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Spillovers from industrial jobs in Ethiopia

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- Ethiopia's industrial strategy has increased manufacturing activity, but most manufacturing jobs remain informal.
- Small firms account for the majority of employment but a minority of output and capital.
- Areas that experience growth in industrial jobs also see growth in informal employment.
- Spillovers differ sharply across sectors
- Industrial policy can influence broader labour markets — but complementary policies are essential.

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The policy challenge

Industrialisation has historically been central to economic transformation. Yet in many African countries, including Ethiopia, modern manufacturing firms have grown in productivity without generating large-scale formal employment. At the same time, small informal firms continue to absorb most workers. This creates a persistent structural divide: a small number of productive firms coexist with a large informal sector (McMillan and Zeufack 2022; Diao et al. 2024).

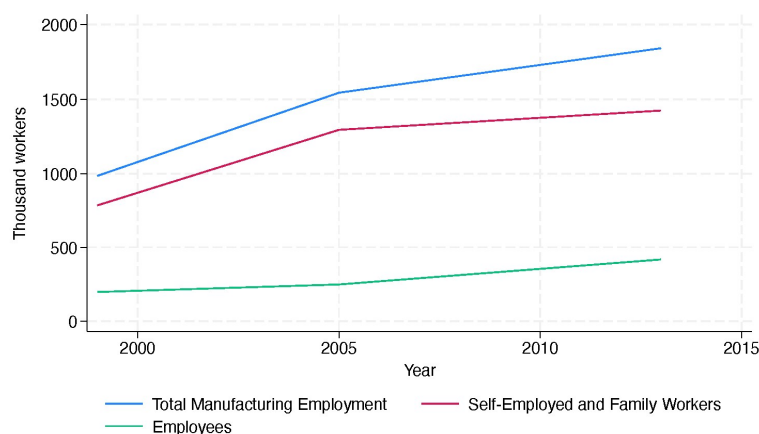
This raises a crucial question for policymakers: When industrial jobs expand, do they generate broader employment benefits locally?

If industrial jobs stimulate informal employment, industrial policy may have wider labour market effects than previously assumed. If not, policies targeting large firms may operate in isolation.

What the data show about Ethiopia's manufacturing structure

In this project, we study Ethiopia's manufacturing sector to understand whether attracting industrial jobs generates local spillovers. Specifically, we ask whether growth in formal manufacturing employment is associated with changes in employment in smaller, often informal firms operating in the same local economy. Manufacturing employment has grown substantially between 1999 and 2014, which is the period covered in our analysis (Figure 1).

Figure 1: Manufacturing employment in Ethiopia



Note: Authors' elaboration based on the Ethiopian National Labor Force Survey data

We define industrial jobs as employment in manufacturing firms with 10 or more workers. These firms account for a small share of establishments but a large share of output and capital. In contrast, small firms – typically employing fewer

than 10 workers and being largely informal – represent the majority of manufacturing businesses and absorb a large share of workers (Table 1).

Table 1: Firms' statistics by size cohorts (2014)

Firm size	Number of firms	Total employment	Share of Employment	Share of capital	Share of sales	Share of wages
0–4	95,872	215,460	0.389	0.083	0.05	0.085
5–9	20,931	131,039	0.237	0.028	0.036	0.094
10–24	818	12,289	0.022	0.03	0.041	0.025
25–49	423	14,589	0.026	0.061	0.061	0.041
50–99	239	16,487	0.03	0.061	0.087	0.059
100–499	323	68,500	0.124	0.389	0.376	0.304
500+	80	95,592	0.173	0.348	0.349	0.392

Note: Authors' elaboration on LMMS and SSIS data.

The gap in average employment and wages between large and small firms remains substantial over time. This dual structure motivates our core question: Do industrial jobs generate broader employment opportunities locally?

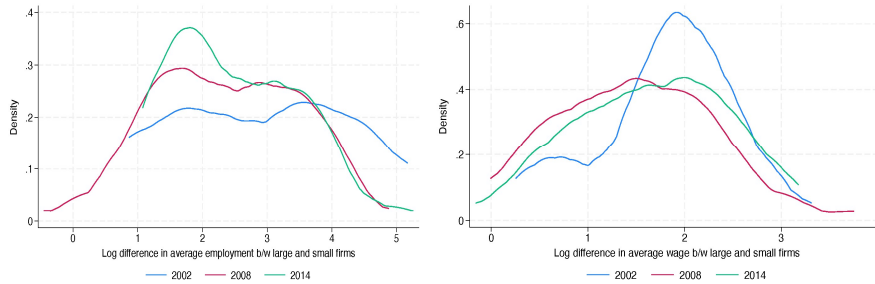
Are industrial and informal jobs linked?

