

Growth and Structural Transformation

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An outline.

- Has the relationship between income and economic structure changed over time? Have countries across the income distribution uniformly increased the share of labor in service sectors?
- Have the drivers of growth convergence shifted away from manufacturing and into services?
- Is technology adoption faster in developing countries?
- What should policy makers do? Can the late comers to development benefit from better access to improved technology—mobile phone, big data, internet of things—that has revolutionized the world? There are nearly 3 billion Internet users worldwide, and about a third of them are in the developing countries. Thanks to technology, services can now be unbundled and splintered in a value chain just like manufactured goods and they can be electronically transported.

Growth escalators and growth convergence

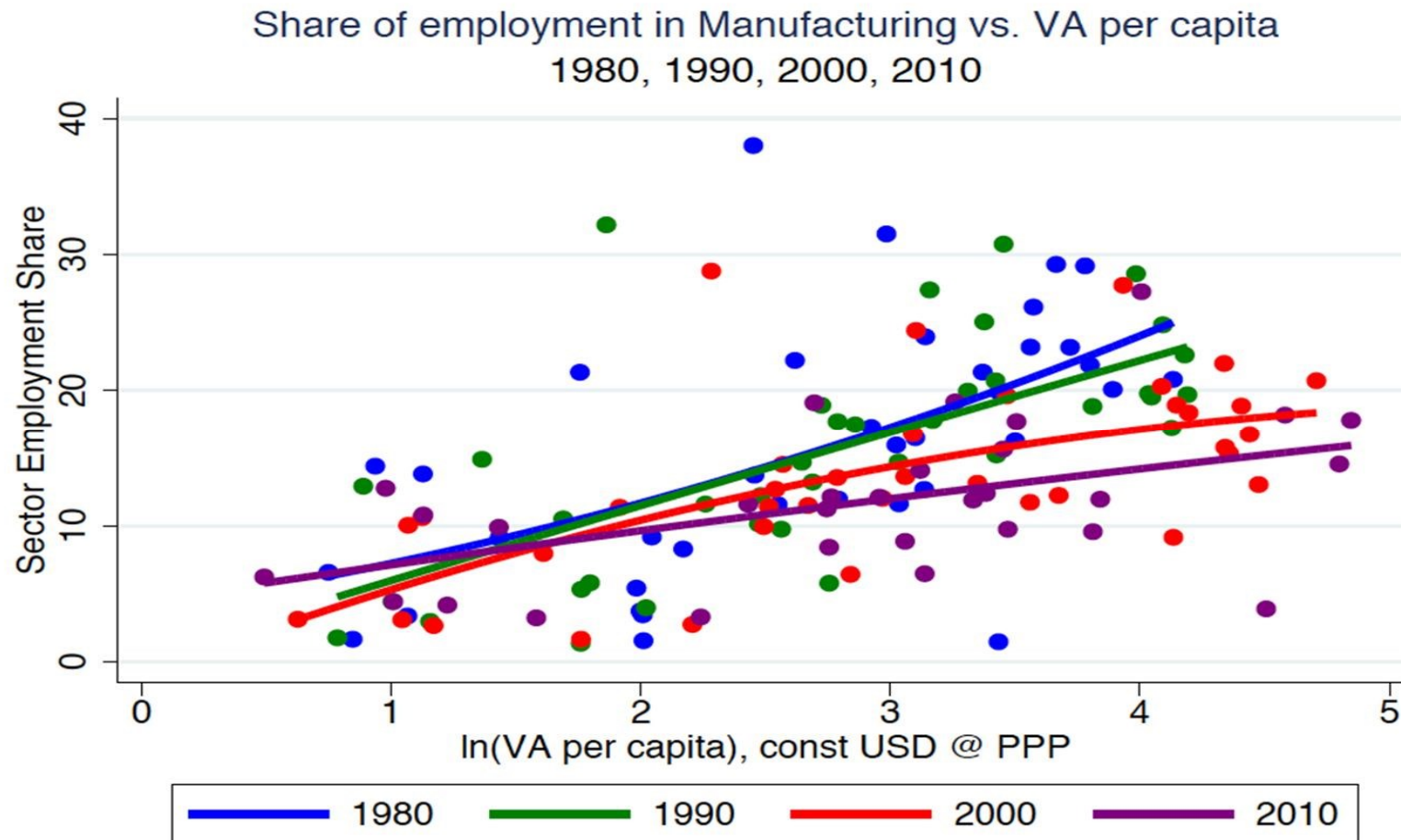
- The literature on global growth convergence and divergence is vast and deep. And it is still evolving.
- Some have argued that global growth is actually diverging across countries. Pritchett (1977) called this “divergence, big time”, whereby the living standards of a few countries pulled away from the rest in the aftermath of the industrial revolution. Others have found evidence in favor of growth convergence, and the number of developing countries experiencing catch-up has more than trebled and the rate of average catch-up has doubled from 1.5% per year to over 3%.
- Global growth convergence was not affected by global financial crisis.
- Pre-mature de-industrialization in Africa and South Asia has not stopped unconditional growth convergence.

