



European
Commission



EU Trade in CO₂ Emissions

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EU Trade in CO₂ Emissions

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INTRODUCTION

The European Commission identified trade policy as a core component of the European Union's 2020 Strategy. The fast changing global economy, characterised by the dynamic creation of business opportunities and increasingly complex production chains, means that it is now even more important to fully understand how global value chains affect CO₂ emissions. Gathering comprehensive, reliable and comparable information on this is crucial to support evidence-based policymaking.

Guided by that objective, the European Commission's Joint Research Centre (JRC) has produced this publication. It aims to be a valuable tool for trade policymakers.

The report features a series of indicators to illustrate in detail the EU CO₂ emissions dependence on the final demand of each EU Member State, and the CO₂ emissions in each Member State depending on the EU final demand. This is done using the World Input-Output Database (WIOD), 2016 release, as the main data source. This information has been complemented with data on CO₂ emissions from other sources such as the EU Science Hub of the European Commission (Corsatea et al. 2019). Besides, indicators have been also included to account for the inter-dependence between the EU and other world economies.

Indicators cover the period 2000-2014. The geographical breakdown of the data includes the 28 EU Member States, Australia, Brazil, Canada, China, India, Indonesia, Japan, Mexico, Norway, Russia, South Korea, Switzerland, Turkey, Taiwan, the United States of America, and an aggregate "Rest of the World" region.

The information presented in this pocketbook is complemented with a software tool for analyses of global value chains, trade, income and employment. This tool enables a more detailed analysis of the different indicators related to global value chains and includes additional data management and visualization options.

ABBREVIATIONS AND GLOSSARY

Country abbreviations

European Union Member States

EU	The 28 Member States of the European Union
AT	Austria
BE	Belgium
BG	Bulgaria
CY	Cyprus
CZ	Czech Republic
DE	Germany
DK	Denmark
EE	Estonia
EL	Greece
ES	Spain
FI	Finland
FR	France
HR	Croatia
HU	Hungary
IE	Ireland
IT	Italy
LT	Lithuania
LU	Luxembourg
LV	Latvia
MT	Malta
NL	Netherlands
PL	Poland
PT	Portugal
RO	Romania
SE	Sweden
SI	Slovenia
SK	Slovakia
UK	United Kingdom

Trading partners

Non-EU	Non EU countries
AU	Australia
BR	Brazil
CA	Canada
CH	Switzerland
CN	China
ID	Indonesia
IN	India
JP	Japan

KR	South Korea
MX	Mexico
NO	Norway
RU	Russia
TR	Turkey
TW	Taiwan
US	United States of America
RW	Rest of the World

Sector abbreviations

P	primary
M	manufacturing
S	services

Industry abbreviations

P	primary
M1	food, beverages, tobacco
M2	textiles
M3	wood, paper, printing
M4	energy
M5	chemicals
M6	other non-metallic and basic metals
M7	machinery and transport equipment
S1	transport, trade and business services
S2	other services.

Industry classification

NACE Rev. 2	Sector	Industry
Crop and animal production	P	P
Forestry and logging	P	P
Fishing and aquaculture	P	P
Mining and quarrying	P	P
Manufacture of food, beverages and tobacco	M	M1
Manufacture of textiles, wearing apparel	M	M2
Manufacture of wood and of products	M	M3
Manufacture of paper and paper products	M	M3
Printing and reproduction of recorded media	M	M3
Manufacture of coke and refined petroleum	M	M4
Manufacture of chemicals	M	M5
Manufacture of basic pharmaceuticals	M	M5
Manufacture of rubber and plastic products	M	M6
Manufacture of other non-metallic mineral	M	M6
Manufacture of basic metals	M	M6

NACE Rev. 2	Sector	Industry
Manufacture of fabricated metals	M	M6
Manufacture of computer, electronic and optical	M	M7
Manufacture of electrical equipment	M	M7
Manufacture of machinery and equipment n.e.c.	M	M7
Manufacture of motor vehicles	M	M7
Manufacture of other transport equipment	M	M7
Manufacture of furniture; other manufacturing	M	M7
Repair and installation of machinery	M	M7
Electricity, gas, steam and air conditioning supply	M	M4
Water collection, treatment and supply	M	M4
Sewerage; waste collection, treatment and disposal	M	M4
Construction	S	S2
Wholesale and retail trade and repair of vehicles	S	S1
Wholesale trade, except motor vehicles	S	S1
Retail trade, except of motor vehicles	S	S1
Land transport and transport via pipelines	S	S1
Water transport	S	S1
Air transport	S	S1
Warehousing and support activities for transportation	S	S1
Postal and courier activities	S	S1
Accommodation and food service activities	S	S2
Publishing activities	S	S1
Motion picture, video and television programmes	S	S1
Telecommunications	S	S1
Computer programming; information services	S	S1
Financial service activities, except insurances	S	S1
Insurance, reinsurance and pension funding	S	S1
Activities auxiliary to financial services	S	S1
Real estate activities	S	S2
Legal and accounting; management consultancy	S	S1
Architectural and engineering activities	S	S1
Scientific research and development	S	S1
Advertising and market research	S	S1
Other professional, scientific and technical activities	S	S1
Administrative and support service activities	S	S1
Public administration and defence; social security	S	S2
Education	S	S2
Human health and social work activities	S	S2
Other service activities	S	S2
Activities of households as employers	S	S2
Activities of extraterritorial organizations	S	S2

Unit of measurement

m	million (10 ⁶)
bn	billion (10 ⁹)
EUR	euro
tCO ₂	metric tonnes of carbon dioxide

Glossary

Domestic footprint: CO₂ emissions in a given country that are embodied in its own final demand.

Employment: number of people engaged in production activities, including employees and self-employed.

Foreign footprint: CO₂ emissions in other countries that are embodied in the final demand of a given country.

Industry: economic branch of activity gathering firms and/or production plants producing the same good or service as their main activity.

Sector: group of industries.

Value added: income calculated as the sum of labour compensation and return on capital. It can refer to a given industry or to an economy as a whole and when computed at national level is sometimes used as a proxy of Gross Domestic Product (GDP).

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HOW TO READ THIS REPORT

This report is organised as follows:

- Introduction
- Abbreviations and glossary
- How to read this report
- A. Indicators by EU Member State
- B. Indicators by trading partner
- C. Indicators by industry or sector
- D. Indicator by final destination
- E. Country factsheets
- Data sources and methodology

Sections A to D show all the indicators related to the (EU and Non-EU) CO₂ emissions generated by (EU and Non-EU) final demand. We suggest using Figures 1 and 2 for an overview of all the inter-linkages across tables.

As shown in Figure 1, all tables pivot around Tables A.4 (EU effects) and B.2 (Non-EU effects). They both show where the effects take place (rows) and which country is driving those effects (columns). As a result, each element of the Table A.4 reports the CO₂ emissions in a given Member State (row *i*) generated due to the final demand of a Member State (column *j*). All other tables split these results by trading partner, industries, sectors and final destination. Besides, tables C.5 and C.10 show the same results but focusing on the industry breakdown and removing the country dimension.

For instance, in order to know how much CO₂ emissions in Spain is generated by EU final demand, one should look at Table A.2. Contrarily, if one is interested in the CO₂ emissions generated by the Spanish final demand, then one should look at the Tables A.1 and A.5. The former informs about the CO₂ emissions generated in the EU due to the Spanish final demand, and the latter about the CO₂ emissions generated outside the EU due to the Spanish final demand. This information is summed in Table A.6, which gives the total CO₂ emissions embodied in the final demand of each Member State.

In addition, Figure 2 shows that Table A.7 depicts how much CO₂ emissions in Spain is generated by non-EU final demand.

Section E contains factsheets for each Member State, drawing on the information from sections A to D.

Finally, the last section describes the data sources and the methodology used for the calculations.

Figure 1

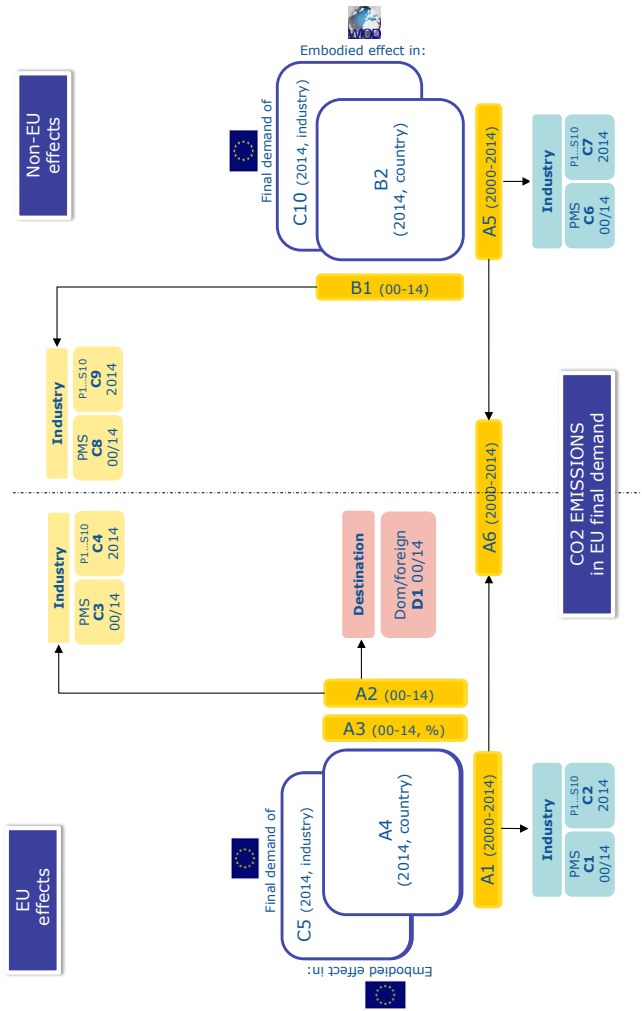
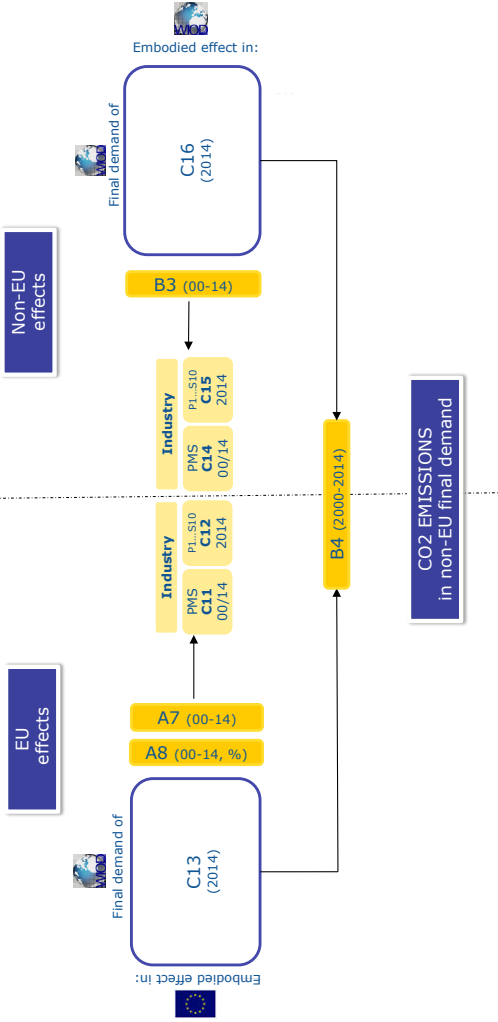


Figure 2



A. By EU Member State

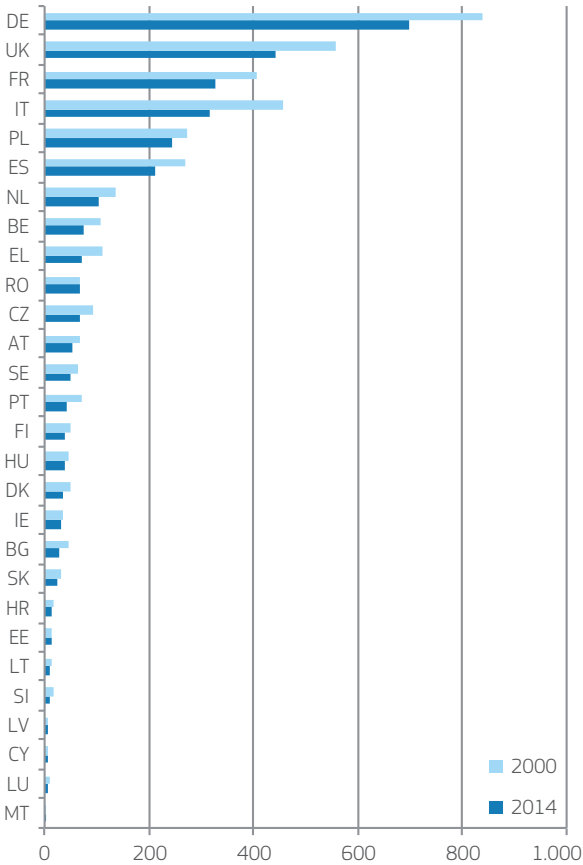
A.1. EU CO₂ emissions embodied in the final demand of each Member State (2000, 2007, 2014; m tCO₂)

	2000	2007	2014	2014 - 2000	2014 / 2000
AT	69	69	54	-15	-22.0%
BE	107	97	76	-30	-28.5%
BG	45	42	29	-16	-35.0%
CY	6	9	6	0	1.3%
CZ	93	94	67	-26	-27.8%
DE	837	715	698	-140	-16.7%
DK	48	48	35	-13	-27.9%
EE	12	14	13	0	1.6%
EL	109	115	72	-38	-34.4%
ES	270	337	213	-58	-21.3%
FI	49	57	38	-11	-21.6%
FR	408	401	327	-80	-19.7%
HR	16	21	15	-1	-8.7%
HU	48	52	38	-10	-21.3%
IE	36	45	33	-3	-8.8%
IT	458	462	315	-144	-31.3%
LT	12	15	11	-2	-13.2%
LU	9	11	5	-3	-38.0%
LV	7	11	8	0	1.3%
MT	3	3	2	-1	-25.9%
NL	137	135	102	-34	-25.2%
PL	272	278	243	-29	-10.6%
PT	72	62	43	-29	-40.3%
RO	69	88	67	-2	-2.8%
SE	64	61	48	-15	-23.8%
SI	17	15	10	-7	-39.1%
SK	32	28	24	-8	-26.2%
UK	556	562	442	-114	-20.4%
EU	3,860	3,848	3,032	-827	-21.4%

CO₂ emissions including those emitted directly by households

In 2014, 698m tCO₂ emitted in the whole EU were embodied in German final demand.

