Economics of Globalization

Sciences Po Saint-Germain-en-Laye
2nd year



William Daniell, *A View of the European Factories at Canton*, Late 18th

Organizational details

- Exam is moved to November 24th
- The session of November 17th will be used for:
  - Presentations that have not been made last week
  - Answer your questions, in particular about the class on trade policy.

Last weeks

- We have studied the main trade models.
  - Trade arises as the result of productivity differences and endowment differences.
  - We have seen that trade creates winners and losers.
- Countries want to regulate trade and globalization.
  - Trade policy is an important area of the regulation of globalization.
  - Tariffs are generally seen as negative but can be beneficial.
  - Protectionism is a redistributive policy: results from a trade-off of government between producers and consumers.

Last weeks

VW chief calls for France and Germany to co-operate on China car fightback

'When it matters, we have found solutions together', Oliver Blume says ahead of Paris Motor Show



Oliver Blume said he welcomed the progress in the EU-Beijing trade talks, but added: 'Europe must still ensure a level playing field in its own markets. Those who sell here should compete under comparable conditions and create jobs and value here in Europe too' © Bloomberg

Last weeks

EU ‘safeguards’ hybrid car sector from Chinese imports under new deal

Auto sector welcomes ‘understanding’ reached with Beijing but other industries warn China’s huge trade surplus will persist without further action



China had agreed to restrict its hybrid exports after high-stakes negotiations with the EU © Bloomberg

This week

- Countries do not trade: firms trade... and not all firms are the same.

This week

- Countries do not trade: firms trade... and not all firms are the same.
- Dive into the heterogeneity of firms.
  - Multinational firms are central actors of today's globalization.

This week

- Countries do not trade: firms trade... and not all firms are the same.
- Dive into the heterogeneity of firms.
  - Multinational firms are central actors of today's globalization.
- Two main questions:
- Why are firms multinational?

This week

- Countries do not trade: firms trade... and not all firms are the same.
- Dive into the heterogeneity of firms.
  - Multinational firms are central actors of today's globalization.
- Two main questions:
- Why are firms multinational?
- What is their role in globalization?

This week

- Countries do not trade: firms trade... and not all firms are the same.
- Dive into the heterogeneity of firms.
  - Multinational firms are central actors of today's globalization.
- Two main questions:
- Why are firms multinational?
- What is their role in globalization?
  - MNEs captured a lot of gains of globalization. Why ?

This week

- Countries do not trade: firms trade... and not all firms are the same.
- Dive into the heterogeneity of firms.
  - Multinational firms are central actors of today's globalization.
- Two main questions:
- Why are firms multinational?
- What is their role in globalization?
  - MNEs captured a lot of gains of globalization. Why ?
  - Drivers of globalization with enormous *market power* and *bargaining power* vis-a-vis governments and workers

Multinational firms

Definition

Multinational firms

Definition

- A firm that has at least one unit of production abroad.

Multinational firms

Definition

- A firm that has at least one unit of production abroad.
  - *e.g.* Renault, Apple, MacDonald, Netflix, Bayer, *etc.*

Multinational firms

Definition

- A firm that has at least one unit of production abroad.
  - *e.g.* Renault, Apple, MacDonald, Netflix, Bayer, *etc.*
- A firm that owns at least 10% of a firm in another country.

Multinational firms

Definition

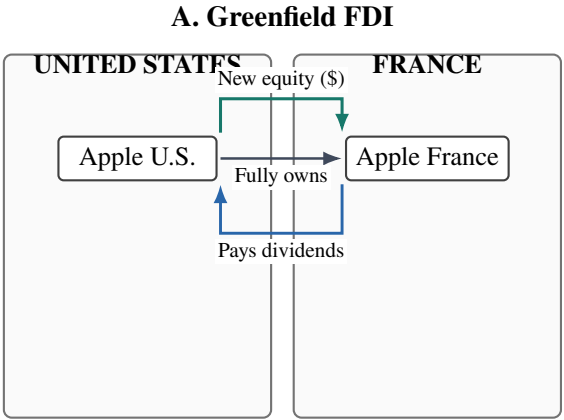
- A firm that has at least one unit of production abroad.
  - *e.g.* Renault, Apple, MacDonald, Netflix, Bayer, *etc.*
- A firm that owns at least 10% of a firm in another country.
  - *e.g.* Dacia, a Romanian firm is acquired by Renault in 1999.

