

International Business: a European Perspective

2. Europe and Global Trade: Patterns, Theories, Policies and Strategies



Daniel Díaz Fuentes

DEPARTMENT OF ECONOMICS

This material is published under:

[Creative Commons BY-NC-SA 4.0](https://creativecommons.org/licenses/by-nc-sa/4.0/)



Cofinanciado por el
programa Erasmus+
de la Unión Europea



**GOBIERNO
de
CANTABRIA**

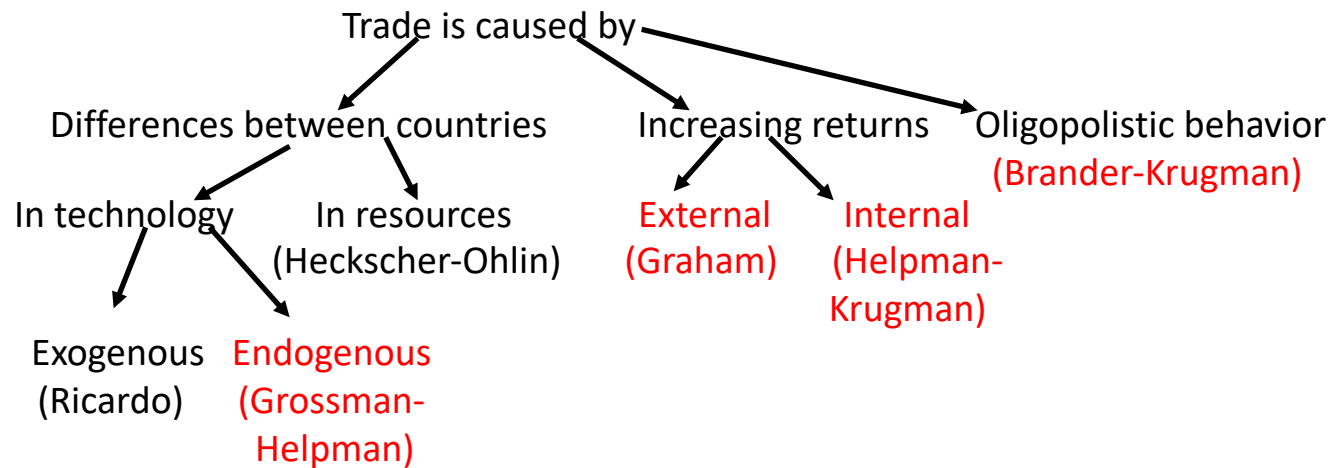
Contents

- Patterns and Theories of International Trade: CSA and FSA
- From Inter-industrial trade to Intra-industrial trade
- Global Value Chains – International Supply Chains
- Intra-firm trade
- Trade theoretical review: from country to firm based analysis
- Theory of national competitive advantage (R. Porter)

Trade Patterns and Theories

- The Pattern of International Trade displays
 - Patterns that are easy to understand
 - Country Specific Advantages – CSA.
 - Venezuela-> PDVSA, Norway -> STATOIL.
 - Others are not so easy to understand
 - Firms Specific Advantages – FSA (Ford, Volkswagen, Toyota).
 - FSA or Industry: Motor vehicles – US-America, Japan-Korea-China, Germany-Brazil-Mexico).
- The history of Trade Theory and government involvement presents a mixed case for the role of government in promoting exports and limiting imports.

International Trade Theories: from Inter-national trade (CSA) to Intra-industry and Intra-firm trade (FSA)

