

DISCUSSION OF: "FIRM CYCLICALITY AND FINANCIAL FRICTIONS"

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The opinions expressed are those of the author and do not necessarily reflect the views of the Bank of Finland.

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Data: Firm-level, administrative and balance sheet data from the universe of Danish firms

MAIN RESULTS

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1. Higher degree of cyclicality of young firms than old firms - non-monotonous size-cyclical relationship:
 - Subset of young firms: small firms more cyclical than large firms
 - Subset of old firms: large firms more cyclical than small firms
2. Role of financial frictions: increased importance for younger firms
3. Quantitative model with heterogeneous firms and financial frictions:
 - Standard model with collateral constraint (size-age link and higher cyclicality of younger firms)
 - Extension for heterogeneous returns to scale and starting net worth ($\rightarrow$ matches that among older firms cyclicality increases with size)
 - Effect of different cyclical policies + to which firms to target them

MY TAKE

Very interesting and policy relevant paper:

- Novel stylized facts on the role of age/ size and cyclicalities on the firm-level
- High-quality data, full coverage
- New, detailed model approach with also potential for follow-up work
- I enjoyed reading the paper a lot!

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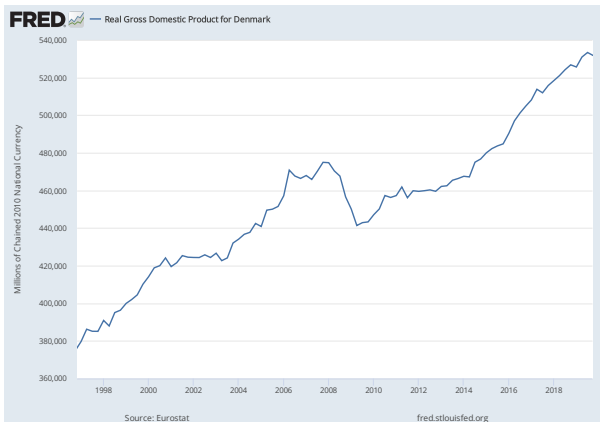
My comments concentrate mainly on:

1. Data and comparability with previous literature
2. Alternative mechanism: granular hypothesis
3. Modeling choices and policy experiments

DATA AND COMPARABILITY TO PREVIOUS LITERATURE

- Only advantages of working with the full firm population?
 - Heterogeneity (size, sectoral)
 - Degree of cyclical
- Large firms in Denmark vs. in the US:
 - Comparability across size distribution
 - Role of superstar firms
- Concept of cyclical
 - Cyclical vs. structural movements in growth (f.ex. productivity slowdown)
 - Role of structural change on the sectoral level
- Financial crisis as major crisis episode $\leftrightarrow$ role of financial frictions

EMPHASIS ON FINANCIAL CRISIS IN THE SAMPLE



RELATIONSHIP TO GRANULAR HYPOTHESIS

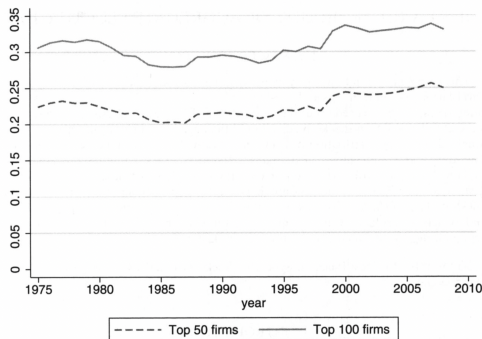
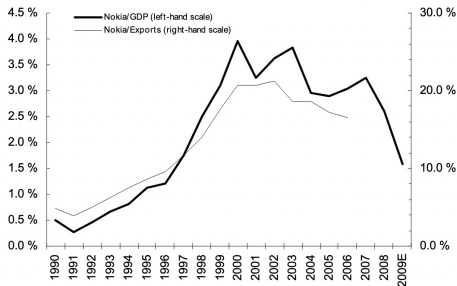


FIGURE 1.—Sum of the sales of the top 50 and 100 non-oil firms in Compustat, as a fraction of GDP. Hulten's theorem (Appendix B) motivates the use of sales rather than value added.

Source: Gabaix (2011, Econometrica)

→ Higher cyclicity of large firms vs. large firms are the cycle?

GRANULARITY IN SMALL ECONOMIES: SOME EVIDENCE FROM FINLAND



Note: including NSN. Sources: Author's own calculations (Sources: Nokia Corporation, Statistics Finland, National Board of Customs)²

FIGURE: Source: Ali-Yrkkö et al. (2010)

- Nokia's share of business sector RD exp.: 49.7% (2008)
- Nokia's share of patent applications 43% (2006)
- Extreme example, but number of big players are probably small and their impact on GDP large in small countries

MODEL ASSUMPTIONS

- Main model extensions relatively to benchmark model with financial frictions:
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 - Motivation for preferred modeling choice?
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 - Motivation for preferred modeling choice?
 - Role for alternative mechanisms?
- Technical departure from benchmark model (full set of equations)
- Some assumptions rather restrictive:
 - Leontief production structure
 - Superstar shock

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 - Choice of various fiscal tools and related multipliers
 - Financial tools and macroprudential policy

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- Detailed analysis of the transmission of typical shocks (in current vs. benchmark model) of interest in itself
- Rich model would lend itself for further policy experiments
 - Choice of various fiscal tools and related multipliers
 - Financial tools and macroprudential policy
- Efficiency issues:
 - Optimal firm size
 - Which firms should policy target?
 - ▶ Cyclicalities → more responsive
 - ▶ Scale of output drop and employment effects
 - Alleviation of recession vs. business dynamism and allocation of resources to most productive firms

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- High quality data, novel evidence on cyclicalities and size-age distribution + theoretical mechanism