## The Developing Country Perspective: Management Quality, innovation and Risk

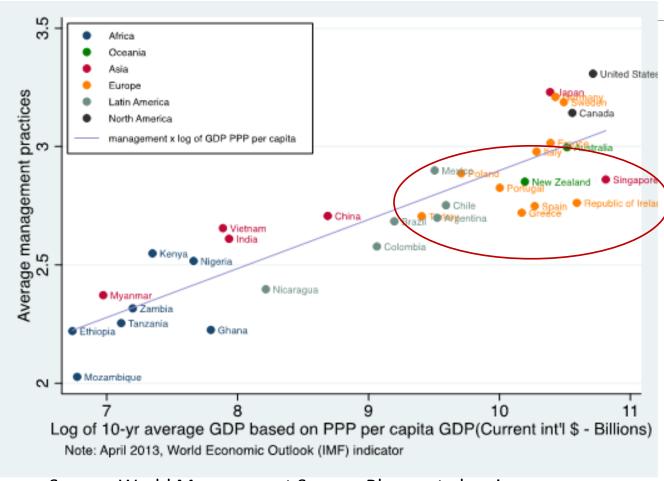
BILL MALONEY, WORLD BANK

COMPNET, BRUSSELS, JUNE 29, 2017

FORTHCOMING: THE INNOVATION PARADOX: DEVELOPING COUNTRY CAPABILITIES AND THE UNREALIZED PROMISE OF TECHNOLOGICAL CATCH-UP

WORLD BANK PRODUCTIVITY PROJECT: <a href="http://www.worldbank.org/en/events/2016/09/23/second-generation-productivity-analysis-and-policies">http://www.worldbank.org/en/events/2016/09/23/second-generation-productivity-analysis-and-policies</a>

### Managerial Quality and Innovation



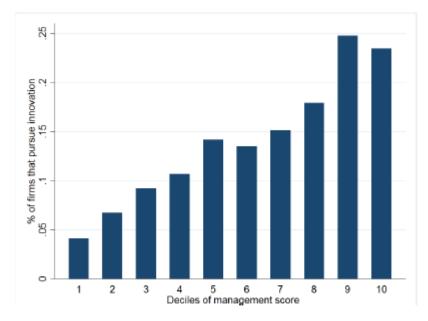
- Bloom (2016) Explains 35% of cross country differences in income
- Channels:
  - Basic organization
    - Inventories, plant layout, sales,
    - Strategy: key complement to competition/ trade liberalization.
  - Innovation
  - Risk taking

Source: World Management Survey; Bloom et al various.

# New evidence that management complements innovation

- Cirera (2016) using WB Enterprise Survey:
  - Management quality (MQ) correlated with process and product innovation.
- lacovone and Pereira- Lopez (2017) using Mexico micro data (ENAPROCE)
  - MQ leads to more innovation, tech capabilities.
  - Increase impact of human capital and R&D expenditure.
- •Maloney and Sarrias (2018) using linked ORBIS/WMS survey:
  - MQ very correlated with patenting in knowledge creation function.
- In all cases, MQ more important than R&D

Figure 9: Technological capabilities vs. Management score: Manufacturing



Source: Authors' calculations with data from ENAPROCE 2015, INEGI.

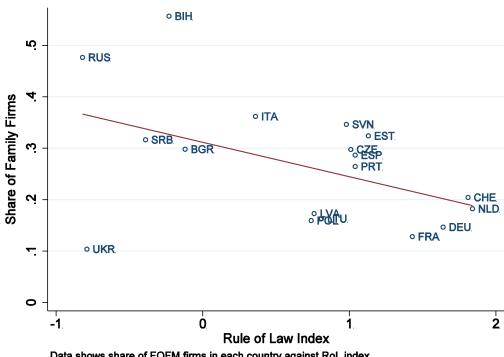
lacovone and Pereira- Lopez (2017)

## Weak management: response to local conditions, or barriers to technological adoption?

### •Contracting Environment?

- Ownership of firm-Family owned firms perform worse (span of control vs. information, commitment)
- ■lacovone et al (2017)- Orbis/World Value Survey, European subnational data
  - Weak trust leads to more family management and 25% fall in productivity
  - Moving from worst trust to and much worse productivity 14.5% increase in TFP

