

# **Economic Diversification in Low–Income Countries (LICs): Stylized Facts and Macroeconomic Implications**

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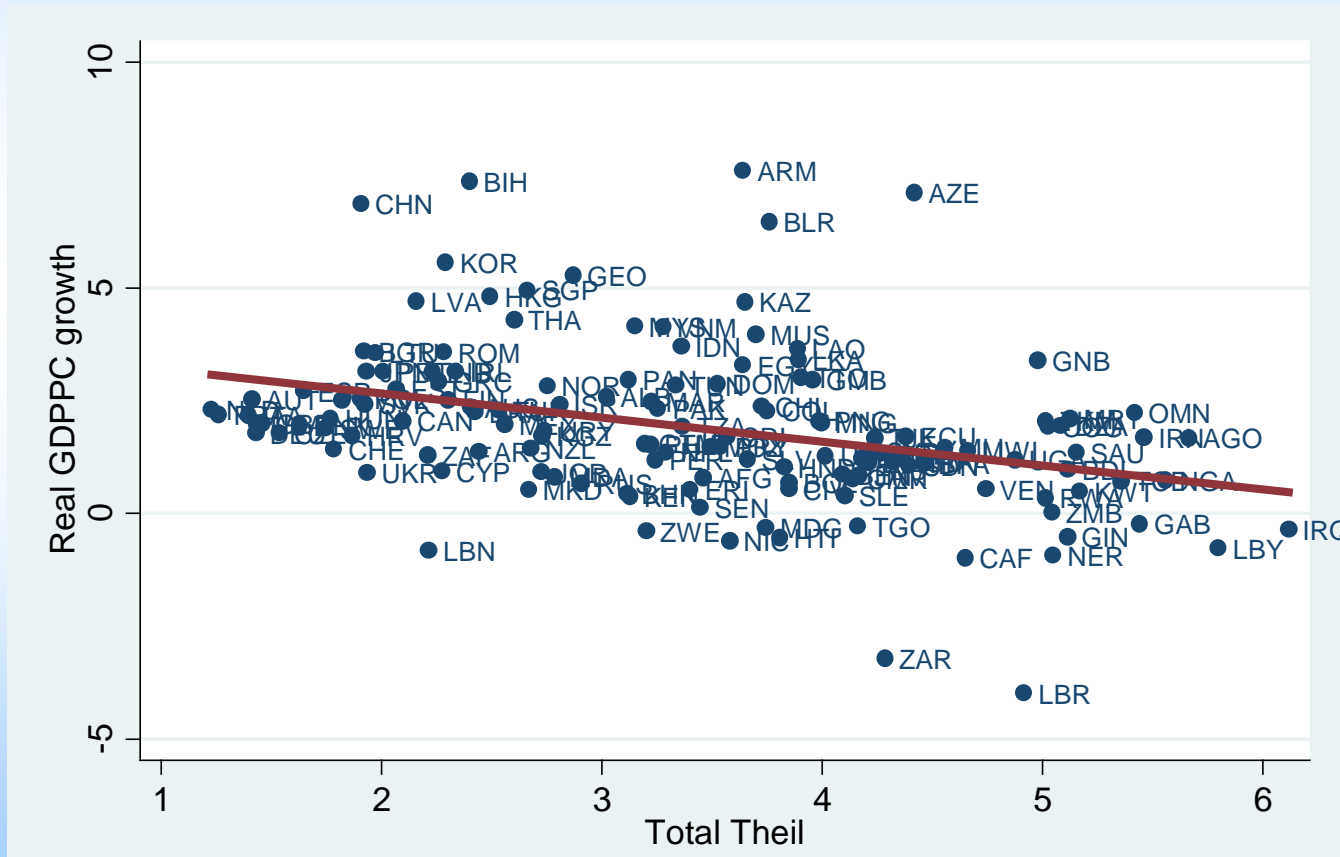
This presentation is part of a research project on macroeconomic policy in low-income countries supported by the U.K.'s Department for International Development (DFID).

# Motivation

- LICs have historically been heavily dependent on a narrow range of traditional primary products and on few export markets.
- While diversification has been a longstanding ambition for many LICs, we have limited experience of what aspects of diversification are important.
- Many developing economies have managed to diversify and transform their economies especially over the past two decades. But there remain significant differences across countries.
- What are the facts? What does diversification involve? How can it help countries sustain high growth and reduce volatility.
- Inform the policy debate on diversification and transformation.

# Growth through Diversification

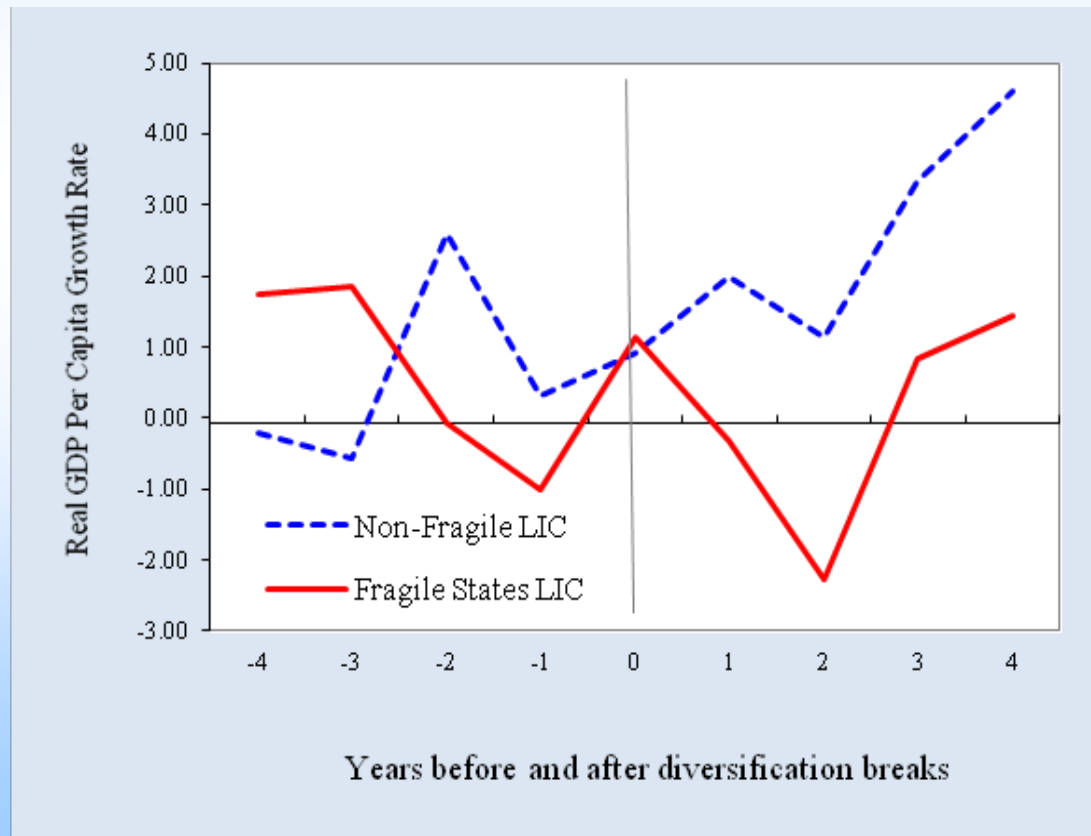
- Diversification associated with higher real GDP growth



# Growth through Diversification

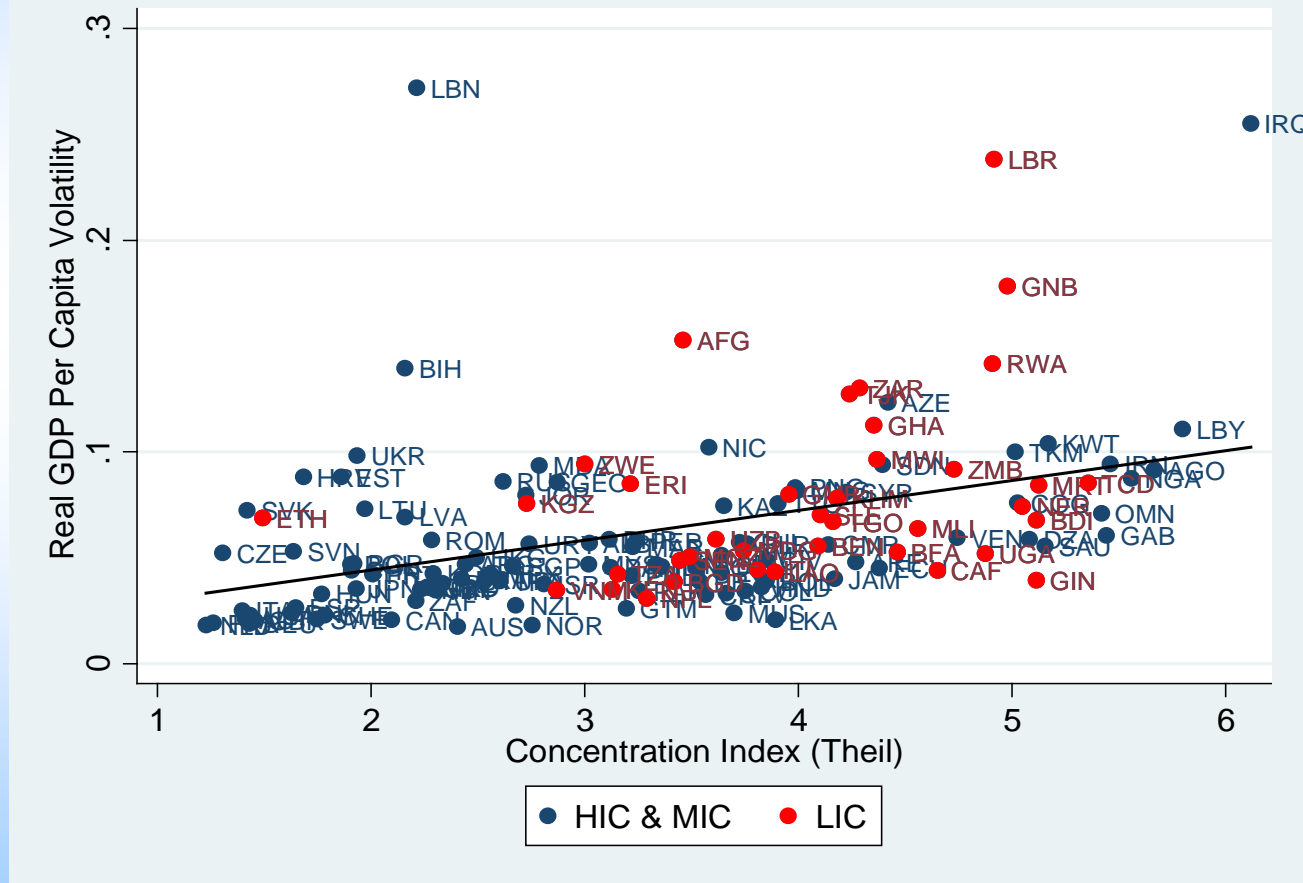
- Diversification episodes are associated with a sharp increase in growth, especially among non-fragile LICs.

