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Asset turnover ratio, a proxy for capacity utilization

Often when we talk about the non-financial sector, an important indicator to look at is the capacity utilization rate. This indicates the potential for fresh investment as existence of spare capacity is a disincentive to invest more. RBI data sheds light on the same. But we do not get an idea about the same in different industries. In this note, we look at the turnover to fixed assets ratio - a different way of looking at capacity utilization from the P&L and Balance sheet data of companies. It shows the output that is sold (a proxy for production) based on a level of capital stock. A higher ratio will mean improvement in the capacity utilization rate. This gives us a better sectoral picture and the aggregate industry data is almost in tandem with the direction of capacity utilization rate data published by RBI. Few important facts which emerge include:

- *Turnover to Fixed assets ratio of the sample companies has shown an improvement post Covid, driven by pickup in sales post normalization of economic activity. After coming down to 1.42 in FY20 and further to 1.24 in FY21 (due to lockdown), it has come to a level of 1.73 in FY23. However, it is marginally lower than the peak ratio of 1.77 in FY14. This intuitively shows that capacity utilization has improved over time after coming down during the lockdowns.*
- *However industries such as consumer durables, FMCG, healthcare, media and entertainment and ship building have lower ratios in FY23 compared with FY20 which indicates that their capacity utilization rates are still lower compared with pre-covid. There is hence surplus capacity in these sectors.*
- *The asset-turnover ratio has however surpassed the previous peak in the last 10 years in the following industries: chemicals, construction material, electricals, gas transmission, industrial gases, iron and steel, logistics, paper, realty and trading. This means that there is clear case of improved capacity utilization as these industries are generating more turnover with the given physical capital.*
    - *There are some industries which are nearing the peak level ratios meaning thereby that there is still potential to produce and sell more given the existing stock of gross fixed assets. These are infrastructure, hospitality, IT, mining, non-ferrous metals, power and textiles.*
    - *The sectors that have still to catch up with their peak ratios in the last decade are the following: telecom, realty, plastics, healthcare, diamonds & jewelry, capital goods, auto and agricultural products.*

Background:

When we talk about growth in the manufacturing order books, an important term which often comes up is the underlying capacity utilization (CU) of the sector. CU refers to the ratio of production to installed capacity or in simple terms the ratio of actual output produced in the economy to the potential output, given the resources. RBI comes up with periodical survey results where we get an idea about the overall capacity utilization rate of the economy. But there is a caveat. The same information is not available with respect to different industries.

RBI data on capacity utilization is computed at par National Industrial Classification (NIC) and then aggregation is done taking a weighted average rate of separate CU rates that are calculated with respect to different industries. Though it gives a broader picture about input output mix, whether it's over utilized or underutilized; yet we have no industry specific information at hand. This is crucial because some industries have inherent nature of running at excess capacity while some operate at below capacity contingent on underlying demand conditions, availability of raw materials and other supply side bottlenecks and financing constraints. For example, in general the capacity utilization rates of intermediate goods tend to be higher than others given their nature. Thus arriving at conclusions, sector wise picture is crucial.

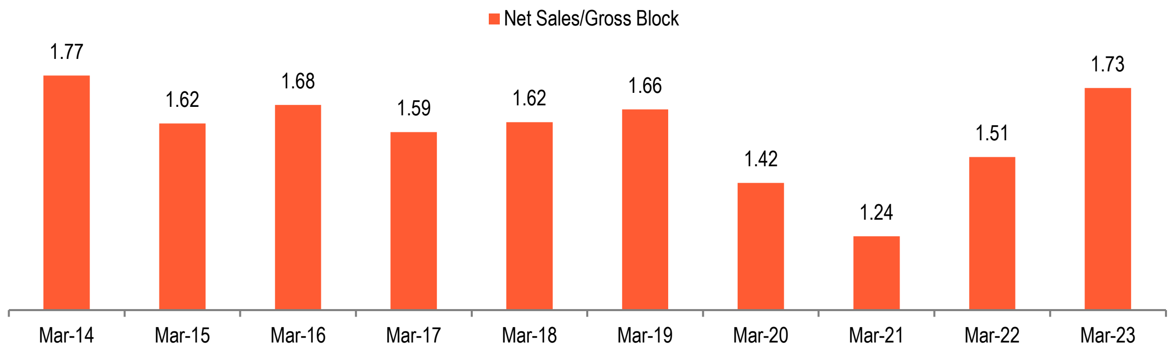
We look at Turnover to fixed asset ratio of different industries over the years, to get an idea on turnover generated on a given set of assets. Intuitively if this ratio of sales to assets comes down, it means that there is still enough capacity to produce more given the state of capital stock which gets reflected in lower capacity utilization. Hence there is likely to be less new investment forthcoming.

