



Extended Supply-Use Tables and Value Added of Global Manufacturing Exports

One of the main challenges arising from globalization is the development of official statistics that provide information on the interdependencies and impacts between countries.

Answering to the challenge of measuring the global economy, INEGI developed the following products:

Extended
Supply-Use Tables

Value Added of Global
Manufacturing Exports

What is the objective?



Globalization demands the generation of new and complementary statistics that provide information on the **interdependencies between countries and the impacts on national economies.**

And the benefits?



Analysis tool for decision makers,



Generate instruments for measuring TiVA and GVCs within North America, APEC and globally,

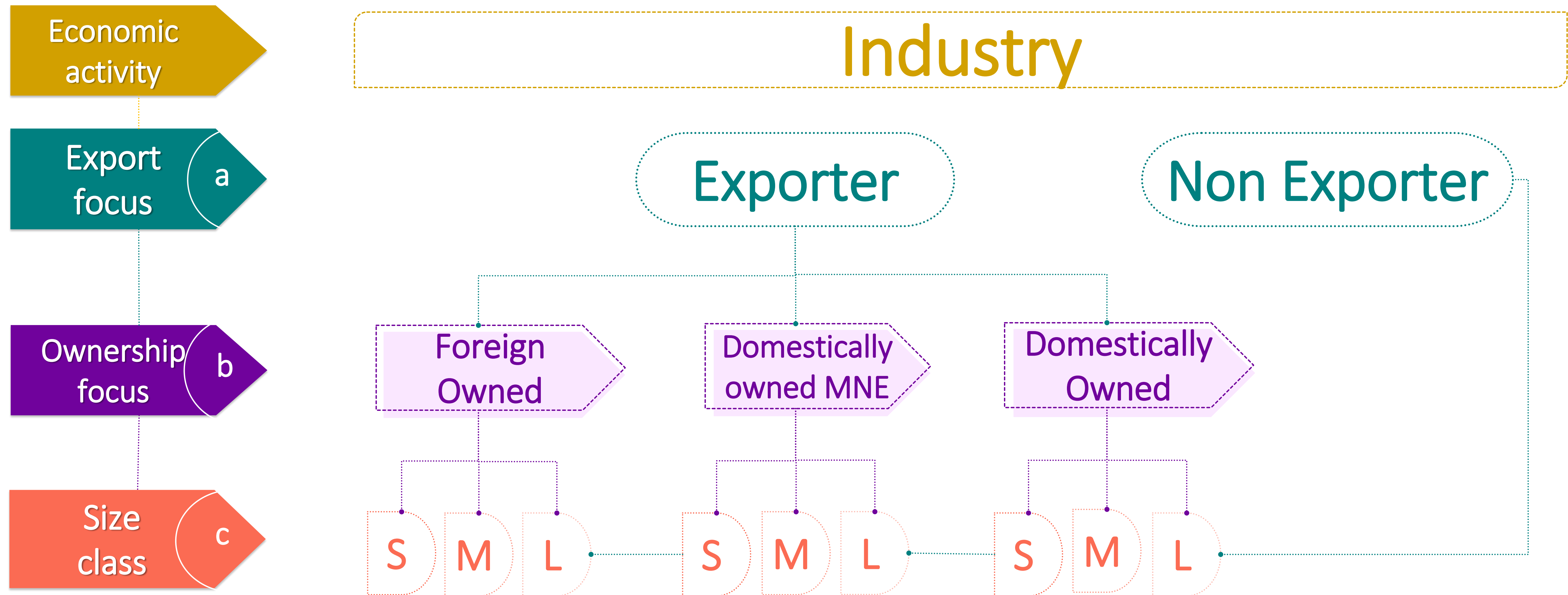


Provide information for specific analysis, and Satellite Accounts,

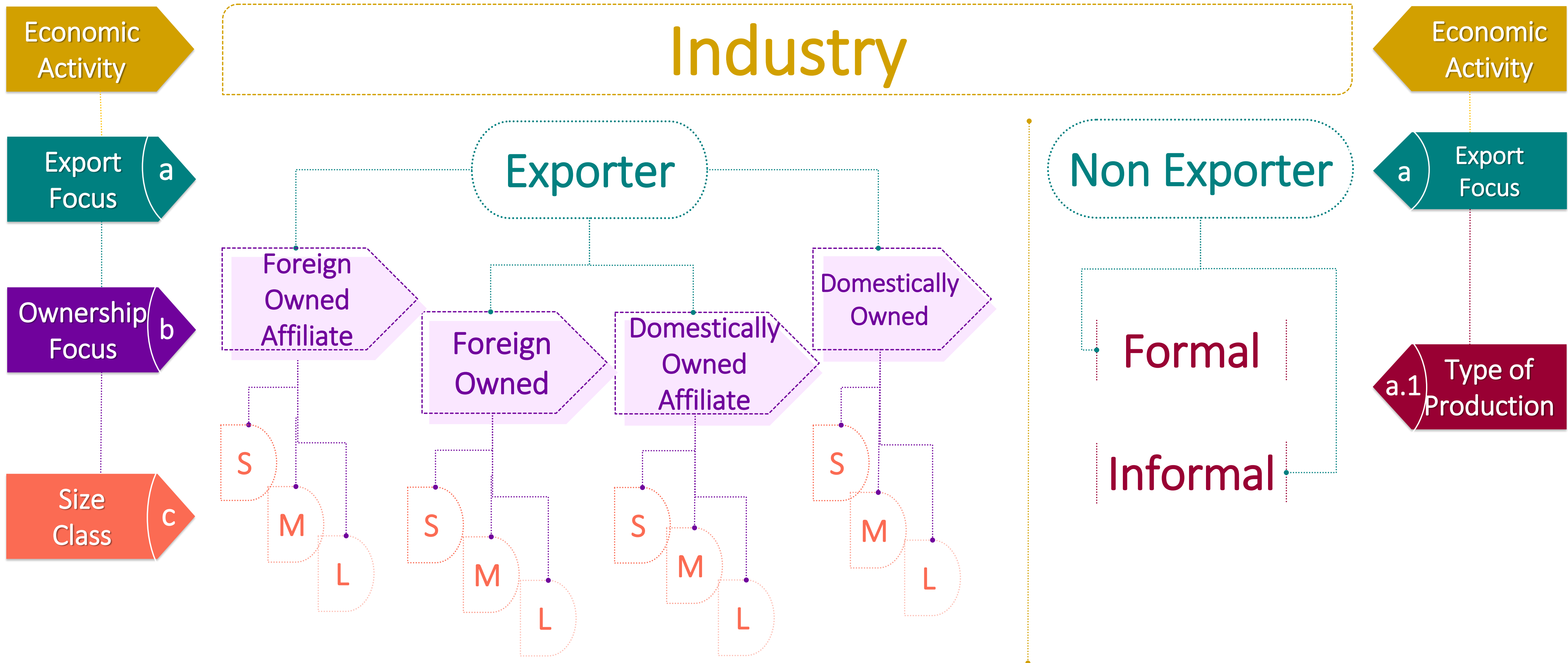


Construction of databases on exporting oriented firms.

In the case of Mexico we apply the OECD “Terms of Reference to construct ESUT” framework, so it is presented at the following level of optimal disaggregation:



Unit of measure: Establishment



How is the Exporter Focus integrated?

This profile is classified into two large groups:



Establishments that registered transactions of goods and / or services abroad and to the national territory.

Establishments that recorded transactions of goods and / or services in the national territory.

Non-Exporter breakdown. Type of Production

The economic units classified as “Non-Exporter” are grouped into the following two types of production:

Formal Sector

Integrated by incorporated economic units, whose operations are under the institutional legal framework (tax records, Bookkeeping, social security payments).

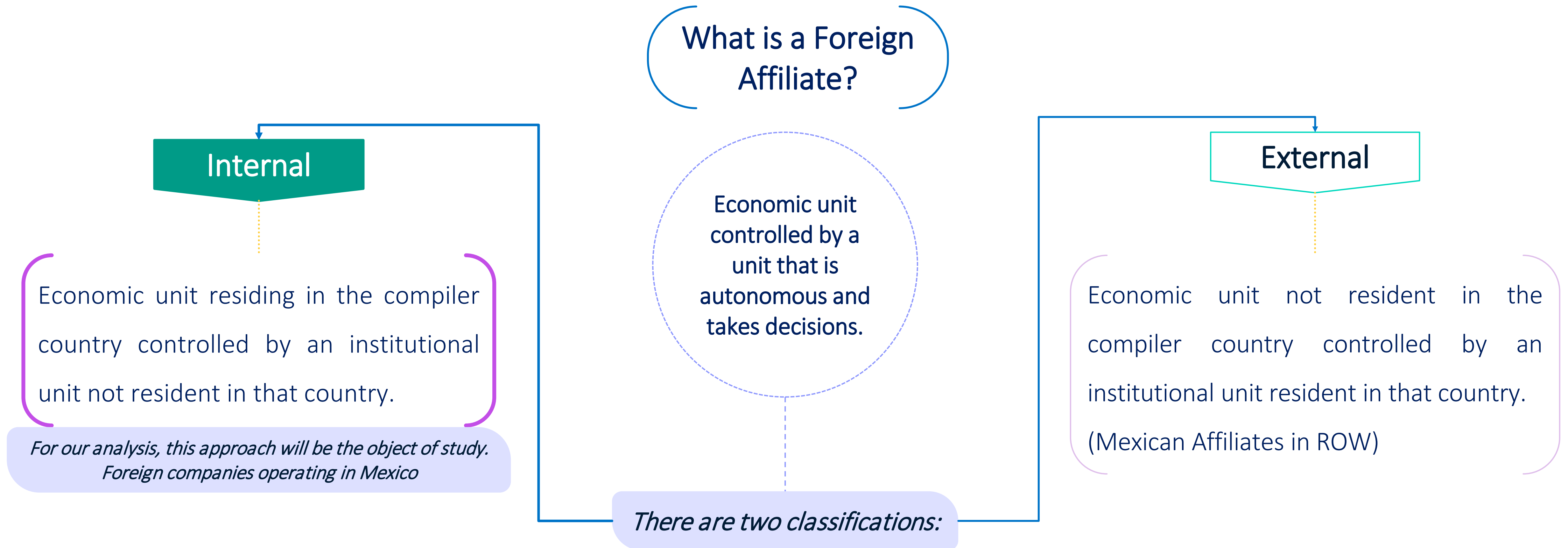


Informal Sector

Integrated by unincorporated economic units, mainly owned by households that do not cover at least one precept of the institutional legal framework:

