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# Rural Manufacturing: A Catalyst for Rural Prosperity

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# Rural Manufacturing: A Catalyst for Rural Prosperity

*Sitikantha Pattanaik and Shrujan Rajendra Rajdeep*[1]

**Summary**

Using data from Annual Survey of Industries (ASI) for organised manufacturing and Annual Survey of Unincorporated Sector Enterprises (ASUSE) for unorganised manufacturing, this paper examines the performance of rural manufacturing *vis-à-vis* urban manufacturing and finds that: (a) the share of rural in organised manufacturing gross value added (GVA) at 50% is higher than its share in unorganised manufacturing GVA at about 38% in 2023-24, suggesting the importance of the former to rural income growth, given particularly the overall low share of unorganised manufacturing (about 13%) in all India manufacturing GVA; (b) rural organised manufacturing is found to be more productive than urban organised manufacturing – both in terms of GVA per factory and GVA per workforce, which may be partly due to the observed marginally higher labour-intensity and substantially higher capital intensity of rural organised manufacturing; (c) in turn, unorganised urban enterprises are found to be more productive (in terms of GVA per enterprise and GVA per worker), which could be partly due to their higher fixed investments (*i.e.,* fixed assets owned per enterprise) and greater use of credit (*i.e.,* outstanding loans per enterprise); (d) in unorganised manufacturing, the share of rural in employment at 52% is higher than its share in GVA (38%), while in organised manufacturing the share of rural in employment at 45% is lower than its share in GVA (50%), which is reflected in large labour productivity gaps between them; (e) rural per worker annual GVA in organised manufacturing was at Rs. 13.7 lakh in 2023-24 as against Rs. 1.19 lakh in rural unorganised manufacturing, which highlights the importance of formalisation; (f) it required an invested capital of Rs. 10.3 lakh to engage (or employ) one person in a rural organised manufacturing unit in 2003-04, which increased to Rs. 44.6 lakh in 2023-24, indicating the rising capital requirement of employment generation in organised manufacturing in India; and (g) more than 99% of rural unorganised

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enterprises continue to remain micro, indicating almost no transition to small and medium categories over time, unlike in the organised manufacturing space where the transition is distinct, suggesting the need for better targeting of government schemes to benefit the micro enterprises in the unorganised sector.

Empirical analysis using cross-sectional regressions suggest that: (i) rural organised manufacturing GVA responds positively to subsidies, R&D expenditure, and investment size, while higher expenditure on interest payment operates as a drag; and (ii) rural unorganised manufacturing GVA responds positively to credit, investment and internet use. Thus, access to credit and lower cost of credit; incentives for R&D and capital investment; and promoting adoption of digital technologies are found to be important for boosting rural manufacturing activity. Moreover, for rural manufacturing to work as a transformative force in rural areas, the paper highlights the need for encouraging greater formalisation – particularly through registration in Udyam, goods and services tax (GST), and SVANidhi that could enhance access to all government schemes aimed at promoting Micro, Small and Medium Enterprises (MSMEs); strengthening delivery of adequate formal credit through rural financial institutions (RFIs), particularly rural cooperatives that, as multipurpose vehicles, could also focus on grassroots level skill development, ease of doing business, market linkage, adoption of digital infrastructure and modern production techniques, and enhance awareness about input use efficiency and quality of output to be able to boost exports; and, augmentation of rural infrastructure and logistics capacity – where private capital is reluctant to move due to cash flow uncertainty – and adequate refinancing of RFIs through NABARD.

## Introduction

Promotion of rural non-farm activities holds the key to raising rural income in sync with the eight fold increase in per capita income that will be required for India to become Viksit by 2047. According to the findings of the NABARD's All India Rural Financial Inclusion Survey (NAFIS, 2021-22), only 27% of average rural household income is generated from cultivation and livestock rearing, and therefore, non-farm income growth will be critical to enhance rural prosperity in future. As highlighted by Subramanyam (2025), the National Manufacturing Mission will be crucial to the goal of becoming a developed nation by 2047, when the country's overall GDP at about USD 30 trillion must have a contribution from manufacturing of USD 7.5 trillion, or 25% of GDP. The Mission "will serve as an overarching body— for policies, incentives, and actions to drive India's manufacturing future". Nageswaran and Abraham (2025), arguing that "India's share of manufacturing in its economy could easily expand", emphasised that the proposed Mission "needs to be finalised and operationalised soon". This paper aims at identifying major challenges encountered in rural manufacturing to propose needed policy interventions, which may help in designing the specific contours of a forward-looking manufacturing policy that is also relevant for rural and unorganised manufacturing.

India's manufacturing space, as has been widely reported in the literature, is dominated by large number of micro and small enterprises, and it also has a dualistic character – organised (formal) *versus* unorganised (informal), with the latter having a disproportionately large share in employment but much lower share in the overall manufacturing sector gross value added (GVA) (India Productivity Report, 2023; and Goldar, 2023). Two key sources of detailed information that help analyse the achievements of and challenges facing the manufacturing sector of India are the Annual Survey of Industries (ASI), which broadly covers the organised sector, and the Annual Survey of Unincorporated Sector Enterprises (ASUSE), which covers the unorganised sector. Both surveys also provide rich information, classified distinctly under rural and urban categories separately. The Ministry of Statistics and Programme Implementation (MoSPI, 2025) offers a detailed account of how the data coverage and quality has progressively improved since the first ASI conducted in early 1960s and the first unincorporated/unorganised enterprise survey conducted in late 1970s.

Several aspects of both the data sets have been examined in the literature, covering important statistical and analytical issues – the National Statistical Commission (2012) Report of the Committee on Unorganised Sector Statistics dealt with many conceptual and definitional issues; strengths and weaknesses of India's industrial statistics were analysed by Manna (2010); the need for enlarging the scope of ASI was highlighted by Manna and Bhattacharjee (2004); and the quality of India's industrial statistics has been questioned by Nagaraj (1999 and 2025).

In the more recent period, much of the focus of the debate in the literature has been on the suitability of ASI and ASUSE data for compilation of manufacturing GVA, and the related issue of overestimation/underestimation of manufacturing GVA. According to Nagaraj (2025a; 2025b), current national accounts data (base 2011-12) overestimate manufacturing sector GVA growth – 3.5% average annual GVA growth from 2011-12 to 2019-20 according to ASI data, as against 6.2% in the national accounts. Kumar and Sharma (2025) highlighted that in the base year estimates of 2011-12, while using the labour input method, gross value added per worker (GVAPW) for establishments in rural areas and directory establishments in urban areas were taken higher, leading to possible overcounting of informal sector output. Anant (2025), however, was of the view that informal sector data capture is now "better than it has ever been". Ranade and Limaye (2025) argued that ASUSE may be under-capturing formalised unincorporated enterprises, going by the registration data of Udyam and goods and services tax (GST) systems; Khokhar (2025) offered specific suggestions to address data gaps in ASUSE, including ways to capture government assistance received by MSMEs in the formalisation process, involving registration in UDYAM and PM SVANidhi, and exploring how to find out why enterprises prefer to remain unregistered. Manurkar and Goyal (2023) highlighted the case for developing new taxonomy for MSMEs, with a focus on nano enterprises. Notwithstanding the above statistical issues in data, both ASI and ASUSE data offer a large enough information set to explore key trends in the manufacturing sector, both positive and negative, from the standpoint of expected and aspired higher contribution of the manufacturing sector in future to output and employment in the economy.

Against this context, this paper studies the performance of rural manufacturing *vis-à-vis* urban manufacturing so as to suggest targeted policy interventions aimed at raising non-farm rural income and employment in the medium-run. Two large cross-sectional data sets for organised and unorganised manufacturing units help in not only

studying the shifting patterns in the performance of rural manufacturing but also in identifying policy variables from the data so as to assess their impact on manufacturing GVA. Some key facts relating to rural *versus* urban and organised *versus* unorganised manufacturing are discussed in Section II. Major trends in ASI data and related analytical points are covered in Section III. An assessment of trends in unorganised sector rural manufacturing is set out in Section IV. Empirical results along with inferences on the role of policy in driving the outcomes of rural manufacturing GVA are explained in Section V. Concluding observations with policy suggestions are given in Section VI.

## Section II: Rural Manufacturing Information Base

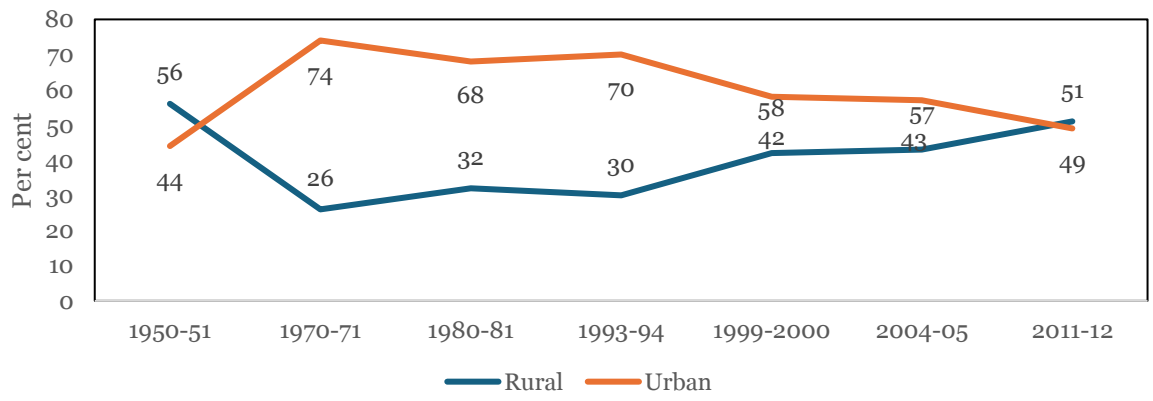
The sixth economic census (2013) provided comprehensive data on enterprises engaged in manufacturing activity, both organised and unorganised. Thereafter, given the non-availability of economic census (2019) data so far, the key source of information on organised sector manufacturing enterprises continues to be the Annual Survey of Industries (ASI) and the sources for unorganised enterprises are the periodic surveys of unincorporated non-agricultural enterprises, excluding construction (the last one conducted for 2015-16) and the recent annual surveys of unincorporated sector enterprises (ASUSE), which is available up to 2023-24. Both these data sets provide information for rural and urban areas, where the definition of rural used for classification is uniform, with MoSPI being the source for both data sets.