GGDC Data

- Using a recently available dataset from the Groeningen Growth and Development Centre's 10-sector database ("GGDC data") that provides employment and value added for ten disaggregated product sectors for a large set of countries historically, we do a high-level analysis, investigating cross-country trends in sectoral output, job and productivity convergence, and how the relationship between levels of development and economic structure has changed over time
- The GGDC data "provides a long-run, internationally comparable dataset on sectoral productivity performance in Africa, Asia, and Latin America. Variables covered in the data set are annual series of value added, output deflators, and persons employed for 10 broad sectors
- Ten sectors comprise agriculture, mining, utilities, construction, manufacturing, wholesale and retail trade, FIRE industries, transport, government services, and other services (restaurants, hospitality).
- Data allows a more nuanced look at the role of specific sectors in structural change, particularly separating construction and mining from manufacturing aggregates, and FIRE industries, government services, transport, and utilities from services aggregates, allowing greater specificity in understanding which sectors are drivers of structural change.

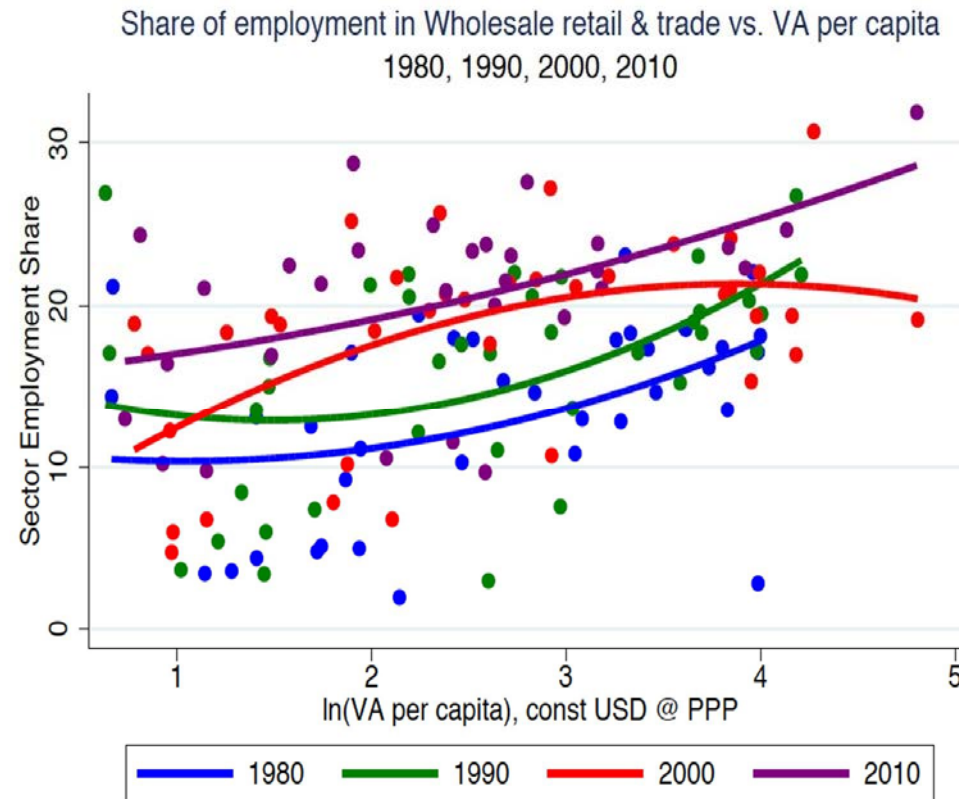
Manufacturing--changing relationship between economic structure and income

Relationship between the manufacturing labor share and income was far steeper before than it is today, having followed a progressive erosion of the initial strength of this correlation over the past four decades.