Multinational firms

Definition

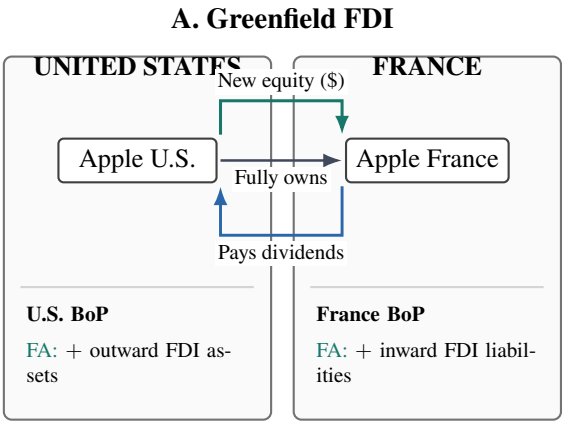
- A firm that has at least one unit of production abroad.
  - *e.g.* Renault, Apple, MacDonald, Netflix, Bayer, *etc.*
- A firm that owns at least 10% of a firm in another country.
  - *e.g.* Dacia, a Romanian firm is acquired by Renault in 1999.
- MNEs come from an headquarter country, produce in multiple source countries and sell their products in multiple destination countries.
- FDI: flow of cross-border investment aimed at buying or enlarging a durable interest in a company and gaining influence on its management ($\geq$ 10% of ownership according to IMF BoP standards).

Multinational firms



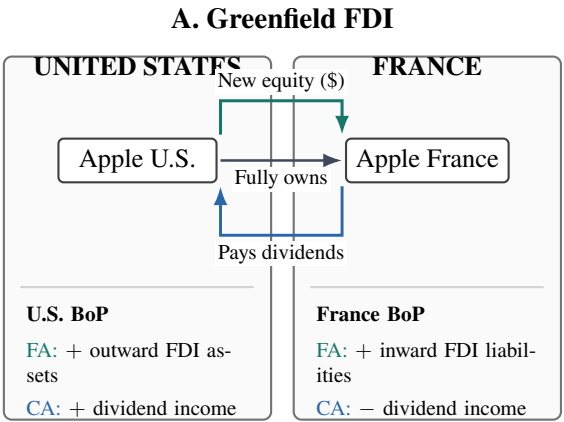
Green: new equity Orange: acquisition payment to previous owners Gray: ownership Blue: dividends

Multinational firms



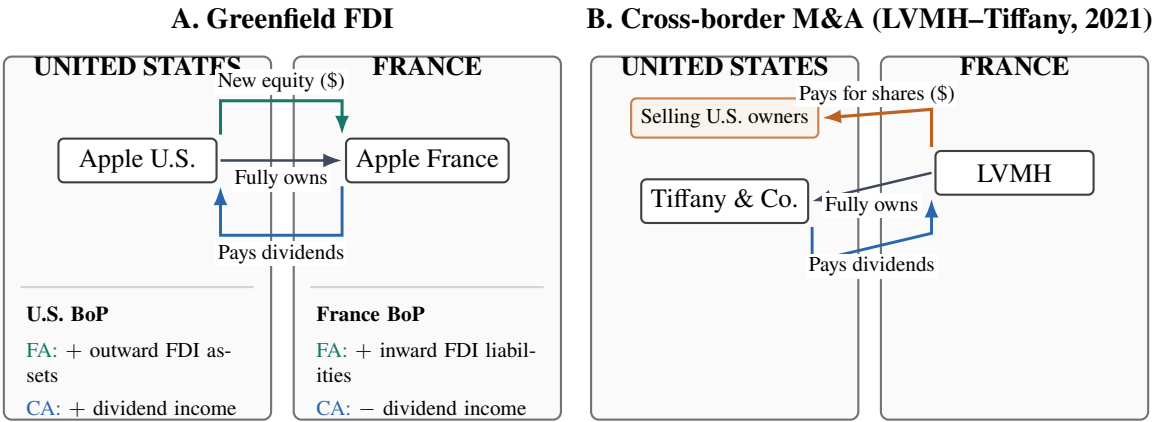
Green: new equity Orange: acquisition payment to previous owners Gray: ownership Blue: dividends

Multinational firms



Green: new equity Orange: acquisition payment to previous owners Gray: ownership Blue: dividends

