Defining High Growth Firms by S. Mogos, A. Davis and R. Baptista

Discussion by Harald Fadinger[1]

[1]University of Mannheim

Balanced and Sustainable Growth
Operationalising the G20 Framework

Idea

- Can one identify firms with high growth potential?
- Panel of Rumanian small and medium-size firms (1-250 employees, revenue $\geq$ 50,000\$) from 2000-2012.
- Selection Period 2000-2004:
  - ► Select high-growth firms according to different criteria
    1. top 5 percent in terms of revenue, employment, profit, labor productivity – use growth rates, absolute change, log change, index;
    2. Birch definition: 3 year growth of at least 20 % + revenue $\geq$ 100,000 \$);
    3. OECD definition: annualized growth of at least 20% over 3 years and at least 10 employees)
- Observation Period 2005-2012:
  - ► Compare performance (persistence of growth, volatility, survival) of selected firms relative to the rest.

Results

- There is little initial overlap between groups of firms selected according to different criteria (different criteria select different firms).
- Firms selected according to Birch and OECD criteria show highest autocorrelation of growth in the observation period.
- Employment growth is much more persistent than revenue growth.
- Volatility tends to be higher for high-growth firms. But: this is not true with selection according to Birch or OECD.
- Survival is higher for high-growth firms (in particular, Birch and OECD).

Discussion: Gazelles and other Animals

- What makes high-growth firms (Gazelles) different? The paper does not address this issue.
- Why do we care about identifying Gazelles?
- Objective: We want to increase the growth rate of the economy.
  1. We care if we can identify specific features of Gazelles that allows to identify them *ex ante* ('potential Gazelles').
  2. We care if 'potential Gazelles' don't become actual Gazelles due to market failures.
  3. We care if we want to use industrial policy to fix market failures in order to increase growth.
  4. We don't care about Gazelles, if their high growth is inefficient (e.g. if they are politically connected and take resources away from more efficient uses).

Industrial Policy

1. Targets growth of specific firms/sectors with specific policies (subsidies, regulation,...)
2. Addresses specific market failures (externalities: dynamic scale economies, coordination failures,...; incomplete information: financial constraints, moral hazard, adverse selection; imperfect competition)

- The fact that some firms outperform others over long periods does not tell us much. Some firms are better managed, have better ideas (e.g. Google). This does not necessarily imply that this outcome is suboptimal or that the government should intervene.
- For effective policy interventions, one needs to identify specific fundamental factors which determine growth differentials:
  - e.g., if financial constraints lead to sub-optimal allocation of resources, growth in terms of revenue or employment will have little correlation with TFP (level or growth).

Breeding Gazelles

- External validity: Can we also identify Gazelles according to Birch and OECD criteria in other countries, or do other selection criteria work better? We don't know as long as we don't know the mechanism why Birch and OECD work.

- If we had more information on firms (e.g., R&D expenditure, cash flow, leverage, skill composition of work force), would we be able to predict better who will become a Gazelle?

- Alternative to targeting specific firms or industries: provide subsidies, which are more marked based: e.g. a devaluation of the exchange rate makes exporting easier for everyone, but the best firms will benefit most. In this way, the government does not need to identify potential Gazelles, they will reveal themselves.

Specific Comments

- The selection of your sample is unclear: 70,000 out of 1 Mio. Are these all firms that fit your criteria?

- I don't know how to interpret absolute measures of change because they depend on units of measurement (currency, constant, current). When focusing on a relatively homogeneous sample in terms of size/revenue, comparing growth rates is fine.

- There are much more sophisticated measures of efficiency than labor productivity (revenue/worker): total factor productivity (Olley and Pakes, Levinsohn and Petrin,...)

- Measuring persistence: year-to-year autocorrelation of growth during the observation period does not tell us much: we want to know the average growth differential of firms that were selected before 2004 during the observation period compared to those not selected (treatment effect) in the same industry.

- Measuring volatility: why do you use the root-mean-square-error, which is depends on fitting a specific econometric model. Why not the standard deviation of growth or the coefficient of variation?

- Volatility of growth may be associated with risk-taking behavior: often, strategies with high potential are riskier.

- Survival of firms: why not estimate a survival model with dummies for high-growth firms and time, age, size controls?