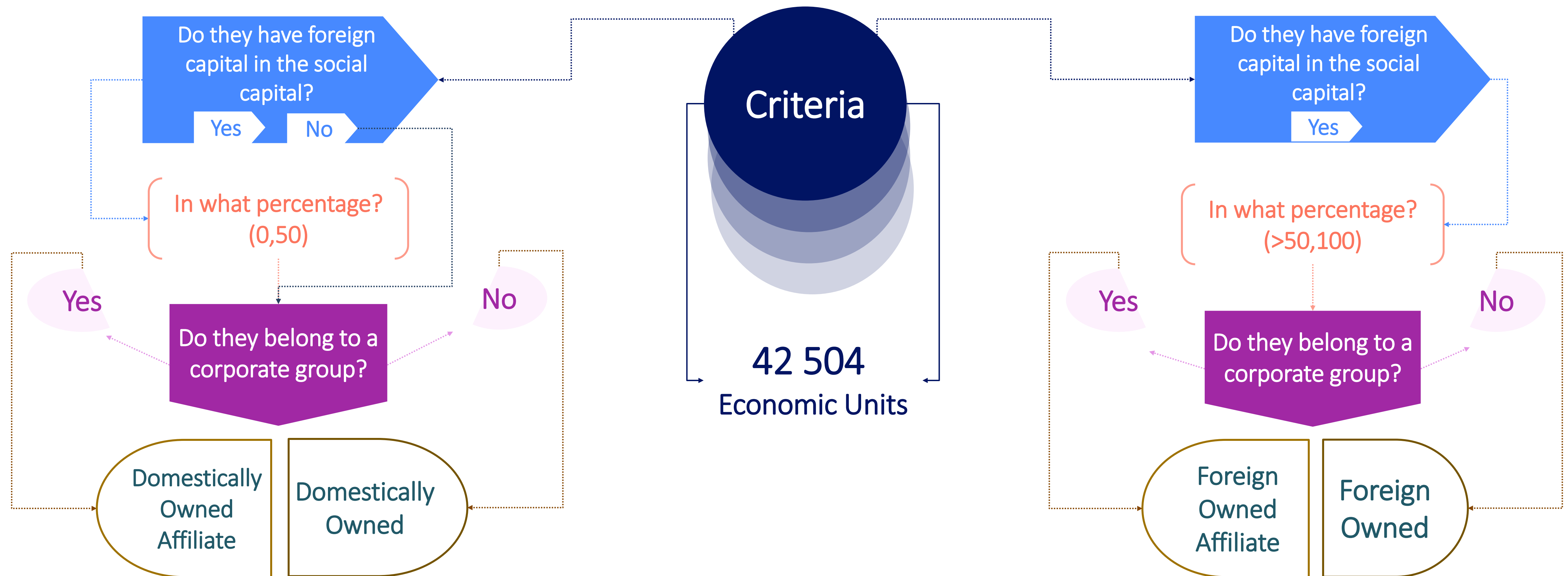
- Accounting records
- Benefits
- Federal taxpayer registration

How is the Ownership focus integrated?



Source: Eurostat, methodologies & working papers, 2009.

The available variables of the 2014 economic censuses enabled
the following characterizations:



How is the Size Class integrated?

General

Occupied Personnel
(POT)



1 to 50



51 to 250



250+1

Medium

23 940

Small

4 200 376

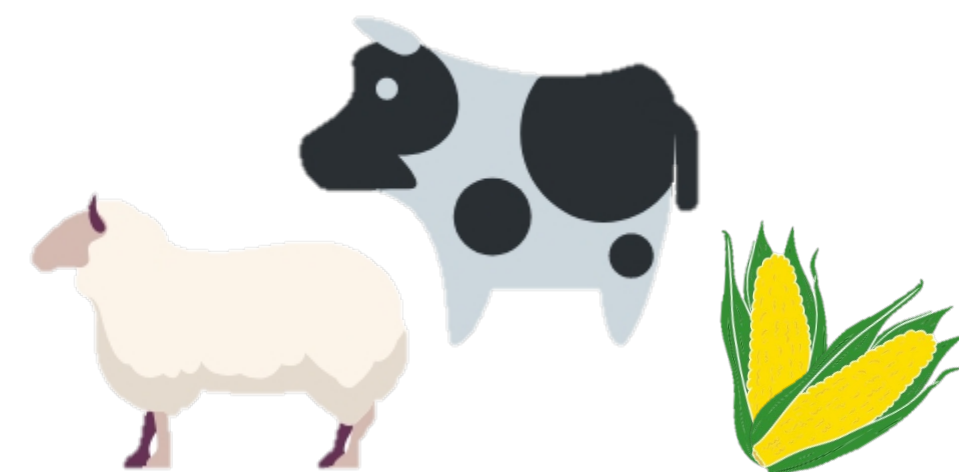
Large

5 549

Economic Units

4 229 865

Specific cases:



Specific

Private Sector and Parastatal

The distribution coefficients were calculated based on the share of the Census Gross Production Value by activity class and economic unit size.

Agricultural Sector

Complementary criteria were needed:

- Hectares for crops
- Cattle heads

Public Sector

The structure was made with the occupied personnel of the economic unit belonging to this sector of activity and size.

Extension outline

Supply Table

Activity		Total supply at purchasers' prices	Trade and transport margins			Taxes on products			Total supply (basic prices)					Activity									Imports C.I.F.	CIF/FOB adjustment on imports	Imports C.I.F. (Total F.O.B.)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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Use Table

Activity		Total use at purchasers' prices	Intermediate Demand										Final Demand								
			Total	E	FNE	INE	Goods and Services									Household consumption	General government	Gross fixed capital formation	Changes in inventories	Exports	Statistical Discrepancy
Sector 1							Sector 2			Sector 3											
E	FNE						INE	E	FNE	INE	E	FNE	INE								
Goods and Services	Sector 1																				
	Sector 2																				
	Sector 3																				
GVA																					
GDP																					