GDP Growth Rate with **Diversification Breaks**, 1965-2010



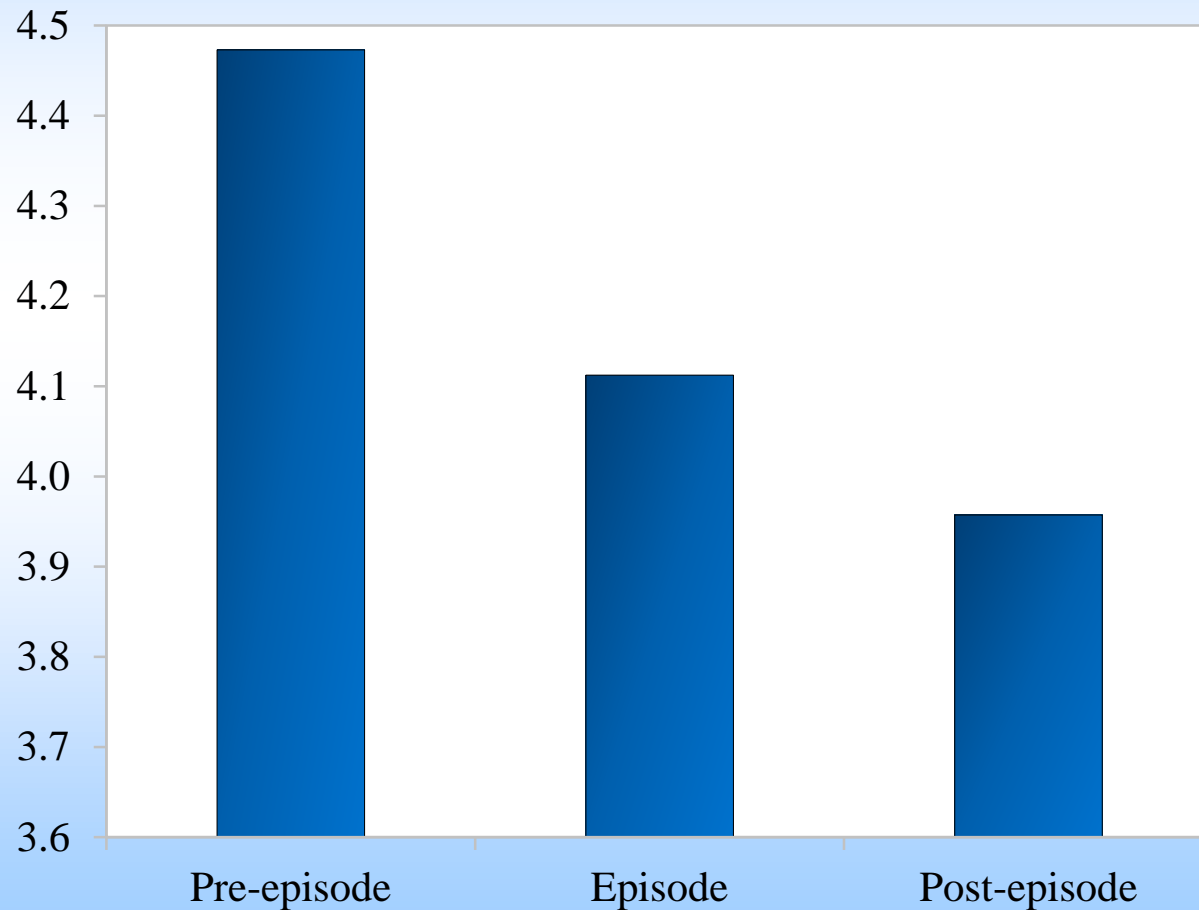
# Volatility and Diversification

- Diversification associated with lower output volatility



# Volatility and Diversification

- Output volatility diminishes after major diversification episodes



# Overview

## Motivation

### **Diversification, growth and volatility**

- **Cross-country growth relationship**
- **Diversification episodes and volatility**

## Stylized Facts

### **Cross-country patterns: Link between diversification, and GDP or time**

- **Trade diversification indices across products and partners**
- **Quality upgrading**
- **Country case studies**

## Ongoing Work & Preliminary Messages

- **Main takeaways**
- **Working papers**

*Stylized Facts*

**Trade Diversification**

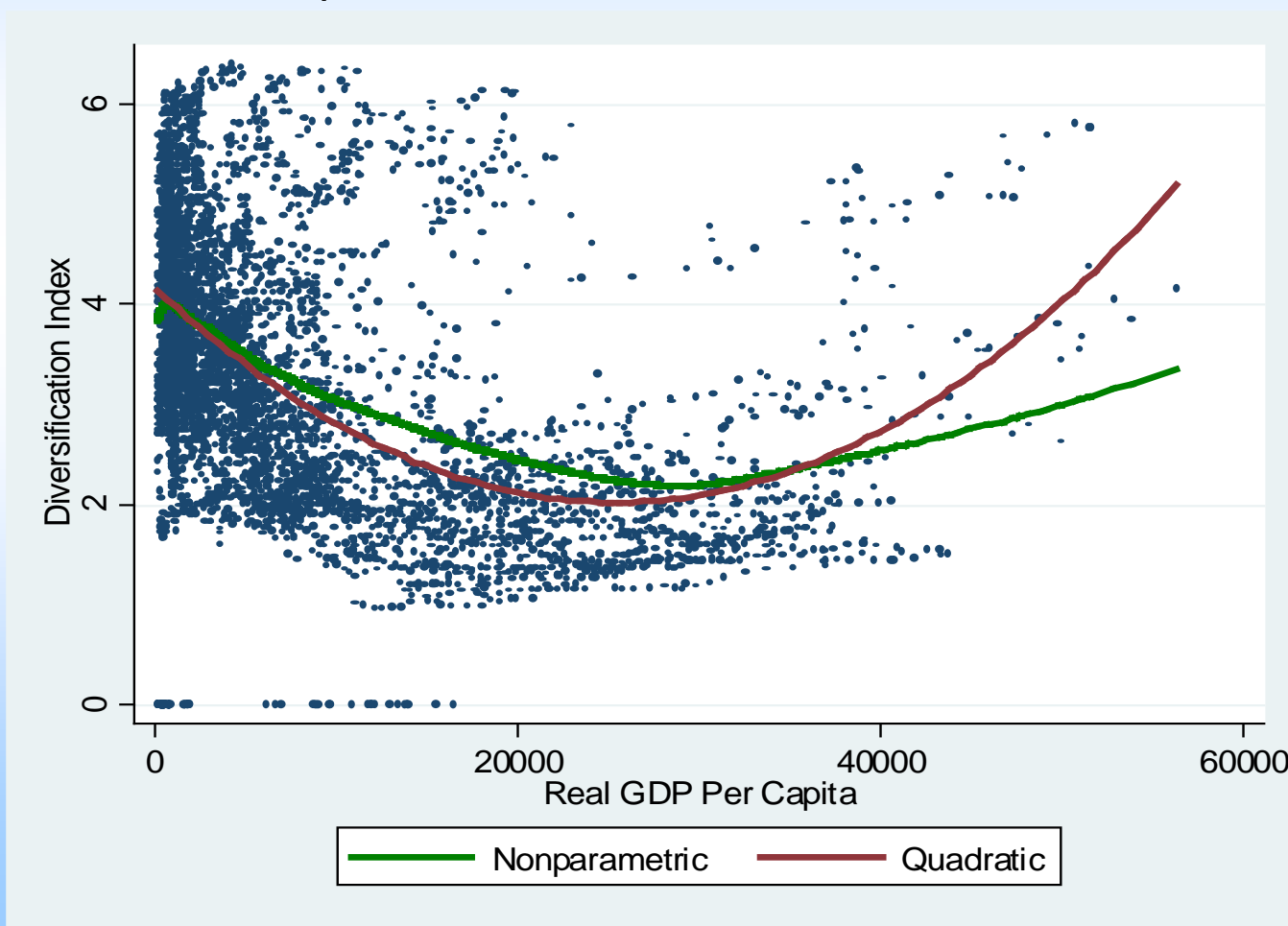


# Stylized Facts: Trade Diversification

## Trade Diversification (across Products) vs. GDP

- Along the development path, diversification increases (until threshold)

