

Policy briefing: Spatial inclusion: What can African countries learn from Brazil?

Since the mid-1990's, Brazil has lifted an estimated 40 million people out of poverty. Child mortality has plummeted and schooling has increased. The UN recently declared that Brazil had overcome hunger after under-nourishment fell 82% between 2002 and 2013. New jobs have been created and Brazil can boast one of the lowest unemployment rates in the world. Inclusive growth has helped to reduce income inequality by 12%.

An important factor underlying Brazil's impressive development progress has been the country's ability to integrate the rural areas, and the workers who live there into the economy. Greater connectivity and less labour market segmentation between cities and the countryside have helped to catalyse inclusive growth in Brazil, which African countries may be able to learn from. Brazil has achieved this success via:

Well targeted cash transfers programmes:

Antipoverty transfers in Brazil are credited with having contributed to a sharp reduction in extreme poverty and to the reduction in inequality and social exclusion.

Bolsa Família originally developed instead out of municipal experimentation with Bolsa Escola in the early 1990s, demonstrating one of the advantages of Brazil's feral system. Studies on the outcomes of Bolsa Família on participant households often focus on mean outcomes at the national level. Some studies have estimated outcomes at a more disaggregated level, for example by gender or by rural-urban location. We examined variations across municipalities by estimating quantile regressions of municipal participation rates on selected outcomes using household survey data for 2001 and 2006 – before and after the implementation of Bolsa Família.

We found significant differences in outcomes across municipalities for certain outcomes. Adult labour force participation rates, for example, rise with programme coverage at the municipal level. Overall, we find that Bolsa Família helped reduce the spread of labour force participation rates across municipalities in the period under examination. These results suggest that Bolsa Familia has had positive and stronger effects on the more disadvantaged municipalities, helping to reduce the urban–rural divide.

For more information please see IRIBA working paper: "<u>Antipoverty Transfers and Inclusive Growth in Brazil</u>" by Armando Barrientos, Dario Debowicz and Ingrid Woolard.

Investment in agricultural technology:

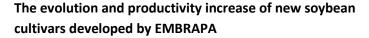
Today Brazil is one of the major producers of a series of agricultural commodities, such as soybeans, sugar, orange juice, maize, cotton, chicken, meat and pigs, with strong participation in a long list of others. The position of Brazilian agriculture as one of the breadbaskets of the world is quite remarkable given that just two decades ago this sector was marked instead by backwardness and inefficiencies.

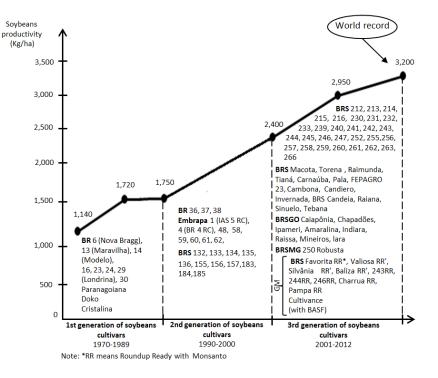
Brazil is no longer predominantly an agricultural country, despite the fact that agriculture continues to represent around 5.2% of GDP and supports a diversified and fast-growing agribusiness sector which in turn amounts to 22.2% of GDP.

Progress has been achieved not by simply incorporating more land, but by dramatic improvements in productivity, led by technological research that developed methods and inputs specifically suited to the country's conditions. The government's agricultural research institute, EMBRAPA, has been responsible for coordinating and catalysing many of these developments.

Whereas the total area of land in agriculture has remained basically the same since the mid-seventies, production has increased by nearly 300%, a rate even faster than other high achievers including the US or China, and dramatically higher than the average for Latin America or Africa.

Rather than individual policies, it was the establishment of inclusive institutions in





creating an appropriate business environment through rule of law, political openness and economic stability that was essential for the change in investment and growth in agriculture.

For more information please see IRIBA working papers: <u>"Technological Catch-up and Indigenous Institutional Infrastructures in Latecomer</u> <u>Natural Resource-related Industries:</u> An Exploration of the Role of EMBRAPA in Brazil's Soybeans and Forestry-based Pulp and Paper <u>Industries</u>", by Paulo N. Figueiredo and "<u>The Economics of the Brazilian Model of Agricultural Development</u>", by Bernardo Mueller and Charles Mueller.

Investment in vocational training:

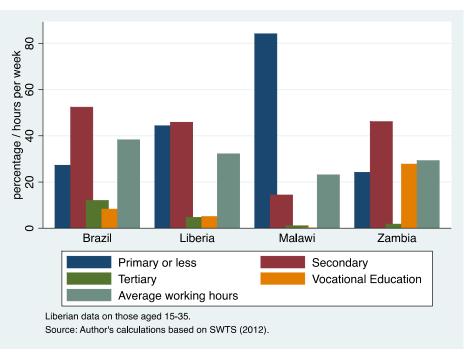
In many Sub-Saharan countries, high rates of youth unemployment and underemployment, deficient skill endowments, high rates of rural-urban migration, and poorly functioning labour market institutions lead to a difficult school-to-work transition. Large portions of the rural youth either remain trapped in the declining traditional agricultural sector, or migrate to urban areas experiencing poor labour market conditions and low standards of living. Consequently, managing this transition of young people to productive employment in the non-agricultural sector is crucial for policymakers as urbanization continues. Acquiring the required skills is one crucial element in this transition.