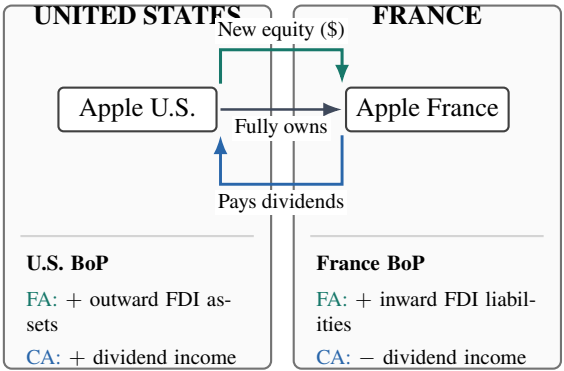
Multinational firms



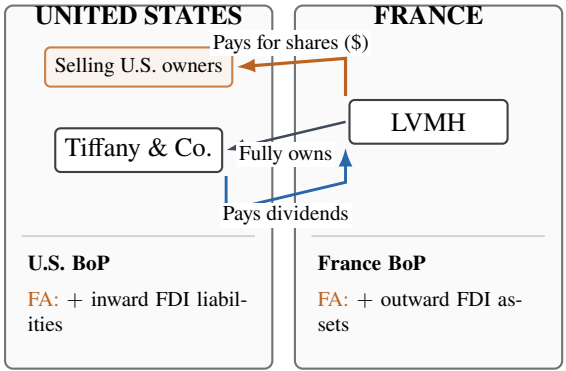
Green: new equity Orange: acquisition payment to previous owners Gray: ownership Blue: dividends

Multinational firms

A. Greenfield FDI



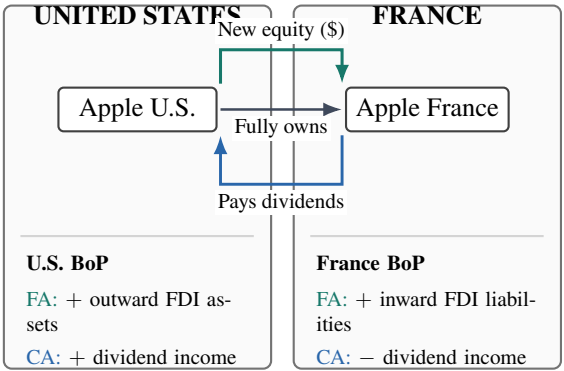
B. Cross-border M&A (LVMH–Tiffany, 2021)



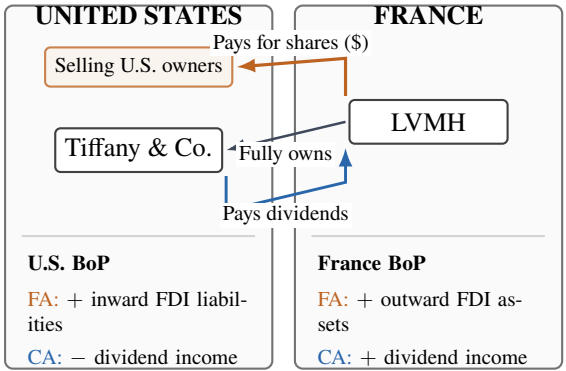
Green: new equity Orange: acquisition payment to previous owners Gray: ownership Blue: dividends

