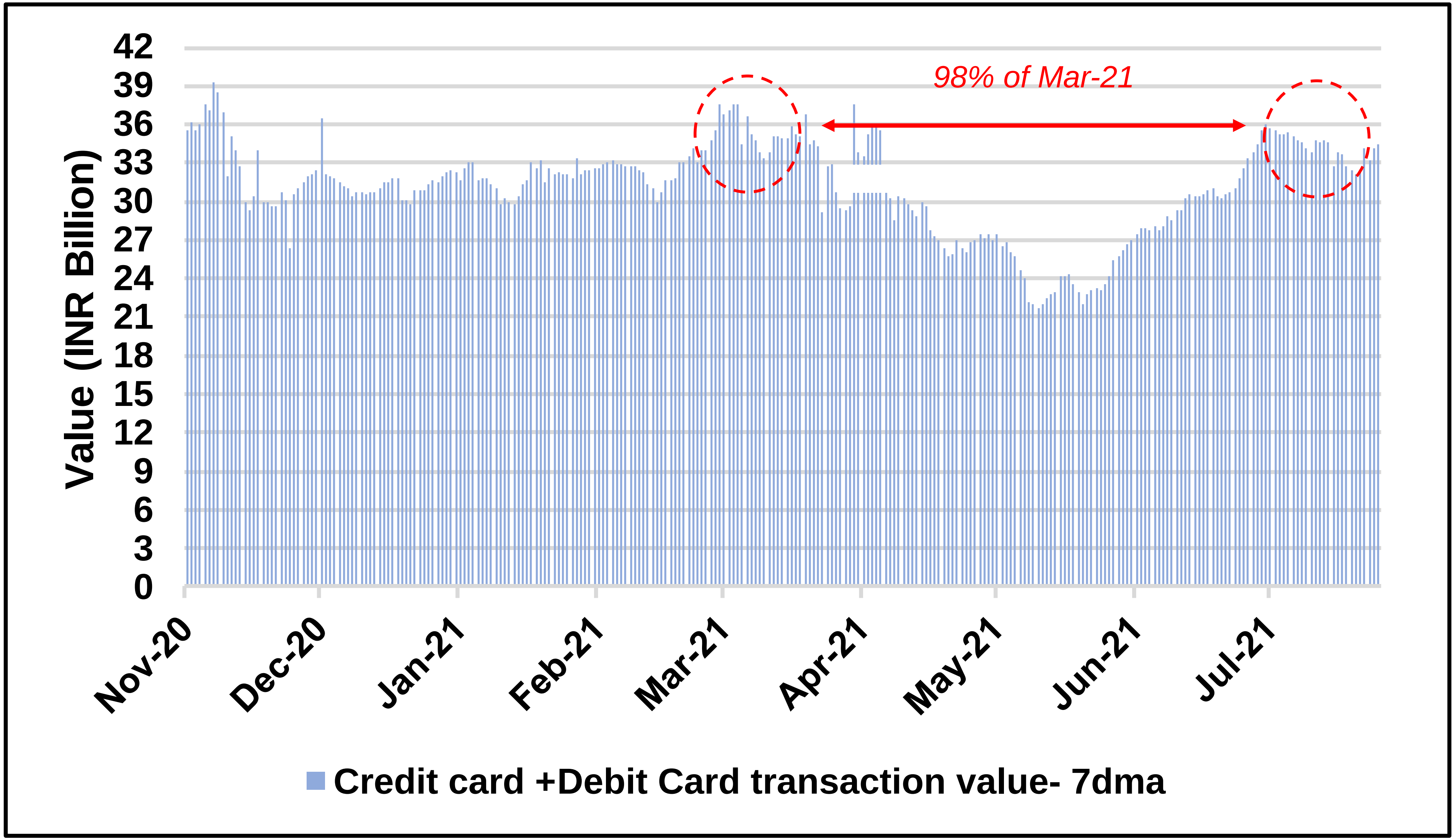
Reliance Industries Limited

Segment	Company	Jul-21	Jul-19	Jul-21 over Jul-19 (%)
PV	Maruti	162	109	49
	Tata Motors	30	10	188
	Hyundai India	60	57	5
2W	Hero Motorcorp	454	536	-15
	Bajaj Auto	331	322	3
	TVS Motors	263	266	-1
	Royal Enfield	44	54	-19
CV	Ashok Leyland	9	11	-21
	Escorts	7	5	35
	Mahindra	27	20	36

