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## **The Size Structure of India's Enterprises: Not just the middle is missing**

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Most international development economics and industrial organization literature emphasises the importance of SMEs (small and medium enterprises) as important to output, but especially to employment generation. Countries have different definitions for SMEs. In India the MSMEs (micro, small and medium enterprises) are defined in terms of investment in plant and machinery or equipment. The MSME Ministry (Annual Report, Government of India 2017–18) stated that the sector accounts for 45% of the manufacturing output and 40% of the total exports of the country; also that MSMEs accounted for 30.74% of GDP in 2014–15. Not surprising, MSMEs are considered a driving force of the economy.

Due to the predominance of tiny enterprises and informality in the industrial sector it is very difficult to harness the economies of scale, adopt new technologies and regular upgradation. It is often found that the main challenge for many SMEs is to cultivate right skills and management practices for establishing and integrating knowledge created by external partners with in-house practices and innovation processes (OECD 2013). Given that economies of scale go hand in hand with higher productivity, the predominance of micro-enterprises in any economy can prove to be a barrier to growth. There is a body of literature in developing countries that notes that in the size distribution of enterprises in the non-agricultural sector, there is often a 'missing middle'.

There are many studies of a missing middle situation in developing economies. The notion that the distribution of firm size in poor countries is characterized by a bimodal distribution with a 'missing middle' is a widely accepted fact in development economics (Krueger, 2013). The idea of the missing middle is that there are a large number of small firms, some large firms, but very few medium-sized firms.

Dhar and Lydall (1961) were the first to observe missing middle in the data, the thin share of employment size class 50 to 499 in Indian manufacturing employment.

Tybout (2000) also finds that a large portion of small-sized and middle category is missing in poor countries, and then argues that strict business regulation could be a reason for too many small firms. Hsieh and Olken (2014) argued that this is a misconception, and questioned Tybout's conclusion. However, Tybout (2014) revisited his study and justified the existence of a 'missing middle' by comparing the size categories of firms. He argued that the share of medium-sized firms compared to small or large firms is smaller than the share one would observe in an undistorted economy. The literature on firm size distribution suggests it is reasonable to approximate the undistorted cumulative size distribution as Pareto optimal. Tybout (2014) analysed the same data of Hsieh and Olken (2014) to understand the size distribution of firms. Then, the general tendency toward small scale production in poor

countries can be crudely controlled for by allowing the shape parameter  $k$  to vary across countries, with a larger value for  $k$  implying a smaller size distribution. The value of  $k$  in his paper appeared 1.43 for India, 1.08 for China and US both. That means there is no missing middle in China and USA. But India's medium category is less populated.

Mazumdar (2003) and Mazumdar and Sarkar (2008) also find that size distribution of Indian firm is characterised by a dense concentration of very small enterprises i.e. micro and a 'missing middle'. Mazumdar and Sarkar (2013) in their recent comparative study about manufacturing firms in Asia shows that the size group of 6-49 workers accounts for more than 55 percent of total non-household manufacturing in 2005. The share of large firms with more than 500 workers was close to 20 percent and the remaining 25 percent is the share of size group with 50-499 workers in the same year. Another study also estimated that around 85 percent people are employed in enterprises with less than 50 workers including OAEs in total manufacturing employment picture (Hasan and Jandoc, 2013). This dualistic size structure in manufacturing has remained unchanged over the last two decades. Labour regulations is one of the factors which can affect firm size and their distribution. More flexible labour regulation tend to go hand in hand with larger sized firms for mostly labour intensive industries.

However, Nagaraj (2018) has argued that there is no missing middle in India. He only draws upon organised sector firms', using data from Annual Survey of Industries (ASI). We believe it is necessary to take a holistic approach to see the true picture of different firm size categories, both organized as well as unorganized.

The India Wage Report (ILO, 2018) shows that low pay and wage inequality remain a serious challenge to India's path to achieving inclusive growth. Nearly half of the workforce are self-employed in India, which is a source of low earnings. However, a stable wage employment (rather than self-employment) is a doorway to the middle class (Banerjee and Duflo 2008).

In this paper we have tried to merge the data on all of India's registered as well as unorganised enterprises to figure out the exact size of the MSME sector (number of enterprises by size of employment) and their size distribution (micro, small, medium and large) according to the definition of MSMED Act 2006 (given by ministry of MSME). We argue that it's not only the middle which is missing. Small firms are also missing from the Indian industrial sector.

The paper is organized as follows. Section 1 spells out the definitions and data sources. Section 2 depicts the picture of the size distribution of India's non-agricultural enterprise structure -formal and informal both. Section 3 presents the state wise distribution of unorganised enterprises. Section 4 offer some concluding remarks.

## **1. Data Sources and definitions**

We examine both formal and informal sector enterprises in this paper. To assess the size structure of the whole industrial sector it is necessary to analyse both ASI data and National

Sample Survey (NSS) data. Hence, the data sources for this paper are the ASI and NSSO unit level data for the organized and unorganised sector respectively. We use a combined data set that includes formal and informal firms in India. The Annual Survey of Industries conducted by the Central Statistical Organisation, Ministry of Statistics and Programme Implementation (ASI) gathers information on “registered”, or formal sector firms that are covered by (Sections 2m(i) and 2m(ii) of) the 1948 Factories Act and firms registered in the 1966 Bidi and Cigar Workers Act—particularly (i) those firms that use electricity and hire more than 10 workers; and (ii) those that do not use electricity but nevertheless employ 20 or more workers. It also covers certain utility industries such as power, water supply, cold storage, and the like. Units with 100 or more workers are all counted, and a census of such enterprises is captured in the ASI, as they are completely enumerated, while the rest (<100 workers) are sampled and their survey is based on a predetermined sampling design.

Unorganised or informal sector firms are not covered by the ASI. NSSO Survey of Unorganised Manufacturing Enterprises covers those, and hence two rounds (2010-11 and 2015-16) have been used for our analysis. NSS unorganised surveys are follow-ups to the different Economic Censuses. NSS uses Economic Census as their sampling frame.

The Ministry of Micro, Small and Medium Enterprises the Government of India has enacted the Micro, Small and Medium Enterprises Development (MSMED) Act, 2006 in terms of which these enterprises are defined. The MSMEs are classified in two classes:

1. Manufacturing Enterprises: the enterprises engaged in the manufacture or production of goods pertaining to any industry specified in the first schedule to the Industries (Development and Regulation Act, 1951) or employing plant and machinery in the process of value addition to the final product having a distinct name or character or use. The size of Manufacturing Enterprises is defined in terms of investment in Plant & Machinery.