Multinational firms

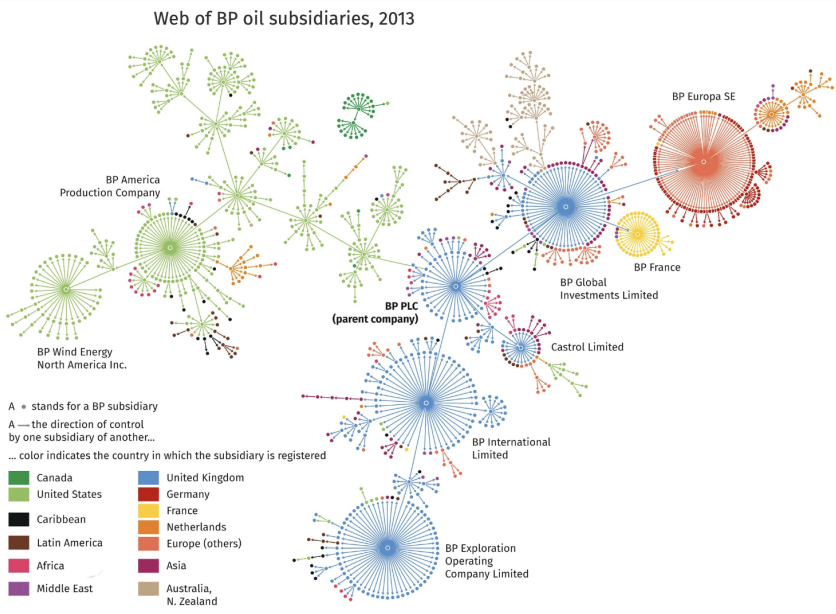
A. Greenfield FDI



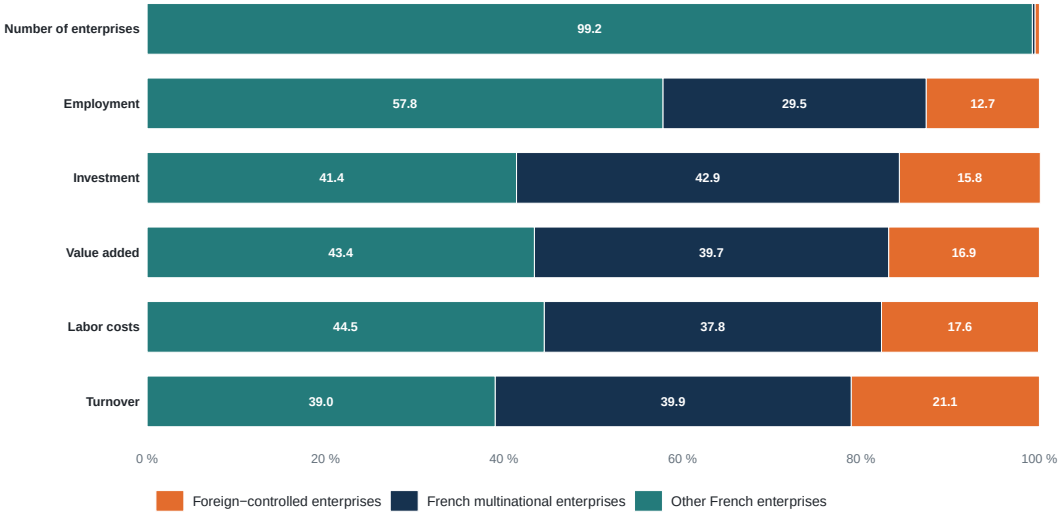
B. Cross-border M&A (LVMH–Tiffany, 2021)



Green: new equity Orange: acquisition payment to previous owners Gray: ownership Blue: dividends


Web of BP oil subsidiaries, 2013
BP America Production Company
BP Europa SE
BP France
BP Global Investments Limited
BP PLC (parent company)
Castrol Limited
BP Wind Energy North America Inc.
BP International Limited
BP Exploration Operating Company Limited
A • stands for a BP subsidiary
A —• the direction of control by one subsidiary of another...
... color indicates the country in which the subsidiary is registered
Canada
United States
Caribbean
Latin America
Africa
Middle East
United Kingdom
Germany
France
Netherlands
Europe (others)
Asia
Australia, N. Zealand

Fact I: Firm heterogeneity



Source: Insee, 2025. https://www.insee.fr/fr/statistiques/8671743

Fact 1: Firm heterogeneity

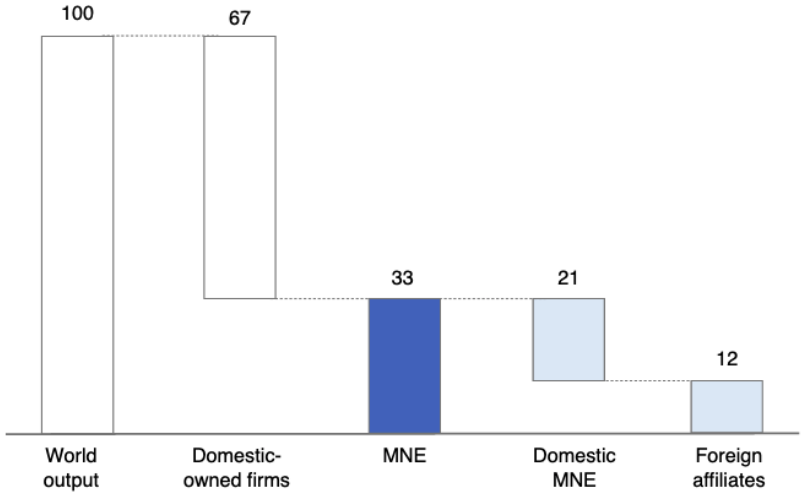
Table 2.1 Affiliates Relative to Local Firms (Percentage Accounted for by Affiliates)

	Finland	France	Ireland	Holland	Poland	Sweden
Enterprises	1.6	2.0	13.4	3.4	16.0	2.8
Employment	17.2	26.2	48.0	25.1	28.1	32.4
Sales	16.2	31.8	81.1	41.1	45.2	39.9
R&D Expenditure	13.1	27.4	77.3	35.8	20.9	52.0
Exports	17.5	39.5	92.3	60.0	69.1	45.8

Source: OECD (2007).