PV & CV July sales above Jul-19 levels but 2W yet to catch up

Card spending data has remained strong and almost at pre-2nd wave highs

Reliance Industries Limited

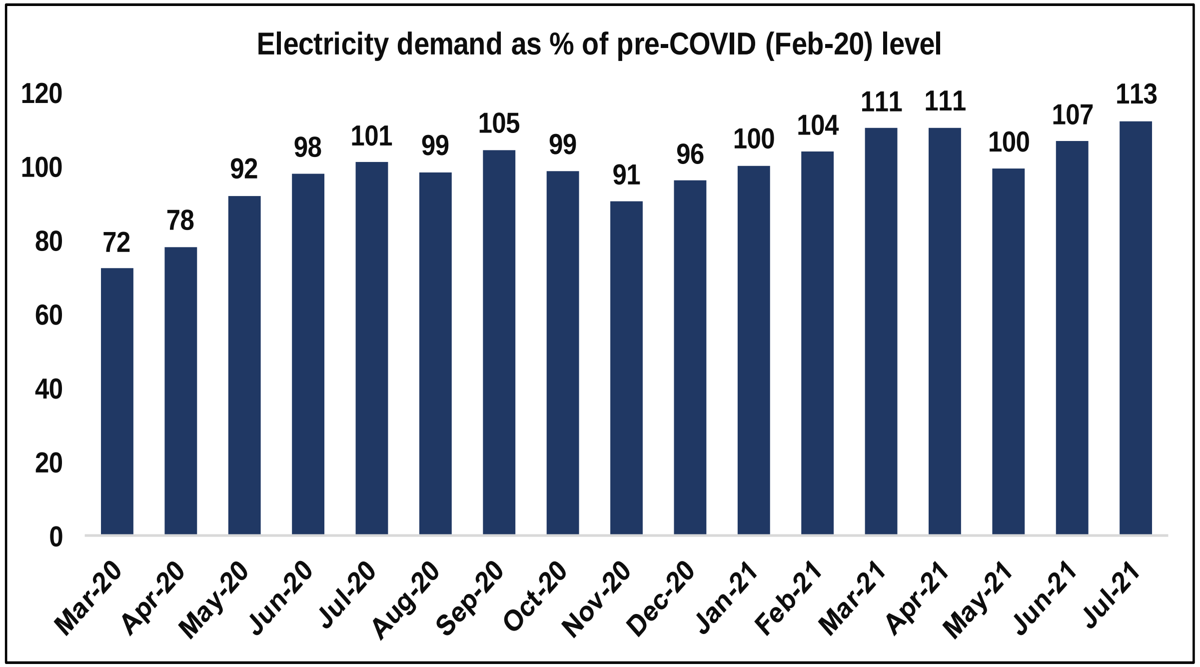


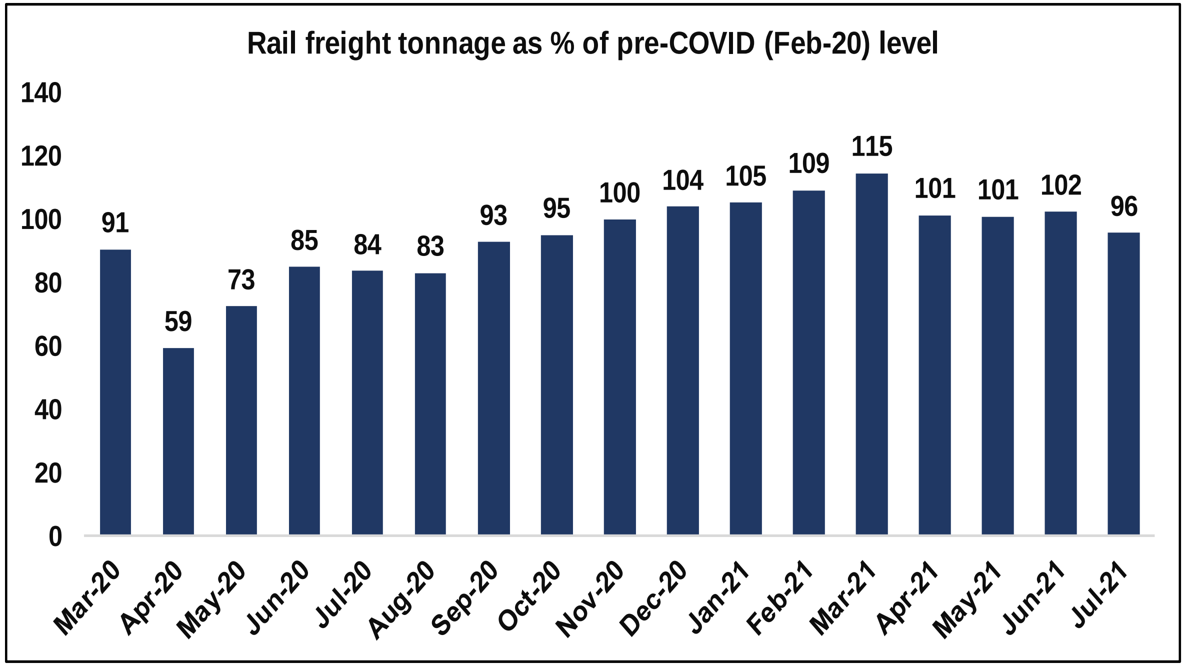
Card spending data settling at pre-2nd wave highs

Industrial indicators have maintained their strong levels

Electricity demand at its highest in several months

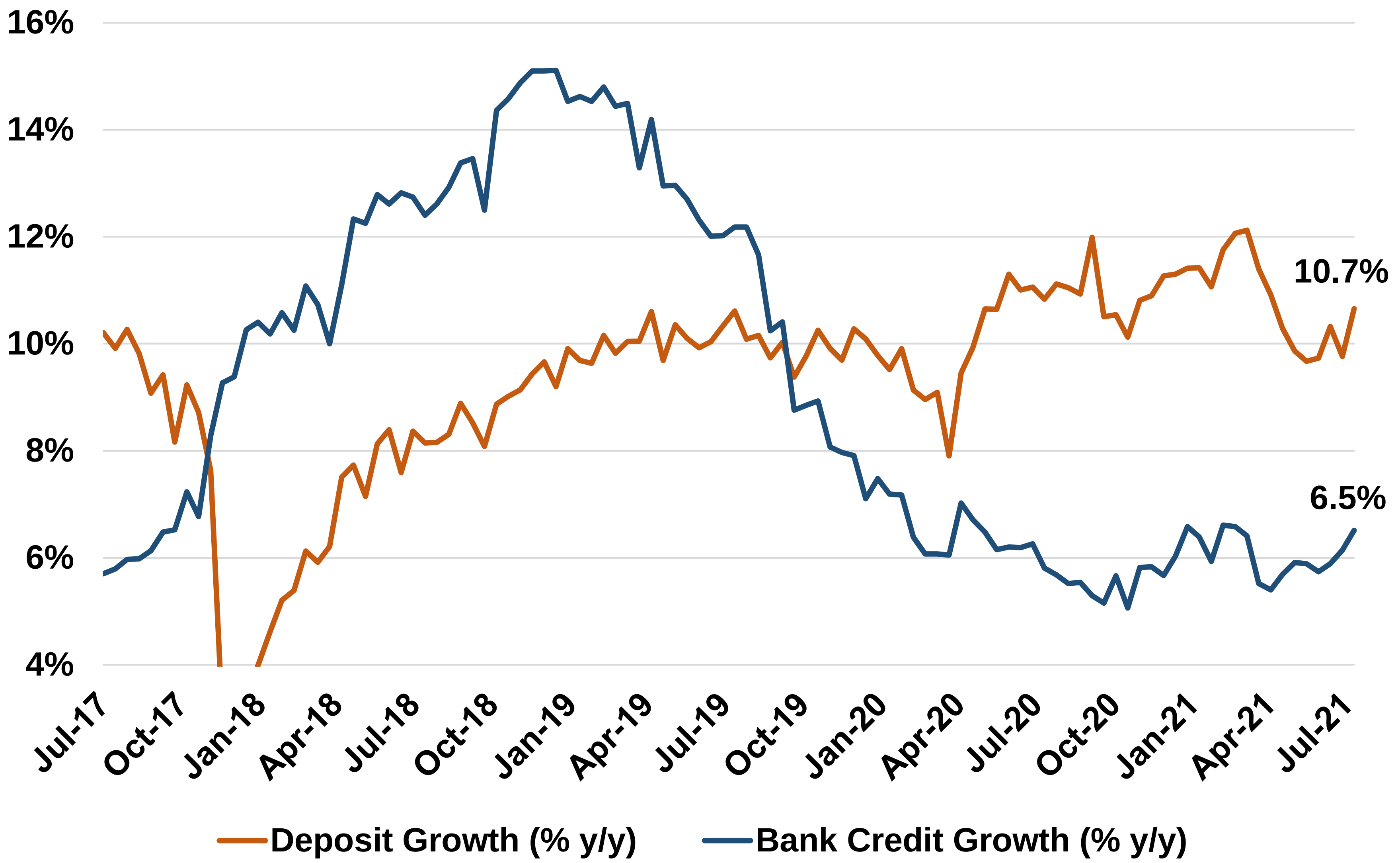
While rail freight tonnage has been flattish