According to the Sixth economic census (2013), out of 58.5 million establishments, 34.8 million (59.48%) were in rural areas, and about 77.6% of all establishments were engaged in non-agricultural activities. Number of establishments with 10 or more workers were only 0.80 million (1.37%). 72.7% of the non-agricultural establishments in rural India were self-financed (as against 83.7% in urban areas), which highlighted the extent of financial exclusion that was prevailing then for those engaged in non-farm activities. 86.5% of the agricultural establishments were self-financed in rural areas (88.2% in urban India), implying that non-farm establishments had relatively somewhat better access to external finance. Out of 1.03 crore manufacturing enterprises, 54.4 lakh were in rural areas, and out of 3.04 crore persons employed in manufacturing, 1.36 crore persons were in rural manufacturing enterprises.

The Annual Survey of Industries (ASI), according to MoSPI, provides information on important characteristics of registered manufacturing sector and it covers all factories registered under Sections 2m(i) and 2m(ii) of the Factories Act, 1948, *i.e.*, those factories employing 10 or more workers using power; and those employing 20 or more workers without using power[2]. Out of 2,60,061 registered factories in the frame in 2023-24, 43% were in rural areas; in total employment of 1.96 crore the rural share was 45 %; and the share of rural in gross value added (GVA) was about 49%.

Unlike registered manufacturing, the number of unincorporated manufacturing enterprises were much larger, about 2 crore in 2023-24 (as per ASUSE 2023-24), and 60 per cent of them were rural. Out of total employment of about 3.4 crore, the rural share was 52%. As per MoSPI data, the share of rural in net value added from manufacturing (at constant 2011-12 prices) was 51.2% in 2011-12 when the base year for national accounts was last revised, and the share has increased over time (Chart 1). Thus, rural manufacturing activity remains critical for not only raising rural prosperity by augmenting rural non-farm employment and income, but also for fostering stronger inclusive growth at the national level.

**Chart 1: Share of Rural in Manufacturing GVA**

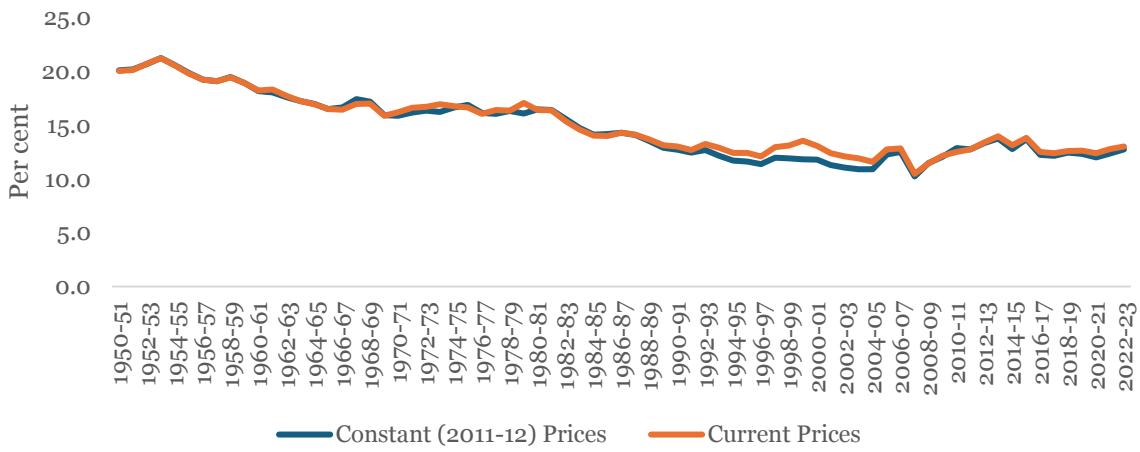



Source: MoSPI and Mohan (2025)

[2] This definition has been modified by the MoSPI due to the amendment of the Factories Act, 1948 for the State of Maharashtra and Rajasthan, which is applicable from ASI 2015-16 onwards and for Goa, which is applicable from ASI 2022-23 onwards, as noted below : "Section 2m(i) has been modified, *i.e.,* from 10 or more workers with power to 20 or more workers with power and also Section 2m(ii), *i.e.,* from 20 or more workers without power to 40 or more workers without power."

Nagaraj (2016) had highlighted the 22% decline in household (unorganised or informal) sector GVA in 2011-12 (new series) compared with the 2004-05 series, where the decline in manufacturing GVA was sharper by 48.7%, to argue that unorganised sector output is underestimated. As clarified by Murthy (2020), unincorporated enterprises that maintain accounts are treated as quasi corporates and become part of the formal sector. Adjusting for this factor, the share of unorganised manufacturing to total manufacturing GVA drops by about half. MoSPI (2015) also clarified that quasi corporations include "unincorporated enterprises that provide non-financial services and maintain accounts", and with an example it had explained how organised sector manufacturing GVA increases by about 34.7% and unorganised sector manufacturing GVA declines by about 19.8% in 2011-12 (new series) compared with estimates as per the old series (2004-05 as the base). Household sector is clearly presented as the unorganised sector now, that excludes quasi corporations. MoSPI data on the share of unorganised sector in total manufacturing sector GVA for 2011-12 works out to 12.7% (at both current prices and constant prices), and has remained largely unchanged since then (Chart 2).

**Chart 2: Share of Unorganised Sector in Manufacturing GVA**




Source: MoSPI

The distinction between organised (formal) and unorganised (informal) manufacturing is important for any meaningful analysis because of the large productivity gap between them – as against annual per worker GVA of about Rs. 12 lakh in 2022-23 according to ASI data, the corresponding per worker GVA as per ASUSE data was only about Rs. 1.5 lakh, implying an eightfold gap in productivity (Karkun and Prakash, 2025). When both Chart 1 and 2 are seen together, it becomes

evident that for boosting rural income, organised manufacturing must play a major role, because of its high share (87%) in total manufacturing GVA, and higher productivity. Moreover, incentives for formalisation to benefit from various government schemes through registration, such as Udyam, GST, and SVANidhi could reduce further the share of unorganised in manufacturing GVA, going ahead. Only 10.6% of rural manufacturing unorganised enterprises were registered under different acts/authorities in 2023-24, but not in Udyam or GST, and nearly all of them did not maintain audited books of accounts [3].

## Section III: Rural Organized Manufacturing Activity

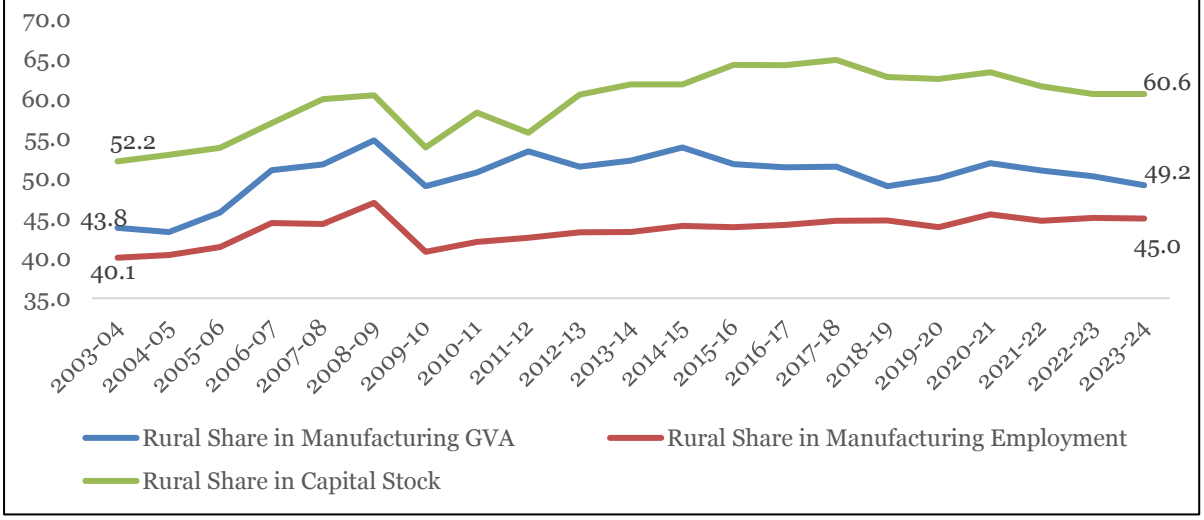
Some of the worrying trends in organized manufacturing are well documented in the literature – rising capital intensity of production, and falling labour share of income as an outcome of increasing use of contract workers and wage growth lagging labour productivity (Basole and Narayan, 2020). During 1983-2017, according to this study, output increased by nearly 15 times, while employment only doubled. ASI based output and investment growth rates have been lower than national account estimates; and there has been a long term stagnation in the share of manufacturing in GDP along with a decline in the share of manufacturing in total workforce (Nagaraj, 2025). This paper explores whether the performance of rural organised manufacturing has been

[3] "ASUSE captures information regarding status of registration in respect of the surveyed establishments under various acts (such as, Shops & establishment Act, Indian Trust Act 1882 (incl. State Public Trust Act), Societies Registration Act, 1860, Co-operative Societies Act, 1912, GST Act, etc.) and authorities (such as, Food Safety and Standard Authority, Employees' Provident Fund Organization, Employees' State Insurance Corporation, State Directorate of Industries, Regional Transport Office, etc.)." 99.6 % of all rural establishments covered under ASUSE (*i.e.*, manufacturing, trade and other services) had no audited books of accounts.(Source: ASUSE 2023-24 Summary Findings, MoSPI). ASUSE excludes "(a) establishments which are incorporated *i.e.* registered under Companies Act, 1956/ Companies Act, 2013; (b) manufacturing establishments and other non-manufacturing establishments covered under Annual Survey of Industries (ASI); (c) electricity units registered with the Central Electricity Authority (CEA); and (d) Government Department/Government Company/Government Society/ Public Sector Unit.". ASUSE makes a clear distinction between an enterprise and an establishment (*i.e.*, an establishment situated at a single location could be an enterprise in itself or be a part of an enterprise), and follows the establishment approach. In this paper both concepts are used interchangeably in analytical presentation of facts.

better than urban organised manufacturing, given its importance to raise non-farm income in rural areas in future.

