

India: Informally, yours

The prospects of the omnipresent unorganised sector

Free to View
Economics - India

- ◆ Half of India's 80% informal sector workforce is employed outside agriculture; half of whom are in urban India
- ◆ Agricultural wages have held up, but non-agricultural informal sector wages have borne the brunt of "forced formalisation"
- ◆ Remaining generous with social welfare schemes, and taking steps that help small firms grow are needed to sustain growth

The lack of high-frequency data makes it hard to track India's large informal (or unorganised) sector, which employs c80% of the labour force and produces c50% of its GDP. But a lot is at stake. Ignoring the informal sector can hurt jobs, wages, and even macro stability. We find that **the 20% in the formal sector are doing relatively well**. Large and listed firms and their employees have done better than the smaller firms. The urban affluent led the pent-up demand wave in 2020. They may focus on services instead of goods this year (with overall spending a shade lower than last year).

Of the 80% in the informal sector, half work in agricultural. The incomes of both the landed and the landless agricultural workers (proxied by real rural agricultural wages and food production) have been resilient over 2020-21, led by strong monsoons, immunity from lockdowns, and a rise in government spending. As the second wave passes, those in this group may want to consume goods that make them feel more secure, funded by the relatively resilient incomes. Having said that, it is likely to be a wave of selective demand, rather than a large and broad-based one. Longer term prospects depend on reforms which diversify income sources and raise agricultural productivity.

Of the remaining 40% in the informal sector, half are in rural India, the other half in urban. We worry that this group has borne the brunt of the economic disruption that the pandemic has unleashed. Unlike agricultural wages, **non-agricultural wages in rural India have not been as resilient**. We find that the wages of the two groups can diverge for an extended period of time as they have different drivers. **The informal sector workers of urban India**, we believe, have been **at the receiving end of 'forced formalisation'**, with evidence of some business moving from the informal to the formal sector. There has been a spike in urban self-employment and unemployment rates.

All of this suggests that "formalisation" can hurt incomes and growth if it happens at the cost of putting small informal firms out of business. The constructive way to think about it is to perhaps **differentiate between 'forced' and 'organic' formalisation**. There is a case for remaining generous with rural welfare schemes, investing in urban welfare schemes and taking steps that help small businesses grow organically over time. On a broader level, the one big lesson from the pandemic has been that India can't wish away the informal sector. Rather, it needs to bring it to the forefront of policy making.

This is an abridged version of a report of the same title published on 15 July 2021. Please contact your HSBC representative or email AskResearch@hsbc.com for more information.

Pranjul Bhandari
Chief Economist, India
HSBC Securities and Capital Markets (India) Private Limited

Aayushi Chaudhary
Economist
HSBC Securities and Capital Markets (India) Private Limited

Disclosures & Disclaimer

This report must be read with the disclosures and the analyst certifications in the Disclosure appendix, and with the Disclaimer, which forms part of it.

Issuer of report: HSBC Securities and Capital Markets (India) Private Limited

View HSBC Global Research at:
<https://www.research.hsbc.com>

Opening up a big black box

The lack of high-frequency real-time economic indicators make it hard to track India's large informal sector¹, which employs c80% of the labour force and produces c50% of its GDP².

There is a paucity of good real-time informal sector data

Even the quarterly GDP growth prints don't capture the health of the informal sector adequately. In its first estimate, informal sector GDP is proxied by formal sector GDP. This works fine on normal days, but not when the two sectors are diverging.

Here it can be argued that recent shocks such as the demonetization and the pandemic have delivered a bigger blow to informal sector firms, which typically have lower financial buffers.

In this report we delve deeper into the constituents of the informal sector. Who are they? What do they do for a living? How are they faring? And what are their prospects? We also look at the ongoing formalisation trend, its sustainability, and its impact on informal counterparts. Finally, we discuss if the current state of play is supportive of higher and sustainable GDP growth in the Indian economy.

What's at stake?

Ignoring the informal sector can hurt growth and macro stability

There are many examples to illustrate that ignoring the informal sector can be costly for the economy; not just in terms of economic growth, but also social welfare and macro stability (for instance, price stability). Here we briefly outline three examples:

Loss in jobs and wages – Following demonetization, a disproportionately higher number of jobs were created in rural India instead of urban India³. And despite the employment rate rising, wage growth declined over this period (see chart 1 and 2).

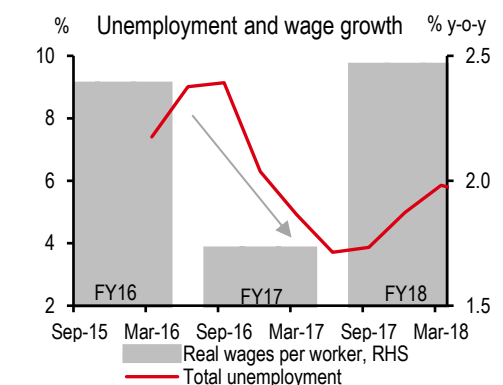
What could this possibly mean? One conjecture is that as cash-dependent urban informal firms were choked, urban informal sector opportunities waned, and some workers were only able to find work back in their rural homes, where wages are 2.5x lower. This dragged down national level wage growth.

Chart 1: During demonetization, rural India, where wages are typically lower, created double the jobs



Source: CMIE, HSBC

Chart 2: Unemployment fell, but so did wage growth



Source: ASI, CMIE, HSBC. Note: Wages are deflated using headline CPI.

¹ In this report, we focus on those employed in the informal (or unorganised) sector. That number stands at 81.3% of the labour force (2018-19 data). Overall informal employment is even higher. It is the sum of those employed in the informal (or unorganised) sector and those who are informally employed in the formal (organised) sector.

² Ministry of Statistics and Programme Implementation, National Statistical Office

³ Rural India created double the jobs that urban India did.

Humanitarian cost – During the COVID-19 led national lockdown of 2020, the reaction function of informal sector workers turned out to be rather different compared to their formal sector counterparts. With inadequate safety nets at their urban workplace, there were painful accounts of displaced workers using all means to rush back to their rural homes.

High inflation - India was one of the few countries with high inflation through the pandemic-stricken 2020. Some of this is likely to be associated with the disruption in informal firms. The informal sector is most active in the production of essential goods like food and textiles, for which demand never really fell. Disruption in supply led to rising inflation in these specific categories.

In the next few sections, we present a breakdown of India's 472m strong labour force⁴ into three main groups – **those employed in the formal sector, those in the agricultural informal sector, and those in the non-agricultural informal sector.**

A break-down of India's labour force

80% of labour force are in the informal sector ...