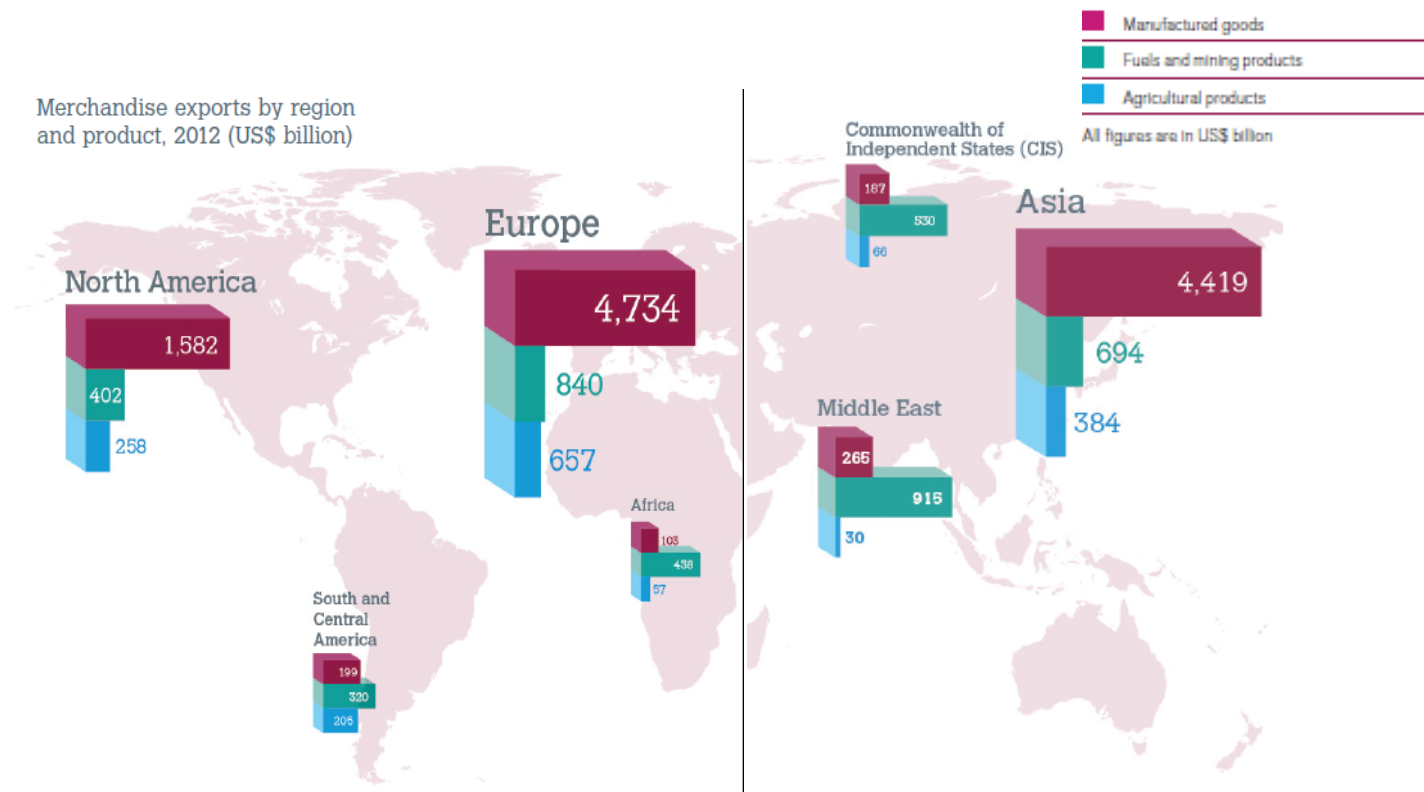


International Trade: Leading exporter and importer in goods 2015

(Billion dollars and percentage)

Rank	Exporters	Value	Share	Annual % change	Rank	Importers	Value	Share	Annual % change
1	China	2275	17,4	-3	1	United States	2308	17,3	-4
2	Extra-EU(28) exports	1985	15,2	-12	2	Extra-EU(28) imports	1914	14,4	-15
3	United States	1505	11,5	-7	3	China	1682	12,6	-14
4	Japan	625	4,8	-9	4	Japan	648	4,9	-20
5	Korea, Republic of	527	4,0	-8	5	Hong Kong, China	559	4,2	-7
6	Hong Kong, China	511	3,9	-3	6	Korea, Republic of	436	3,3	-17
7	Canada	408	3,1	-14	7	Canada a	436	3,3	-9
8	Mexico	381	2,9	-4	8	Mexico	405	3,0	-2
9	Singapore	351	2,7	-14	9	India	392	2,9	-15
10	Russian Federation	340	2,6	-32	10	Singapore	297	2,2	-19
11	Switzerland	290	2,2	-7	11	Switzerland	252	1,9	-9
12	Chinese Taipei	285	2,2	-11	12	Chinese Taipei	238	1,8	-16
13	India	267	2,0	-17	13	United Arab Emirates b	230	1,7	-8
14	United Arab Emirates b	265	2,0	-29	14	Australia	208	1,6	-12
15	Thailand	214	1,6	-6	15	Turkey	207	1,6	-14
16	Saudi Arabia, Kingdom o	202	1,5	-41	16	Thailand	203	1,5	-11
17	Malaysia	200	1,5	-15	17	Russian Federation a	194	1,5	-37
18	Brazil	191	1,5	-15	18	Brazil	179	1,3	-25
19	Australia	188	1,4	-22	19	Malaysia	176	1,3	-16
20	Viet Nam	162	1,2	8	20	Saudi Arabia, Kingdom o	172	1,3	-1
21	Indonesia	150	1,1	-15	21	Viet Nam	166	1,2	12
22	Turkey	144	1,1	-9	22	Indonesia	143	1,1	-20
23	Norway	105	0,8	-27	23	South Africa b	105	0,8	-14
24	South Africa	82	0,6	-10	24	Norway	76	0,6	-15
25	Qatar	77	0,6	-39	25	Philippines b	70	0,5	3

Merchandise exports by region and product, 2012 (US\$ billion)



International Trade: Intra-IndustryTrade

A18. Top 10 exporters and importers of chemicals,
(Billion dollars and percentage)

	Value	Share in world exports/imports			
	2015	1980	1990	2000	2015
Exporters					
European Union (28)	901	-	-	53.9	48.2
extra-EU (28) exports	349	-	-	18.6	18.7
United States	206	14.8	13.3	13.7	11.0
China a	130	0.8	1.3	2.1	6.9
Switzerland	88	4.0	4.7	3.6	4.7
Japan	63	4.7	5.3	6.0	3.4
Korea, Republic of	58	0.5	0.8	2.4	3.1
Singapore	47	0.5	1.1	1.6	2.5
Canada	37	2.5	2.2	2.5	2.0
India	36	0.3	0.4	0.7	1.9
Chinese Taipei	32	0.4	0.9	1.6	1.7
Above 10	1598	-	-	88.0	85.5
Importers					
European Union (28)	761	-	-	44.0	39.5
extra-EU (28) imports	205	-	-	10.5	10.7
United States	220	6.2	7.7	12.2	11.5
China a	171	2.0	2.2	4.9	8.9
Japan	64	4.1	5.0	4.2	3.3
India	47	0.0	1.0	0.8	2.4
Canada b	45	2.2	2.5	3.2	2.3
Korea, Republic of	43	1.3	2.4	2.2	2.2
Mexico a, b	43	1.5	1.2	2.4	2.2
Switzerland	42	2.5	2.6	2.1	2.2
Brazil c	38	2.4	1.1	1.6	2.0
Above 10	1474	-	-	77.7	76.6

A19. Top 10 exporters and importers of pharma
(Billion dollars and percentage)

	Value	Share in world exports/imports	
	2015	2010	2015
Exporters			
European Union (28)	340	66.1	63.9
extra-EU (28) exports	159	26.7	29.8
Switzerland	65	10.6	12.2
United States	52	9.6	9.8
India	14	1.5	2.6
China a	14	2.3	2.5
Canada	8	1.2	1.4
Singapore	8	1.3	1.4
Israel	7	1.4	1.2
Japan	4	0.9	0.7
Panama b	4	0.6	0.7
Above 10	514	95.7	96.6
Importers			
European Union (28)	260	52.1	47.5
extra-EU (28) imports	80	13.5	14.6
United States	90	13.9	16.4
Japan	24	3.7	4.4
Switzerland	23	4.0	4.2
China a	20	1.7	3.7
Canada c	13	2.6	2.3
Russian Federation c	9	2.4	1.7
Australia c	8	1.8	1.4
Brazil c	7	1.4	1.3
Mexico a, c	5	1.0	1.0
Above 10	460	84.6	83.8

Intra Industrial Trade

A21. Top 10 exporters and importers of automotive (Billion dollars and percentage)