Supply

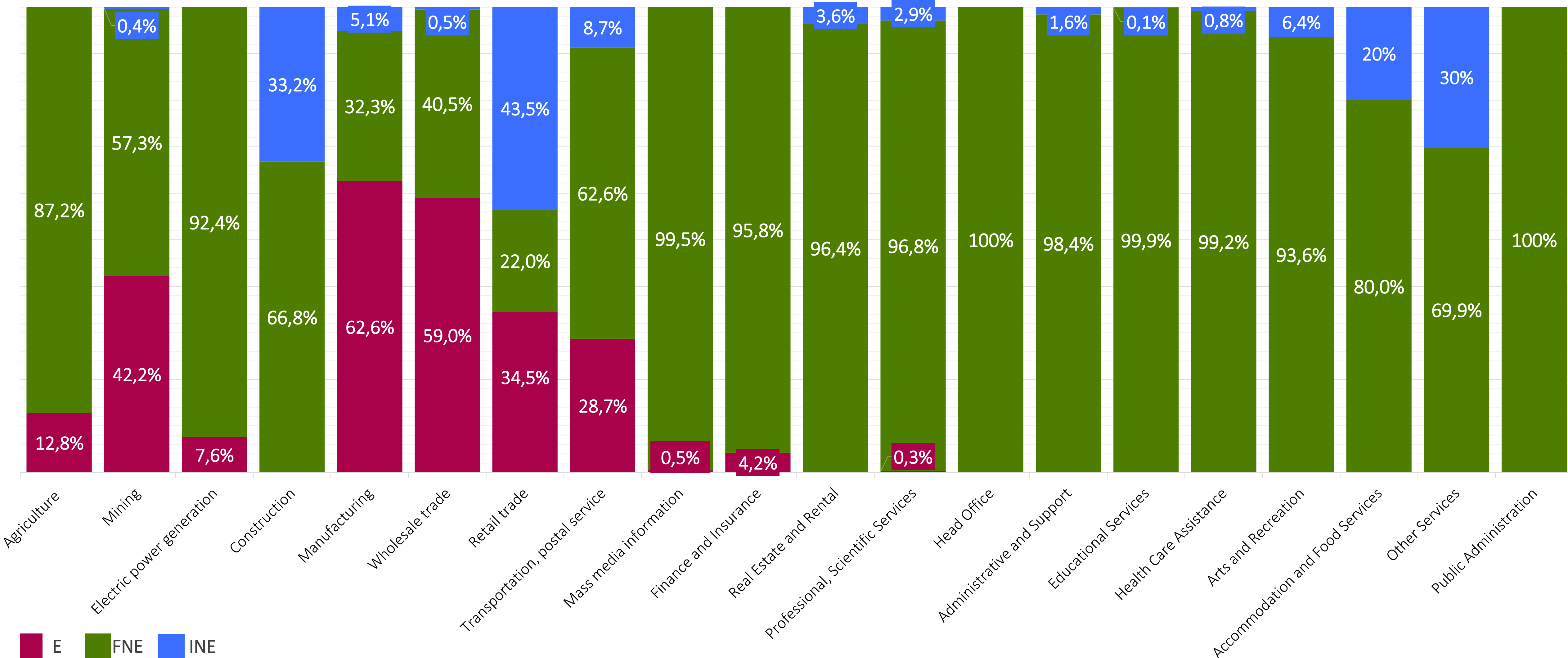
66 columns x
20 rows
1,320 cells

Use

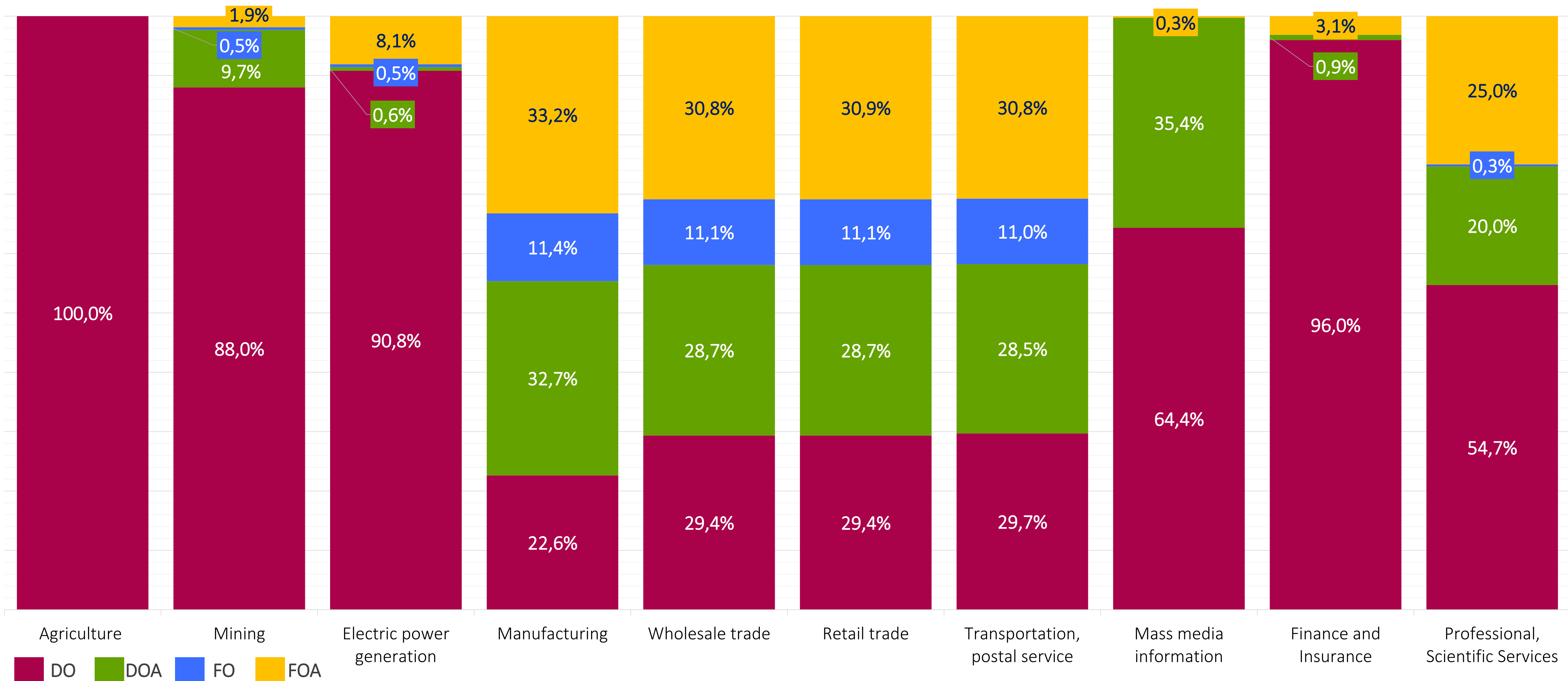
60 columns x
20 rows
1,200 cells

E: Exporter
NE: Non-Exporter
FNE: Formal Non-Exporter
INE: Informal Non-Exporter

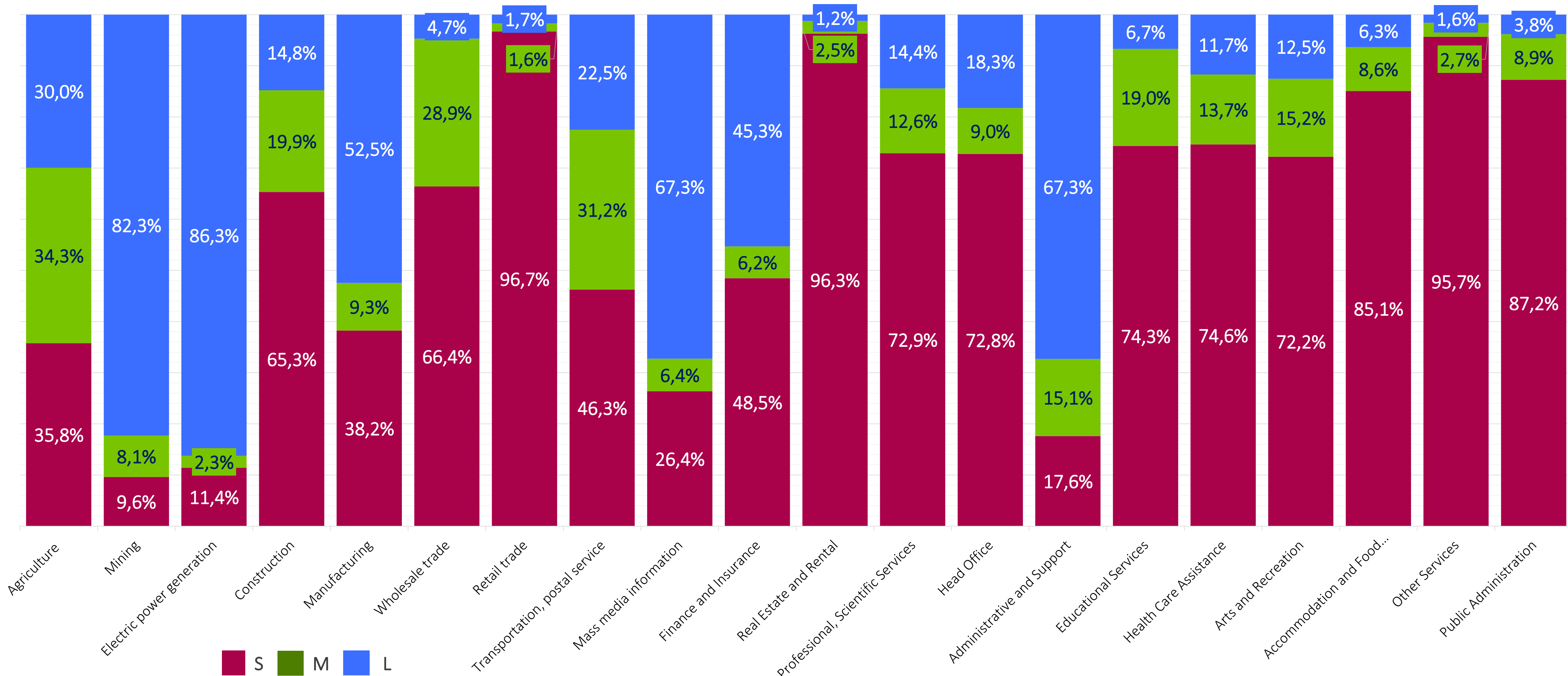
Supply. Behavior by Sector of activity (percentage)



Supply. Behavior by Sector of activity (percentage)



Supply. Behavior by Sector of activity (percentage)



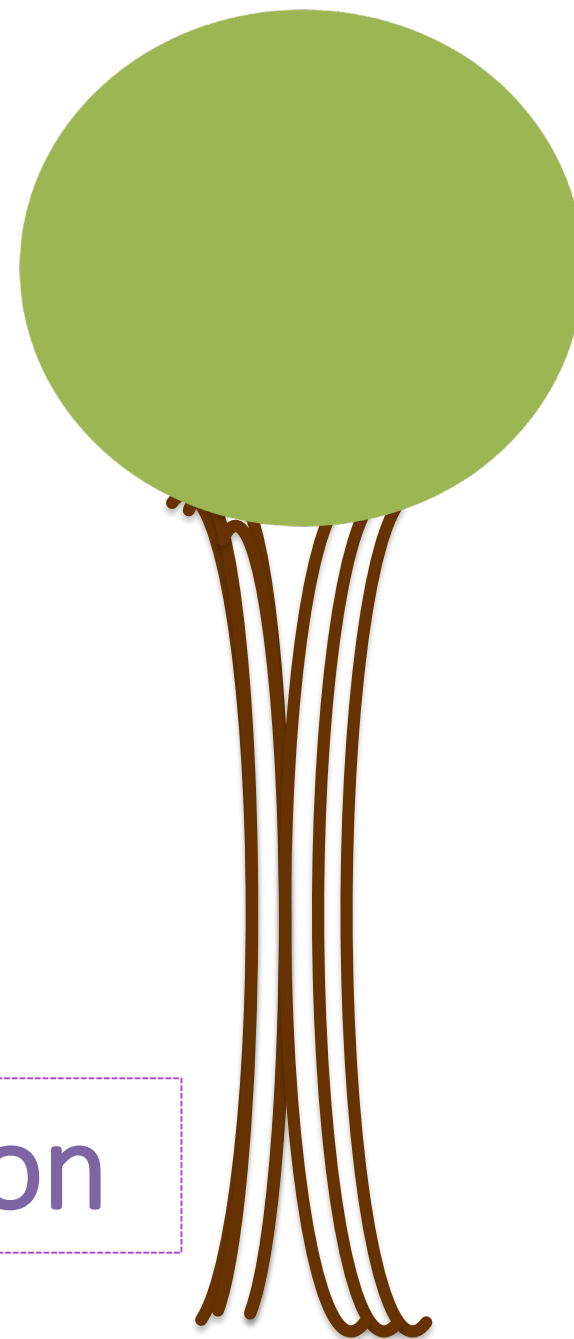


Value Added of Global Manufacturing Exports

DIASPORIZATION (FRAGMENTATION) OF PRODUCTION

Internationalization

Firm



- Take advantage of:
- Comparative advantages
 - Market Access
 - Registered trademark