Around 80% of India's labour force is employed in the informal sector, and the remaining c20% in the formal sector⁵.

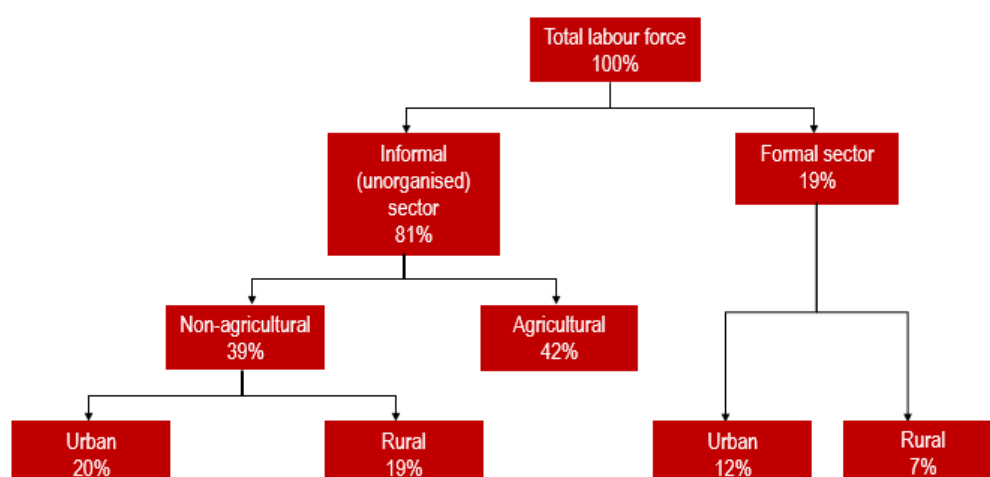
Breaking down the informal sector (see chart 3). Of the c80% informal sector workforce, half work in agriculture (c40% of total workforce), and the remaining in non-agricultural sectors (c40% of total workforce).

... half of whom are in sectors outside of agriculture

Of the c40% non-agricultural informal sector workers, about half live in rural India and the remaining in urban India. Meanwhile, almost all of the c40% agricultural informal sector workers live in rural India.

Of the c20% formal labour force, c8% is employed in the industrial sector (mostly manufacturing and construction), and c12% in services (of which about half is public services, see table 1).

Chart 3: Breakdown of India's labour force (% share of total)



Source: PLFS, NSS and census data, HSBC calculations

⁴ As per WDI 2020

⁵ All our calculations are done using PLFS, NSS and Census data. For sector splits, we have referred to "Covid-19, Social Protection and the Informal Sector: Lessons from India's Experience 2020, Asian Development Bank by Radhicka Kapoor and Amit Basole.

Table 1: Percent distribution of employment by type of activity

% of labour force	Organised sector	Unorganised sector
Agriculture	0.2	42.3
Mining & Quarrying	0.3	0.1
Manufacturing	4.4	7.7
Electricity, Gas & Water supply	0.4	0.2
Construction	2.5	9.6
Trade, Hotel & Restaurants	1.3	11.3
Transport, Storage & Communication	1.8	4.1
Finance, Business, Real Estate	1.9	1.5
Health, Education, Public Admin	5.9	4.6
Total	18.7	81.3

Source: PLFS, NSS and census data

The fortunes of the c20% in the formal sector

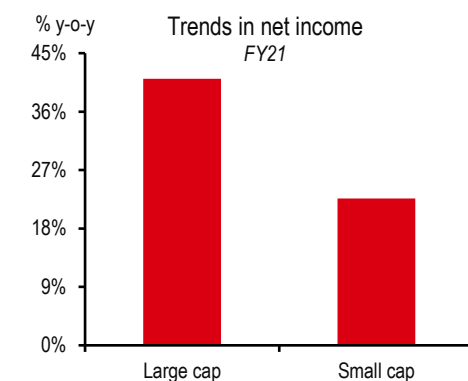
About two-thirds of these 20% employed in the formal sector are based in urban India, the remaining in rural India.

Those employed in the formal sector have done relatively well

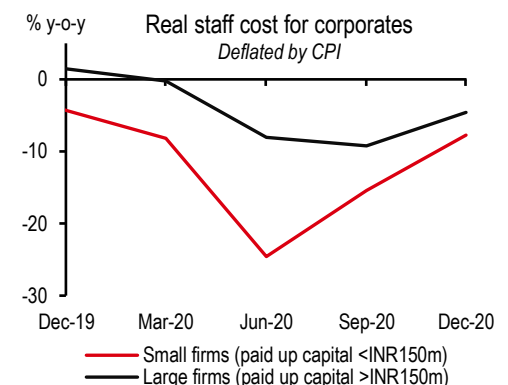
How are these 20% faring? Relatively better than the rest. Through the pandemic, large and listed firms have done relatively better than smaller listed firms and informal unlisted firms (see chart 4). A combination of cost cutting, lower interest rate environment, access to buoyant capital markets, and ongoing formalisation are likely to have helped keep profitability high. The salaries of individuals working at these larger listed firms have also held up relatively better, though lower than the pre-pandemic trend (see chart 5). These individuals may also have benefitted from wealth effects from buoyant stock markets.

Will they continue to lead recovery? Yes, but differently. Recall that the urban affluent class led the rise in demand post the national lockdown in 2020. They bought consumer durables such as electronics, furniture, passenger vehicles and even new houses. It could even be argued that coming out of the lockdown, they overshot on spending. After soaring during the lockdown, financial savings fell below pre-pandemic levels soon after (to 8.2% of GDP in December 2020 versus 9.8% pre-pandemic, see chart 6).

But some of this may not be repeated in 2021. Several of the consumer durables purchased in 2020 are not items that tend to be purchased year after year. Also, the rise in financial savings to support a subsequent urban consumption spree has not been as large this year (at least according to change in bank deposits, a narrow indicator of financial savings; see chart 7).