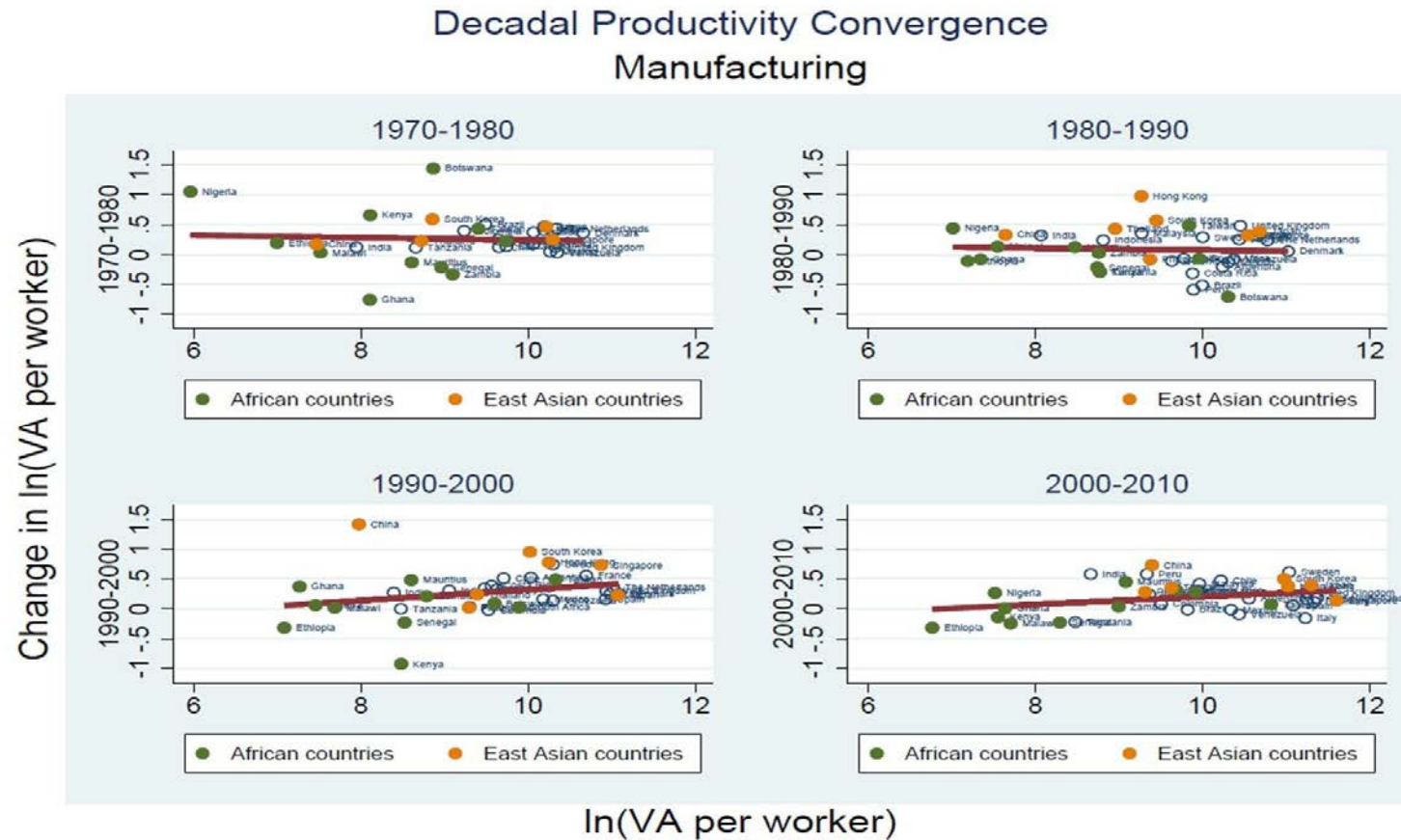


Services--changing relationship between economic structure and income

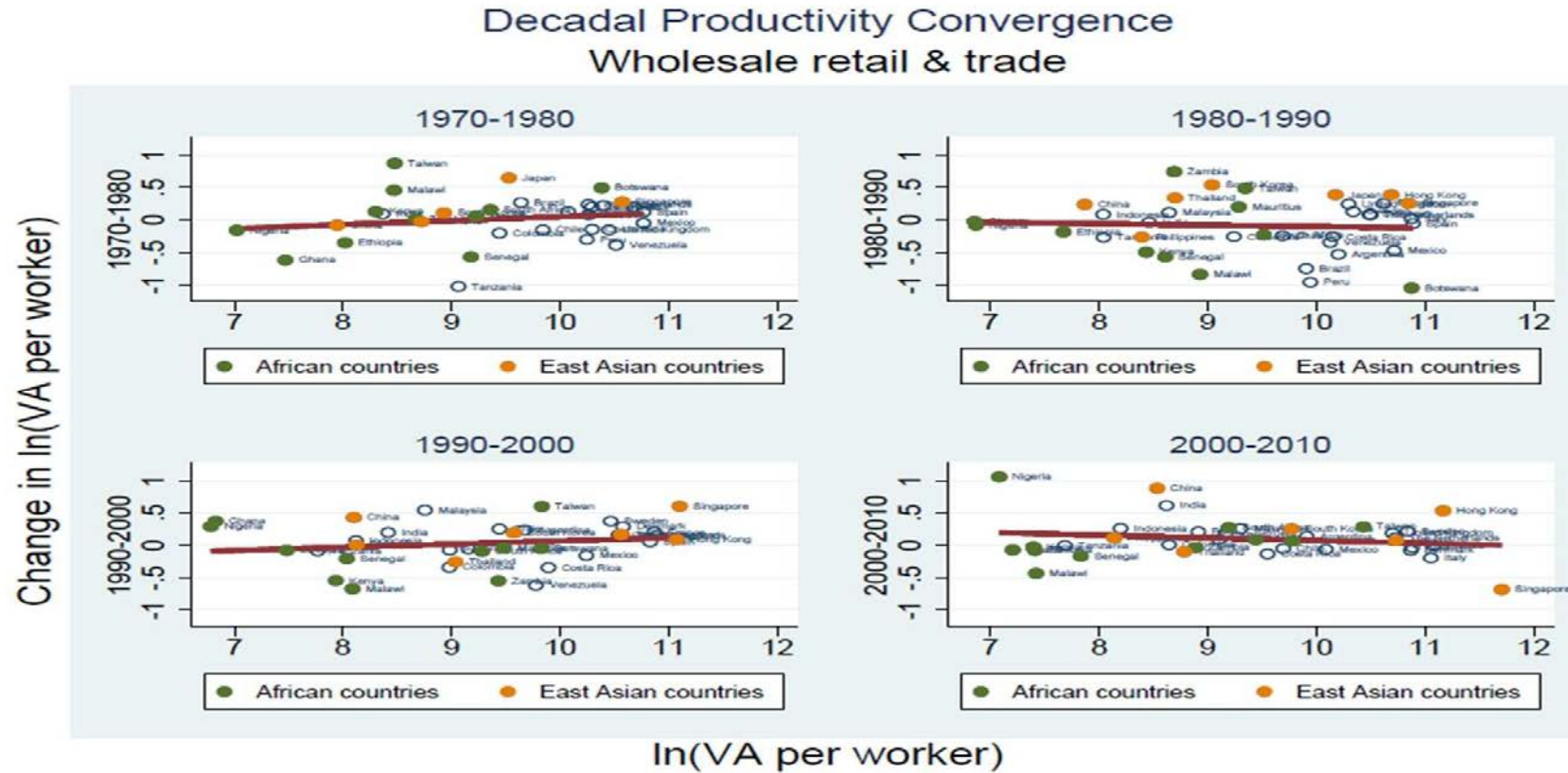
In contrast to manufacturing, the relationship between