

TRADE POLICY

Trade theory at the firm level

New themes: trade costs, trade intermediaries, and preference utilization

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Today's agenda

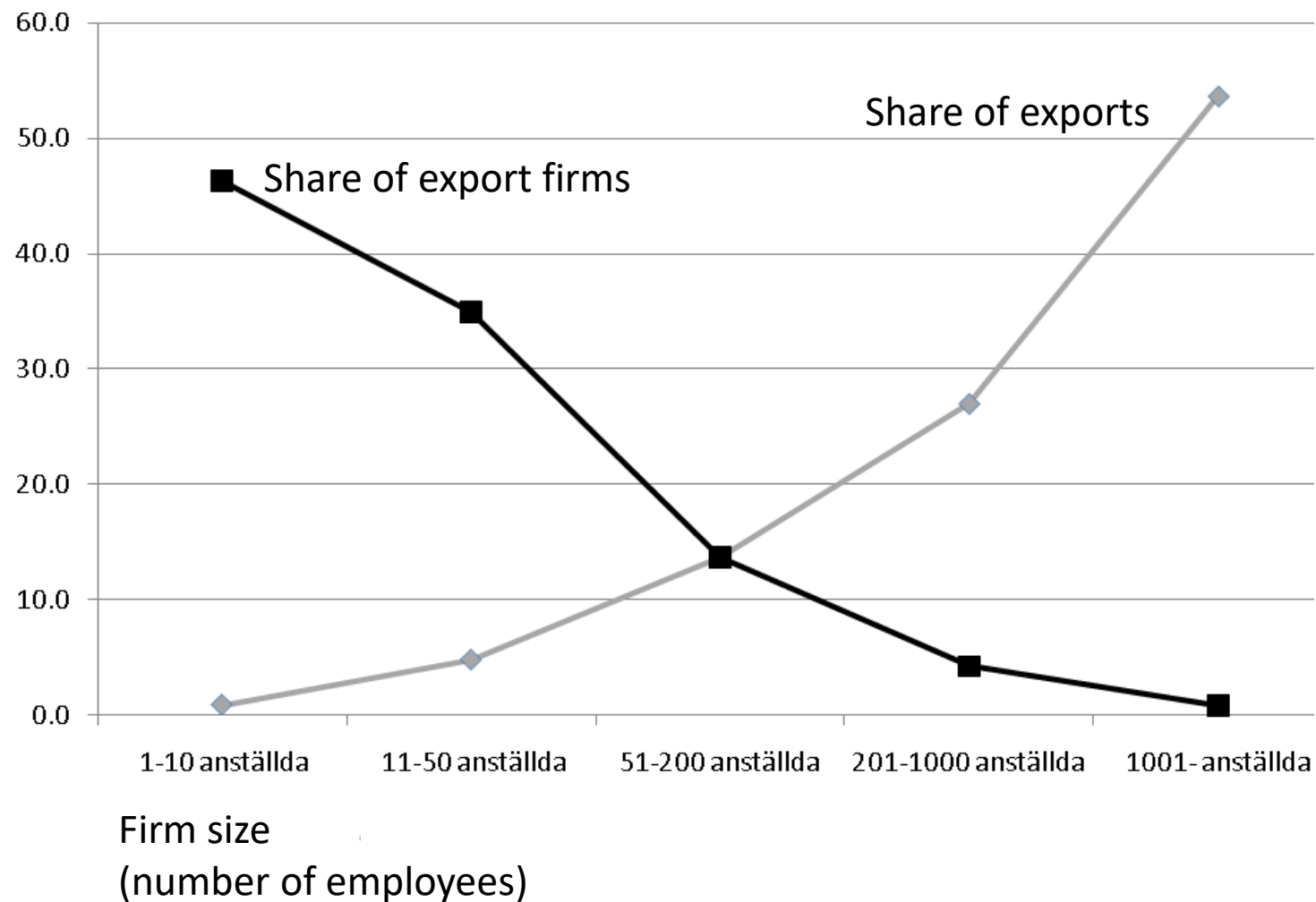
”New” theme: Heterogeneous firms in international trade

- What determines exports at the firm level?
 - International business perspective
 - International economics perspective
- Trade intermediaries
- Free trade agreements and tariff preferences

Exports at the firm level

- Conventional trade theories (Ricardo, Heckscher-Ohlin, Krugman and others) tell us which products a country is likely to export
 - Unit of analysis: country, industry, product
 - Determinants of trade: Factor endowments, technology, home market size, government intervention / trade policy
- But who are the exporting firms?
 - What determines exports at the firm level?
 - Not every firm in an industry with comparative advantages is an exporter
 - Some firms export even if their industry does not have comparative advantages
- What explains trade (exports) at the firm level?
 - Empirical pattern
 - Theoretical explanations
 - Implications for policy

Who exports: empirical evidence on company size and exports in Sweden



Empirical patterns: firm level exports

- Even very small firms can become exporters
- Most exporters sell only one type of product to only one foreign market
 - Typically a neighboring country
- Relatively few strongly export-focused firms
 - 5 % of exporters account for 80 % of total exports
 - Larger firms are more export oriented
- Many firms are not able to establish permanent export platforms
 - "Sporadic exporters" that appear in export statistics some years but not others

Does context matter?