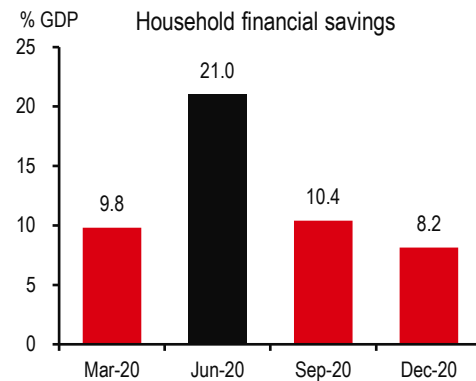
Chart 4: Large listed firms have done relatively better than smaller listed firms


Source: Bloomberg, HSBC. Based on latest constituents of BSE large and small cap indices

Chart 5: Salaries of individuals at large listed firms have held up better than smaller firms


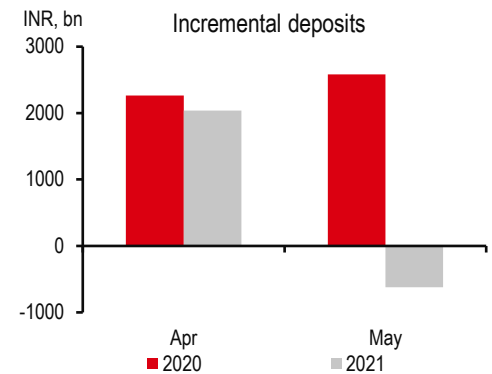
Source: RBI's database of the performance of the private corporate business sector, CEIC, HSBC

Chart 6: Financial savings in December 2020 fell to below pre-pandemic levels of March, as consumers overspent



Source: RBI, HSBC

Chart 7: The rise in bank deposits in 2021 has been lower than in 2020



Source: CEIC, HSBC

As vaccination spreads, urban consumers may instead switch from pent-up goods demand to pent-up services demand, with the overall spend being lower than last year.

Though long-term prospects depend on reforms

What are their long-term prospects? We believe that depends on the progress in policy reforms. Prospects of overall GDP growth are the strongest driver of real urban wages (see results of our simple OLS econometric model in table 2). Within this, it is the investment rate that raises the capacity of the economy to create sustainable jobs. We believe reforms are the foremost driver of both potential growth and within it, the investment rate.

In particular, **we are watching progress on four fronts** - strengthening the Insolvency and Bankruptcy Code to deal with a possible rise in bad loans at banks, sustaining social welfare spending to support the bottom-of-the-pyramid, getting disinvestment done to raise government revenues, and choosing export promotion over import substitution.

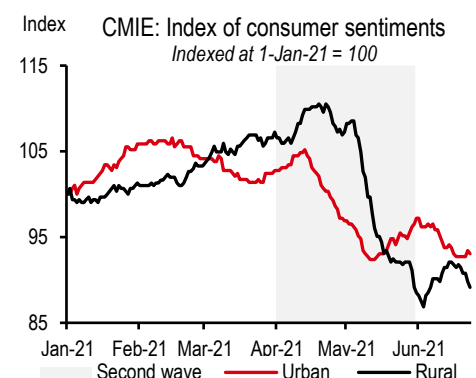
Table 2: Urban wage regression GDP growth is a strong driver of real urban wages

Dependent variable: Nominal urban wage (annual, chg in %y-o-y)	
Sample period: FY08-FY18	
Regressors	Coefficients
Constant	-10.1**
CPI inflation (ex food, fuel): Lagged	1.18***
Core GVA	0.77**
Core GVA: Lagged	0.49**
R-Squared	0.83
D-W stat	1.69

Level of significance: ***1%, **5%, *10%

Source: HSBC estimates. Level of significance: ***1%, **5%, *10%. Note: All data are in annual terms from FY08-FY18. Core GVA = GVA excluding public services and agriculture.

Chart 8: Rural sentiment fell sharply but has begun to recover



Source: CMIE, HSBC

The prospects of the 40% in the informal agricultural sector

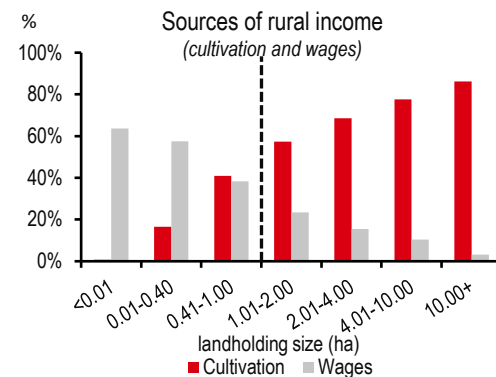
About two-thirds of rural workforce are in agriculture, and almost all are informally employed. The second wave hit rural India hard. Rural sentiment fell sharply, but has begun to recover since (see chart 8).

To understand the economic health of agricultural workers, we divide them up into marginal farmers, who we broadly refer to as the **'landless'** (~70% of households, defined as owning less than 1 hectare of land) and the **'landed'** (~30%, owning more than 1 hectare).

Rural agricultural wages have held up well, led in part by good monsoon rains

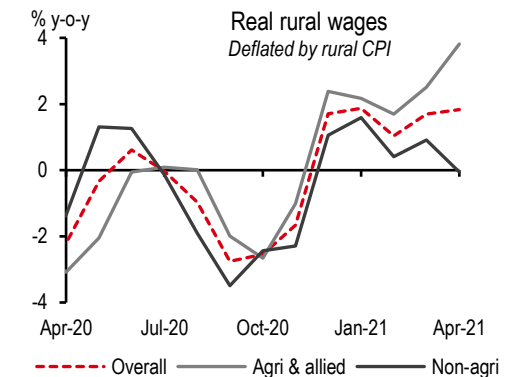
The incomes of the landless. Wages, the main source of income for the landless have been **resilient over 2020/21**, led by good monsoons and elevated reservoir levels (see chart 10). It helped that agricultural production and distribution were exempt from the various lockdowns, and being an 'essential', the demand for food remained robust. Recently, domestic demand has been accompanied by strong foreign demand. Agricultural exports have been on the rise (see chart 11). Alongside, the government has raised social welfare spending in rural India over the last year, which has propped up incomes⁶.