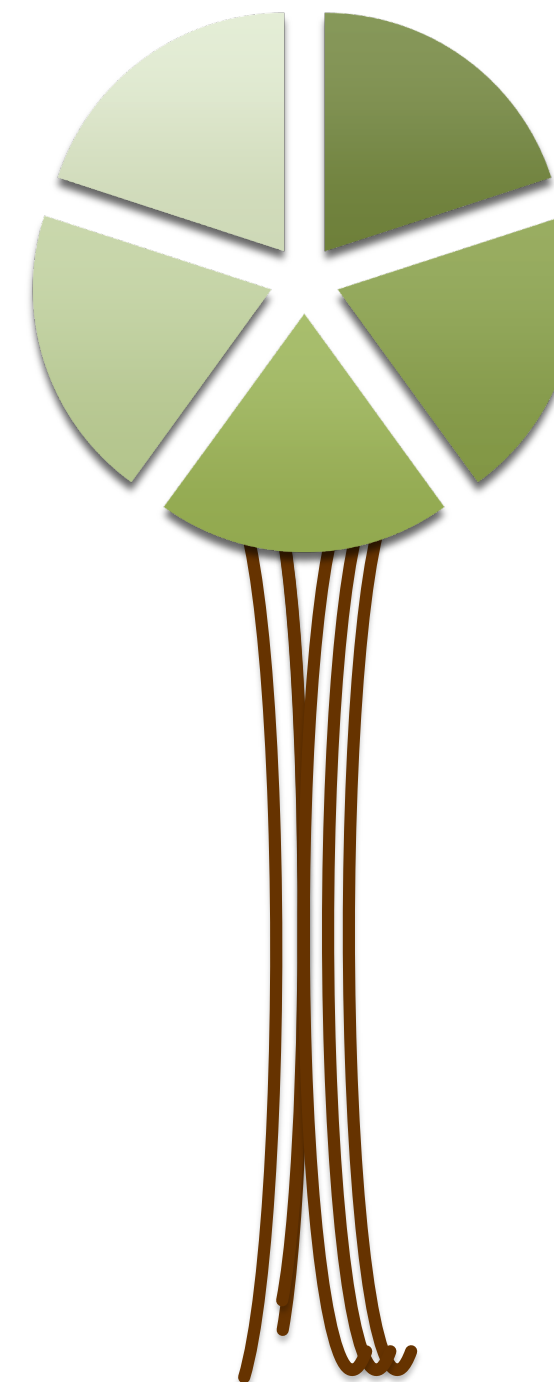


Worldwide product



Fragmentation

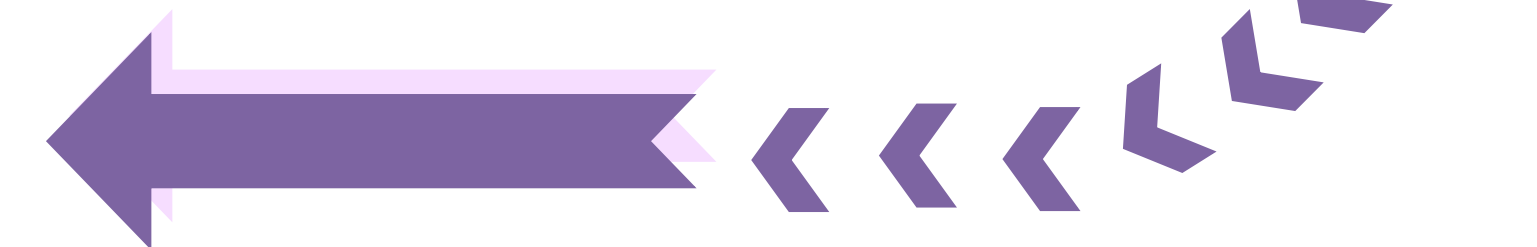
Subsidiaries/related



Scattered production



Integrate dispersed production



Fragment

Agreements

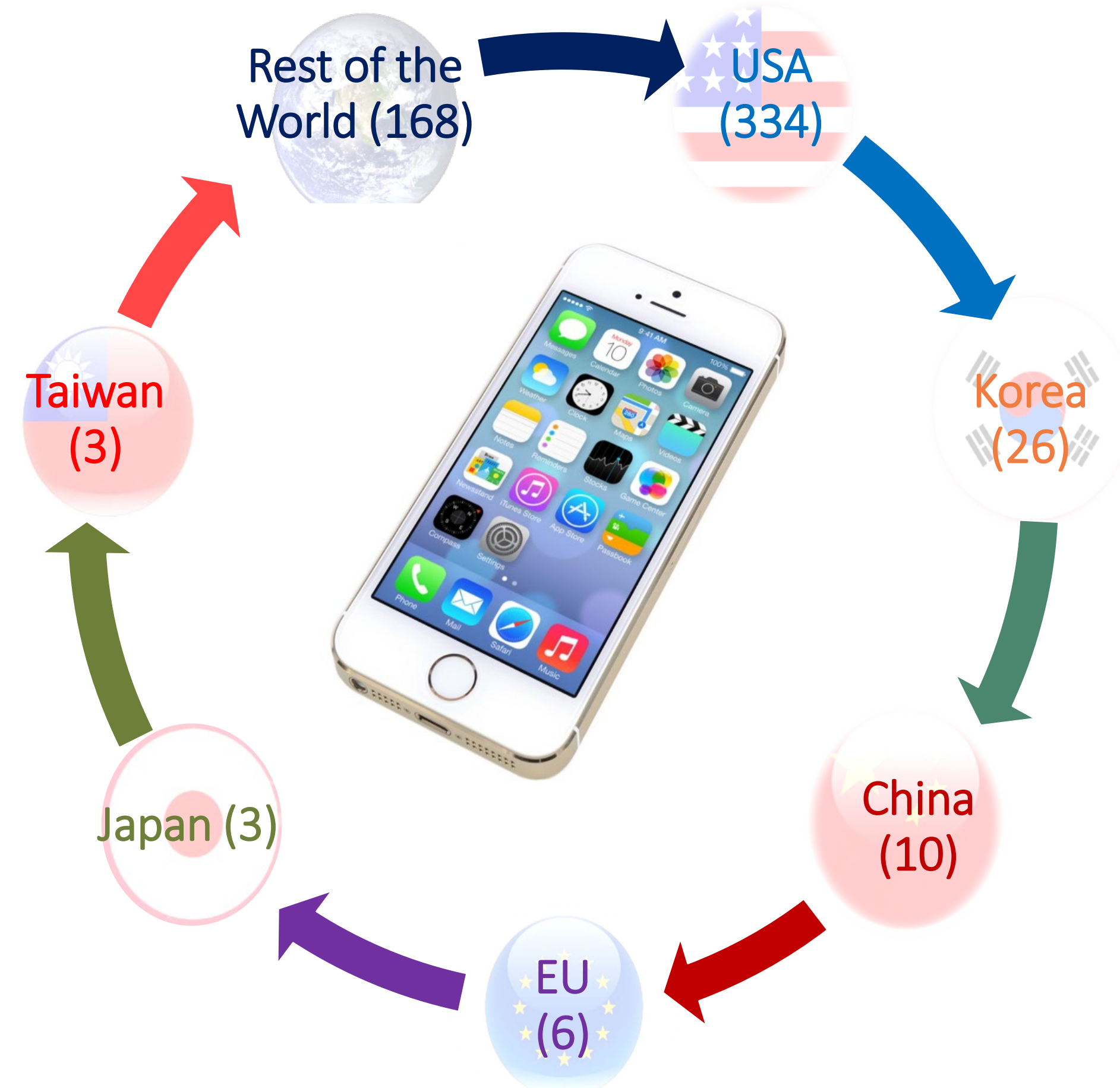


Globalization

fragmentation of production, example:

The fragmentation of production is clearer if we consider, for example, an iPhone.

Total cost: \$550 USD
Input cost: \$120 USD
Manufacturing value added: \$80 USD
Labour cost: \$29 USD
Design & MKTG (Apple): \$321 USD



Source: Kraemer Kenneth L., Linden Greg. & Jason Dedrick.(2011). “Capturing Value in Global Networks: Apple’s iPad and iPhone”

Conceptual Framework

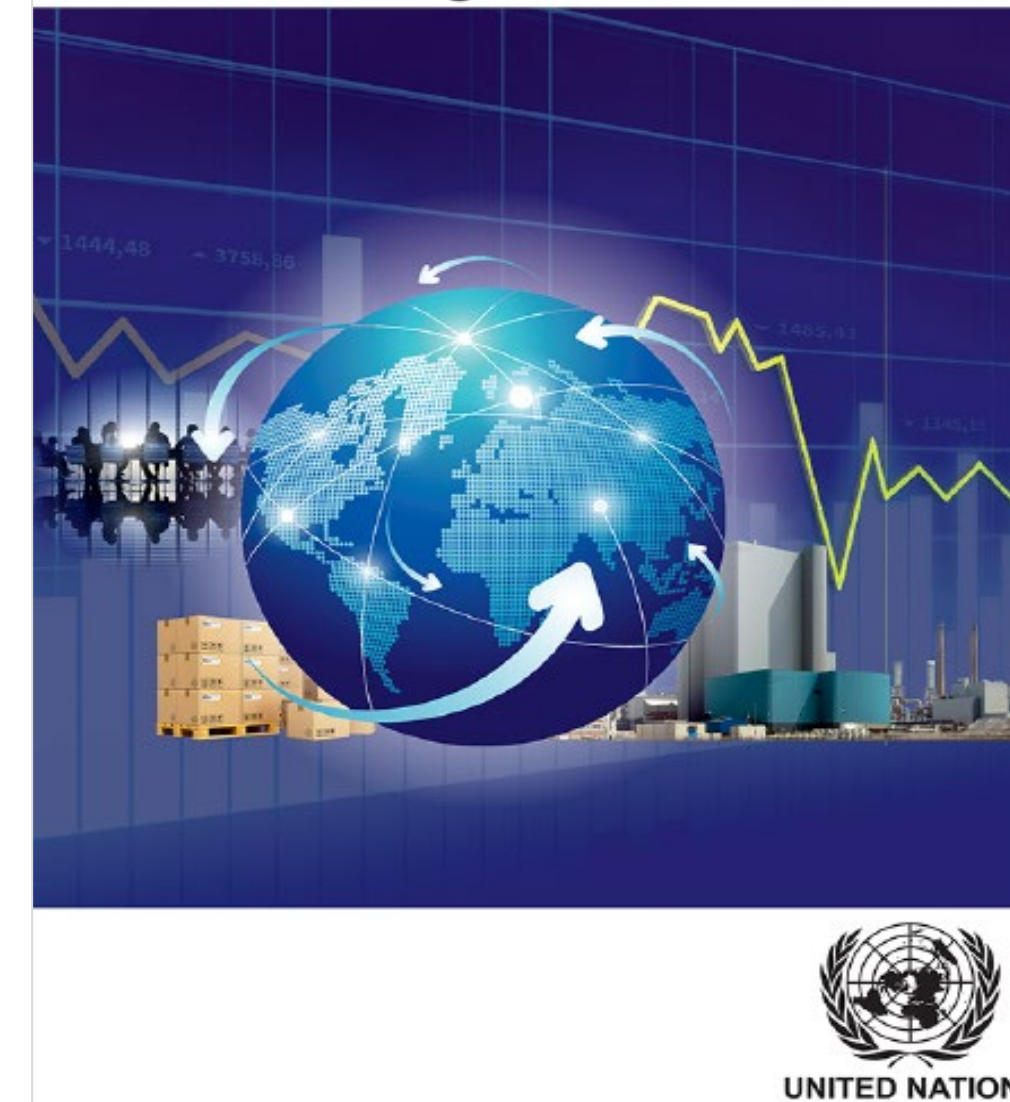
Sistema de Cuentas Nacionales 2008



Sistema de Clasificación Industrial de América del Norte, México SCIAN 2013



UNECE Guide to Measuring Global Production



TERMS OF REFERENCE (ToR)