2. Service Enterprises: the enterprises engaged in providing or rendering of services and are defined in terms of investment in equipment.

The limit for investment in plant and machinery / equipment for manufacturing / service enterprises is as under:

**Table.1: Defining Micro, Small and Medium Enterprises: Thresholds for Plant & Machinery**

Type of Enterprises	Manufacturing Sector	Service Sector
	Investment in plant & machinery	Investment in plant & equipment
Micro Enterprises	Don't exceed 25 lakh rupees	Don't exceed 10 lakh rupees
Small Enterprises	More than 25 lakh rupees but doesn't exceed 5 crore rupees	More than 10 lakh rupees but doesn't exceed 2 crore rupees
Medium Enterprises	More than 5 crore rupees but doesn't exceed 10 crore rupees	More than 2 crore rupees but doesn't exceed 5 crore rupees

Source: The MSMED Act, 2006, Ministry of MSMEs

We have used mainly four data sets i.e. NSS unorganised survey rounds unit level data (73<sup>rd</sup> in 2015-16 and 67<sup>th</sup> in 2010-11) and ASI databases (2010-11 and 2014-15 unit level data). The NSS is used for unorganised sector data, and for organised sector ASI has been used.

Other than these two data sources, there are two other databases on industries: MSME Census data and Centre for the Monitoring of the Indian Economy (CMIE) Prowess database. We have not used the latter two for this study. This is because the last MSME census which is available is 4<sup>th</sup> MSME census 2005-06 and the data was published in 2011. After that there is no MSME census data available. And CMIE Prowess database is mainly for companies which are registered in the share market. Therefore we used only NSS unorganised survey rounds and ASI database for this study.

Sometimes there is a confusion about enterprises in formal/registered sector and informal/unorganised sector. We should clarify that the Unorganised sector is not entirely overlapping with what is called the unregistered sector. In the NSS unorganised survey rounds there are enterprises which can be small registered enterprises under Shops and Establishment Act, or the Municipal corporation/Panchayat/local body, VAT/sales tax, Employee Provident Fund Act, the Employees State Insurance Corp. Act, and/or registered with SEBI/stock exchanges and any other specific act or authorities. So, the unorganised sector consists of mostly unregistered enterprises and some registered enterprises under some specific act or authorities other than Factories Act (which are being captured under the ASI). Firms captured under the ASI, on the other hand, are *all* registered/formal firms under Sections 2m(i) and 2m(ii) of the 1948 Factories Act and firms registered in the 1966 Bidi and Cigar Workers Act—particularly (i) those firms that use electricity and hire more than 10 workers; and (ii) those that do not use electricity but nevertheless employ 20 or more workers. Therefore, it is evident that there is no overlapping or double counting between NSS and ASI datasets.

#### *The National Sample Survey Rounds on the Unorganized Sector*

We use two different rounds of the NSS specific survey that examines the unorganized sector. The specifics of these two rounds are explained in Table 2.

**Table 2: NSS unorganised sector rounds: 73<sup>rd</sup> (2015-16) and 67<sup>th</sup> (2010-11)**

<b>NSS rounds</b>	<b>Brief data handling remarks</b>
73 <sup>rd</sup> unorganised enterprise round 2015-16	<ul style="list-style-type: none"> <li>• Estimated number of enterprises 63 million</li> <li>• In this round NSS provided data on investment in plant &amp; machinery, and did it for each of the MSME categories in the dataset for the first time.</li> </ul>
67 <sup>th</sup> unorganised enterprise round 2010-11	<ul style="list-style-type: none"> <li>• Estimated number of enterprises 57 million.</li> <li>• MSME categorization is not given in the database</li> <li>• To enable us to analyse trends about size structure of enterprises between, 2011 and 2016, we had to categorize the enterprises. So we have used the investment in plant and machinery variable for both manufacturing and services sector firms.</li> <li>• Though according to MSME definition for manufacturing firms plant and machinery should be considered and for services firms plant and equipment should be considered, but plant and equipment variables are not available in the dataset of 2010-11, so we have used plant &amp; machinery for all the manufacturing and services enterprises.</li> </ul>

#### *Annual Survey of Industries 2014-15 & 2010-2011*

The second source used is two years of the CSO's Annual Survey of Industries, for 2010-11 and 2014-15, the latter one being the latest for which unit-level data are available. In them, only operational enterprises were taken into consideration. ASI mostly covers manufacturing units and manufacturing process (very small in number). However, the problem is that in the ASI, almost 40 percent of firms have missing values in respect of investment in the plant and machinery variable over the years. Hence, we used the remaining 60% of enterprises in the ASI database to categorize ASI firms in terms of number of employees in each firm. Categorization as follows in Table 3.

**Table.3: Defining Organized Manufacturing Firms by Size of Employment**

• Categories	• Number of employees (Nos.)
• Micro	• <10
• Small	• 10 to <20
• Medium	• 20 to <100
• Large	• >=100

We need to explain how we arrived at this particular size distribution, and why we are calling them micro, small, or medium. We should explain that ASI does not classify firms by the categories – Micro, Small and Medium – but NSSO’s unorganized sector survey does. So we tried to discover what might be the number of employees in organized sector firms if we were to apply the Plant & Machinery thresholds that are used in the NSSO surveys to the ASI firms (even though the latter belong to the organized sector, while the former do not). We found that the plant & machinery based-definition corresponds quite strongly with the category-ranges for M-S-Ms for the number of workers shown above in Table 3. Since in this paper our attention is focused on MSMEs, we needed a common definition across the organized and unorganized categories in terms of number of employees.

## **2. India’s Non-agricultural Enterprise Structure: Formal & Informal MSMEs**

Over 1950 to 1980, slow GDP growth pace was accompanied by a growth strategy dependent upon heavy-industry first, combined with reservation of products for small firms with the objective of generating employment. The set of products reserved for small enterprises had grown, and consisted of more than 1200 products at the beginning of reform in 1991. Over the years the number of reserved products was reduced to 500 by 2005, but it took more than fifty years to end this. This has led to the emergence of underdeveloped informal firms and employing informal workers, all operating in a low-level equilibrium trap of low wages –low-technology-low productivity (Mehrotra, 2020). On the other side too many labour laws for organised or formal sector firms did not help; hardly any laws applied to the unorganized sector. This lowered the demand for workers in formal sector.