Chart 9: Much of the income of the landless is from wages rather than cultivation



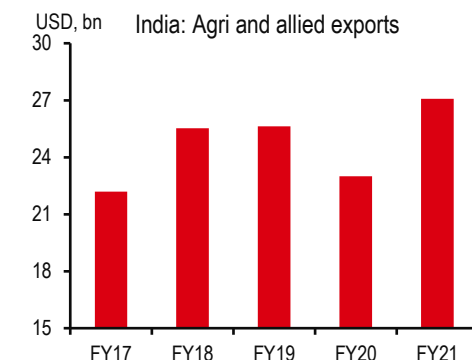
Source: NSSO, HSBC

Chart 10: Agricultural wages have held up well through the pandemic



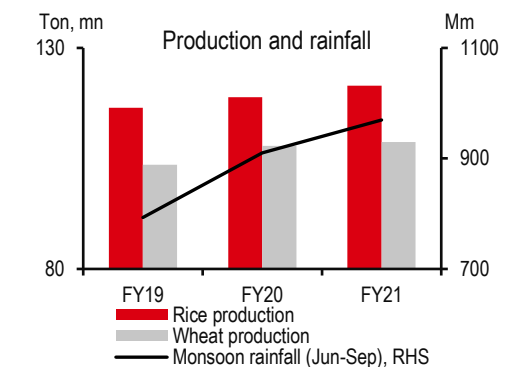
Source: CEIC, HSBC

Chart 11: Agricultural exports have been on the rise



Source: CEIC, HSBC

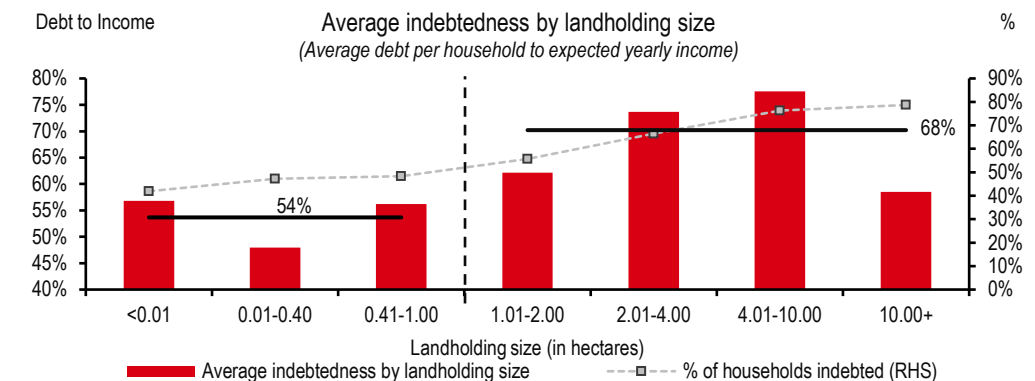
Chart 12: Good monsoon rains and robust production have likely aided agricultural income



Source: CEIC, HSBC

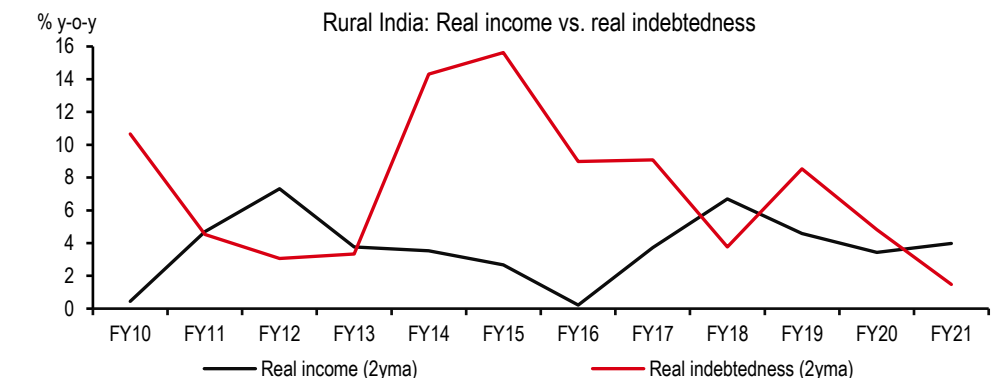
⁶ Unemployment benefits (via the MGNREGA programme), cash transfers (via the PM Kisan scheme) and food distribution, were among the main areas of spend.

Chart 13: The landed are more indebted than the landless



Source: NSSO, HSBC. Note: Yearly income has been extrapolated from the monthly income from all sources for respective landholding size class.

Chart 14: Real indebtedness has moderated in recent years



Source: RBI, CEIC, HSBC. Real incomes are proxied by real agriculture GVA growth. Until FY12, nominal data on debt growth is deflated using CPI-rural labourers index, thereafter with the CPI rural index; debt data corresponds to scheduled commercial banks' advances to agriculture outstanding as of march of every year including both direct and indirect finances.

Real indebtedness of the landed has moderated

The finances of the landed. Cultivation is the main source of income for the landed. Strong monsoon and robust production are likely to have aided the incomes of the landed over 2020/21, just as they did for the landless (see chart 12). This class is also more indebted than the landless (see chart 13), and here, there is some data to support that real indebtedness has moderated in recent years (see chart 14).

Will agricultural labourers contribute to the “pent-up demand” in 2021? Perhaps, but only selectively. As rural Indians emerge from the second wave, they may want to consume goods that make them feel more secure, funded by the relatively resilient agricultural incomes of 2020/21. These goods could include discretionary items such as two-wheelers, as well as home repair/renovations services.

Having said that, for at least three reasons, this is **likely to be a selective wave of demand, rather than a large and broad-based one**. **One**, while reservoir levels, an important driver of rural fortunes, are trending higher than the long-term average (31% of storage capacity on 8 July, versus 25% long-term average), it is lower than last year (33%). We find that reservoir levels by the end of July matter most, and the catch up in July rains will be critical. Current rainfall deficit is 6% as of 13-Jul-21 (but it is forecast by the weather department to catch up in subsequent weeks).

Two, with core inflation rising recently, the terms of trade may tip against rural India (see chart 15). **Three**, even as agricultural wages are strong, non-agricultural wages have not been as resilient (more on this later).

But longer term prospects, again, depend on reforms

What are their long-term prospects? Pent-up demand is a one-off. Will agricultural workers have the income to support higher longer-term consumption demand? Given the irrigation infrastructure is patchy, rural incomes depend much on the vagaries on monsoon rains.

Two things may be needed to snap out of this. One, more diversification of income sources. Too many people work on the farm. And two, higher agricultural productivity. Both of these need agricultural reforms - improving rural infrastructure, food distribution networks, crop insurance spread, etc.