Bank credit growth has seen marginal pick-up to 6.5% y/y growth

Reliance Industries Limited

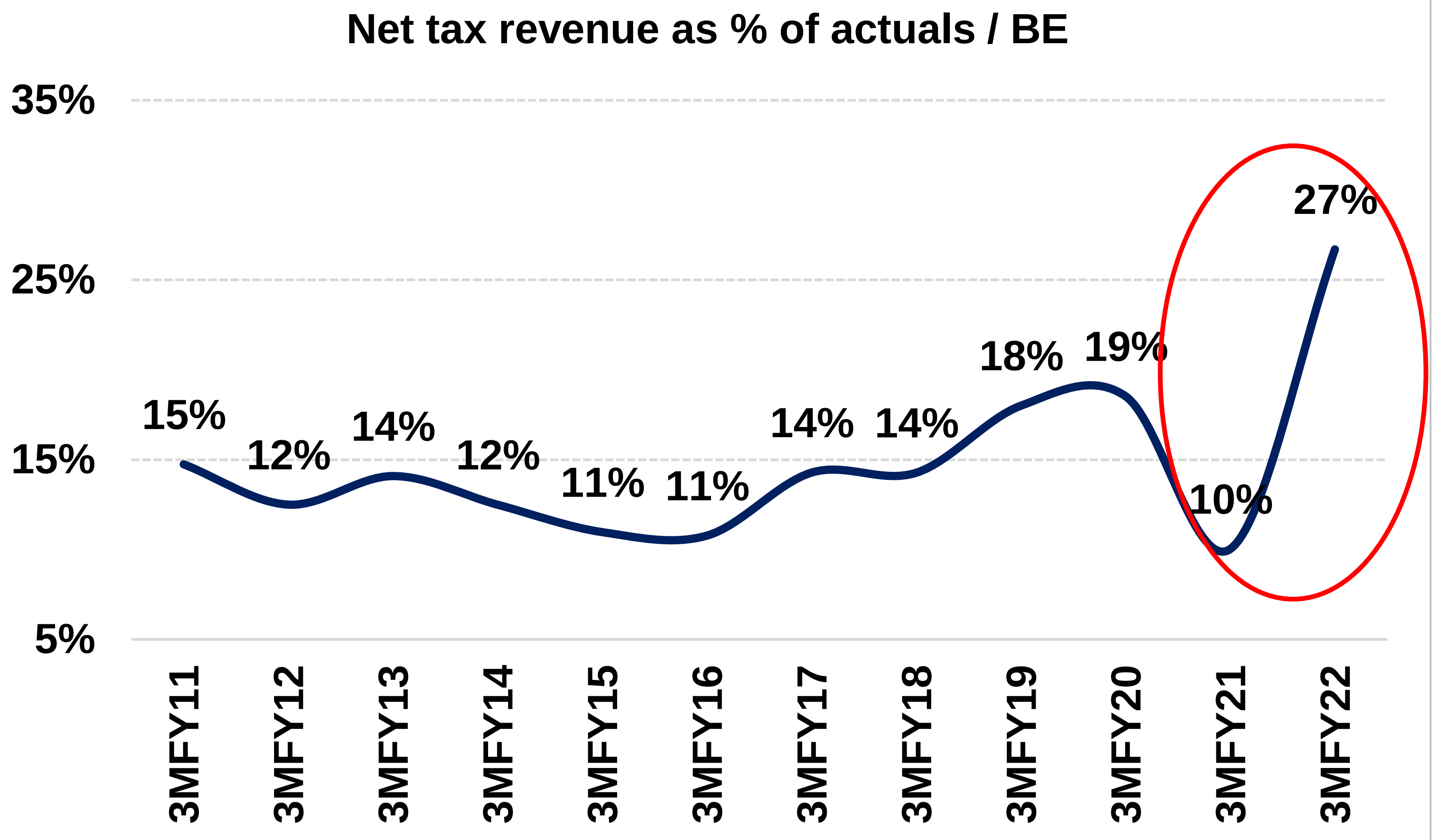


Credit growth seeing marginal pick-up but remains weak

Deposit growth seeing uptick towards 11% growth

3M net tax revenue collections as % of BE highest since at-least FY11

Net tax revenue collections at 27% of BE

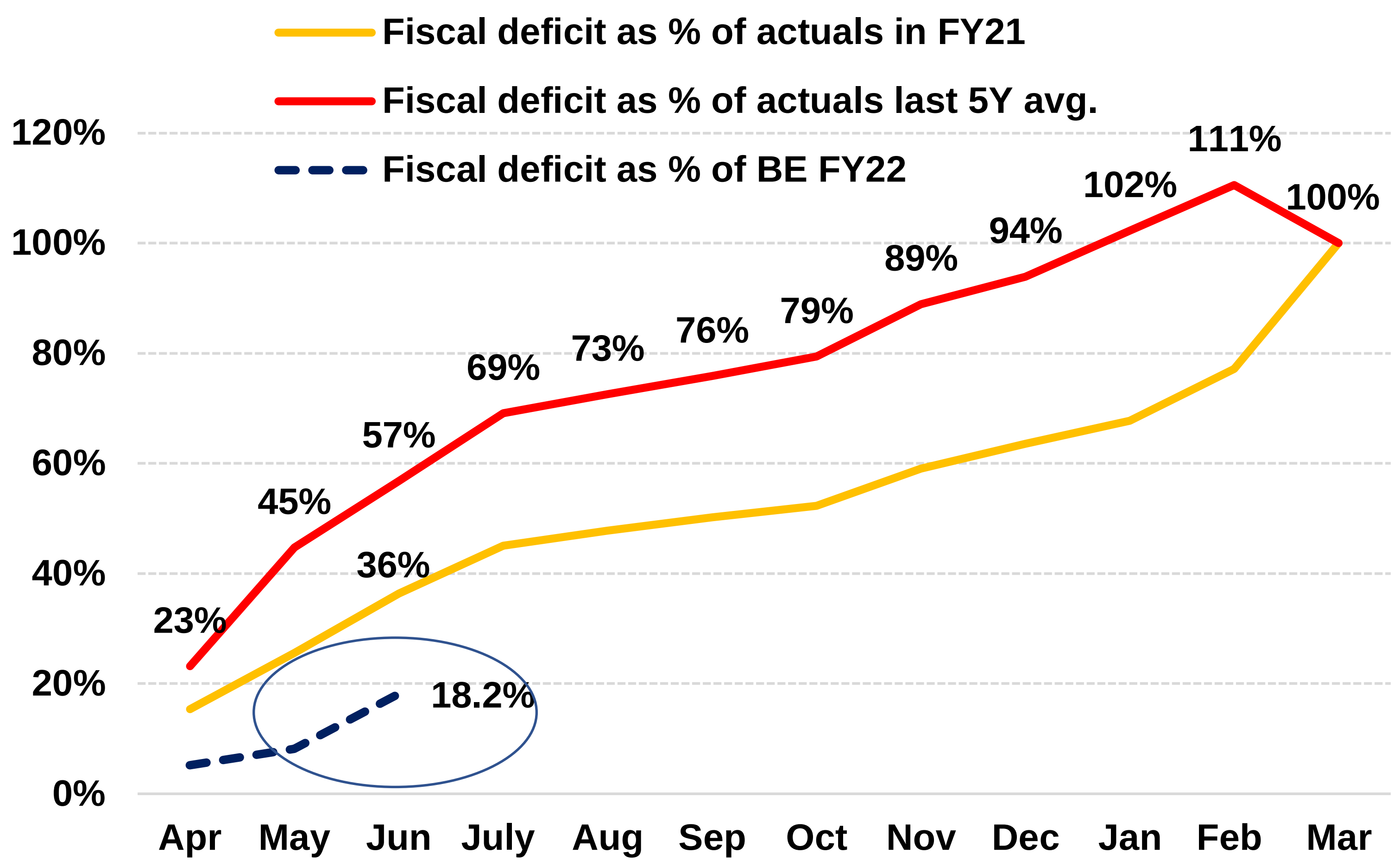