Labour laws and regulations of India are very complex for firms. When any firms go from six workers to seven workers, the Trade Workers Act kicks in. When this number goes from nine to ten, the Factories Act is to be implemented. When firms go from 19 to 20 workers, the Employees Provident Fund Act kicks in and if the firm adds one more worker after 99, and goes to 100 workers, the Industrial Disputes Act gets triggered. The Industrial Disputes Act says that if you are a manufacturing firm with 100 workers or more, you cannot dismiss any of them under any circumstances unless you get prior approval from the state government. This is rarely given and it applies even if you go bankrupt, in which case the firm still has to pay the workers. This is an additional reason why Indian firms have remained so small on average (Panagariya, 2013).

In this study we tried to capture the whole picture of formal and informal sector. Table 4 presents the total universe of India’s non-agricultural enterprises. In Indian parlance, enterprises that employ less than 10 workers are considered as unorganized sector units, while those employing more than 10 workers are regarded as organized. What jumps out at the reader is the scale of informality among India’s enterprise structure. India has 63.56 mn enterprises, informal (unorganized) and formal (organized) taken together in the non-agricultural economy. Around 30 percent enterprises are registered in both years (2015-16

and 2010-11) under any act or authority. There is no change in the share of registered enterprises in informal sector over the years.

Another finding from Table 4 is that 99.7 percent enterprises are in the unorganized sector and this share is constant over these two points of time i.e. 2015-16 & 2010-11. Of these two-thirds are not registered anywhere – which is a serious problem from the perspective of the policy maker, since that makes it difficult to extend services to them, if the state was desirous to do so.

What is most notable is how small is the total number of registered/ formal sector firms: only 0.3 percent in total or only 1.7 laks in number. It has been well known that the informal sector is much bigger than registered sector. Therefore, this study later on focuses mainly on the informal sector size distribution of MSMEs. One could argue that India's informal sector is the backbone of the economy after agriculture.

**Table.4: Total Number of Enterprises in organised and unorganised sector in 2010-11 & 2015-16**

Particulars		Number of Enterprises (Nos.)		Share (%)	
		2010-11	2015-16	2010-11	2015-16
Unorganised (NSS)	Registered under any act/authority	16,826,639	19,592,554	29.1	30.8
	Unregistered	40,846,606	43,799,421	70.6	68.9
	Total	57,673245	63,391974	99.7	99.7
Registered under Factories act, companies act or other (ASI)*/ Formal		167.964	173,640	0.3	0.3
Total		57,841,209	63,565,614	100	100

Source: Annual survey of Industry Unit level data of 2014-15, Annual survey of Industry Unit level data of 2010-11, 73<sup>rd</sup> round NSSO Unincorporated Non-Agricultural Enterprises (Excluding Construction) survey 2015-16 unit level data & 67<sup>th</sup> NSS Unincorporated Non-Agricultural Enterprises (Excluding Construction) survey 2010-11 unit level data

\*since still now ASI 2015-16 data is not available, we have used ASI 2014-15

Table 5 shows the size of the formal and informal sector according to MSME categories. The micro enterprises share and numbers is overwhelmingly large. What we do know (though not shown in the table) is that *84% of the micro-enterprises are actually own-account enterprises (OAEs), without hired labour, or let us say household enterprises*. An estimated 93% of the micro-enterprises have less than 5 employees.

There is a nearly *10x increase in the number of small enterprises, in the unorganized units* (Table 5). Within unorganized units, the number of small enterprises in 2010-11 and 2015-16 does increase quite sharply in absolute terms, both among the registered as well as the unregistered unorganized sector. *But their share is still marginal in 2015-16, as it was in 2010-11: from 0.1 to 0.6 per cent of all unorganized enterprises*.



*Of the 63 mn MSMEs, barely 0.38 mn are small and medium. Naturally, their contribution would be very limited in the growth story.* What is notable is that between 2010-11 and 2015-16 the number of registered (under Factories Act) units that are small has actually shrunk slightly, as have medium sized enterprises. However, the small firms among the unregistered just exploded in numbers, from 1682 to 51072 over the same period. But at the same time, the unorganized small units (registered under any Act/authority) has also increased from 38 414 to 279 794. The increase in number over just five years is too large to be explicable; so we found, on careful examination, that the number of acts under which registration was permitted had increased between 2010-11 and the 2015-16 NSS Surveys; that is what explains the unprecedented rise in the registered category (see Table 6 for Acts, and Annex 1 table for the list of additional Acts under which registration is permitted), though not in the unregistered category. This large rise needs further investigation before it can be explained.

Medium enterprises have also seen a rise, but that rise seems reasonable, even though it is highly likely that the *sharp increase among small enterprises that we see between the two periods in the 'registered' category is also large. This too is likely to have happened due to new acts being included.* It is notable that for registered enterprises under the Factories Act (based on data from the Annual Survey of Industries), there is a fall in the number of enterprises.

If we examine the *registered firms under the Factories Act* (columns 8 and 9) there is some growth, but here too the growth in number of firms is accounted for by micro firms, not the small or medium categories. If anything, small and medium firms actually shrink in number over that five year period. The number of large firms grows only a little.

Table 4 depicts the whole picture of the size distribution of MSMEs, both formal and informal sector. Size distribution of formal sector firms is nearly normally distributed. Whereas informal sector size distribution is distinctly skewed to left, with a concentration of micro firms. The share of registered formal sector firms from Table 3 is only 0.3 percent and informal sector firms account for 99.7 percent share of all firms. The registered formal sector firms have been analysed in several studies, but informal firms have been overlooked. The informal firms' size distribution should be analysed more closely.