income level and employment in the sector has not shown a distinct trend in changes in its slope over time



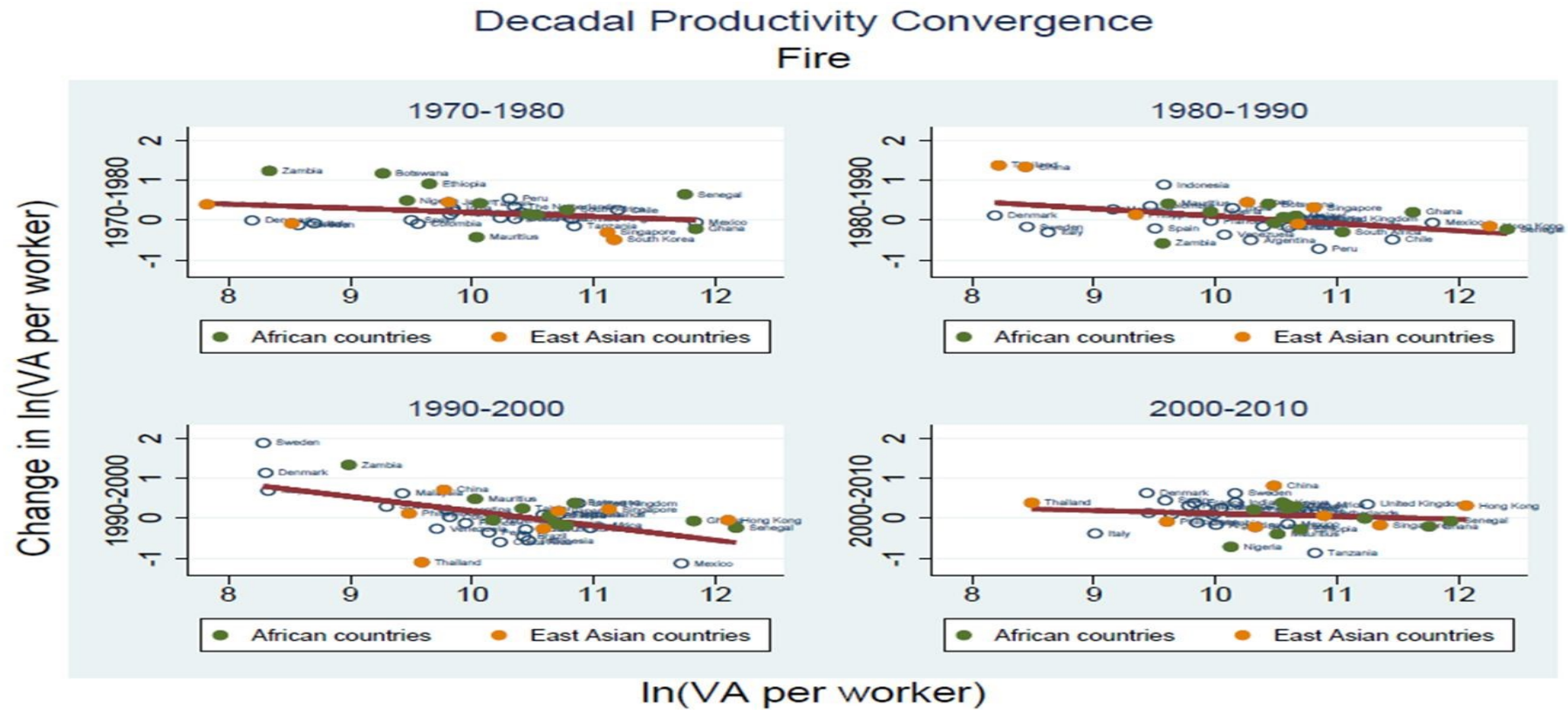
Growth convergence in manufacturing has weakened