Fact 2: MNEs in global value-added

Figure 3. Decomposition of global gross output by ownership status, 2014



Fact 3: MNEs can be as big as some countries

Largest MNEs

List Rank	Company Name	Revenues ($b)	Profits ($b) ▼
3	Exxon Mobil	449.9	44.9
19	Apple	156.5	41.7
21	Gazprom	153.5	38.1
29	Industrial & Commercial Bank of China	133.6	37.8
50	China Construction Bank	113.4	30.6
9	Volkswagen	247.6	27.9
1	Royal Dutch Shell	481.7	26.6
11	Chevron	233.9	26.2
64	Agricultural Bank of China	103.5	23.0
70	Bank of China	98.4	22.1

Fact 3: MNEs can be as big as some countries

Countries' GDP

93	Tunisia	Africa	46,282	2022
94	Cameroon	Africa	44,212	2022
95	Bahrain	Asia	43,544	2022
96	Bolivia	Americas	43,431	2022
97	Sudan	Africa	42,762	2022
98	Paraguay	Americas	41,855	2022
99	Libya	Africa	40,836	2022
100	Latvia	Europe	40,588	2022
101	Estonia	Europe	39,054	2022
102	Nepal	Asia	39,028	2022
103	Zimbabwe	Africa	38,280	2022
104	El Salvador	Americas	31,989	2022
105	Papua New Guinea	Oceania	31,362	2022
106	Honduras	Americas	30,568	2022
107	Trinidad and Tobago	Americas	29,337	2022
108	Cambodia	Asia	28,330	2022
109	Iceland	Europe	27,702	2022

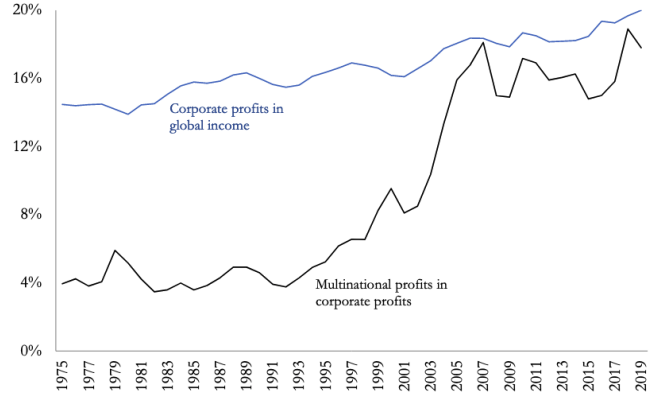
Fact 4: Historical Evolution

Source: World Investment Report, 2023

- 79k MNEs with 790k foreign subsidiaries (2007).
- Employment went from 20.5 millions in 1990 to 82 millions in 2023 (x3).
- Turnover went from $5000bn in 1990 to $38000bn in 2023 (x6.6).
- Value added went from $1000bn in 1990 to $8300bn in 2023 (x7.3).
- World GDP has been multiplied by 3.5 over the period.
- Top 100 largest MNEs represent 20% of total MNEs sales and 10% of total employment

Fact 4: Historical Evolution

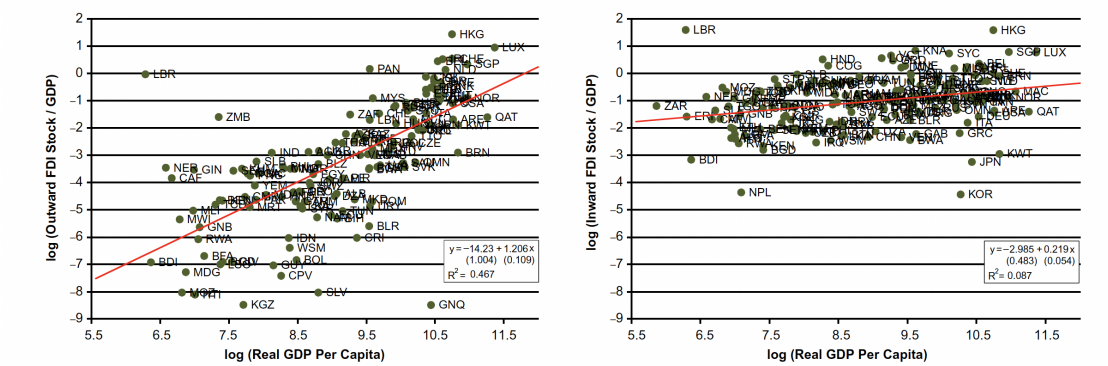
Figure 3: Global corporate profits and multinational profits, 1975–2019



Note: the blue line shows the evolution of the share of global corporate profits in global income (defined as global GDP minus global depreciation). The black line shows the share of global multinational profits (as defined in the text) in global corporate profits.

Source: for 1975–2015: Tørsløv et al. (2022a), Data Appendix Table C7; for 2016–19 figures: Data Appendix, Table 1.