Export Diversification and Concentration

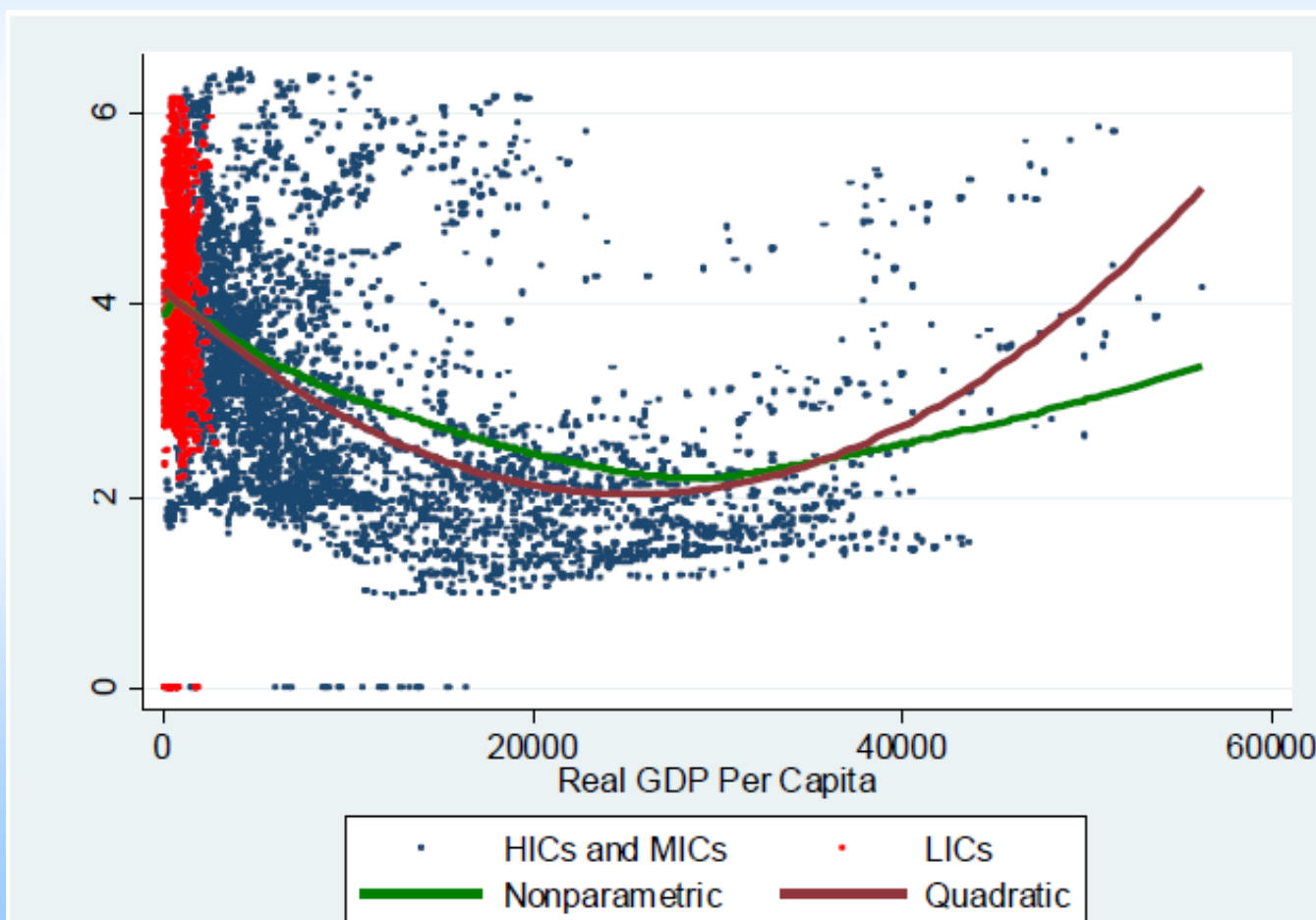


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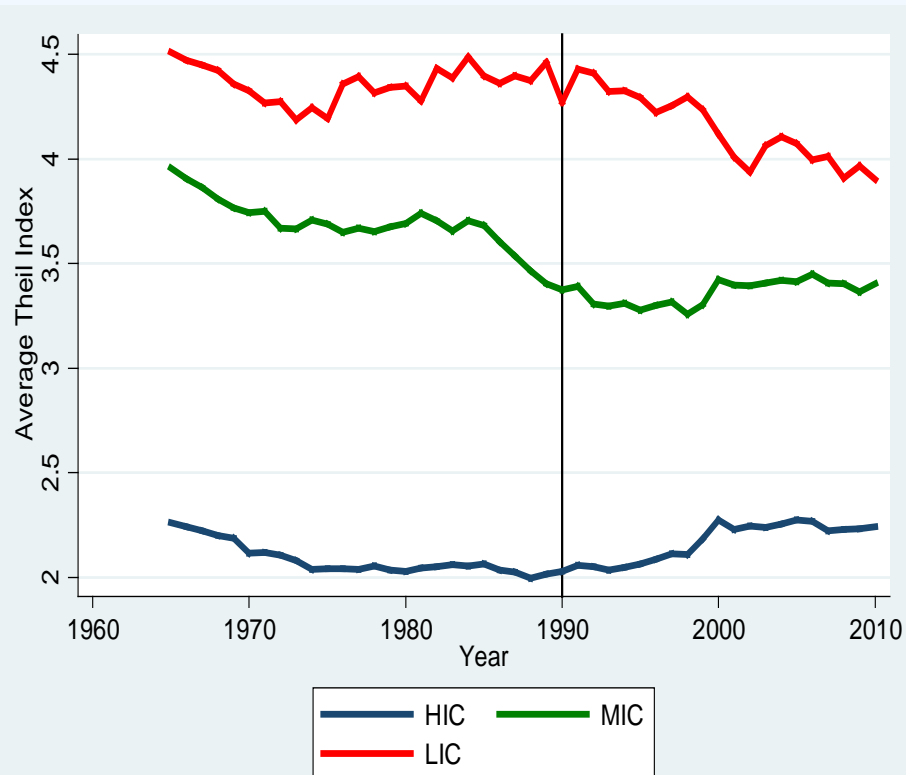


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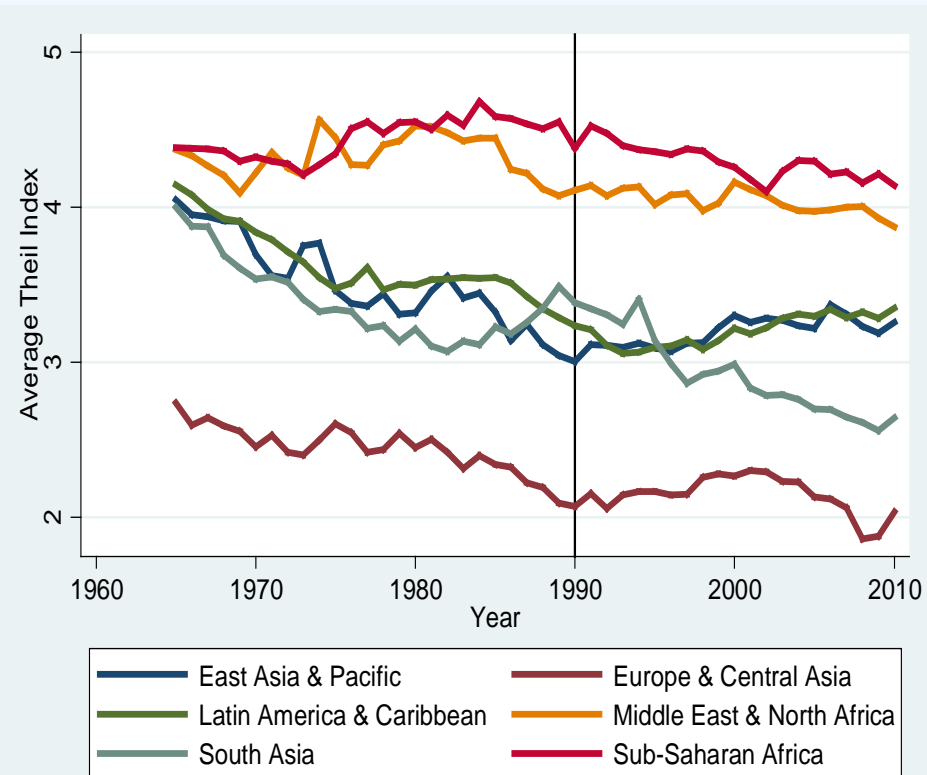
## Trade Diversification (across Products) vs. Time