	Value	Share in world exports/imports			
	2015	1980	1990	2000	2015
Exporters					
European Union (28)	653	-	-	49.8	49.3
extra-EU (28) exports	229	-	-	12.2	17.3
Japan	137	19.8	20.8	15.3	10.3
United States	129	11.9	10.2	11.7	9.8
Mexico a	97	0.3	1.4	5.3	7.3
Korea, Republic of	71	0.1	0.7	2.6	5.4
Canada	62	6.9	8.9	10.5	4.7
China a	49	0.0	0.1	0.3	3.7
Thailand	27	0.0	0.0	0.4	2.0
Turkey	17	0.0	0.0	0.3	1.3
India	11	...	0.1	0.1	0.9
Above 10	1253	-	-	96.3	94.6
Importers					
European Union (28)	498	-	-	42.5	36.7
extra-EU (28) imports	72	-	-	5.6	5.3
United States	292	20.3	24.7	29.4	21.6
China a	73	0.6	0.6	0.7	5.4
Canada b	68	8.7	7.7	8.0	5.0
Mexico a, b	45	1.8	0.3	3.5	3.3
Saudi Arabia, Kingdom of c	33	2.7	0.9	0.7	2.4
Australia b	24	1.3	1.2	1.5	1.7
Turkey	20	...	0.4	1.0	1.4
Japan	19	0.5	2.3	1.7	1.4
Russian Federation b	16	-	-	0.2	1.2
Above 10	1088	-	-	89.0	80.2

A20. Top 10 exporters and importers of office and telec (Billion dollars and percentage)

	Value	Share in world exports/imports			
	2015	1980	1990	2000	2015
Exporters					
China a	591	0.1	1.0	4.5	34.0
European Union (28)	318	-	-	29.3	18.3
extra-EU (28) exports	85	-	-	8.7	4.9
Hong Kong, China	244	-	-	-	-
domestic exports b	0	2.0	1.6	0.4	0.0
re-exports	244	-	-	-	-
United States	142	19.5	17.3	15.9	8.2
Singapore	118	3.2	6.4	7.7	6.8
Korea, Republic of	110	2.0	4.8	6.1	6.3
Chinese Taipei	93	3.2	4.7	6.0	5.4
Mexico a	63	0.1	1.5	3.5	3.6
Japan	60	21.1	22.5	11.2	3.5
Malaysia a	59	1.4	2.7	5.4	3.4
Above 10	1555	-	-	90.1	89.6
Importers					
European Union (28)	446	-	-	33.9	23.1
extra-EU (28) imports	222	-	-	14.7	11.5
China a	385	0.6	1.3	4.4	19.9
United States	321	15.9	21.1	21.2	16.6
Hong Kong, China	257	-	-	-	-
retained imports b	13	1.7	1.4	1.3	0.7
Singapore	84	2.6	4.5	5.3	4.4
Japan	80	2.6	3.7	6.0	4.2
Mexico a, c	64	0.9	1.5	2.9	3.3
Korea, Republic of	62	1.3	2.6	3.3	3.2
Chinese Taipei	47	1.4	2.5	3.8	2.4
Malaysia a	41	1.6	1.9	3.2	2.1
Above 10	1542	-	-	85.3	79.8

Intra-industry Trade

Global Value Chains – International Supply Chains

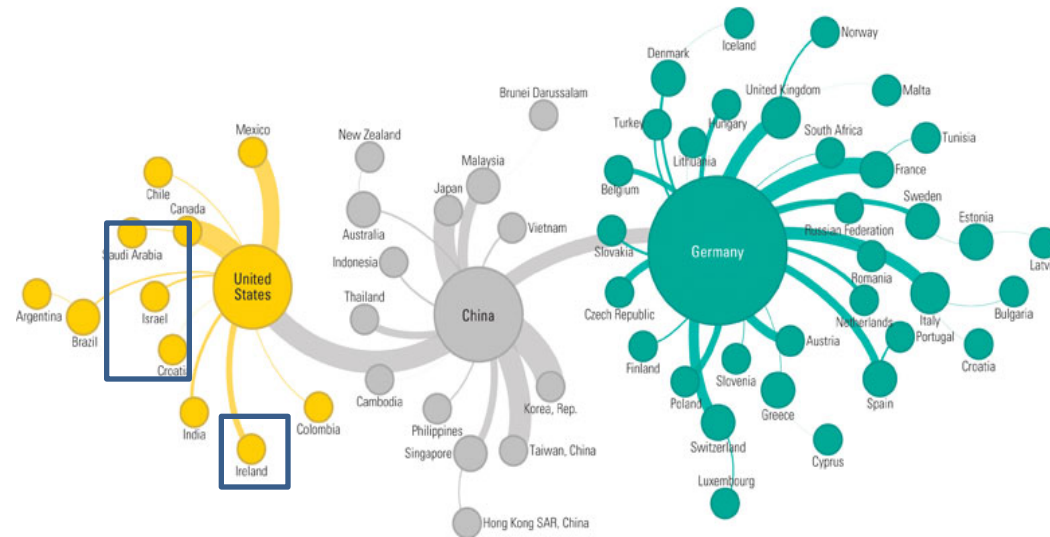
Today's planet of trade looks very different from when the first rules governing world trade. The old division of labour between nations has been radically changed by the recent wave of globalization.

Global value chains, or international supply chains, are core to this development and traditional boundaries and distances are collapsing.