Growth convergence in Services has strengthened

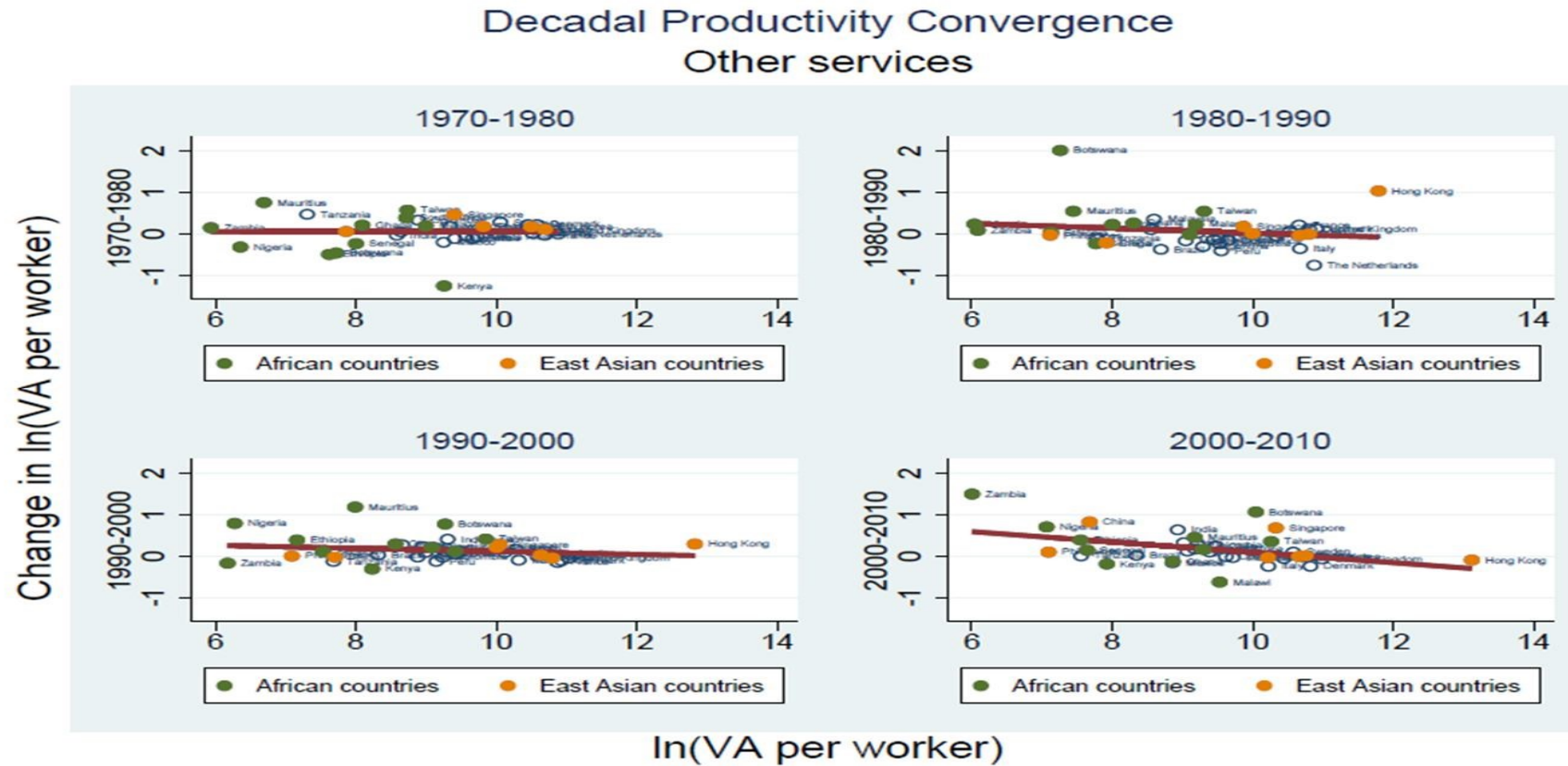


Modern services have shown stronger convergence than traditional services.