Before turning to the empirical relationship, it is important to understand how Ethiopia's manufacturing sector is structured.

Large firms are substantially more productive than small firms. They employ far more workers per establishment, control most capital and total sales, and pay

significantly higher wages. The employment and wage gaps between large and small firms are large and persistent across zones and over time (Figure 2).

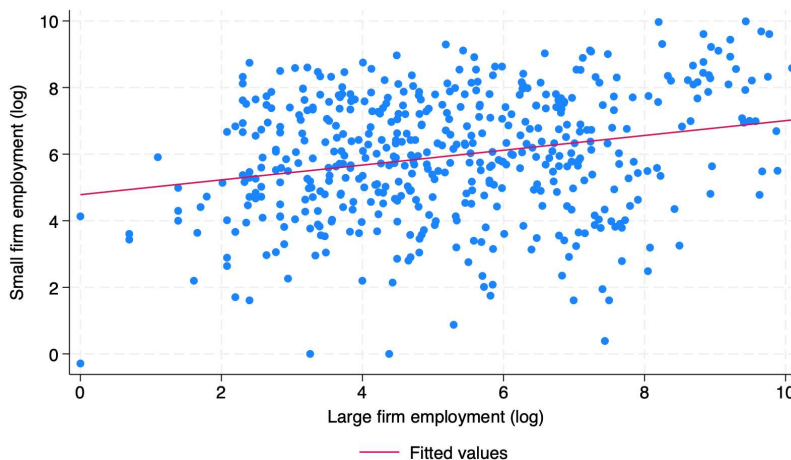
Figure 2. Log difference in average employment and wages across markets



Note: The graphs report the distribution of the (log) difference in average employment (left panel) and average wage per capita between large and small firms operating in the same local market.

Importantly, this gap is not narrowing. Large firms are becoming more capital-intensive, while small firms remain labour-intensive and with low-productivity. Industrial policy therefore primarily supports a small number of highly productive firms, whereas most workers remain in small enterprises. At the same time, small firms are deeply local. More than 90% report selling primarily within their local market. This matters: if industrial jobs increase local incomes, and small firms serve local consumers, then informal firms are positioned to benefit from increased demand. Figure 3 plots a correlation between jobs in large and small firms across the same industry and local market. The correlation is positive, meaning that jobs across the two types of firms tend to co-exist at a very finely disaggregated level of analysis.

Figure 3. Correlation between large and small firm jobs across zone-industries



Note: Each dot represents the (log) number of employees in large and small firms based in the same industry (2-digit ISIC rev. 3) and zone (second ADM level in Ethiopia).

Sectoral patterns reinforce this point. The structure of manufacturing differs sharply across industries. For instance:

- **Food:** small firms account for a large share of employment; the productivity gap exists but is moderate.
- **Textiles:** a small number of very large firms dominate employment and capital; the productivity gap is especially wide.
- **Furniture:** small firms remain numerous and locally embedded, suggesting potential complementarities such as customization or subcontracting.

These structural differences suggest that any link between industrial and informal employment is unlikely to be uniform across sectors.

Empirical evidence on local relationships

Using variation across zones and over time, and accounting for differences in industrial structure and policy targeting, we examine whether zones experiencing growth in industrial jobs also experience changes in small-firm employment. The evidence points to a positive relationship. Zones where industrial employment grows tend to see increases in informal employment. This pattern remains after accounting for fixed differences across zones and industries. The strength of the association varies by industry, consistent with the descriptive evidence.

The descriptive patterns and empirical results together suggest three mechanisms:

- **Income effects:** Industrial jobs raise wages and incomes locally. Because small firms primarily serve local markets, they may benefit from higher demand.
- **Complementarities:** in some sectors, large and small firms may operate in different segments of the supply chain, opening opportunities for the division of labour and subcontracting.
- **Substitution and competition:** in other sectors, large firms may compete directly with informal producers.

Conclusion

Ethiopia's manufacturing sector remains deeply dual: a small group of highly productive firms coexists with a large informal workforce. Industrial policy has supported the expansion of modern manufacturing, yet most workers remain in small, low-productivity enterprises.

Our evidence shows that industrial job growth and informal employment are positively linked at the local level. The strength of this relationship varies across industries, reflecting differences in production linkages, local demand effects, and potential complementarities between large and small firms.

The policy implication is therefore not that industrial policy automatically generates broad-based employment gains. Rather, outcomes depend on how industrial policy is designed. Sector selection matters. Industries with stronger local linkages are more likely to generate wider employment effects. Complementary reforms – including support for small firm upgrading, improved access to finance, and investments in local infrastructure – are critical to translate industrial expansion into inclusive growth.

References

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