The vulnerabilities of the 40% in the non-agricultural informal sector

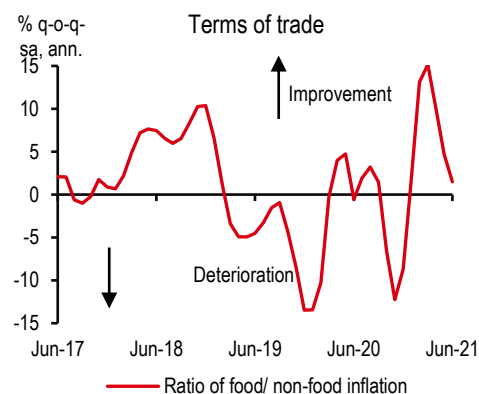
The non-agricultural informal sector workers have borne the brunt of the pandemic

Those employed in the non-agricultural informal sector, making up 40% of India's labour are half rural, half urban. We worry that **this group has borne the brunt of the economic disruption** that the pandemic has unleashed. To explain our point, we first need to understand what these 40% do. On an all-India level, about half of these 40% are employed in industry (manufacturing and construction in equal parts), and half in services (like trade, hotels and restaurants, see table 1).

A. The informal sector labour force of rural India, who are not farming

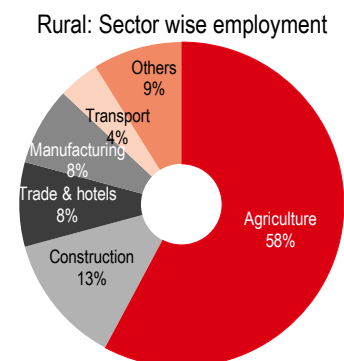
Not doing as well. These labourers, making up 20% of labour force are mostly involved in construction, followed by trade and transport and manufacturing (see chart 16). Alas, non-agricultural wages have not been as buoyant as agricultural wages (see chart 10 above and chart 18). The sharp rise in the demand for NREGA works may also be an indicator of this (see chart 19).

Chart 15: The terms of trade may tip against rural India



Source: CEIC, HSBC

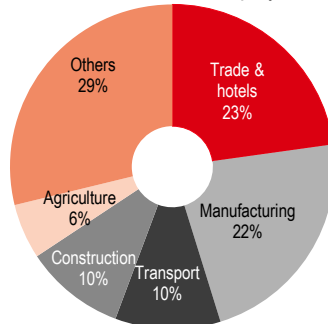
Chart 16: Sector-wise employment details of rural India



Source: CEIC, HSBC

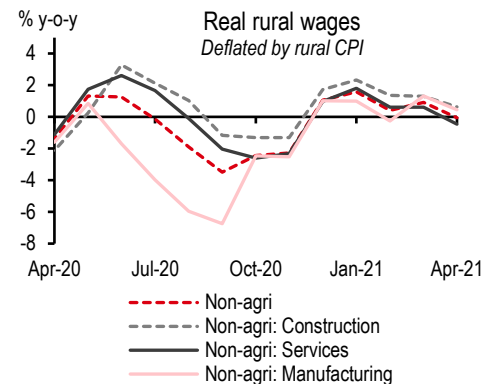
Chart 17: Sector-wise employment details of urban India

Urban: Sector wise employment



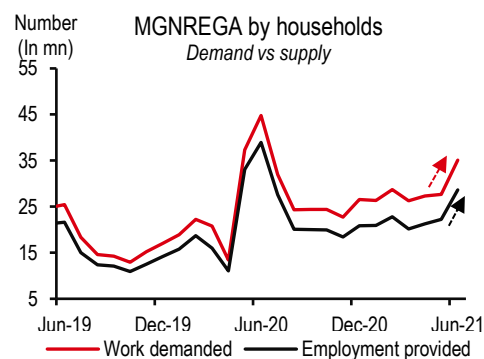
Source: CEIC, HSBC

Chart 18: Non-agricultural wages have not been as buoyant as agricultural wages



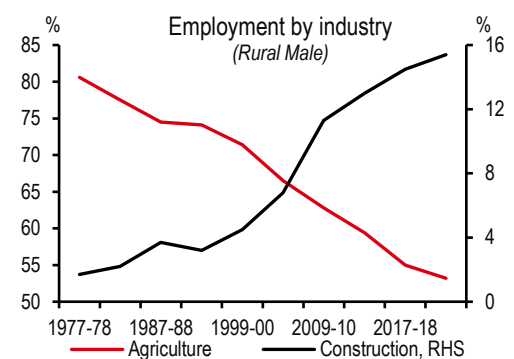
Source: CEIC, HSBC

Chart 19: The demand for NREGA works has picked up recently



Source: nrega.nic.in, HSBC

Chart 20: With an increased reliance on construction wage income, dependence of on agriculture has fallen over time



Source: PLFS, HSBC

The lack of convergence in rural wages. But this seems rather odd. Why are rural agriculture and non-agriculture wages diverging? Shouldn't there be scope for arbitrage which makes the two converge⁷? To understand what's going on, we use a Granger Causality econometric set up.

Using data from **2015 to 2021**, we find that indeed, agriculture and non-agricultural wages are correlated with an optimal lag of 5 months⁸. In econometric parlance, agricultural wages granger-cause non-agricultural wages, and vice versa.

We test this again, this time taking a more recent timeframe, i.e. **2018 to 2021**, we find that while the two do correlate, the period over which this happens is 10 months, double the time compared to our first regression.

And finally, taking a more historical timeframe, i.e. **2015-2018**, the optimal lag falls sharply to just 3 months. What's going on? Why is arbitrage between agriculture and non-agriculture wages taking much longer now than in the past?

Here is why. The dependence of rural workforce on agriculture has fallen over time, as the importance of activities like construction has risen (see chart 20). And some of the key drivers of the two differ. For instance, good monsoons are a key driver of agricultural wages, while urban demand

Non-agricultural rural wages haven't been resilient ...

... despite agricultural wages being buoyant

⁷ For instance, shouldn't higher agriculture wages incentivise non-agricultural workers to move to agriculture? Or at least improve their wage negotiation power?

⁸ The null hypotheses that "real non-agricultural wages do not granger cause real agricultural wages" and "real agricultural wages do not granger cause real non-agricultural wages" are both rejected at a 1% confidence level, with a F-stat of 8.5 and 4 respectively.

and health of the banking sector can be a driver of non-agricultural wages⁹. And since these drivers are unrelated, it is possible for them to diverge, elongating the timeframe over which agricultural and non-agricultural wages converge.

But eventually they will converge, and whether they converge to the higher wage or the lower one, will determine the sustainability of rural demand.

B. The informal sector labour force of urban India

These labourers, making up 20% of labour force are employed across trade, hotels, transport, manufacturing, construction and others (see chart 17).

Some business has moved
from the populous informal
sector to the formal sector ...

The receiving end of ‘forced formalisation’. As discussed earlier, shocks such as the pandemic and demonetization are likely to have hurt the informal sector, which does not have adequate buffers to withstand large shocks, more acutely.