While the share of rural in total organised manufacturing GVA was about half in 2023-24 (increasing from about 44% in 2003-04), its share in total fixed capital was higher at about 60 %, while the share in employment was lower at about 45% (Chart 3). It shows that rural organised manufacturing has been relatively more capital intensive.

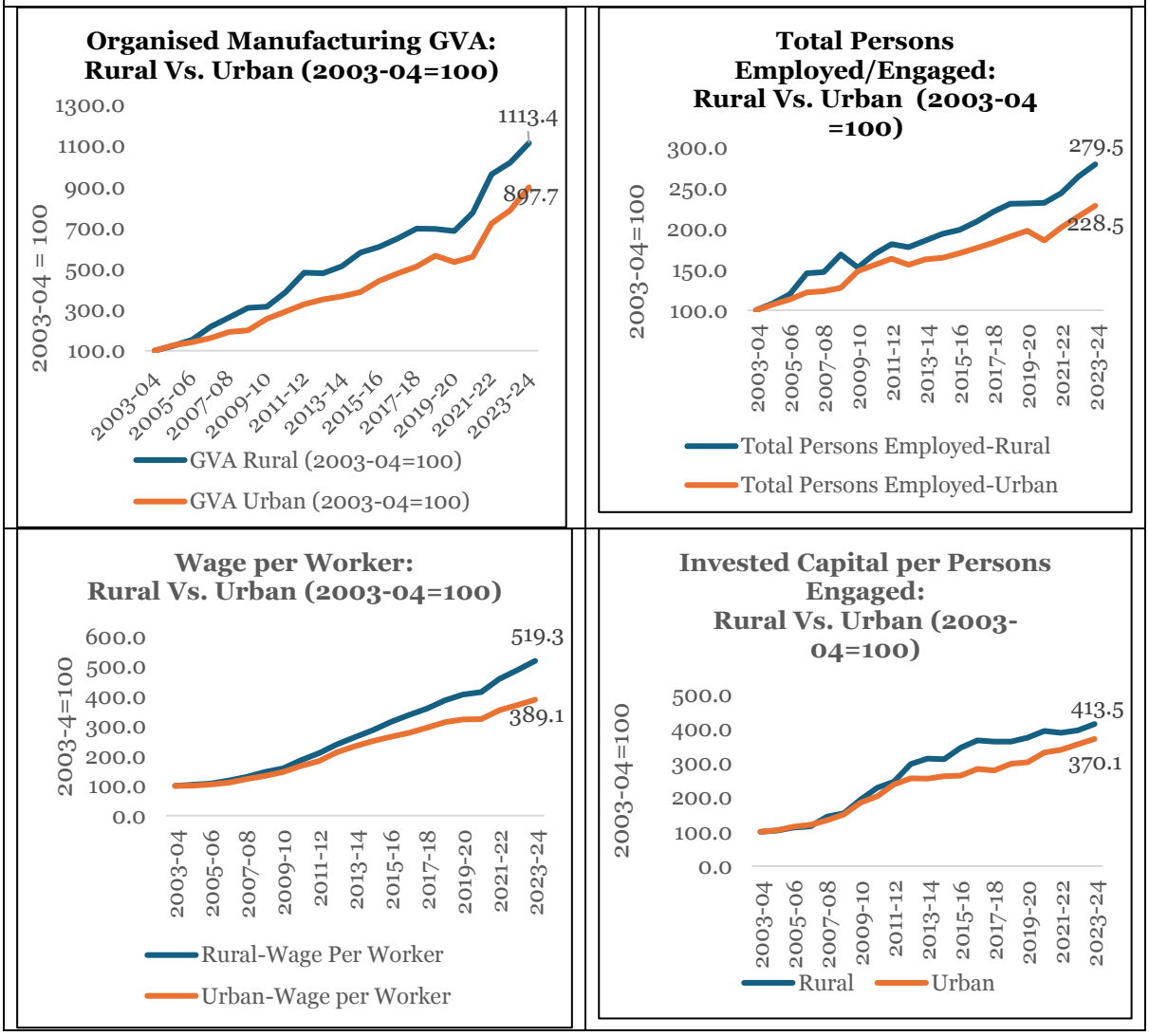
**Chart 3: Rural Share in Organised Manufacturing GVA, Employment and Fixed Capital**




The compound annual growth rate (CAGR) of rural organised manufacturing nominal GVA during the period 2003-04 to 2023-24 at 12.8 per cent has been higher than 11.6% for urban organised manufacturing, as a result of which (when indexed to 2003-04=100), rural GVA has increased by 11.13 times since 2003-04 as against 8.98 times for urban (Chart 4). The corresponding period increase in total workers engaged, however, was only 2.8 times in rural areas and 2.3 times in urban areas, pointing to the overall low employment intensity of manufacturing GVA, though rural was somewhat better than urban. Wage per worker during the same period increased by 5.2 times in rural areas, as against 3.9 times in urban organised manufacturing enterprises. This might have partly contributed to greater capital intensity in rural manufacturing – invested capital per persons engaged/employed rose 4.1 times in rural organised manufacturing, as against 3.7 times for urban. In 2003-04, it required an invested capital of Rs. 10.3 lakh to engage one person in a rural organised manufacturing unit, which increased to Rs. 44.6 lakh in 2023-24 (the corresponding

numbers for urban were Rs. 6.3 lakh and Rs. 26.6 lakh, respectively). Similar increase in investment requirement to engage one person in organised manufacturing was also reported in Basole and Narayan (2020), but for a different time period.

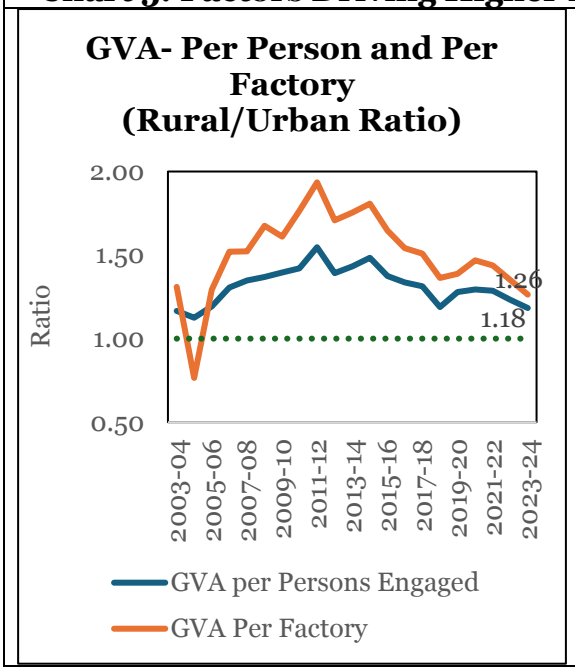
**Chart 4: Performance of Rural Organised Manufacturing Relative to Urban**

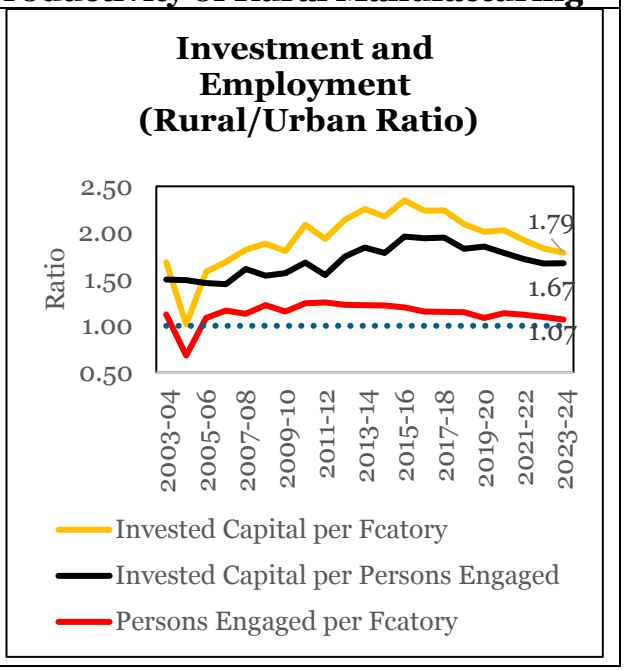



It is found that rural organised manufacturing has been relatively more productive – in terms of both GVA per factory and GVA per persons engaged, and the ratios (rural to urban) have remained greater than 1 consistently. In 2023-24, for example, rural GVA per factory was 1.26 times of urban GVA per factory, and rural GVA per persons engaged was 1.18 times of urban GVA per persons engaged (Chart 5). The higher productivity resulted from marginally higher labour intensity and significantly higher capital intensity of rural manufacturing. The rural to urban ratio for persons engaged per factory has exceeded 1 since 2005-06, indicating marginally

higher labour intensity of rural manufacturing. The rural to urban ratios for both invested capital per factory and invested capital per persons engaged have exceeded 1 by a wide margin, indicating higher capital intensity. For example, in 2023-24, invested capital per factory in rural was 1.79 times of invested capital per factory in urban, and invested capital per persons engaged in rural was 1.67 times of invested capital per persons engaged.

**Chart 5: Factors Driving Higher Productivity of Rural Manufacturing**




## Section IV: Rural Unorganized Manufacturing Activity

Periodic surveys of MoSPI provide rich information on various aspects of unorganised manufacturing activity in India. Different sectors (manufacturing, trade and other services) used to be surveyed separately in the past, but they were integrated into a single survey staring with the 67th Round of the NSS survey (MoSPI, 2025). Manikandan *et al.,* (2016) had used data from surveys on unorganised manufacturing enterprises in the 51st round (1994-95), 56th round (2000-01) and 62nd round (2005-06) to assess the performance of unorganised manufacturing in India during that period. This study covers surveys for the period thereafter, *i.e.,* since the 67th round (2010-11) to examine how the patterns have changed in the last thirteen years.