- LICs and SSA have high concentration, but there is a break around 1990-5

By Income Group



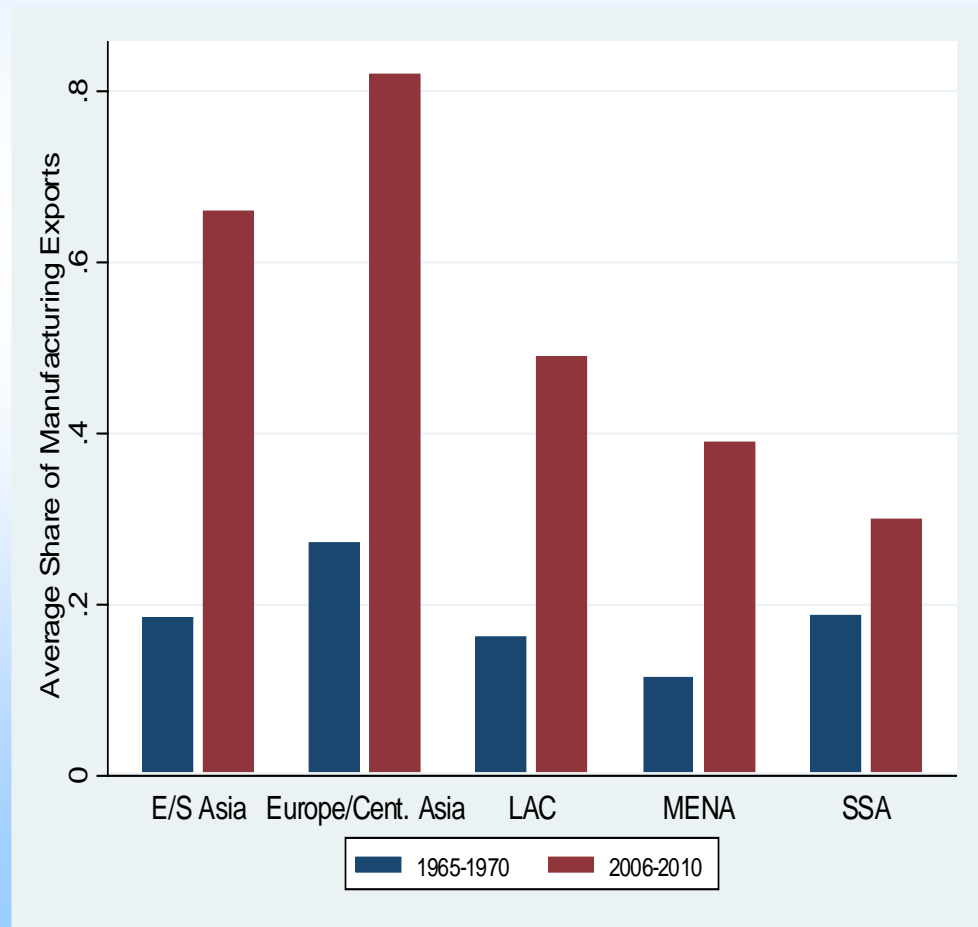
By Region



# Stylized Facts: Trade Diversification

## Agricultural and Manufacturing Export Share over Time

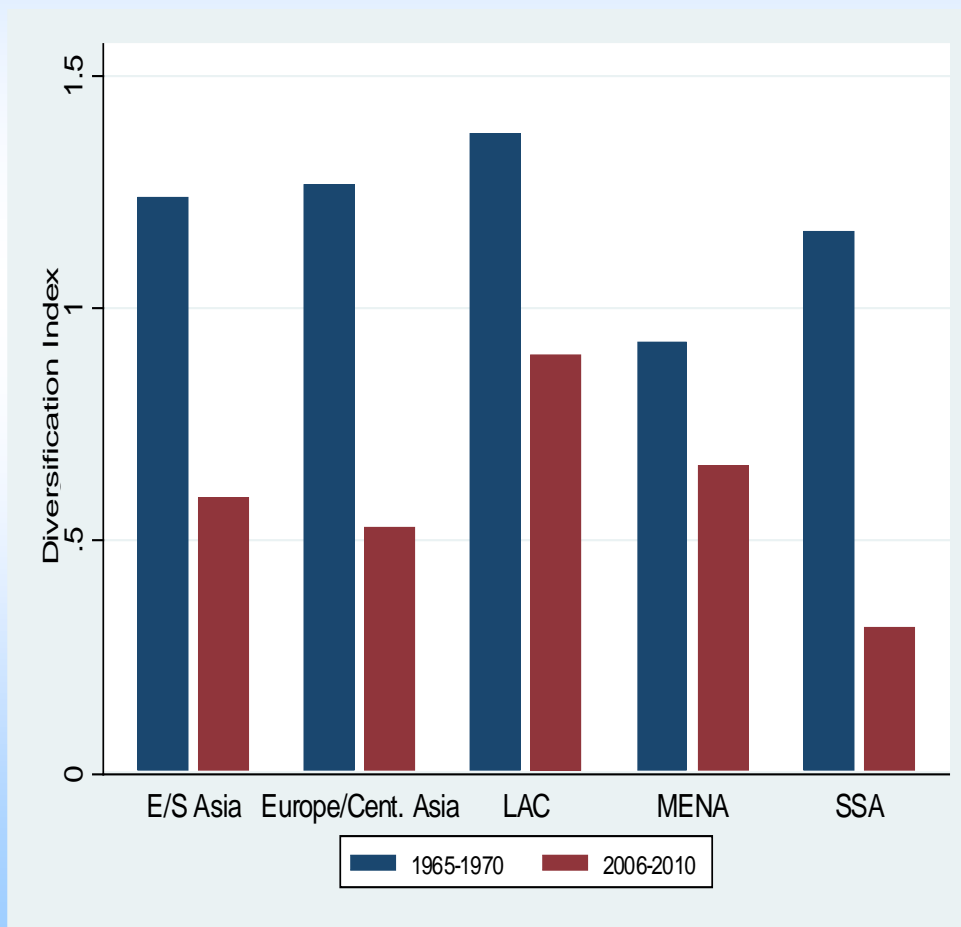
- Changes in diversification are paralleled by shifts in the relative importance of agriculture... .. and manufacturing



# Stylized Facts: Trade Diversification

## Trade Diversification (across Partners) over Time

- After 1995, Asia and Africa greatly diversified across partners

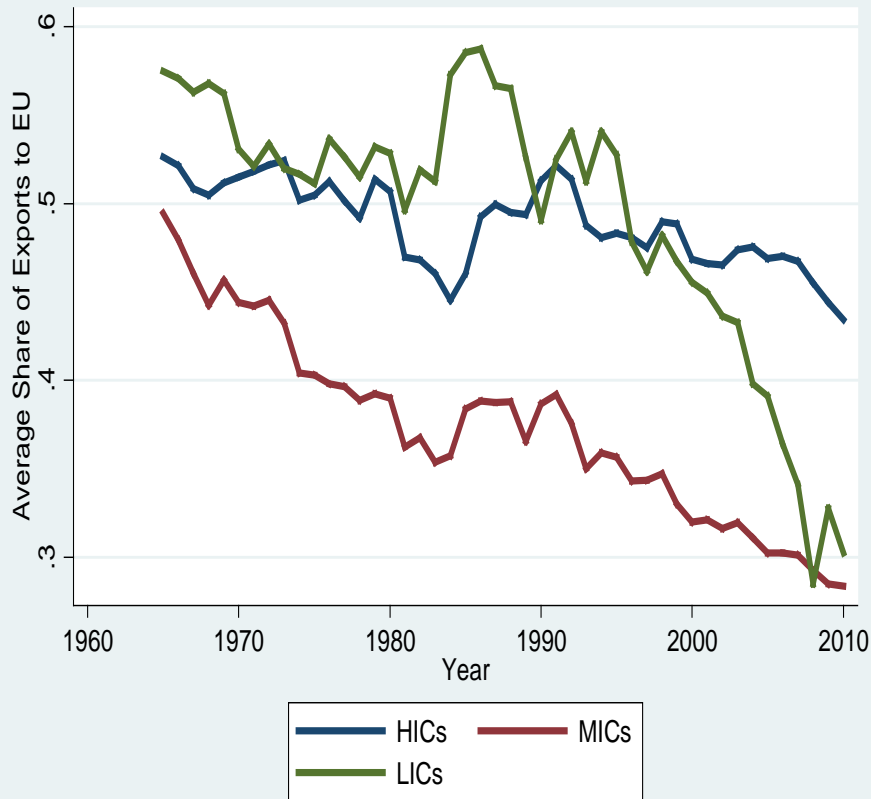


# Stylized Facts: Partner Diversification

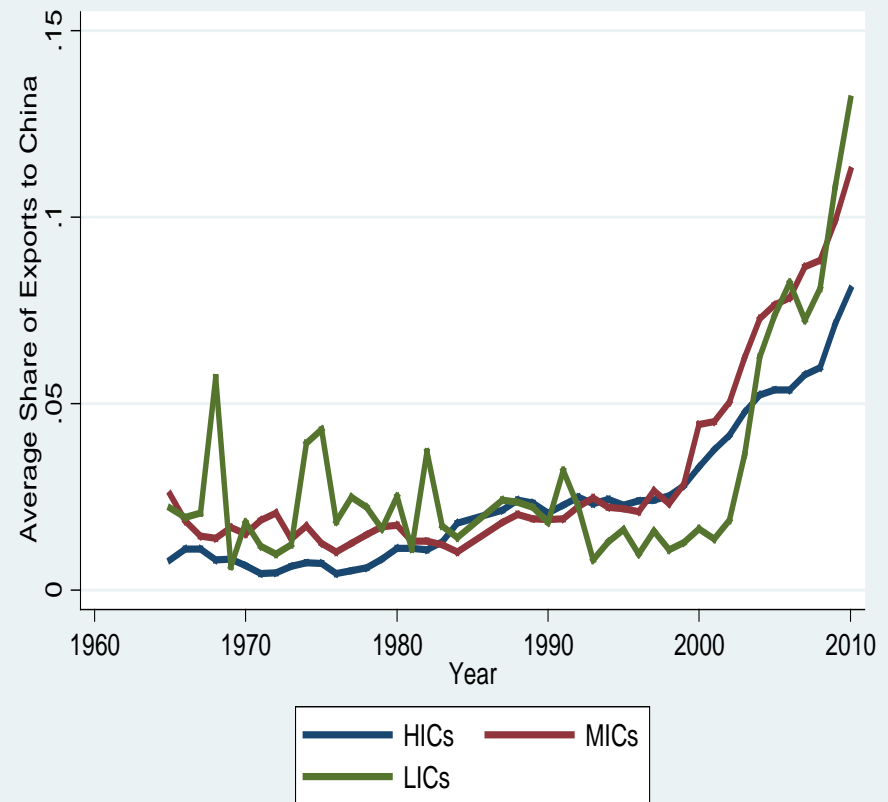
## Trade Diversification (across Partners) vs. Time

- This is partly related to emergence of China and diminishing role of EU

Share of Exports to EU



Share of Exports to China



**Stylized Facts**  
**Quality Upgrading**

# Quality Upgrading

- Economic development is underpinned not just by new products and markets, but also by **quality improvements** to existing products.
- Ongoing work develops a toolkit to answer:
  - What is an economy's export quality and how has it changed over time?
  - What is its present potential for quality upgrading?
  - How large is the need for diversification?
- Quality estimates improve on unit values, which can be imperfect quality proxies. Estimated quality measures smooth volatility and dispersion inherent in unit values.

