

Trade and foreign direct investment in business services

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What is this all about?

Concern among high-income countries about the loss of medium-to-high skilled, white-collar jobs to offshoring.

Services in question: intermediate business services

Business process outsourcing

Call centers

Software services

Medical services

Do we need a different approach than used for trade in goods?

Not always a simple issue of skill requirements

- Routine tasks

- Codifiable tasks

- Tasks not needing face-to-face contact.

- Role of location-specific complementarities

Puzzle: offshoring skilled services to countries that are skilled labor scarce.

Nature of barriers: border barriers and trade costs not very important.

- Right of establishment for commercial presence

- National treatment in taxes, etc.

- Contracting and legal environment

- Restrictions on foreign personnel

- Non-discriminatory regulatory measures (faced by all firms)

Characteristics to capture in a formal modeling approach.

- (1) Expansion of trade at the extensive margin: new things traded
- (2) Vertical fragmentation of production: services as intermediates
- (3) Location-specific and other complementarities
- (4) Offshoring of skilled services to skilled-labor-scarce countries
- (5) Reversal in the direction of trade. Exports to high-income-country
- (6) Barriers often fixed costs of establishing foreign commercial presence.
Treating barriers as ad valorem trade costs is not appropriate.

Suggested modeling approach

(1) Two factors of production: skilled (H) and unskilled (L) labor

(2) Two final goods, three production activities

AG - unskilled-labor intensive agriculture (no offense to farmers)