Alignment assessment of industry programmes with the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas

September 2013 (revised 23 Sept)

BACKGROUND

After more than three years of implementation of the OECD Due Diligence Guidance on Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas¹ (hereafter the OECD Due Diligence Guidance), significant progress has been made:

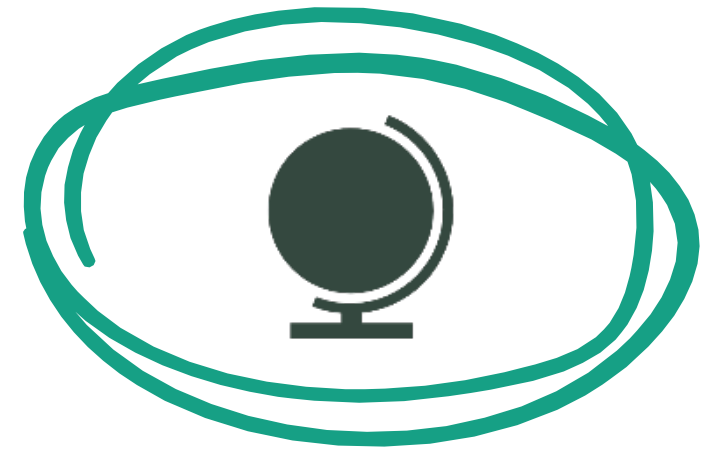
- Multiple industry programmes have been adopted, using the OECD Due Diligence Guidance as a benchmark, among others, the Conflict Free Smelter Initiative (CFSI), ITRI Tin Supply Chain Initiative (ITSCI), London Bullion Market Association (LBMA), Responsible Jewellery Council (RJC), Dubai Multi Commodities Centre (DMCC), Fairmined, Fairtrade as well as new programmes emerging from the China Chamber of Commerce for Metals, Minerals and Chemicals Importers & Exporters (CCCIMC).
- Increased coverage and roll-out of global tin, tungsten, tantalum (3T) and gold smelter/refiner audits:
 - 92% of tin produced in the Great Lakes region in 2014 was covered by ITSCI;
 - 45 of 46 global tantalum smelters are covered by the CFSI, 23 of 43 tungsten smelters and 38 of 80 tin smelters (as of March 2015);
 - 40% of gold refiners worldwide are covered by industry audit programmes covering more than 85% of gold refined annually.
- Existing audit programmes are increasingly collaborating and developing mutual recognition agreements horizontally (i.e. mutual recognition at smelter level, such as the CFSI/LBMA/RJC agreements and the RJC/DMCC agreement) and vertically (i.e. upstream and downstream recognition, such as the ITSCI/CFSI agreement and the CFSI/International Conference on the Great Lakes Region (ICGLR) agreement).

Three years down the line, it is now time to take stock of progress and focus on measures that can enhance coherence, effectiveness and credibility of the existing initiatives developed to operationalise the OECD Due Diligence Guidance, as well as addressing the persisting challenges that stakeholders are facing when implementing due diligence on the ground:

- The UN Group of Experts on the DRC, civil society and the media have continuously highlighted areas of risk where schemes may be strengthened or better aligned with international standards.
- Lacks of coverage and misunderstanding on approaches to artisanal gold production have yielded little progress in this area, as opposed to the 3T sector.
- Discussions with refiners and smelters about auditors not applying standards consistently have demonstrated the need for further training, capacity building and outreach in this area.
- The emergence of additional audit programs and systems, such as the DMCC programme or the developing CCCIMC project, show the need for global coherence of auditing schemes to avoid

¹ <http://www.oecd.org/inegi/>

Methodology: Criteria



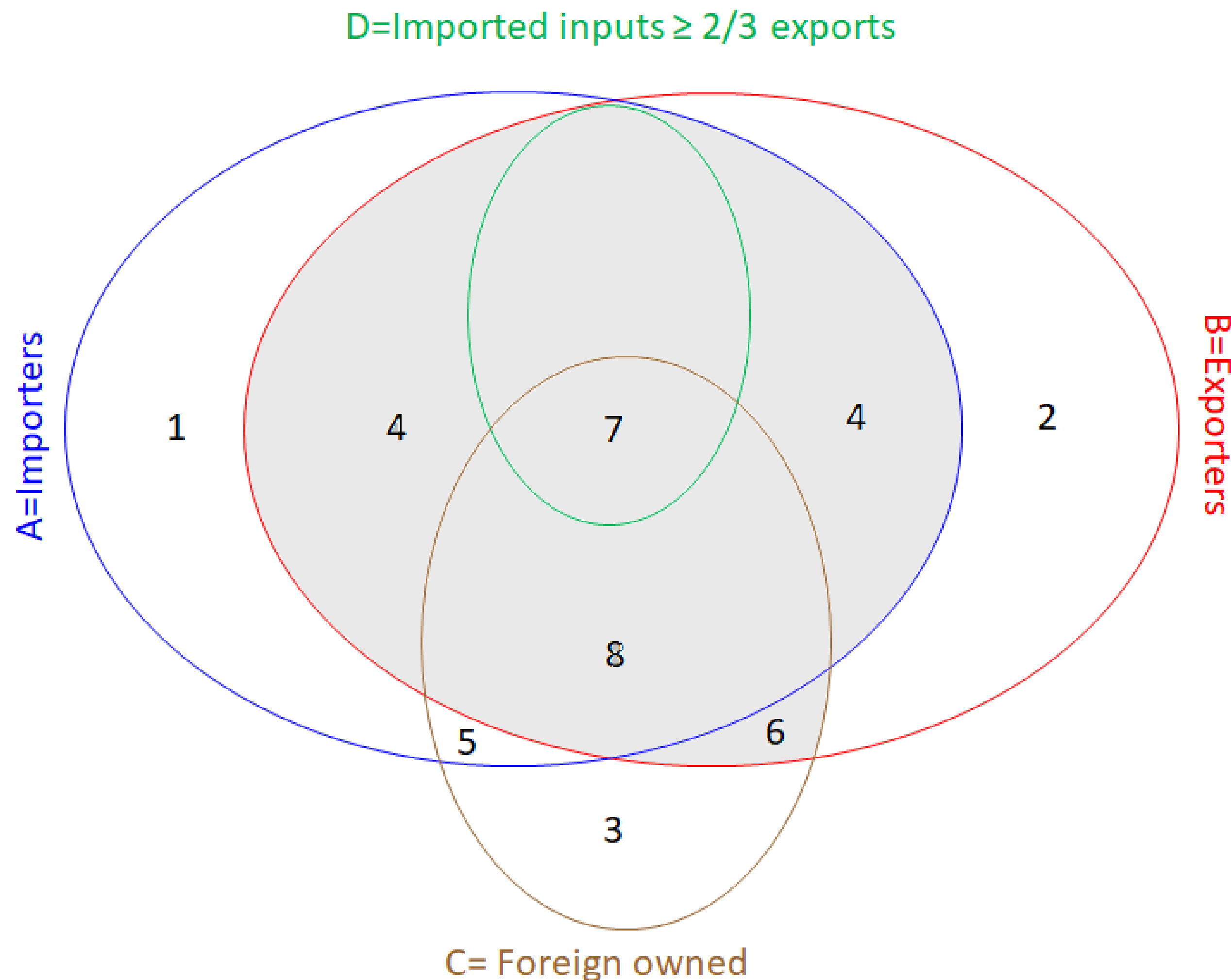
Characterize companies whose inputs come mainly from abroad and their production is exported (2/3 as a minimum proportion of their exports).



Locate companies that have a majority share of foreign capital, since they can be controlled by foreign parent companies and / or be obeying the interests of global value chains.



Identify mainly exporting companies (not considered in the previous two points), as well as the type of good of their exports, where intermediate goods are defined as part of the global value chains.



1= Importers for the domestic market

2=Exporters with national inputs (non-global)

3=Foreign owned but not manufacturers

4=Other exporters of intermediate inputs ($< 2/3$ of exports)

5=Foreign owned manufacturers that only import

6=Foreign owned manufacturers that only export

7=Foreign owned manufacturers with imported inputs $\geq 2/3$ exports

8=Foreign owned manufacturers with imported inputs $< 2/3$ exports

1

Analysis of the commercial transactions of the Administrative Records of Foreign Trade 2013.

2

Census Information Analysis to identify companies with foreign capital participation.

3

Linkage of Foreign Trade records to Economic Census and surveys to obtain the classification of export and import economic activities.

4

Application of the HS-NAICS correlation table to the Imports and Exports of goods by item.

5

Production Accounts and Matrix Tables of Exports and Imports of Global Manufactures

CINMG + VABMG

CINMG = Intermediate Consumption of Domestic Origin of Global Manufactures

VABMG = Gross Value Added of Global Manufactures

VAEMG

XMG - MMG

XMG = Exports of Global Manufactures

MMG = Imports of Global Manufactures

Indicators

Value Added of Global Manufacturing Exports as a share of Total Manufacturing Production



$$VAEMG_{(\%Pm)} = \left[\left(\frac{VAEMG}{Pm} \right) \right] * 100$$

Value Added of Global Manufacturing Exports as a share of Global Manufacturing Production



$$VAEMG_{(\%PMG)} = \left[\left(\frac{VAEMG}{PMG} \right) \right] * 100$$

Value Added of Global Manufacturing Exports by branch as a share of Total VAEMG



$$VAEMG_{i(\%VAEMG_T)} = \left[\left(\frac{VAEMG_i}{VAEMG_T} \right) \right] * 100$$

- Results presented at NAICS four-digit level (branch) in the base year.