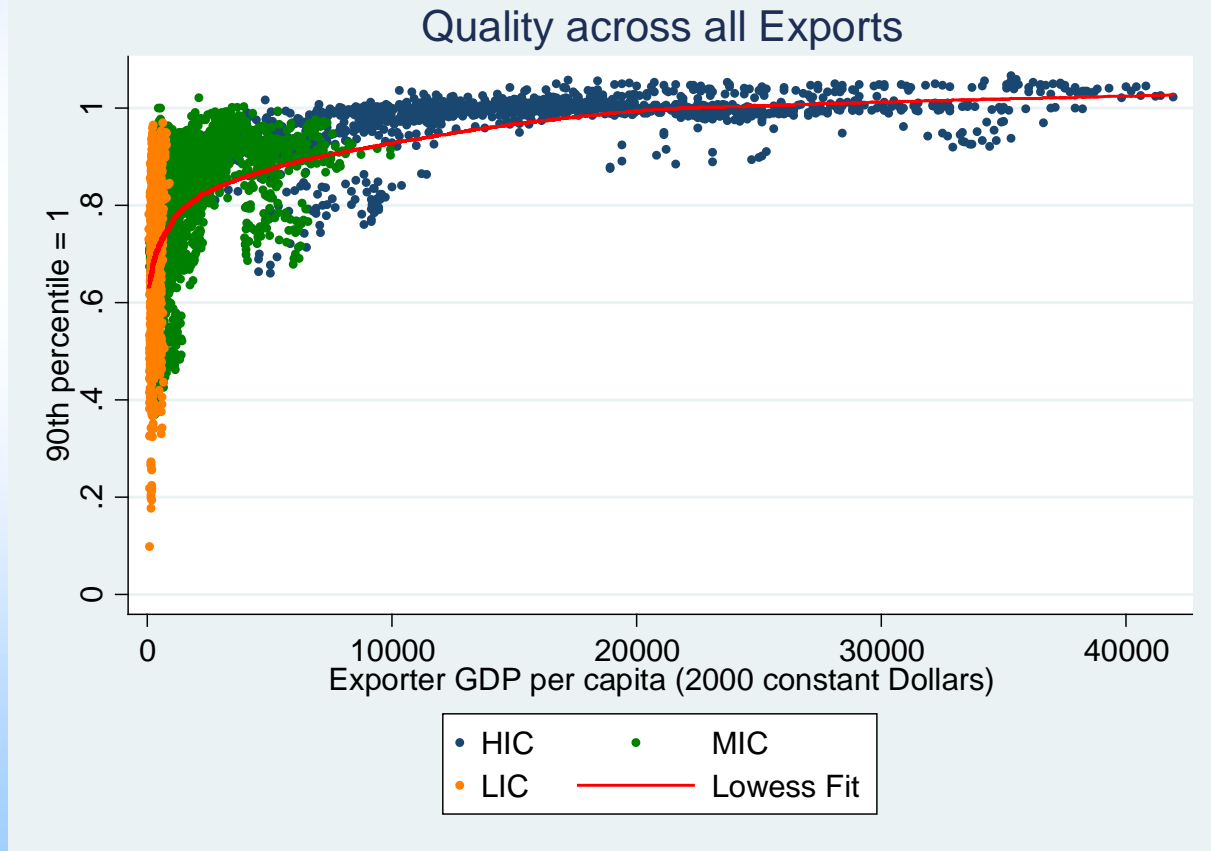


# The Toolkit

- Broadest set of quality estimates to date, covering 178 countries during 1962-2010. More than 21 million quality estimates at ‘importer-exporter-year-product-unit of measurement’ level.
- Toolkit will be made publicly available and contains exporter country totals and 3 different breakdowns:
  - *SITC 4, 3, 2, 1 digit*
    - Over 1.5 million quality estimates available at the SITC 4-digit level (after aggregating over importers and units of measurement)
  - *BEC 3, 2, 1 digit*
    - BEC1: Useful breakdown into intermediate products, capital goods, and consumer goods
    - BEC2: Distinguishes, for instance, between (i) primary vs. processed varieties; and (ii) consumer durables vs. non-durables.
  - *3 broad custom categories*
    - Manufactures, Agriculture, and Non-Agricultural Commodities

# Stylized Facts: Quality Upgrading

- Quality upgrading is a crucial component of development, particularly when trying to move to upper middle-income status

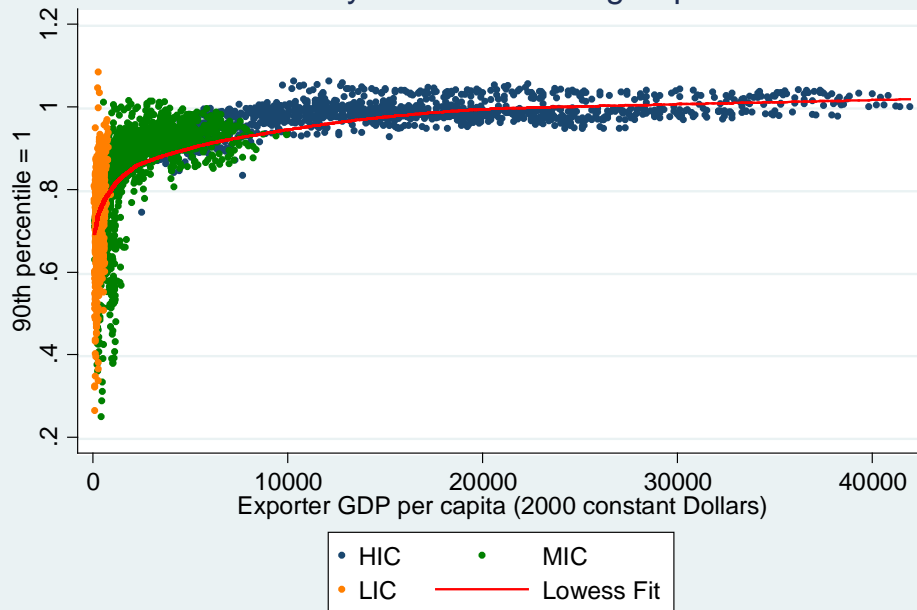


# Stylized Facts: Quality Upgrading

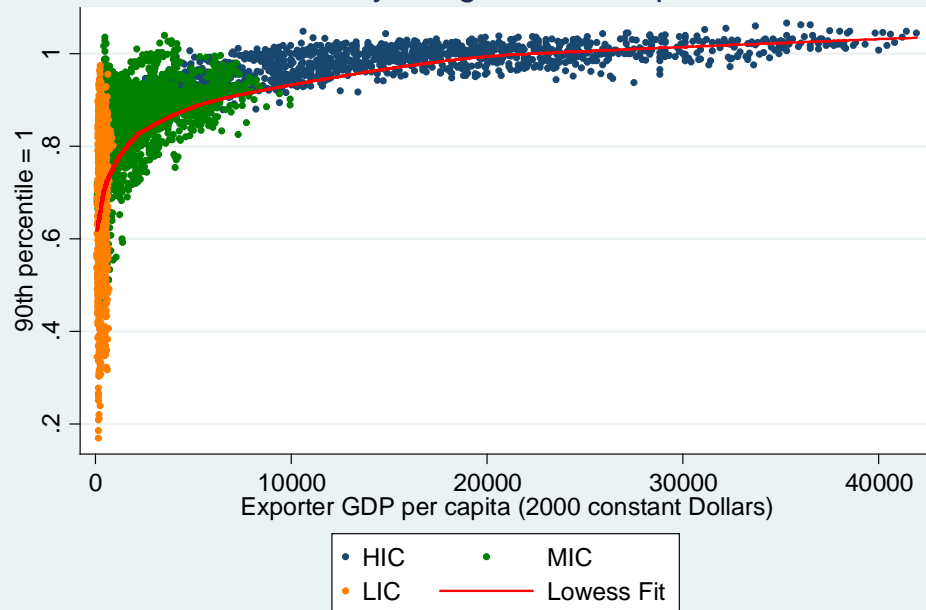
## Manufacturing and Agriculture

- There seems to be potential to also quality upgrade in agriculture, though it may be more constrained by soil and climate conditions.