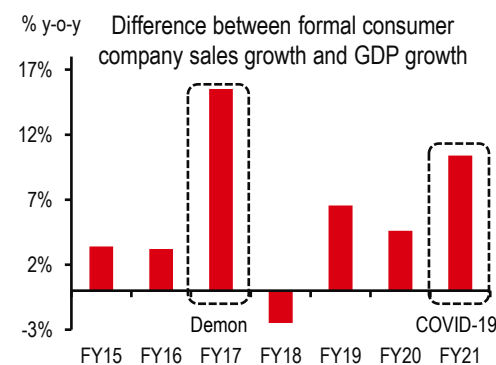
We look closely at the constituent companies of the FTSE index, which by design, belong to the ‘formal sector’. We find that historically, nominal GDP growth has been a good indicator of the formal sector corporate sales. But during demonetization, and also the pandemic period, formal corporate sales overshoot nominal GDP growth (see chart 21).

We believe this means that some demand, which was previously catered to by the informal sector, began to be catered by the formal sector. Another database shows how demand moved from small firms to the bigger ones (see chart 22). It is no surprise that employees of large firms have done much better than small firms. And extending that, those involved with the small informal firms are likely to have done even worse (see chart 4 and 5 above).

... resulting in job losses

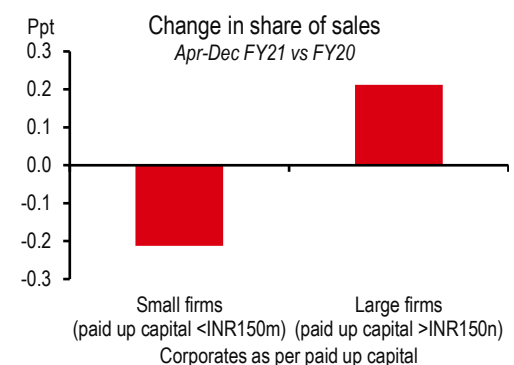
The April-June 2020 PLFS survey showed a rise in self-employment in urban areas. Another recently conducted survey¹⁰ showed that this category suffered the highest earnings loss (in Sep-Oct 2020 vs same time a year ago).

Chart 21: During demonetization and the pandemic period, formal sector corporate sales has overshoot nominal GDP growth



Source: Bloomberg, HSBC. The sales growth is based on current FTSE India constituents. We use 16 consumer companies of the following sub-sectors: general retailers, food producers, personal goods and tobacco.

Chart 22: Demand moved from small firms to the bigger ones during the pandemic



Source: RBI's database of the performance of private corporate business sector, CEIC, HSBC

Making formalisation last

Large and listed firms have benefitted through the pandemic and the resultant “formalisation” has showed up clearly in corporate results. Given the large efficiency gains associated with the formal sector, it is no surprise that equity markets have cheered hard.

⁹ See India's unlikely growth linkages: Rural income, construction cycle and shadow banks, 22 August 2019

¹⁰ [State of working India 2021: One year of Covid-19](#) by Azim Premji University

“Forced formalisation” can weigh on demand and growth over subsequent periods

But “formalisation” can be a double edged sword. If it happens at the cost of putting small informal firms out of business, then the disruption in the informal sector can weigh on demand in subsequent periods.

In previous research (and also discussed earlier in the report), we found that when urban informal workers without social security lose jobs, many move back to their rural homes. But rural wages are 2.5x lower than urban wages, leading to lower demand and growth over time.

It is also possible that formalisation wears off over time. If the ecosystem that promotes formality does not change very much, the informal sector makes a comeback. And in that case, the efficiency gains associated with formalisation wears off¹¹.

The constructive way to think about this is perhaps to differentiate between ‘forced’ and ‘organic’ formalisation. The formalisation that comes only on the back of external pressure or leads to deep distress in the informal sector, may not be sustainable. In contrast, the formalisation that happens on the back of policy changes which help small and informal firms grow over time into medium or larger formal sector firms, is more sustainable.

The road ahead

There is need to remain generous with social welfare schemes ...

What is perhaps needed now is to protect the informal sector workers via social welfare schemes so that the disruption they are facing does not lead to a permanent fall in demand. There is a case of remaining generous with programmes such as the rural NREGA scheme for longer.

India doesn't have an equivalent urban social welfare scheme. Government capex doubles up as an urban welfare scheme, providing short term jobs. But government capex can be unreliable. The government has also focussed on credit guarantee schemes this time around. But the success of those depends much of the health of the intermediaries – India's banking sector. We believe there is a good case for setting up a more permanent direct urban social welfare structure.

... while helping small firms to grow

And in the meantime, steps to promote reforms that are necessary to help small businesses grow is critical - for example, lowering the regulatory burden associated with growing firms.

Lessons from the pandemic

The informal sector needs to be brought to the forefront of policy making

On a broader level, one big learning from the pandemic has been that **India can't wish away the informal sector**. And neither can it be assumed that the fortunes of the formal and informal sector move together.

Investing in real-time informal sector data, and bringing the informal sector to the forefront of policy decisions can have large multi-year economic growth payback.

¹¹ It can be argued that the demonetization led to a mix of the two outcomes. Some urban workers moved to rural India permanently, lowering wages and demand. And some urban informality made a comeback.

Disclosure appendix

Analyst Certification

The following analyst(s), economist(s), or strategist(s) who is(are) primarily responsible for this report, including any analyst(s) whose name(s) appear(s) as author of an individual section or sections of the report and any analyst(s) named as the covering analyst(s) of a subsidiary company in a sum-of-the-parts valuation certifies(y) that the opinion(s) on the subject security(ies) or issuer(s), any views or forecasts expressed in the section(s) of which such individual(s) is(are) named as author(s), and any other views or forecasts expressed herein, including any views expressed on the back page of the research report, accurately reflect their personal view(s) and that no part of their compensation was, is or will be directly or indirectly related to the specific recommendation(s) or views contained in this research report: Pranjul Bhandari and Aayushi Chaudhary

Important disclosures

This document has been prepared and is being distributed by the Research Department of HSBC and is not for publication to other persons, whether through the press or by other means.

This document is for information purposes only and it should not be regarded as an offer to sell or as a solicitation of an offer to buy the securities or other investment products mentioned in it and/or to participate in any trading strategy. Advice in this document is general and should not be construed as personal advice, given it has been prepared without taking account of the objectives, financial situation or needs of any particular investor. Accordingly, investors should, before acting on the advice, consider the appropriateness of the advice, having regard to their objectives, financial situation and needs. If necessary, seek professional investment and tax advice.