INEGI. System of National Accounts of Mexico. Value Added of Global Manufacturing Exports. Base Year 2013
Supplementary supply and use tables. Global Manufactures / Supply

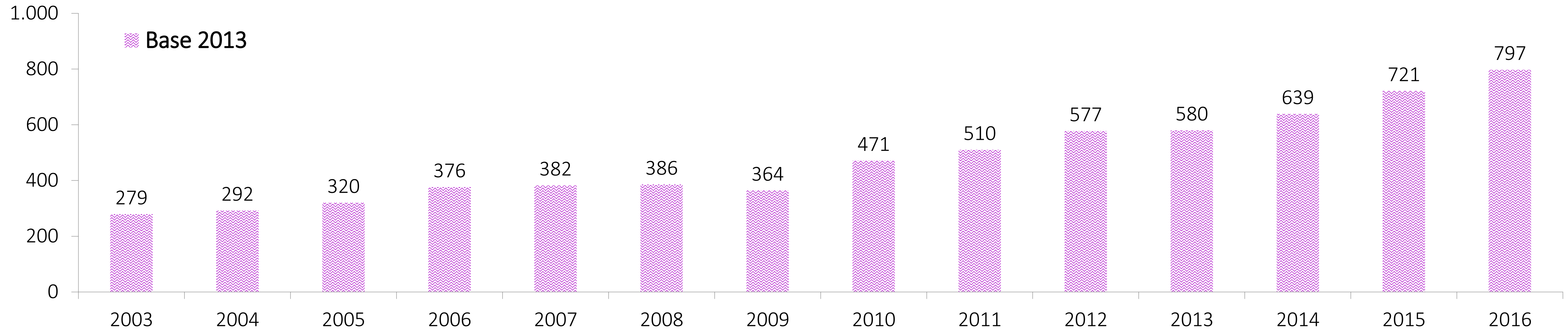
Concepto	Oferta total a precios de comprador	Márgenes de comercio y transporte	Impuestos sobre los productos, netos	Total	Clases de actividad productiva					Importaciones de bienes y servicios				
				Oferta total a precios básicos	11 Actividades primarias	21 - 33 Actividades Industriales	MG - Manufacturas Globales	43 - 93 Actividades de servicios	Total	Importaciones C.I.F.	Ajuste C.I.F./F.O.B.	Bienes y servicios de origen nacional para la producción manufacturera global	Importaciones al resto del mundo de la producción manufacturera global C.I.F. (Total FOB)	Resto de las importaciones C.I.F. (Total FOB)
11 Actividades primarias	1 265 642	345 327	6 074	914 242	769 189	1 252	9 302		779 742	134 500			8 152	126 348
21 - 33 Actividades Industriales	22 699 398	3 859 376	335 743	18 504 279	41 485	10 526 650	3 036 537	34 430	13 639 102	4 865 177			1 955 406	2 909 771
MG - Manufacturas Globales	6 002 866	462 795	1	5 540 071		3045838.78			3 045 839	2 494 232		524 309	1 969 923	
43 - 93 Actividades de servicios	9 478 880	- 4 204 703	292 751	13 390 832	37	84 580	404 288	12 734 899	13 223 804	167 028	- 124 614		6 364	285 278
Total	33 443 921	0	634 567	32 809 353	810 711	10 612 481	3 450 127	12 769 329	27 642 648	5 166 705	- 124 614		1 969 923	3 321 396
Ajuste C.I.F./F.O.B.	0	0	0	0					0		124 614			- 124 614
Compras de residentes en el extranjero	116 743	0	0	116 743					0	116 743				116743.315
Producción por actividad a precios básicos	33 560 664	0	634 567	32 926 097	810 711	10 612 481	3 450 127	12 769 329	27 642 648	5 283 449			1 969 923	3 313 526

INEGI. System of National Accounts of Mexico. Value Added of Global Manufacturing Exports. Base Year 2013
Supplementary supply and use tables. Global Manufactures / Supply

Concepto	Utilización total a precios básicos	Demanda intermedia					Demanda final						
		Total	11 Actividades primarias	21 - 33 Actividades Industriales	MG - Manufacturas Globales	43 - 93 Actividades de servicios	Total	Consumo Privado	Consumo de gobierno	Formación bruta de capital fijo	Variación de existencias	Exportaciones manufactureras globales F. O. B.	Resto de las exportaciones F. O. B.
11 Actividades primarias	1 265 642	718 556	86 361	601 465	22 266	8 463	547 087	354 447	0	14 406	37 865	9 302	131 067
21 - 33 Actividades Industriales	22 699 398	8 730 419	205 220	4 664 062	2 362 511	1 498 626	13 968 979	5 643 570	12 064	3 422 267	164 121	3 440 825	1 286 131
MG - Manufacturas Globales	6 002 866	2 552 739	0	2 552 739	2 552 739	0	3 450 127	0	0	0	0	3 450 127	0
43 - 93 Actividades de servicios	9 478 880	2 551 054	8 223	654 742	167 962	1 720 126	6 927 826	4 882 653	1 973 991	22 630	0	0	48 552
Total de Usos a precios comprador	33 443 921	12 000 028	299 805	5 920 269	2 552 739	3 227 215	21 443 892	10 880 670	1 986 054	3 459 304	201 987	3 450 127	1 465 751
Importaciones C.I.F. para la producción manufacturera global	0	1 969 923	0	1 969 923	1 969 923	0	0	0	0	0	0	0	0
Bienes y servicios de origen nacional para la producción manufacturera global	0	582 816	0	582 816	582 816	0	0	0	0	0	0	0	0
Valor agregado bruto a precios básicos		15 642 620	510 906	4 692 212	493 100	9 946 402							
Producción total por actividad a precios básicos		27 642 648	810 711	10 612 481	3 450 127	12 769 329							
Valor agregado de exportación de la manufactura global		1 480 204		1 075 916	1 075 916	404 288							
Total de otras columnas							21 560 636	10 819 251	1 984 415	3 459 304	201 987	3 450 127	1 645 552

Sector 31-33 Manufacturing Industries

Value of the Domestic Intermediate Consumption (Billions at Current Prices)



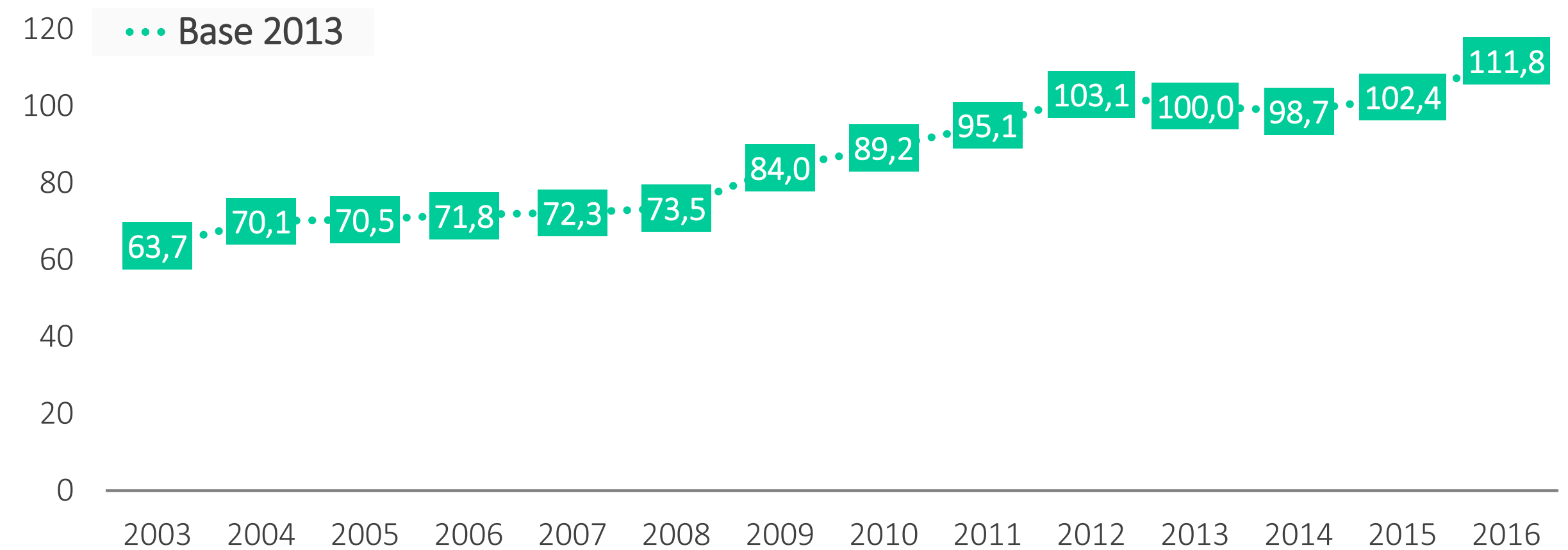
Sector 31-33 Manufacturing Industries

Value of the Domestic Intermediate Consumption of Global Manufacturing Production (Annual Percentage Variations Constant Values)



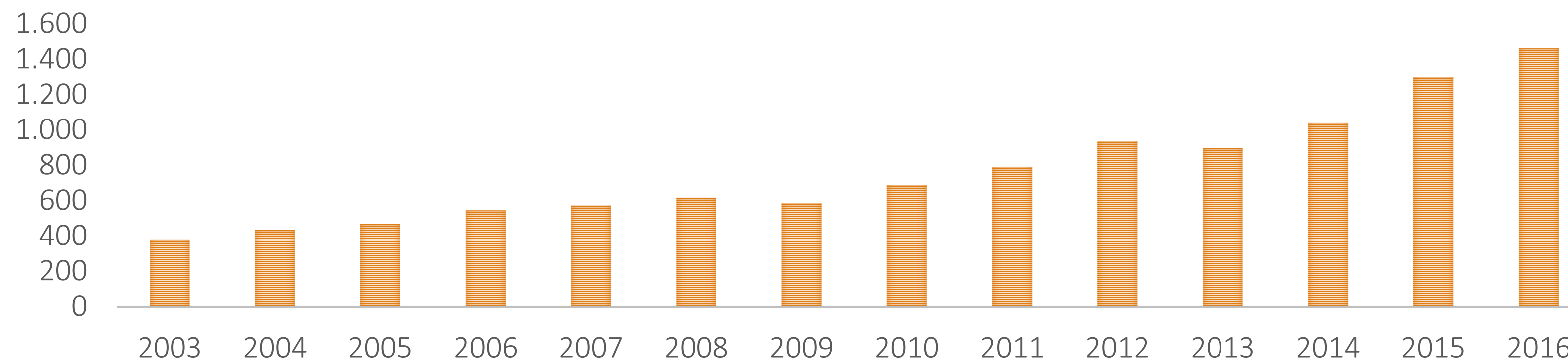
Sector 31-33 Manufacturing Industries

Value of the Domestic Intermediate Consumption of Global Manufacturing Production (Implicit Price Indices)

