

Can Africa Be a Manufacturing Destination?

Labor Costs in Comparative Perspective

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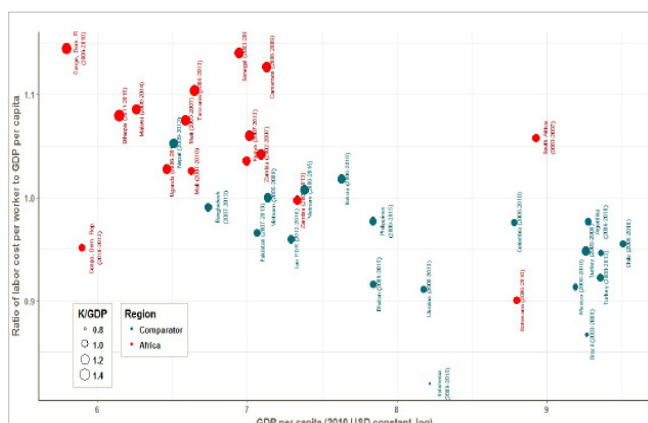


Can Africa be a manufacturing destination? High labor costs paint a bleak picture.

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Topic at a Glance

Our central question is whether African countries can break into global manufacturing in a substantial way. Using a newly-constructed panel of firm-level data from the World Bank's Enterprise Surveys, we look at labor costs in low and middle income countries in Africa and elsewhere. Using fixed effects and random effects models, we estimate a set of labor costs, both actual and hypothetical--what would labor costs for Sub-Saharan African firms look like if they were located outside of Africa? What would Bangladesh's labor costs be if it was located on the African continent? Our results suggest that for any given level of GDP, labor is more costly for firms that are located in Sub-Saharan Africa. More capital-intensive firms have higher labor costs and the pay gradient is far steeper in Africa--medium and larger size firms pay far more for their labor than do firms in comparator countries. However, we also find that there are a few countries in Africa that, on a labor cost basis, may be potential candidates for manufacturing--Ethiopia in particular stands out.



Caption: Average ratio of labor cost and GDP per capita v. GDP per capita in African and comparator countries

New Insights

Motivation

Labor costs are a critical factor in firms' location decisions. In 2013, we made our first attempt to understand African labor costs in the global context using cross-sectional data from the World Bank's Enterprise Surveys (Gelb et al, 2013). We concluded that industrial labor costs are far higher in Africa than one might expect, given levels of Gross Domestic Product (GDP) per capita.

In this earlier exercise, we did not have panel data and had to rely on a cross sectional analysis, which has its limitations. For the work described in this policy brief, we are able to construct panel data, using information from the same firm at two different points in time, for a number of countries in Africa and elsewhere. Thus, we are able to do a more rigorous assessment of labor costs in the manufacturing sector in Africa.

Methods

The analytical sample comprises of 5467 firms, each in two time periods, 29 countries, and 35 country-year panels. We estimate a series of Ordinary Least Squares multivariate regression models with firm fixed effects and with firm random effects with increasing complexity of control variables. The fixed effects model is estimated separately for African firms and for comparator firms outside Africa. For each model, we predict labor costs based on the coefficients for all firms, and test the significance in difference in means of African firms' labor costs to comparator firms' labor costs.

We also estimate random effects models, which allow for more flexibility. Many firm and country characteristics included as control variables vary only to a limited extent over time. With little variation in the panel, the fixed effects model may "over-control". Therefore, a random effects approach allows us to ease these problems and may provide better estimates.

Findings

Labor costs in Africa are lower than in other parts of the world

in absolute terms. But when we control for income (as measured by GDP per capita), we find that most African firms are more expensive than their counterparts outside the region. Carrying out a hypothetical exercise, we find that if African firms were located outside of Africa, their labor costs would be only a third of current levels. Similarly, if comparator firms were located in Africa, their labor costs would be approximately 1.9 times higher.

Our estimates also suggest that the “Africa premium” increases with firm size. For example, a small African firm is 39 percent more expensive than a small comparator firm, a medium African firm is 52.3 percent more expensive than a medium comparator firm. There is a pay gradient as well—labor in larger firms is more expensive than in smaller firms in all countries. However, the pay gradient is not steeper for African firms in every size category.

The heterogeneity of the African countries can be described by distinguishing three groups:

The first group consists of the middle-income countries, essentially South Africa and Botswana. Its industrial sector is highly capital intensive, with few small informal firms. These countries are not likely to emerge as strong competitors in a labor-intensive industry in the foreseeable future.

The second group includes leading low and lower-middle income African countries like Kenya, Tanzania and Senegal—coastal, relatively stable, and with a strong business sector. These countries would be expected to take-off manufacturing in Africa. Yet, their manufacturing labor appears costly relative to that of Bangladesh, a country with comparable income level and WEF competitiveness rating. On average, firms will probably need to pay still higher wages.

The third group consists of countries at the very low end of the income spectrum, so poor that there are almost no real comparators, such as the DRC, Ethiopia and, to a lesser degree, Malawi. As a destination for footloose manufacturing the DRC, even though rich in resource, is implausible, given the governance failings that have depressed its business climate.

However, Ethiopia stands out in the low-income group as a very good candidate for manufacturing. Though landlocked, it has been moving towards easing logistics constraints through road, rail, and air connections. It benefits from a stable administration, that sees manufacturing as a central part of its growth strategy, and from generally low costs. As measured by purchasing power parity, the general level of prices in Ethiopia is below India and comparable to that of Bangladesh. Our analysis also suggests that Ethiopia has labor costs that are roughly similar to Bangladesh and a similar WEF Global Competitiveness ranking.

Policy Recommendations

Africa does not, in general, appear to be poised to embark on a manufacturing-led take-off, stepping into the shoes of emerging Asia. Lower-income Africa, including countries that have come to be thought of as leaders in development, has high manufacturing labor costs relative to GDP as well as high capital costs relative to low-income comparators.

However, breaking “Africa” down into sub-groups suggests a more nuanced picture. Within the sample, Ethiopia stands out as distinctive. Its income level is so low that there is no real external comparator; its costs also appear to be low. This opens up the question of whether the “flying geese” migrating out of much of emerging Asia will pass over middle and lower-income Africa to find a landing place in the poorest countries, provided that they can provide a stable platform for industrial production. The results of our analysis suggest that this is not impossible. They are also supported by other, emerging, evidence

Limitations

Our study is limited by the constraints of our data. In creating a panel data from the Enterprise Surveys, we were only able to retain firms that were followed over time. This sub-sample may not be representative of manufacturing firms in each country.

Our panel data also only consists of firms in two time periods. Though an improvement over a cross-section, it does not allow us to identify trends of manufacturing firms in Africa and elsewhere. Therefore, we do not fully understand the factors behind prices and costs or why so many African countries appear to be costly relative to their income levels

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