We look at the balance sheet and P &L statement of 1,580 companies as well as a sub-sample of 1,284 non-BFSI companies. For turnover, net sales of companies have been used and for fixed assets we have taken the gross block of companies which incorporates goodwill, land, buildings, furniture, plant and equipment, amongst others. Sales is taken as a proxy for production and has the limitation of ignoring use of stocks, which it may be assumed evens out over time.

The approach is to look at how much turnover is created by the existing stock of capital. As this ratio improves there is indication that there is higher utilization of existing capacity. Conceptually it is different from capacity utilization but gives us broadly a similar picture. In the absence of data on capacity utilization this ratio indicates well the directional progress.

How turnover to asset ratio fared in FY23?

Figure 1: Post Covid, the ratio of turnover to fixed assets have picked pace

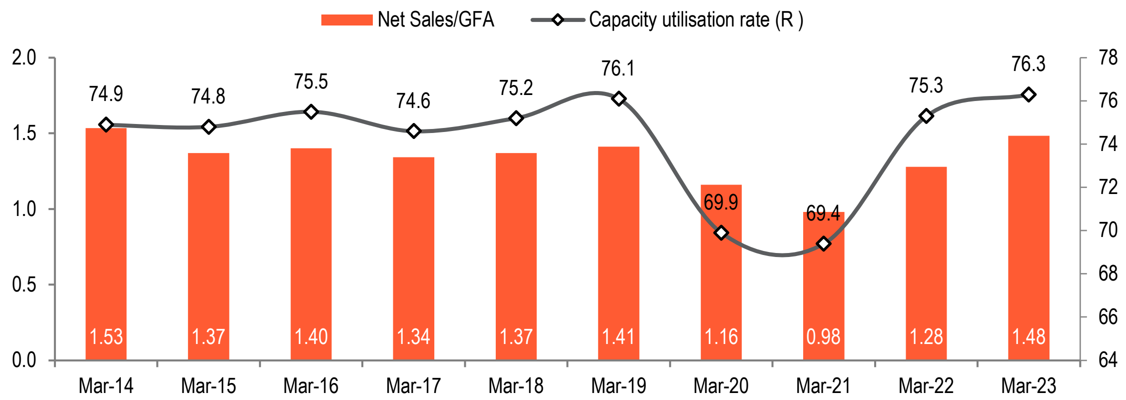


Source: Ace Equity, Bank of Baroda Research

Figure 1 shows that turnover to fixed assets ratio has picked up post Covid induced slowdown. From 1.24 in FY21, it rose to 1.51 in FY22 and to 1.73 in FY23. In fact, it has surpassed the pre Covid level of 1.66 observed in FY19, almost at the level seen in FY14 of 1.77. Hence at the macro level it does appear that India Inc. has regained the capacity utilization levels at peak time.

Figure 2 provides the same data for the non-BFSI companies and also juxtaposes RBI data on capacity utilization. Broadly, the trend of Turnover to fixed asset ratio corroborates with the direction of capacity utilization rate data of RBI, i.e. whenever RBI's data has shown moderation/inching up of the rate, the turnover to fixed asset ratio has moved in the similar direction.