Manikandan *et al.*, (2016) had highlighted that while the unorganised sector is a major source of employment in both rural and urban areas, policies need to

safeguard the interests of both the workforce and the enterprises. The number of workers per enterprise in rural areas had declined from 2.11 in 1994-95 to 2.01 in 2000-01 and 1.93 in 2005-06 (and the corresponding numbers for urban areas were 2.76, 2.57, 2.63, respectively). Compound annual growth rate (CAGR) of fixed assets for all unorganised manufacturing enterprises had also dropped from 10.67% during 1994-95 to 2000-01 to 6.62% during 2000-01 to 2005-06. CAGR for nominal GVA during the corresponding period for the unorganised manufacturing sector had also moderated from 10.95% to 7.79%, respectively. Kathuria *et al*., (2010) analysed data from the same three survey rounds to conclude that both labour productivity and capital intensity growth had moderated, particularly between 2000-01 and 2005-06, and labour played a lesser role than capital in the production process, which is a concern given that unorganised manufacturing is expected to be labour intensive. The performance of unorganised manufacturing appears to have further deteriorated, particularly in rural areas, as per insights from the survey data for the more recent period. In a review of literature on the performance of unorganised manufacturing in India since 1980s, Mawkhiew *et al*., (2021) had also highlighted unorganised manufacturing units in rural areas having a higher proportion of total unorganised manufacturing units and employment, relative to their share in fixed capital and GVA, and how own account micro enterprises dominate in terms of their share in the total number of units and total employment, implying the need for targeted policy focus on micro enterprises. The same pattern continues even now, as evident from recent data.

Out of a total of about 12 crore estimated number of workers in the unorganised sector (excluding agriculture and construction), manufacturing activity absorbs about 3.4 crore, 52% of which is rural (ASUSE, 2023-24). What is important to note is that the share of rural in total number of unincorporated manufacturing enterprises, employment (number of workers) in unorganised manufacturing, and unorganised manufacturing GVA has remained reasonably stable since 2010-11 (Table 1). Unorganised urban enterprises, however, have remained more productive (in terms of GVA per enterprise and GVA per worker), which could be partly due to their higher fixed investment (fixed asset owned per enterprise) and greater use of credit (outstanding loans per enterprise), besides paying higher emoluments to hired workers (Table 2). The emolument gap between rural and urban for hired workers seems to be closing, which may lower the comparative cost advantage of rural

enterprises, but may also help in boosting rural demand, which is congenial for overall growth in the economy. (Annex Table 1).

| Table 1: Unorganised Manufacturing (Rural Share) | | | |
|---|---|---|---|
| | Rural Share in Total Number of Enterprises | Rural Share in Number of Workers | Rural Share in GVA |
| 2010-11(July-June) NSS 67th Round | 58.8 | 53.1 | 36.6 |
| 2015-16(July-June) NSS 73rd Round | 58.0 | 51.8 | 33.5 |
| 2021-22 (April-March) ASUSE | 62.1 | 55.7 | 39.9 |
| 2022-23 (Oct-Sept)) ASUSE | 60.1 | 54.4 | 39.1 |
| 2023-24 (Oct-Sept) ASUSE | 60.0 | 52.1 | 37.7 |

| Table 2: Unorganised Manufacturing (Urban/Rural Ratio) | | | | | |
|---|---|---|---|---|---|
| | GVA per Enterprise | GVA per Worker | Fixed Assets Owned per Enterprise | Annual Emoluments per Hired Worker | Outstanding Loans per Enterprise |
| 2010-11(July-June) NSS 67th Round | 2.47 | 1.96 | 2.92 | 1.52 | 2.20 |
| 2015-16(July-June) NSS 73rd Round | 2.75 | 2.13 | 3.63 | 1.53 | 4.47 |
| 2021-22 (April-March) ASUSE | 2.47 | 1.89 | 2.62 | 1.20 | 2.25 |
| 2022-23 (Oct-Sept)) ASUSE | 2.35 | 1.86 | 2.03 | 1.34 | 1.45 |
| 2023-24 (Oct-Sept) ASUSE | 2.48 | 1.80 | 2.42 | 1.28 | 4.27 |

What is particularly revealing from the data on unincorporated manufacturing enterprises is that nearly the entire universe belongs to the category of MSMEs, and more than 99% of them are micro enterprises (Table 3). Because of the periodic changes in the classification of MSMEs – by raising the threshold amounts for investment and turnover – majority of the enterprises seem to have remained in the micro category (Table 4). In the rural areas, about 94% of the manufacturing enterprises belong to own account category (implying they do not use hired labour), with self-employment for about 1.4 crore workers. Their GVA per enterprise in 2023-24 was only Rs. 71, 405, and GVA per worker was only Rs. 58, 845. For the remaining 6 % of the rural unincorporated manufacturing enterprises that employ hired workers,

however, the GVA per enterprise was about 12.5 times higher (at Rs. 8, 90, 780), and GVA per worker was about 2.8 times higher (at Rs. 1,66, 097) (Annex Table 1). (In rural organised manufacturing, GVA per enterprise and per worker was Rs. 10.72 crore and Rs 13.71 lakh, respectively, as set out in Annex Table 2). 94% of the manufacturing enterprises belonging to the own account category, had very low per enterprise fixed assets of Rs. 1, 07, 797 in 2023-24 (corresponding numbers for rural hired worker establishments in the unorganised sector and in rural organised manufacturing were Rs. 1,68, 707 and Rs. 28.48 crore, respectively).

| Table 3: % of Manufacturing Enterprises Classified as MSMEs | | | | | |
|---|---|---|---|---|---|
| | **Micro** | **Small** | **Medium** | **MSME (Total)** | **Non-MSME** |
| 2015-16(July-June) NSS 73rd Round | 99.670 | 0.330 | 0.000 | 100.000 | 0.000 |
| 2023-24 (Oct-Sept) ASUSE | 99.920 | 0.073 | 0.005 | 99.998 | 0.002 |

Unlike the transition of firms from micro and small to medium and large in case of organised manufacturing (Table 3a), there is no such transition in unorganised manufacturing (Table 3), suggesting that periodic revision (increase) in investment and turnover limits for classifying MSMEs (Table 4) may need to keep in perspective the slow transition in the unorganised space and also large percentage of enterprises (46%) still remaining as micro and small even in the organised manufacturing space.

| Table 3a- Organised Manufacturing Classified as MSMEs based on ASI Data | | | |
|---|---|---|---|
| **Rural** | **2002-03** | **2012-13** | **2022-23** |
| Micro | 40.5% | 25% | 19% |
| Small | 39.1% | 32% | 27% |
| Medium | 6.2% | 26% | 27% |
| Large | 14.2% | 17% | 26% |
| **Urban** | **2002-03** | **2012-13** | **2023-23** |
| Micro | 55% | 31% | 17% |
| Small | 34% | 36% | 35% |
| Medium | 4% | 21% | 29% |
| Large | 7% | 11% | 19% |

| Table 4: MSME Classification Changes (Rs. Crore) | | | | | |
|---|---|---|---|---|---|
| | 2006 | 2020 | | 2025 | |
| | Investment in Plant and Machinery (Manufacturing) | Investment in Plant and Machinery | Annual Turnover | Investment in Plant and Machinery | Annual Turnover |
| Micro | 25 lakh | 1 crore | 5 | 2.5 crore | 10 crore |
| Small | 5 crore | 10 crore | 50 | 25 crore | 100 crore |
| Medium | 10 crore | 50 crore | 250 | 125 crore | 500 crore |
| The Micro, Small, and Medium Enterprises Development (MSMED) Act, 2006 added "services", as the MSME classification till then covered only manufacturing, when investment in plant and machinery was used as the single criterion. In July 2020, the distinction between enterprises involved in the services and manufacturing sector was removed, and annual turnover was used as another parameter besides investment in plant and machinery (please refer to Manurkar and Goyal, 2023, for further details). In 2025, the threshold values were raised – 2.5 times for investment and 2 times for turnover. | | | | | |

Generation of employment through rural unorganised manufacturing seems to have remained a challenge. Workers per enterprise, particularly in rural areas, has declined further since 2010-11 (Table 5). In terms of absolute number of workers, it has also declined from 1.85 crore in 2010-11 to 1.76 crore in 2023-24 (while in the urban areas it has increased from 20.8 crore to 21.9 crore during the corresponding period) (Annex Table 1).

| Table 5: Workers per Enterprise | | | | | | |
|---|---|---|---|---|---|---|
| | **Rural** | | | **Urban** | | |
| | **OAE** | **Estt** | **All** | **OAE** | **Estt** | **All** |
| 2010-11(July-June) NSS 67th Round | 1.45 | 5.42 | 1.83 | 1.44 | 4.85 | 2.31 |
| 2015-16(July-June) NSS 73rd Round | 1.35 | 4.91 | 1.63 | 1.35 | 4.59 | 2.11 |
| 2021-22 (April-March) ASUSE | 1.23 | 5.24 | 1.45 | 1.25 | 4.39 | 1.89 |
| 2022-23 (Oct-Sept) ASUSE | 1.22 | 6.05 | 1.55 | 1.25 | 4.57 | 1.97 |
| 2023-24 (Oct-Sept) ASUSE | 1.21 | 5.36 | 1.45 | 1.26 | 4.84 | 2.00 |

Note: OAEs –Own Account Enterprises; Estt – Establishments or Hired Worker Establishments (HWEs)

CAGR of nominal GVA per rural enterprise at 5.95% (between 2010-11 and 2023-24) has been modest, but CAGR of GVA per worker has been relatively higher at 7.85%, which essentially reflects the impact of falling workers per enterprise. CAGR of fixed assets and loans, which could be viewed as key inputs to growth, have remained more sluggish than growth in GVA for the rural enterprises (Table 6).

| Table 6: CAGR (Key Performance Indicators) | | |
|---|---|---|
| | **Rural** | **Urban** |
| GVA per Enterprise (Rupees) | 5.95 | 5.98 |
| GVA per Worker (Rupees) | 7.85 | 7.14 |
| Fixed Assets Owned per Enterprise (Rupees) | 4.69 | 3.21 |
| Outstanding Loans per Enterprise (Manufacturing, in Rupees) | 4.27 | 9.73 |