**Table.5: Size wise total number of enterprises in India in 2010-11 & 2015-16 (nos.)**

Type of Enterprises	Unorganised/ Informal (NSS)						Registered under Factories act, companies act or other/ Formal (ASI)		Total		Share (%)	
	Registered under any act/authority		Unregistered		Total		2010-11	2014-15*	2010-11	2015-16*	2010-11	2015-16
	2010-11	2015-16	2010-11	2015-16	2010-11	2015-16						
(1)	(2)	(3)	(4)	(5)	(6)=(2)+(4)	(7)=(3)+(5)	(8)	(9)	(10)=(6)+(8)	(11)=(7)+(9)	(12)	(13)
Micro	16,787,99	19,304,56	40,844,924	43,746,969	57,632,923	63,051,524	38136	45947	57671059	63097471	99.7	99.3
Small	38,414	279,794	1682	51,072	40,097	330,866	43171	42349	83267	373215	0.1	0.6
Medium	142	5064	0	218	142	5282	62638	59448	62780	64730	0.1	0.1
Large	83	3092	0	25	83	3117	24019	25895	24102	29012	0.0	0.0
Total	16826639	19592505	40846606	43798285	57673245	63390789	167964	173640	57841209	63564429	100	100

Source: Annual survey of Industry Unit level data of 2014-15, Annual survey of Industry Unit level data of 2010-11, 73<sup>rd</sup> round NSSO Unincorporated Non-Agricultural Enterprises (Excluding Construction) survey 2015-16 unit level data & 67<sup>th</sup> NSS Unincorporated Non-Agricultural Enterprises (Excluding Construction) survey 2010-11 unit level data

\*since on present day ASI 2015-16 unit level data is not available, we have used ASI 2014-15

From Table 4 we have also seen that like the formal sector firms registered under the Factory act, informal sector or unorganised sector firms are also registered under other acts or authorities i.e. 29.1 percent in 2010-11 and 30.8 percent in 2015-16, which is pretty good number for informal sector.

The acts or authorities under which informal sector firms are registered have been shown in the following Table 6. There are some inclusions and exclusions of acts and authorities between these two points of time between NSS rounds (Table 6).

Table.6: Registration Act/ authorities of unorganised firms

Particulars	Number of Enterprises	
	2010-11	2015-16
Shops and Establishment Act	3772223	4270136
Municipal Corporation/Panchayats/ Local Body	9904106	12678481
Vat /Sales Tax Act	1830626	2383199
Provident Fund Act	72974	91159
Employees State Insurance Corporation Act	64720	61390
Registered with SEBI/ Stock Exchange?		13039
any other industry-specific Act/ Authority	1181990	95150
Total registered	16826639	19592554
Total unregistered	40846606	43799421
Total	57673245	63391974

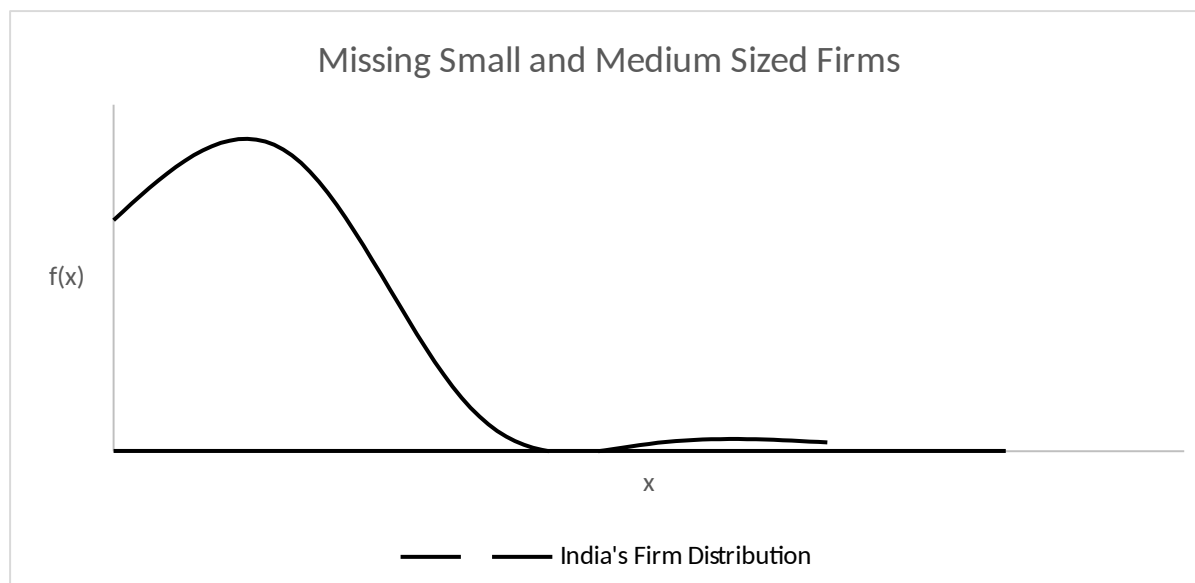
Source: 73<sup>rd</sup> round NSSO Unincorporated Non-Agricultural Enterprises (Excluding Construction) survey 2015-16 unit level data & 67<sup>th</sup> NSS Unincorporated Non-Agricultural Enterprises (Excluding Construction) survey 2010-11 unit level data

\*Any other industry specific Act/ Authorities are depicted in Annexure Table

Registration under these acts or authorities of informal sector firms is a mere formality, not particularly effective. It is also not synonymous to formalisation. These acts or authorities only register about 30 percent of the unorganised firms. Formalisation under Factory Act registration tends to assure social security benefits and other benefits in the firms. But registration under these other acts or authorities are only for simple registration, but the firms remain the same as before such registration. Some small incentives for any State/ Central Government exhibitions or fairs, early access of benefits from any government schemes and availing credit from banks can be gained by these type of registration of informal firms (a subject we return to in the last section).

Rather than speaking about a bimodal distribution or missing middle drawing on the earlier literature, it is better to measure the share of the small and medium sized firms as opposed to micro and large firms. Figure 1 depicts several hypothetical plant size distributions that shows the notion of missing small and middle. The solid line shows an undistorted ideal firm size distribution of developing economies and dotted line exhibits the missing small and medium sized firms in India. The dotted line depicts the preponderance of micro firms, but it can clearly be seen that small and medium categories are missing from the picture.

**Figure.1: An hypothetical illustration of missing small and medium sized firms in the distribution**



***Productivity of firms: registered versus unorganized***

There are significant productivity differences between small and large establishments. Technical change and returns to scale can be the factors for productivity differentials between these two (Taymaz, 2002). Productivity is one of the main indicators of performance. In Table 7 we can see that formal sector firms have a higher productivity compared to informal ones. Micro formal firms have a higher productivity than informal ones. The larger the firm the higher is the productivity.