In Brazil, the National Service for Industrial Training (SENAI), which is financed with public money and managed by the private sector, has a long history of providing professional skills in the country. SENAI and the associated S-system provide about 15% of all training and it has a significant effect on labour market outcomes for young people. Young graduates increase their productivity levels (by about 20%), monthly earnings (by about 30%) and employment probabilities (by about 12%). Amongst workers, S-system graduates (mostly from SENAI) are more likely to work in the formal sector (by about 16%) and in the same area of training (by about 31%). Regarding mobility, we find that S-system graduates are, on average, more likely to migrate than their non-trained counterparts. According to our estimates, training contributes to equalizing regional disparities, as it explains an additional migration flow of 82,000 workers from 2003 to 2007.

Training contributes to reducing the urban-rural wage-gap as across the whole distribution of skills, rural workers benefit the most in relative terms.

For more information please see IRIBA working paper: "<u>The Impact of SENAI's</u> <u>Vocational Training Programme on</u> <u>Employment, Wages, and Mobility in</u> <u>Brazil: What Lessons for Sub Saharan</u> <u>Africa?</u>" by Carlos Villalobos Barría and Stephan Klasen

Education levels and working hours of the youth population in selected countries (2012)



The reduction in labour earnings inequality highlights Brazil's progress:

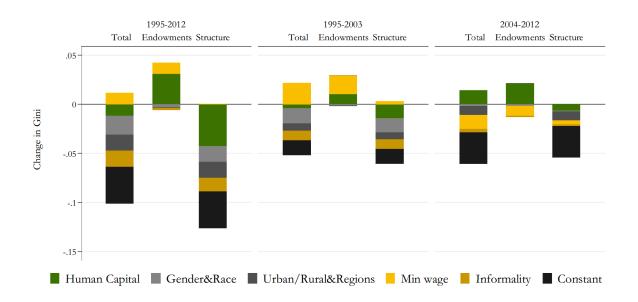
Among the BRICS, Brazil is unique for maintaining steady economic growth while reducing levels of inequality. The Gini coefficient for the country's distribution of household per capita income fell by 12%, from 0.59 in 1995 to 0.52 in 2012.

Around 50% of this decline can be attributed to changes in the distribution of labour earnings. Unlike most of the previous literature, which points to the effects of an increasingly educated workforce, new findings from the IRIBA project highlight the importance of demographic, spatial and institutional factors in explaining the decrease in earnings inequality in Brazil.

The changes in pay structure can be understood very straight-forwardly as declines in various different wage premia: In addition to declining schooling premia, the period was also characterized by reductions in the gender wage gap (with women's earnings rising faster than men's), the racial wage gaps (with wages for people of colour rising faster than for whites), and the urban-rural wage gap (with wages rising faster in rural areas).

For more information please see: "<u>A more level playing field? Explaining the decline in earnings inequality in Brazil, 1995-2012</u>" by Francisco Ferreira, Sergio P. Firpo and Julian Messina.

A decomposition of changes in earnings inequality in Brazil



There's further potential with increased investment in infrastructure:

While many Brazilian initiatives can provide positive examples for African countries, this can't be said for the country's lack of investment in infrastructure, which remains a significant drag on efforts to overcome the urban-rural divide. For example, while Brazil has the world's 4th largest road network, only 18% of its 1.75 million kilometres are paved.

Government investment has recently increased via the 'Growth Acceleration Programme' (or PAC). While 82% of projects have been completed, investment in certain critical subsectors including urban transportation and

(as % of GDP) 6.0 Water and Sewage 5.0 Transport Telecommunications 4.0 Electricity 3.0 20 1.0 0.0 1970s 1980s 1990s 2000s

Brazil: Infrastructure Investment

sanitation, have met with significant delay.

We found that if Brazilian states increase their spending by 1%, the regional GDP growth rate would increase by 0. 11% per year, while the GDP per capita growth rate would respond with an increase of 7.2% per year. Investment in transport infrastructure is likely to yield better results than investments in communications or energy.

For more information please see IRIBA working paper: "<u>Infrastructure and its role in Brazil's</u> <u>Development Process</u>" by Edmund Amann, Werner Baer, Thomas Trebat and Juan M. Villa".

Source: World Bank, IPEA, BNDES (see Bielchowsky 2002, Blyde, Castelar Pinheiro, Daude and Fernandez-Arias 2007, and Frischtak 2007)

IRIBA is a DFID funded research programme, based at the University of Manchester. It brings together an international team of researchers, examining how lessons from Brazil's development experience can help inform African countries.

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