Figure 2: Even after excluding Banks and other financial companies, turnover to asset ratio has improved



Source: Ace Equity, Bank of Baroda Research

Industry wise picture relative to covid:

If we compare the Mar-23 figure with Mar-22, industries such as industrial gas and fuels, infrastructure, crude oil, automobiles and chemicals have shown fair degree of increase in the ratio, ranging from 0.35-0.75%. Within infrastructure, the ratio is considerably higher for engineering – construction sub sectors. Within automobiles, the ratio is high for two and three wheelers and passenger cars. For Chemicals, the ratio is higher for sub sectors such as fertilizers, paints and pesticides and agrochemicals.

The 5 period analysis shows that for industries such as trading, realty, chemicals, construction material, iron and steel, paper, electricals and industrial gas and fuels, the catch up to the turnover to fixed assets ratio has already happened.

Industries which are lagging:

The 5 period analysis shows that for major industries such as consumer durables, media, ship building, healthcare, and FMCG the turnover to fixed assets ratio is lower which shows that some pickup in sales, is needed to catch up to the pre-Covid level.

What past 10 Years data convey?

Evaluating past period data, it is clear that some improvement in the ratio has occurred of late but still the current ratio at 1.48 is comparatively lower compared to the level seen in Mar-14 at 1.53. The data is excluding banks and financial companies.

The asset-turnover ratio has however surpassed the previous peak in the last 10 years in the following industries: chemicals, construction material, electricals, gas transmission, industrial gases, iron and steel, logistics, paper, realty and trading. This means that there is clear case of improved capacity utilization as these industries are generating more turnover with the given physical capital.

There are some industries which are nearing the peak level ratios meaning thereby that there is still potential to produce and sell more given the existing gross fixed assets. These are infrastructure, hospitality, IT, mining, non-ferrous metals, power and textiles.

The sectors that have still to catch up with their peak ratios in the last decade are the following: telecom, realty, plastics, healthcare, diamonds & jewelry, capital goods, auto and agricultural products

Table 1. Industries showing maximum change in the ratio in past 10 years.

Top 10	Bottom 10
Trading (18.44 → 25.86)	Agri (1.85 → 1.63)
Realty (1.75 → 4.32)	Telecom (0.47 → 0.22)
Ship Building (1.38 → 3.88)	Alcohol (2.52 → 2.27)
Infrastructure (4.05 → 6.45)	Consumer Durables (4.97 → 4.66)
Electricals (2.50 → 3.87)	Healthcare (1.70 → 1.29)
Chemicals (1.68 → 2.36)	Media & Entertainment (1.00 → 0.57)
Inds. Gases & Fuels (2.20 → 2.76)	FMCG (3.07 → 2.09)
Textile (1.31 → 1.77)	Retailing (3.95 → 2.80)
Gas Transmission (0.62 → 1.07)	Crude Oil (2.24 → 2.19)
Automobile & Ancillaries (2.00 → 2.37)	Diamond & Jewellery (12.37 → 9.39)

Source: Ace Equity, Bank of Baroda Research, Note: Figures in bracket indicates turnover to asset ratio movement from Mar-14 to Mar-23, Also those industries are chosen whose change in the ratio is significant and then have been arranged as top 10 and bottom 10

Appendix:

Table 2. Turnover to asset ratio of industries (excl. banks, insurance and financial services)