Tax collections running well ahead of levels seen over last decade

Fiscal deficit trending much lower vs history on strong revenue collections

Reliance Industries Limited

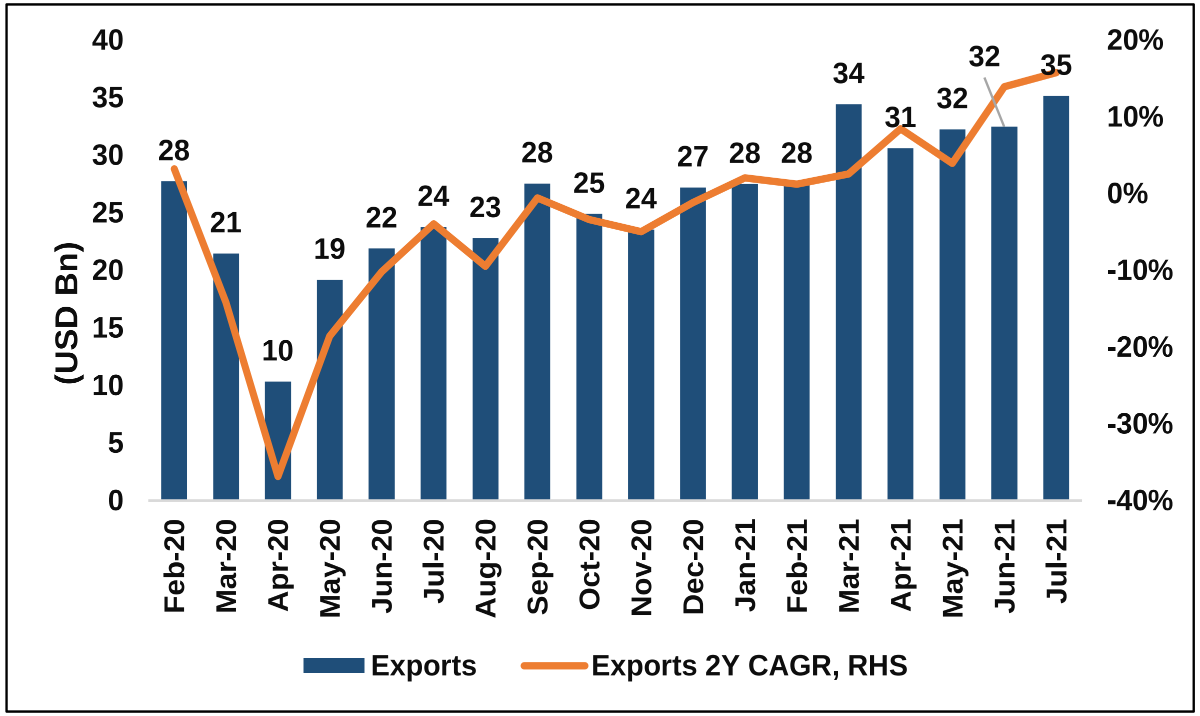
Fiscal deficit as % of BE at 18% much lower vs. last 5Y avg. of 57%



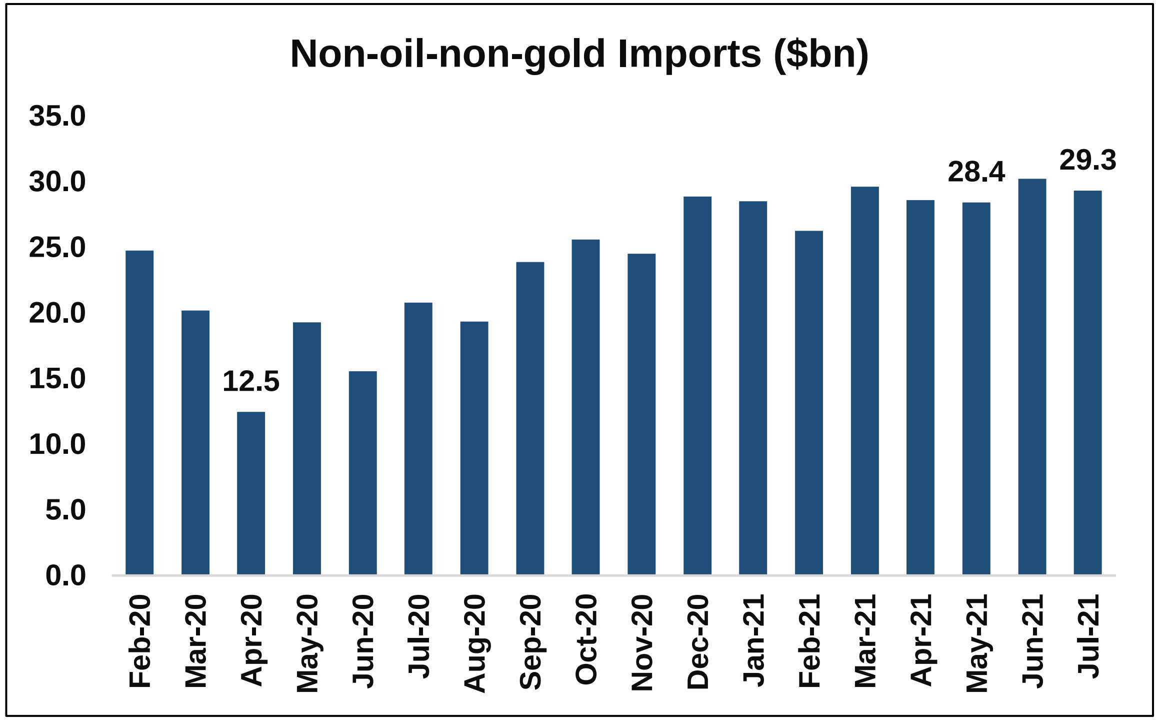
Exports gaining from global growth while imports are back at pre-COVID levels