**Table.7: Average productivity of organised and unorganised firms in 2010-11 & 2015-16 (in Rupees per worker)**

Type of Firms	Average Productivity			
	Formal (ASI)		Informal (NSS)	
	2014-15	2010-11	2015-16	2010-11
Micro	517046	423692	86700	60544
Small	363091	322278	237617	227340
Medium	515499	390445	302148	204050
Large	664897	610926	308089	275503
Total	540007	411811	91728	61091

Source: Annual Survey of Industries, Unit level data of 2014-15 and 2010-11, 67<sup>th</sup> and 73<sup>rd</sup> round NSSO

Unincorporated Non-Agricultural Enterprises (Excluding Construction) survey 2015-16 unit level data

Note:- Productivity calculated as GVA divided by the number of workers. GVA and productivity calculations has been done after deflating the figures with WPI values (2011-12=100 as the base)

What is noticeable is that the formal micro firms have a higher productivity than the larger firms in the formal sector. This needs an explanation. One possible reason is that micro firms are particularly inclined to understate the number of their workers. They are unlikely to be inspected or audited, given how numerous they are. So the reported numbers in micro firms listed in the ASI might be actually much smaller than the actual number employees working in the enterprise.

### 2.1. *Own Account Enterprises and Other Categories*

Own account Enterprises (OAEs) comprise of tiny firms which are not even hiring one worker. A major portion of unorganised/informal sector firms is OAEs. The share of OAEs is important since it can guide policies on employment generation and industrial development. It can also help to determine whether the emphasis of policy should be on micro enterprises grow or on the hurdles to operating larger enterprises (Mel, McKenzie, and Woodruff, 2008).

In Table 8, we find that in urban areas OAEs are 76.8 percent of all firms in 2010-11 and 76.6 percent of firms in 2015-16, while the OAEs are 91.4% of all rural firms. No change has been seen as just over 84.6 percent in 2015-16 are OAEs. This predominance of OAEs in rural and urban is the underlying symptom of, and a reason for, the widespread poverty in the country.

**Table.8: Unorganised/ informal sector : Share of Own account enterprises (OAE) in total enterprises by rural and urban location, 2010-11 & 2015-16**

Sectors	OAE (nos.)		Total (nos.)		Share (%)	
	2010-11	2015-16	2010-11	2015-16	2010-11	2015-16
Rural	28,245,998	29,695,861	30,891,074	32,489,670	91.4	91.4
Urban	20,564,428	23,663,446	26,782,171	30,902,305	76.8	76.6
Total	48,810,426	53,359,308	57,673,245	63,391,974	84.6	84.2

Source: 67<sup>th</sup> and 73<sup>rd</sup> round NSSO Unincorporated Non-Agricultural Enterprises (Excluding Construction) survey 2015-16 unit level data

OAE's high share led us to examine the sector according to number of workers. We have categorised the unorganized sector firms into four categories i.e. OAEs, firms having 1-5 workers (non-directory establishment), firms having 6-9 workers (directory establishment) and firms having 10 & more workers. Other than OAEs, firms are found mostly in the category that employ 1-5 workers i.e. 12.6 & 13.3 percent in 2010-11 & 2015-16 respectively. A slight increase is seen in the category of firms having 1-5 workers.

The above table calculated with the given definition of ministry of MSME. NSS also earlier gave these two groups in the dataset i.e. non-directory establishment and directory establishment. So Table 9 has been computed in terms of size of the employment. But there is not much difference in the picture as the share of firms in these categories have not changed much between 2010-11 to 2015-16.

**Table.9: Non-Agricultural enterprises in Unorganized sector: Size distribution by Number of firms, 2010-11 and 2015-16**

Firm categories	2010-11		2015-16	
	No. of firms (nos.)	Share %	No. of firms (nos.)	Share %
OAE	48810426	84.63	53359308	84.17
1-5 workers	7284096	12.63	8417671	13.28
6-9 workers	1031356	1.79	1064968	1.68
10 & more workers	547367	0.95	550028	0.87
Total	57673245	100	63391974	100

Source: 67<sup>th</sup> and 73<sup>rd</sup> round NSSO Unincorporated Non-Agricultural Enterprises (Excluding Construction) survey, 2010-11 and 2015-16 unit level data

Notes: Units that employ more than 10 workers but not use electricity and are not registered under Factories Act 1948 are still regarded as unorganized firms.

The phenomenon of missing small and medium sized firms can be seen from Table 10 also. The 69.8 million OAEs in 2010-11 and 69.1 million OAEs in 2015-16 account for 64.6 percent in 2010-11 and 62.1 percent share of workers in 2015-16. Firms in the 10 & more workers and 6-9 workers category account for only 15 percent of the total employment of unorganised non-agriculture sector. It is quite evident from Table 10 that OAEs and non-directory firms employed nearly 85 percent of the total employed persons in the unorganised non-agriculture sector. Missing small and medium firms is one of the reasons for this kind of asymmetry. In India, the self-employed/ OAEs have formed the majority of the workforce and are the most prominent of the informally employed. Given the ease of entry into such activities and the unavailability of formal employment, it is not surprising that self-employment was the most prevalent economic activity.

**Table.10: Non-agricultural enterprises in Unorganized sector: Size distribution of firms by Number of workers , 2010-11 & 2015-16**

Firm categories	2010-11		2015-16	
	No. of workers (nos.)	Share %	No. of workers (nos.)	Share %
OAE	69,800,000	64.6	69,100,000	62.1
1-5 workers	21,000,000	19.4	24,100,000	21.7
6-9 workers	7,308,075	6.8	7,499,639	6.7
10 & more workers	9,936,896	9.2	10,600,000	9.5
Total	108,044,971	100	111,299,639	100

Source: 67<sup>th</sup> and 73<sup>rd</sup> round NSSO Unincorporated Non-Agricultural Enterprises (Excluding Construction) survey, 2010-11 and 2015-16, unit level data

## 2.2. Wages and Earnings of the Workers in Different Categories of Enterprises

The most interesting aspect in trends in informal employment is the gradual growth in enterprise-based informality. Almost 80 per cent of jobs created between 1999-2000 and

2011-12 were generated by unorganized enterprises and the majority of jobs were informal. Informal employment in the formal sector was also rising over the period (Abraham, 2016 ).

