What You Sell Is What You Lend? Explaining Trade Credit Contracts

by

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AFM-Chair on Financial Market Regulation

ECB-workshop on Corporate Finance and Monetary Policy, May 15-16, 2006

General Issue

- What determines trade credit volume and trade credit contract terms?
- Observation:
  - Why is trade credit so heavily used given that
    - It is more *expensive* than bank credit
    - *Banks are specialists* in resolving asymmetric information problems and should be able to provide cheaper credit
    - Suppliers of trade credit themselves may be *credit rationed*

  => Puzzle or not??
  - Trade credit volumes and contract terms are "industry" specific: Why?

Theories

- Suppliers have advantage over banks in financing credit constrained firms
  - *Information advantage*: obtaining credit from suppliers induces banks also to grant loans (Biais and Gollier RFS,1997) (banks are followers)
  - *Collateral liquidation theory*: suppliers enjoy a comparative advantage when higher liquidation value compared to banks
  - *Diversion theory*: suppliers have advantage when products are difficult to divert (Burkart and Ellingsen (AER,2004)
  - Imperfect competition: *Price discrimination* and *buyer power hypothesis*

This paper’s contributions

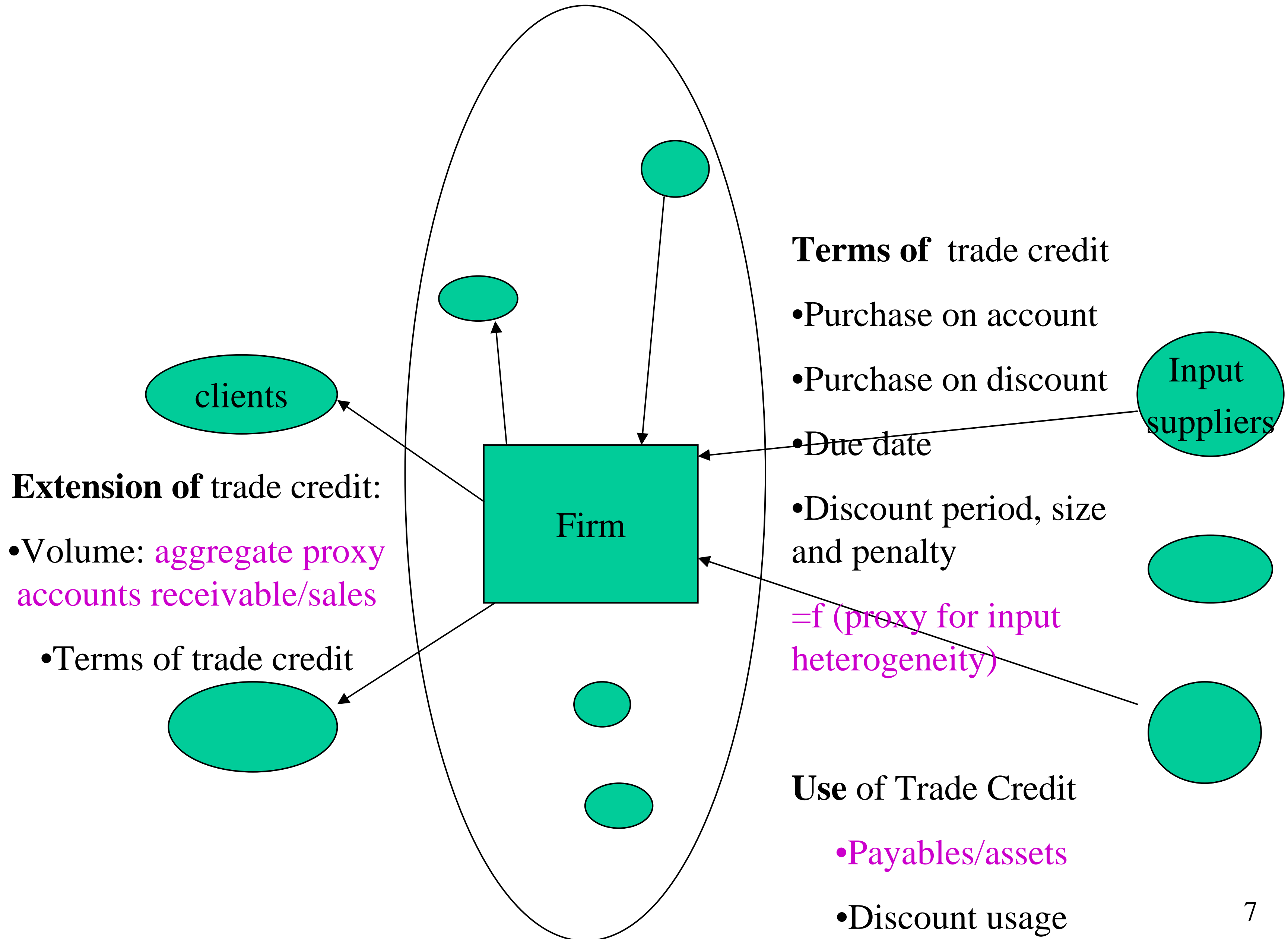
- Test of differential trade credit theories exploiting the universe of trade credit contract terms
  - Trade credit volume; but also
  - Other trade credit contract terms
    - Discounts
    - Due dates
    - Discount period
    - Late payment penalty
- Neat exploitation of link between *trade credit contract terms* and *across industry variation* (through product characteristics) as well as *input and output market structures* to learn about theories

