World Bank Productivity Project

The Productivity Project: www.worldbank.org/productivity
IMPORTANCE OF PRODUCTIVITY LONG-RECOGNIZED

- “Civilization and its well-being as well as business prosperity, depend on productivity…”
  --Ibn Kaldun (1377)

- “Productivity isn’t everything, but in the long run, it is almost everything”
  --Paul Krugman (1994)

- The average person in an advanced economy produces in 9 days what the average person in a follower country produces in 1 year (Restuccia, 2013)

- In the US, most efficient firms (top 10%) produce twice as much output with the same inputs as least efficient firms (Syverson, 2011). In China and India, the same ratio is 5:1.
DECLINING PRODUCTIVITY GROWTH AND WEAK CONVERGENCE

Sources: Cusolito and Maloney, IMF, Albrizio and Nicoletti, Hsieh and Klenow
SOURCES OF PRODUCTIVITY GROWTH

Operating Environment: Removing Distortions, Resolving Market Failures

Improved factor use across firms and sectors
(Reallocation)

Improved firm performance
(Within)

Improved quality of entering firms
(Selection)

Human Capital and Innovative Capacity: STI, Entrepreneurial and Managerial Capabilities

Total Factor Productivity Growth

FIGURE 1.11 Which Dimension Contributes Most to Productivity Growth?

Source: Cusolito and Maloney (2018).
Traditional inference based on TFPR is flawed

Firm performance a broader concept
- Efficiency
- Quality
- Demand (access to markets, scaling-up the demand and brand name)

H-K concept of misallocation is not a good measure of distortions

However, distortions may have larger dynamic impacts on within and entry dimensions
The adoption of existing technologies accelerates growth, dwarfs impact of development aid... yet most developing countries firms fail to reap these benefits and don't seriously innovate and most governments fail to develop innovation policies that effectively facilitate this process of technological catch up.
MANAGEMENT QUALITY: PERCEPTIONS VS REALITY

The World Bank Productivity Project
20% OR LESS OF FIRMS CONTRIBUTE AS MUCH AS 80% TO JOBS AND OUTPUT GROWTH
BUT THEY AREN’T WHAT MANY TEND TO THINK

Fiction

- High-growth firms are young tech start-ups that originate in clusters like Silicon Valley; they start with a handful of founders but once they take off, grow rapidly and dominate the market on the strength of their innovative products and ideas

Fact

- Most HGFs are young, but are not exactly start-ups
- Many HGFs are medium or large firms
- HGFs are found in all types of sectors
- HGFs operate in a wide range of locations
- High-growth experience is short-lived
- High firm growth and productivity are only weakly related
WHAT MATTERS FOR FIRM GROWTH?

• Innovation

• Agglomeration and networks

• Skills & Managerial capabilities

• Global Linkages

• Financial Development
CREATING EXPERIMENTAL SOCIETIES

FIGURE 5.2 The National Productivity System

Government oversight and resolution of market failures

SUPPLY

ACCUMULATION/ALLOCATION

Physical capital (K)
Human capital (H)
Knowledge (A)

DEMAND

Barriers to accumulation/relocation
- Absent finance and risk-diffusion markets
- Entry/exit barriers
- Business/regulatory climate
- Cost of failure (culture, bankruptcy law)

Barriers to knowledge accumulation
(technology adoption and invention)
- Rigidities (labor, etc.)
- Seed/venture capital
- Innovation and self-discovery
- Externalities

The firm

- Incentives to invest and accumulate
  - Macro context
  - Volatility of sales
  - Competitive structure
  - Trade regime and international networks
  - Support to expand demand

- Firm capabilities
  - Core competencies (management)
  - Production and technological systems
  - Actuarial capabilities

- Entrepreneurial characteristics
  - Drive (Grit)
  - Risk tolerance
  - Ability to recognize opportunities
PUBLIC SECTOR PRODUCTIVITY MATTERS AS WELL!

FIGURE 5.3  More Developed Countries Have More Effective Bureaucracies

GDP per capita, 2015 (current US$)

PORTFOLIO MAPPING AND ANALYSIS OF THE QUALITY OF THE POLICY MIX

EFFICIENCY ANALYSIS

FUNCTIONAL AND GOVERNANCE ANALYSIS

EFFECTIVENESS ANALYSIS

IMPACT OF GTI POLICIES ON INNOVATION AND TECHNOLOGY ADOPTION

Efficiency rate (USD thousand)

2014 2015 2016
THE CAPABILITIES ESCALATOR

Temptation: Imitate advanced country institutional structures and policies
- Establish research centers and institutes with little connection to private sector.
- Government subsidies and tax write offs for R&D

Before this stage, countries and the private sector need to:
- Develop basic firm capabilities then progress to higher technological capabilities that facilitate technology adoption.
- Redress missing and distorted markets that advanced countries already got right.
“Fortune favors the prepared mind” (and countries)
Pasteur (1854)

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