In the rural unorganised manufacturing space, own account enterprises (OAEs) clearly dominate, with high share in total number of enterprises (94%) and total number of workers (79%). But hired worker establishments (HWEs), or establishments, produce more GVA (about 12.5 times of per OAE GVA), have higher fixed assets (7.2 times of per OAE fixed assets) and outstanding loans (119.9 times of per OAE outstanding loans) (Table 7). This poses the empirical question whether with better access to credit, and more fixed investment, the GVA of OAEs could converge to the levels of per HWE GVA.

| Table 7: Performance of Own Account Enterprises (OAEs) | | | | | |
|---|---|---|---|---|---|
| | Estimated Number of Enterprises (000) | Estimated Number of Workers (000) | Outstanding Loans per Enterprise (Manufacturing, in Rupees) | Fixed Assets Owned per Enterprise (Rupees) | GVA per Enterprise (Rupees) |
| | OAE/Total (%) | OAE/Total (%) | Est/OAE(Ratio) | Est/OAE (ratio) | Est/OAE (ratio) |
| 2010-11(July-June) NSS 67th Round | 90.3 | 71.4 | 96.9 | 9.1 | 8.7 |
| 2015-16(July-June) NSS 73rd Round | 92.0 | 75.9 | 41.7 | 6.0 | 8.7 |
| 2021-22 (April-March) ASUSE | 94.5 | 80.3 | 79.1 | 8.1 | 12.8 |
| 2022-23 (Oct-Sept) ASUSE | 93.1 | 73.0 | 164.7 | 9.6 | 14.2 |
| 2023-24 (Oct-Sept) ASUSE | 94.2 | 78.7 | 119.9 | 7.2 | 12.5 |

In the NSS 73rd round, information was collected on the percentage of unincorporated enterprises receiving any assistance from the government, and the type of assistance. More than 99 per cent of the enterprises had reported not receiving any assistance (Table 8). Besides the need to collect similar data on a regular basis, policy initiatives need to better target micro enterprises, as headline numbers for MSMEs or the manufacturing sector may often hide the real state of affairs facing the

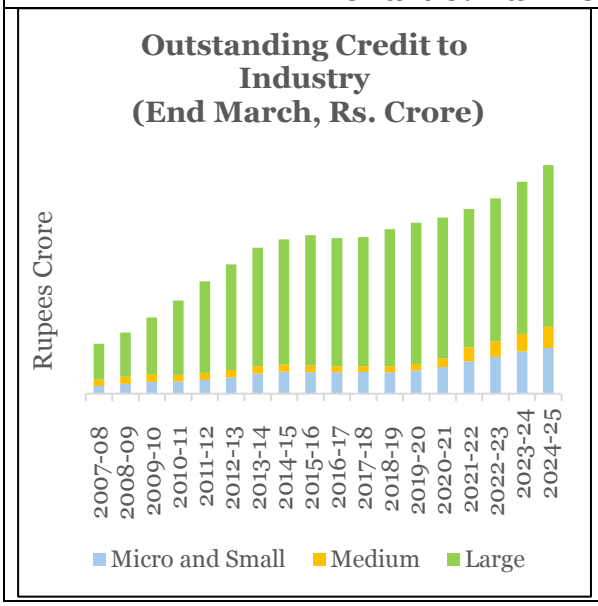
micro enterprises. While the share of micro and small enterprises in total credit to industry has improved since 2015-16 – from 13.6% to 20.1% in 2024-25, in the absence of separate data for micro enterprises, it may be difficult to infer whether their access to credit has improved (Chart 6). As per the current priority sector lending (PSL) norms, domestic commercial banks must meet the sub target of 7.5 % of Adjusted Net Bank Credit (ANBC) or Credit Equivalent of Off-Balance Sheet Exposures (CEOBSE), whichever is higher, for micro enterprises. According to the Report on Trend and Progress, RBI, at end March 2024, outstanding credit to micro enterprises at Rs. 11,85, 956 crore was 9.2% of ANBC/CEOBSE, which was more than the PSL sub-target for micro enterprises. At end March 2017, outstanding credit to micro enterprises of Rs. 3,151,000 crore was about 6.3% of ANBC/CEOBSE, which was less than the sub-target of 7.5%. The 73rd round NSS findings (of more than 99 per cent of enterprises not getting financial loan) and the PSL target achievement data show major inconsistency between them.

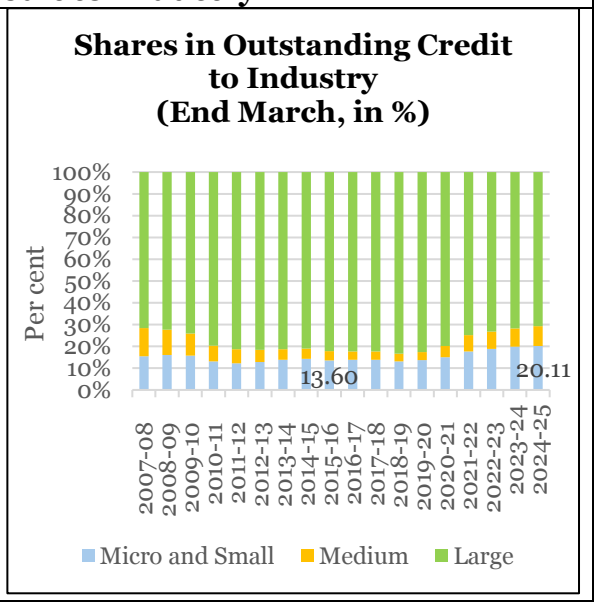
**Table 8: Percentage of Manufacturing Enterprises Receiving Assistance from the Government**

| | **Rural** | | | **Urban** | | | **Rural + Urban** | | |
|---|---|---|---|---|---|---|---|---|---|
| | OAE | Estt* | All | OAE | Estt* | All | OAE | Estt* | All |
| Financial loan | 0.3 | 2.2 | 0.4 | 0.3 | 0.7 | 0.4 | 0.3 | 1.2 | 0.4 |
| Subsidy | 0.2 | 1.0 | 0.3 | 0.4 | 0.6 | 0.4 | 0.3 | 0.8 | 0.4 |
| Machinery/equipment | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Skill development | 0.1 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | 0 | 0.1 |
| Marketing | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Raw materials | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Others | 0.1 | 0.5 | 0.1 | 0.2 | 0.4 | 0.3 | 0.1 | 0.5 | 0.2 |
| % of Enterprises not Receiving any Assistance | **99.2** | **96.1** | **99** | **99.1** | **98.2** | **98.9** | **99.2** | **97.6** | **98.9** |

Source: 2015-16(July-June) NSS 73rd Round
https://www.mospi.gov.in/sites/default/files/publication_reports/NSS_581.pdf (Statement 23.1, page no. 90)
* An enterprise employing at least one hired worker on a fairly regular basis is termed as establishment (or hired worker establishment, HWE).

**Chart 6: Bank Credit to Industry**




Source: RBI Handbook of Statistics

## Section V: Empirical Findings

Cross-sectional regression methodology is used for analysis in this section, recognizing the availability of rich unit level data in both ASI and ASUSE for recent years, and the known challenges of using a panel data set for manufacturing data in India. For a panel, data for the same unit must be available for all the years. While Chottopadhya *et al.* (2012) and Roy (2022) provide ways to use panel data for ASI, no such option is available for ASUSE data. Therefore, unit level cross-sectional data for a single year for the recent period is used to examine the sensitivity of manufacturing GVA to policy variables, the latter information being restricted to what may be available in the two data sets.

Latest available unit level data – 2022-23 for ASI and 2023-24 for ASUSE – are used in cross-sectional regressions. Organized manufacturing GVA is modelled as a function of invested capital, total subsidies received, R&D expenses incurred, and interest paid. All variables are used with and without log transformation in two separate equations. Since some of the firms have reported zero values (or not available) for some of the variables like R&D expenses or subsidies in ASI data, the log(x+1) transformation was applied to all variables, thereby allowing the inclusion of zero-value observations in a log-linear model. Units with negative GVA (which is a small fraction of total number of units) were excluded in the regression analysis.

Without log transformation, all explanatory variables in the model yield correctly signed and statistically significant coefficients, indicating the positive sensitivity of rural manufacturing GVA to higher subsidies, R&D expenses and capital investment, and the negative impact of higher interest payments (Table 9). With log transformation, interest paid yields perverse results which are also not statistically significant, but other three explanatory variables show high degree of positive influence on GVA, as evident from the high value of R-squared (more than 0.86).

**Table 9: Regression Results for Organised Manufacturing**

| | **All (Rural plus Urban)** | | **Rural** | |
|---|---|---|---|---|
| **Log GVA** | | | | |
| | Coefficient | Std. error | Coefficient | Std. error |
| Log (Subsidies Received) | 0.02*** | 0.00 | 0.02*** | 0.01 |
| Log (R&D Expenses) | 0.02*** | 0.00 | 0.03*** | 0.01 |
| Log (Invested Capital) | 1.02*** | 0.00 | 1.02*** | 0.00 |
| Constant | 0.12*** | 0.02 | 0.02 | 0.04 |
| R-Squared | 0.8830 | | 0.8634 | |
| | | | | |
| **GVA** | | | | |
| | Coefficient | Std. error | Coefficient | Std. error |
| Subsidies Received | 0.22*** | 0.02 | 0.20*** | 0.03 |
| R&D Expenses | -0.36 | 0.83 | 4.98*** | 1.17 |
| Interest Paid | -8.18*** | 0.17 | -1.47*** | 0.29 |
| Invested Capital | 2.22*** | 0.01 | 2.03*** | 0.01 |
| Constant | 273000000*** | 40700000 | 81700000 | 61500000 |
| R-Squared | 0.8312 | | 0.8872 | |

***Significance level: $p < 0.01$ (*i.e.,* significant at the 1% level)

To ensure the stability of the Ordinary Least Squares (OLS) estimates, a diagnostic test for multicollinearity was conducted by calculating the Variance Inflation Factor (VIF) for all predictors (Table 10). The VIF values for all variables are below the common threshold of 5, and the mean VIF for each model is also very low, indicating that multicollinearity is not a concern, thereby enhancing the reliability of the estimated coefficients.