Fact 5: FDI and Development



Sources: UNCTAD and World Bank

Figure 2.1 Aggregate FDI Stocks and Development

Why do firms become multinationals?

Historical origins

- Who were the first multinationals?

Historical origins

- Who were the first multinationals?
  - Charter companies (e.g. East India Company and Dutch East India Company) considered as the first MNEs $\longrightarrow$ history of MNEs entangled with colonialism.
- Trade has been early associated with long-distance firm activities.
- Internalizing activities helped for coordination and control.
- Pre-Modern MNEs: traders, shippers, bankers, family groups with investment abroad in manufacturing, mining or plantations.
- No single company expanded abroad to sell or manufacture its products before the 19th century.

Historical origins

- From the 19th century and the Industrial revolution: rise in cross-border capital flows out of chartered companies monopoly rights.

- From $\approx$ 1820, companies began to expand abroad (mine in a border country, or in a colony, factories).

  - Siemens opened its first foreign affiliate in 1850 and Singer in 1867 (part assembly imported from the U.S. in Glasgow).

- By 1914: wide range of manufactured products undertaken by MNEs (e.g. chemicals, pharmaceuticals, electricals, machinery, motor cars, tires, branded food products).

- From one-off cross-border transfers of knowledge to more sustained investments and continuous flow of knowledge and other resources across borders within the boundaries of firms: transition from manufacturing to services and GVCs.

- Linked to the communications infrastructures.

Horizontal *vs.* Vertical FDI

Horizontal *vs.* Vertical FDI

- Horizontal FDI

Horizontal *vs.* Vertical FDI

- Horizontal FDI
  - Replication of the production process in a foreign country.
  - Produce close to consumer to save on transport costs, tariffs, and other costs.
  - Historically larger phenomenon.

Horizontal *vs.* Vertical FDI

- Horizontal FDI
  - Replication of the production process in a foreign country.
  - Produce close to consumer to save on transport costs, tariffs, and other costs.
  - Historically larger phenomenon.
- Vertical FDI

Horizontal *vs.* Vertical FDI

- Horizontal FDI
  - Replication of the production process in a foreign country.
  - Produce close to consumer to save on transport costs, tariffs, and other costs.
  - Historically larger phenomenon.
- Vertical FDI
  - The firm acquires a company that acts as a supplier or distributor
  - The idea is to take advantage of production costs differentials.

Why becoming a MNE: the proximity-concentration trade-off

- Important trade-off between proximity and concentration.
- Proximity:
  - Produce close to consumers, low transport costs.
  - Lower benefits from increasing return to scale.

  Concentration:
  - Produce in a single plant.
  - Large transport costs and large benefits from increasing returns to scale.

Why becoming a MNE: the proximity-concentration trade-off

- Let us consider a domestic firm:
  - Q: Quantity that will be sold on the foreign market.
  - m_D: Marginal cost of production in the domestic country.
  - m_F: Marginal cost of production in the foreign country.
  - τ: Marginal transport and management costs.
  - F: Fixed Cost to settle abroad

Why becoming a MNE: the proximity-concentration trade-off

- Cost of exporting:

Why becoming a MNE: the proximity-concentration trade-off

- Cost of exporting: $C_X = (m_D + \tau)Q$

Why becoming a MNE: the proximity-concentration trade-off

- Cost of exporting: $C_X = (m_D + \tau)Q$
- Cost of FDI:

Why becoming a MNE: the proximity-concentration trade-off

- Cost of exporting: $C_X = (m_D + \tau)Q$
- Cost of FDI: $C_{FDI} = m_F Q + F$

Why becoming a MNE: the proximity-concentration trade-off

- Cost of exporting: $C_X = (m_D + \tau)Q$
- Cost of FDI: $C_{FDI} = m_F Q + F$
- FDI is prefered to export if:

Why becoming a MNE: the proximity-concentration trade-off

- Cost of exporting: $C_X = (m_D + \tau)Q$
- Cost of FDI: $C_{FDI} = m_F Q + F$
- FDI is prefered to export if: $C_{FDI} < C_X$

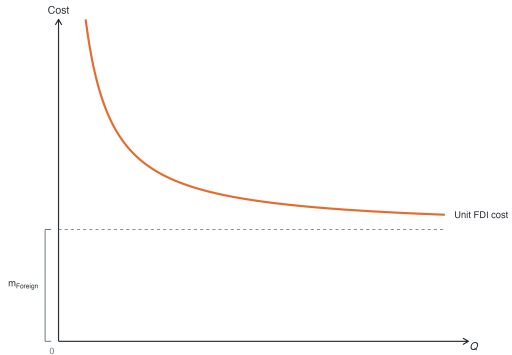
Why becoming a MNE: the proximity-concentration trade-off

