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Secondary towns and poverty reduction in Tanzania

In brief

- Tanzania is undergoing rapid urbanisation and the policy question is shifting from whether the country should urbanise to how it should do so.

- In this brief, the researchers provide local and cross-country evidence suggesting that urbanisation can lead to poverty reduction. The researchers also find that secondary towns are better at reducing poverty than megacities and believe this is a result of their closer proximity to the rural poor.

- Based on this evidence, this brief takes the position that the push to the middle-income status, which Tanzania aspires, cannot be driven purely by concentrating on growth engines in the largest cities.

- It is concluded that carefully thought-through secondary town development can become an important policy vehicle for inclusive growth.

Ideas for growth

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Background

In 2007, the world reached an important "tipping point"—half its population became urban. But not only is the world urbanising, it has been doing so much more rapidly. While it took Industrial Europe 110 years (1800-1910) to increase its rate of urbanisation from 15 to 40 percent, Asia and Africa did so twice as fast, in only 50 years (1960-2010). And the urban population in the developing world is also concentrating, living increasingly in a few large cities. This also holds true in Africa, which already has a clear bimodal distribution of its urban population (Dorosh and Thurlow, 2013). Nonetheless, barring some exceptions[1], the academic literature and policy mindsets have been squarely focused on the aggregate rate of urbanisation. They seldom go beyond the dichotomous rural-urban distinction, thereby ignoring the distribution of the urban population across cities of different sizes. Results from our research suggest, however, that the composition of urbanisation might be as important as its aggregate rate.

Urban composition in Tanzania

Take, for example, Tanzania and Dar es Salaam. According to the 2012 census, around 10% of the population lived in Dar, and at around 4.5 million this was the largest urban agglomeration in Tanzania by a huge margin. The population of Dar grew dramatically over the past 50 years and the bulk of this growth was due to in-migration (NBS, 2012 and Wenban-Smith 2014).

These trends colour much of the urbanisation discourse all over the world, leading to a focus on investment in large cities, in response to in-migration. And some argue that because these are migrants from poor rural areas, such urban investment also addresses poverty. Consider, however, the following perspective on the composition of urbanisation in Tanzania (Wenban-Smith 2015). Figure 1 shows that in 2012, Dar accounted for about one-third of the urban population. But it also accounted for about one-third of the urban population in 2002, 1988, and 1978. Thus urban areas outside of Dar have grown as fast as the city in Tanzania's history.

If we further divide non-Dar urban areas into regional capitals (with an average population of around 200,000) and small towns (with an average population of around 20,000), we find that small towns are forming an ever increasing proportion of the urban population of Tanzania. The movement out of rural areas, which is undeniably a major trend, is as much due to small towns as it is to Dar.

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1. For example Henderson (2003), Kanbur-Venables (2006) and Christiaensen, De Weerdt and Todo (2013)

Why does urban composition matter?

Urbanisation's effect on growth and poverty reduction depends on the interplay of three forces: (i) intra-urban agglomeration effects and congestion costs, (ii) the economic linkages between urban and rural areas, and (iii) the rural-urban migration flows. The new economic geography literature, for example, emphasises the importance that urban size plays in fostering economies of scale and agglomeration, which are found to propel economic growth[2]. There is however a tipping point beyond which returns to size may start to decline. Once cities become too big, congestion costs can cause a decline in economic growth.

There are also positive spill-overs of urban centres on the rural hinterlands, through consumption linkages, urban-rural remittances, upward pressure on agricultural wages, and the generation of rural non-farm employment. It is unclear whether, in the aggregate, spill-overs are larger when the urban population is concentrated in a few large urban centres, or when it is more spread out across a greater number of smaller urban centres.

Finally, due to a series of migration barriers, poorer people, the majority of whom are in the rural areas, may find it easier to connect to growth and jobs in nearby smaller urban centres than when to jobs created in a limited number of large cities that are further away

A preferred empirical set up for Tanzania

The forces of agglomeration, congestion, hinterland linkages, and migration can go in opposite ways, such that the overall effect of urban composition on growth and poverty is ultimately an empirical matter. What type of exercise might give us an empirical handle on the effect of the composition of urbanisation?

Suppose we had nationally representative panel data at time t and time $t+1$, which gave us individual location as well as income (or consumption). Then we could, in effect, decompose national poverty change into the poverty effects of:

1. Income growth in rural areas, small towns, and Dar, and
2. Income changes as the result of (net) migration across these categories.