MAN - skilled-labor intensive manufacturing, can fragment into

VA value added by skilled and unskilled labor

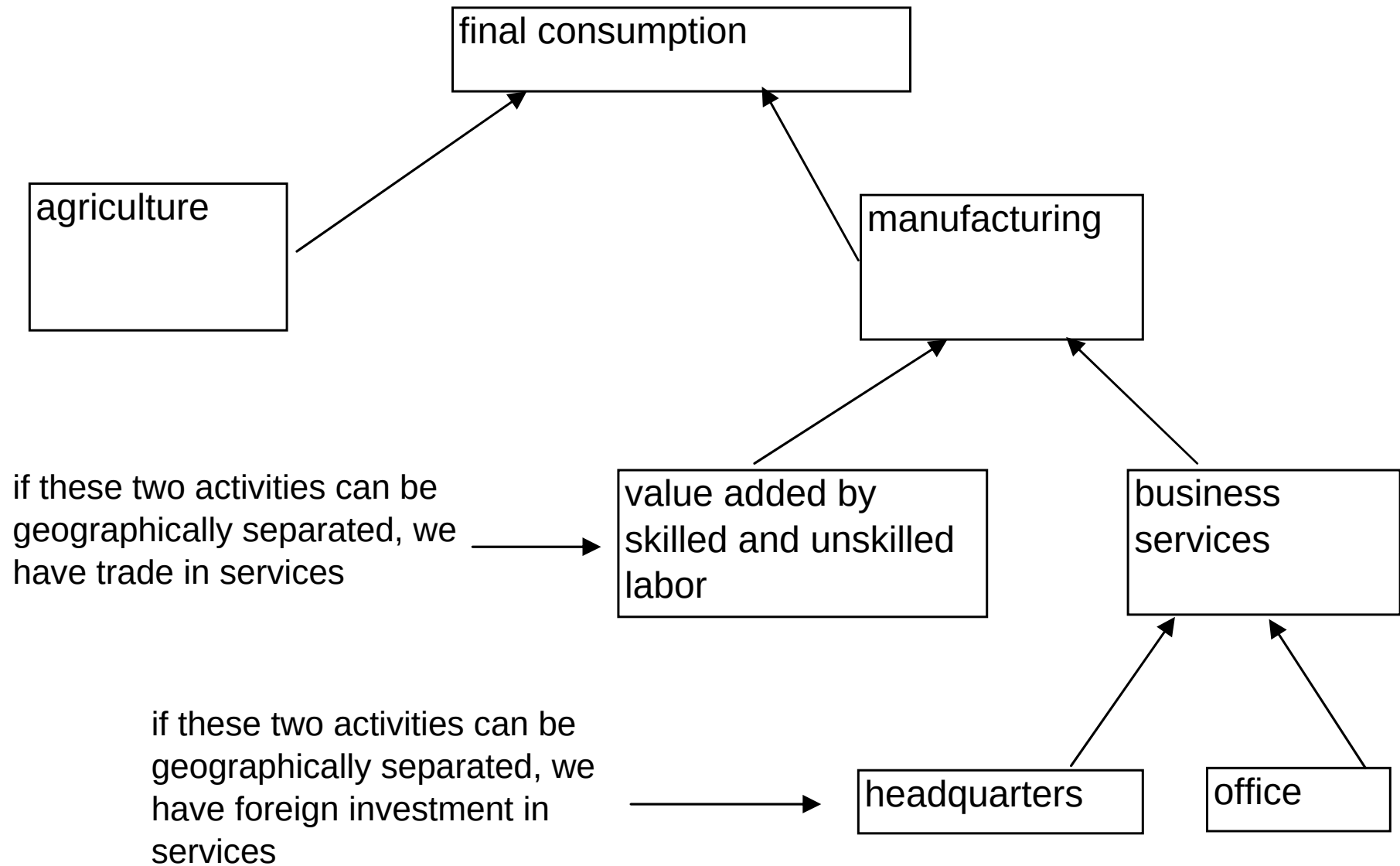
SER services

(3) SER - can fragment into

HQ headquarters, may serve several offices

OF office, produces the deliverable for the client

Figure 1: Structure of production



(4) There are three generic “types” of services firms, each of which may be located in either country, hence there are six firm types in total

N - national firms, provide services to domestic X producers, may (not) “export” to other country

M - multinational firms, have physical production (C) presence in both countries: “horizontal” multinational

V - vertical firm, with headquarters D in one country, production C location in the other, may (not) export back to home

(5) Services are differentiated or “specialized”, each produced with increasing returns to scale. More services = increases productivity

(6) Fixed costs for M and V firms supplying services abroad.

(7) Firm-level scale economies: jointness of knowledge-based assets.

We are interested in three equilibria, referred to as “regimes”:

NN - No trade, no foreign investment (i.e., no M or V firms) allowed or feasible

TN - Trade in services (exports by N firms) allowed, no investment allowed or feasible

Fragmentation of X and S, but S geographically integrated
Permits “Mode 1” trade in services