Unorganised sector GVA was modelled as a function of fixed assets, loans taken, emoluments paid to hired workers, and internet use (which is a binary variable, in terms of yes/no). The raw data from 16 files corresponding to different schedule levels and blocks were merged into a single establishment-level dataset using the unique primary key provided in the official survey documentation. To account for the high skewness common in large cross sectional data, the model uses all variables with log

transformation. The explanatory variables yield expected and statistically significant results for both total unorganised manufacturing GVA and rural unorganised manufacturing GVA (Table 11). The model demonstrates a good fit, explaining approximately 77% of the variation in the dependent variable (R-squarred= 0.7715 for rural). The estimated VIF values are below the threshold value of 5 for all variables, and the mean VIF for each model is also very low, indicating no multicollinearity risks to model stability (Table 12).

**Table 10: Multicollinearity Test: Variance Inflation Factor (VIF)**

| | All (Rural plus Urban) | | Rural | |
|---|---|---|---|---|
| Variable | VIF | 1/VIF | VIF | 1/VIF |
| Log Invested Capital | 1.03 | 0.97 | 1.03 | 0.97 |
| Log R&D Expense | 1.02 | 0.98 | 1.02 | 0.98 |
| Log Total Subsidies | 1.01 | 0.99 | 1.01 | 0.99 |
| Mean VIF | 1.02 | | 1.02 | |
| | | | | |
| Invested Capital | 1.99 | 0.50 | 2.83 | 0.35 |
| Interest Paid | 1.97 | 0.51 | 2.82 | 0.35 |
| R&D Expense | 1.01 | 0.99 | 1.00 | 1.00 |
| Total Subsidies | 1.00 | 1.00 | 1.00 | 1.00 |
| Mean VIF | 1.50 | | 1.91 | |

Note: VIF shows how much a variable is correlated with other explanatory variables. If VIF > 10, multicollinearity might be a problem. 1/VIF (Tolerance) tells how much of the variable is unique. Lower values mean higher multicollinearity.

**Table 11: Regression Results for Unorganised Manufacturing**

| | All (Rural plus Urban) | | Rural | |
|---|---|---|---|---|
| **Log GVA** | | | | |
| | Coefficient | Linearized std. error | Coefficient | Linearized std. error |
| **Log (Loan)** | 0.00*** | 0 | 0.00*** | 0 |
| **Log (Fixed Assets)** | 0.11*** | 0.01 | 0.13*** | 0.02 |
| **Log (Emoluments)** | 0.42*** | 0.01 | 0.40*** | 0.01 |
| **Internet Use** | 0.14*** | 0.02 | 0.12*** | 0.03 |
| **Constant** | 7.79*** | 0.12 | 7.74*** | 0.15 |
| **R-squared** | 0.7469 | | 0.7715 | |

Note: ***Significance level: < 0.01 (*i.e.*, significant at the 1% level. The overall model is highly significant, as indicated by the F-statistic (Prob > F =0.000) for both the models. Due to the complex multi-stage stratified design of the ASUSE survey, all estimations were performed using Stata's svy command suite, for obtaining unbiased standard errors and valid statistical inferences.

**Table 12: Multicollinearity Test: Variance Inflation Factor (VIF)**

| **Sector** | **All (Rural plus Urban)** | | **rural** | |
|---|---|---|---|---|
| **Variable** | **VIF** | **1/VIF** | **VIF** | **1/VIF** |
| Log Loan | 1.84 | 0.54 | 1.97 | 0.51 |
| Log Fixed Assets | 1.83 | 0.55 | 1.94 | 0.51 |
| Log Emoluments | 1.79 | 0.56 | 1.86 | 0.54 |
| Internet use | 1.10 | 0.91 | 1.11 | 0.90 |
| **Mean VIF** | 1.64 | | 1.72 | |

## Section VI. Conclusions and Policy Suggestions

Rural manufacturing activity, both organised and unorganised, is partly influenced by local conditions and policies, but given the declining share of unorganised manufacturing in total manufacturing GVA due to greater formalisation, there are common factors at play now that shape the performance and prospects of overall manufacturing in the country, both rural and urban. This paper uses ASI and ASUSE data to unravel how rural manufacturing has performed *vis-a-vis* urban manufacturing, with a view to identifying areas where rural specific policy interventions may be useful, if incorporated in the proposed National Manufacturing Mission. Among the key performance parameters, the focus of the paper is on productivity, capital and labour intensity of firms, and the role of cost of finance, subsidies and R&D expenditure in influencing manufacturing GVA.

It emerges from the data analysis that: (a) the share of rural in organised manufacturing gross value added (GVA) at 50% is higher than its share in unorganised manufacturing GVA at about 38%, suggesting the importance of the former to rural income growth, given particularly the overall low share of unorganised manufacturing (about 13 %) in all India manufacturing GVA; (b) rural organised manufacturing is found to be more productive than urban organised manufacturing – both in terms of GVA per factory and GVA per workforce, which may be partly due to the observed marginally higher labour-intensity and substantially higher capital intensity of rural organised manufacturing; (c) in turn, unorganised urban enterprises are found to be more productive (in terms of GVA per enterprise and GVA per worker), which could be partly due to their higher fixed investments (*i.e.,* fixed assets owned per enterprise) and greater use of credit (*i.e.,* outstanding loans per enterprise); (d) in unorganised manufacturing, the share of rural in employment at 52% is higher than its share in GVA (38%), while in organised manufacturing the share of rural in

employment at 45% is lower than its share in GVA (50%), which is reflected in large labour productivity gaps between them; (e) rural per worker annual GVA in organised manufacturing was at Rs. 13.7 lakh in 2023-24 as against Rs. 1.19 lakh in rural unorganised manufacturing, which highlights the importance of formalisation; (f) it required invested capital of Rs. 10.3 lakh to engage (or employ) one person in a rural organised manufacturing unit in 2003-04, which increased to Rs. 44.6 lakh in 2023-24, pointing to the rising capital requirement of employment generation in organised manufacturing in India; (g) more than 99% of rural unorganised enterprises continue to remain micro, indicating almost no transition to small and medium categories over time, unlike in the organised manufacturing space where the transition is distinct, suggesting the need for better targeting of government schemes to benefit the micro enterprises in the unorganised sector; and (h) survey based data show much lower access to formal finance for manufacturing enterprises than published banking data on credit.

About 94% of rural unorganised manufacturing units are own account enterprises(OAEs) (implying they do not use hired labour), but the remaining 6% that employ hired workers – hired worker establishments (HWEs), or establishments – produce about 12.5 times GVA, have 7.2 times higher fixed assets and 119.9 times outstanding loans of OAEs. Empirical results show that GVA responds positively when expenditure on remuneration paid to hired workers increases. Between 2010-11 and 2023-24, CAGR of fixed assets and loans, which could be viewed as key inputs to growth, remained more sluggish for rural unorganised enterprises than growth in GVA.

Empirical analysis using cross-sectional regressions suggest that: (i) rural organised manufacturing GVA responds positively to subsidies, R&D expenditure, and investment size, while higher expenditure on interest payment operates as a drag; and (ii) rural unorganised manufacturing GVA responds positively to credit, investment (fixed assets), remuneration paid to hired workers and internet use. Thus, access to credit and lower cost of credit; incentives for R&D and capital investment; and promoting adoption of digital technologies are found to be important for boosting rural manufacturing activity.

Thus, it emerges clearly that if raising rural manufacturing GVA growth has to be set as the key policy goal, then either organised manufacturing or hired worker establishments (HWEs) should get policy attention (given their significantly higher

GVA per factory and per worker), but if enhancing employment generation through manufacturing has to be the goal, then capital intensity of employment generation in organised manufacturing may be prohibitively high. A balance, therefore, would need to be maintained while designing policies, that could discourage excessive capital intensity and promote labour intensity. A strategy of prioritising growth as the overriding objective, and expecting employment generation as a natural outcome of high growth, may have to be avoided as facts presented in this paper don't support such outcomes in practice. Access to formal finance from regulated financial entities and also access to various government incentive schemes for the manufacturing sector must be better aligned to the need for both exercising greater prudence in the use of capital and aiming to raise labour intensity of new investment, which, in turn, can help improve resource allocation, tied to achieving the dual objectives of growth and employment. Since small and micro enterprises offer the major alternative avenue to reduce excessive dependence on agriculture for rural income and employment generation, and also to avoid the rising costs of a chaotic urbanisation process, better targeted rural manufacturing policies may be necessary as part of the National Manufacturing Mission.

Given the empirical facts presented in this paper, among the required and feasible policy changes, the most important one could be to aim at near universal formalisation, so that enterprises could benefit from various government schemes through registration, such as in Udyam, GST, and SVANidhi, which could further reduce the share of unorganised in manufacturing GVA, going ahead. As per ASUSE data, only 10.6% of rural manufacturing unorganised enterprises were registered under different acts/authorities in 2023-24, and nearly all of them did not maintain audited books of accounts.

The Udyam registration could mean access to credit guarantee under the Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMS) scheme, participation in public procurement, protection against delayed payments, become eligible for bank loans under the priority sector, can onboard on Trade Receivable electronic Discounting System (TReDS) Platform, and Udyam is also integrated with Goods and Services Tax Identification Number (GSTIN). Registration under GST would enable firms to get input tax credit, sell through e-commerce platforms, and use GST invoices and digital evidence of turnover to get formal credit and expand business.

Registration in SVANidhi would mean access to the micro-credit facility, under which collateral-free loans are provided to the street vendors.

Unorganised workers also can have better access to social security schemes once they join the eShram portal, as thirteen schemes are integrated now in this portal, that include Pradhan Mantri Surakhsa Bima Yojana (PMSBY), Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY), Ayushman Bharat - Pradhan Mantri Jan Arogya Yojana, Prime Minister Street Vendors AtmaNirbhar Nidhi (PM-SVANidhi), PM Awas Yojana-Urban (PMAY-U), PM Awas Yojana- Gramin (PMAY-G), Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) and Pradhan Mantri Shram Yogi Maandhan (PM-SYM) which provides a monthly pension of Rs. 3,000 to unorganised workers after attaining the age of 60 years (Nageswaran, 2025). Need based social security benefits to insured workers in the organised sector is also provided under the Employees' State Insurance Scheme (ESIS) (for employees drawing wages up to Rs. 21,000 per month), besides the benefits under employees' provident fund organisation (EPFO).