The increase in informal employment is as much a cause as it is a symptom of the way in which the benefits of economic growth in India have bypassed the majority of its population. This is unlike the experience of China where economic growth has been accompanied by an increase in medium and large scale units which provide formal employment to its workers (Ghose, 2014; Majid, 2015). India's long chronic informality in labour market since 1980s created more temporary workers, contract workers, subcontracting practices (Goldar, 2010) and self-employed jobs.

Low and stagnant wage is also one of the main reasons for this situation. In Table 11, we can clearly observe that first, the majority of units earn less than Rs 5000 per month. Second, there are hardly any units in the >10 workers category where workers earn more than Rs 10 000 per month. Non-directory establishment(1-5 workers), directory establishments (6-9 workers) and 10 & more workers are mostly receiving monthly average wage upto 5000 rupees in 2010-11. Third, by 2015-16 the scenario has changed significantly. The share of unorganized forms where earnings are as low as Rs 5000 or less falls sharply to 80% from 96%. Fourth, the share of those earning Rs 5000 to 10 000 pm rises from 4 to 18%. If small and medium sized firms are in goods numbers, they can play the role of the saviour by hiring more and giving higher wages.

**Table.11: Unorganized Sector: Monthly average wages & allowances per worker, by size distribution of enterprises, 2010-11 & 2015-16**

Monthly average wage, salaries & other allowances per worker (Rs.)	OAE (own earnings)		1-5 workers		6-9 workers		10 & more workers		Total	
	2010-11	2015-16	2010-11	2015-16	2010-11	2015-16	2010-11	2015-16	2010-11	2015-16
Upto 5000			98.11	84.76	87.46	56.32	81.49	45.66	95.85	79.60
More than 5000 to 10000			1.80	14.08	11.28	36.56	16.27	43.11	3.80	18.06
More than 10000 to 15000			0.06	0.89	0.92	5.76	1.45	7.79	0.25	1.79
More than 15000 to 20000			0.02	0.16	0.24	0.89	0.38	1.92	0.07	0.33
More than 20000 to 25000			0.00	0.05	0.07	0.25	0.16	0.90	0.02	0.12
More than 25000 to 30000			0.00	0.02	0.00	0.08	0.04	0.21	0.00	0.04
More than 30000 to 35000			0.00	0.01	0.01	0.06	0.08	0.11	0.01	0.02

More than 35000 to 40000			0.00	0.00	0.01	0.02	0.00	0.06	0.00	0.01
More than 40000			0.00	0.02	0.01	0.06	0.12	0.24	0.01	0.04
Wage category Total			100	100	100	100	100	100	100	100
Enterprise category Total	84.6 3	84.1 7	12.6 3	13.2 8	1.79	1.68	0.95	0.87	100	100

Source: 67<sup>th</sup> & 73<sup>rd</sup> round NSSO Unincorporated Non-Agricultural Enterprises (Excluding Construction) survey, 2010-11 and 2015-16, unit level data

### 2.3. Sectoral Distribution of Unorganised Enterprises and Employees

If much of manufacturing is in the micro- or unorganized sector, that will not only reduce productivity in manufacturing, but also in the economy. The contribution of manufacturing to India's GDP in 2017 was only about 16%, a share that stagnated since the economic reforms began in 1991. The contrast with the major Asian economies is significant. For example, Malaysia roughly tripled its share of manufacturing in GDP to 24%, while Thailand's share increased from 13% to 33% (1960-2014). Services sector has been flourished more than manufacturing for India. But without the growth of manufacturing sector, services will not be able to grow for very long (unless they access global markets).

No major country managed to reduce poverty or sustain growth without manufacturing driving economic growth. This is because productivity levels in industry (and manufacturing) are much higher than in either agriculture or services. Manufacturing is an engine of economic growth because it offers economies of scale, embodies technological progress and generates forward and backward linkages that create positive spillover effects in the economy (Mehrotra, 2019). However, India also has no industrial policy or employment strategy to ride the wave of its demographic dividend.

**Table 12: Size wise sectoral share distribution of informal enterprises in manufacturing & services in 2010-11 & 2015-16**

Firm Categories	Rural Services		Urban Services		Rural Manufacturing		Urban Manufacturing		Total	
	2010-11	2015-16	2010-11	2015-16	2010-11	2015-16	2010-11	2015-16	2010-11	2015-16
OAE	39.1	36.0	31.3	32.4	18.7	19.7	10.8	11.8	100.0	100.0
Non-directory establishment	20.1	19.3	51.5	54.2	10.1	8.7	18.3	17.8	100.0	100.0
Directory establishment	11.4	14.0	43.7	45.8	13.3	11.6	31.6	28.6	100.0	100.0
10 & more workers	15.8	18.5	38.7	45.6	19.2	11.5	26.4	24.4	100.0	100.0



Source: 67<sup>th</sup> and 73<sup>rd</sup> round NSSO Unincorporated Non-Agricultural Enterprises (Excluding Construction) survey, 2010-11 and 2015-16. Estimated from unit level data

In Table 12, we examine the distribution across manufacturing and services of India's unorganized sector enterprises. What is clear is that service firms dominate; they account for around 60% or more of units (regardless of size of enterprise), with manufacturing accounting for the remainder. What is interesting is that services are relatively more important among the OAEs and the smallest units (with 1-5 workers), while manufacturing is more important among the slightly bigger units (>6 workers). Secondly, it is notable that manufacturing is much more important as an economic activity in urban areas, regardless of size, than in rural areas.

**Table 13: Rural vs urban: Size wise sectoral share distribution of non-agri informal enterprises in 2010-11 & 2015-16**

Firm Categories	Rural		Urban		Total	
	2010-11	2015-16	2010-11	2015-16	2010-11	2015-16
OAE	57.9	55.7	42.1	44.3	100	100
Non-directory estabmnt (2-5 workers)	30.2	28.0	69.8	72.0	100	100
Directory estabmnt (6-9 workers)	24.7	25.6	75.3	74.4	100	100
10 & more workers	35.0	30.0	65.0	70.0	100	100
Total	53.6	51.3	46.4	48.7	100	100

Source: 67<sup>th</sup> & 73<sup>rd</sup> round NSSO Unincorporated Non-Agricultural Enterprises (Excluding Construction) survey 2010-11 & 2015-16. Estimated from unit level data

Finally, Table 13 gives us an idea about the distribution of enterprises of different sizes in unorganized non-agriculture across location – rural and urban. First, what is clear is that OAEs predominate in rural areas, and to a lesser extent in urban areas. Second, however, units of slightly larger size (in terms of employment) are what predominate in urban areas. Putting the information from these last two tables together suggests that manufacturing in the unorganized sector is mainly undertaken by slightly larger units (rather than OAEs), and tends to be located in urban areas. Both these propositions seem logical given that manufacturing would require more inputs and raw materials which might be easier to source in urban areas, and the markets would also be more accessible in urban areas.