A.1. EU CO₂ emissions embodied in the final demand of each Member State (2000, 2014; m tCO₂)



Between 2000 and 2014, CO₂ emissions embodied in EU final demand decreased by 827m tCO₂ (-21%), to reach a total of 3,032m tCO₂. The reduction in total EU CO₂ emissions embodied in EU final demand was led by the final demand of Italy (-144m tCO₂), Germany (-140m tCO₂), the UK (-114m tCO₂), France (-80m tCO₂) and Spain (-58m tCO₂). In 2014, 23% of the EU CO₂ emissions embodied in EU final demand was driven by the final demand of Germany (698m tCO₂), 15% was due to the final demand of the UK (442m tCO₂), 11% by French final demand (327m tCO₂) and 10% by Italian final demand (315m tCO₂).

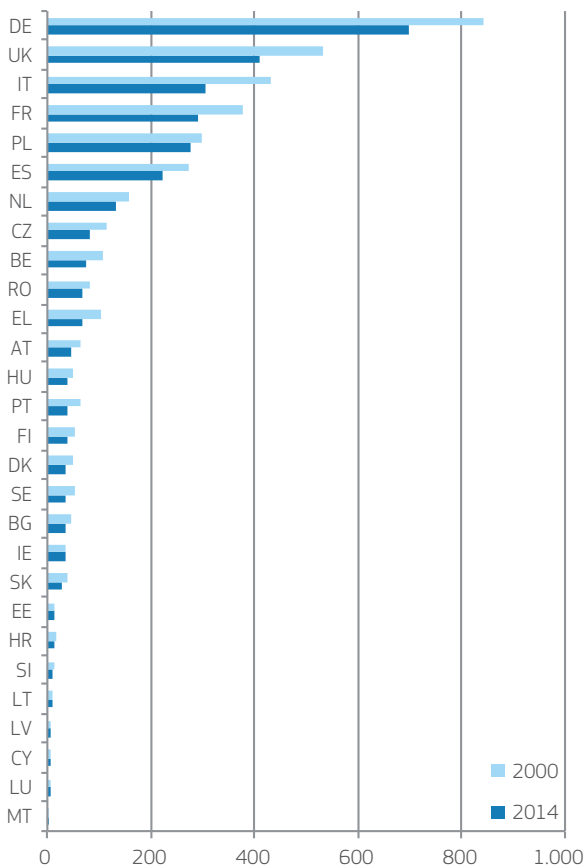
A.2. EU CO₂ emissions by Member State embodied in EU final demand (2000, 2007, 2014; m tCO₂)

	2000	2007	2014	2014 - 2000	2014 / 2000
AT	63	63	45	-17	-28.0%
BE	109	96	74	-35	-32.2%
BG	46	49	36	-10	-22.2%
CY	6	8	6	-1	-9.3%
CZ	115	117	81	-34	-29.9%
DE	843	758	700	-144	-17.0%
DK	50	51	36	-14	-28.8%
EE	13	17	15	2	12.5%
EL	105	110	68	-37	-35.3%
ES	274	331	222	-52	-18.9%
FI	54	61	38	-16	-28.9%
FR	378	358	291	-87	-23.0%
HR	16	20	14	-1	-8.4%
HU	51	54	40	-11	-21.2%
IE	37	40	35	-2	-5.6%
IT	433	439	304	-129	-29.8%
LT	11	14	11	0	-1.5%
LU	8	11	5	-2	-30.7%
LV	7	8	7	0	-3.7%
MT	3	3	3	0	2.7%
NL	157	152	132	-25	-15.7%
PL	299	311	278	-22	-7.2%
PT	63	58	40	-23	-36.5%
RO	82	90	69	-13	-15.7%
SE	54	46	36	-19	-34.3%
SI	14	15	11	-3	-19.6%
SK	37	35	27	-10	-27.3%
UK	531	532	409	-122	-23.0%
EU	3,860	3,848	3,032	-827	-21.4%

CO₂ emissions including those emitted directly by households

In 2014, 291m tCO₂ emitted in France were embodied in the final demand of the whole EU.

A.2. EU CO₂ emissions by Member State embodied in EU final demand (2000, 2014; m tCO₂)



Between 2000 and 2014, EU CO₂ emissions embodied in EU final demand decreased by 827m tCO₂ (-21%), to reach a total of 3,032m tCO₂. Most of the reduction was in Germany (-144m tCO₂), Italy (-129m tCO₂), the UK (-122m tCO₂), France (-87m tCO₂) and Spain (-52m tCO₂). In 2014, 700m tCO₂ emitted in Germany were embodied in the final demand of the whole EU (23% of total EU CO₂ emissions embodied in EU final demand), 409m tCO₂ emitted in the UK (13%), 304m tCO₂ emitted in Italy (10%), 291m tCO₂ emitted in France (10%) and 278m tCO₂ emitted in Poland (9%).

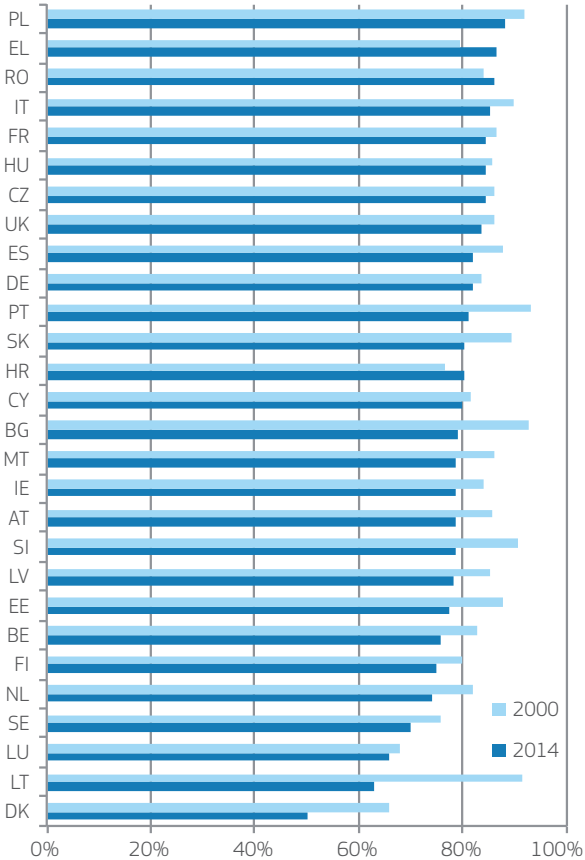
A.3. EU CO₂ emissions by Member State embodied in EU final demand as a percentage of total CO₂ emissions (2000, 2007, 2014; %)

	2000	2007	2014
AT	85.6%	80.0%	78.5%
BE	82.7%	80.7%	75.7%
BG	92.5%	82.8%	79.1%
CY	81.7%	90.7%	79.9%
CZ	86.0%	86.6%	84.2%
DE	83.5%	78.9%	81.8%
DK	65.6%	50.3%	50.0%
EE	87.9%	84.0%	77.6%
EL	79.6%	77.1%	86.4%
ES	87.8%	88.3%	82.1%
FI	79.9%	76.8%	74.9%
FR	86.5%	86.5%	84.3%
HR	76.5%	78.6%	80.1%
HU	85.7%	88.8%	84.2%
IE	84.0%	84.9%	78.6%
IT	89.6%	88.0%	85.4%
LT	91.6%	84.1%	62.9%
LU	68.0%	76.6%	66.0%
LV	85.1%	81.5%	78.2%
MT	86.0%	80.0%	78.6%
NL	82.0%	79.6%	74.0%
PL	91.8%	90.6%	88.0%
PT	93.2%	89.6%	81.2%
RO	83.9%	85.2%	86.0%
SE	75.8%	74.1%	69.8%
SI	90.8%	84.7%	78.5%
SK	89.5%	84.4%	80.4%
UK	86.2%	86.5%	83.7%
EU	85.5%	83.4%	81.7%

CO₂ emissions including those emitted directly by households

In 2014, 84.3% of the total CO₂ emissions of France were embodied in the final demand of the whole EU.

A.3. EU CO₂ emissions by Member State embodied in EU final demand as a percentage of total CO₂ emissions (2000, 2014; %)



Between 2000 and 2014, the share of total CO₂ emissions across the EU embodied in the final demand of the EU decreased from 85.5% in 2000 to 81.7% in 2014. In 2014, in all Member States except Denmark, Finland, Lithuania, Luxembourg, the Netherlands and Sweden more than 75% of their CO₂ emissions were embodied in the final demand of the EU.

A.4. EU CO₂ emissions by Member State embodied in the final demand of each Member State (2014; m tCO₂)

	Final demand of																											Total	
	AT	BE	BG	CY	CZ	DE	DK	EE	EL	ES	FI	FR	HR	HU	IE	IT	LT	LU	LV	MT	NL	PL	PT	RO	SE	SI	SK		UK
AT	30.52	0.35	0.11	0.02	0.49	5.02	0.17	0.02	0.12	0.50	0.13	1.36	0.20	0.56	0.07	1.86	0.04	0.04	0.03	0.01	0.40	0.67	0.09	0.37	0.39	0.24	0.26	0.98	45
BE	0.47	48.50	0.09	0.04	0.37	6.06	0.31	0.03	0.25	1.05	0.32	5.32	0.06	0.26	0.23	2.03	0.09	0.46	0.04	0.01	2.38	0.76	0.27	0.23	0.92	0.07	0.11	3.14	74
BG	0.66	1.24	25.03	0.04	0.29	1.72	0.12	0.02	0.86	0.33	0.09	0.84	0.07	0.24	0.04	1.27	0.05	0.02	0.03	0.02	0.30	0.36	0.08	0.95	0.19	0.08	0.08	0.68	36
CY	0.02	0.03	0.01	5.05	0.01	0.06	0.03	0.01	0.08	0.01	0.00	0.03	0.00	0.01	0.00	0.04	0.01	0.00	0.00	0.00	0.02	0.03	0.00	0.02	0.03	0.00	0.01	0.09	6
CZ	1.77	1.67	0.18	0.02	54.42	6.86	0.34	0.05	0.14	0.82	0.25	2.04	0.19	1.19	0.12	2.07	0.15	0.06	0.07	0.01	0.74	2.31	0.15	0.51	0.63	0.17	1.95	1.78	81
DE	8.78	5.59	0.70	0.18	3.69	589.99	2.90	0.30	1.43	6.68	2.07	18.71	0.60	2.20	0.98	12.37	0.53	0.85	0.29	0.07	7.38	8.04	1.43	2.17	4.48	0.66	1.47	15.08	700
DK	0.19	0.44	0.05	0.02	0.10	2.39	23.87	0.05	0.11	0.40	0.64	0.81	0.03	0.32	0.09	0.59	0.06	0.02	0.06	0.01	0.48	0.44	0.11	0.13	2.16	0.03	0.05	2.11	36
EE	0.09	0.22	0.02	0.01	0.03	0.48	0.13	10.75	0.02	0.10	1.09	0.19	0.00	0.02	0.02	0.14	0.22	0.01	0.37	0.00	0.13	0.11	0.02	0.02	0.70	0.01	0.01	0.27	15
EL	0.07	0.14	0.28	0.23	0.04	0.58	0.05	0.01	64.09	0.22	0.03	0.36	0.03	0.03	0.02	0.70	0.01	0.01	0.01	0.01	0.11	0.12	0.04	0.21	0.07	0.02	0.02	0.46	68
ES	0.58	1.27	0.55	0.10	0.38	6.17	0.38	0.04	0.70	183.46	0.28	9.56	0.10	0.22	0.39	4.77	0.12	0.09	0.06	0.04	1.26	1.10	4.13	0.41	0.69	0.14	0.14	4.80	222
FI	0.20	0.44	0.03	0.01	0.09	1.86	0.32	0.25	0.07	0.39	28.56	0.82	0.02	0.06	0.08	0.58	0.10	0.02	0.15	0.00	0.52	0.41	0.06	0.07	1.98	0.02	0.04	1.30	38
FR	0.79	3.16	0.17	0.09	0.52	9.42	0.54	0.05	0.55	4.43	0.42	25.04	0.10	0.36	0.42	5.74	0.11	0.38	0.06	0.03	1.95	1.39	0.79	0.57	1.08	0.12	0.23	6.71	291
HR	0.25	0.11	0.03	0.01	0.04	0.36	0.04	0.00	0.11	0.06	0.01	0.16	11.79	0.16	0.01	0.47	0.01	0.01	0.00	0.01	0.05	0.06	0.02	0.06	0.06	0.25	0.03	0.16	14
HU	1.09	0.42	0.16	0.01	0.45	2.99	0.14	0.02	0.10	0.36	0.09	0.90	0.20	28.05	0.05	1.13	0.06	0.03	0.04	0.00	0.33	0.70	0.06	1.02	0.29	0.16	0.40	0.82	40
IE	0.07	0.39	0.02	0.01	0.05	0.75	0.10	0.01	0.04	0.28	0.07	0.94	0.01	0.05	25.96	0.72	0.01	0.03	0.02	0.01	0.38	0.13	0.10	0.03	0.21	0.01	0.02	4.26	35

CO₂ emissions in the main diagonal including those emitted directly by households

In 2014, 6,86m tCO₂ emitted in the Czech Republic were embodied in German final demand.