Quality in Manufacturing Exports



Quality in Agricultural Exports

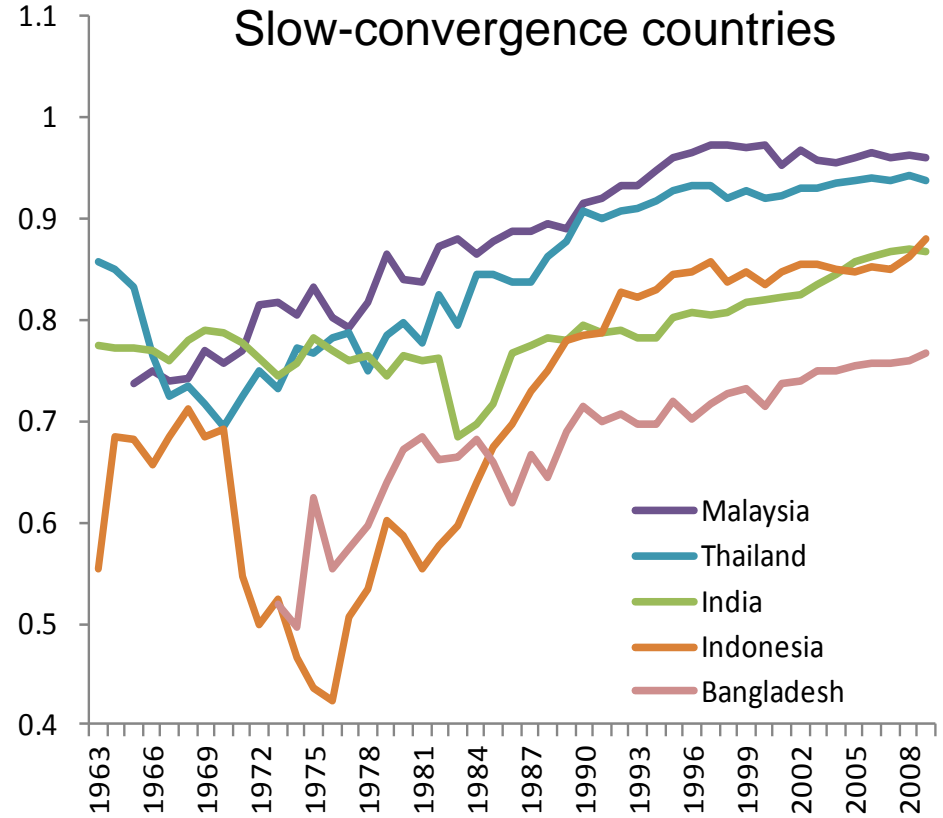
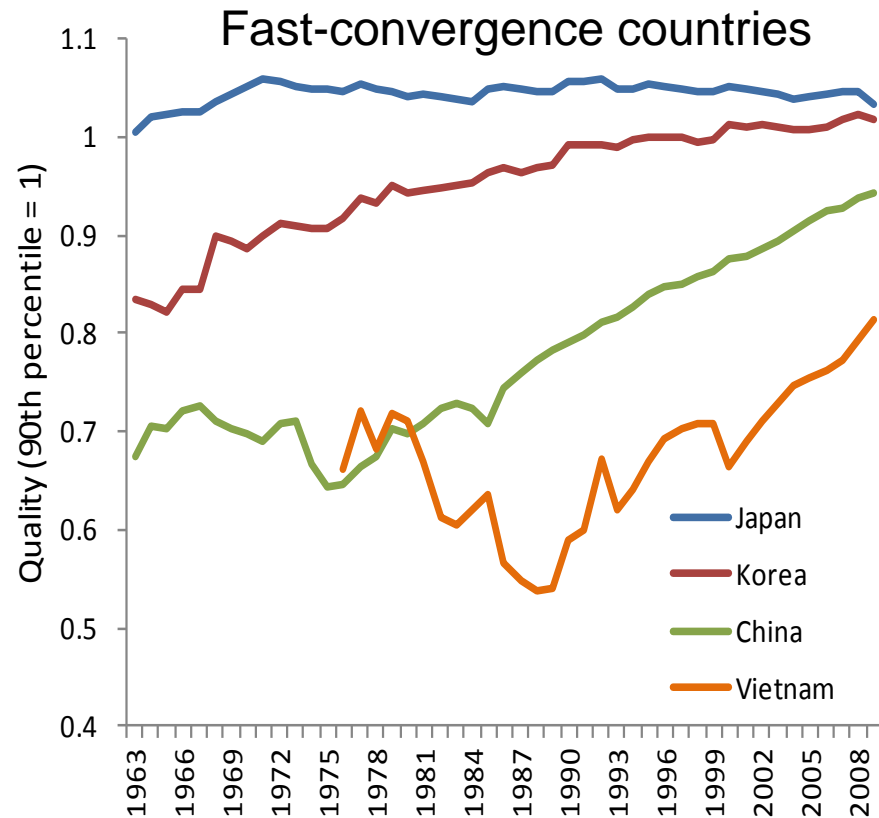


# Stylized Facts: Quality Upgrading

## Asia: considerable cross-country heterogeneity

➤ Some countries have converged or are continuing to converge to the world frontier.

➤ In other countries, convergence seem to have slowed since the mid-1990s.



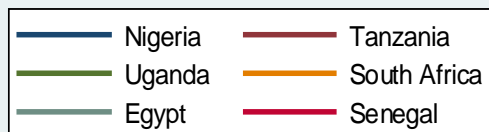
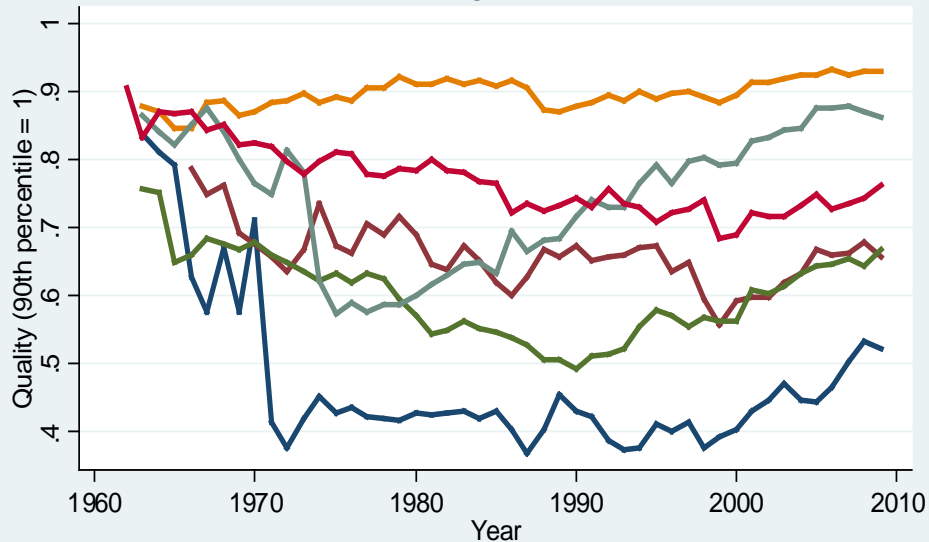
# Stylized Facts: Quality Upgrading

## Africa: considerable cross-country heterogeneity

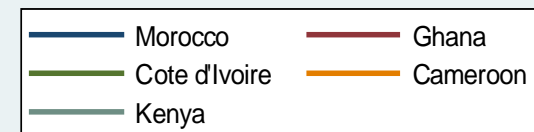
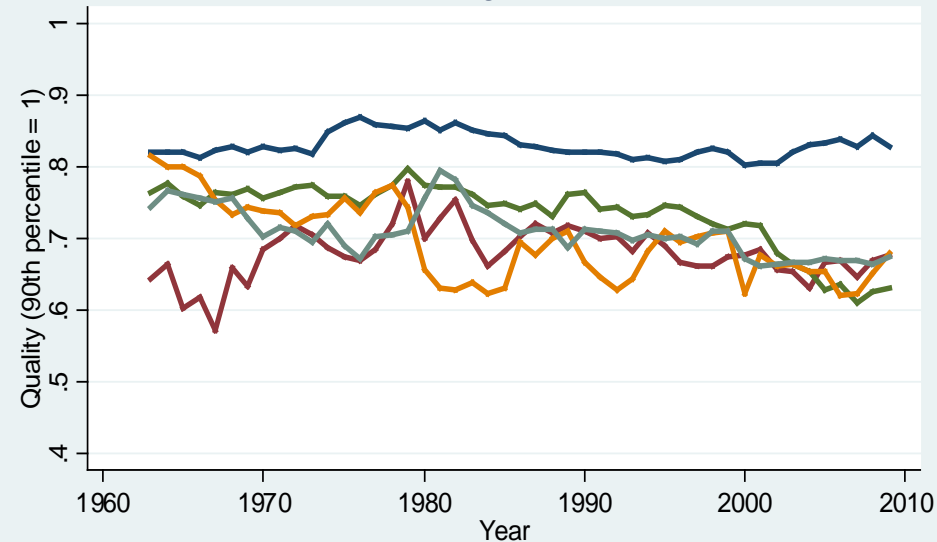
➤ In Africa, some countries are taking off—or have taken off.

➤ Other countries' export quality has continued to stagnate.