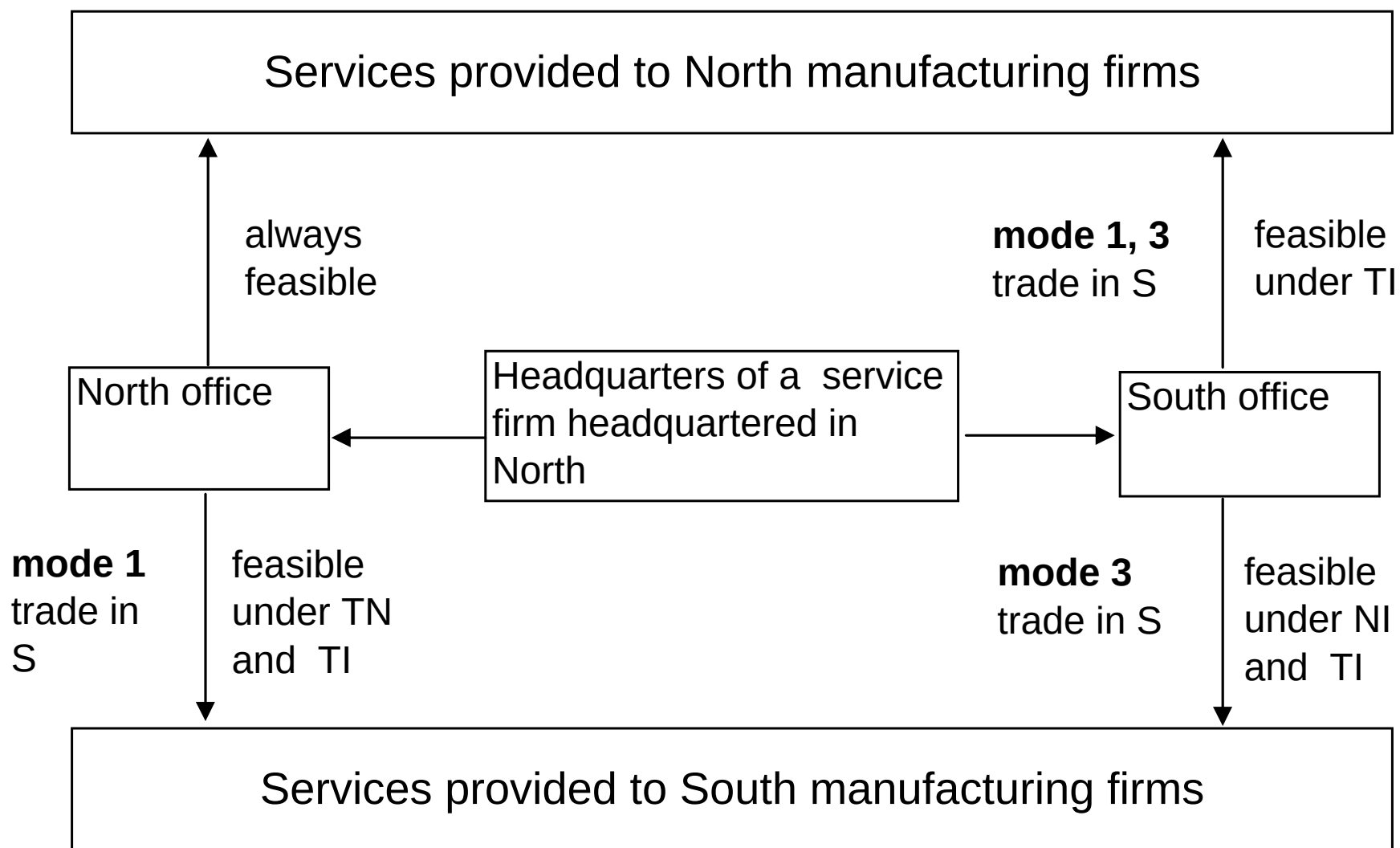
NI - Investment in services allowed, trade in services infeasible

Fragmentation of S, but not S from X. “Mode 3” feasible

TI - Trade and investment in services both allowed

Fragmentation of headquarters and service “production”
Permits “Mode 3” and “Mode 1” trade in services

Figure 2: Types of trade in services for a North service firm



Factor intensities of activities: from most to least skill intensive

(2) Fixed costs of service firm headquarters

(1) Value added in X production

X production (value added and services)

(1) Overall S firm (headquarters and production)

(2) S production

World factor endowment ratio

Y production

Let country HS be small, skilled-labor abundant

Let country LS be large, unskilled-labor abundant

Relative to base case NN, *national firms* dominant in HS
 Numbers are percentage changes relative to NN

	TN	NI	Ti
dominant S firm type in HS	no HS firms	horizontal	vertical
S firm number HS	-100	+90	+9
X production HS	+85	+2	+63
S production HS	-100	- 10	-100
Skilled wage HS	+34	+20	+47
Unskilled wage HS	-4	-3	-16
Welfare HS	+14	+8	+13
Welfare LS	+3	+1	+3

Direction of modeling effort

vertical fragmentation of production

expansion of trade at the extensive margin

draw more from mne models rather than trade models

focus on fixed costs of establishing commercial presence, not trade costs and border barriers

Challenges

identifying and estimating “shadow costs” of non-border barriers

domestic content provisions in NAFTA (Lopez-de-Silanes, Markusen, Rutherford): interviewed firms to get a number to use in calibrated model