To enhance support for MSMEs, several measures were announced in the Union Budget, 2025-26, while raising the investment and turnover limits for classification by 2.5 and 2 times, respectively, which include raising the credit guarantee cover for micro and small enterprises to Rs. 10 crore, from Rs. 5 crore; doubling the guarantee cover for start-ups from Rs. 10 crore to Rs. 20 crore, with lower fee of 1% for 27 priority sectors; and a new credit card providing credit up to Rs. 5 lakh for enterprises registered in Udyam portal (PIB, 2025). Specific schemes also target to improve the prospects of small artisans and handicrafts. The PM Vishwakarma scheme not only provides basic training but also collateral free credit. The Scheme of Fund for Regeneration of Traditional Industries (SFURTI) organises traditional artisans into collectives or clusters, enabling pooling of skills and resources to improve income prospects. Srivastava (2025), however, argues for a new handicrafts ecosystem, because without modernisation "export growth will stall, and even existing markets may be lost". Formalisation can empower both the enterprises and the workers. Without formalisation, given the large productivity gaps between formal and informal workers in terms of GVA per worker, there is a risk of "falling into a low income trap" (Karkun and Prakash, 2025). ASUSE must also emphasise collection of detailed information on access to various government schemes by unincorporated enterprises, and what factors constrain their access, under a separate block in future

surveys. Policies that incentivise firms to remain small may have to be eschewed and policies that support and nurture young and dynamic firms may have to be prioritised, as part of a resource reallocation process, going ahead, as emphasised by Kapoor (2018). It may also need to be recognised, as stressed by Banerji (2022), that medium, small and micro categories are very different from each other in terms of their requirements of policy support and business perspectives, and therefore, they should not be clubbed as one category while designing programmes for them.

The second important thrust of policy focus must be to improve the operating environment for rural manufacturing enterprises, where enabling and empowering interventions must be anchored by an integrated national policy and monitoring framework, so that flow of formal credit is accompanied by training to acquire skills, creation of awareness about various government schemes, targeted measures to ease doing business conditions by strengthening logistics and infrastructure – both physical and digital, interlinking with input and technology suppliers and markets for final products, and offering risk management products to enterprises. Scattered and inadequate provision of these enabling conditions under different programmes may limit the impact relative to what an integrated framework can deliver. A national coordinating agency under an integrated approach could also provide all information digitally, starting from the regulatory environment to credit registry, credit bureaus, credit guarantee programmes, collateral, securitisation, factoring, equity financing – venture capital and angel investors, training and advisory support, and access to technology. In the rural areas, as emphasised by Dev and Tripathy (2025), cooperative institutions are best placed to do this job; schemes like PM Vishwakarma, for example, could be executed through creation of cooperative societies of Vishwakarmas at the cluster/block level and by providing them integrated support.

Currently, in the cooperative sector, a medium-term plan aims at establishing 2 lakh new multipurpose primary agricultural cooperative societies (M-PACS), dairy and fishery cooperative societies, covering all the panchayats, by converging all existing government schemes, seeking to develop PACS as common service centres (CSCs) delivering more than 300 e-services, PM Kisan Samridhi Kendras (PMKSK) providing all agri inputs under one roof, and establishing world's largest grain storage capacity in the cooperative sector (PIB, 2025). The National Cooperation Policy 2025 also aims at making cooperatives as the key drivers for achieving the nation's goal of becoming Viksit by 2047. Promotion of rural manufacturing in the cooperative sector

can be transformative, given the implementation capacity of cooperatives at the grassroots level, and the National Manufacturing Mission may need to mandate that role to the cooperatives, with clarity on exact areas where they could strengthen the integrated framework for promoting rural manufacturing.

In operationalising a rural manufacturing focused integrated policy framework, strengthening rural infrastructure – both physical and digital, and empowering the rural credit cooperatives with adequate refinancing support and effective supervision of their activities will be critical. The experience and expertise of the National Bank for Agriculture and Rural Development (NABARD) could be leveraged aptly for this purpose. Both financial and functional reorientation of the organisation, if mandated under the New Manufacturing Policy, could help entrench the doing business conditions for rural manufacturing, with a focus on micro and small enterprises in rural areas. NABARD is already engaged in promoting rural MSMEs through a range of programmes covering financial assistance, developmental programmes, and institutional strengthening (details of which are set out in Table 2.3 of its Annual Report, 2024-25). Key thrust areas of these interventions include promoting rural off farm producer organisations (OFPOs), skill development, entrepreneurship development, product diversification, and marketing initiatives such as branding, packaging and geographical indication (GI) registration, which are the key components of an integrated approach. The proposed National Manufacturing Mission, with clarity on the key contours of an integrated approach and specific agencies that may be mandated to pursue specific enablers of transformation, can help achieve the envisaged USD 7.5 trillion manufacturing GVA by 2047.

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| | Annex Table 1: Unincorporated Enterprises – Key Data | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| | **Estimated Number of Enterprises (000)** | | | | | | | | |
| | **Rural** | | | **Urban** | | | **Rural+Urban** | | |
| | OAE | Estt | All | OAE | Estt | All | OAE | Estt | All |
| 2010-11(July-June)NSS 67th Round | 9138 | 977 | 10115 | 5292 | 1803 | 7095 | 14430 | 2780 | 17210 |
| 2015-16(July-June)NSS 73rd Round | 10497.5 | 916.9 | 11414 | 6316.3 | 1934.1 | 8250.4 | 16814 | 2851 | 19665 |
| 2021-22 (April-March)ASUSE | 10129.2 | 586.4 | 10716 | 5203.3 | 1332.3 | 6535.6 | 15333 | 1918.7 | 17251 |
| 2022-23 (Oct-Sept))ASUSE | 9979.3 | 742.7 | 10722 | 5582.7 | 1524.8 | 7107.5 | 15562 | 2267.5 | 17830 |
| 2023-24 (Oct-Sept)ASUSE | 11395.5 | 696 | 12091 | 6387.3 | 1667.7 | 8055 | 17783 | 2363.7 | 20147 |
| | | | | | | | | | |
| | **Estimated Number of Workers (000)** | | | | | | | | |
| | **Rural** | | | **Urban** | | | **Rural+Urban** | | |
| | OAE | Estt | All | OAE | Estt | All | OAE | Estt | All |
| 2010-11(July-June)NSS 67th Round | 13213 | 5298 | 18510 | 7632 | 8746 | 16378 | 20844 | 14044 | 34888 |
| 2015-16(July-June)NSS 73rd Round | 14154 | 4501 | 18656 | 8515 | 8870 | 17386 | 22670 | 13372 | 36041 |
| 2021-22 (April-March)ASUSE | 12489.7 | 3070.4 | 15560 | 6517.5 | 5848.5 | 12366 | 19007 | 8918.9 | 27926 |
| 2022-23 (Oct-Sept))ASUSE | 12167.3 | 4490.2 | 16658 | 6996.3 | 6971.7 | 13968 | 19164 | 11462 | 30626 |
| 2023-24 (Oct-Sept)ASUSE | 13827.6 | 3732.5 | 17560 | 8072.2 | 8065.4 | 16138 | 21900 | 11798 | 33698 |
| | | | | | | | | | |
| | **GVA per Enterprise (Rupees)** | | | | | | | | |
| | **Rural** | | | **Urban** | | | **Rural+Urban** | | |
| | **OAE** | **Estt** | **All** | **OAE** | **Estt** | **All** | **OAE** | **Estt** | **All** |
| 2010-11(July-June)NSS 67th Round | 32051 | 279418 | 55941 | 51633 | 392660 | 138314 | 39232 | 352872 | 89900 |
| 2015-16(July-June)NSS 73rd Round | 48568 | 423665 | 78698 | 84696 | 645011 | 216035 | 62139 | 573819 | 136317 |
| 2021-22 (April-March)ASUSE | 62900 | 802697 | 103375 | 97275 | 870619 | 254916 | 74565 | 849863 | 160787 |
| 2022-23 (Oct-Sept))ASUSE | 68865 | 975409 | 131637 | 134392 | 948073 | 308953 | 92372 | 957025 | 202323 |
| 2023-24 (Oct-Sept)ASUSE | 71405 | 890780 | 118567 | 104449 | 1020944 | 294202 | 83273 | 982618 | 188789 |
| | | | | | | | | | |
| | **Fixed Assets Owned per Enterprise (Rupees)** | | | | | | | | |
| | **Rural** | | | **Urban** | | | **Rural+Urban** | | |
| | **OAE** | **Estt** | **All** | **OAE** | **Estt** | **All** | **OAE** | **Estt** | **All** |
| 2010-11(July-June)NSS 67th Round | 45360 | 411333 | 80704 | 106293 | 614443 | 235453 | 67706 | 543080 | 144501 |
| 2015-16(July-June)NSS 73rd Round | 55468 | 333373 | 77791 | 117990 | 817932 | 282075 | 78955 | 662097 | 163499 |
| 2021-22 (April-March)ASUSE | 81043 | 654955 | 112450 | 163432 | 807292 | 294682 | 109003 | 760734 | 181489 |
| 2022-23 (Oct-Sept))ASUSE | 95672 | 922534 | 152949 | 165152 | 840991 | 310141 | 120597 | 867700 | 215611 |
| 2023-24 (Oct-Sept)ASUSE | 107797 | 780755 | 146531 | 184535 | 1007049 | 354828 | 135360 | 940419 | 229813 |
| | | | | | | | | | |
| | **Outstanding Loans per Enterprise (Manufacturing, in Rupees)** | | | | | | | | |
| | **Rural** | | | **Urban** | | | Rural+Urban | | |
| | **OAE** | **Estt** | **All** | **OAE** | **Estt** | **All** | **OAE** | **Estt** | **All** |
| 2010-11(July-June)NSS 67th Round | 626 | 60681 | 6407 | 1774 | 50305 | 14102 | 1048 | 53941 | 9582 |
| 2015-16(July-June)NSS 73rd Round | 1687 | 70411 | 7207 | 3241 | 126899 | 32229 | 2270 | 108732 | 17705 |
| 2021-22 (April-March)ASUSE | 1602 | 126744 | 8450 | 2786 | 82185 | 18972 | 2004 | 95803 | 12436 |
| 2022-23 (Oct-Sept))ASUSE | 1934 | 318570 | 23868 | 2931 | 150630 | 34617 | 2292 | 205638 | 28153 |
| 2023-24 (Oct-Sept)ASUSE | 1407 | 168707 | 11036 | 3183 | 215493 | 47139 | 2045 | 201717 | 25471 |
| | | | | | | | | | |
| | **GVA per Worker (Rupees)** | | | | | | | | |
| | **Rural** | | | **Urban** | | | **Rural+Urban** | | |
| | **OAE** | **Estt** | **All** | **OAE** | **Estt** | **All** | **OAE** | **Estt** | **All** |
| 2010-11(July-June)NSS 67th Round | 22166.8 | 51519 | 30569 | 87414 | 80966.2 | 59919 | 27160 | 69858 | 44347 |
| 2015-16(July-June)NSS 73rd Round | 36020 | 86296 | 48151 | 62822 | 140638 | 102522 | 46088 | 122344 | 74378 |
| 2021-22 (April-March)ASUSE | 51012 | 154787 | 71328 | 77660 | 198346 | 134735 | 60150 | 183446 | 99434 |
| 2022-23 (Oct-Sept))ASUSE | 56481 | 161289 | 84731 | 107241 | 207354 | 157210 | 75012 | 189309 | 117788 |
| 2023-24 (Oct-Sept)ASUSE | 58845 | 166097 | 81642 | 82647 | 211104 | 146849 | 67618 | 196865 | 112869 |

