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FACTUALLY INCORRECT TO CONJECTURE THAT INDUSTRIAL CONCENTRATION POWER DICTATES PRICING CAPACITY OF FIRMS IN INDIA: CORPORATE ECOSYSTEM IN INDIA THRIVES ON COEXISTENCE OF LARGE & SMALL PLAYERS

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The return of inflation, transitory to persistent from sticky to current unyielding lexicon has also brought forth new schools of thoughts, probing myriad collateral reasons. Among all such, a recent research article by Prof Viral Acharya in Brookings Paper on Economic Activity noted that, "*reason why the persistence in the core inflation is rising is that consumers do not seem to be fully benefiting from input price declines, which may be due to greater pricing power in increasingly concentrated industrial organization structures. What lends some credibility to this thesis is the observation that in contrast to the rest of the world, India's core inflation is rising more in Goods, where its industrial sectors are increasingly concentrated, than in Services, though there are early signs of pricing power rising in the Services sector too*".

Against this background, our recent research unravels some interesting facets of industrial organization, concentration and pricing power across sectors.

Firstly, we tested the hypothesis of whether unyielding nature of India's core inflation is attributable to industrial organization structures across sectors where we find evidence of imperfect competition, which in economic parlance we term as Oligopoly (Telecom/Basic Metals) Oligopsony (Passenger Vehicles / Two wheelers) and Monopsony with little evidence of any Monopoly control. For our analysis, we took 7 sectors: Telecom. FMCG, Two-Wheeler, Passenger Vehicles, Retail Trade, Steel & Basic Metals. Based on the presence of major players across sectors and the concomitant market share in respective sectors, we adjusted the respective CPI weights and estimated "**CPI Industrial Concentration Index"** for the period Jan'15 till Mar'23.

The resultant "CPI Concentration Index" results show that estimated Concentration CPI is consistently less than the Core CPI since January'15. For a brief period beginning Jan'20 till Nov'20 and also further during the pandemic as supply disruptions weighed heavily, the estimated concentration CPI was higher than the core CPI. **The findings in fact suggest that the increase in prices during the pandemic was more on account of supply chain and logistical disruptions caused by the pandemic and after the outbreak of the war in Ukraine rather than firms increasing prices because of higher pricing power. It is thus incorrect to infer that concentration power dictated pricing capacity of firms and thus resulting in unyielding core inflation.**

Also, checking select sectors like FMCG, on a lighter note, we in fact find evidence of monopsony where there are many big sellers coexisting with mom-n-pop shops and the buyers are consumers, consumers and only consumers, whose preferences are the only factor dictating the pricing power in such segments. **When we juxtapose it with recent spurt in e-commerce space, we find Indian landscape is dotted with crores of mom-n-pop shops who have fared better than their e-tailer counterparts or organised supermarkets, most of whom have bitten the bullet (Big Bazaar to Metro) despite economies of scale supposedly tilted in their favour**. With ONDC on the anvil, we expect the small retailer around the corner to harness better synergy and leverage the open, democratized digital market place to the hilt.

Secondly, our ARDL model suggests that it is the Food CPI which is impacting General CPI and not Core CPI. Just 1% increase in Food CPI increases the General CPI by 0.6% in the period of April 2014 to Feb 2023.

Thirdly, the persistent gap between CPI and WPI (currently at ~400 bps) also indicate that input pressures have been aptly absorbed by the retailers. Our ARDL model shows that WPI has no impact on corporate profit margins.

