From Micro to Macro: Entry Barriers, Resource Misallocation and Aggregate Productivity

Comments on Roberto Fattal Jaef’s Policy Research Talk
February 23, 2021
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• Assumptions can make a model tractable to focus on key issues
  • Look at dynamic dimensions of impacts
    ➢ Importance of transparency of assumptions; clarity of intuition

• Entry barriers AND resource misallocation
  • Mitigate some of each other’s effects
    ➢ Careful of analyzing one in isolation

• Calibrate to estimate size of different distortions
  • DBI can underestimate actual entry barriers in MICs and LICs
    ➢ Careful of ascribing too much to a single measure

• Value of using firm data from across multiple countries
  ➢ Make more use of differences of microdata and link them to macro outcomes
Estimating distortions

Interpreting size of estimated barriers to entry and to misallocation, with implications for policy priorities

• Differences across countries in average size vs average productivity
  • Variation of average size 40-180 workers vs VA/L of 10-20 times
  • On average, size is smaller in LICs, but larger variation in HICs than LICs
    • (Kenya??)

• Addressing differences in quality – of K, HK and Y – and market power
  • Gaps in quality – and market power - can account for significant dispersion that is now assumed to be due to distortions (de Loecker; Cusolito and Maloney)
  • If some of idiosyncratic distortions are really quality and market power, then would need smaller entry barriers to match size patterns in the data

• Make more of disaggregated data
  • Distribution of sizes
  • Differences across sub-sectors
Size and distortions

- Size of firms – shift vs skew distribution
- Average size vs upper tail – for aggregate productivity, really interested in top performers, how innovative and how many are innovating?
  - Missing middle vs few large firms vs a few too-large firms
- And rather than exogenous probability of growth and exit – how does previous performance predict growth and survival?
  - Need panel (not all the datasets are)
Measuring distortions

• Finds DBI under-estimates entry distortions – especially for lower income countries
• DBI literally covers the time and costs of registering – but there are lots of other potential barriers to entry
• De jure vs de facto
  • Most are less burdensome in practice in LICS
  • But variation within countries is greater than variation in averages across countries

Figure 1b: Days to start a business/get operating license, comparing Doing Business and Enterprise Survey results

Hallward-Driemeier and Pritchett, JEP 2015
Average establishment size of manufacturing and services firms

- Manufacturing firms are larger
- And size rises more with income with manufacturing

Sectoral composition matters

- Could make more of differences across sub-sectors and variations in their sensitivity to different distortions

- Distortions are not the only driver of size

- US sectoral composition is not necessarily representative of the composition in LICs – nor the type of work within a 2 digit sector across countries

Source: Aterido and Davies (2021) background paper for Services-Led Development (Hallward-Driemeier, Nayyar and Davies, forthcoming)
Firm size over life-cycle in practice
Lower employment growth in services than manufacturing

Source: Aterido and Davies (2021) background paper for Services-Led Development (Hallward-Driemeier, Nayyar and Davies, forthcoming)
Productivity growth of services firms is similar to that of manufacturing firms

Median total factor productivity, relative to the first-year level

Source: Aterido and Davies (2021) background paper for Services-Led Development (Hallward-Driemeier, Nayyar and Davies, forthcoming)
Association of size and productivity is less pronounced in services

Labor productivity of a micro firm (0-9 employees) relative to a large firm (250+ employees, set at 100)

Source: Aterido and Davies (2021) background paper for Services-Led Development (Hallward-Driemeier, Nayyar and Davies, forthcoming)
Data Agenda!

• Need for more and better firm data
• More countries to make their micro data available – manufacturing and services
• Panel data to track firms over time
• Include measures of prices and quality
• Digital technologies raise additional estimation challenges
• And expand measures of distortions and barriers – de facto and de jure