Certain investment products mentioned in this document may not be eligible for sale in some states or countries, and they may not be suitable for all types of investors. Investors should consult with their HSBC representative regarding the suitability of the investment products mentioned in this document and take into account their specific investment objectives, financial situation or particular needs before making a commitment to purchase investment products.

The value of and the income produced by the investment products mentioned in this document may fluctuate, so that an investor may get back less than originally invested. Certain high-volatility investments can be subject to sudden and large falls in value that could equal or exceed the amount invested. Value and income from investment products may be adversely affected by exchange rates, interest rates, or other factors. Past performance of a particular investment product is not indicative of future results.

HSBC and its affiliates will from time to time sell to and buy from customers the securities/instruments, both equity and debt (including derivatives) of companies covered in HSBC Research on a principal or agency basis or act as a market maker or liquidity provider in the securities/instruments mentioned in this report.

Analysts, economists, and strategists are paid in part by reference to the profitability of HSBC which includes investment banking, sales & trading, and principal trading revenues.

Whether, or in what time frame, an update of this analysis will be published is not determined in advance.

For disclosures in respect of any company mentioned in this report, please see the most recently published report on that company available at www.hsbcnet.com/research. HSBC Private Banking clients should contact their Relationship Manager for queries regarding other research reports. In order to find out more about the proprietary models used to produce this report, please contact the authoring analyst.

Additional disclosures

- 1 This report is dated as at 15 July 2021.
- 2 All market data included in this report are dated as at close 13 July 2021, unless a different date and/or a specific time of day is indicated in the report.
- 3 HSBC has procedures in place to identify and manage any potential conflicts of interest that arise in connection with its Research business. HSBC's analysts and its other staff who are involved in the preparation and dissemination of Research operate and have a management reporting line independent of HSBC's Investment Banking business. Information Barrier procedures are in place between the Investment Banking, Principal Trading, and Research businesses to ensure that any confidential and/or price sensitive information is handled in an appropriate manner.
- 4 You are not permitted to use, for reference, any data in this document for the purpose of (i) determining the interest payable, or other sums due, under loan agreements or under other financial contracts or instruments, (ii) determining the price at which a financial instrument may be bought or sold or traded or redeemed, or the value of a financial instrument, and/or (iii) measuring the performance of a financial instrument or of an investment fund.

Disclaimer

Legal entities as at 1 December 2020

'UAE' HSBC Bank Middle East Limited, DIFC; HSBC Bank Middle East Limited, Dubai; 'HK' The Hongkong and Shanghai Banking Corporation Limited, Hong Kong; 'TW' HSBC Securities (Taiwan) Corporation Limited; 'CA' HSBC Securities (Canada) Inc.; 'France' HSBC Continental Europe; 'Spain' HSBC Continental Europe, Sucursal en España; 'Italy' HSBC Continental Europe, Italy; 'Sweden' HSBC Continental Europe Bank, Sweden Filial; 'DE' HSBC Trinkaus & Burkhardt AG, Düsseldorf; 000 HSBC Bank (RR), Moscow; 'IN' HSBC Securities and Capital Markets (India) Private Limited, Mumbai; 'JP' HSBC Securities (Japan) Limited, Tokyo; 'EG' HSBC Securities Egypt SAE, Cairo; 'CN' HSBC Investment Bank Asia Limited, Beijing Representative Office; The Hongkong and Shanghai Banking Corporation Limited, Singapore Branch; The Hongkong and Shanghai Banking Corporation Limited, Seoul Securities Branch; The Hongkong and Shanghai Banking Corporation Limited, Seoul Branch; HSBC Securities (South Africa) (Pty) Ltd, Johannesburg; HSBC Bank plc, London, Tel Aviv; 'US' HSBC Securities (USA) Inc, New York; HSBC Yatirim Menkul Degerler AS, Istanbul; HSBC México, SA, Institución de Banca Múltiple, Grupo Financiero HSBC; HSBC Bank Australia Limited; HSBC Bank Argentina SA; HSBC Saudi Arabia Limited; The Hongkong and Shanghai Banking Corporation Limited, New Zealand Branch incorporated in Hong Kong SAR; The Hongkong and Shanghai Banking Corporation Limited, Bangkok Branch; PT Bank HSBC Indonesia; HSBC Qianhai Securities Limited; Banco HSBC S.A.

Issuer of report

HSBC Securities and Capital Markets (India) Private Limited
Registered Office
52/60 Mahatma Gandhi Road
Fort, Mumbai 400 001, India
Telephone: +91 22 2267 4921
Fax: +91 22 2263 1983
Website: www.research.hsbc.com
SEBI Reg No. INH000001287
CIN: U67120MH1994PTC081575

This document has been issued by HSBC Securities and Capital Markets (India) Private Limited ("HSBC") for the information of its customers only. HSBC Securities and Capital Markets (India) Private Limited is registered as "Research Analyst" (Reg No. INH000001287), Merchant Banker (Reg No. INM000010353) and Stock Broker (Uniform Reg. No. INZ000234533) and regulated by the Securities and Exchange Board of India. If it is received by a customer of an affiliate of HSBC, its provision to the recipient is subject to the terms of business in place between the recipient and such affiliate. This document is not and should not be construed as an offer to sell or the solicitation of an offer to purchase or subscribe for any investment. HSBC has based this document on information obtained from sources it believes to be reliable but which it has not independently verified; HSBC makes no guarantee, representation or warranty and accepts no responsibility or liability as to its accuracy or completeness. Expressions of opinion are those of the Research Division of HSBC only and are subject to change without notice. From time to time research analysts conduct site visits of covered issuers. HSBC policies prohibit research analysts from accepting payment or reimbursement for travel expenses from the issuer for such visits. HSBC and its affiliates and/or their officers, directors and employees may have positions in any securities mentioned in this document (or in any related investment) and may from time to time add to or dispose of any such securities (or investment). HSBC and its affiliates may act as market maker or have assumed an underwriting commitment in the securities of companies discussed in this document (or in related investments), may sell them to or buy them from customers on a principal basis and may also perform or seek to perform investment banking or underwriting services for or relating to those companies and may also be represented in the supervisory board or any other committee of those companies. Details of Associates of HSBC Securities and Capital Markets (India) Private Limited can be obtained from Compliance Officer: Mudit Tayal, Email: mudit.tayal@hsbc.co.in The information and opinions contained within the research reports are based upon publicly available information and rates of taxation applicable at the time of publication which are subject to change from time to time. Past performance is not necessarily a guide to future performance. The value of any investment or income may go down as well as up and you may not get back the full amount invested. Where an investment is denominated in a currency other than the local currency of the recipient of the research report, changes in the exchange rates may have an adverse effect on the value, price or income of that investment. In case of investments for which there is no recognised market it may be difficult for investors to sell their investments or to obtain reliable information about its value or the extent of the risk to which it is exposed.