In Tanzania, we could do this, for the National Panel Survey (2009, 2011 and 2013), for example. Census extrapolations would then be needed to give us appropriate sectoral population weights, and the four-year time horizon may not be long enough to see the full effects of migration. To the best of our knowledge, this has not been done as yet, but in our view, it is an important part of the future research agenda on this topic, especially with more NPS rounds coming up (2015).

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2. See for example Overman and Venables (2010).

Lessons from global experience

Lacking an analytical exercise at the national level, what can we already learn from the global experience? One way to learn more about the potential role secondary towns and rural off-farm employment can play is to examine whether it matters for the speed of poverty reduction where people move to when they leave agriculture. Put differently, if two economies were to grow at the same speed, would the rate of poverty reduction be faster when people move out of agriculture to larger cities (empirically defined as exceeding 1 million people), or when they move out of agriculture into small towns and the surrounding rural economy? Looking at the experience in 51 countries from 1980-2004 suggests there is an additional effect on poverty reduction when people move into secondary towns and the rural off-farm economy when they leave agriculture (Christiaensen and Todo, 2014). This suggests that the development of the rural economy and more spread out urbanisation processes might be more poverty reducing.

This empirical regularity proves robust to a number of econometric considerations which could have biased these findings. These results hold when controlling for total economic growth. If metropolitanisation also induces faster economic growth, then it might also generate more poverty reduction over time. As postulated by the new economic geography, metropolitanisation is found to be associated with faster economic growth, but it also comes with higher inequality, which reduces the poverty-reducing effects. Taken together, the empirical evidence suggests that the positive effects of lower inequality for poverty reduction that come with a more spread-out migration pattern outweigh the negative effects of lower economic growth. There are further indications that these results are driven by the poor being more likely to take nearby job opportunities.

Decomposition exercise: Results from Kagera health and development survey

These cross-country regularities suggest that development of secondary towns and their rural hinterlands provides a plausible entry point to accelerate poverty reduction. But there are also further insights that can be gleaned from Tanzania's own experience in this regard, in particular from the experience in Kagera as recorded in the Kagera Health and Development Survey. This is a data set of migrants from Kagera, a large, remote and primarily rural region in the north-western part of Tanzania. We have information on 4,323 individuals, first interviewed in their baseline communities in the early nineties and then re-interviewed nearly two decades later in 2010. The data set is unique not only with respect to its long time frame, but also because it has tracked migrants to rural areas, towns and cities (Beegle, De Weerdt and Dercon, 2011). The concern is that it is representative of just one region in the country, so that at best it can give us some tentative results and an idea of the kind of results that may come out of a national exercise. But this is the best that can be done at this stage while we await such an exercise at the national level.

There was a considerable amount of growth and poverty reduction in the KHDS sample over its 18-year span and Table 1 decomposes total growth and total number of people out of poverty into that realised by people making the transition to (or staying in) the rural areas (further split into its agricultural and non-agricultural sectors), to secondary towns, or to cities (Dar or Mwanza).3 We find that even in the presence of larger migration premiums from moving to the more distant cities, most people engage in the surrounding nonfarm economy or move to secondary towns. The decomposition analysis shows that moves to secondary towns make up a much larger share of total growth and poverty reduction than moves to cities.

We start by combining the spatial, occupational and consumption data to look at welfare changes for each bin of the transition matrix. The decomposition tables include all respondents, regardless of migration status. The top panel of the table focusses on growth. The average income of those who moved to the cities grew by 206% over the 18 year period, while that of those found in rural farming in 2010 grew by 36%. This translates into an average consumption per capita which is 2.7 times higher among the city dwellers in our 2010 sample, compared to the rural farmers. This wedge appears despite relatively minor differences at the baseline in the early nineties. Those moving to towns and to rural off-farm activities fall somewhere between these two extremes.

These averages, however, conceal the fact that while only 285 respondents ended up in cities, 1,170 were found in towns, 969 in the rural off-farm sector and 1,899 in the farm sector. Despite the much larger growth realised by the city dwellers, the fact that they are so few in numbers implies that they contribute about as much to total income growth in the sample as the 1,899 people in rural farming. In these simple decomposition terms towns are somewhat of a growth sweet spot. The 1,170 respondents found in towns in 2010 contributed 41% to total growth, over double that of the 285 respondents found in cities. Compared to cities, towns attract 4 times more people from our sample and contribute twice as much to total income growth.

The bottom panel of Table 1 looks at the same phenomenon through a poverty lens. We see again that despite relatively small differences in baseline poverty rates, poverty is virtually non-existent among those who are in cities and increases as one goes over towns (16% poor) and rural off-farm (30% poor) to rural farm (42% poor). Once more these average poverty rates hide the importance of the number of feet making these transitions. The last two columns of Table 1 show how cities account for only 12% of all respondents who have transitioned out of poverty between 1991-94 and 2010, while those in rural farming and in towns in 2010 between them account for 55% of total poverty reduction.