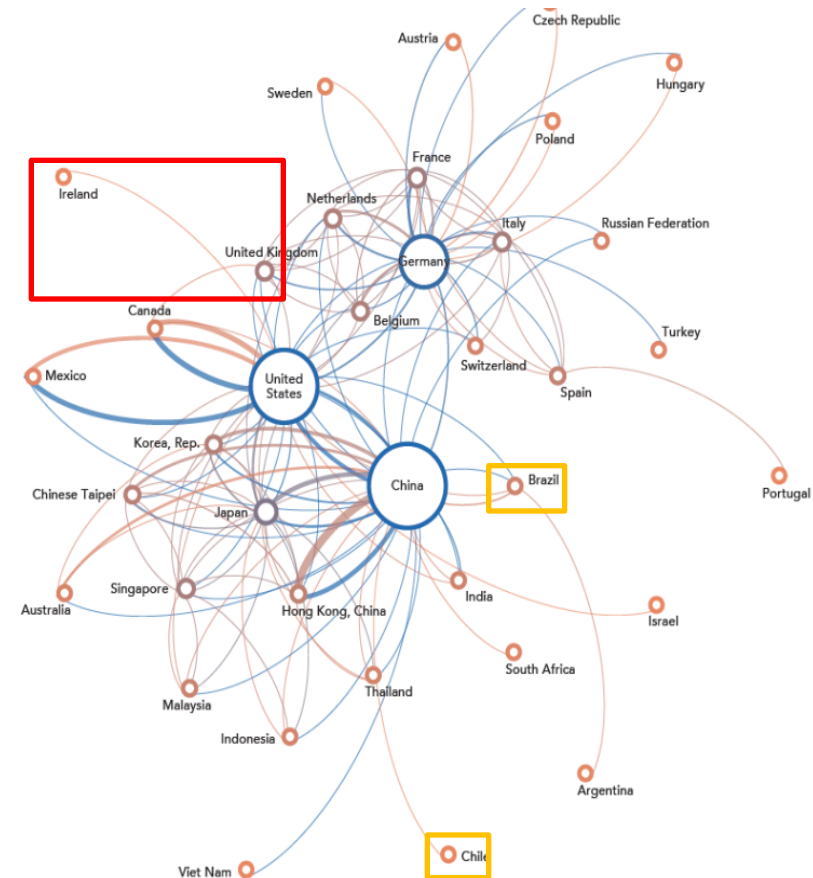
See:

https://www.wto.org/english/res_e/statistics_e/miwi_e/background_paper_e.htm

Intra industry trade - Global Value Chain



Intra-industry trade in Components (2017)



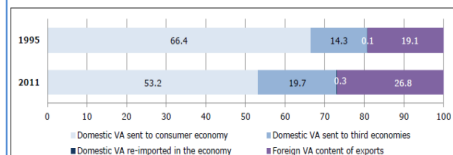
Source: Diakantoni and others 2017, based on the UN Comtrade database (<https://comtrade.un.org>).

Spain

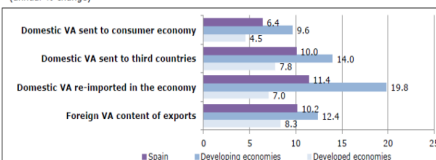
Trade in Value Added and Global Value Chains

VALUE ADDED CONTENT OF GROSS EXPORTS

The value added (VA) components of gross exports, 1995 and 2011
(% share in total gross exports)



Evolution of the VA components of gross exports, 1995-2011
(annual % change)



Top export industries - Domestic and foreign VA content of exports, 2011
(% share in industry total gross exports)

	Domestic VA	Foreign VA	Total
1. Wholesale and retail trade	88.5	11.5	100.0
2. Motor vehicles	53.9	46.1	100.0
3. Transport and storage	80.4	19.6	100.0

Top export destinations - Domestic and foreign VA content of exports, 2011
(% share in total gross exports to partner)

	Domestic VA	Foreign VA	Total
1. France	71.2	28.8	100.0
2. Germany	74.3	25.7	100.0
3. United Kingdom	75.2	24.8	100.0

(% share in economy total gross exports)

	Domestic VA	Foreign VA
1. Wholesale and retail trade	10.0	1.3
2. Motor vehicles	5.7	4.9
3. Transport and storage	8.2	2.0

(% share in economy total gross exports)

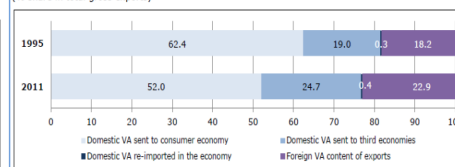
	Domestic VA	Foreign VA
1. France	10.0	4.0
2. Germany	8.2	2.8
3. United Kingdom	6.8	2.2

United Kingdom

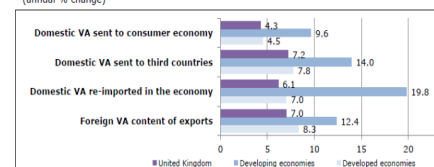
Trade in Value Added and Global Value Chains

VALUE ADDED CONTENT OF GROSS EXPORTS

The value added (VA) components of gross exports, 1995 and 2011
(% share in total gross exports)



Evolution of the VA components of gross exports, 1995-2011
(annual % change)



Top export industries - Domestic and foreign VA content of exports, 2011
(% share in industry total gross exports)

	Domestic VA	Foreign VA	Total
1. Other business services	88.5	11.5	100.0
2. Financial intermediation	90.7	9.3	100.0
3. Wholesale and retail trade	87.6	12.4	100.0

(% share in economy total gross exports)

	Domestic VA	Foreign VA
1. Other business services	12.0	1.6
2. Financial intermediation	11.1	1.1
3. Wholesale and retail trade	8.5	1.2

Top export destinations - Domestic and foreign VA content of exports, 2011
(% share in total gross exports to partner)

	Domestic VA	Foreign VA	Total
1. United States	78.7	21.3	100.0
2. Germany	75.1	24.9	100.0
3. France	73.8	26.2	100.0

(% share in economy total gross exports)

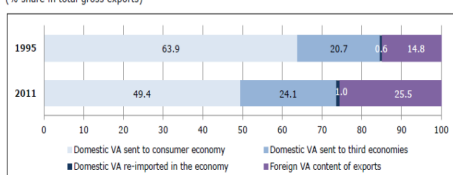
	Domestic VA	Foreign VA
1. United States	11.7	3.2
2. Germany	8.0	2.6
3. France	5.1	1.8

France

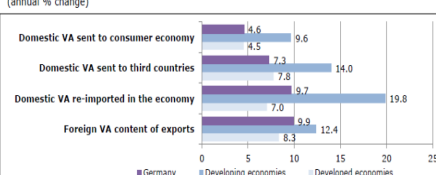
Trade in Value Added and Global Value Chains

VALUE ADDED CONTENT OF GROSS EXPORTS

The value added (VA) components of gross exports, 1995 and 2011
(% share in total gross exports)



Evolution of the VA components of gross exports, 1995-2011
(annual % change)



Top export industries - Domestic and foreign VA content of exports, 2011
(% share in industry total gross exports)

	Domestic VA	Foreign VA	Total
1. Motor vehicles	68.6	31.4	100.0
2. Machinery and equipment	73.3	26.7	100.0
3. Chemical products	70.4	29.6	100.0