Fast-convergence countries



Slow-convergence countries

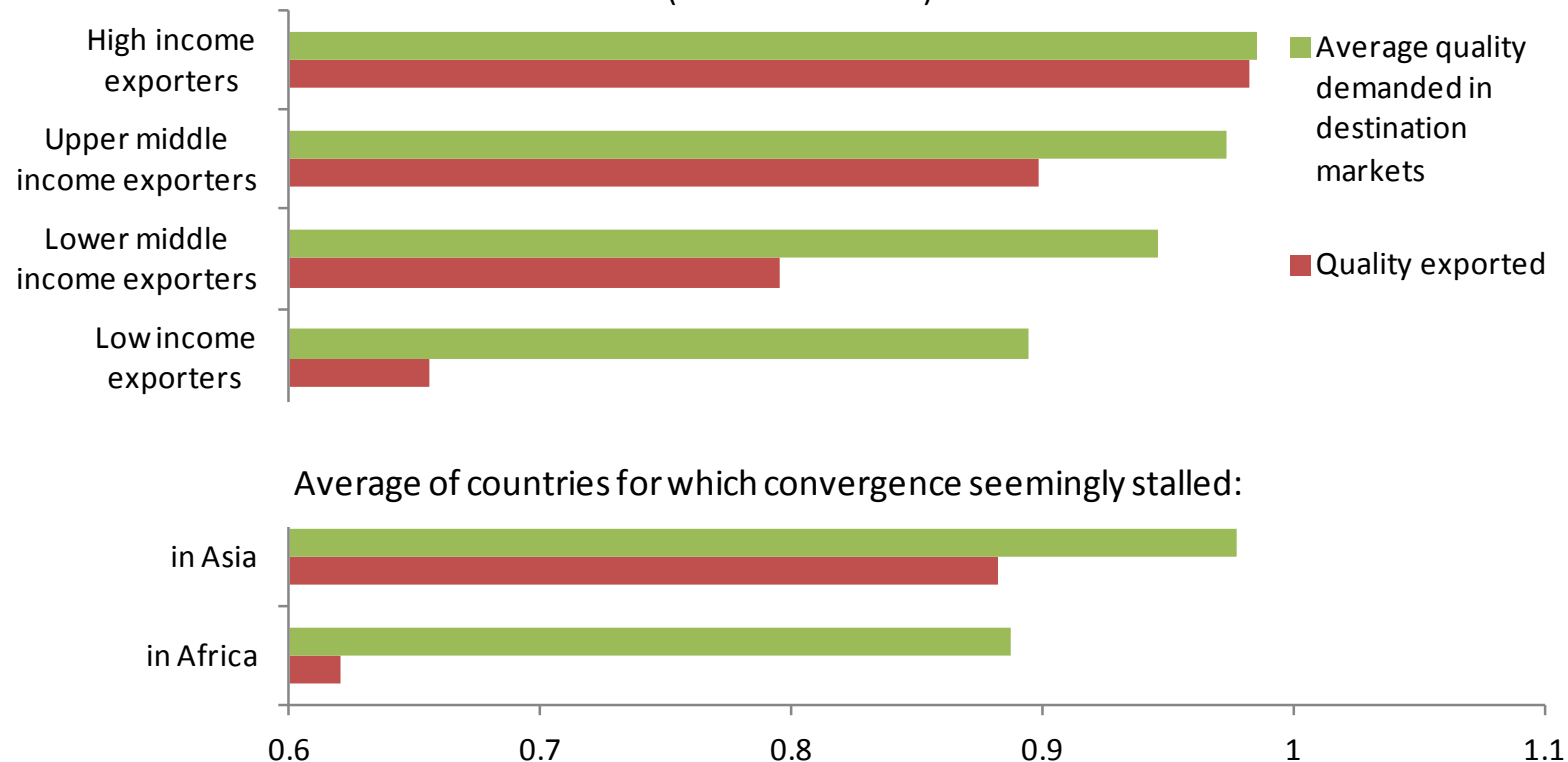


# Potential for Quality Upgrading

## Destination markets are no constraint for LICs

Quality demanded in destination markets is not an apparent constraint. Policy should focus instead on creating conditions broadly favorable to quality upgrading

Export quality relative to destination markets in 2009  
(World Frontier=1)



# Case Studies

Tanzania

Bangladesh

Vietnam

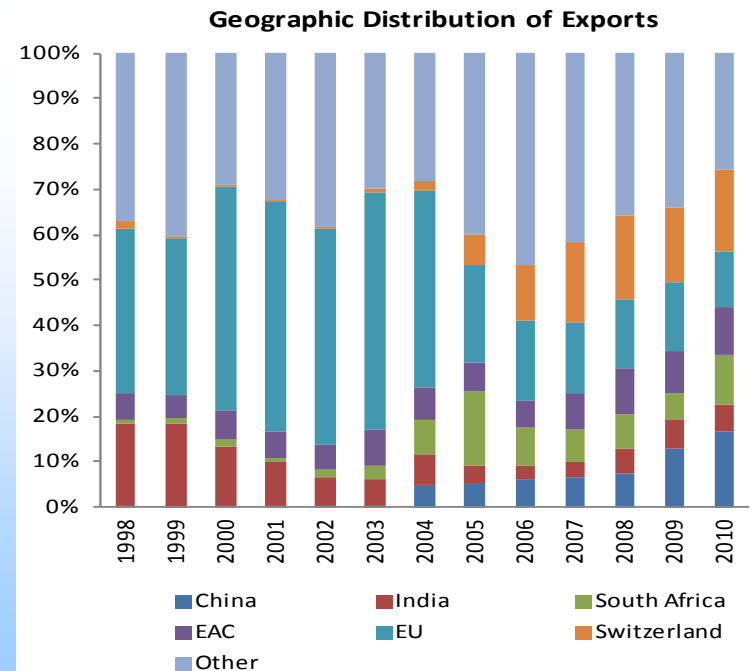
Malaysia

# Tanzania

- Tanzania showcases successful LIC diversifier

- Exports grew rapidly
- Agriculture was 'crowded out' by gold and manufacturing

- Trade geography also changed
- EU's share declined, giving way to Switzerland and China (reflecting gold) and regional trade

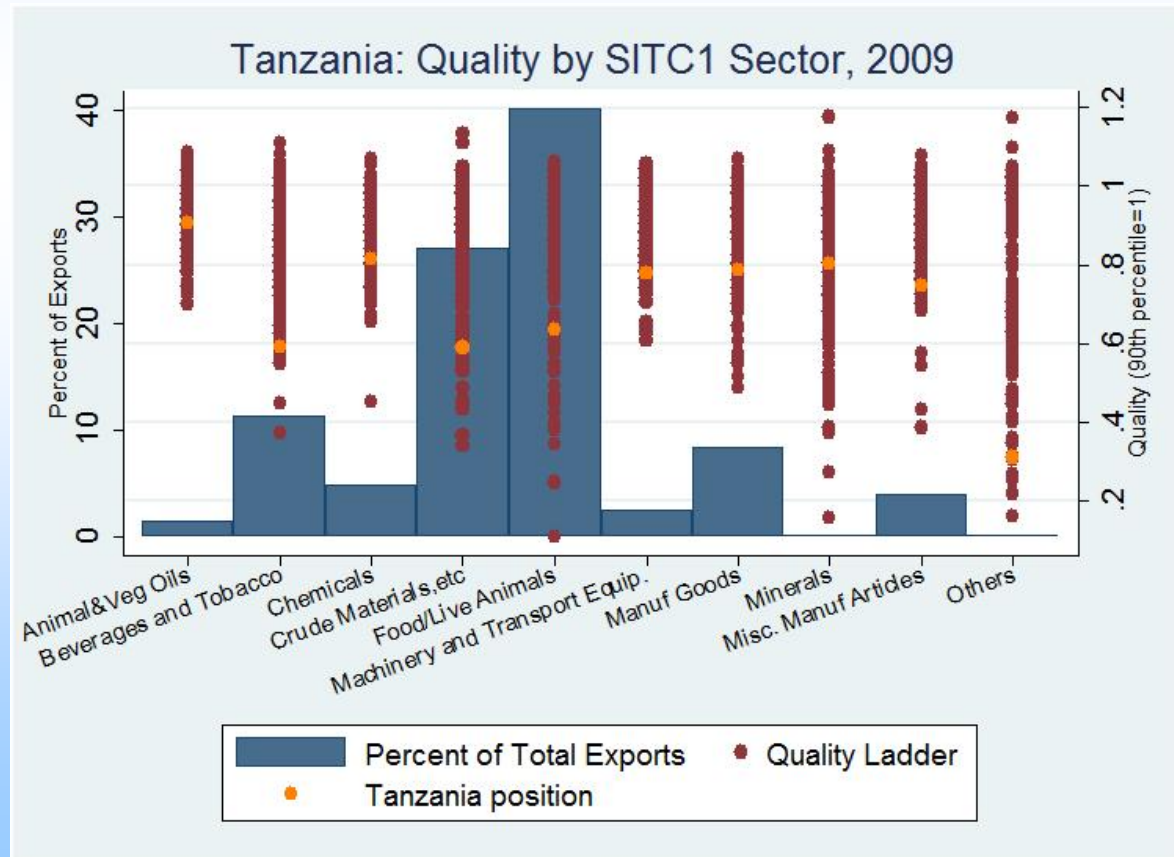




# Potential for Both Quality Upgrading *and* Horizontal Diversification

## Tanzania

Given its concentration in agricultural products & crude materials, Tanzania has potential for horizontal diversification but also quality upgrading in agriculture



# Case Studies: Some Takeaways

- Successful diversification typically underpinned by reforms that are general in scope, rather than industry-focused and narrowly targeted.
- Necessary reforms come in “waves” of interrelated measures, and depend on political economy considerations and external conditions.

# Conclusions

Diversification closely linked with **structural transformation**, and an important element of the development process in developing economies.

Development strategies must promote sustained **resource reallocation**, and encourage continued **quality upgrading**.

Key issues:

- What goods are produced and exported, and of what quality?
- What are the specific bottlenecks to structural transformation in given countries? Why are some countries much more successful?
- Are the policies needed to promote initial diversification different from those required to then sustain quality upgrading?