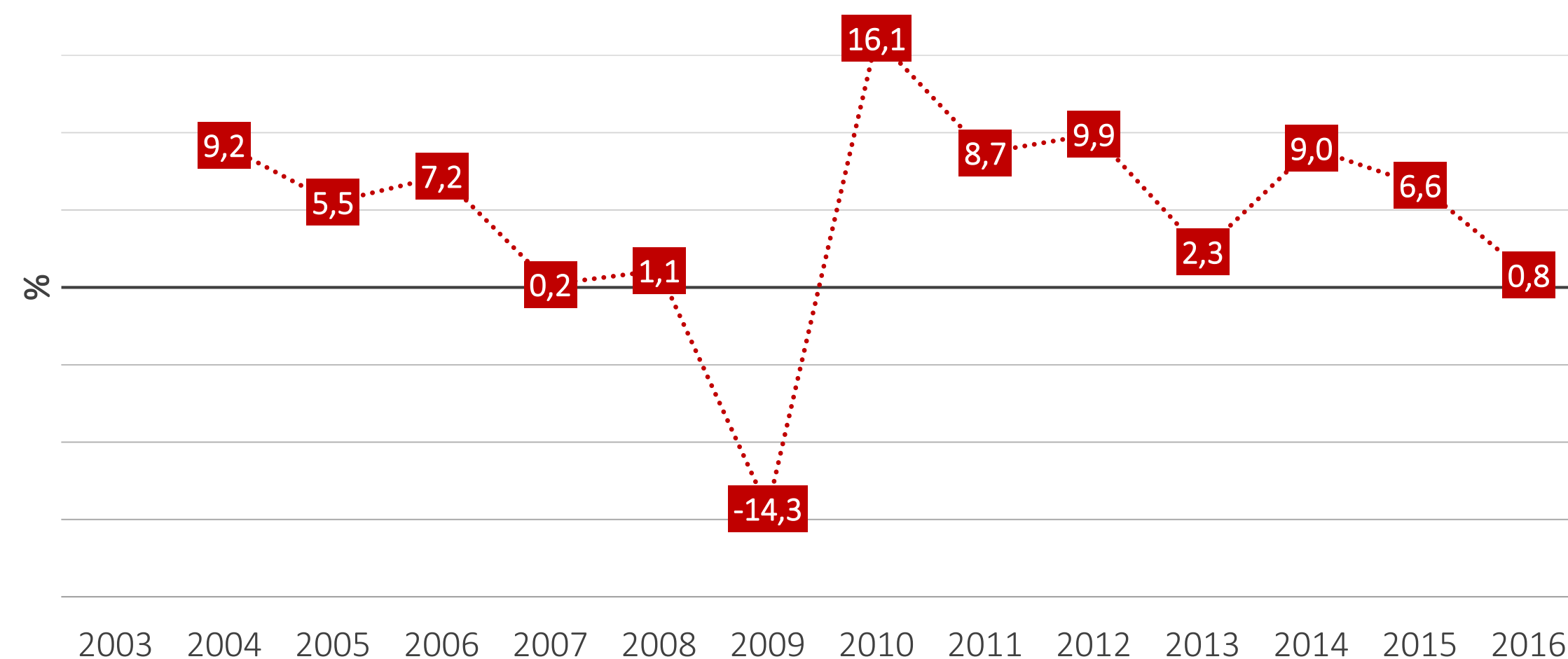


Sector 31-33 Manufacturing Industries

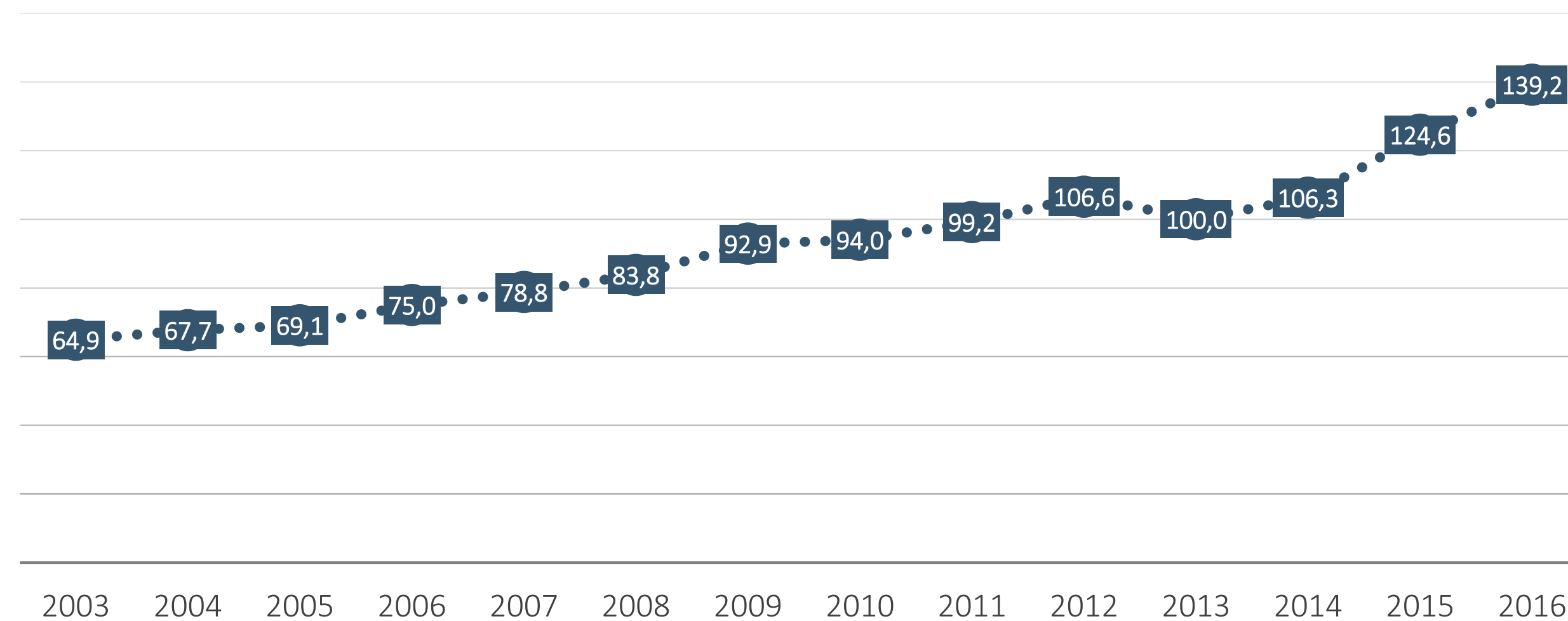
Gross Value Added (Billions At Current Prices / Base 2013)



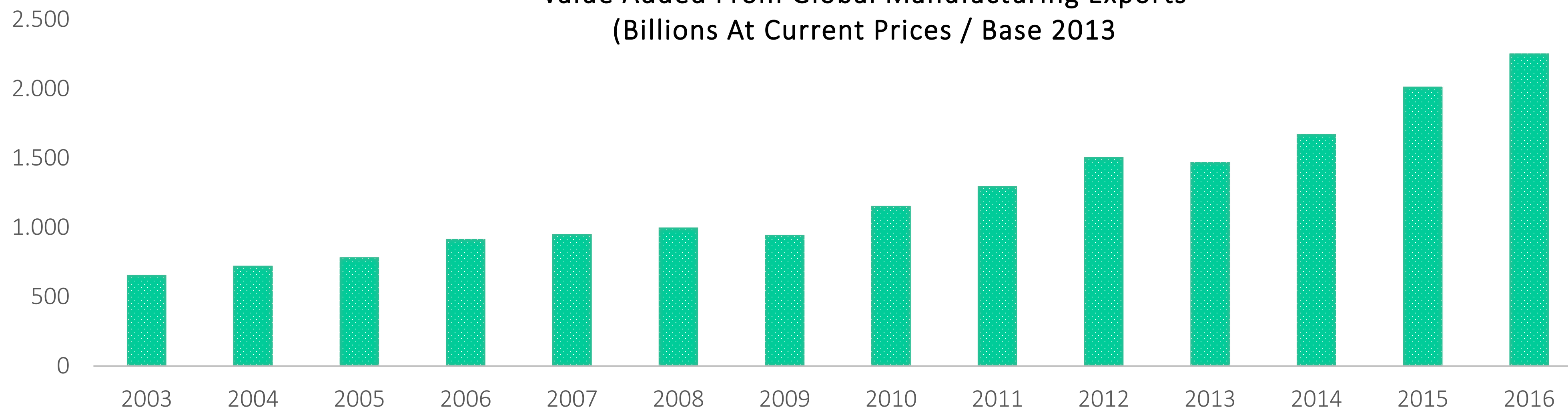
Annual Percentage Variations Constant Values