- Are Vietnamese firms different?
 - Who are the exporters?
 - Destination markets?
 - Dynamics?

Types of exporters

- Three groups of firms
 - Non-exporters, sporadic exporters, and permanent exporters
- Sporadic exporters seem to be positioned between non-exporters and permanent exporters
 - Productivity, human capital, physical capital, investment, etc in intermediate range
 - Are these firms trying to move from non-exporters to permanent exporters?

Empirical patterns: exports and productivity at the firm level

(Dependent variable: productivity)

Equation	GLS, RE	GMM
1. Export dummy	0.049 (0.005)***	0.051 (0.008)***
2. Productivity = f(export indicators, size, capital (log))	0.002 (0.000)***	0.002 (0.001)***
3. Export dummy, ownership dummies, time dummies, industry dummies et.c.)	0.002 (0.000)***	0.002 (0.000)***
4. Number of export products		
0	Reference	-
1-3	0.040 (0.005)***	-
4-8	0.066 (0.006)***	-
9 -	0.102 (0.007)***	-
0-7	-	Reference
8-	-	0.073 (0.012) ***
Covariates	Size, capital, human capital, industry dummies, time dummies, ownership	Size, capital, human capital, industry dummies, time dummies, ownership

Empirical patterns: exports and productivity at the firm level

(Dependent variable: productivity)

Equation	GLS, RE	GMM
1. Export dummy	0.049 (0.005)***	0.051 (0.008)***
2. Export per employee (log)	0.022 (0.000)***	0.021 (0.001)***
3. Export volume per employee (log)	0.011 (0.000)***	0.011 (0.001)***
4. Number of export products		
0	Reference	-
1-3	0.040 (0.005)***	-
4-8	0.066 (0.006)***	-
9 -	0.102 (0.007)***	-
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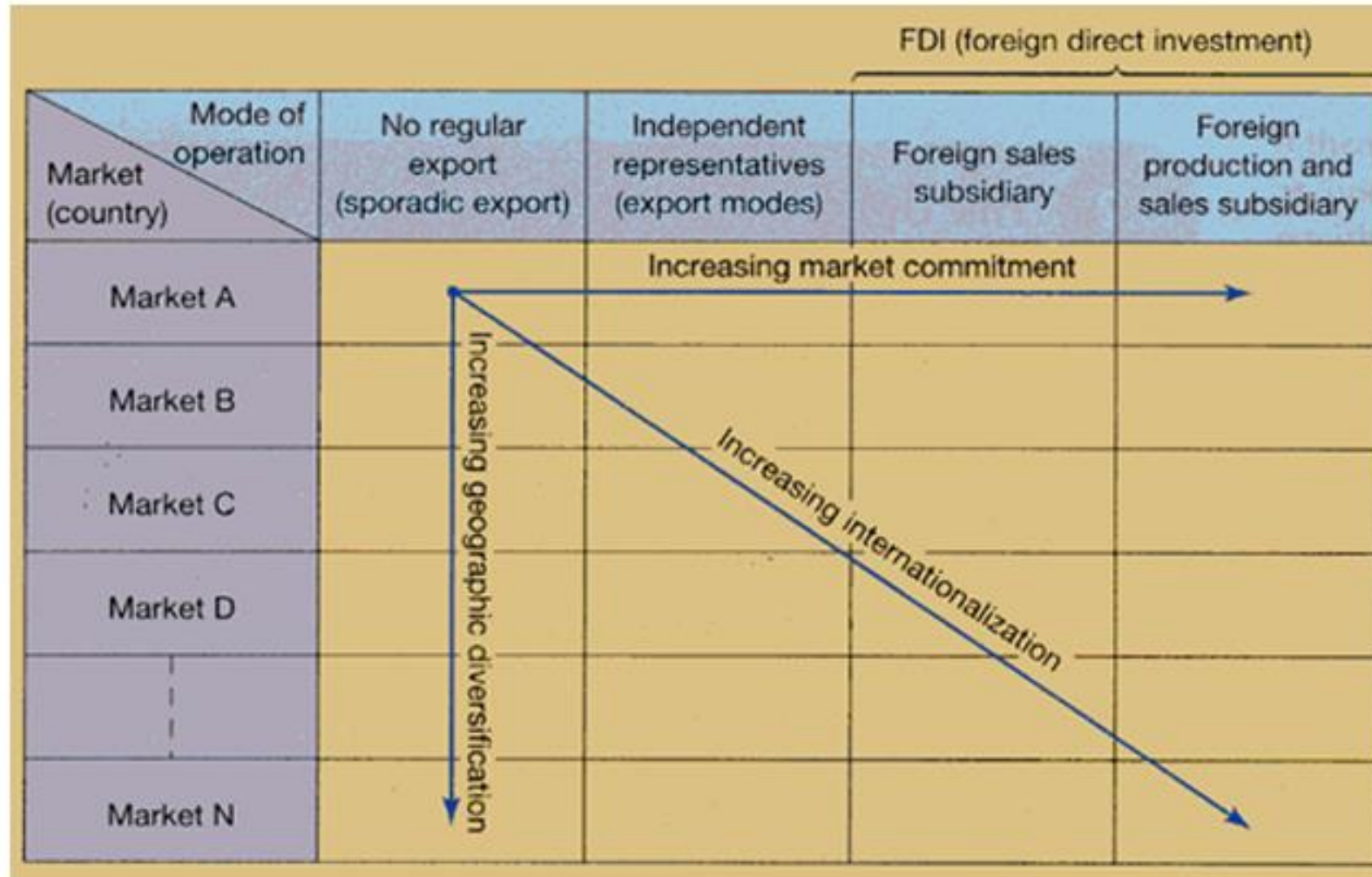
These are
the *export*
indicators