# Working Papers

- ❑ **Economic Diversification in Low-Income Countries: Stylized Facts**, C. Papageorgiou and N. Spatafora (February 2013)
- ❑ **Export Quality in Developing Countries**, C. Henn, C. Papageorgiou, and N. Spatafora, (May 2013)
- ❑ **Economic Diversification: Recent Experiences and Policy Lessons from Five Case Studies**, A. Pitt (forthcoming)
- ❑ **Diversification and Structural Transformation in Frontier Asian Economies**, C. Papageorgiou, Nikola Spatafora and Ke Wang (forthcoming)

# Work in Progress

- ❑ **Diversified Structural Transformation (model)**
- ❑ **Growth through Diversification**
- ❑ **Diversifying exports and Macro Stability**
- ❑ **Export Quality and Complexity**

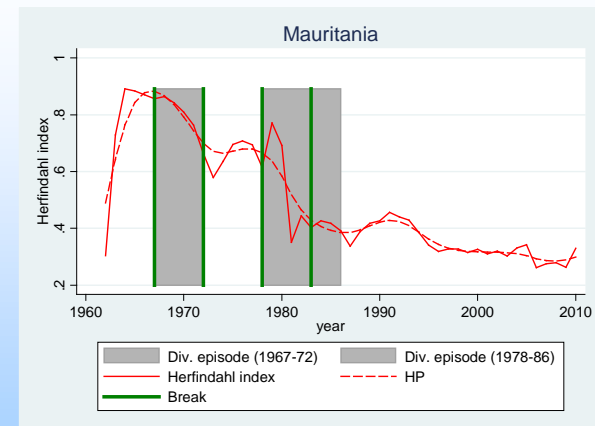
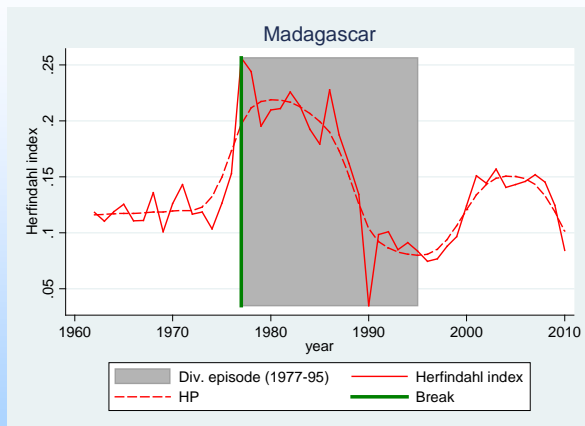
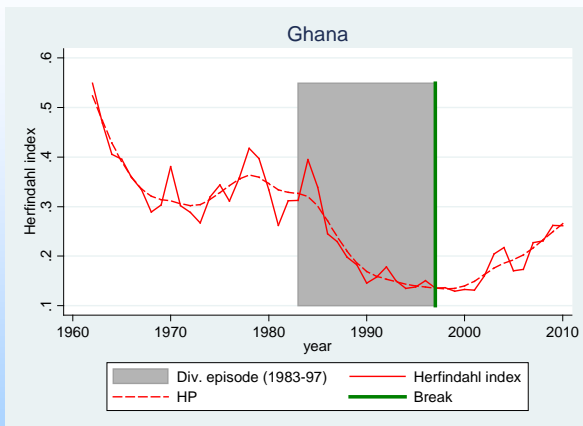
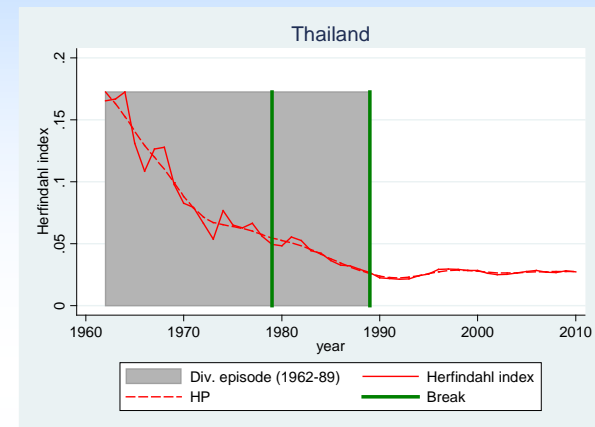
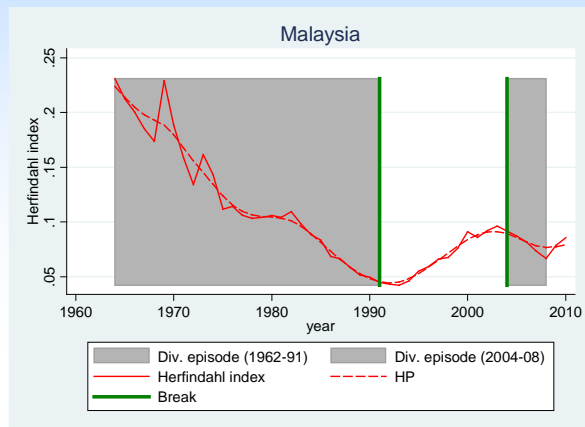
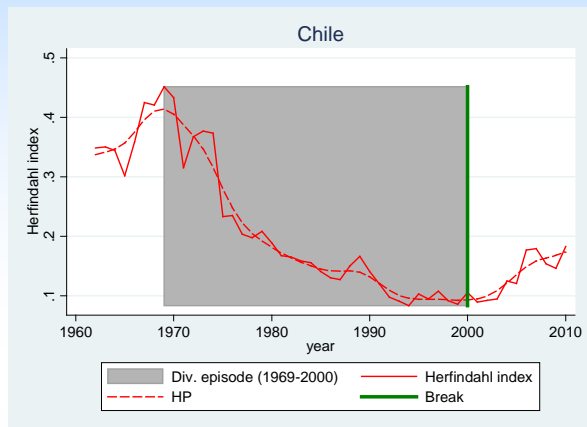
**THANK YOU**

# Quality Upgrading: Method

- Quality estimates improve on unit values, which can be imperfect quality proxies if:
  - Significant cross-country differences in production costs
  - Selection bias in quality composition (“Shipping the good apples out” effect)
  - Estimated quality measures smooth volatility and dispersion inherent in unit values.

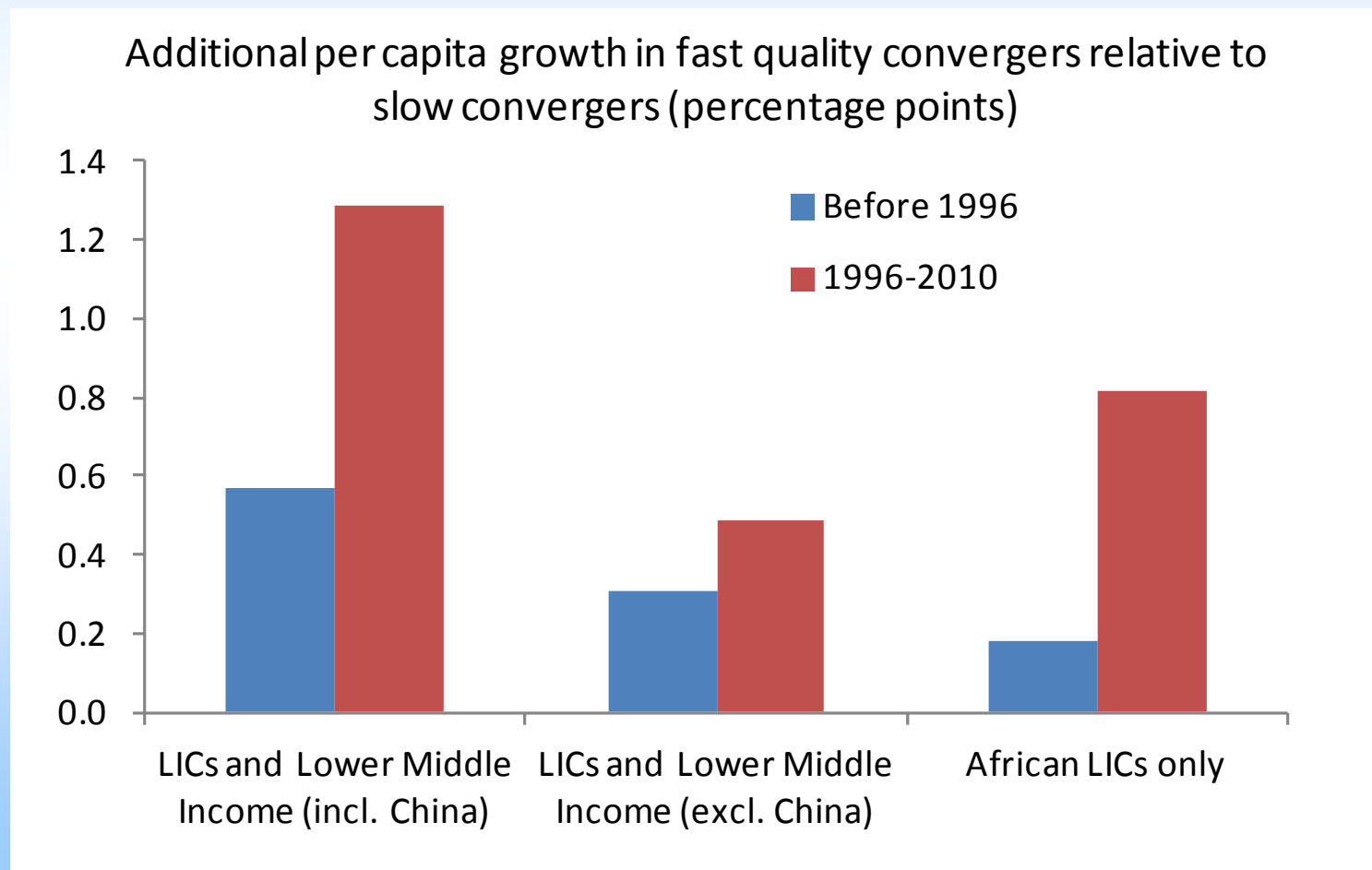
# Diversification Episodes

## Trade Data: Products



# Quality Upgrading and Growth

Countries experiencing faster quality convergence since 1995 also experienced faster growth in GDP per capita





# Drivers

Diversification and **quality** are driven by deep, underlying determinants, including:

- ❑ Institutions
- ❑ Labor and product market rigidities
- ❑ Public infrastructure, and investment efficiency
- ❑ Education (human capital)
- ❑ Financial development