Findings:

- Many!
- Firms in services and differentiated goods enjoy **more trade credit** than in standardized goods => support for **diversion hypothesis**
- In service sectors: lower discounts than in other sectors

Comments

- General comment:
  - Nice paper with many robustness checks
  - timely identification of potential weaknesses or limitations from their analysis
- But can the authors really test what they want to test, i.e. are data sufficiently rich?
  - No individual client-firm data available?
  - Difficult to capture input supplier controls?


SECTOR
clients
Firm
Input suppliers
Extension of trade credit:
•Volume: aggregate proxy accounts receivable/sales
•Terms of trade credit
Terms of trade credit
•Purchase on account
•Purchase on discount
•Due date
•Discount period, size and penalty
=f (proxy for input heterogeneity)
Use of Trade Credit
•Payables/assets
•Discount usage

Comments (cont'd)

- Is classification into standardized goods, differentiated goods and services
  - not a selection on growth opportunities?
  - Making competition variables difficult to compare across industries (e.g. standardized products will have few firms due to harsh competition, whereas services and differentiated goods will have many firms due to important frictions)?

Comments (cont'd)

- Little discussion of *economic* significance of results
  - Important since some of the results are only marginally *statistically* significant (for example Table 2 differentiated goods and services are only marginally significant),
  - but their magnitude is often economically (unreasonably) high (e.g. the dummy variable on services in table 2 Model (3) is equally high as the average receivables/sales for the services sector)
  - Present regression results in Table 2
    - without the "trade" variable…
    - With sector interacted slope variables for the firm characteristics
- Simultaneity of volume and credit terms?

Comments continued

- Is the *informational advantage* theory appropriately tested?
  - Test of informational advantage is a *within industry* test
  - But information advantage in e.g. Biais and Gollier (RFS,1997) is one *between suppliers and banks*
    - Why not include heterogeneity in bank-firm relationships
      - Number
      - Duration
      - Scope

      To test relative information advantage of suppliers relative to banks
- Role of Market Concentration in firm's industry:
  - Supposed to be linear but maybe conflicting effects as in banking apply => take care of potential non-linearities?
    - in that firms may be willing to engage more into "relationship driven trade credit" when competition becomes harsher (Boot and Thakor (JF2000)
    - Less competition implies more "relationship driven trade credit" (Petersen and Rajan (1995))

Detailed minor comments

- Formulation of hypothesis 2:
- Biais and Gollier (1997) referenced as
  - On p. 2: trade credit and bank credit are substitutes
  - On p. 9. trade credit and bank credit are complements?