### 3. Discussion: The Missing Small & Medium sized Enterprises

We would suggest that the size structure of the non-agricultural sector discussed in India has been confined to a discussion of the 'missing middle' phenomena in policy circles. The last time there was a thorough analysis of this sector was in the reports of the National Commission for Enterprises in the Unorganized Sector (over 2007-09). This sector not only dominates the enterprise structure of India's establishments, but employs the vast majority of workers in India; they are the self-employed, as well as the wage employed (both casual and

regular wage work). They are also what constitutes the bulk of non-agri informality in India. Informal workers normally work in informal enterprises.

By contrast, in Economic Survey 2019, the Indian MSME sector was discussed but in the discussion, MSME data of unorganised sector was not really used. ASI database was used to examine the dwarf and infant firms (less than 100 workers in a firm and aged more than 10 years is dwarf), small firms (less than 100 workers in a firm) and large firms (more than 100 workers in a firm). However, what we have shown is that the MSME sector is not about only these two categories (although the Economic Survey does characterise 'dwarf-ness' rightly as an abiding problem India's economy).

The MSME is much more complex in structure and the nature of problems they face cannot be captured by this simple characterisation. We have shown earlier in this paper using enterprise data that even the total number of unregistered and unorganised firms are not exactly overlapping. There are plenty of unorganized firms that are registered, except that they seem to be registered under a variety of Acts. Government authorities cannot address the problems facing unorganized sector unless they deal with each of these types separately. But if firms are not even registered, then authorities don't have any idea about them in practice. How are policies or programmes to be devised in the face of such a state of ignorance? Second, although 31% of unorganized firms are registered, they happen to be registered under Acts that are so numerous and diverse in nature, that there is likely to be little or no consolidated information anywhere in government or any other agency (private or autonomous) that might help a well-meaning government to even begin to support such units.

Thirdly, we have noted that the total registered enterprises are less than one percent compared to all enterprises (organized and unorganized). Fourth, we have found that the presence of small and medium sized enterprises is almost negligible. Fifth, there is a vast sea of own account enterprises, accounting for the vast majority of enterprises in India.

Yet, the policy discourse in the country is confined merely to the 'missing middle'. What we have found is that while there may not be a missing middle if you only examine the organized sector firms (using ASI data), if you combine the ASI data with the NSSO data on unorganized sector, you discover not only a missing middle but also a missing small. In fact, the micro segment of the MSME sector of non-agri enterprises is vast, and is highly differentiated. The OAEs predominate, which could be called nano-enterprises, and they practically don't figure in the policy discourse (except as potential members of self-help groups). Moreover, the small sized enterprises may be numerous in sheer absolute number, but they hardly account for a negligible proportion of all enterprises.

What all this implies is the following. Firms start tiny, as means of survival, and also rarely grow to become big. This kind of structure owes its origins to the reservation of products for small scale industries that began with the Industrial Policy Resolution of 1956, and lasted till well beyond the 21<sup>st</sup> century, until the end of the first decade of the millennium. In other words, this distorted the size structure of India's enterprises over half a century. The policy

makers' challenge now is how to correct for entrenched structure, caught in a low-level equilibrium, a poverty trap.

As though that was not bad enough, the policy regime has tended to encourage sub-optimal size of enterprises well into the very recent past. Government schemes and incentives are holding back micro or small firms from expansion to some extent. The following table shows the name of schemes for micro, small, medium and large and who can avail the incentives-

**Table.14: Government schemes: Who has access depends upon size of enterprise (2013)**

Scheme	Description	Availability of Incentive by Size of the organisation			
		Micro	Small	Medium	Large
National Manufacturing Competitiveness Program	Assistance aimed at improving processes, designs and technology.	☑	☑	☑	✗
Government Purchase and Price preference policy for MSEs	Till 2012-13, 358 products were reserved for exclusive purchase from MSEs. 20 % of annual value of goods and services purchased to be procured from MSEs	☑	☑	✗	✗
Credit linked Capital subsidy scheme for technology upgrade	15 % capital subsidy for Tech. upgrade on term loan from approved inst.	☑	☑	✗	✗
Credit Guarantee Fund scheme for MSE	Credit guarantee for collateral free loan upto 1cr.	☑	☑	✗	✗
MSE-Cluster Development Programme	Training, tech etc. grant of 75% of project cost and tangible assets, infrastructure, grant of 80% of project cost	☑	☑	✗	✗
Quality upgradation in MSEs-incentives for certification	Reimburse 75% of ISO certification expenses (max. Rs. 75k one time)	☑	☑	✗	✗
Micro Finance Programme	SIDBI supporting NGO/micro finance institutions in providing loans	☑	✗	✗	✗

Source: Economic Survey 2012-13

What table 13 demonstrates is that if firms grow larger than small, and think of becoming 'medium' sized, they will lose all the incentives and the benefits of schemes such as the ones above. This cannot be a situation fostering growth of firms.

Since 1 April 2015, a new scheme has come into existence: MUDRA. To enhance the credit flow to micro and small enterprises (MSEs), Micro Units Development and Refinance Agency (MUDRA) was established on 25<sup>th</sup> September, 2014. On 8<sup>th</sup> April, 2015, Pradhan Mantri Mudra Yojana (PMMY) officially launched by PM which is nothing but a wider initiative of original MUDRA. All loans to non-farm micro-enterprises up to Rs 10 lakh by public and private sector banks, and other financial institutions can be renamed as Mudra. Under the PMMY, three categories of loans were to be given, based on the stage of development and funding needs of the micro enterprises: i) *Shishu* (meaning infant), loans up to Rs. 50,000/- provided with no collateral, @1% rate of interest/month repayable over a period of 5 years, ii) *Kishor*(meaning child): loans above Rs.50,000/- and up to Rs. 5 lakh, iii) *Tarun* (meaning adolescent): loans above Rs. 5 lakh and up to Rs. 10 lakh. In 2018-19, the number of Shishu loans were 89%, Kishor loans were 9.3% and Tarun loans merely 1.6%.