### Family Firms vs. Contracting Environment

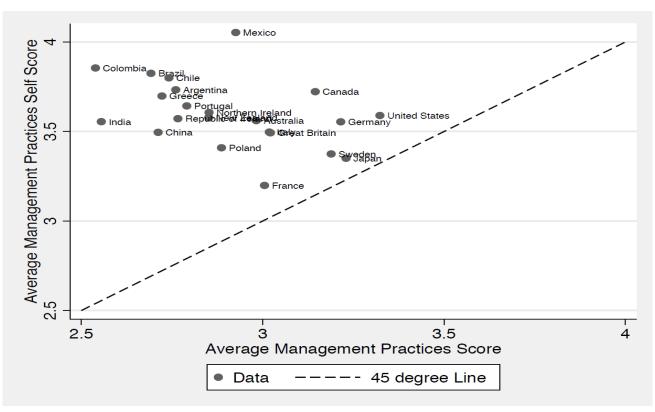


Data shows share of FOFM firms in each country against RoL index.

Iacovone, Maloney, Tsivanidis (2017)

# Tech transfer impediments: Managers don't know what they don't know.





- Bounded Rationality: Key issue in the National Innovation System Literature (Lundvall, Nelson etc)
- Lack of info on
  - Impact
  - Quality of supplier
  - Learning
- Managerial upgrading programs have high rates of return.
- Advanced countries massively subsidize them
  - Japan: 65%
  - Singapore: 100% for first 20K, 60% after
  - Korea: 100%
  - Scotland- 100%

Source: WMS elaborated by Maloney 2017

## Competition and Innovation?

Effect of competition on tech adoption/innovation (including managerial quality) is ambiguous (Aghion 2005, Melitz, today).

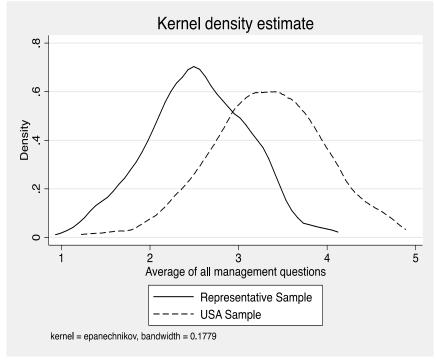
#### Managerial quality?

- Bloom and Van Reenen: Increased competition increases management quality.
- Maloney and Sarrias (2017): not just left tails and competition effect disappears with DCs.

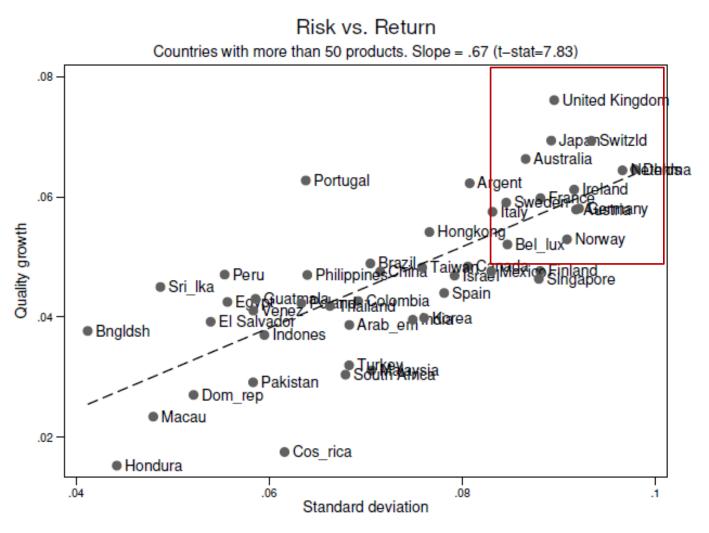
#### Chile (Cusolito et al 2017)

- Positive relationship between mark-ups and TFPQ
- Channel appears to be through innovation (at least 50%)
- Correlation with financial dependency-inability to manage risk?
- Margin effect largest for laggards

### Managerial quality: Chile vs US



### Managing risk is critical to quality/productivity growth



Krishna, Levchenko, Maloney (2016)

THANKS