(continues next page)

	Final demand of																											Total	
	AT	BE	BG	CY	CZ	DE	DK	EE	EL	ES	FI	FR	HR	HU	IE	IT	LT	LU	LV	MT	NL	PL	PT	RO	SE	SI	SK		UK
IT	1.51	1.40	0.32	0.12	0.65	9.72	0.59	0.07	0.97	3.36	0.35	8.84	0.50	0.47	0.30	263.22	0.18	0.14	0.09	0.13	1.36	1.77	0.59	1.08	0.91	0.52	0.33	4.93	304
LT	0.17	0.16	0.02	0.00	0.06	0.83	0.14	0.13	0.02	0.13	0.08	0.53	0.01	0.05	0.03	0.26	7.05	0.01	0.28	0.00	0.13	0.45	0.04	0.04	0.19	0.01	0.03	0.38	11
LU	0.09	0.44	0.01	0.01	0.03	0.61	0.03	0.00	0.01	0.06	0.17	0.63	0.00	0.02	0.04	0.23	0.00	2.57	0.00	0.00	0.13	0.05	0.02	0.02	0.08	0.02	0.01	0.18	5
LV	0.04	0.04	0.00	0.01	0.02	0.22	0.07	0.13	0.01	0.05	0.08	0.14	0.00	0.01	0.01	0.08	0.20	0.00	5.16	0.00	0.05	0.08	0.01	0.01	0.16	0.00	0.01	0.21	7
MT	0.03	0.02	0.10	0.01	0.01	0.05	0.03	0.00	0.02	0.01	0.01	0.07	0.01	0.00	0.00	0.13	0.01	0.00	0.00	1.69	0.02	0.04	0.00	0.02	0.03	0.00	0.00	0.52	3
NL	1.10	4.48	0.15	0.08	0.59	17.98	0.82	0.08	0.48	1.98	0.93	7.25	0.12	0.39	0.94	4.38	0.18	0.23	0.09	0.04	77.97	1.46	0.48	0.43	1.51	0.12	0.23	7.67	132
PL	2.05	2.16	0.42	0.08	2.92	17.67	1.34	0.37	0.44	2.24	0.80	5.75	0.26	1.35	0.32	4.35	1.06	0.15	0.55	0.03	2.50	219.21	0.38	1.45	2.44	0.25	1.44	5.83	278
PT	0.10	0.28	0.02	0.01	0.05	0.89	0.08	0.01	0.06	2.01	0.06	1.39	0.01	0.03	0.07	0.51	0.01	0.02	0.01	0.00	0.25	0.13	33.12	0.05	0.15	0.01	0.02	0.75	40
RO	0.81	0.59	0.53	0.02	0.23	2.76	0.14	0.02	0.28	0.57	0.08	1.55	0.07	0.47	0.06	1.86	0.03	0.04	0.01	0.01	0.43	0.50	0.08	56.39	0.29	0.06	0.16	0.90	69
SE	0.18	0.32	0.03	0.02	0.10	1.59	0.82	0.07	0.06	0.36	1.02	0.90	0.02	0.06	0.07	0.52	0.07	0.02	0.05	0.01	0.45	0.41	0.09	0.07	26.91	0.02	0.04	1.46	36
SI	0.59	0.25	0.04	0.00	0.10	0.87	0.05	0.01	0.03	0.10	0.02	0.41	0.31	0.13	0.01	0.69	0.01	0.01	0.01	0.00	0.09	0.15	0.02	0.07	0.10	7.00	0.05	0.19	11
SK	0.79	0.27	0.07	0.01	0.86	2.66	0.13	0.02	0.06	0.35	0.07	0.94	0.07	0.55	0.05	0.88	0.04	0.02	0.03	0.00	0.29	1.01	0.06	0.39	0.22	0.07	16.23	0.87	27
UK	0.62	1.96	0.17	0.14	0.38	7.14	0.88	0.07	0.44	2.18	0.49	5.95	0.09	0.25	2.42	3.22	0.11	0.21	0.08	0.07	2.16	1.12	0.53	0.32	1.54	0.08	0.14	37.582	409
EU	54	76	29	6	67	698	35	13	72	213	38	327	15	38	33	315	11	5	8	2	102	245	43	67	48	10	24	442	3,032

CO₂ emissions in the main diagonal including those emitted directly by households

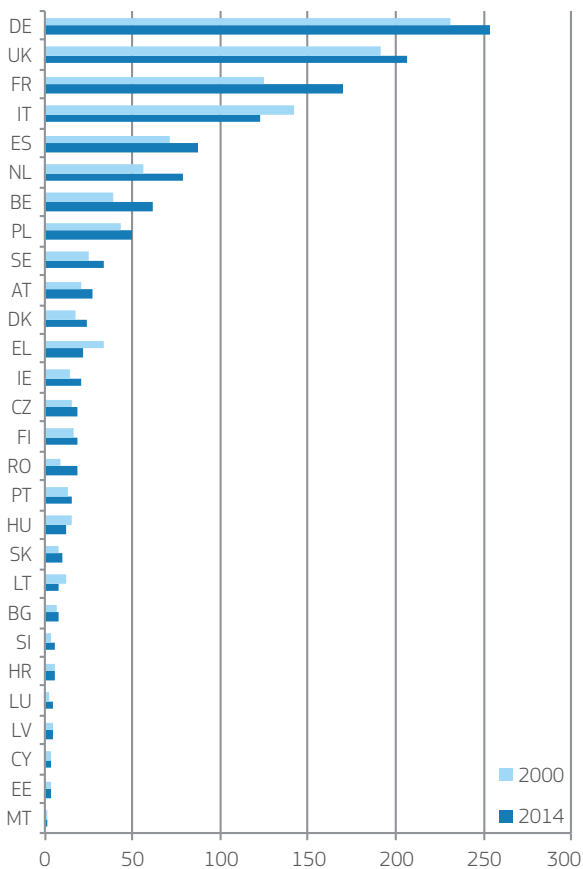
In 2014, 698m tCO₂ emitted across the EU were embodied in German final demand: 590m tCO₂ emitted in Germany, 18m tCO₂ in the Netherlands and Poland, 9.7m tCO₂ in Italy, 9.4m tCO₂ in France and 7.1 in the UK. Germany was also the Member State with more CO₂ emissions embodied in the final demand of all Member States (700m tCO₂), of which 590m tCO₂ were embodied in German final demand, 19m tCO₂ in French final demand, 15m tCO₂ in the UK's final demand and 12.4mt CO₂ in Italian final demand.

A.5. Non-EU CO₂ emissions embodied in the final demand of each Member State (2000, 2007, 2014; m tCO₂)

	2000	2007	2014	2014 - 2000	2014 / 2000
AT	20	27	27	6	30.5%
BE	39	57	62	23	59.0%
BG	7	11	8	1	9.8%
CY	3	4	4	1	16.1%
CZ	15	21	19	4	26.2%
DE	232	311	254	23	9.7%
DK	17	27	24	6	36.1%
EE	4	4	3	0	-12.5%
EL	34	42	22	-12	-34.8%
ES	71	135	87	17	23.6%
FI	17	26	19	2	12.8%
FR	125	199	170	45	36.2%
HR	5	9	5	0	1.4%
HU	16	20	12	-4	-24.4%
IE	14	23	21	7	49.4%
IT	142	191	123	-19	-13.3%
LT	12	10	8	-4	-32.0%
LU	3	4	5	2	86.0%
LV	4	6	4	0	0.7%
MT	1	1	1	0	-13.5%
NL	56	93	79	23	40.3%
PL	43	49	50	7	15.6%
PT	14	19	15	2	13.7%
RO	9	23	18	9	97.2%
SE	25	34	34	8	31.5%
SI	4	7	6	2	57.2%
SK	8	13	10	2	26.4%
UK	192	256	207	15	7.8%
EU	1,131	1,624	1,296	165	14.6%

In 2014, around 62m tCO₂ emitted outside the EU were embodied in Belgium's final demand.

A.5. Non-EU CO₂ emissions embodied in the final demand of each Member State (2000, 2014; m tCO₂)



Between 2000 and 2014, the CO₂ emissions outside the EU embodied in EU final demand increased from 1,131m tCO₂ to 1,296m tCO₂ (+14%). This increase was mainly driven by France (+45m tCO₂), and Germany, Belgium and the Netherlands (+23m tCO₂ each). In 2014, 20% of CO₂ emissions outside the EU embodied in EU final demand were due to German final demand (254m tCO₂), 16% by the final demand of the UK (207m tCO₂), 13% by the final demand of France (170m tCO₂) and 9% by the final demand of Italy (123m tCO₂).

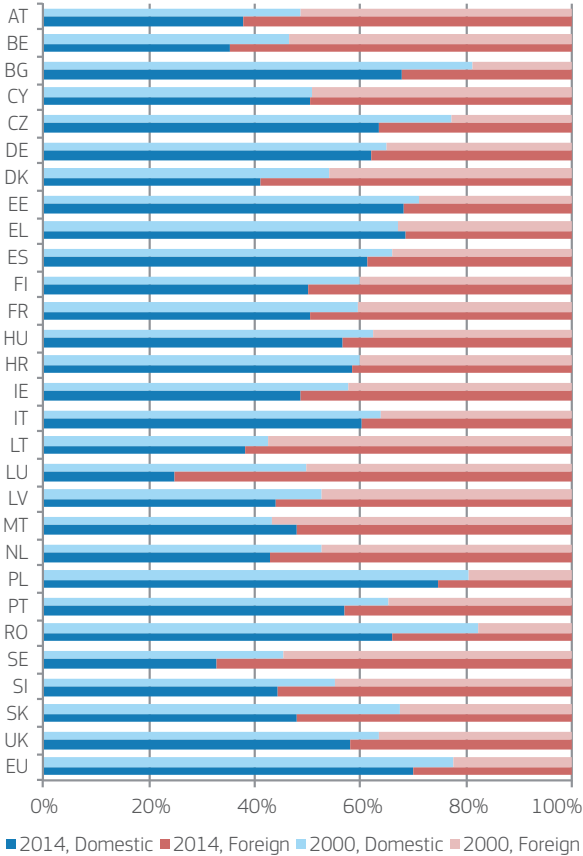
A.6. CO₂ emissions footprint of each Member State (2000, 2014; % and m tCO₂)

	2000			2014		
	Domestic	Foreign	Total	Domestic	Foreign	Total
AT	49%	51%	89	38%	62%	80
BE	46%	54%	146	35%	65%	138
BG	81%	19%	52	68%	32%	37
CY	51%	49%	9	51%	49%	10
CZ	77%	23%	108	63%	37%	86
DE	65%	35%	1,069	62%	38%	952
DK	54%	46%	65	41%	59%	58
EE	71%	29%	16	68%	32%	16
EL	67%	33%	143	68%	32%	94
ES	66%	34%	341	61%	39%	300
FI	60%	40%	65	50%	50%	57
FR	59%	41%	532	50%	50%	497
HR	60%	40%	21	58%	42%	20
HU	63%	37%	63	57%	43%	49
IE	57%	43%	50	49%	51%	53
IT	64%	36%	600	60%	40%	438
LT	43%	57%	24	38%	62%	19
LU	50%	50%	11	25%	75%	10
LV	52%	48%	12	44%	56%	12
MT	43%	57%	5	48%	52%	4
NL	53%	47%	193	43%	57%	181
PL	80%	20%	315	75%	25%	293
PT	65%	35%	85	57%	43%	58
RO	82%	18%	78	66%	34%	85
SE	45%	55%	89	33%	67%	82
SI	55%	45%	20	44%	56%	16
SK	67%	33%	40	48%	52%	34
UK	64%	36%	748	58%	42%	649
EU	77%	23%	4,991	70%	30%	4,328

Domestic CO₂ emissions including those emitted directly by households

In 2014, around 438m tCO₂ were embodied in the final demand of Italy, of which 60% was emitted in Italy and 40% in other countries.

A.6. CO₂ emissions footprint of each Member State (2000, 2014; %)



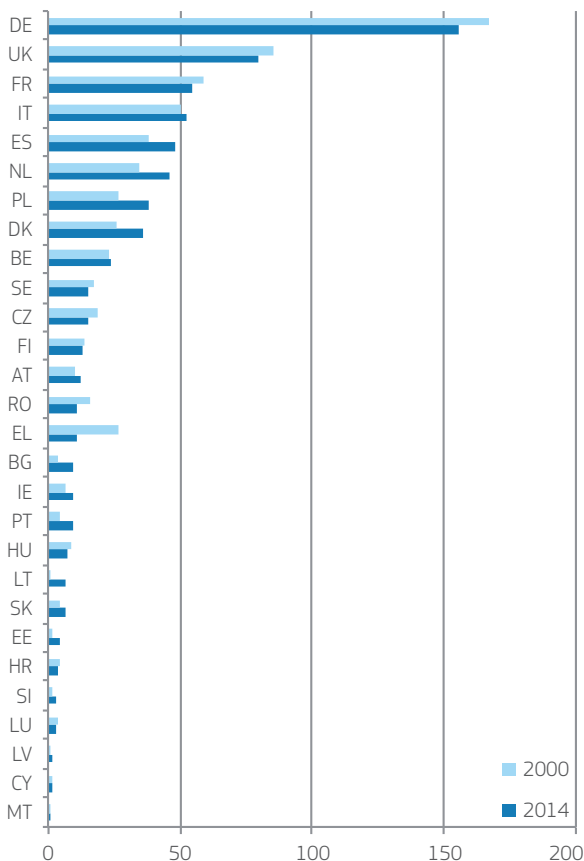
Between 2000 and 2014, total CO₂ emissions embodied in EU final demand decreased from 4,991m tCO₂ to 4,328m tCO₂. In 2014, 70% of the total CO₂ embodied in EU final demand was emitted in the EU (77% in 2000), while 30% was emitted in non-EU countries. In 12 EU Member States, more than 50% of the CO₂ emissions embodied in their final demand is located in other countries.

A.7. EU CO₂ emissions by Member State embodied in non-EU final demand (2000, 2007, 2014; m tCO₂)

	2000	2007	2014	2014 - 2000	2014 / 2000
AT	11	16	12	2	17.2%
BE	23	23	24	1	3.7%
BG	4	10	9	6	154.5%
CY	1	1	1	0	2.0%
CZ	19	18	15	-4	-19.0%
DE	167	203	156	-11	-6.7%
DK	26	50	36	9	35.8%
EE	2	3	4	3	135.5%
EL	27	33	11	-16	-60.3%
ES	38	44	48	10	27.3%
FI	14	18	13	-1	-5.5%
FR	59	56	54	-5	-8.2%
HR	5	5	4	-1	-26.4%
HU	8	7	7	-1	-11.6%
IE	7	7	9	2	35.0%
IT	50	60	52	2	3.9%
LT	1	3	7	6	532.2%
LU	4	3	3	-1	-24.2%
LV	1	2	2	1	53.1%
MT	0	1	1	0	71.5%
NL	34	39	46	12	34.6%
PL	27	32	38	11	42.1%
PT	5	7	9	5	102.3%
RO	16	16	11	-4	-28.3%
SE	17	16	15	-2	-11.5%
SI	1	3	3	2	116.4%
SK	4	6	7	2	50.1%
UK	85	83	80	-6	-6.5%
EU	657	765	678	22	3.3%

In 2014, 54m tCO₂ of French emissions were embodied in the final demand of non-EU countries.

A.7. EU CO₂ emissions by Member State embodied in non-EU final demand (2000, 2014; m tCO₂)



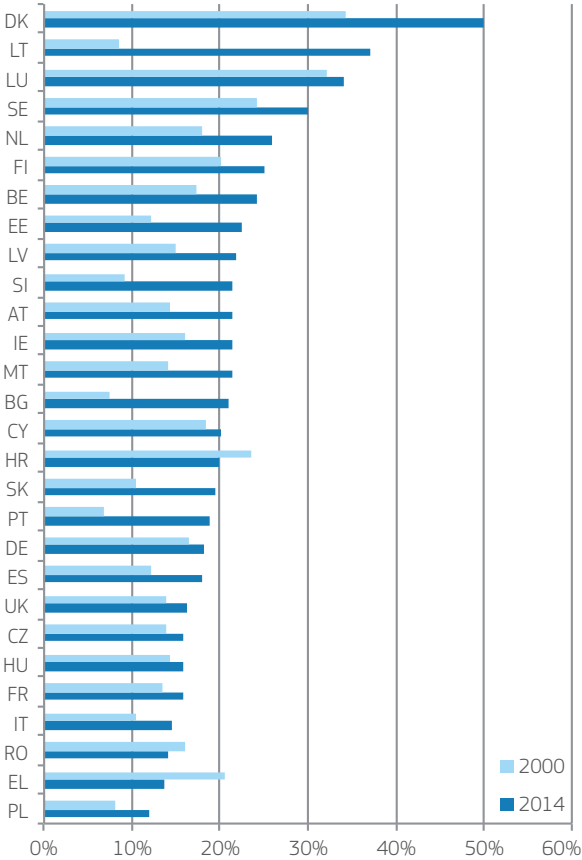
Between 2000 and 2014, EU CO₂ emissions embodied in non-EU final demand increased by 22m tCO₂ (+3.3%), to reach a total of 678m tCO₂. Most of the increase was in the Netherlands (+12m tCO₂), Poland (+11m tCO₂) and Spain (+10m tCO₂). In 2014, 156m tCO₂ emitted in Germany were embodied in the final demand of non-EU countries (23% of total EU CO₂ emissions embodied in non-EU final demand), 80m tCO₂ emitted in the UK (12%), 54m tCO₂ emitted in France (8%) and 52m tCO₂ emitted in Italy (8%).

