# Firms and Trade

**AED/IS 4540**
**International Commerce and the World Economy**

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# Firms and Trade

- Share of US firms exporting relatively small at 18 percent, with exporting firms being larger and more productive (Bernard *et al.*, 2007)
- Key hypothesis proposed to explain higher productivity of exporters:

  - exporting requires extra resources in terms of transportation, distribution and marketing costs, workers with foreign managerial skills, and modification of products for export

  - only more productive firms can bear such costs

# Firms and Trade

- **Firms draw labor productivity coefficient *a***
- **Firm has to make choice about entering domestic market (*D*), exporting (*X*), or setting up foreign production (*I*), given fixed costs *f* and profits $\pi$**
- **Given *a*, and $f_D < f_X < f_I$, firms have four choices:**

  **(i) Exit domestic market:** $\pi_D < f_D$

  **(ii) Serve domestic market only:** $f_D < \pi_D < (f_D + f_X)$

  **(iii) Export:** $(f_D + f_X) < \pi_X < (f_D + f_I)$

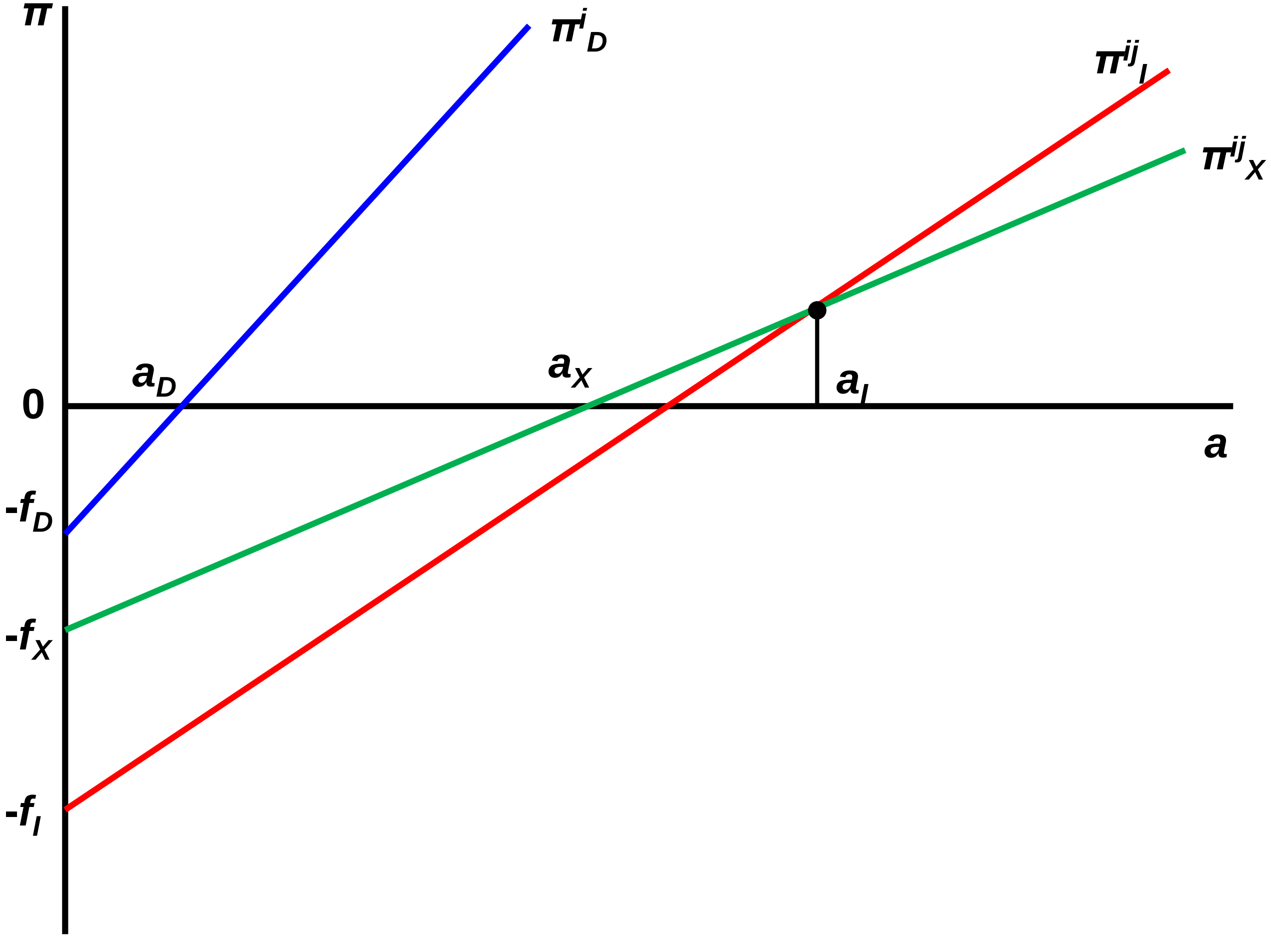
  **(iv) Set up foreign production:** $(f_D + f_I) < \pi_I$

# Firms and Trade

- Assume domestic (*i*) and foreign market (*j*), are similar in terms of demand and labor endowment
- In Figure 1, for *i* productivity *a* measured along horizontal axis, profits $\pi$ measured on vertical axis
- Domestic tariff results in profit function $\pi_D^i$ being steeper, i.e., firms producing only for domestic market get border protection
- Also, foreign tariff results in slope of export profit function $\pi_X^{ij}$ being shallower
- Sorting pattern of firms consistent with evidence

# Firms and Trade

Figure 1



# Firms and Trade Liberalization

- In Figure 2, with cuts in domestic and foreign tariffs:
  - Reduces profits of non-exporting firms, and productivity cutoff rises to $a_D$'
  - Raises profits of exporting firms, and lowers productivity cutoff to $a_X$'
- Some firms supplying only home market become exporters, and existing exporters increase exports
- Induces low productivity firms to exit market, resulting in higher average industry productivity due to turnover of firms from domestic to export markets

# Firms and Trade Liberalization

Figure 2