Sectors	No: of companies	Mar-14	Mar-15	Mar-16	Mar-17	Mar-18	Mar-19	Mar-20	Mar-21	Mar-22	Mar-23
Agri	41	1.85	1.58	1.87	1.90	1.85	1.84	1.34	1.46	1.57	1.63
Alcohol	7	2.52	2.35	2.58	2.47	2.46	2.54	2.35	1.80	2.07	2.27
Automobile & Ancillaries	105	2.00	1.99	2.20	2.25	2.43	2.45	1.74	1.50	2.01	2.37
Capital Goods	101	2.73	2.34	2.54	2.94	2.88	3.02	2.34	2.12	2.61	2.78
Chemicals	107	1.68	1.70	1.98	1.93	2.05	1.95	1.69	1.62	2.02	2.36
Construction Materials	48	0.85	0.79	0.96	0.93	0.87	0.91	0.83	0.82	0.91	1.03
Consumer Durables	16	4.97	4.87	6.13	6.65	6.80	6.97	5.50	4.92	4.99	4.66
Crude Oil	16	2.24	1.85	1.89	1.81	1.81	2.03	1.54	1.12	1.77	2.19
Diamond & Jewellery	9	12.37	10.84	12.34	11.81	10.61	10.34	6.55	6.22	7.71	9.39
Electricals	17	2.50	2.60	2.93	3.06	3.47	3.48	3.06	2.67	3.50	3.87
FMCG	74	3.07	2.98	3.49	3.51	3.36	3.14	2.71	1.73	2.00	2.09
Gas Transmission	3	0.62	0.60	0.79	0.70	0.76	0.83	0.84	0.64	0.84	1.07
Healthcare	97	1.70	1.61	1.86	1.69	1.47	1.52	1.42	1.30	1.29	1.29
Hospitality	31	0.49	0.49	0.67	0.69	0.64	0.83	0.73	0.29	0.52	0.84
Inds. Gases & Fuels	5	2.20	1.87	2.12	1.80	1.97	2.39	1.92	1.35	2.01	2.76
Infrastructure	34	4.05	3.97	5.44	6.45	6.47	6.16	6.10	5.42	6.01	6.45
Iron & Steel and Ferro Manganese	43	0.91	0.80	0.64	0.67	0.79	0.93	0.76	0.79	1.14	1.17
IT	79	3.99	3.79	3.97	4.05	3.87	4.17	3.43	3.42	3.72	4.18
Logistics	23	0.54	0.55	0.68	0.63	0.69	0.69	0.63	0.55	0.64	0.78
Media & Entertainment	35	1.00	0.98	1.70	1.54	0.96	1.06	0.82	0.56	0.62	0.57
Mining	9	2.01	1.92	1.61	2.07	2.41	2.29	1.87	2.04	3.36	2.38
Non - Ferrous Metals	18	0.94	0.96	0.70	0.71	0.83	0.69	0.57	0.59	0.87	0.91
Paper	15	0.81	0.78	0.91	0.90	0.83	0.95	0.84	0.63	0.83	1.06
Plastic Products	41	1.55	1.54	1.79	1.54	1.54	1.57	1.27	1.28	1.60	1.53
Power	35	0.45	0.41	0.49	0.45	0.44	0.42	0.39	0.36	0.38	0.45
Realty	42	1.75	1.85	3.39	3.65	3.49	3.71	3.32	2.89	3.82	4.32
Retailing	8	3.95	3.96	4.33	4.67	4.49	4.45	2.47	1.95	2.19	2.80
Ship Building	3	1.38	3.94	4.65	4.43	4.85	4.68	3.95	3.05	3.47	3.88
Telecom	13	0.47	0.45	0.41	0.35	0.28	0.20	0.19	0.20	0.21	0.22
Textile	103	1.31	1.25	1.52	1.74	1.72	1.77	1.48	1.27	1.85	1.77
Trading	65	18.44	15.64	12.56	12.51	13.00	12.83	10.35	10.58	15.64	25.86
Miscellaneous	41	1.49	1.40	1.70	1.79	1.70	2.03	1.46	0.96	1.14	1.40
Industry	**1,284**	**1.53**	**1.37**	**1.40**	**1.34**	**1.37**	**1.41**	**1.16**	**0.98**	**1.28**	**1.48**

Source: Ace Equity, Bank of Baroda Research Note: Numbers marked in red give peak asset utilization ratio before COVID
Cells shaded in yellow refer to industries where the asset-turnover ratio is still lower than that in FY20.

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