No additionality has been seen through this scheme. Though it has been claimed that it has created many employment and start-ups, but there is no sign of it. “It is a typical case of renaming and rebranding” (Mahajan, 2019). Loans under 10 lakhs by the financial institutions in normal course are now counted and reported as ‘Mudra loans’ which is no help actually. Annual report of MUDRA shows that it contributed less than 3% of the total lending by banks as part of their normal lending. Mudra loans account for between 8.5% to 12.6% to total bank credit availed by mainly large borrowers. It also strengthens our argument about the consequences of a vast pool of micro tiny enterprises and the negligible share of small firms.

Under Mudra Yojana the average size of loans disbursed is Rs.54072, but the largest proportion of loans, 89% of total, are the Shishu loans which had an average loan size just Rs 28,074 in 2018-19. This amount is not enough to start up micro-enterprise for self-employment or provide jobs to others. Kishor and Tarun loans can generate additional income and employment but insignificant number of these loans are not helping much.

Mudra loans are flawed as a financial product - these are structured as term loans with a tenor of three years, with periodic repayments of principal and interest, whereas 90% or more of the amount is used for working capital, which is needed as long as the microenterprise runs. If the loan is repaid, the unit will not have working capital. These loans should have been offered as cash credit overdraft limits. That would also have reduced the interest burden on the borrowers.

Mudra loans risk a default because debt for new enterprises is the wrong financial product. In debt financing, the entrepreneur has to maintain the fixed instalment repayment and this leads to the loan becoming an NPA. Catching up on older instalments becomes tougher. Had the Mudra financing been done using the micro-equity framework, the build-up of NPAs would have been avoided (already 4-5%, but growing, since it is early days yet). An RBI expert must examine alternatives to MUDRA retail loans.

Currently the risk of default is tried to be obviated through credit guarantees from the Credit Guarantee Trust for MSMEs (CGT-MSME). But no guarantee mechanism can sustainably

deal with failure rates as high as a 70-80% among new enterprises, which are normal for nano-enterprises run by individual entrepreneurs (Mahajan, 2019). Only a micro-equity fund mechanism can handle this. While many enterprises would go under, or would be marginally profitable, returns from the surviving and thriving enterprises would have been enough to offset the investment losses

Missing middle is not new and researchers have been talking about this long time. There is an expectation that some formalization is occurring after the introduction of the goods and services tax (GST) system in July 2017. There is slight change in the share of the informal firms. Existing unorganized sector units have registered if they have an annual turnover 20 lakhs, because GST return has to be submitted. On account of this 93 percent informal workers in India comes down to 90 percent (Mehrotra and Parida, 2019). It is true that some of the firms do register under GST, but the percentage of this kind of cases is small. This missing part (small and medium sized firms) needs further detailed research to determine their constraints, size wise, in detail.

### **Concluding remarks**

The MSME sector is the second largest employer and an important driver of the economy. But the literature about the 'missing middle' rightly identifies this gap in the size structure of enterprises in developing economies as a serious problem. Though some researchers deny such a problem exists. Hsieh and Olken (2014) wrote about no missing middle in Indonesia, Mexico and India by considering plant size distribution as bimodal. Nagraj (2018) also concluded that no missing middle exists, but based on an analysis of only the organised sector. However, Tybout (2014) argued quite differently.

It is well known that informality abounds in India, both for workers as well as for firms. We have used ASI and NSS data sources both to demonstrate that not only is there a missing middle but a missing small scale sector as well. Even worse, of all micro enterprises 84.2 percent are OAEs. Tiny micro enterprises' ability to expand is minimal. Together with units that employ 1-5 workers, OAEs have an almost 97 percent share.

These units have remained outside the policy makers' frame of reference. Such policies that have been adopted (which we examined briefly), have barely made a dent on the problem. There is a case for a new policy framework that takes these units as the main focus of their attention, as opposed to clubbing together all MSMEs into one catch-all category.

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## Annexure

## Industry-specific acts/ authorities under which enterprises registered in 2010-11 &amp; 2015-16

Sl. No.	2010-11	2015-16
1	State directorate of industries	State directorate of industries
2	Khadi and Village Industries Commission/Board	Khadi and Village Industries Commission/Board
3	Development Commissioner of Handicraft/ handloom	Development Commissioner of Handicraft /handloom
4	Coir Board	Commodity boards (Coir board, Silk Board, Jute commissioner, etc.)
5	Directorate of education /AICTE/NCTE	Directorate of education /AICTE/NCTE
6	Silk Board	Pollution Control Board
7	Jute Commissioner	Directorate General of Foreign Trade/ other export promotion agencies
8	Pollution Control Board	State Financial Corporation/Industrial Cooperative Banks/Industrial Development Banks/ SIDBI
9	Directorate General of Foreign Trade/ other export promotion agencies	Food safety and Standards Act, 2006
10	State Financial Corporation/Industrial Cooperative Banks/Industrial Development Banks	District Supply and Marketing Society
11	Technical Consultancy Services Organisations/Council for Technological Upgradation	Technical Consultancy Services Organisations/Council for Technological Upgradation
12	Small Industries Development Bank of India (SIDBI)	Sale tax
13	Small Industries Services Institutes/ other small industries registration agencies	Indian Charitable Act
14	District Supply and Marketing Society	Cinematograph act
15	State Trading Corporation of India Limited (STC)	Money lender's Act (including the State variants)
16	Indian Charitable Act	Societies Registration Act, 1860 (including the State variants)
17	Cinematograph act	Indian Trust Act/Public Trust Act (including the State variants)
18	Money lender's Act	Employees Provident Fund Organisation (EPFO)
19	Societies Registration Act, 1860 (including the State variants)	Others
20	Public Trust Act	
21	Others	



Source: 73<sup>rd</sup> round NSSO Unincorporated Non-Agricultural Enterprises (Excluding Construction) survey 2015-16 unit level data & 67<sup>th</sup> NSS Unincorporated Non-Agricultural Enterprises (Excluding Construction) survey 2010-11 unit level data