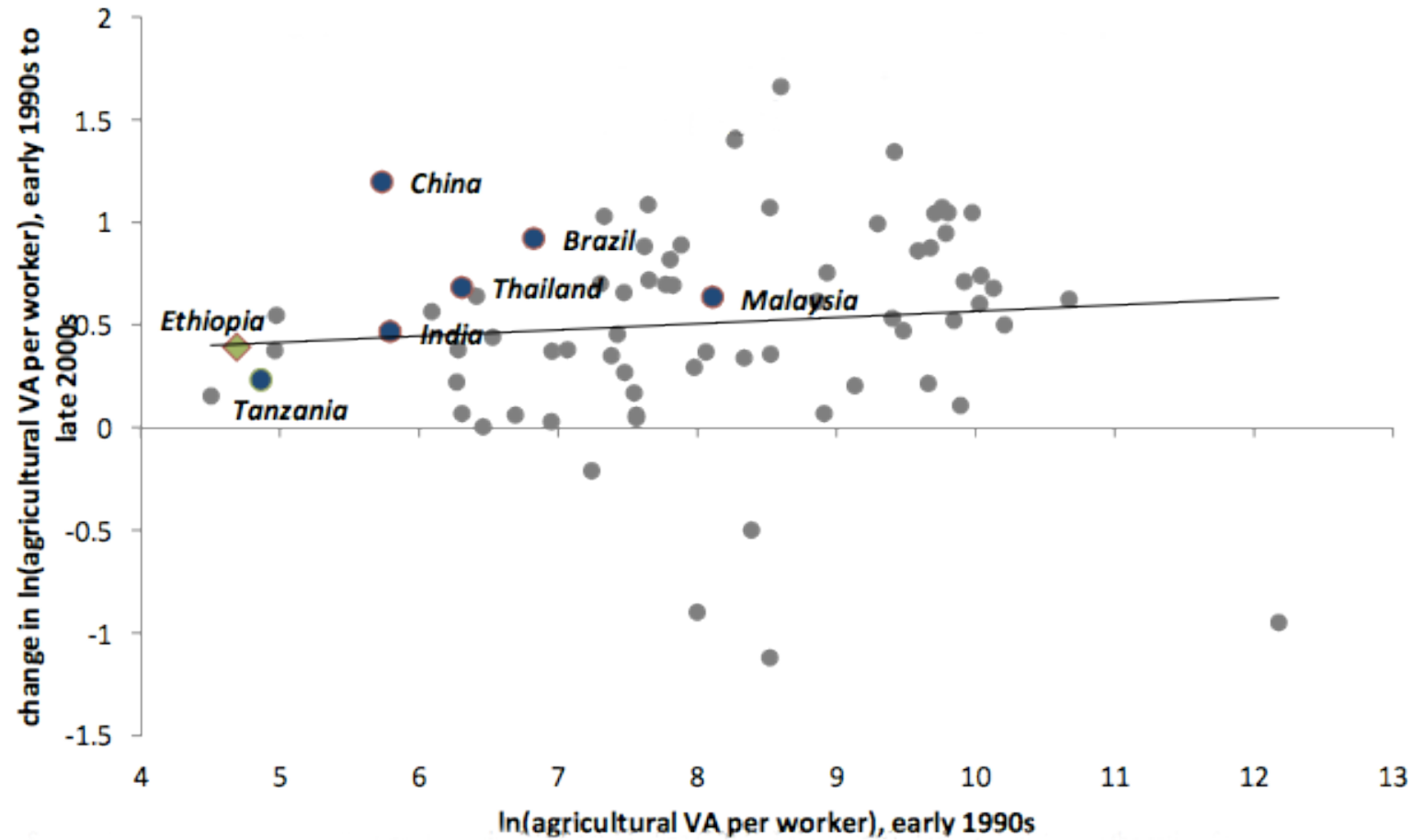


Strong growth convergence also in Other services

For countries that wish to benefit from growth convergence, the opportunity to do so likely exists more among service sectors, whereas in the past this opportunity was found in manufacturing.