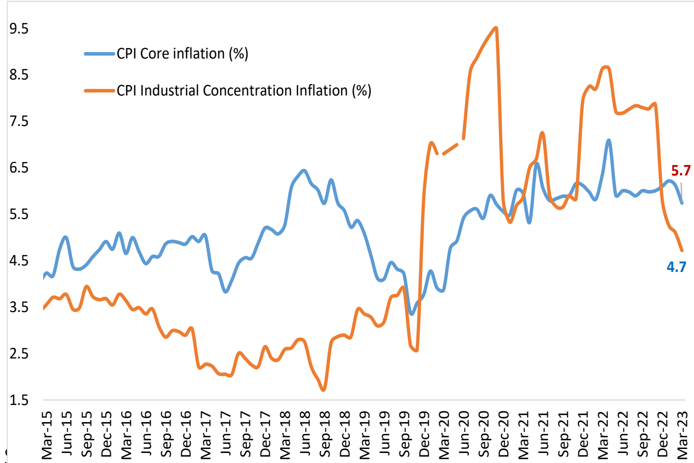
Fourthly, **an interesting, self-conflicting anecdote from the cited paper (interestingly, it is cited in the power point) is the names of once shining stars across sectors, the unmistakable prodigies of crony-capitalism period that have automatically been weeded and flushed out of the system** in recent years, giving way to more efficient players with scale either through IBC mechanism or vanishing from the playbook altogether.

In the end, our study of the corporate ecosystem, nurturing and nourishing the local companies to gain scale and efficiency, demonstrates nearly 45% that survive and stay in business for more than 20 years as against the global norm of 5 years. These completely flies in the face of the purported research as companies in India stays in business much longer, as the experience shows. On average, 45,600 new firms were registered every year in India, in the period between 1980 and 2018. It vaulted towards 2.00 lakh (~1.85 lakh per early estimates) in 2023**. In principle, the number of firms formed during 2018-2022 has been much higher in comparison, with a spirit of entrepreneurship sweeping across the nation.**

DOES INDUSTRIAL CONCENTRATION OF LARGER PLAYERS IN SPECIFIC SECTORS IMPACT CORE CPI INFLATION?

- Recently, CPI inflation moderated to almost 15-months low to 5.66% in Mar'23 while core CPI (which was sticky for almost one year) also moderated to almost 2-years low to 5.74% in Mar'23. Professor Viral Acharya in his Brookings Papers on Economic Activity, Spring 2023 noted that, "*reason why the persistence in the core inflation is rising is that consumers do not seem to be fully benefiting from input price declines, which may be due to greater pricing power in increasingly concentrated industrial organization structures. What lends some credibility to this thesis is the observation that in contrast to the rest of the world, India's core inflation is rising more in Goods, where its industrial sectors are increasingly concentrated, than in Services, though there are early signs of pricing power rising in the Services sector too*".
- **We tested the hypothesis of whether unyielding nature of India's core inflation is attributable to industrial organization structures across sectors where we find evidence of imperfect competition, which in economic parlance we term as Oligopoly (Telecom/Basic Metals) Oligopsony (Passenger Vehicles / Two wheelers) and Monopsony with little evidence of any Monopoly control**. For our analysis, we took 7 sectors: Telecom. FMCG, Two-Wheeler, Passenger Vehicles, Retail Trade, Steel & Basic Metals. Based on the presence of major players across sectors and the concomitant market share in respective sectors, we adjusted the respective CPI weights and estimated "**CPI Industrial Concentration Index"** for the period Jan'15 till Mar'23.
- **The resultant "CPI Concentration Index" results show that estimated Concentration CPI is consistently less than the Core CPI since January'15.** For a brief period beginning Jan'20 till Nov'20 and also during the pandemic as supply disruptions weighed heavily, the estimated concentration CPI was higher than the core CPI.
- The findings suggest that the increase in prices during the pandemic was more on account of supply chain and logistical disruptions caused by the pandemic and after the outbreak of the war in Ukraine rather than firms increasing prices because of higher pricing power. **It is thus incorrect to infer that Industrial Concentration dictated pricing capacity of firms.**

Core CPI Inflation vis-a-vis CPI Industrial Concentration (% YoY)