(% share in economy total gross exports)

	Domestic VA	Foreign VA
1. Motor vehicles	9.9	4.5
2. Machinery and equipment	8.4	3.1
3. Chemical products	6.9	2.9

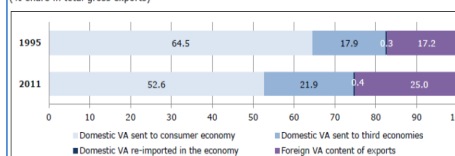
Top export destinations - Domestic and foreign VA content of exports, 2011
(% share in total gross exports to partner)

	Domestic VA	Foreign VA	Total
1. France	73.6	26.4	100.0
2. United States	75.8	24.2	100.0
3. China	73.6	26.4	100.0

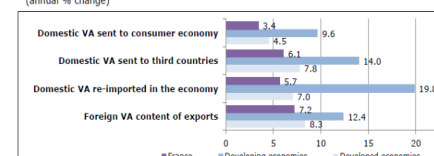
(% share in economy total gross exports)

	Domestic VA	Foreign VA
1. France	6.3	2.3
2. United States	6.2	2.0
3. China	5.6	2.0

The value added (VA) components of gross exports, 1995 and 2011
(% share in total gross exports)



Evolution of the VA components of gross exports, 1995-2011
(annual % change)



Top export industries - Domestic and foreign VA content of exports, 2011
(% share in industry total gross exports)

	Domestic VA	Foreign VA	Total
1. Wholesale and retail trade	89.9	10.1	100.0
2. Chemical products	67.9	32.1	100.0
3. Transport and storage	85.8	14.2	100.0

(% share in economy total gross exports)

	Domestic VA	Foreign VA
1. Wholesale and retail trade	12.2	1.4
2. Chemical products	7.5	3.6
3. Transport and storage	7.5	1.2

Top export destinations - Domestic and foreign VA content of exports, 2011
(% share in total gross exports to partner)

	Domestic VA	Foreign VA	Total
1. Germany	73.6	26.4	100.0
2. Italy	76.0	24.0	100.0
3. United Kingdom	74.9	25.1	100.0

(% share in economy total gross exports)

	Domestic VA	Foreign VA
1. Germany	10.0	3.6
2. Italy	6.4	2.0
3. United Kingdom	6.0	2.0

International Business: a European Perspective

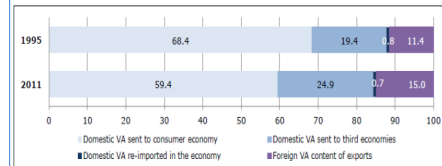
2. Europe and Global Trade: Patterns, Theories, Policies and Strategies

United States

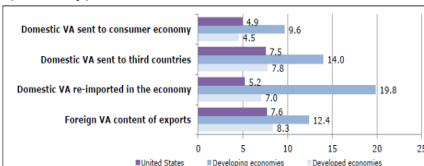
Trade in Value Added and Global Value Chains

VALUE ADDED CONTENT OF GROSS EXPORTS

The value added (VA) components of gross exports, 1995 and 2011
(% share in total gross exports)



Evolution of the VA components of gross exports, 1995-2011
(annual % change)



Top export industries - Domestic and foreign VA content of exports, 2011
(% share in industry total gross exports)

	Domestic VA	Foreign VA	Total
1. Wholesale and retail trade	95.3	4.7	100.0
2. Chemical products	82.0	18.0	100.0
3. Transport and storage	89.5	10.5	100.0

	Domestic VA	Foreign VA
(% share in economy total gross exports)	9.1	0.4
	7.1	1.6
	6.9	0.8

Top export destinations - Domestic and foreign VA content of exports, 2011
(% share in total gross exports to partner)

	Domestic VA	Foreign VA	Total
1. Canada	82.0	18.0	100.0
2. Mexico	79.8	20.2	100.0
3. China	85.0	15.0	100.0

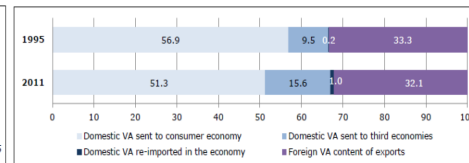
	Domestic VA	Foreign VA
(% share in economy total gross exports)	11.6	2.5
	7.8	2.0
	6.2	1.1

China

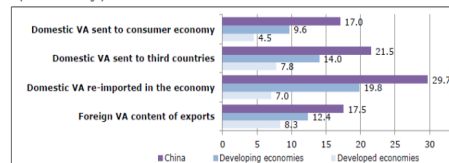
Trade in Value Added and Global Value Chains

VALUE ADDED CONTENT OF GROSS EXPORTS

The value added (VA) components of gross exports, 1995 and 2011
(% share in total gross exports)



Evolution of the VA components of gross exports, 1995-2011
(annual % change)



Top export industries - Domestic and foreign VA content of exports, 2011
(% share in industry total gross exports)

	Domestic VA	Foreign VA	Total
1. Computer and electronic	45.0	55.0	100.0
2. Wholesale and retail trade	95.9	4.1	100.0
3. Textiles	73.5	26.5	100.0

	Domestic VA	Foreign VA
(% share in economy total gross exports)	10.7	13.1
	12.6	0.5
	7.5	2.7

Top export destinations - Domestic and foreign VA content of exports, 2011
(% share in total gross exports to partner)

	Domestic VA	Foreign VA	Total
1. United States	65.3	34.7	100.0
2. Japan	68.1	31.9	100.0
3. Korea, Republic of	67.7	32.3	100.0

	Domestic VA	Foreign VA
(% share in economy total gross exports)	13.7	7.3
	7.0	3.3
	3.6	1.7

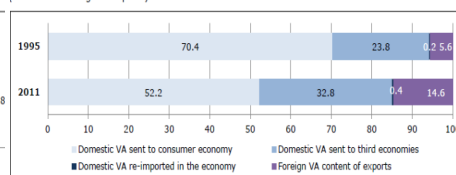
Domestic and foreign sectoral VA contribution to gross exports, 2011