- Cost of exporting: $C_X = (m_D + \tau)Q$
- Cost of FDI: $C_{FDI} = m_F Q + F$
- FDI is prefered to export if: $C_{FDI} < C_X$
- Or $\frac{F}{Q} + m_F < \tau + m_D$

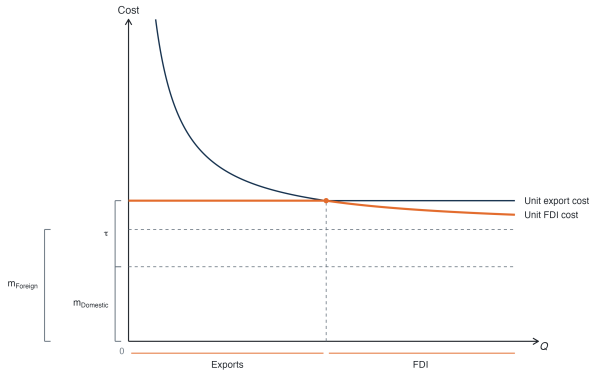
Why becoming a MNE: the proximity-concentration trade-off



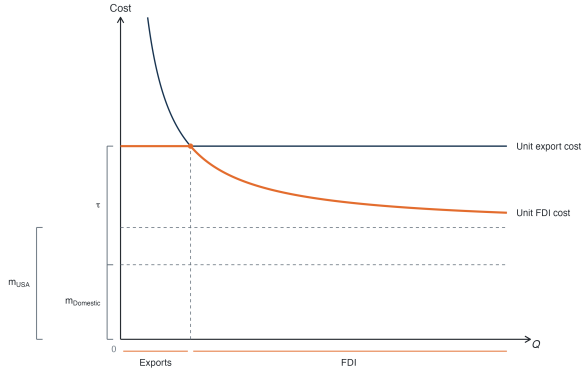
Why becoming a MNE: the proximity-concentration trade-off



Why becoming a MNE: the proximity-concentration trade-off



A rationale behind Trump tariffs?



Why becoming a MNE: the proximity-concentration trade-off

- FDI is preferred if:
  - The fixed cost is small (F).
  - The foreign market is large (Q).
  - The market is remote or there are high trade barriers (large τ).
  - The comparative advantage of the foreign country if large ($m_f - m_D$ if large).

Why becoming a MNE: the proximity-concentration trade-off

⟶ FDI is a fixed-cost strategy and can be use to avoid variable costs (*e.g.* tariff-jumping FDI).

⟶ Export is a variable-cost strategy, more suited for risky or short-term operations, or to reach small markets.

- In between: Export-platform FDI is also suitable.
  - Do FDI and reach neighboring markets through exports: regionalization of activities.

Going beyond the proximity-concentration trade-off

- This trade-off explains the choice between exporting and serving markets domestically.
- But it does not really explain FDI in itself.
- A firm could for instance contracts with a foreign firm to produce domestically its products.
  - Coca-Cola does not produce itself (all of) its beverages.
  - It sells its recipe to contractors that produce, market and distribute beverages in foreign countries.

Going beyond the proximity-concentration trade-off

- The question of the boundaries of the firm and the choice of controlling and managing the firm abroad.

- Coase Theorem: If contracts were complete, the firm structure should not matter.
  $\longrightarrow$ Firms internalize transactions when the transaction costs are smaller than through the market.
  - Matters a lot for MNEs because it is harder to enforce contracts across borders (regulations, distance, language, etc.)

- There are costs to incomplete contracts *e.g.* the risk of intellectual expropriation.
  - One cannot totally force someone not to use a given technology.
    - *e.g.* DuPont suspects its Chinese partner to infringe its IP and launches a dispute in China; Foxconn, Apple's manufacturer now also produces for Xiaomi, etc.

What is the impact of MNEs?

The impact of MNEs on host markets

Positive effects

- Foreign ownership have a positive impact on productivity which spills over to domestic affiliates.
- MNEs presence help domestic firms increasing the quality of their products.
- MNE tend to pay higher wages.
  - Setzler and Tintelnot (2021): MNEs have higher wages by 7% in the U.S. This premium is larger for high-skill workers.
  - Indirect gains for domestic firms that also increase wages: MNEs have positive effects on local activity, there are knowledge spillovers from workers moving between firms (Poole, 2013).

