Role of Credit Markets on Performance of Non-Tradable and Tradable Sectors

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Research Question

- Does financial deepening shift the structural orientation of an economy from tradables (manufacturing) to non-tradables (service)?

- Analysis on

1. The case of Turkey - using macro and industry data
2. Cross-country panel

Results - Descriptive

- **Turkish Private Credit/GDP deepening between 1990-2012.**
- **A rise in non-tradables/tradable [N/T] (service/manuf) ratio over the sample period.**
- Rise in current account deficit (source of finance fractionally generated from abroad) over the sample period.
- Contraction in government borrowing over the sample period.

Results - Time-Series Analysis

- **Aggregate Data:**
  - Contemporaneous (+) association between credit deepening and N/T.
  - Contemporaneous (+) association between real exchange rates and N/T.
- **Micro-Data**
  - Investment cash flow sensitivity analysis using industry-level data.
  - Non-tradables sectors exhibit larger cash-flow sensitivity of investment - an indicator for non-tradables to suffer from financing constraints.
  - Results robust to FE and RE.

Results - Cross-country Panel Data

- N/T ratio and credit deepening positively associated.
- Robust to FE and Dynamic GMM

Overview

- Highly policy relevant research question.
  - "Financial Development" and "Industrial Structure" both relevant for economic development.
- Most of the literature studies finance-growth nexus and not the structural transformation induced by financial development.
- Detailed empirical analysis.

Discussion - Hypothesis

- Clarifying the underlying theoretical channel (hypothesis) behind the empirical analysis would strengthen the motivation.

- **Why would the N-sector suffer more from financial constraints?**
  - Is the N-sector more external finance dependent? Rajan-Zingales index might be helpful here (for the US benchmark).
  - Does the N-sector suffer more from information sensitive investment (such as investment in intangible assets or human capital)? Firm-level balance sheet data - again from a benchmark country - could be useful.

Discussion - Data

- Private credit: Is it only private credit to the corporate sector? This is important, since the analysis is about sectoral composition of the GDP.
- Availability of industry-specific credit data: Finance that goes to tradables vs. non-tradables. It could be utilized in several regressions.
- Evidence on tradable$\equiv$manufacturing and non-tradable$\equiv$service.

Discussion - Methodology

- Kaplan-Zingales (1997) critique of the cash-flow-sensitivity approach to uncover financing constraints.
- Since the data is industry-level, why not use the Rajan-Zingales (1998) style dif-in-dif approach on industrial external finance dependence?
- Integrating the macro and industry-level approach: e.g. interactive terms between CF and Aggregate Financial Deepening in investment regressions.

Discussion - Identification

- Economic development and industrial transformation: It would be good to control for GDP and/or GDP growth rate and/or overall education level on RHS.
- Institutional development that derive both financial deepening and N/T.
- Does "N" include financial-services? If so, robustness by excluding this sector from the data analysis.
- Instrumenting financial deepening: An exogenous policy intervention that could have affected the financial deepening over the sample period.
    - The structural break after 2002-2003?

Suggestions for further empirical analysis

- Finance and N/T productivity differential.
- Other forms of finance: e.g. stock market capitalization.
- Lagged variables for financial deepening (≥ 2).