Impact of Major Players in CPI				
Sector	Major Players	Major Players' Share (%)	Weight in CPI %	Adjusted weight (%)
Telecom	Bharti Telecom Group Reliance Group Birla Aditya Group	86	2.1	1.8
FMCG	ITC HUL Procter & Gamble Co. Johnson and Johnson	44	2.1	0.9
Two-wheeler	Hero Honda TVS	71	0.8	0.6
PV	Tata Group Maruti Hyundai	69	0.5	0.3
Retail Trade	Reliance Group	44	0.5	0.2
Steel	JSW steel SAIL Tata Steel JSPL	50	0.2	0.1
Basic Metals	Tata Group Birla Aditya Group	19	0.01	0.00
Total			6.20	3.95

Source: SBI Research; Share of Major players in Retail Trade and basic metals sector is taken from Viral Acharya's article dated 16.03.2023

FOOD CPI IS IMPACTING GENERAL CPI & NOT CORE CPI

- Our ARDL model indicate that it is the Food CPI which is impacting General CPI in the timeframes like major period (April 2014 to Feb 2023) and it's two subperiods (April 2014 to Feb 2022, and Mar 2022 to Feb 2023). A 1% increase in Food CPI increases the General CPI by 0.6% in the period of April 2014 to Feb 2023. Even in the rate hike period of Mar 2022 to Feb 2023, 1% increase in Food CPI increases the General CPI by 0.46%.
- **Therefore, it is the Food CPI which impacts the General CPI and not the Core CPI.**

HIGHER WPI IS NOT TRANSLATING INTO HIGHER PROFIT MARGINS

- **The persistent gap between CPI and WPI (currently at ~400 bps) also indicate that input pressures have been aptly absorbed by the retailers. Our ARDL model shows that WPI has no impact on corporate profit margins.**

CORPORATE ECOSYSTEM GEARED TOWARDS LARGER/BETTER ECONOMIES OF SCALE BUILDING ON REFORMS & RESILIENCE

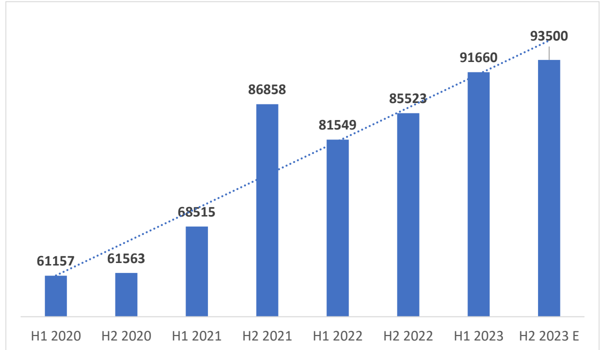
- Nearly 45% of companies in India stay in business for more than 20 years against the global average of 5 years. Survival statistics of India Inc. analysing and examining firms registered in the last three decades and their status of activity reveals some interesting observations.
- Globally, it is believed that not many new firms survive beyond 5 years. In the US, for instance, the survival rate of new firms after six years was found to be around 40%. But the Indian data shows that, on average, new firms have a higher survival rate here of around 45% since early 90s. In the pre-liberalisation period (before 1990), the survival rate was ~41% though the number of companies started were quite low, often started by promoters with enough equity and hence a meaningful result cannot be deduced between two phases. Data shows that firms formed since the 2000 have a higher likelihood of survival compared to those set up earlier. Survival rate also improves for firms born in recent years. Survival and growth of firms has been much better in western and southern zones.
- On average, 45,600 new firms were registered every year in India, in the period between 1980 and 2018. The formation of new companies grew at an average annual rate of 7.5% during the ~40-year period. However, the number of firms formed during 2018-2022 has been much higher in comparison, with policy initiatives, regulatory reforms, ease of doing business and a spirit of entrepreneurship sweeping across the nation. Post Covid, number of companies getting registered per day has jumped above 50% and we could well be on way to finish FY23 with ~2 lakh companies registered in a single year (FY).