Japan

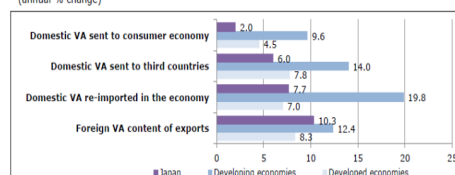
Trade in Value Added and Global Value Chains

VALUE ADDED CONTENT OF GROSS EXPORTS

The value added (VA) components of gross exports, 1995 and 2011
(% share in total gross exports)



Evolution of the VA components of gross exports, 1995-2011
(annual % change)



Top export industries - Domestic and foreign VA content of exports, 2011
(% share in industry total gross exports)

	Domestic VA	Foreign VA	Total
1. Wholesale and retail trade	93.8	6.2	100.0
2. Computer and electronic	82.8	17.2	100.0
3. Motor vehicles	86.1	13.9	100.0

	Domestic VA	Foreign VA
(% share in economy total gross exports)	16.3	1.1
	12.4	2.6
	11.5	1.9

Top export destinations - Domestic and foreign VA content of exports, 2011
(% share in total gross exports to partner)

	Domestic VA	Foreign VA	Total
1. China	84.9	15.1	100.0
2. United States	87.2	12.8	100.0
3. Korea, Republic of	83.4	16.6	100.0

	Domestic VA	Foreign VA
(% share in economy total gross exports)	21.2	3.8
	13.5	2.0
	6.8	1.3

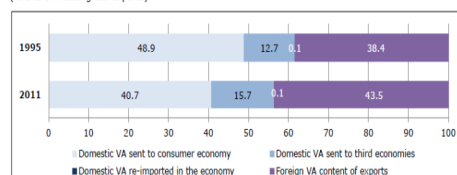
Domestic and foreign sectoral VA contribution to gross exports, 2011

Ireland

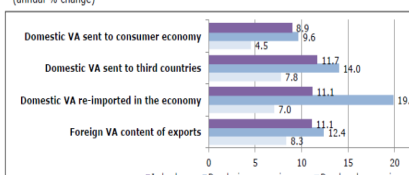
Trade in Value Added and Global Value Chains

VALUE ADDED CONTENT OF GROSS EXPORTS

The value added (VA) components of gross exports, 1995 and 2011
(% share in total gross exports)



Evolution of the VA components of gross exports, 1995-2011
(annual % change)



Top export industries - Domestic and foreign VA content of exports, 2011
(% share in industry total gross exports)

	Domestic VA	Foreign VA	Total
1. Chemical products	53.9	46.1	100.0
2. Computer activities	48.2	51.8	100.0
3. Wholesale and retail trade	64.1	35.9	100.0

	Domestic VA	Foreign VA
(% share in economy total gross exports)	12.5	10.7
	6.8	7.3
	8.2	4.6

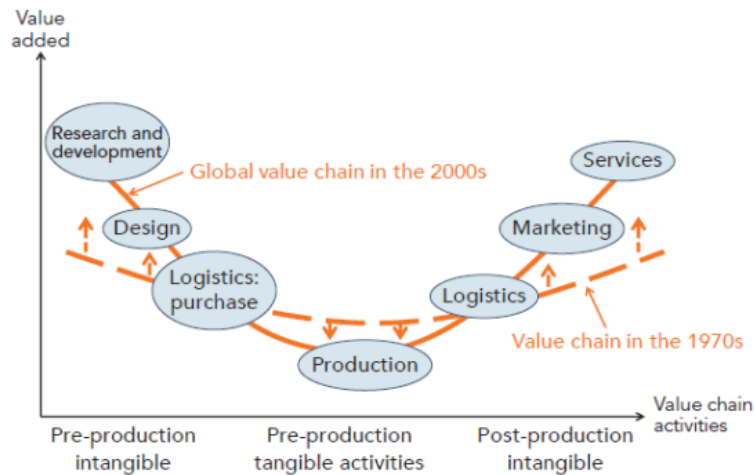
Top export destinations - Domestic and foreign VA content of exports, 2011
(% share in total gross exports to partner)

	Domestic VA	Foreign VA	Total
1. United States	56.6	43.4	100.0
2. United Kingdom	54.9	45.1	100.0
3. Germany	54.0	46.0	100.0

	Domestic VA	Foreign VA
(% share in economy total gross exports)	11.1	8.5
	7.9	6.5
	5.5	4.7

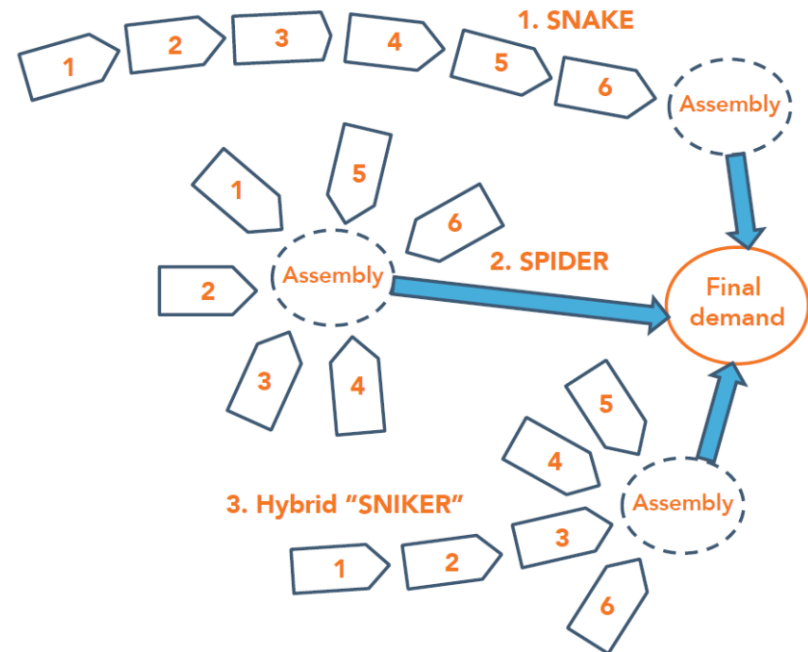
Smile curve of GVC 1970s-2000s

1970s and 2000s



Source: Author's analysis based on Shih 1996 and Gereffi, Humphrey, and Sturgeon 2005.

GVC Animals



Source: Diakantoni and others 2017, based on Baldwin and Venables 2010.