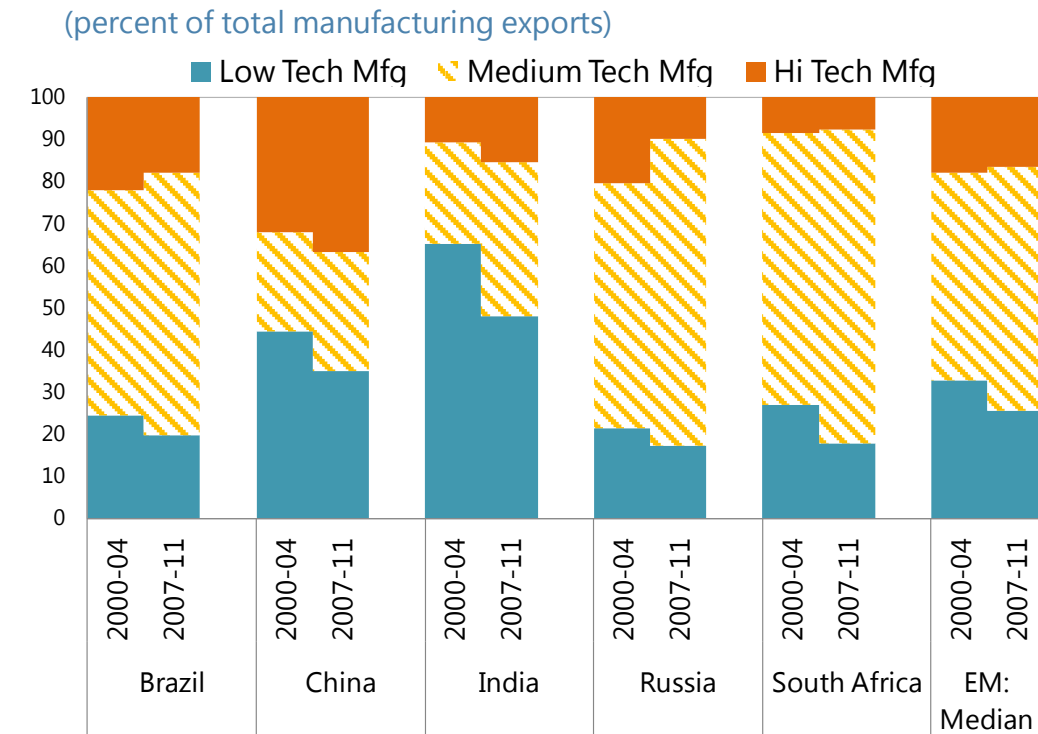
But no convergence in Agriculture



Technology Content of Service exports has increased

Source: Anand, Kochhar and Mishra, 2015.

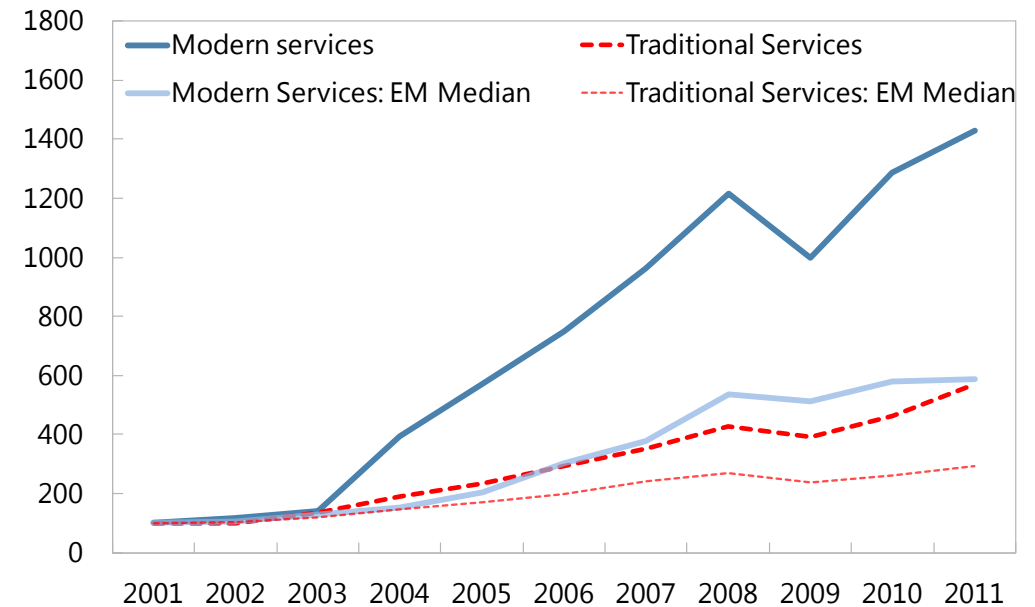
Growing Hi-Tech Manufacturing



Source: authors' calculations using WITS database, SITC rev. 3.