A.8. EU CO₂ emissions by Member State embodied in non-EU final demand as a percentage of total CO₂ emissions (2000, 2007, 2014; %)

	2000	2007	2014
AT	14.4%	20.0%	21.5%
BE	17.3%	19.3%	24.3%
BG	7.5%	17.2%	20.9%
CY	18.3%	9.3%	20.1%
CZ	14.0%	13.4%	15.8%
DE	16.5%	21.1%	18.2%
DK	34.4%	49.7%	50.0%
EE	12.1%	16.0%	22.4%
EL	20.4%	22.9%	13.6%
ES	12.2%	11.7%	17.9%
FI	20.1%	23.2%	25.1%
FR	13.5%	13.5%	15.7%
HR	23.5%	21.4%	19.9%
HU	14.3%	11.2%	15.8%
IE	16.0%	15.1%	21.4%
IT	10.4%	12.0%	14.6%
LT	8.4%	15.9%	37.1%
LU	32.0%	23.4%	34.0%
LV	14.9%	18.5%	21.8%
MT	14.0%	20.0%	21.4%
NL	18.0%	20.4%	26.0%
PL	8.2%	9.4%	12.0%
PT	6.8%	10.4%	18.8%
RO	16.1%	14.8%	14.0%
SE	24.2%	25.9%	30.0%
SI	9.2%	15.3%	21.5%
SK	10.5%	15.6%	19.6%
UK	13.8%	13.5%	16.3%
EU	14.5%	16.6%	18.3%

In 2014, 24.3% of the total CO₂ emissions of Belgium were embodied in the final demand of non-EU countries.

A.8. EU CO₂ emissions by Member State embodied in non-EU final demand as a percentage of total CO₂ emissions (2000, 2014; %)



Between 2000 and 2014, the share of CO₂ emissions across the EU embodied in the final demand of non-EU countries increased from 14.5% in 2000 to 18.3% in 2014. In 2014, more than 25% of the total CO₂ emissions of Denmark, Finland, Lithuania, Luxembourg, the Netherlands and Sweden were embodied in non-EU final demand.

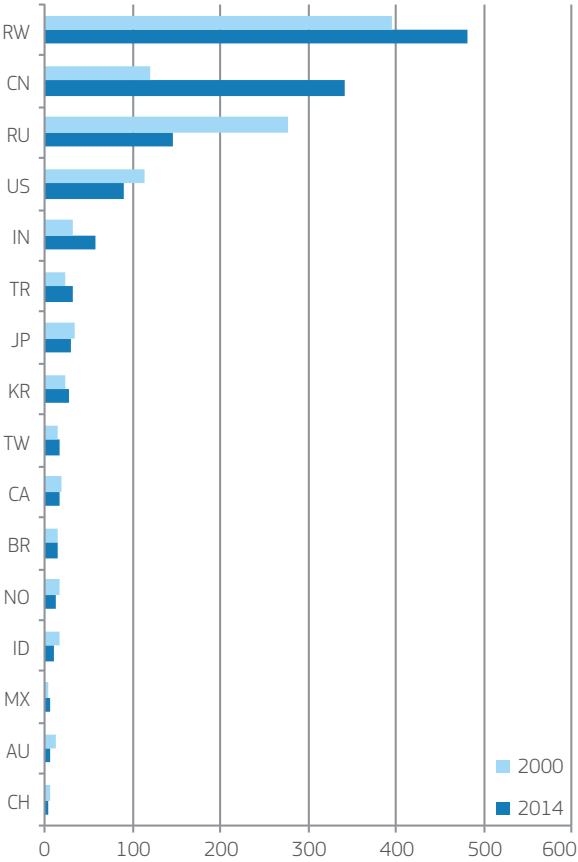
B. By trading partner

B.1. Non-EU CO₂ emissions by country embodied in EU final demand (2000, 2007, 2014; m tCO₂)

	2000	2007	2014	2014 - 2000	2014 / 2000
AU	14	12	7	-7	-48.6%
BR	16	20	15	-1	-4.9%
CA	19	26	17	-2	-12.8%
CH	6	5	4	-2	-33.8%
CN	120	438	342	222	184.3%
ID	17	16	11	-6	-35.1%
IN	32	48	58	26	82.1%
JP	34	45	29	-5	-14.3%
KR	24	28	27	3	10.6%
MX	5	8	7	2	50.0%
NO	17	20	12	-5	-27.3%
RU	278	249	145	-132	-47.7%
TR	24	35	31	7	29.3%
TW	16	24	17	1	6.8%
US	114	102	90	-24	-20.8%
RW	395	549	482	87	22.1%
Non-EU	1,131	1,624	1,296	165	14.6%

In 2014, 342m tCO₂ of Chinese emissions were embodied in EU final demand.

B.1. Non-EU CO₂ emissions by country embodied in EU final demand (2000, 2014; m tCO₂)



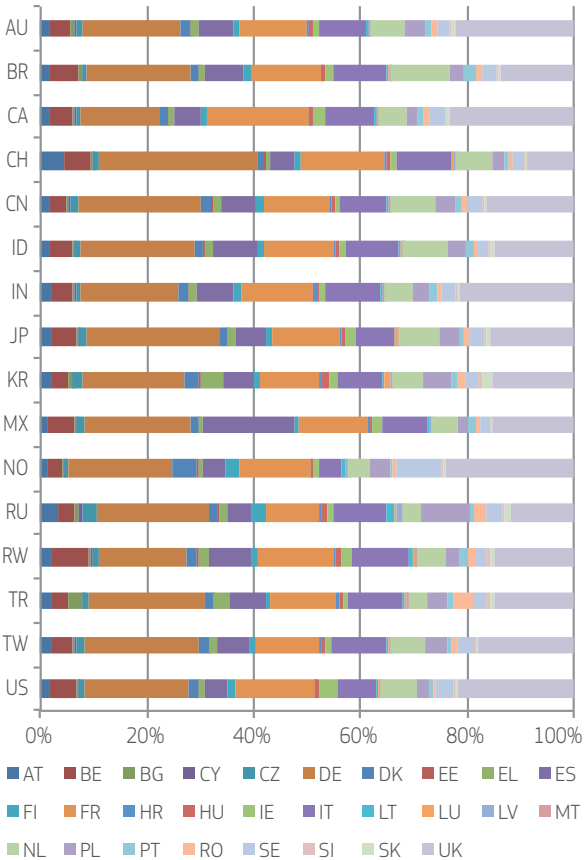
Between 2000 and 2014, the CO₂ emissions of non-EU countries embodied in EU final demand increased by 165m tCO₂ to a total of 1,296m tCO₂ (+15%). In 2014, 342m tCO₂ of Chinese emissions were embodied in EU final demand (26% of total non-EU CO₂ embodied in EU final demand), 145m tCO₂ of Russian emissions (11%) and 90m tCO₂ of the US emissions (7%).

B.2. Non-EU CO2 emissions by country embodied in the final demand of each Member State (2014; m tCO2)

	Final demand of																											Total			
	AT	BE	BG	CY	CZ	DE	DK	EE	EL	ES	FI	FR	HR	HU	IE	IT	LJ	LU	LV	LT	MT	NL	PL	PT	RO	SE	SI		SK	UK	
AU	0.1	0.3	0.1	0.0	0.1	1.3	0.1	0.0	0.1	0.5	0.1	0.9	0.0	0.1	0.1	0.6	0.0	0.0	0.0	0.0	0.0	0.5	0.3	0.1	0.1	0.1	0.2	0.0	0.0	1.6	7
BR	0.2	0.9	0.1	0.0	0.1	2.9	0.2	0.0	0.1	1.1	0.3	1.9	0.0	0.1	0.2	1.5	0.0	0.0	0.0	0.0	0.0	1.7	0.4	0.4	0.2	0.4	0.1	0.1	0.1	2.1	15
CA	0.3	0.8	0.1	0.0	0.1	2.5	0.2	0.0	0.2	0.8	0.2	3.2	0.0	0.1	0.4	1.5	0.0	0.1	0.0	0.0	0.0	0.9	0.3	0.2	0.2	0.5	0.0	0.1	3.9	17	
CH	0.2	0.2	0.0	0.0	0.0	1.2	0.1	0.0	0.0	0.2	0.0	0.6	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.3	4
CN	5.6	11.0	1.5	0.7	5.4	79.3	5.9	0.8	5.2	22.7	5.2	41.7	1.0	2.7	3.5	29.3	1.2	1.0	0.8	0.4	28.1	1.3	3.1	3.6	9.2	1.5	2.0	5.5	34.2		
ID	0.2	0.5	0.1	0.0	0.1	2.4	0.2	0.0	0.2	0.9	0.1	1.5	0.0	0.1	0.1	1.1	0.0	0.0	0.0	0.0	0.9	0.4	0.1	0.1	0.1	0.2	0.0	0.1	1.6	11	
IN	1.1	2.3	0.3	0.1	0.5	10.7	1.0	0.1	0.8	4.1	0.7	8.0	0.2	0.3	0.7	5.9	0.2	0.1	0.1	0.1	3.1	1.8	0.8	0.6	1.4	0.2	0.3	12.4	5.8		
JP	0.6	1.3	0.1	0.1	0.4	7.2	0.4	0.1	0.4	1.7	0.3	3.7	0.1	0.3	0.5	2.1	0.1	0.1	0.0	0.0	2.2	1.1	0.3	0.3	0.8	0.1	0.2	4.7	2.9		
KR	0.6	0.9	0.1	0.0	0.5	5.2	0.8	0.1	1.2	1.5	0.4	3.0	0.1	0.4	0.4	2.3	0.1	0.4	0.1	0.0	1.5	1.5	0.3	0.4	0.6	0.2	0.5	4.1	2.7		
MX	0.1	0.4	0.0	0.0	0.1	1.5	0.1	0.0	0.1	1.2	0.1	1.0	0.0	0.0	0.1	0.6	0.0	0.0	0.0	0.0	0.4	0.2	0.1	0.1	0.1	0.1	0.0	0.0	1.1	7	
NO	0.2	0.3	0.0	0.0	0.1	2.4	0.6	0.0	0.1	0.5	0.3	1.6	0.0	0.1	0.1	0.5	0.1	0.0	0.0	0.0	0.5	0.4	0.1	0.1	1.0	0.0	0.0	2.9	1.2		
RU	4.6	4.6	1.2	1.0	3.7	31.0	2.0	0.8	2.2	6.5	3.8	14.4	0.7	1.8	1.5	14.4	2.5	0.6	1.5	0.1	4.8	1.3	1.2	3.6	4.3	0.5	1.8	17.1	14.5		
TR	0.7	0.9	0.8	0.0	0.4	6.8	0.4	0.1	0.9	2.2	0.3	3.8	0.2	0.2	0.3	3.2	0.1	0.1	0.1	0.1	1.1	1.1	0.3	1.3	0.7	0.2	0.2	4.7	3.1		
TW	0.4	0.6	0.1	0.0	0.3	3.7	0.3	0.0	0.2	1.0	0.2	2.0	0.1	0.1	0.2	1.7	0.1	0.1	0.0	0.0	1.1	0.7	0.2	0.2	0.5	0.1	0.1	3.0	1.7		
US	1.5	4.7	0.2	0.1	0.8	17.7	1.7	0.1	1.0	4.0	1.2	13.5	0.2	0.7	2.9	6.8	0.2	0.4	0.1	0.1	6.1	1.9	0.7	0.6	3.0	0.2	0.3	19.8	9.0		
RW	10.4	32.1	3.0	1.5	6.1	78.5	9.5	1.0	9.4	38.5	5.6	69.0	2.6	4.9	9.5	50.9	3.4	1.9	1.3	0.4	26.0	12.8	7.6	7.1	10.4	2.5	4.5	71.5	48.2		
Non-EU	27	62	8	4	19	254	24	3	22	87	19	170	5	12	21	123	8	5	4	1	79	50	15	18	34	6	10	207	1,296		

In 2014, 79.3m tCO₂ of Chinese emissions were embodied in the final demand of Germany.

B.2. Non-EU CO₂ emissions by country embodied in the final demand of each Member State (2014; %)



In 2014, 1,296m tCO₂ emitted outside the EU were embodied in the final demand of the EU. Most of the CO₂ was emitted in China (342m tCO₂), of which 79m tCO₂ were embodied in German final demand, 56 in the UK's final demand and 42m tCO₂ in French final demand. Germany was the Member State with more non-EU CO₂ emissions embodied in its final demand (254m tCO₂).

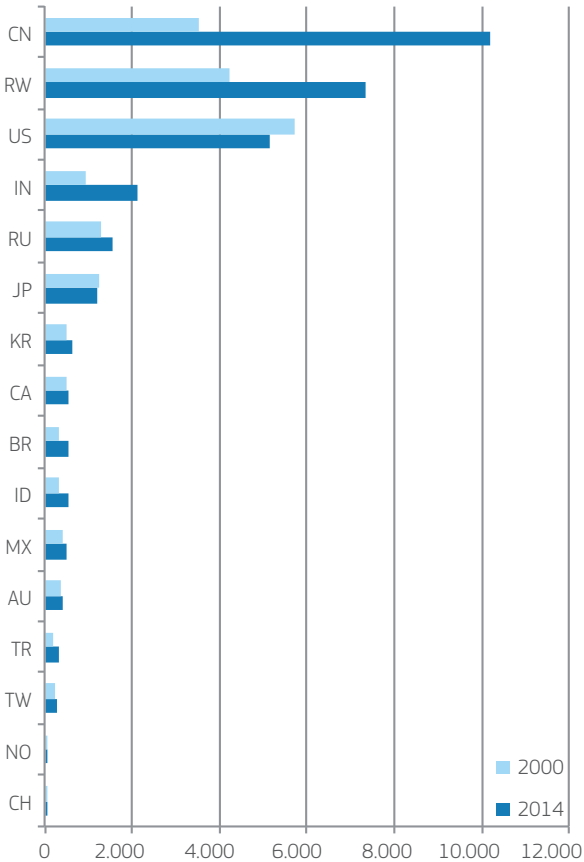
B.3. Non-EU CO₂ emissions by country embodied in non-EU final demand (2000, 2007, 2014; m tCO₂)

	2000	2007	2014	2014 - 2000	2014 / 2000
AU	362	413	398	36	9.8%
BR	345	380	557	213	61.7%
CA	508	552	560	52	10.3%
CH	40	39	38	-3	-6.7%
CN	3,547	7,093	10,186	6,639	187.2%
ID	316	411	532	216	68.2%
IN	963	1,348	2,135	1,172	121.8%
JP	1,233	1,265	1,223	-10	-0.8%
KR	517	557	643	126	24.3%
MX	402	471	481	79	19.7%
NO	46	49	39	-7	-14.9%
RU	1,307	1,453	1,554	247	18.9%
TR	201	277	326	125	61.8%
TW	261	303	298	37	14.1%
US	5,740	5,661	5,167	-573	-10.0%
RW	4,244	5,778	7,353	3,109	73.3%
Non-EU	20,032	26,050	31,489	11,457	57.2%

CO₂ emissions including those emitted directly by households

In 2014, 557m tCO₂ emitted in Brazil were embodied in non-EU final demand.