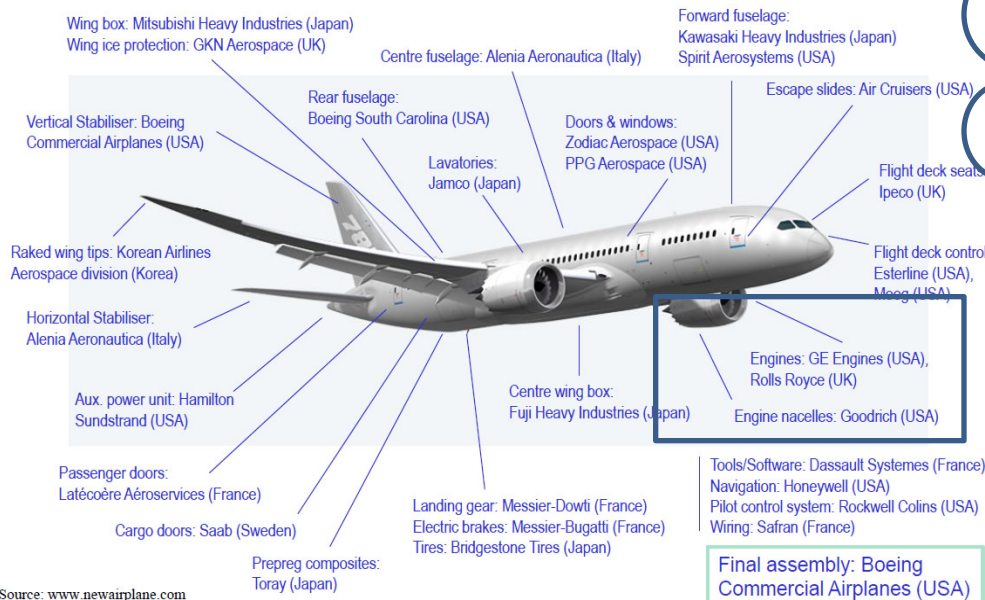
Intra-Firm Trade

[OECD \(2011\) Intra-Firm Trade: *Patterns, Determinants and Policy Implications*](#)

Intra-firm trade consist of trade between parent companies of a country with their affiliates abroad and trade of affiliates under foreign control in this country with their foreign parent group.

- The emergence of global value chains and the expansion of activities of multinational enterprises have increased the value of intra-firm trade flows.
- Trade statistics and firm-level data point out that intra-firm trade and vertical integration occur predominantly among OECD countries and that firm behaviour and relationships between buyers and suppliers explain the patterns of intra-firm trade.

Fragmentation of production: the example of the Boeing 787 Dreamliner



Source: www.newairplane.com

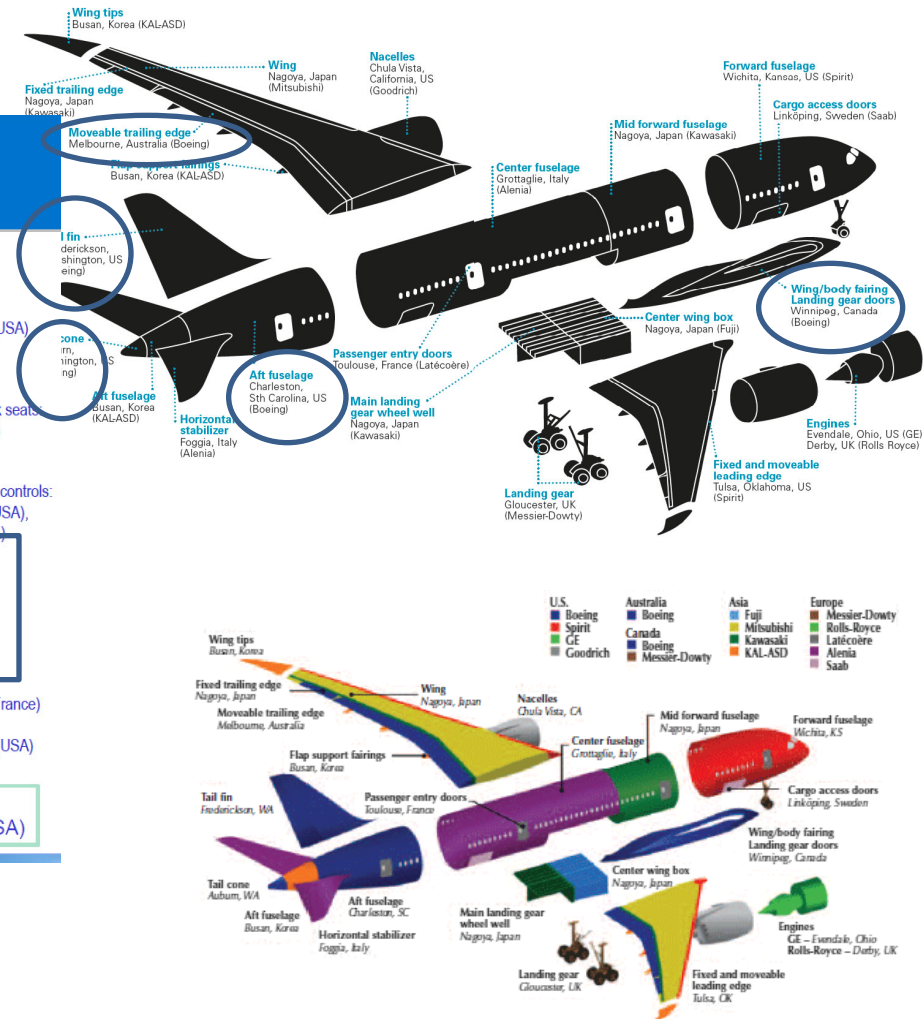
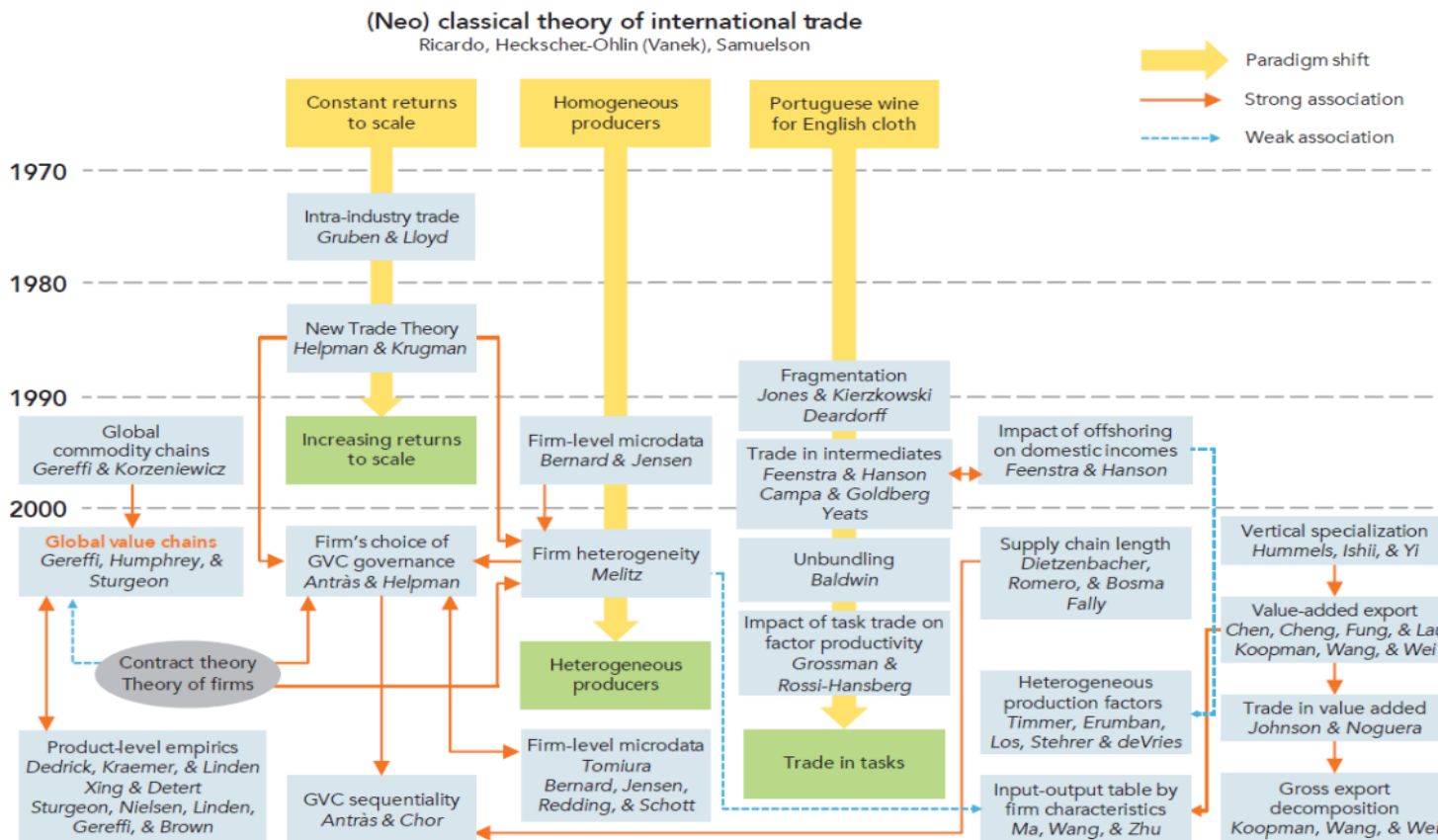