ARDL Model
Dependent Variable: General CPI

Independent Variable: Core CPI			Independent Variable: Food CPI		
Variable	Coefficient	P value	Variable	Coefficient	P value
From April 2014 to February 2023					
Adjustment factor (General CPI L1.)	-.149	0.008***	Adjustment factor (General CPI L1.)	-0.115	0.015**
Core CPI	0.93	0.132	Food CPI	0.61	0.0001***
Constant	0.014	0.975	Constant	0.243	0.077*
From April 2014 to February 2022					
Adjustment factor (General CPI L1.)	-.108	0.047**	Adjustment factor (General CPI L1.)	-0.352	0.013**
Core CPI	1.023	0.357	Food CPI	0.509	0.0001***
Constant	-0.025	0.965	Constant	0.856	0.025**
Fom March 2022 to February 2023					
Adjustment factor (General CPI L1.)	-0.159	0.733	Adjustment factor (General CPI L1.)	-2.02	0.088*
Core CPI	6.711	0.747	Food CPI	0.461	0.001***
Constant	-5.57	0.53	Constant	7.168	0.083*

Source: SBI Research
*** Significant at 1%, ** Significant at 5%, * Significant at 10%,^ Long Run Relationships

New Company Registration



Source: SBI Research

No Impact of WPI on Net Profit Margin and EBIDTA Margin
ARDL Model
Period Q3FY20 to Q3FY23

Dependent Variable: Net profit Margin			
Variable	Coefficient	Std error	p value
Adjustment factor	-1.08	0.18	0.004***
WPI	-0.18	0.11	0.172
Dependent variable: EBIDTA Margin			
Variable	Coefficient	Std error	p value
Adjustment factor	-0.056	0.167	0.754
WPI	-6.83	21.38	0.76

Source: SBI Research, *** Significant at 1%

THE GROWTH PARADOX: ATTAINING SCALE BRINGS FORMIDABLE CHALLENGES TOO!

- As companies grow and attain scale, with smaller firms moving towards mid-tier status and mid-rung companies edging towards large status, the transition is mostly led by an organic growth (M&As are more of a characteristic of larger firms). There is always greater probability of firms from new economies/sunrise sectors moving to the top echelon and disturb the eco-system, displacing the hitherto top occupants. So, a Tesla or an Amazon from the lower end can unseat a GE or a Citi Bank in no time, riding high on innovation. That, however, does not mean that concerns from the old economy will have to side-step to make room for such claimants. They usually fight by diversifying their revenue streams and areas of operations, often going for inorganic route.
- Perusal of data in the adjacent table signifies number of company registration is mostly concentrated towards small companies with Authorised Capital of less than Rs 1 crore, with around 90% share as per data available till March'2022.
- Going forward, we can witness companies in services, green energy, clean mobility, data led smart solutions (with AI/ML infused) front leading the drive to claim top spots in India Inc. and the share of new concerns as also those with a long corporate history can be a balancing act as they diversify into promising sectors.

Authorized Capital-wise Active Companies

Authorized Capital Range	Actual		Share (%)		Change from March 18
	Mar-18	Mar-22	Mar-18	Mar-22	
Up to 1 lakh	4,04,624	5,20,071	34.65	34.40	-0.25
1 lakh to 10 lakh	3,78,484	5,39,009	32.41	35.65	3.24
10 lakh to 1 crore	2,48,949	3,02,926	21.32	20.04	-1.28
1 crore to 5 crore	90,225	98,484	7.73	6.51	-1.21
5 crore to 25 crore	32,682	36,429	2.80	2.41	-0.39
25 crore to 100 crore	8,832	10,063	0.76	0.67	-0.09
100 crore to 500 crore	2,850	3,385	0.24	0.22	-0.02
500 crore to 1000 crore	440	565	0.04	0.04	-
Above 1000 crore	772	1,001	0.07	0.07	-
Total	**11,67,858**	**15,11,933**	**100.00**	**100.00**	

Source: GOI; SBI Research

- By FY 2028, Indian economy should be well above $5 trillion mark, with incremental addition of every $1 trillion taking place in shorter time span. We believe the share of agriculture & allied sector should come down to 13% (from 17% in FY22), Industry should grow to 32% from present 28% while the share of services should be 55% (from present 54%).

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