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3. These are the only two locations with a population over 500,000 (a commonly used threshold). Tightening the definition to count only Dar as a city or broadening it to include all cities administratively defined does not change the conclusions.

Destination choice

The results above show that migration to cities has a large average income effect, but only a small size effect (few poor make it). Migration to towns, by contrast, has a smaller average income effect, but a larger size effect (many poor make it).

To understand the size effect, we need to understand better how migrants (especially the poor) choose their destinations. There are indeed reasons to believe that despite lower income levels and lower growth prospects, the secondary towns still make an attractive destination for the poor due to their proximity, network density, socio-cultural similarity and the like. At the same time, these smaller towns will have different linkages with the rural hinterlands, being typically located closer to rural areas, as well as different effects on agglomeration and congestion costs. Detailed econometric analysis is needed to further investigate these hypotheses suggested by the data.

Secondary towns as vehicles for inclusive growth

This compositional perspective on urbanisation raises several questions on the sources of growth and poverty reduction. It also poses policy trade-offs somewhat sharply—at the margin, should the Government of Tanzania tilt towards policies and public investment favouring small towns rather than those favouring its largest cities?

Deepening our understanding of the drivers of destination choice can help inform on the effects of improvements in infrastructure (electricity, roads, telecommunication, health, education) on attracting rural-urban migrants to smaller towns, as well as on retaining high-skilled individuals. The retention of the latter in secondary towns can be hypothesised to play an important role in unleashing agglomeration economies, with potentially important complementarities with the large pool of unskilled migrants (Eeckhout, Pinheiro, and Schimdheiny 2015).

It is interesting to frame this question within the context of the Tanzanian Development Vision 2025, which outlines the country's aspiration to reach middle income status by 2025 through structural transformation. The findings from our research would lend strong support to a natural-resource based industrial model for Tanzania, with agro-processing and other value adding industries located close to rural producers in smaller urban centres. This would be an avenue for inclusive growth with poor people benefiting both through the migration channel, as well as through the hinterland effect.

Attracting a critical mass of highly-skilled individuals within the secondary towns would be important to trigger the positive effects of agglomeration economies and skills complementarities, with practically no congestion costs in the initial stages. In addition to infrastructure, other complementary interventions to develop secondary towns include housing programs and land policies, policies to attract skilled workers and

firms, entrepreneurship programs in secondary towns, and value chain development.

Can Tanzania become a middle-income country without every part of it graduating to middle-income status? Can the push to middle-income status be driven purely by concentrating on growth engines in the largest cities? The answer to both these questions is clearly no. Carefully thought-through secondary town development thus becomes an important policy vehicle for inclusive growth.

Tables and figures

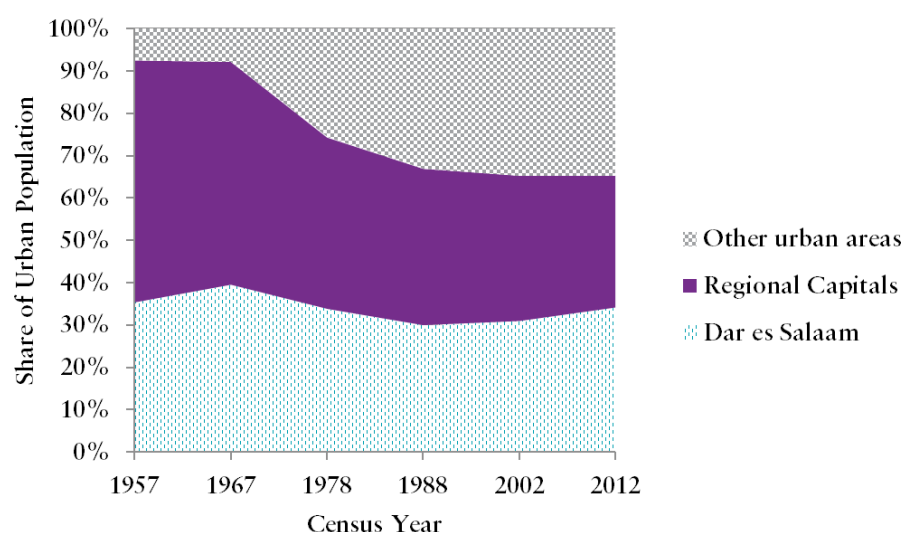**Figure 1: The evolution of urban composition in Tanzania**