HSBC Securities (USA) Inc. accepts responsibility for the content of this research report prepared by its non-US foreign affiliate. The information contained herein is under no circumstances to be construed as investment advice and is not tailored to the needs of the recipient. All U.S. persons receiving and/or accessing this report and wishing to effect transactions in any security discussed herein should do so with HSBC Securities (USA) Inc. in the United States and not with its non-US foreign affiliate, the issuer of this report.

In the UK, this publication is distributed by HSBC Bank plc for the information of its Clients (as defined in the Rules of FCA) and those of its affiliates only. Nothing herein excludes or restricts any duty or liability to a customer which HSBC Bank plc has under the Financial Services and Markets Act 2000 or under the Rules of FCA and PRA. A recipient who chooses to deal with any person who is not a representative of HSBC Bank plc in the UK will not enjoy the protections afforded by the UK regulatory regime. HSBC Bank plc is regulated by the Financial Conduct Authority and the Prudential Regulation Authority. In Singapore, this publication is distributed by The Hongkong and Shanghai Banking Corporation Limited, Singapore Branch for the general information of institutional investors or other persons specified in Sections 274 and 304 of the Securities and Futures Act (Chapter 289) ("SFA") and accredited investors and other persons in accordance with the conditions specified in Sections 275 and 305 of the SFA. Only Economics or Currencies reports are intended for distribution to a person who is not an Accredited Investor, Expert Investor or Institutional Investor as defined in SFA. The Hongkong and Shanghai Banking Corporation Limited, Singapore Branch accepts legal responsibility for the contents of reports pursuant to Regulation 32C(1)(d) of the Financial Advisers Regulations. This publication is not a prospectus as defined in the SFA. This publication is not a prospectus as defined in the SFA. It may not be further distributed in whole or in part for any purpose. The Hongkong and Shanghai Banking Corporation Limited Singapore Branch is regulated by the Monetary Authority of Singapore. Recipients in Singapore should contact a "Hongkong and Shanghai Banking Corporation Limited, Singapore Branch" representative in respect of any matters arising from, or in connection with this report. Please refer to The Hongkong and Shanghai Banking Corporation Limited Singapore Branch's website at www.business.hsbc.com.sg for contact details. In Australia, this publication has been distributed by The Hongkong and Shanghai Banking Corporation Limited (ABN 65 117 925 970, AFSL 301737) for the general information of its "wholesale" customers (as defined in the Corporations Act 2001). Where distributed to retail customers, this research is distributed by HSBC Bank Australia Limited (ABN 48 006 434 162, AFSL No. 232595). These respective entities make no representations that the products or services mentioned in this document are available to persons in Australia or are necessarily suitable for any particular person or appropriate in accordance with local law. No consideration has been given to the particular investment objectives, financial situation or particular needs of any recipient. This publication is distributed in New Zealand by The Hongkong and Shanghai Banking Corporation Limited, New Zealand Branch incorporated in Hong Kong SAR.

In the European Economic Area, this publication has been distributed by HSBC Continental Europe or by such other HSBC affiliate from which the recipient receives relevant services

In Japan, this publication has been distributed by HSBC Securities (Japan) Limited. In Hong Kong, this document has been distributed by The Hongkong and Shanghai Banking Corporation Limited in the conduct of its Hong Kong regulated business for the information of its institutional and professional customers; it is not intended for and should not be distributed to retail customers in Hong Kong. The Hongkong and Shanghai Banking Corporation Limited makes no representations that the products or services mentioned in this document are available to persons in Hong Kong or are necessarily suitable for any particular person or appropriate in accordance with local law. All inquiries by such recipients must be directed to The Hongkong and Shanghai Banking Corporation Limited. In Korea, this publication is distributed by The Hongkong and Shanghai Banking Corporation Limited, Seoul Securities Branch ("HBAP SLS") for the general information of professional investors specified in Article 9 of the Financial Investment Services and Capital Markets Act ("FSCMA"). This publication is not a prospectus as defined in the FSCMA. It may not be further distributed in whole or in part for any purpose. HBAP SLS is regulated by the Financial Services Commission and the Financial Supervisory Service of Korea.

In Canada, this document has been distributed by HSBC Securities (Canada) Inc. (member IIROC), and/or its affiliates. The information contained herein is under no circumstances to be construed as investment advice in any province or territory of Canada and is not tailored to the needs of the recipient. No securities commission or similar regulatory authority in Canada has reviewed or in any way passed judgment upon these materials, the information contained herein or the merits of the securities described herein, and any representation to the contrary is an offense. In Brazil, this document has been distributed by Banco HSBC S.A. ("HSBC Brazil"), and/or its affiliates. As required by Instruction No. 598/18 of the Securities and Exchange Commission of Brazil (Comissão de Valores Mobiliários), potential conflicts of interest concerning (i) HSBC Brazil and/or its affiliates; and (ii) the analyst(s) responsible for authoring this report are stated on the chart above labelled "HSBC & Analyst Disclosures".

If you are an HSBC Private Banking ("PB") customer with approval for receipt of relevant research publications by an applicable HSBC legal entity, you are eligible to receive this publication. To be eligible to receive such publications, you must have agreed to the applicable HSBC entity's terms and conditions for accessing research and the terms and conditions of any other internet banking service offered by that HSBC entity through which you will access research publications ("the Terms"). Distribution of this publication is the sole responsibility of the HSBC entity with whom you have agreed the Terms. If you do not meet the aforementioned eligibility requirements please disregard this publication and, if you are a customer of PB, please notify your Relationship Manager. Receipt of research publications is strictly subject to the Terms and any other conditions or disclaimers applicable to the provision of the publications that may be advised by PB.

© Copyright 2021, HSBC Securities and Capital Markets (India) Private Limited, ALL RIGHTS RESERVED. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, on any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of HSBC Securities and Capital Markets (India) Private Limited. MCI (P) 028/02/2021, MCI (P) 087/10/2020

[1174511]