The impact of MNEs on host markets

Adverse effects

- MNEs are powerful companies and can use their corporate power to capture rents.
  - Lobbying: MNEs tend to lobby more than their domestic counterparts. They influence foreign policy and the content of deep trade agreements.
  - Tax avoidance: MNEs use their network of affiliates in tax havens to avoid paying taxes in other countries. Tax losses are estimated around $200bn per year (Torslov et al., 2022).
  - Globalization has been associated with a rise in market concentration and market power. This is associated with a rise in the remuneration of capital compared to labor and a rise in mark-ups.
  - Developing countries: MNEs can help development but at the same time repatriate gains to their home country $\longrightarrow$ harder for the host economy to benefit from economic gains.

The impact of MNEs on host markets

Adverse effects

- The capacity of regulatory arbitrage by MNEs give them an important power and affect regulation.

- Regulation is endogeneous to MNE power.

  - Intellectual origins in neoliberalism i.e. movement towards an economic constition of the world (see Slobodian, The Globalists, 2018)

  - Tax competition: race to the bottom in terms of corporate taxation $\longrightarrow$ each countries tries to attract foreign MNEs by lowering its tax rate.

  - Subsidy competition: Countries offer larger and larger subsidies to foreign firms to attract them.

  - Also applies to environment, labor laws, investment regulations, etc.

  - Also: Security and sovereignty concerns, Natural resource capture, control of digital platforms, *etc.*

The impact of MNEs on host markets

A Prisoner's Dilemma

- Governments want to regulate MNEs but strict regulation may discourage investment

The impact of MNEs on host markets

A Prisoner's Dilemma

- Governments want to regulate MNEs but strict regulation may discourage investment

- Consider two countries choosing between strong and weak regulation:

	Country B	
Country A	Strong	Weak
Strong	(3,3)	(1,4)
Weak	(4,1)	(2,2)

Payoffs: (Country A, Country B)

The impact of MNEs on host markets

A Prisoner's Dilemma

- Governments want to regulate MNEs but strict regulation may discourage investment

- Consider two countries choosing between strong and weak regulation:

	Country B	
Country A	Strong	Weak
Strong	(3,3)	(1,4)
Weak	(4,1)	(2,2)

Payoffs: (Country A, Country B)

- Each country has an incentive to weaken its regulation (tax, environment, labor, subsidies, etc.) to attract MNEs.

The impact of MNEs on host markets

A Prisoner's Dilemma

- Governments want to regulate MNEs but strict regulation may discourage investment

- Consider two countries choosing between strong and weak regulation:

	Country B	
Country A	Strong	Weak
Strong	(3,3)	(1,4)
Weak	(4,1)	(2,2)

Payoffs: (Country A, Country B)

- Each country has an incentive to weaken its regulation (tax, environment, labor, subsidies, etc.) to attract MNEs.

- Nash equilibrium: (Weak, Weak), although both countries would prefer (Strong, Strong).

The impact of MNEs on host markets

A Prisoner's Dilemma

- Governments want to regulate MNEs but strict regulation may discourage investment

- Consider two countries choosing between strong and weak regulation:

	Country B	
Country A	Strong	Weak
Strong	(3,3)	(1,4)
Weak	(4,1)	(2,2)

Payoffs: (Country A, Country B)

- Each country has an incentive to weaken its regulation (tax, environment, labor, subsidies, etc.) to attract MNEs.

- Nash equilibrium: (Weak, Weak), although both countries would prefer (Strong, Strong).

$\longrightarrow$ International coordination can prevent a *race to the bottom*.

Regulating MNEs

- Government put in place different types of policies to regulate MNEs.
- Two core objectives: facilitation of business activity and regulation of its impacts.
- Long period of deregulation until recent years.
- A prominent example: Bilateral investment treaties
  - Large renegotiation and terminations of investment treaties.
  - Create dispute mechanisms between MNEs and States (ISDS): limits state hability to regulate, in particular in the Energy sector (due to the Energy Charter Treaty).
  - Affects the capacity and will of countries to regulate these areas.
  - New investment treaties try to facilitate (green) policies.
  - 80% of investment arbitration are based on treaties signed in the 1990' or earlier.

Regulating MNEs

- Recent rise in regulations aiming at regulating MNEs impact.
  - Managing social impacts: law on MNEs' responsibility in 2017 in France. MNEs can be held responsible of their social and environmental adverse impacts in foreign countries.
  - Global minimum tax to limit firms' tax avoidance
  - Windfall profits taxes.
  - Regulation of digital platforms.
  - National security concerns (critical infrastructure, core technologies, sensitive assets).
    - Surge in investment screening mechanisms (from 3 countries in 2005 to 37 in 2022). Concerns about strategic industries (*e.g.* critical minerals in Canada, energy, transport and communication in Italy).
    - Withdrawal of M&A deals (*e.g.* the Chinese acquisition of Forbes media in the U.S.).