B.3. Non-EU CO₂ emissions by country embodied in non-EU final demand (2000, 2014; m tCO₂)



Between 2000 and 2014, the CO₂ emissions in non-EU countries embodied in non-EU final demand increased by 11,457m tCO₂ to a total of 31,489m tCO₂ (+57%). In 2014, 10,186m tCO₂ emitted in China were embodied in non-EU final demand (32% of total non-EU emissions embodied in non-EU final demand), 5,167m tCO₂ emitted in the US (16%) and 2,135m tCO₂ emitted in India (7%).

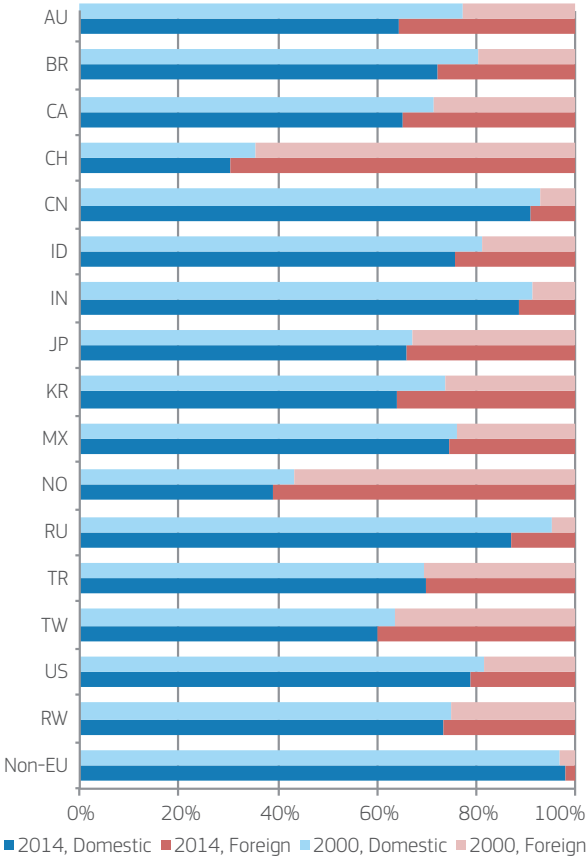
B.4. CO₂ emissions footprint of each non-EU country (2000, 2014; % and m tCO₂)

	2000			2014		
	Domestic	Foreign	Total	Domestic	Foreign	Total
AU	77%	23%	357	64%	36%	472
BR	80%	20%	370	72%	28%	655
CA	72%	28%	457	65%	35%	570
CH	35%	65%	99	30%	70%	102
CN	93%	7%	3,223	91%	9%	9,212
ID	81%	19%	286	76%	24%	582
IN	91%	9%	938	89%	11%	2,038
JP	67%	33%	1,537	66%	34%	1,416
KR	74%	26%	487	64%	36%	611
MX	76%	24%	440	75%	25%	513
NO	43%	57%	43	39%	61%	58
RU	95%	5%	902	87%	13%	1,325
TR	69%	31%	254	70%	30%	368
TW	64%	36%	254	60%	40%	232
US	81%	19%	6,656	79%	21%	6,091
RW	75%	25%	4,386	73%	27%	7,922
Non-EU	97%	3%	20,689	98%	2%	32,168

Domestic CO₂ emissions including those emitted directly by households

In 2014, 9,212m tCO₂ were embodied in Chinese final demand, of which 91% was emitted in China and 9% in other countries.

B.4. CO₂ emissions footprint of each non-EU country (2000, 2014; %)



Between 2000 and 2014, total CO₂ emissions embodied in non-EU final demand increased from 20,689 tCO₂ to 32,168m tCO₂. In 2014, 98% of the total CO₂ embodied in non-EU final demand was emitted in non-EU countries, while 4% was emitted in EU Member States. In all non-EU countries except Switzerland and Norway, most of the CO₂ embodied in its final demand is emitted within the own country. In China, India, and Russia more than 80% of the CO₂ emissions embodied in their final demand is domestic.

C. By industry or sector

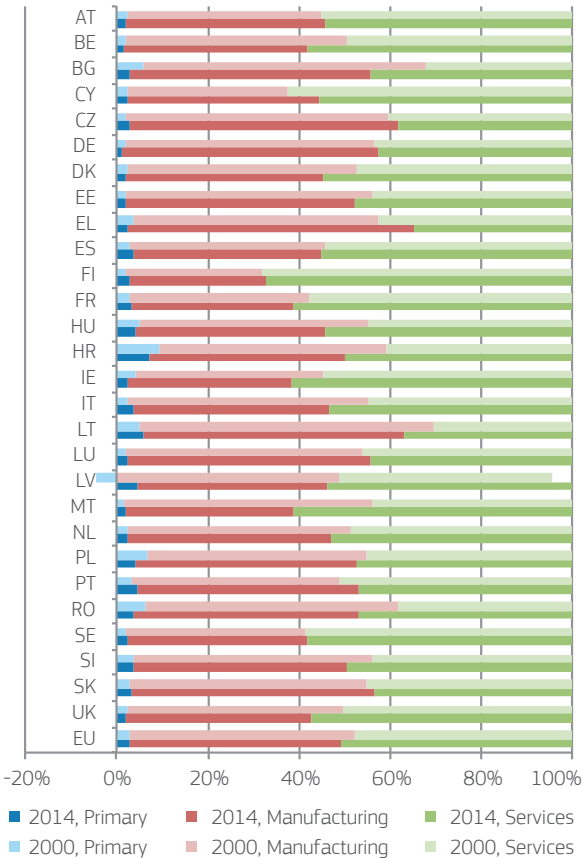
C.1. EU CO₂ emissions embodied in the final demand of each Member State by sector of final demand (2000, 2014; % and m tCO₂)

	2000				2014			
	P	M	S	Total	P	M	S	Total
AT	2%	43%	55%	54	2%	44%	54%	40
BE	2%	48%	50%	77	1%	40%	58%	51
BG	6%	62%	32%	42	3%	53%	44%	27
CY	3%	35%	63%	5	2%	42%	56%	5
CZ	2%	58%	40%	80	3%	59%	38%	53
DE	2%	54%	43%	646	1%	56%	43%	519
DK	2%	50%	47%	38	2%	43%	55%	27
EE	2%	54%	44%	12	2%	50%	48%	12
EL	4%	54%	42%	95	2%	63%	35%	57
ES	3%	43%	54%	222	4%	41%	55%	150
FI	2%	30%	68%	42	3%	30%	67%	32
FR	3%	39%	58%	292	3%	35%	61%	212
HR	10%	49%	41%	14	7%	43%	50%	10
HU	5%	50%	45%	34	4%	41%	54%	25
IE	4%	41%	55%	25	3%	36%	62%	21
IT	3%	53%	45%	331	4%	43%	53%	218
LT	5%	65%	31%	11	6%	57%	37%	8
LU	2%	52%	46%	5	2%	53%	44%	4
LV	-5%	54%	51%	6	5%	42%	54%	6
MT	2%	55%	44%	3	2%	37%	61%	2
NL	3%	49%	49%	98	2%	45%	53%	69
PL	7%	48%	45%	235	4%	49%	47%	197
PT	3%	46%	51%	61	5%	49%	47%	35
RO	7%	55%	38%	58	4%	49%	47%	53
SE	2%	39%	59%	52	3%	39%	58%	39
SI	4%	53%	44%	13	4%	47%	50%	7
SK	3%	52%	45%	26	3%	53%	44%	18
UK	2%	47%	50%	407	2%	41%	57%	318
EU	3%	49%	48%	2,983	3%	46%	51%	2,213

P: primary; M: manufacturing; S: services

In 2014, 519m tCO₂ emitted across the EU were embodied in German final demand, of which 43% was embodied in the final demand of services.

C.1. EU CO₂ emissions embodied in the final demand of each Member State by sector of final demand (2000, 2014; %)



In 2014, 51% of the EU CO₂ emissions embodied in EU final demand were embodied in the final demand of services (up from 48% in 2000). The final demand of manufacturing and primary products accounted for 46% and 3% respectively (compared to 49% and 3% in 2000). In 2014, in 15 Member States more than 50% of the EU CO₂ emissions embodied in their final demand were in the demand of services.

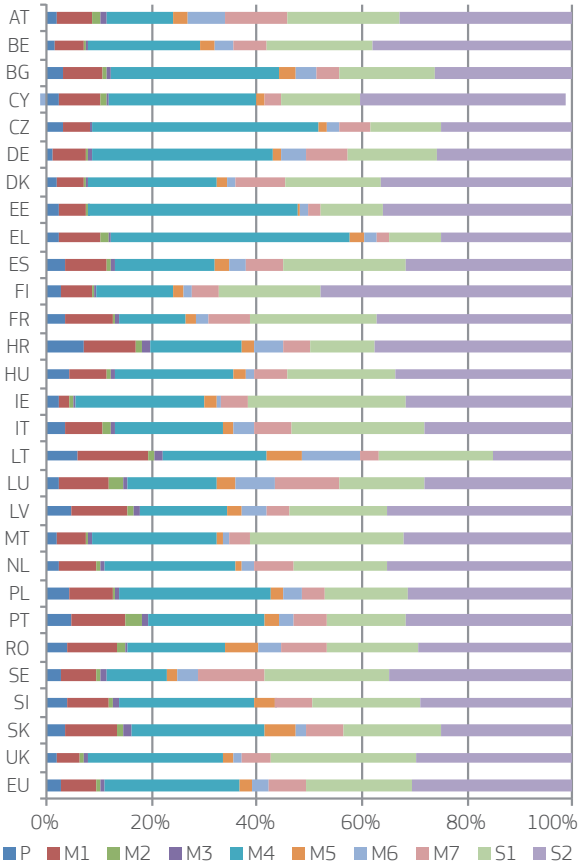
C.2. EU CO₂ emissions embodied in the final demand of each Member State by industry of final demand (2014; % and m tCO₂)

	P	M1	M2	M3	M4	M5	M6	M7	S1	S2	Total
AT	2%	7%	2%	1%	13%	3%	7%	12%	21%	33%	40
BE	1%	6%	1%	1%	21%	3%	4%	6%	20%	38%	51
BG	3%	7%	1%	1%	32%	3%	4%	4%	18%	26%	27
CY	2%	8%	1%	1%	29%	2%	-1%	3%	15%	40%	5
CZ	3%	5%	0%	0%	43%	2%	2%	6%	13%	25%	53
DE	1%	6%	0%	1%	34%	2%	4%	8%	17%	26%	519
DK	2%	5%	0%	1%	24%	2%	2%	9%	18%	37%	27
EE	2%	5%	0%	0%	40%	0%	2%	3%	12%	36%	12
EL	2%	8%	1%	1%	45%	3%	2%	2%	10%	25%	57
ES	4%	8%	1%	1%	19%	3%	3%	7%	23%	32%	150
FI	3%	6%	0%	1%	15%	2%	2%	5%	19%	48%	32
FR	3%	9%	0%	1%	13%	2%	2%	8%	24%	37%	212
HR	7%	10%	1%	1%	18%	2%	5%	5%	12%	38%	10
HU	4%	7%	1%	1%	23%	2%	2%	6%	21%	34%	25
IE	3%	2%	1%	0%	25%	2%	1%	5%	30%	32%	21
IT	4%	7%	1%	1%	20%	2%	4%	7%	25%	28%	218
LT	6%	13%	1%	2%	20%	7%	11%	4%	22%	15%	8
LU	2%	9%	3%	1%	17%	3%	7%	12%	16%	28%	4
LV	5%	11%	1%	1%	16%	3%	5%	4%	18%	35%	6
MT	2%	5%	1%	1%	23%	1%	1%	4%	29%	32%	2
NL	2%	7%	1%	1%	25%	1%	2%	8%	17%	35%	69
PL	4%	8%	0%	1%	29%	2%	4%	4%	16%	31%	197
PT	5%	10%	3%	1%	22%	3%	3%	6%	15%	32%	35
RO	4%	10%	1%	1%	18%	6%	4%	9%	17%	29%	53
SE	3%	7%	1%	1%	12%	2%	4%	13%	24%	35%	39
SI	4%	8%	1%	1%	26%	4%	0%	7%	20%	29%	7
SK	3%	10%	1%	2%	25%	6%	2%	7%	19%	25%	18
UK	2%	4%	1%	1%	26%	2%	2%	6%	27%	30%	318
EU	3%	7%	1%	1%	26%	2%	3%	7%	20%	30%	2,213

P: primary; M1: food, beverages, tobacco; M2: textiles; M3: wood, paper, printing; M4: energy; M5: chemicals; M6: other non-metallic and basic metals; M7: machinery and transport equipment; S1: transport, trade and business services; S2: other services.

In 2014, 27m tCO₂ emitted in the EU were embodied in the final demand of Bulgaria, of which 4% was embodied in the Bulgarian final demand of products of the machinery and transport equipment industries (M7).

C.2. EU CO₂ emissions embodied in the final demand of each Member State by industry of final demand (2014; %)



In 2014, 30% of the EU CO₂ emissions embodied in EU final demand were embodied in the final demand of other services (S2), 26% in the final demand of energy products (M4), 20% in the final demand of transport, trade and business services (S1), and 7% in the final demand of products of both the machinery and transport equipment industries (M7) and the food, beverages and tobacco industries (M1).