What is needed to become an exporter?

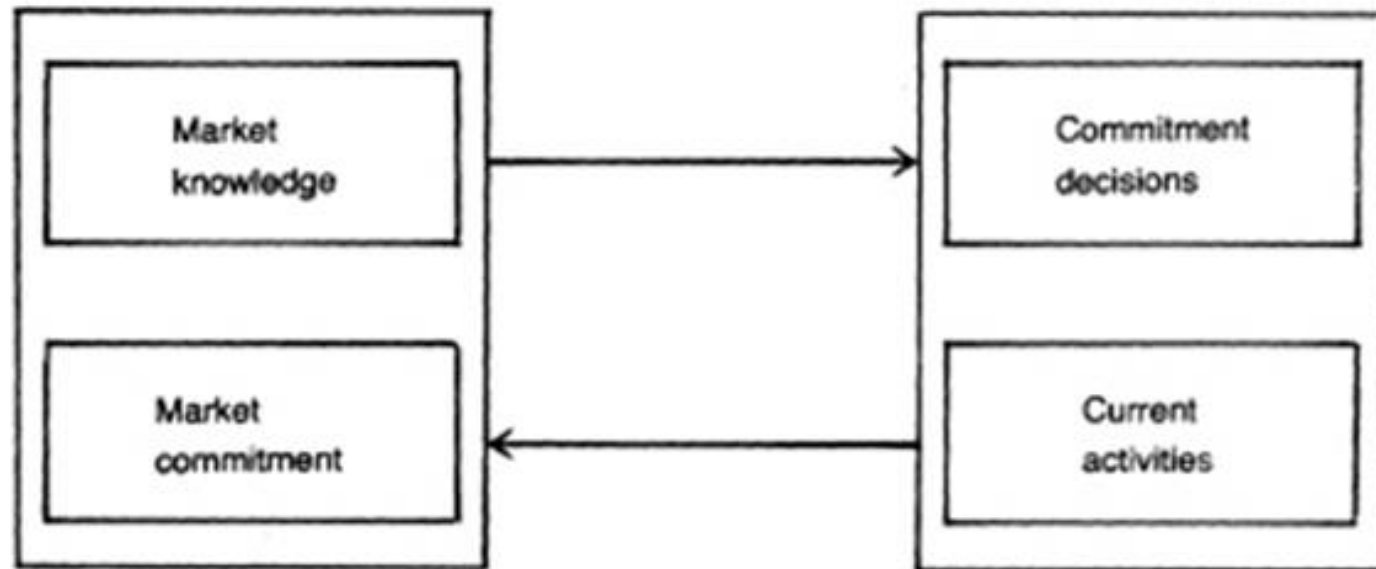
Export determinants at the firm level

- International business
 - Stage models (e.g. Uppsala model): Internationalization is a gradual process, from domestic growth to exports to FDI.
 - Resource-based view: Firm-specific assets, such as productivity, technology, brands, marketing, networks, experience and so forth
 - Born globals: Some firms focus on global markets from the very beginning. The products and services they provide are so internationalized that their customers are found in all countries
- Economics: productivity advantages
 - Exporting is connected to high (fixed) trade costs
 - Exporters must be more productive than non-exporters to cover trade costs and still make a profit
- Productivity comes before exports

Uppsala model: gradual internationalization to mitigate risk



Uppsala model: market knowledge leads to market commitment (and vice versa)