Note: These data pertain to only manufacturing. Due to changes in methodology and approach to conducting the survey, the figures may not be strictly comparable over time.

## Annex Table 2: Organised Manufacturing

| | No of Factories | | Fixed Capital | | Invested Capital | | Persons Engaged | | GVA | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Rural | Urban | Rural | Urban | Rural | Urban | Rural | Urban | Rural | Urban |
| 2003-04 | 48183 | 80890 | 24690026. | 22643114 | 34015509 | 33944344 | 3154397 | 4715684 | 10858795 | 13916831 |
| 2004-05 | 53123 | 53230 | 27195633 | 24121293 | 38176969 | 37764800 | 3417518 | 5036106 | 13406203 | 17556788 |
| 2005-06 | 55377 | 84783 | 32682636 | 28011392 | 45808345 | 44349516 | 3774333 | 5337342 | 16689316 | 19780389 |
| 2006-07 | 58877 | 85833 | 40740722 | 30772417 | 57459512 | 49690870 | 4587100 | 5741334 | 23496773 | 22521233 |
| 2007-08 | 60512 | 85873 | 50669563 | 33843646 | 71907635 | 56104917 | 4631432 | 5821103 | 28612544 | 26663078 |
| 2008-09 | 65212 | 90109 | 63847397 | 41749217 | 88538750 | 64979023 | 5320084 | 6007401 | 33498376 | 27632772 |
| 2009-10 | 59445 | 99432 | 72888855 | 62329512 | 100312400 | 92992995 | 4811984 | 6980071 | 34193872 | 35524387 |
| 2010-11 | 78040 | 133620 | 93674913 | 67025739 | 131443937 | 107914065 | 5338418 | 7356435 | 41890977 | 40622358 |
| 2011-12 | 80961 | 136593 | 108656996 | 86298092 | 151753661 | 132255849 | 5718321 | 7711635 | 52214256 | 45521540 |
| 2012-13 | 85159 | 136961 | 131965329 | 86060693 | 179502946 | 134908269 | 5603872 | 7346154 | 51877236 | 48850714 |
| 2013-14 | 86323 | 138253 | 146684880 | 90687022 | 197920929 | 140534606 | 5863559 | 7674555 | 55664454 | 50846710 |
| 2014-15 | 90500 | 139935 | 152989696 | 94455765 | 205376181 | 146020250 | 6118648 | 7762738 | 62782541 | 53687708 |
| 2015-16 | 92080 | 141037 | 180550242 | 100414480 | 233231408 | 152078576 | 6277905 | 8021805 | 65978019 | 61349949 |
| 2016-17 | 95643 | 139222 | 204891886 | 114146763 | 260362171 | 169263319 | 6588834 | 8322356 | 70348404 | 66456645 |
| 2017-18 | 98,177 | 1,39,507 | 21,31,95,534 | 11,53,93,393 | 27,30,06,620 | 17,30,87,859 | 69,82,429 | 86,32,189 | 75555874 | 71141170 |
| 2018-19 | 1,00,315 | 1,42,080 | 21,73,75,044 | 12,92,31,931 | 28,50,20,261 | 19,27,06,213 | 72,83,030 | 89,97,181 | 75408529 | 78393399 |
| 2019-20 | 1,03,286 | 1,43,218 | 22,75,29,318 | 13,66,05,847 | 29,42,95,067 | 20,30,67,286 | 72,98,142 | 93,26,149 | 74333662 | 74240851 |
| 2020-21 | 1,06,114 | 1,44,340 | 23,40,49,445 | 13,53,89,116 | 31,06,05,633 | 20,85,08,677 | 73,20,468 | 87,69,232 | 83966671 | 77748175 |
| 2021-22 | 1,04,998 | 1,44,990 | 22,94,35,096 | 14,32,00,349 | 32,25,48,293 | 23,19,44,882 | 76,98,614 | 95,16,735 | 104451820 | 100345331 |
| 2022-23 | 1,08,453 | 1,44,881 | 24,97,57,811 | 16,24,21,647 | 35,49,49,488 | 25,89,71,767 | 83,35,019 | 1,01,59,942 | 110473086 | 109232519 |
| 2023-24 | 1,12,826 | 1,47,235 | 28,02,41,775 | 18,21,67,260 | 39,31,20,635 | 28,70,12,364 | 88,15,598 | 1,07,73,533 | 120899113 | 124934492 |
| | (Value Figures in Rs. Lakh & Others in Number) | | | | | | | | | |

| | Inv Capital per Fcatory | | Inv Capital per Person | | GVA per Factory | | Persons Engaged per Facto | | Input/Output (%) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Rural | Urban | Rural | Urban | Rural | Urban | Rural | Urban | | |
| 2003-04 | 705.96 | 419.64 | 10.78 | 7.20 | 225.37 | 172.05 | 65.5 | 58.3 | 80.8 | 80.7 |
| 2004-05 | 718.65 | 709.46 | 11.17 | 7.50 | 252.36 | 329.83 | 64.3 | 94.6 | 81.2 | 81.7 |
| 2005-06 | 827.21 | 523.09 | 12.14 | 8.31 | 301.38 | 233.31 | 68.2 | 63.0 | 79.6 | 81.8 |
| 2006-07 | 975.92 | 578.93 | 12.53 | 8.65 | 399.08 | 262.38 | 77.9 | 66.9 | 78.4 | 82.9 |
| 2007-08 | 1188.32 | 653.35 | 15.53 | 9.64 | 472.84 | 310.49 | 76.5 | 67.8 | 78.9 | 81.2 |
| 2008-09 | 1357.71 | 721.12 | 16.64 | 10.82 | 513.68 | 306.66 | 81.6 | 66.7 | 79.7 | 83.0 |
| 2009-10 | 1687.48 | 935.24 | 20.85 | 13.32 | 575.22 | 357.27 | 80.9 | 70.2 | 79.9 | 82.5 |
| 2010-11 | 1684.31 | 807.62 | 24.62 | 14.67 | 536.79 | 304.01 | 68.4 | 55.1 | 80.7 | 83.8 |
| 2011-12 | 1874.40 | 968.25 | 26.54 | 17.15 | 644.93 | 333.26 | 70.6 | 56.5 | 81.1 | 84.9 |
| 2012-13 | 2107.86 | 985.01 | 32.03 | 18.36 | 609.18 | 356.68 | 65.8 | 53.6 | 81.6 | 84.8 |
| 2013-14 | 2292.79 | 1016.50 | 33.75 | 18.31 | 644.84 | 367.78 | 67.9 | 55.5 | 82.8 | 84.7 |
| 2014-15 | 2269.35 | 1043.49 | 33.57 | 18.81 | 693.73 | 383.66 | 67.6 | 55.5 | 81.7 | 84.4 |
| 2015-16 | 2532.92 | 1078.29 | 37.15 | 18.96 | 716.53 | 434.99 | 68.2 | 56.9 | 80.4 | 82.5 |
| 2016-17 | 2722.23 | 1215.78 | 39.52 | 20.34 | 735.53 | 477.34 | 68.9 | 59.8 | 80.2 | 82.1 |
| 2017-18 | 2780.76 | 1240.71 | 39.10 | 20.05 | 769.59 | 509.95 | 71.1 | 61.9 | 81.2 | 82.4 |
| 2018-19 | 2841.25 | 1356.32 | 39.13 | 21.42 | 751.72 | 551.76 | 72.6 | 63.3 | 83.6 | 83.3 |
| 2019-20 | 2849.32 | 1417.89 | 40.32 | 21.77 | 719.69 | 518.38 | 70.7 | 65.1 | 83.4 | 83.5 |
| 2020-21 | 2927.09 | 1444.57 | 42.43 | 23.78 | 791.29 | 538.65 | 69.0 | 60.8 | 81.4 | 81.9 |
| 2021-22 | 3071.95 | 1599.73 | 41.90 | 24.37 | 994.80 | 692.08 | 73.3 | 65.6 | 82.9 | 82.7 |
| 2022-23 | 3272.84 | 1787.48 | 42.59 | 25.49 | 1018.63 | 753.95 | 76.9 | 70.1 | 84.9 | 84.7 |
| 2023-24 | 3484.31 | 1949.35 | 44.59 | 26.64 | 1071.55 | 848.54 | 78.1 | 73.2 | 84.4 | 83.5 |

Source: ASI, MoSPI