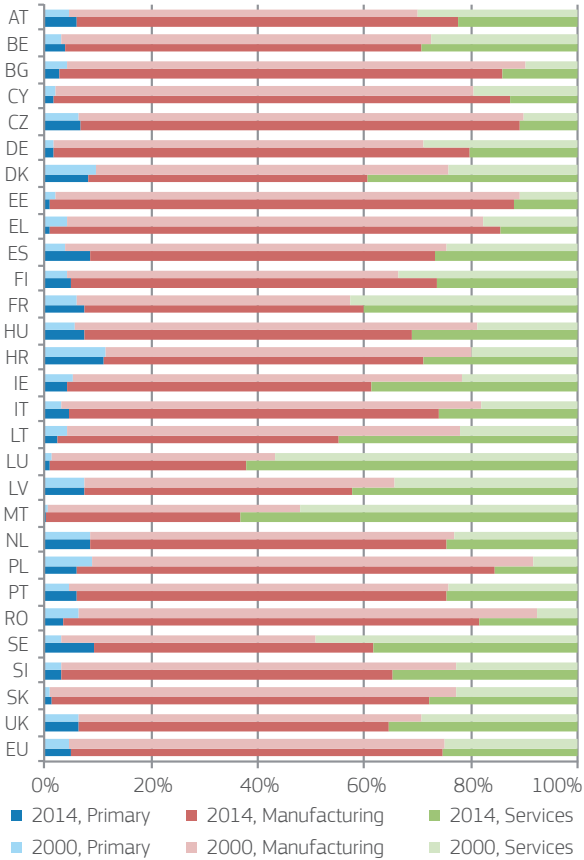
C.3. EU CO₂ emissions by Member State embodied in EU final demand by sector (2000, 2014; % and m tCO₂)

	2000				2014			
	P	M	S	Total	P	M	S	Total
AT	5%	65%	30%	48	6%	71%	22%	31
BE	3%	69%	27%	79	4%	67%	29%	48
BG	4%	86%	10%	43	3%	83%	14%	34
CY	2%	78%	20%	5	2%	86%	13%	4
CZ	6%	83%	10%	102	7%	82%	11%	67
DE	2%	69%	29%	652	2%	78%	20%	520
DK	10%	66%	24%	40	8%	52%	40%	28
EE	2%	87%	11%	13	1%	87%	12%	14
EL	4%	78%	18%	90	1%	84%	14%	54
ES	4%	71%	25%	226	9%	65%	27%	159
FI	4%	62%	34%	47	5%	68%	26%	32
FR	6%	51%	43%	263	8%	52%	40%	176
HR	11%	69%	20%	13	11%	60%	29%	10
HU	6%	75%	19%	37	7%	61%	31%	27
IE	5%	73%	22%	26	4%	57%	39%	23
IT	3%	79%	18%	306	5%	69%	26%	207
LT	4%	73%	22%	10	2%	53%	45%	9
LU	2%	42%	57%	4	1%	37%	62%	4
LV	8%	58%	34%	6	8%	50%	42%	5
MT	1%	47%	52%	3	0%	36%	63%	3
NL	9%	68%	23%	118	9%	67%	25%	99
PL	9%	82%	9%	262	6%	78%	16%	232
PT	5%	71%	24%	53	6%	69%	25%	32
RO	6%	86%	8%	71	4%	78%	19%	55
SE	3%	48%	49%	43	9%	52%	38%	27
SI	3%	74%	23%	11	3%	62%	35%	8
SK	1%	76%	23%	32	1%	71%	28%	22
UK	6%	64%	30%	382	6%	58%	35%	284
EU	5%	70%	25%	2,983	5%	69%	25%	2,213

P: primary; M: manufacturing; S: services

In 2014, 32m tCO₂ emitted in Finland were embodied in the final demand of the whole EU, of which 26% was emitted by the services sector.

C.3. EU CO₂ emissions by Member State embodied in EU final demand by sector (2000, 2014; %)



In 2014, 69% of the EU CO₂ emissions embodied in EU final demand were emitted by the manufacturing sector (down from 70% in 2000), 25% by the services sector (same as in 2000) and 5% by the primary sector (same as in 2000). In 2014, the manufacturing sector accounted for at least 50% of the CO₂ emissions embodied in EU final demand in all Member States except in Luxembourg and Malta.

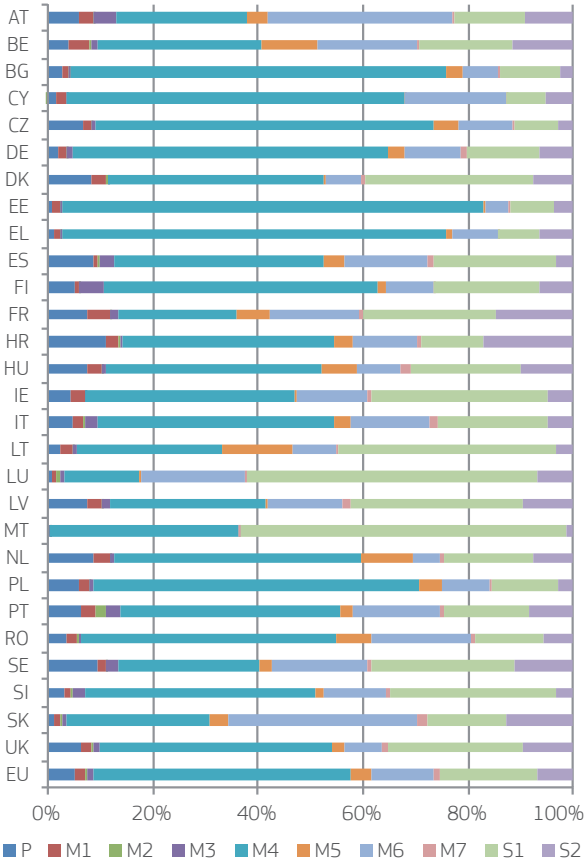
C.4. EU CO₂ emissions by Member State embodied in EU final demand by industry (2014; % and m tCO₂)

	P	M1	M2	M3	M4	M5	M6	M7	S1	S2	Total
AT	6.1%	2.6%	0.1%	4.3%	24.7%	4.1%	35.0%	0.7%	13.4%	9.0%	31
BE	3.9%	4.1%	0.3%	1.0%	31.4%	10.5%	19.0%	0.7%	17.6%	11.6%	48
BG	2.8%	1.0%	0.2%	0.4%	71.3%	3.3%	6.7%	0.2%	11.3%	2.7%	34
CY	1.6%	1.7%	0.0%	0.2%	64.1%	0.1%	19.4%	0.1%	7.5%	5.1%	4
CZ	6.9%	1.4%	0.1%	0.6%	64.4%	4.6%	10.2%	0.7%	8.2%	2.8%	67
DE	1.9%	1.5%	0.1%	1.1%	60.2%	2.9%	10.6%	1.3%	13.9%	6.4%	520
DK	8.4%	2.8%	0.0%	0.3%	40.8%	0.7%	6.7%	0.6%	32.0%	7.6%	28
EE	1.0%	1.3%	0.1%	0.5%	80.2%	0.1%	4.6%	0.3%	8.2%	3.8%	14
EL	1.2%	1.2%	0.0%	0.2%	73.2%	1.3%	8.6%	0.0%	7.9%	6.5%	54
ES	8.7%	1.0%	0.3%	2.6%	40.1%	3.9%	15.8%	1.0%	23.4%	3.4%	159
FI	5.2%	0.6%	0.0%	4.9%	51.8%	1.8%	9.1%	0.1%	19.9%	6.5%	32
FR	7.6%	4.1%	0.2%	1.5%	22.3%	6.7%	16.6%	0.9%	25.3%	14.8%	176
HR	11.1%	2.5%	0.1%	0.5%	40.3%	3.4%	12.3%	0.7%	12.0%	17.2%	10
HU	7.5%	2.6%	0.2%	0.7%	41.2%	6.7%	8.2%	1.9%	21.1%	9.9%	27
IE	4.3%	2.6%	0.0%	0.2%	39.6%	0.7%	13.4%	0.6%	33.9%	4.7%	23
IT	4.6%	1.9%	0.7%	2.1%	45.1%	3.2%	15.0%	1.5%	21.1%	4.9%	207
LT	2.4%	2.4%	0.1%	0.8%	27.6%	13.5%	8.2%	0.3%	41.7%	3.1%	9
LU	0.9%	0.6%	0.9%	0.7%	14.2%	0.3%	19.8%	0.3%	55.3%	7.0%	4
LV	7.7%	2.4%	0.1%	1.5%	29.8%	0.3%	14.3%	1.4%	32.8%	9.7%	5
MT	0.4%	0.1%	0.0%	0.0%	35.7%	0.0%	0.1%	0.4%	62.0%	1.2%	3
NL	8.6%	3.0%	0.1%	0.7%	47.2%	9.7%	5.1%	0.7%	17.2%	7.6%	99
PL	6.0%	1.9%	0.1%	0.9%	61.9%	4.1%	9.1%	0.3%	12.6%	3.1%	232
PT	6.1%	2.9%	1.8%	2.8%	41.8%	2.7%	16.3%	0.7%	16.3%	8.5%	32
RO	3.6%	2.0%	0.2%	0.6%	48.5%	6.8%	18.9%	0.8%	12.9%	5.7%	55
SE	9.4%	1.5%	0.1%	2.2%	26.9%	2.6%	17.8%	1.1%	27.0%	11.3%	27
SI	3.3%	1.2%	0.2%	2.6%	43.7%	1.3%	11.8%	1.0%	31.4%	3.4%	8
SK	1.2%	1.2%	0.2%	0.8%	27.2%	3.7%	35.9%	1.7%	15.3%	12.7%	22
UK	6.3%	2.1%	0.4%	1.2%	44.1%	2.4%	7.0%	1.2%	25.7%	9.6%	284
EU	5.1%	2.0%	0.2%	1.4%	48.9%	3.9%	12.0%	1.0%	18.5%	7.0%	2,213

P: primary; M1: food, beverages, tobacco; M2: textiles; M3: wood, paper, printing; M4: energy; M5: chemicals; M6: other non-metallic and basic metals; M7: machinery and transport equipment; S1: transport, trade and business services; S2: other services.

In 2014, 32m tCO₂ emitted in Portugal were embodied in the final demand of the whole EU, of which 1.8% was emitted by the textile industry (M2).

C.4. EU CO₂ emissions by Member State embodied in EU final demand by industry (2014; %)



In 2014, 49% of the EU CO₂ emissions embodied in EU final demand were emitted by the energy industry (M4), 19% by transport, trade and business services industries (S1), 12% by other non-metallic and basic metals industries (M6), and 7% by other services (S2).

C.5. EU CO₂ emissions embodied in EU final demand: inter-industry linkages (2000, 2014; m tCO₂)

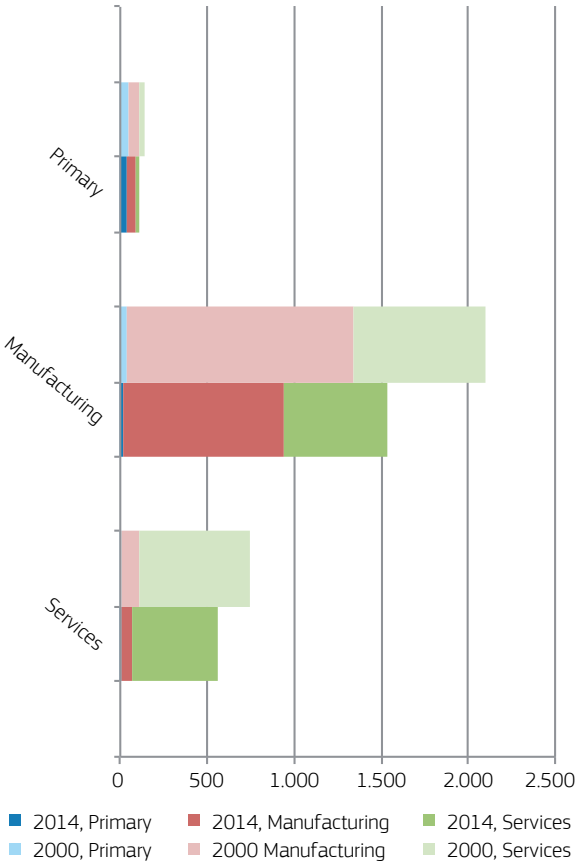
	Final producer (2000)											Total
	P	M1	M2	M3	M4	M5	M6	M7	S1	S2		
P	523	293	12	08	182	14	19	58	93	224	142	
M1	1.4	508	03	01	02	03	01	07	18	92	65	
M2	01	02	142	01	01	01	01	10	07	15	18	
M3	05	34	07	115	07	07	06	41	84	127	43	
M4	222	650	193	117	6514	210	236	813	1449	3011	1,341	
M5	42	78	40	16	45	471	47	139	107	273	126	
M6	47	152	37	21	119	48	809	1047	340	1986	461	
M7	03	07	02	01	05	02	03	319	27	56	42	
S1	52	245	72	29	101	60	60	385	3388	1003	539	
S2	03	11	03	01	09	03	03	19	62	1929	204	
Total	91	198	51	31	699	82	119	284	557	872	2,983	

	Final producer (2014)											Total
	P	M1	M2	M3	M4	M5	M6	M7	S1	S2		
P	381	314	05	04	106	08	08	27	74	202	113	
M1	09	321	01	00	02	02	01	04	21	84	45	
M2	00	01	35	00	00	00	00	03	04	08	5	
M3	03	29	03	69	07	05	04	22	63	96	30	
M4	125	497	62	67	5319	143	179	556	1297	2584	1,083	
M5	24	59	15	09	56	268	31	87	97	227	87	
M6	23	99	11	10	73	26	462	467	248	1228	265	
M7	01	04	01	01	04	01	02	148	18	34	21	
S1	33	178	25	16	101	3.7	39	208	2645	811	409	
S2	02	09	01	01	11	02	02	12	60	1447	155	
Total	60	151	16	18	568	49	73	153	453	672	2,213	

P: primary; M1: food, beverages, tobacco; M2: textiles; M3: wood, paper, printing; M4: energy; M5: chemicals; M6: other non-metallic and basic metals; M7: machinery and transport equipment; S1: transport, trade and business services; S2: other services.

In 2014, 3.7m tCO₂ emitted by the EU transport, trade and business services industries (S1) were embodied in the EU final demand of products of the chemical industry (M5).

C.5. EU CO₂ emissions embodied in EU final demand: inter-industry linkages (2000, 2014; m tCO₂)



In 2014, 1,536m tCO₂ emitted by the manufacturing sectors across the EU were embodied in EU final demand, of which 916m tCO₂ were embodied in the EU final demand of products of the manufacturing sector and 601m tCO₂ were embodied in the EU final demand of services. In 2014, 564m tCO₂ emitted by the services sectors across the EU were embodied in EU final demand, of which 496m tCO₂ were embodied in the EU final demand of services and 64m tCO₂ were embodied in the EU final demand of products of the manufacturing sector.

