What is Behind Latin America and the Caribbean’s Income Gap?

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Introduction

• Francesco Caselli’s paper:
  – Starting point and backbone for our research on why Latin America and the Caribbean have failed to converge to higher income levels.

• Focus: “Unbundling” the efficiency gap.
Why focus on the efficiency gap rather than the capital gap?

• The region suffers from an *efficiency gap* as much as it suffers from a *capital gap*.
• But much of the capital gap itself is likely due to reduced incentives to invest in physical and human capital caused by the efficiency gap.
• Basu *et al.* (2012): TFP can be interpreted as a measure of aggregate welfare.
• Closing the capital gap would require a massive expansion of savings/investments
  – Potentially at odds with the “social compact” observed across the region.
If LAC had the same efficiency levels as the US, its income per worker would double.

Source: Based on Caselli. Broad sample baseline calibration is used.
What does the literature have to say about the determinants of efficiency?

I. Technology diffusion and adoption
II. Resource misallocation
III. Managerial quality
Different policy implications

• If technology adoption is key, the policy focus should be on removing barriers to technology adoption (such as increasing international integration or improving human capital).

• If misallocation is more important, policies should aim to improve domestic institutions and correcting the misallocation of resources.
Lags in technology adoption

- Macro-based evidence (Eden and Nguyen, 2014) indicates that:
  - the technology adoption lag between the U.S. and LAC (8 years) is shorter than the current micro-based evidence suggests.
  - explains only little of the observed productivity gap.

Source: Eden and Nguyen (2014); Akcigit et al. (2014).
The contribution of structural change

• Schiffbauer, Sahnoun and Araujo (2014)
  – Structural change has been associated decreased economy-wide value-added per worker in most LAC countries in the sample
• “Insulated” economic activities – particularly in the tertiary sector – display lower productivity and have become a recipient of labor in many LAC countries.
• But higher services sector productivity helps explain why countries such as Mexico and Costa Rica have seen structural change contributing to aggregate value-added per worker.
• Enhancing product and labor market competition can remove the implicit protection that such insulated sectors receive and thus lead to more productive resource allocation.
Generating “pockets of inefficiency”

• Wacker (2014):
  – High poverty gaps weaken income convergence through sectoral misallocation.
  – Countries with deep initial poverty converge more slowly in income per capita.
  – Poverty and slow convergence reduce opportunities for low-skilled workers
    • Thereby favoring the development of inefficient insulated sectors
      – “pockets of inefficiency”
  – This effect is magnified by macroeconomic volatility, potentially creating a vicious cycle.
Poverty, convergence and volatility

Convergence speed depends on the initial poverty level

Impact of poverty on growth increases with macroeconomic volatility

Firm-level evidence for Colombia and Mexico

• Brown, Crespi, Iacovone and Marcolin (2014):
  – Firms’ convergence towards the global frontier is much weaker than convergence to the domestic one;
  – firms’ innovation effort is the most important determinant of firm-level productivity growth, and therefore of convergence to the domestic productivity frontier.
  – “within” component (firm-level growth) accounts for more than two thirds of overall productivity growth in the manufacturing sector.
  – little contribution from the resource reallocation channel:
    • Mexico and Colombia have done relatively better during the 2000s on technology adoption than on reducing resource misallocation
Within-firm productivity drives convergence to the domestic frontier

But it is not so easy to disentangle the drivers of the efficiency gap

• Misallocation can affect efficiency directly, and through the optimal technology adoption decisions by firms.

• Weak institutions can result in misallocation of factors
  – thereby affecting efficiency through the optimal technology adoption decision of agents.

• Weak institutions can reduce firm-level incentives to innovate
  – thus becoming a binding constraint to innovation and technology adoption.
Institutions and returns to innovation

- Another piece of micro evidence – based on enterprise surveys for some LAC countries.
- Nguyen and Jaramillo (2014):
  - For ECA and LAC, after a firm innovates, its sales per worker increase by 18 percent.
  - For LAC alone, the difference in sales and sales per worker between firms that do and do not innovate is not statistically different from zero.
  - Returns to innovation are influenced by institutional factors, such as property rights protection and the rule of law.
- Existing regulations and institutional arrangements can prevent firms from absorbing existing technologies or from innovating.
  - But these are also potential explanations for misallocation.
Some questions for discussion

• Closing the efficiency gap vs. closing the capital gap: How do the trade-offs differ?

• What should LAC policymakers focus on: Technology adoption? Resource misallocation? Both?
  – Does eliminating distortions that cause misallocation of resources also improve the incentives to innovate or adopt new technology?