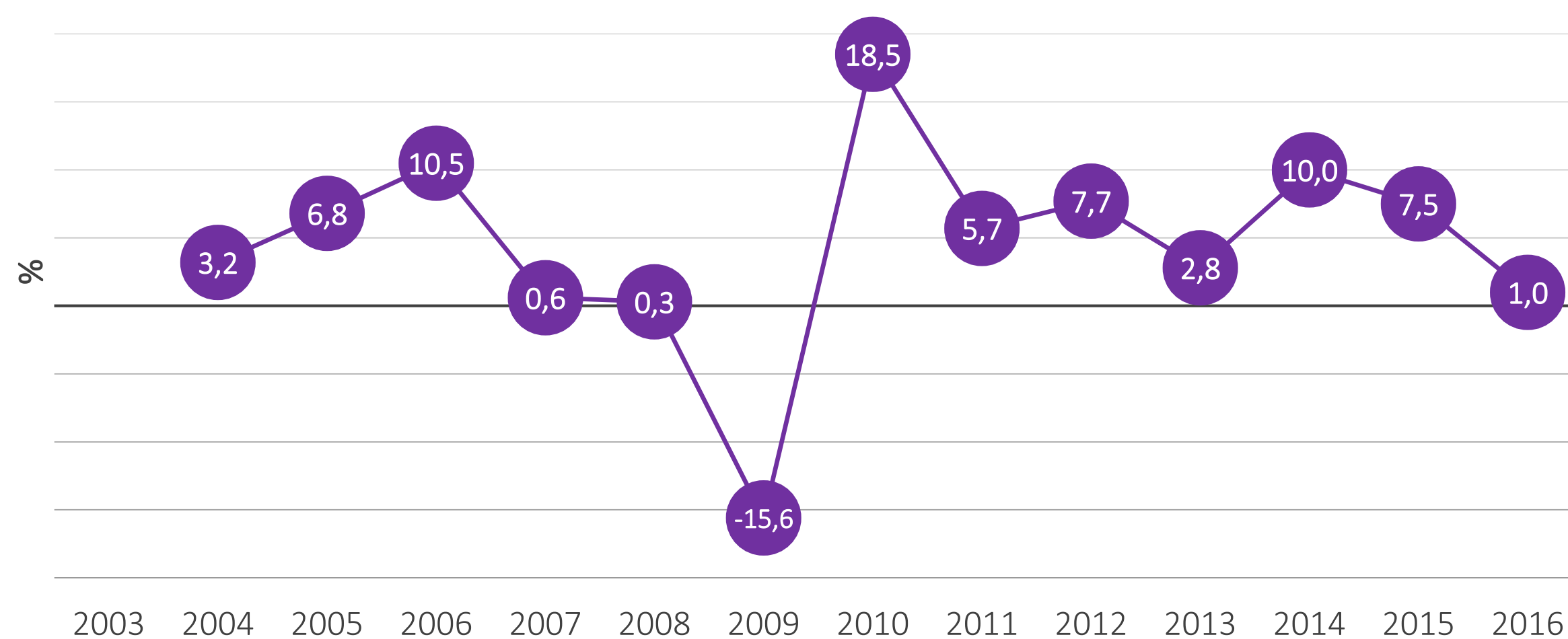
Implicit Price Indices



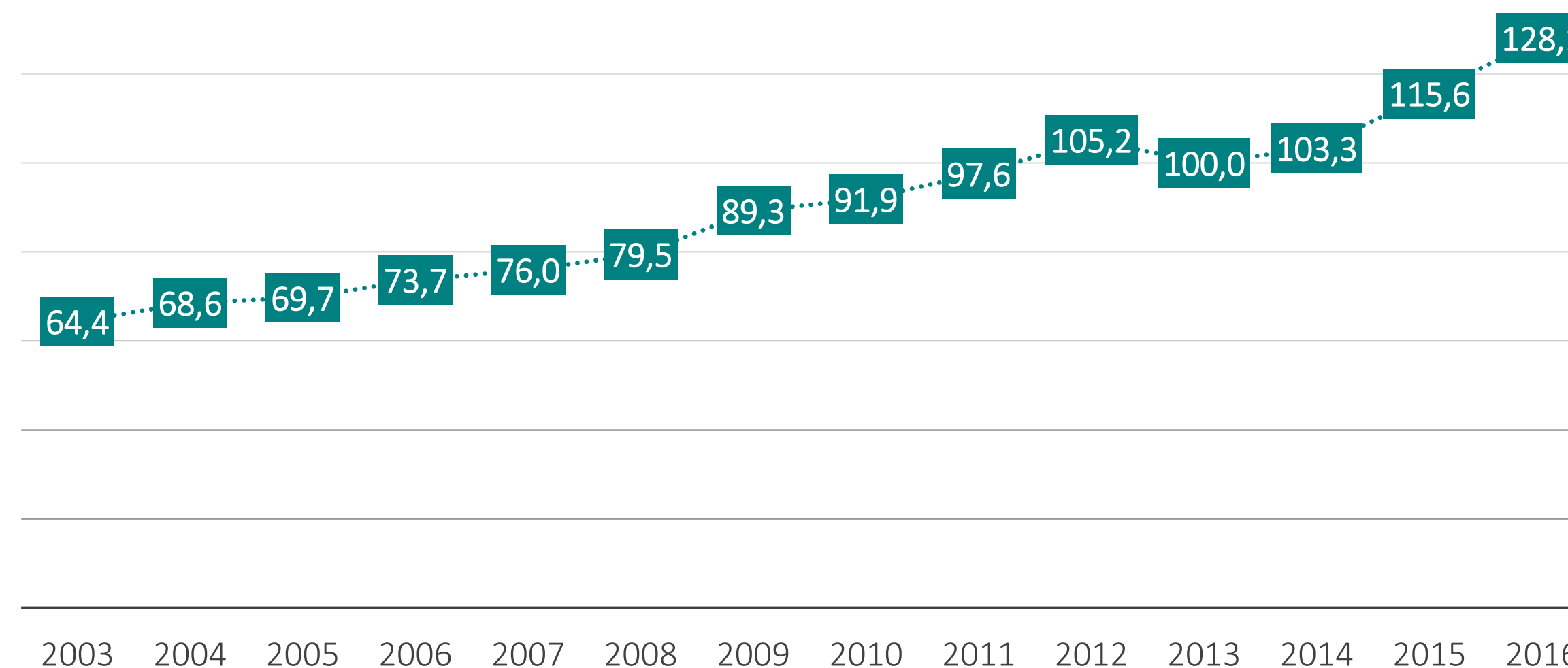
Sector 31-33 Manufacturing Industries Value Added From Global Manufacturing Exports (Billions At Current Prices / Base 2013)



Annual Percentage Variations Constant Values



Implicit Price Indices



Knowing Mexico

01 800 111 46 34

www.inegi.org.mx

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INEGI Informa

Exporter Focus

Activity	Supply Table								
	Supply Bp				Imports C.I.F.	Trade and transport margins		Taxes on products	
	Total supply at Bp	Exporter	Formal Non Exporter	Informal Non Exporter		Exporter	Non- Exporter	Exporter	Non- Exporter
Primary activities	779.7	113.6	666.1	0.0	134.5	42.2	303.1	0.3	5.8
Secondary activities	13,639.1	6,677.6	5,767.3	1,194.2	4,865.2	1,996.1	1,863.3	233.4	102.4
Tertiary activities	13,223.8	2,086.7	9,846.7	1,290.3	167.0	-2,038.3	-2,166.4	16.5	276.2
Total	27,642.6	8,878.0	16,280.2	2,484.5	5,166.7	0.0	0.0	250.2	384.4

Supply Pp = Use Pp	Use				
Supply Pp = Use Pp	Intermediate Demand				Final Demand
	Total Intermediate Demand Bp	Exporter	Formal Non Exporter	Informal Non Exporter	
1,265.6	718.6	206.1	377.1	135.4	547.1
22,699.4	8,730.4	4,306.0	3,914.9	509.5	13,969.0
9,478.9	2,551.1	711.8	1,766.4	72.9	6,927.8
33,443.9	12,000.0	5,223.9	6,058.3	717.8	21,443.9

Ownership Focus

Activity	Supply													
	Supply Bp							Imports C.I.F.	Trade and transport margins			Taxes on products		
	Total supply at Bp	Rest of the economy	Total of Exporting Economic Units	Domestically Owned	Domestically Owned Affiliate	Foreign Owned	Foreign Owned Affiliate		Total TM	Rest of the economy	Total of Exporting Economic Units	Total Taxes	Rest of the economy	Total of Exporting Economic Units
Primary activities	779.7	666.1	113.6	109.0	2.1	0.5	2.1	134.5	345.3	303.1	42.2	6.1	5.8	0.3
Secondary activities	13,639.1	6,961.5	6,677.6	1,938.1	2,032.2	690.8	2,016.5	4,865.2	3,859.4	1,863.3	1,996.1	335.7	102.4	233.4
Tertiary activities	13,223.8	11,137.1	2,086.7	640.3	587.7	226.5	632.2	167.0	-4,204.7	-2,166.4	-2,038.3	292.8	276.2	16.5
Total	27,642.6	18,764.7	8,878.0	2,687.4	2,622.0	917.8	2,650.8	5,166.7	0.0	0.0	0.0	634.6	384.4	250.2

Activity	Supply Pp = Use Pp	Use							
	Supply Pp = Use Pp	Intermediate Demand							Final Demand
		Total Intermediate Demand Bp	Rest of the economy	Total of Exporting Economic Units	Domestically Owned	Domestically Owned Affiliate	Foreign Owned	Foreign Owned Affiliate	
Primary activities	1,265.6	718.6	512.5	206.1	67.2	113.0	6.9	19.0	547.1
Secondary activities	22,699.4	8,730.4	4,424.4	4,306.0	1,033.2	1,325.7	503.1	1,444.0	13,969.0
Tertiary activities	9,478.9	2,551.1	1,839.2	711.8	235.9	179.3	76.0	220.7	6,927.8
Total	33,443.9	12,000.0	6,776.1	5,223.9	1,336.3	1,617.9	586.0	1,683.7	21,443.9

Size Class

Activity	Supply						
	Production				Imports C.I.F.	Trade and transport margins	Taxes on products
	Total supply at Bp	Small	Medium	Large			
Primary activities	779.7	278.9	267.2	233.6	134.5	345.3	6.1
Secondary activities	13,639.1	5,257.4	1,446.9	6,934.8	4,865.2	3,859.4	335.7
Tertiary activities	13,223.8	9,500.1	1,703.5	2,020.2	167.0	-4,204.7	292.8
Total	27,642.6	15,036.4	3,417.6	9,188.7	5,166.7	0.0	634.6

Activity	Supply Pp = Use Pp	Use				
	Supply Pp = Use Pp	Intermediate Demand				Final Demand
		Total Intermediate Demand Bp	Small	Medium	Large	
Primary activities	1,265.6	718.6	481.8	99.3	137.4	547.1
Secondary activities	22,699.4	8,730.4	3,442.8	1,044.1	4,243.5	13,969.0
Tertiary activities	9,478.9	2,551.1	1,495.3	344.8	711.0	6,927.8
Total	33,443.9	12,000.0	5,419.9	1,488.2	5,091.9	21,443.9