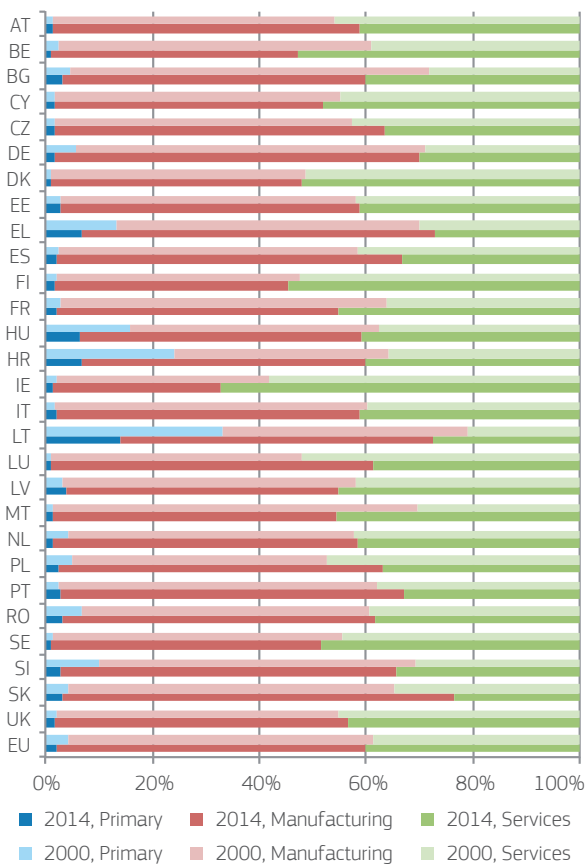
C.6. Non-EU CO₂ emissions embodied in the final demand of each Member State by sector of final demand (2000, 2014; % and m tCO₂)

	2000				2014			
	P	M	S	Total	P	M	S	Total
AT	1%	53%	46%	20	1%	58%	41%	27
BE	2%	58%	39%	39	1%	46%	53%	62
BG	5%	67%	28%	7	3%	57%	40%	8
CY	2%	54%	45%	3	2%	50%	48%	4
CZ	2%	55%	43%	15	2%	62%	36%	19
DE	6%	65%	29%	232	2%	68%	30%	254
DK	1%	47%	51%	17	1%	47%	52%	24
EE	3%	55%	42%	4	3%	56%	41%	3
EL	13%	57%	30%	34	7%	66%	27%	22
ES	2%	56%	42%	71	2%	64%	33%	87
FI	2%	46%	52%	17	2%	44%	55%	19
FR	3%	61%	36%	125	2%	53%	45%	170
HR	24%	40%	36%	5	7%	53%	40%	5
HU	16%	47%	38%	16	6%	53%	41%	12
IE	2%	40%	58%	14	2%	31%	67%	21
IT	2%	58%	40%	142	2%	57%	41%	123
LT	33%	46%	21%	12	14%	58%	28%	8
LU	1%	47%	52%	3	1%	60%	39%	5
LV	3%	55%	42%	4	4%	51%	45%	4
MT	2%	68%	31%	1	1%	53%	46%	1
NL	4%	53%	42%	56	1%	57%	42%	79
PL	5%	48%	47%	43	3%	60%	37%	50
PT	3%	59%	38%	14	3%	64%	33%	15
RO	7%	54%	39%	9	3%	58%	38%	18
SE	1%	54%	44%	25	1%	50%	48%	34
SI	10%	59%	31%	4	3%	63%	35%	6
SK	4%	61%	35%	8	3%	73%	24%	10
UK	2%	53%	45%	192	2%	55%	44%	207
EU	4%	57%	39%	1,131	2%	58%	40%	1,296

P: primary; M: manufacturing; S: services

In 2014, 62m tCO₂ emitted outside the EU were embodied in Belgian final demand, of which 46% was embodied in Belgian final demand of manufactures.

C.6. Non-EU CO₂ emissions embodied in the final demand of each Member State by sector of final demand (2000, 2014; %)



In 2014, 58% of the non-EU CO₂ emissions embodied in EU final demand were embodied in products of the manufacturing sector (57% in 2000), 40% was embodied in the final demand of services (39% in 2000) and 2% in the final demand of products of the primary sector (4% in 2000).

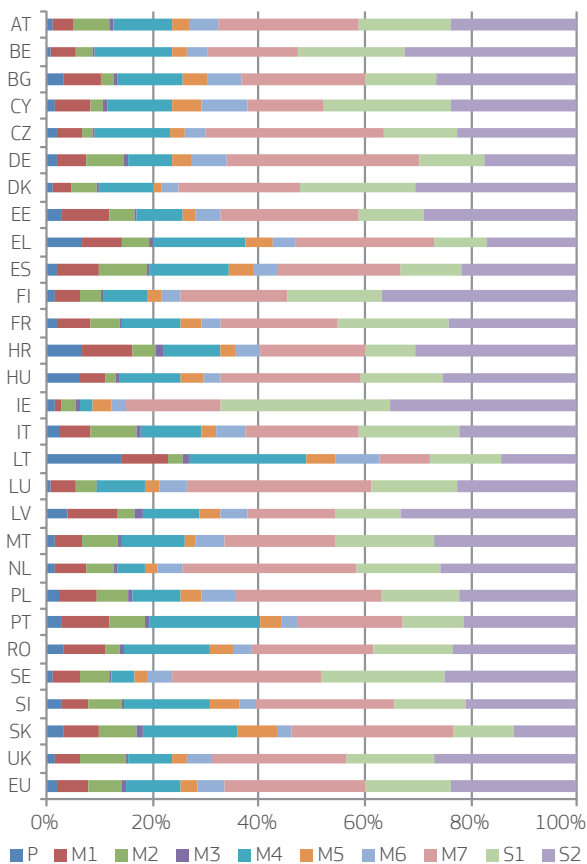
C.7. Non-EU CO₂ emissions embodied in the final demand of each Member State by industry of final demand (2014; % and m tCO₂)

	P	M1	M2	M3	M4	M5	M6	M7	S1	S2	Total
AT	1%	4%	7%	1%	11%	3%	5%	27%	17%	24%	27
BE	1%	4%	3%	0%	15%	3%	4%	17%	20%	33%	62
BG	3%	7%	2%	1%	12%	5%	6%	23%	13%	27%	8
CY	2%	6%	2%	1%	12%	6%	9%	14%	24%	24%	4
CZ	2%	5%	2%	0%	14%	3%	4%	34%	14%	23%	19
DE	2%	6%	7%	1%	8%	3%	7%	36%	13%	17%	254
DK	1%	4%	5%	0%	10%	2%	3%	23%	22%	31%	24
EE	3%	9%	5%	0%	9%	2%	5%	26%	12%	29%	3
EL	7%	8%	5%	1%	18%	5%	4%	26%	10%	17%	22
ES	2%	8%	9%	1%	15%	5%	4%	23%	11%	22%	87
FI	2%	5%	4%	0%	8%	3%	4%	20%	18%	37%	19
FR	2%	6%	6%	0%	11%	4%	3%	22%	21%	24%	170
HR	7%	9%	4%	2%	11%	3%	5%	20%	10%	30%	5
HU	6%	5%	2%	1%	12%	4%	3%	26%	15%	26%	12
IE	2%	1%	3%	1%	2%	4%	3%	18%	32%	35%	21
IT	2%	6%	9%	1%	11%	3%	5%	21%	19%	22%	123
LT	14%	9%	3%	1%	22%	6%	8%	10%	13%	14%	8
LU	1%	5%	4%	0%	9%	3%	5%	35%	16%	23%	5
LV	4%	9%	3%	1%	11%	4%	5%	17%	12%	33%	4
MT	1%	5%	7%	1%	12%	2%	5%	21%	18%	27%	1
NL	1%	6%	5%	1%	5%	2%	5%	33%	16%	26%	79
PL	3%	7%	6%	1%	9%	4%	6%	28%	15%	22%	50
PT	3%	9%	7%	1%	21%	4%	3%	20%	12%	21%	15
RO	3%	8%	3%	1%	16%	4%	4%	23%	15%	23%	18
SE	1%	5%	5%	1%	4%	2%	5%	28%	23%	25%	34
SI	3%	5%	6%	0%	16%	6%	3%	26%	14%	21%	6
SK	3%	7%	7%	1%	18%	8%	3%	30%	12%	12%	10
UK	2%	4%	9%	1%	8%	3%	5%	25%	17%	27%	207
EU	2%	6%	7%	1%	10%	3%	5%	26%	16%	24%	1,296

P: primary; M1: food, beverages, tobacco; M2: textiles; M3: wood, paper, printing; M4: energy; M5: chemicals; M6: other non-metallic and basic metals; M7: machinery and transport equipment; S1: transport, trade and business services; S2: other services.

In 2014, 3m tCO₂ emitted outside the EU were embodied in Estonian final demand, of which 9% was embodied in the final demand of products of the food, beverages and tobacco industries (M1).

C.7. Non-EU CO₂ emissions embodied in the final demand of each Member State by industry of final demand (2014; %)



In 2014, 26% of the CO₂ emissions outside the EU embodied in EU final demand were embodied in the final demand of products of the machinery and transport equipment industries (M7), 24% in the final demand of other services (S2), 16% in the final demand of transport, trade and business services (S1), 10% in the final demand of products of the energy industry (M4) and 7% in the final demand of textiles (M2).

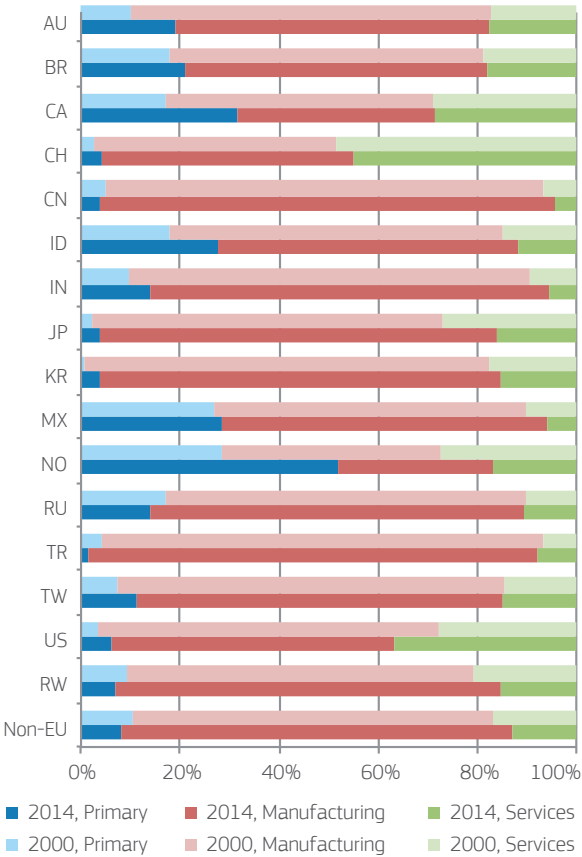
C.8. Non-EU CO₂ emissions by country embodied in EU final demand by sector (2000, 2014; % and m tCO₂)

	2000				2014			
	P	M	S	Total	P	M	S	Total
AU	10%	73%	17%	14	19%	63%	18%	7
BR	18%	63%	19%	16	21%	61%	18%	15
CA	17%	54%	29%	19	31%	40%	29%	17
CH	3%	49%	49%	6	4%	51%	45%	4
CN	5%	88%	7%	120	4%	92%	4%	342
ID	18%	67%	15%	17	28%	61%	12%	11
IN	10%	81%	10%	32	14%	80%	6%	58
JP	2%	71%	27%	34	4%	80%	16%	29
KR	1%	82%	18%	24	4%	81%	15%	27
MX	27%	63%	10%	5	28%	66%	6%	7
NO	28%	44%	27%	17	52%	32%	17%	12
RU	17%	72%	10%	278	14%	75%	11%	145
TR	4%	89%	7%	24	2%	91%	8%	31
TW	7%	78%	15%	16	11%	74%	15%	17
US	4%	69%	28%	114	6%	57%	37%	90
RW	9%	70%	21%	395	7%	78%	15%	482
Non-EU	10%	73%	17%	1,131	8%	79%	13%	1,296

P: primary; M: manufacturing; S: services

In 2014, 342m tCO₂ emitted in China were embodied in the final demand of the EU, of which 4% was emitted by the Chinese services sector.

C.8. Non-EU CO₂ emissions by country embodied in EU final demand by sector (2000, 2014; %)



In 2014, 79% of the non-EU emissions embodied in EU final demand were emitted by the manufacturing sector (73% in 2000), the services sector accounted for 13% (17% in 2000) and the primary sector for 8% (10% in 2000).

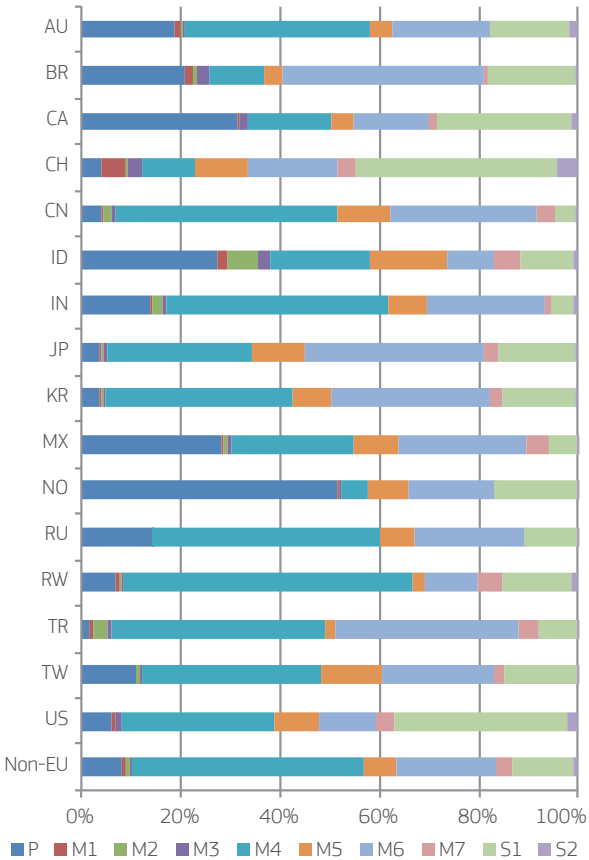
C.9. Non-EU CO₂ emissions by country embodied in EU final demand by industry (2014; % and m tCO₂)

	P	M1	M2	M3	M4	M5	M6	M7	S1	S2	Total
AU	19%	1%	0%	0%	37%	4%	20%	0%	16%	2%	7
BR	21%	2%	0%	3%	11%	4%	40%	1%	17%	1%	15
CA	31%	0%	0%	2%	17%	5%	15%	1%	27%	2%	17
CH	4%	5%	0%	3%	11%	11%	18%	4%	41%	4%	4
CN	4%	1%	1%	1%	45%	11%	30%	4%	4%	1%	342
ID	28%	2%	6%	2%	20%	15%	9%	5%	11%	1%	11
IN	14%	0%	2%	1%	44%	8%	24%	1%	4%	1%	58
JP	4%	0%	0%	1%	29%	11%	36%	3%	16%	0%	29
KR	4%	0%	1%	0%	38%	8%	32%	3%	15%	1%	27
MX	28%	0%	0%	1%	25%	9%	26%	4%	6%	0%	7
NO	52%	0%	0%	0%	5%	8%	17%	0%	17%	0%	12
RU	14%	0%	0%	0%	46%	7%	22%	0%	10%	0%	145
TR	2%	1%	3%	1%	43%	2%	37%	4%	8%	0%	31
TW	11%	0%	1%	1%	36%	12%	22%	2%	15%	0%	17
US	6%	1%	0%	1%	30%	9%	11%	4%	35%	2%	90
RW	7%	1%	1%	0%	58%	3%	10%	5%	14%	2%	482
Non-EU	8%	1%	1%	1%	47%	7%	20%	3%	12%	1%	1,296

P: primary; M1: food, beverages, tobacco; M2: textiles; M3: wood, paper, printing; M4: energy; M5: chemicals; M6: other non-metallic and basic metals; M7: machinery and transport equipment; S1: transport, trade and business services; S2: other services.