Reliance Industries Limited

India exports highest ever in July at $35bn



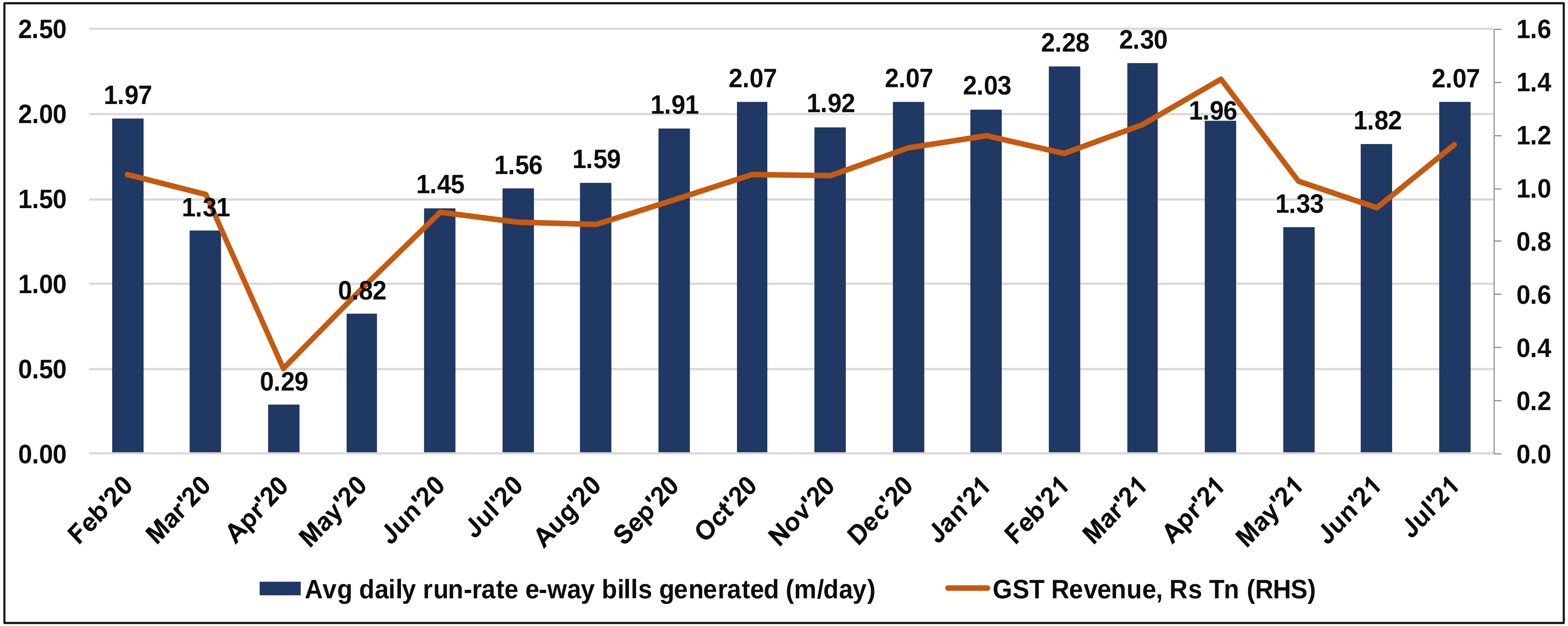
Non-oil non-gold imports have been resilient



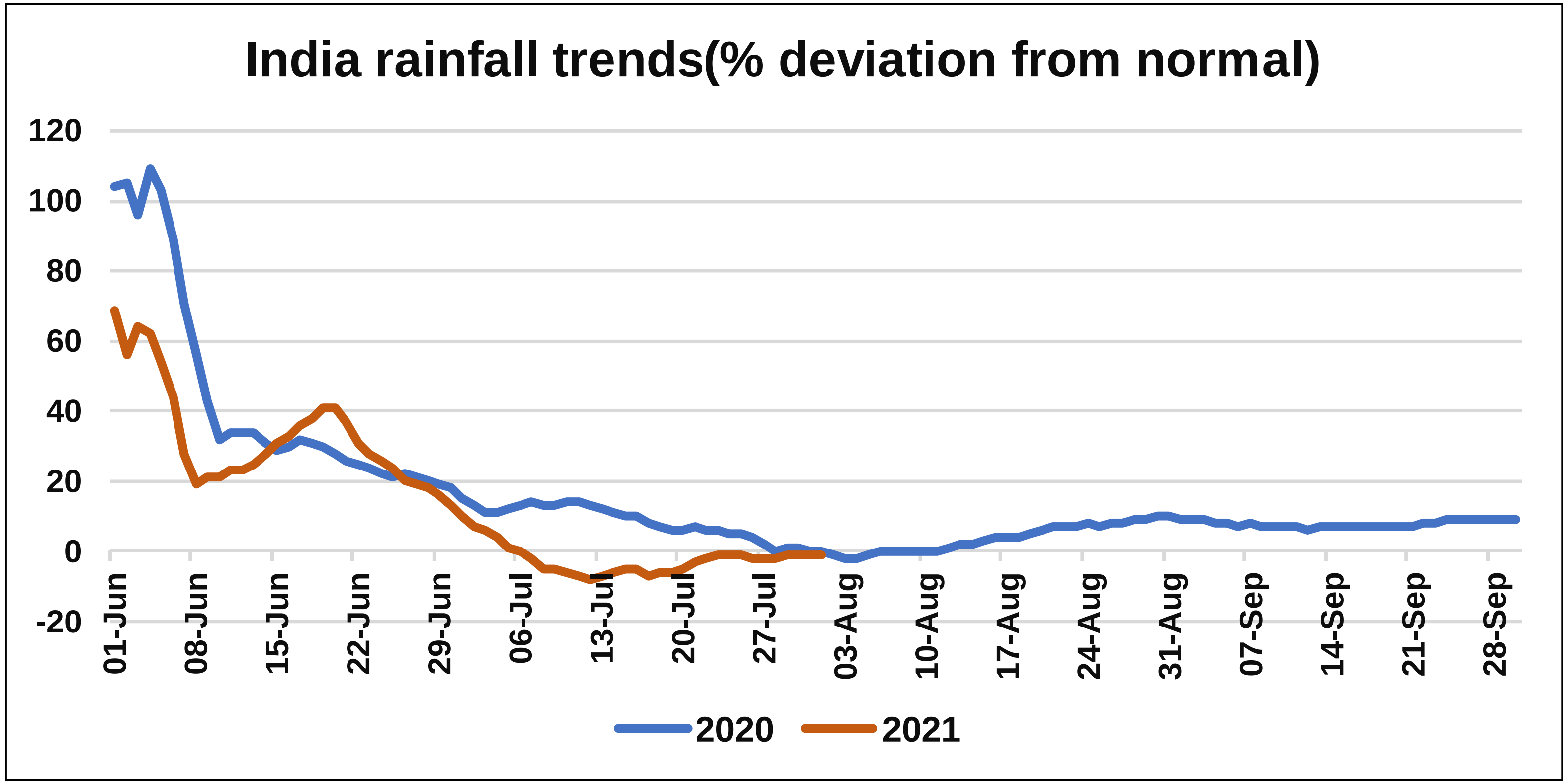
Strong exports growth in merchandise as well as services will keep current account supported; we forecast $12bn CAD in FY22

July GST collections could reach Rs1.2-1.25trn vs Rs1.16trn for June

GST collection could reach Rs1.2-1.25 tn (previous high Rs 1.4 tn) in August backed by strong E-way bill run-rate in July