Table 1: Decomposing growth and poverty reduction

Table 1: Decomposing growth and poverty reduction by 2010 location

2010 Sector	N	Growth (yearly consumption per capita in 2010 TZS)			
		1991-94 average	2010 average	Change in average	Share in total growth
Rural farm	1,899	329,768	449,013	119,245	0.19
Rural off-farm	969	345,829	590,277	244,448	0.20
Town	1,170	395,229	805,466	410,237	0.41
City	285	400,836	1,229,495	828,659	0.20
TOTAL	4,323	355,863	628,604	272,741	1.00
		Poverty headcount			
		1991-94	2010	Change in headcount	Share in total net poverty reduction
Rural farm	1,899	0.60	0.42	-0.18	0.33
Rural off-farm	969	0.57	0.30	-0.27	0.25
Town	1,170	0.43	0.16	-0.27	0.30
City	285	0.45	0.02	-0.42	0.12
TOTAL	4,323	0.54	0.30	-0.24	1.00

References

Anand, Sudhir, and Ravi, Kanbur, 1985. Poverty under the Kuznets Process, Economic Journal, 95(380a): 42-50.

Behrens, Kristian, and Alain Pholo, Bala, 2013, Do Rent-Seeking and Interregional Transfers Contribute to Urban Primacy in Sub-Saharan Africa? Papers in Regional Science: 92-1: 163-195.

Beegle, K., J., De Weerdt, and S., Dercon, 2011, Migration and Economic Mobility in Tanzania: Evidence from a Tracking Survey, Review of Economics and Statistics, 93-3: 1010-1033.

Hirvonen, K and Bie Lilleor, H. 2015. Going Back Home: Internal Return Migration in Rural Tanzania. World Development 70:186-202.

Christiaensen and Todo, 2014, Poverty Reduction During the Rural–Urban Transformation – The Role of the Missing Middle, World Development, 63: 43-58

Christiaensen, L., J. De Weerdt, and Y. Todo, 2013. Urbanization and poverty reduction: the role of rural diversification and secondary towns," Agricultural Economics, 44(4-5):435-447.

De Weerdt, Joachim. 2010. "Moving out of Poverty in Tanzania: Evidence from Kagera." Journal of Development Studies 46(2): 331-349.

Dorosh, Paul, and James, Thurlow, 2012. Can Cities or Towns Drive African Development? Economy-wide Analysis for Ethiopia and Uganda, UNU-WIDER Working Paper 2012/50: Helsinki.

Dustmann, C., and A. Okatenko. 2014. "Out-migration, Wealth Constraints, and the Quality of Local Amenities." Journal of Development Economics 110: 52–63.

Eeckhout, Jan, Roberto Pinheiro and Kurt Schmidheiny, 2014. "Spatial Sorting," Journal of Political Economy, University of Chicago Press, vol. 122(3), pages 554 - 620.

Fafchamps, Marcel and Forhad Shilpi. 2013. Determinants of the Choice of Migration Destination. Oxford Bulletin of Economics and Statistics, 75(3): 388-409.

Fields, Gary, 2005. A Welfare Economic Analysis of Labor-Market Policies in the Harris-Todaro Model. Journal of Development Eco-

nomics, 76(1): 127-46.

Gollin, D., D., Lagakos, M., Waugh, 2014, The Agricultural Productivity Gap, The Quarterly Journal of Economics, 129-2: 939-993.

Henderson, J. Vernon. 2003. The Urbanization process and Economic Growth: The So-What Question, Journal of Economic Growth, 8: 47-71.

Kanbur, Ravi and Anthony J. Venables, Editors (2006). *Spatial Inequality and Development*. Oxford University Press.

Overman, Harry and Anthony J. Venables (2010). Evolving City Systems. In J. Beall, B. Guha-Khasnobis and R. Kanbur (Eds.) *Urbanization and Development*. Oxford University Press.

Poncet, Sara, 2006. Provincial Migration Dynamics in China: Borders, Costs and Economic Motivations. Regional Science and Urban Economics, 36: 385-398.

Ravallion, Martin, 2002, On the Urbanization of Poverty, Journal of Development Economics, 68(2), 435-442.

Ravallion, Martin, Shaohua Chen and Prem Sangraula, 2007. New Evidence on the Urbanization of Global Poverty, Population and Development Review, 33(4): 667-701.

Wenban-Smith, H. and Ambroz, A. 2014. Urbanisation in Tanzania. IGC Working Paper.

Zhang, Junfu, and Zhong Zhao, 2013. Measuring the Income-Distance Trade-Off for Rural-Urban Migrants in China. IZA Discussion Paper 7160.