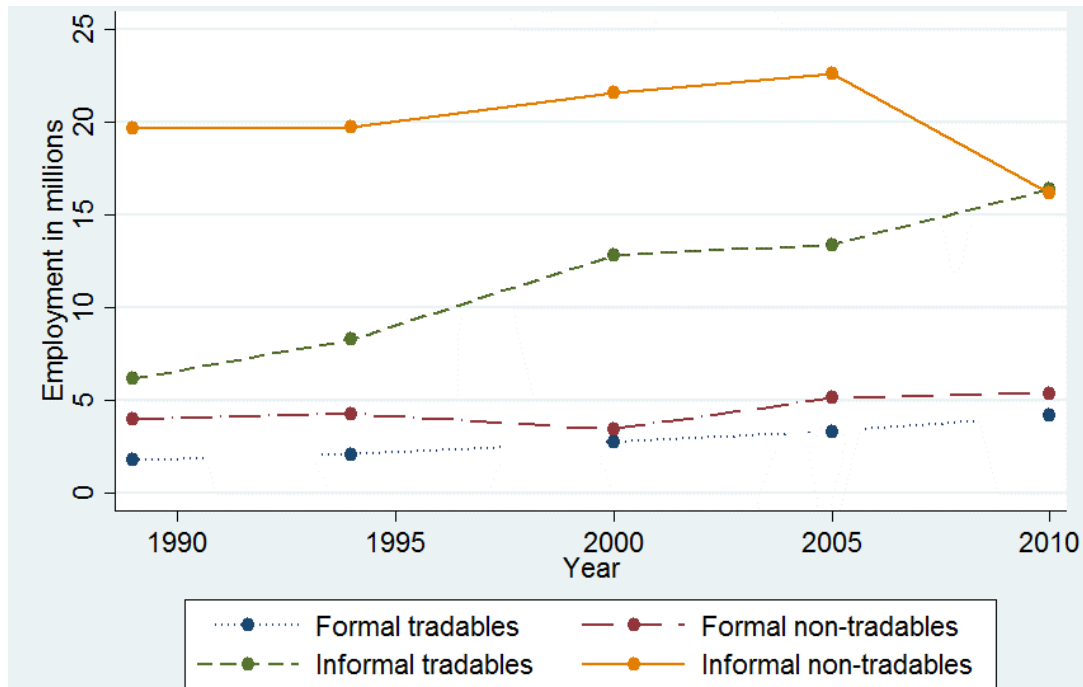
Modern IT and IT Enabled services

Modern IT and IT enabled services are growing faster than other EM's (2001=100)



Sources: Balance of Payments Statistics, IMF and authors' calculations

As has the Rise of Informal tradable sector.



- This figure shows the exceptional increase of employment in informal tradable in India by over 10 million workers during 1989-2010, equivalent to the entire net growth of the manufacturing sector over the same period. This group expanded from 19% of Indian manufacturing employment in 1989 to 39% by 2010.
- This rise in informal tradable employment coincides with a strong decline in non-tradable.
- It suggests that the growth in traded industries is not just due to plants achieving larger economies of scale and shipping goods at a distance, as might have initially been imagined, especially in light of the 1990s reforms that made it easier to export, import, and increase plant size. Technology has expanded global supply chains and given a place to mom and pop shops.

Policy

- Digital technologies—the internet, mobile phones—have spread quickly. More households in developing countries own a mobile phone than have access to electricity or clean water, and nearly 70 percent of the bottom fifth of the population in developing countries own a mobile phone. Businesses, people, and governments are more connected than ever before.
- But nearly 60 percent of the world's people are still offline and can't participate in the digital economy in any meaningful way.
- World Bank WDR on Strengthening the digital revolution will provide a detailed narrative on public policy. Digital technologies have boosted growth, expanded opportunities, and improved service delivery. Yet their aggregate impact has fallen short and is unevenly distributed. For digital technologies to benefit everyone everywhere requires closing the remaining digital divide.
- In countries where the digital economy is still emerging, the priority is to facilitate connectivity and develop the foundation for effective competition regulation. Although 74 mostly middle- and high-income countries have unilaterally removed tariffs on ICT capital goods, computers and smartphones are still treated as luxury goods in some countries, where taxation adds almost half to the price of mobile handsets. Many countries treat their telecom firms as cash cows. Where firms may have limited knowledge about how the internet can improve their business, benchmarking exercises and information programs can be effective. And to allow more innovative companies to enter markets easily, countries need to improve firm registration and create greater market transparency to reduce price collusion, market sharing, and rigged public procurement. This can't be done overnight. It requires overcoming some of the most protracted development challenges: how to create an environment for firms to thrive, how to build effective education and training systems, and how to make service providers more responsive to citizens.
- Slow growth of Manufacturing is a concern for many observers.
- The vast informal sector in the world affects everything from poverty levels to the allocation of activity in the economy and beyond, so greater insights into its functioning are absolutely vital.
- Technology and in particular internet is in many respects global. Technology can be better managed with coordination across nations and serve as a powerful platform to facilitate global cooperation. Three priority areas are governing the internet, creating a global digital market, and providing global public goods—including those that promote poverty reduction and environmental sustainability.
- Finally, we need to learn more about how changes in technology impact and shape growth, jobs, and productivity.