India rainfall has normalized due to recent rainfalls in Northwest



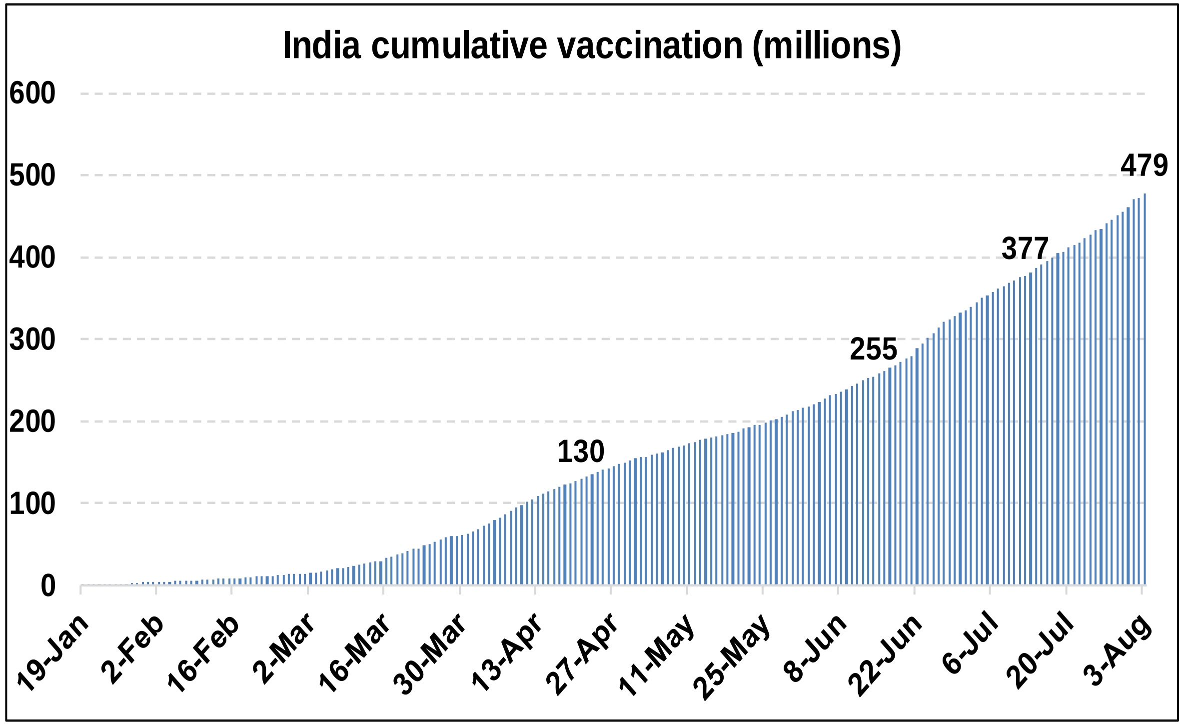
Monsoon has normalized after turning 6% deficient in early July

Region	Actual (mm)	Normal (mm)	% departure from LPA
East and Northeast	698	802	-13
Northwest	305	303	1
Central	515	514	0
South Peninsula	443	391	13
India	466	471	-1

