Do firms in developing countries grow as they age?
Ayyagari, Demirguc-Kunt & Maksimovic

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“In 1988, output per worker in the United States was more than 35 times higher than output per worker in Niger”

- Differences in wealth across nations come from differences in TFP (Hall & Jones 1998)
- Differences in TFP: misallocation within and between firms
- *Between*-firm misallocation: institutional frictions like labor laws, access to finance (Hsieh & Klenow 2009)
- More productive firms cannot grow bigger through increasing labor and capital inputs
- Lowers aggregate output and TFP
- Incumbents have lower exit rates - lowers TFP
- Lower competition for entrants - lowers TFP
What does the paper do?

- Documents the relationship between plant size, age and growth for firms in the formal sector in 120 developing countries
- Focuses on India where frictions known to be high
- Older firms are larger than younger firms. An average 40+ old firm is 4.6 times the size of a young firm
- Informal sector: An old informal firm is smaller than a young formal firm.
- Financing constraints: There is no differential impact of financial development on firm lifecycle.
Comments: Cross-country survey

- Larger firms more likely to respond to survey - census data from the countries can be used to show representativeness
- Survivor bias matters: surviving firms are not fastest growing in sample goes against frictionless markets story
- Trend changes at 40+ cutoff: use age instead of bins and examine kinks
- Heterogeneity across 120 developing countries - can help identify channels causing misallocation and explaining lower TFP
- Combine with other measures of ease in doing business, rule of law, corruption measures across countries
- Single vs multi-establishment: do firms add new plants or expand existing ones more? different welfare implications in model with varieties in intermediate inputs
Comments: Firm life cycle in India

- The paper overturns an important results that firms in India do not grow as they get older (Hsieh & Klenow, 2013)
- This result seems to suggest that the HK paper takes only contract labourers employed by a firm as a proxy of size of the firm, rather than total labour employed - difference only due to this?
- Should data work, measurement and analysis in economics including reproducing and confirming research and results be given as much importance as in other data based scientific analysis?
Informal firms are financed internally or through NBFCs and cooperatives institutions, while large establishments would get internal finance and bank credit from the firm headquarters so the measure commercial bank credit to State GDP is not suitable for answering this question.

Bank location in the state may not be important for the large publicly traded firms to grow where high dependence on public equity.

Why does Financial Development not matter for firm growth? What are the policy implications from this result for India and for other developing countries?

If financial development is immaterial to growth and firm productivity in a country, then what prevents convergence in TFP?
Questions

- In both Indian evidence and in the cross country developing country evidence that firms in the formal sector grow as they age.
- The informal sector has a flat life cycle. What explains the difference?
- The results for cross country firms and Indian plants are not comparable - use firm level data to make Indian evidence comparable with cross country evidence.
- If the pace of growth of Indian firms is still lower than that of other developing countries, then the interesting question is why?
- A firm might acquire many plants, rather than grow the size of the plant, as it grows older and, say, if the old has 2 plants, while the young has one, then the difference is fully explained by plant vs firm.
Suggestions

- The ultimate question of interest is why we do not see convergence in aggregate TFP and poor countries catching up over time.
- Look at both global and Indian data to study if productive firms grow in size or no heterogeneity along TFP of firms.
- If not these frictions then possibly some others?
- Can identify whether inefficiencies are in entry, exit or through misallocation among existing firms.
- Look along several dimensions for why doing business in poor countries is harder.
- Keep in mind that small firms in the US also don’t necessarily grow in size.
Overview

- New dataset to study important question about growth
- Asks the question: do firms in developing country grow as they age
- Examines data across developing countries and states in India
- Re-examines Hsieh & Klenow’s evidence for India and finds evidence that firms in fact age as they grow
- Do not find clear evidence on what determines the pace of this growth though are able to reject hypothesis proposed in literature
- Dataset can be used to identify channels of frictions
- Important policy implications based on what channels create frictions for firms in developing countries
Thank you