Key role for knowledge through own experience

Updated IB theories (exports)

- Network perspective
 - Perhaps it is not necessary for the internationalizing firm to get all market knowledge from own experience. Networks, alliances, partners, and intermediaries may play a role
- Institution-based view
 - Firm's internationalization may be affected by the institutional environment, either positively or negatively (active government support may speed up internationalization; bad government may force firms to escape)
- Born globals
 - Modern technologies, including communication technology, open markets, internet platforms, and internationalized customers mean that firms are more often naturally born global
 - Born global SMEs often linked to larger internationalized firms (network perspective also important for born globals)

International economics: Theoretical models with heterogeneous firms

- Melitz (2003): productivity sorting
 - Only the most productive firms can afford to pay the high (fixed) costs involved in foreign trade.
 - Less productive firms focus on domestic customers
 - The least productive firms disappear when trade is allowed, because they can't compete with imports
- Anh et al. (2011) and Åkerman (2018): trade intermediaries
 - Specialized trade intermediaries can help less productive domestic firms to export their goods
 - Trade intermediaries also have to handle trade costs, but can offer export services to domestic firms at less than the fixed cost (since they can distribute the fixed export costs between several indirect exporters)

More on trade intermediaries

- Differences in product quality
 - Hard for small firms to prove that their products have high quality. A trade intermediary can invest in inspection and provide quality guarantees
 - Highly specialized and technologically advanced products requiring interaction between producer and customer will rarely be sold by intermediaries
- Different types of intermediaries
 - General intermediaries (standard products, country specific trade cost) and specialized intermediaries (niche products, product quality)
- Role of institutional differences
 - Trade intermediaries more important for trade with distant and difficult markets
- Learning from indirect exports
 - Indirect exporters may eventually become real exporters.
- Impact of intermediaries on direct exporters
 - No clear signs of crowding out, but instead positive spillovers

Policy conclusions from firm-level theories

- First: strong emphasis on business environment that promotes efficiency and productivity
- Second: measures to handle export costs
 - Large firms can develop in-house expertise and knowledge but SMEs are likely to be held back by high fixed costs
 - Export knowledge is a semi-public good: not "consumed" when used by one actor
 - Market-based solution: trade intermediaries
 - Public policy implication: Public support to specialized export promotion agencies providing export-relevant knowledge and information at marginal cost. Focus: SMEs

FTAs and tariff preferences

- The number of FTAs has increased rapidly over the past decades. In 2022, at least 350 FTAs in force
 - How many FTA partners does Vietnam have?
- Members of FTAs are promised tariff-free access to each others' markets
 - Empirical evidence confirms that FTAs lead to increased bilateral trade
- Problem: the tariff preferences offered by FTAs are often not used
 - Overall utilization rates look acceptable. A large share of potential tariff savings are realized
 - However, a large share of firms do not use available tariff preferences, but opt to pay the tariffs

Who uses tariff preferences? (Theory)

- Tariff preferences are not automatic
 - The **importer** must make an **application**, and provide documentation to show that **rules-of-origin** are met. (The certificate of origin must be provided by the exporter)
 - Using tariff preferences is costly
- The importer will maximize profit by following the *Golden Rule of Economics* (do it as long as $MR > MC$)
- Importers will not use tariff preferences if they don't see any substantial net revenue

Who uses tariff preferences? (Empirical evidence from EU-South Korea FTA for November 2016)

- More than half of the Swedish firms importing from South Korea did not use available tariff preferences
- Firm size did not seem to matter much
- The average import **transaction size** and the **potential tariff savings** were much larger when tariff preferences were used
- High preference utilization among small firms importing through **customs warehousing** mode
 - Logistic operators/warehouses provide intermediation service?

Learning to use trade preferences (Empirical evidence from EU-South Korea FTA 2008-2018)

- ***Firms learn slowly***: it took about 3-5 years for active importers to learn to use the FTA
- Learning was related to the ***number of import transactions*** undertaken by the firm (rather than just the length of time the firm had been involved in importing)
- Firms using ***customs warehousing*** were more likely to use preference (probably because they got help from intermediaries)
- Strange finding: low preference utilization rates for intra-firm direct import transactions. ***Why do large multinationals decide not to use the FTA?***

Summary

- Looking at international trade at the firm level provides some new insights
 - Important to promote ***efficiency and productivity*** of firms in all sectors
 - SMEs face particular challenges because many of the trade costs are fixed – there are ***economies of scale in internationalization***
 - ***Trade intermediaries*** play an important role in supporting the internationalization of smaller and less productive firms
 - Firm heterogeneity also affects the benefits from participation in free trade agreements – small players have small incentives to use trade preferences
 - Trade intermediaries (logistics operators, customs brokers, freight forwarders) also have an important role in realizing benefits of FTAs