FIGURE 1.1 Genealogical map of analytical frameworks for global value chains



2. Europe and Global Trade: Patterns, Theories, Policies and Strategies

	Country-based (1800s-1970s)	Industry-based (1980s-2000s)	Firm-based (2000s-present)
<i>General</i>			
Industries	Two homogeneous goods sectors	One differentiated goods sector	One differentiated goods sector
<i>Producers</i>			
Technologies ¹	Constant returns to scale	Increasing returns to scale	Increasing returns to scale
Technology differences	Across industries; across countries	No differences	Across firms
Market structure ²	Perfect competition	Monopolistic competition	Monopolistic competition
<i>Consumers</i>			
Income source	Capital and labour	Labour	Labour
Preferences		Desire for variety	Desire for variety
<i>Key results</i>			
Type of trade	Across industries	Within industries	Within industries
Sources of gains from trade	Across-industry reallocations of resources	Higher scale of production; more product variety; lower markups	Higher scale of production; more product variety; within-industry re-allocation of resources
Aggregate productivity effects of trade	Not applicable	Positive effects from higher scale	Positive effects from higher scale and reallocation across firms

International trade theories and industrial policy

Intra-industry Intra-firm (GVC) in industries with high fixed costs(R&D, technological design):

- Specialization increases productivity, and the ability to enhance economies of scale increases.
- Learning effects are high. These are cost savings that come from “learning by doing”.
- Typically, industries with high, fixed costs
 - World demand will support few competitors.
- Competitors may emerge because of “First-mover advantage”
 - Economies of scale may preclude new entrants
 - Role of the government becomes significant
- Some argue that it generates government intervention and strategic trade policy.

Monopolistic Competition and Trade

- Main differences between inter-industry and intra-industry trade:
 - Inter-industry trade reflects natural comparative advantage (natural CSA), whereas intra-industry trade does not (FSA)
 - The relative importance of intra-industry and inter-industry trade depends on how similar countries are.
- Intra-industry and Intra-firm trade plays a particularly large role in the trade in manufactured goods and services among advanced economies, which accounts for most of world trade.

Theory of national competitive advantage

- The theory attempts to analyze the reasons for a nations success in a particular industry *(Country Specific Advantages: CSA-Industrial clusters)*
- M. Porter *(The Competitive Advantage of Nations)* studied 100 industries in 10 nations
 postulated determinants of competitive advantage of a nation were based on four major attributes
 - Factor endowments
 - Demand conditions
 - Related and supporting industries
 - Firm strategy, structure and rivalry

Summary and Discussion Questions

- Trade patterns: theory and evidence
- New Trade Theories: from CSA to FSA
- Economies of Scale, First-Mover Advantages and the Pattern of Trade
- Implications of New Trade Theory
- National Competitive Advantage: Porter's Diamond
- Managerial Implications: Location, First-Mover Advantages, Policies.
- In a world without trade, what would happen to the costs that European consumers would have to pay for ICT products?