#### **Trade Costs**

















## Types Trade Costs

- Transport, Travel, and Logistics Costs
  - Costs of delivering goods from suppliers to customers
- Information and Transaction Costs and Uncertainty
  - Firms searching for trading partners; acquiring information about local market conditions and regulations; currency conversion
- Trade Policy Barriers
  - Tariffs; non-tariff barriers; licensing



Trade Costs oo●oooo

## Impact of the Pandemic on Information and Transactions Costs and Uncertainty

- Sanitation Regulations
- Increased Documentation Requirements
- Increased Financing Frictions
- Significantly Increased Uncertainty



Trade Costs



## Modern Trade Theory: Firm-Level Analysis

- Incorporates variable and fixed costs of trade.
- Assumes that firms within an industry differ in their productivity – firms are heterogeneous.



## Effects of Changes in Trade Costs

Modern Trade Theory Identifies

*New* Effects on Productivity

New Distributional Effects



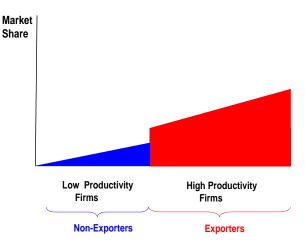
## Melitz (2003)

Costless trade is boring.

Heterogeneous firms in the same industry choose whether or not to export and how much to export.

Because there are fixed costs of exporting, the more productive firms will export while the less productive will not export.

# Melitz (2003)





### Effects of Increased Trade



A decrease in transport costs, a decrease in tariffs, or expanded trading opportunities =)

An increase in profits from exporting =)

Expansion by incumbent exporters

Entry by new exporters

These firms gain from increased trade.



#### Expansion by exporters =)

An increase in the demand for labour =)



Expansion by exporters =)

An increase in the demand for labour =)



Expansion by exporters =)

An increase in the demand for labour =)

An increase in wages =)



Expansion by exporters =)

An increase in the demand for labour =)

An increase in wages =)

A decrease in profits from domestic sales =)



Contraction and exit by less productive firms and expansion by more productive firms =)



Contraction and exit by less productive firms and expansion by more productive firms =)

- An increase in average industry productivity due to reallocation within an industry
- Winners and losers within an exporting industry



- There should be increased emphasis on the links between trade policy, trade costs, and firm, industry, and aggregate productivity.
- Trade policidws39853chand, and x, trade costeproductivitym,

## **Policy Implications**

 There should be increased emphasis on lowering fixed costs and regulatory obstacles that inhibit market access

Empirics
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# Modern Trade Theory Leads to Modern Empirical Analysis

## Firm-level Empirical Analysis

Firm-based trade theory implies an increased need for firm-level and plant-level empirical analysis to:

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- quide the theory
- test the theory
- assess the impact of changes in trade costs
- assess the impact of changes in trade policy

Firm-based trade theory guides firm-level empirical analysis.



## **Empirical Gravity Analysis**

Traditional empirical gravity analysis is based on the idea that the volume of trade between two countries depends on

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- Their size
- Measures of trade costs such as:
  - Distance between countries
  - Whether countries share a common language
  - Whether countries have a regional trade agreement



# **Empirical Gravity**



**Empirics** 000000000 Modern trade theory implies that, because of the important role of trade costs, we should examine extensive and intensive margin responses separately.

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## **Empirical Gravity**

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Modern trade theory demonstrates that some traditional estimation approaches were misspecified.

For example, consider the "Distance Puzzle"



## Contributions of Firm-Level Theoretical Analyses of Trade

- Models with firm heterogeneity have improved our understanding of the mechanisms through which economies respond to changes in trade costs.
- 5 This increased understanding of the margins along which an economy adjusts to changes in the trading environment are important for evaluating and quantifying the welfare and distributional effects of changes in trade costs.



- 6 Modern Theory allows for separate measures of intensive versus extensive margin responses.
- Provision of estimates based on firm-based, theoretically grounded empirical analysis.



- Recent developments in trade theory and firm-level data analysis recognize the importance of heterogeneity in:
  - Countries
  - Regions within countries
  - Industries
  - Firms' technologies
  - Firms' participation in international markets
  - Firms' responses to changes in the trading environment
  - Products



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