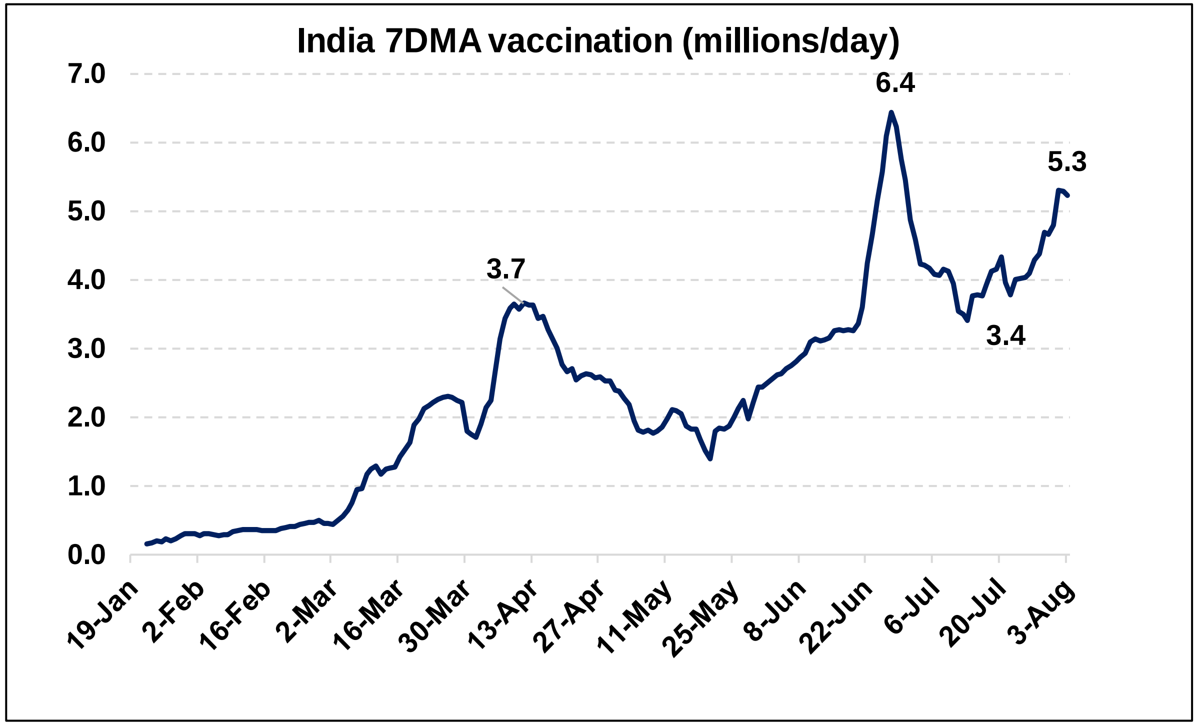
Note: *LPA is Long period average*

India total doses administered at 479 mn, daily run rate at 5.3 mn/day

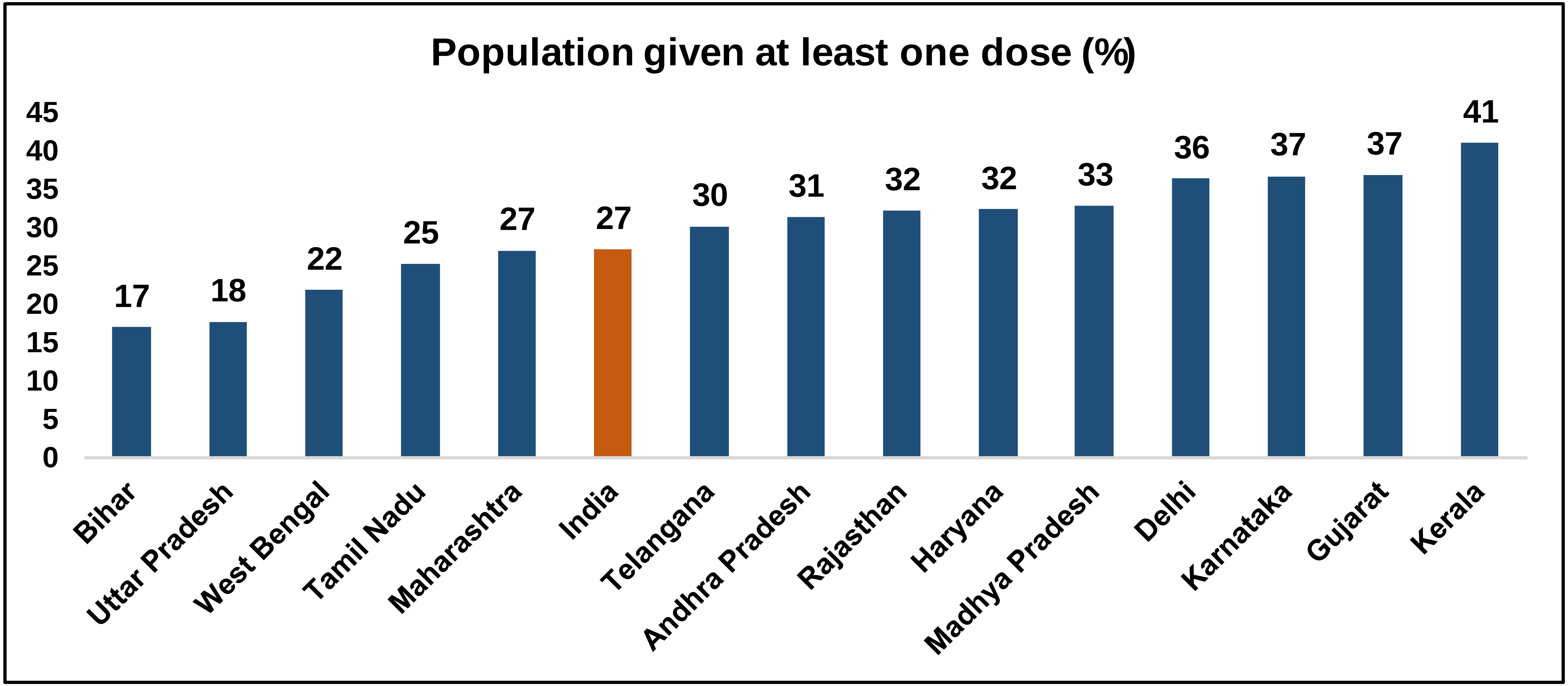
Total doses administered at 479 mn



Daily run-rate has picked up and at 5.3 mn/day



27% of total population given atleast one dose, ~8% fully vaccinated



Major urban centers vaccinating at 1.7x of India average

Reliance Industries Limited

Top urban centers soon to cover 50% population with at least dose

S. No.	District	Population given atleast one dose (%)
1	Gurugram	81
2	Kolkata	71
3	Gautam Buddha Nagar	69
4	Indore	65
5	Bangalore	62
6	Chennai	60
7	Bhopal	56
8	Thiruvananthapuram	47
9	Pune	46
10	Ahmedabad	45
11	Hyderabad	43

S. No.	District	Population given atleast one dose (%)
12	Mumbai	41
13	Vadodara	40
14	Surat	39
15	Delhi	36
16	Nagpur	36
17	Jaipur	35
18	Lucknow	29
19	Visakhapatnam	26
20	Kanpur Nagar	19
Average of top 20 cities		47
India average		27

Ultra high frequency data (% of Feb-20 level)

Sector	(as % of Feb-20 level)	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21
Industry	Electricity Demand	72	78	92	98	101	99	105	99	91	96	100	104	111	111	100	107	113
	Rail Freight tonnage	91	59	73	85	84	83	93	95	100	104	105	109	115	101	101	102	96
Mobility	Google mobility (overall)	77	36	48	63	61	64	71	77	81	87	87	92	93	78	55	76	90
	Google mobility (grocery and pharmacy)	81	48	74	98	91	89	95	107	110	110	107	116	119	106	75	103	120
	Google mobility (workplace)	77	38	56	69	68	71	76	76	76	82	83	85	86	71	53	69	79
	Apple Mobility Index	60	15	28	46	51	65	79	88	105	121	125	129	114	79	47	89	126
	Rail passenger traffic	65	0	0	1	2	3	5	8	15	24	29	41	40	28	12	20	25
Payment indicators (value)	CTS (cheque)	66	20	30	49	51	50	59	61	60	72	65	71	85	67	40	58	65
	IMPS	88	55	74	93	98	103	112	120	125	127	126	133	143	135	116	128	136
	UPI	87	66	92	114	122	125	143	162	170	175	181	198	212	214	206	238	255
	BBPS (Bill payments)	93	68	104	147	177	181	194	189	183	186	194	223	248	257	300	392	459
	NETC (toll collections)	72	13	58	79	82	87	102	109	110	117	122	144	157	146	108	135	151
Retail	Vehicle Registration	125	21	11	55	63	65	77	78	104	100	87	91	90	66	29	68	84
	PV	90	9	15	62	82	88	97	111	128	121	123	125	125	91	36	86	121
	2W	133	24	12	59	64	66	77	76	107	103	85	88	87	64	30	69	81
Unemployment	India Total	8.8	23.5	21.7	10.2	7.4	8.4	6.7	7.0	6.5	9.1	6.7	6.7	6.5	7.8	11.9	9.2	7.0
	Rural	8.4	22.9	21.1	9.5	6.5	7.7	5.9	6.9	6.3	9.2	6.4	6.3	6.2	7.0	10.6	8.8	6.5
	Urban	9.4	25.0	23.1	11.7	9.4	9.8	8.5	7.2	7.1	8.8	7.3	7.7	7.2	9.5	14.7	10.1	8.3
Tax collections	E-way Bill	67	15	42	73	79	81	97	105	98	105	103	116	117	99	68	92	105

High frequency data (% of Feb-20 level)

Type	Indicators (% of Feb-20 level)	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21
Rural Consumption	Tractor Sales	51	20	98	156	102	105	182	187	138	99	127	136	138	106	90	185
	2W	63	0	20	76	93	113	138	148	119	81	103	114	108	74	25	79
	2W registrations	133	24	12	59	64	66	77	76	107	103	85	88	87	64	30	69
	3W	63	0	6	24	29	33	44	59	55	50	60	69	72	32	3	22
Urban Consumption	PV Sales	53	0	13	43	72	85	110	122	107	99	108	122	114	106	35	94
	Petrol consumption	80	37	66	88	84	89	94	99	103	101	97	102	102	92	74	93
	Air passenger traffic	63	0	2	16	17	23	32	43	51	59	62	63	63	46	17	25
	NONG import	76	49	73	61	79	73	93	97	96	109	108	110	112	112	107	118
Industry	Diesel Consumption	74	44	72	85	72	63	74	91	95	94	89	95	94	90	72	84
	Coal India production	119	59	58	57	53	52	59	66	75	82	85	97	115	61	59	58
	Sea Cargo	101	80	74	83	84	84	90	92	100	103	105	106	117	104	99	99
	Airport Cargo Traffic	73	17	33	59	67	71	86	90	88	90	86	95	99	95	83	86
	Exports	72	36	65	76	80	77	96	84	82	92	93	103	116	107	109	113
	Exports - Non Oil	73	36	68	80	85	80	95	90	88	96	98	106	119	107	104	113
	Core output	94	59	75	84	86	84	88	88	92	95	97	100	105	94	87	91
	IIP	82	39	63	78	82	82	89	90	91	96	95	100	101	91	81	
	PMI Mfg	52	27	31	47	46	52	57	59	56	56	58	58	55	56	51	48
	PMI Services	49	5	13	34	34	42	50	54	54	52	53	55	55	54	46	41
Fiscal Account	GST revenue (p.m)	93	31	59	86	83	82	91	100	100	109	114	107	118	134	97	88
	E-way bill (daily run rate)	67	15	42	73	79	81	97	105	98	105	103	116	117	99	68	92
Credit	Bank credit growth	6	7	5	5	6	5	5	5	6	6	6	6	5	6	5	6
	Agri	4	5	5	2	5	5	6	7	9	9	10	10	12	11	10	11
	Industry	1	2	2	2	1	0	0	-2	-1	-1	-1	0	0	0	1	0
	Services	7	11	10	11	10	9	9	10	9	9	8	9	1	1	2	3
	Personal	15	12	11	10	11	11	9	9	10	9	9	10	10	13	12	12
	Bank deposit growth	8	9	10	9	11	10	10	11	10	10	11	11	11	11	9	9
	CP growth	-29	-23	-23	-22	-26	-25	-21	-18	-19	-12	-3	-2	6	-10	-9	-4
	Cash Deposit Ratio	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	5
	Investment Deposit Ratio	27	29	29	30	30	31	31	31	31	30	30	30	30	30	30	30
	Credit Deposit Ratio	76	75	74	74	72	73	72	72	72	73	72	72	72	72	70	71

You are the Finance Minister

Reliance Industries Limited

- Its July 20 (almost a year back from now) and it's been peak of pandemic India . There has been strict lockdown across the country, the core sector production is decreasing and so are of non-sector. LPR are steadily going down, Unemployment index going up , the consumer sentiments are touching new bottom. The GST collections are coming down and the direct tax collections are also lower
- The information from Ministry of Health – The pandemic will last for another 1 year. There are chances of 2nd and 3rd wave. Thus, it is almost certain that the period of disturbance will last for a long time, at least 1 year to 2 year

The group of advisers have given the following advice:

- **Mr A:** The govt is going through a financial stress, tax collections are at new low and additional expenses on pandemic is increasing – Thus Govt should cut down all capex and should concentrate on all emergency and necessary expenses . He does not advocate spending through loan
- **Mr B:** Govt should raise taxes to finance the pandemic .Govt should not cut on the capex
- **Mr C:** RBI should increase the rate of interest so as to ensure that retired (fixed income group) are supported and citizen's will be able to get higher return on their investments (FDs and other fixed rate income)
- **Mr D:** Govt should print money to support the pandemic
- **Mr E:** Govt to increase immediately expense on infrastructure taking loan

As FM what you would decide

Government Policies

Reliance Industries Limited

Fiscal Policies

- ✓ **Fiscal policy, measures** employed by governments to stabilize the economy, specifically by manipulating the levels and allocations of taxes and government expenditures. **Fiscal measures** are frequently used in tandem with monetary **policy** to achieve certain goals
- ✓ **Fiscal policy** is therefore the use of **government spending**, taxation and transfer payments to influence aggregate demand. These are the **three tools** inside the **fiscal policy** toolkit

Monetary Policies

- ✓ Monetary policy is the macroeconomic **policy** laid down by the central bank. It involves management of money supply and interest rate and is the demand side economic **policy** used by the government of a country to achieve macroeconomic objectives like inflation, consumption, growth and liquidity
- ✓ The three instruments of monetary policy are **open market operations**, the **discount rate** and **reserve requirements**. **Open market operations** involve the buying and selling of government securities
- ✓ The central bank use **four** tools to achieve its **monetary policy** goals: the discount rate, reserve requirements, open market operations, and interest on reserves. All **four** affect the amount of funds in the banking system

Indian Economy @ Aug 21

Reliance
Industries Limited

1. **Early data from July indicates strong recovery** with our ultra-high frequency indicator back at pre-COVID level
   - **PMI manufacturing back in expansion** at 55.3 from 48.1 in June
   - Exports up 34% over July-19 and at $35bn, highest exports in a month driven by strong global growth
   - Non-oil non-gold imports, indicator of domestic demand back at July-19 level in July-21
   - **Mobility at ~90%** of pre-COVID level similar to level seen in Jan-Feb-21
   - **Car sales above July-19 level** (40-50% higher) **though 2W lagging** (10-15% below July-19); Card spends back at Mar-21 level
2. **E-way bills in July indicates Rs1.2-1.25 Lcr collection after strong Rs1.16Lcr collection in June**
3. **Fiscal data also indicating strong recovery –** net tax collections in 3MFY22 at 27% of BE vs 14% average over last 10 year – more comfort emerging on the revenue side in fiscal reducing additional borrowing risk
4. Credit growth showing some pick-up at 6.5% y/y in mid-July while deposit growth also picked up to 10.7%
5. **Good progress on vaccination as nearly 50% population in top 20 urban centers have got least one dose nearly 2x of** 27% in India overall vaccinated with at least one dose; our calculation indicates 60% to be vaccinated by Dec-21
6. **We estimate CPI to ease in July to 5.7-5.8% after 2 months of >6% print;** Monsoon has normalized vs 6% deficient in early July
7. **RBI will remain dovish in August policy –** we expect RBI to revise CPI inflation forecast upwards (RBI at 5.1% vs 5.7% consensus in FY22), growth forecast to be unchanged at 9.5%, outside chance of announcement of longer duration VRR to reduce liquidity

Indian Economy @ Aug 21

Reliance Industries Limited

8. RBI divided in two camps –inflation Vs growth
9. Broadbased capital expenditure planned by private sector towards Q4 21-22 :
   - Vedanta to double its capacity – USD 20 billion
   - Reliance Industries –USD 10 billion investments in renewable energy
   - Adani – foray into petrochemicals
   - Tata group announced investment in semiconductor business
   - ITC announced investments of USD 2 billion to beef up capacity
10. Bankers feel India is on the cusp of the multi year capex cycle- Govt is expected to award usd 356 billion of orders in next 2 years + 6 trillion infrastructure monetization plan
11. Govt plans to open up monopoly sector (Gas/power distribution ,railways mining etc) will also drive private capex
12. US are showing signs of recovery – USD 1 trillion infrastructure stimus by US government would drive exports from large corporates. (L&T , ABB, Cummins etc to benefit)
13. As per CEA the expected growth from Fiscal 23 onwards will be in the range of 6,5% to 7% - supply side reforms taken by the govt – agriculture, PLI scheme, MSME ,privatization etc
14. CONCERNS : Third wave prediction , tapering off incentives by FED & Inflation

Role of Chartered Accountants

- CAs in industry :
  - ✓ Project decisions
  - ✓ Investing decisions
  - ✓ Commodity markets
  - ✓ M&As
- CAs as analysts
- CAs as economist
- CAs in Media

Thank You