In 2014, 31m tCO₂ emitted in Turkey were embodied in EU final demand, of which 3% was emitted by the Turkish textile industry.

C.9. Non-EU CO₂ emissions by country embodied in EU final demand by industry (2014; %)



In 2014, 47% of the non-EU emissions embodied in EU final demand were emitted by the energy industry (M4), 20% by other non-metallic and basic metals (M6), 12% by the transport, trade and business services industries (S1) and 8% by the primary industry (P).

C.10. Non-EU CO₂ emissions embodied in EU final demand: inter-industry linkages (2000, 2014; m tCO₂)

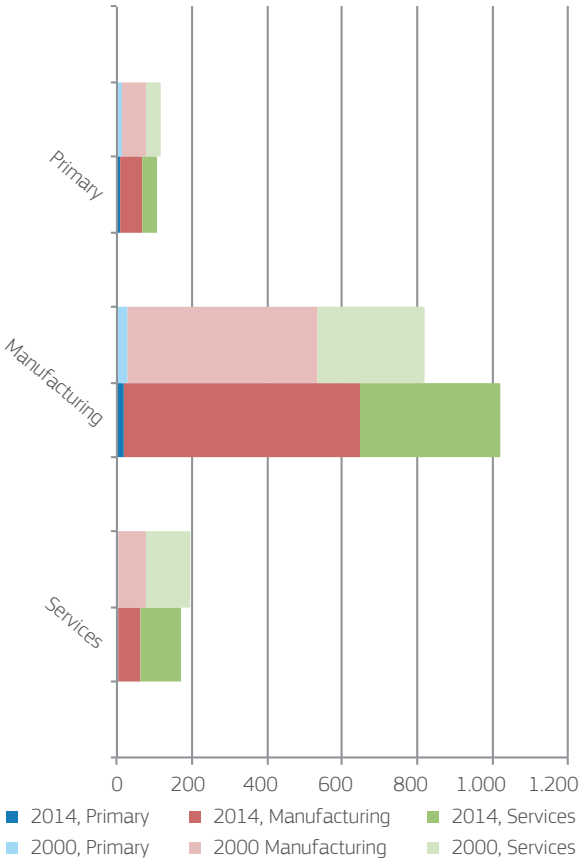
	Final producer (2000)										
	P	M1	M2	M3	M4	M5	M6	M7	S1	S2	Total
P	1481	1104	515	093	2677	288	341	1360	1324	2500	117
M1	0.16	3.23	0.30	0.01	0.06	0.07	0.04	0.32	0.34	1.09	6
M2	0.04	0.11	10.91	0.03	0.06	0.05	0.07	0.77	0.32	0.66	13
M3	0.15	0.74	0.58	0.72	0.28	0.29	0.24	2.73	1.77	2.83	10
M4	2153	28.11	36.91	4.30	73.39	15.68	18.26	103.52	70.32	112.94	485
M5	2.25	4.32	6.65	0.86	3.14	9.29	3.41	14.97	6.72	14.93	67
M6	3.30	7.46	6.64	0.96	8.62	3.03	19.91	82.81	18.49	46.96	198
M7	0.29	0.66	0.70	0.12	0.72	0.27	0.38	30.83	2.70	5.45	42
S1	3.98	9.97	8.67	1.17	13.33	3.60	3.74	29.00	64.02	38.26	176
S2	0.25	0.66	0.63	0.08	0.74	0.26	0.26	2.06	3.01	10.03	18
Total	47	66	77	9	127	35	50	281	181	258	1,131

	Final producer (2014)										
	P	M1	M2	M3	M4	M5	M6	M7	S1	S2	Total
P	612	10.26	5.44	0.67	21.63	3.29	3.44	16.55	15.17	24.54	107
M1	0.18	3.53	0.48	0.02	0.12	0.15	0.09	0.70	0.53	1.42	7
M2	0.03	0.12	8.56	0.02	0.08	0.06	0.08	0.83	0.43	0.86	11
M3	0.10	0.57	0.47	0.61	0.28	0.22	0.20	2.24	1.50	2.21	8
M4	13.20	34.09	46.85	3.99	82.07	21.41	24.30	144.59	91.22	142.41	604
M5	2.00	5.27	8.10	0.81	4.46	9.61	4.03	20.67	10.08	20.44	85
M6	2.71	9.56	8.13	1.06	11.27	4.14	28.15	99.34	28.02	64.65	257
M7	0.22	0.69	0.66	0.11	0.84	0.33	0.48	31.88	3.34	6.74	45
S1	2.28	9.23	6.34	0.73	11.00	3.81	2.92	23.83	60.13	36.48	157
S2	0.15	0.54	0.47	0.05	0.62	0.25	0.22	1.86	2.58	6.80	14
Total	27	74	86	8	132	43	64	342	213	307	1,296

P: primary; M1: food, beverages, tobacco; M2: textiles; M3: wood, paper, printing; M4: energy; M5: chemicals; M6: other non-metallic and basic metals; M7: machinery and transport equipment; S1: transport, trade and business services; S2: other services.

In 2014, 10.26m tCO₂ emitted by the non-EU primary industry (P) were embodied in the EU final demand of products of the EU food, beverages and tobacco industries (M1).

C.10. Non-EU CO₂ emissions embodied in EU final demand: inter-industry linkages (2000, 2014; m tCO₂)



In 2014, 1,017m tCO₂ emitted by the non-EU manufacturing sector were embodied in the final demand of the EU, of which 626m tCO₂ were embodied in the EU final demand of products of the manufacturing sector and 374m tCO₂ were embodied in EU final demand of services. In 2014, 171m tCO₂ emitted by the non-EU services sector were embodied in the final demand of the EU, of which 106m tCO₂ were embodied in the EU final demand of services and 62m tCO₂ were embodied in EU final demand of products of the manufacturing sector.

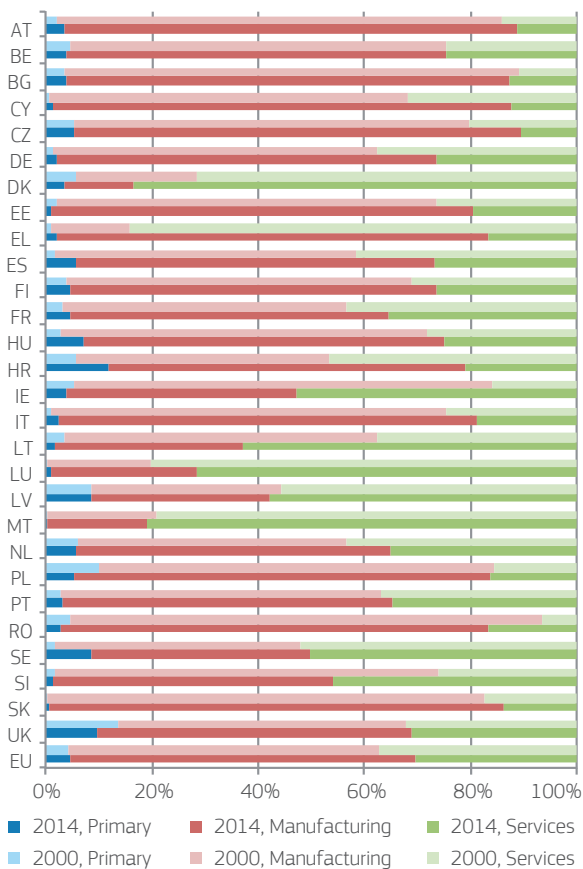
C.11. EU CO₂ emissions by Member State embodied in non-EU final demand by sector (2000, 2014; % and m tCO₂)

	2000				2014			
	P	M	S	Total	P	M	S	Total
AT	2%	84%	14%	11	4%	85%	11%	12
BE	5%	71%	25%	23	4%	71%	25%	24
BG	3%	86%	11%	4	4%	83%	13%	9
CY	1%	67%	32%	1	1%	86%	12%	1
CZ	5%	74%	20%	19	6%	84%	10%	15
DE	1%	61%	38%	167	2%	72%	26%	156
DK	6%	23%	72%	26	3%	13%	83%	36
EE	2%	71%	26%	2	1%	79%	20%	4
EL	1%	15%	84%	27	2%	81%	17%	11
ES	2%	57%	42%	38	6%	67%	27%	48
FI	4%	65%	31%	14	5%	69%	27%	13
FR	3%	53%	43%	59	5%	60%	36%	54
HR	6%	48%	47%	5	12%	67%	21%	4
HU	3%	69%	28%	8	7%	68%	25%	7
IE	5%	78%	16%	7	4%	43%	53%	9
IT	1%	74%	24%	50	2%	79%	19%	52
LT	4%	59%	38%	1	2%	35%	63%	7
LU	0%	20%	80%	4	1%	27%	72%	3
LV	9%	36%	56%	1	9%	34%	58%	2
MT	0%	21%	79%	0	0%	19%	81%	1
NL	6%	51%	43%	34	6%	59%	35%	46
PL	10%	74%	16%	27	5%	78%	16%	38
PT	3%	60%	37%	5	3%	62%	35%	9
RO	5%	89%	6%	16	3%	80%	17%	11
SE	2%	46%	52%	17	9%	41%	50%	15
SI	2%	72%	26%	1	2%	52%	46%	3
SK	0%	82%	17%	4	1%	85%	14%	7
UK	14%	54%	32%	85	10%	59%	31%	80
EU	4%	58%	37%	657	5%	65%	31%	678

P: primary; M: manufacturing; S: services

In 2014, 54m tCO₂ emitted in France were embodied in the final demand of non-EU countries, of which 36% was emitted by the services sector.

C.11. EU CO₂ emissions by Member State embodied in non-EU final demand by sector (2000, 2014; %)



In 2014, 65% of EU CO₂ emissions embodied in non-EU final demand were emitted by the manufacturing sector (up from 58% in 2000), 31% by the services sector (down from 37% in 2000) and 5% by primary sector (up from, 4% in 2000). In 2014, the manufacturing sector accounted for more than 50% of the EU CO₂ emissions embodied in non-EU final demand in most Member States, except in Denmark, Ireland, Lithuania, Luxembourg, Latvia, Malta and Sweden.

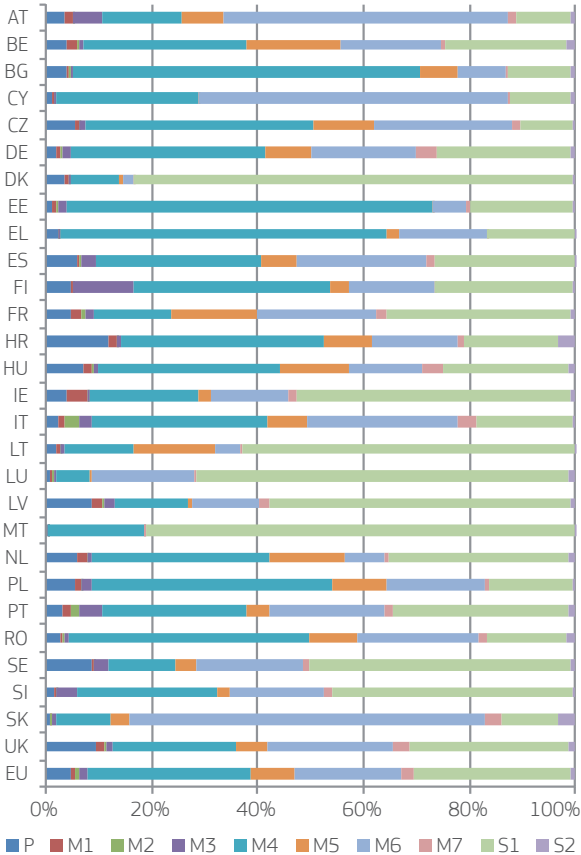
C.12. EU CO₂ emissions by Member State embodied in non-EU final demand by industry (2014; % and m tCO₂)

	P	M1	M2	M3	M4	M5	M6	M7	S1	S2	Total
AT	3.7%	1.4%	0.2%	5.5%	14.8%	7.8%	54.0%	1.2%	10.3%	1.1%	12
BE	3.9%	2.0%	0.3%	0.8%	31.0%	17.6%	19.0%	0.8%	22.8%	1.8%	24
BG	3.9%	0.6%	0.1%	0.7%	65.2%	7.1%	9.1%	0.4%	12.1%	0.8%	9
CY	1.3%	0.4%	0.1%	0.1%	26.9%	0.2%	58.5%	0.2%	11.6%	0.8%	1
CZ	5.5%	0.7%	0.2%	1.1%	42.9%	11.3%	26.2%	1.5%	9.9%	0.5%	15
DE	2.1%	0.7%	0.3%	1.7%	36.7%	8.6%	19.9%	3.7%	25.5%	0.8%	156
DK	3.5%	1.0%	0.0%	0.1%	9.3%	0.6%	2.0%	0.2%	82.9%	0.4%	36
EE	1.0%	0.9%	0.5%	1.3%	69.1%	0.2%	6.3%	0.9%	19.0%	0.7%	4
EL	2.2%	0.2%	0.0%	0.2%	61.6%	2.4%	16.5%	0.0%	16.6%	0.3%	11
ES	5.9%	0.4%	0.5%	2.7%	31.3%	6.7%	24.3%	1.4%	26.5%	0.3%	48
FI	4.7%	0.3%	0.1%	11.7%	37.0%	3.6%	15.9%	0.1%	26.1%	0.5%	13
FR	4.8%	2.1%	0.7%	1.4%	14.7%	16.4%	22.3%	2.1%	34.7%	0.9%	54
HR	11.9%	1.6%	0.1%	0.5%	38.6%	8.9%	16.0%	1.3%	18.0%	3.1%	4
HU	7.2%	1.5%	0.3%	0.8%	34.4%	13.0%	13.8%	4.0%	23.8%	1.2%	7
IE	4.0%	4.0%	0.0%	0.2%	20.5%	2.2%	14.7%	1.5%	51.9%	1.0%	9
IT	2.5%	1.3%	2.5%	2.5%	33.2%	7.5%	28.2%	3.6%	18.4%	0.5%	52
LT	1.9%	0.8%	0.3%	0.6%	13.0%	15.7%	4.7%	0.3%	62.7%	0.2%	7
LU	1.0%	0.1%	0.4%	0.3%	6.4%	0.3%	19.6%	0.3%	70.2%	1.3%	3
LV	8.6%	2.1%	0.4%	1.9%	13.6%	0.8%	12.8%	1.9%	56.7%	1.1%	2
MT	0.3%	0.1%	0.0%	0.1%	17.9%	0.1%	0.2%	0.4%	80.8%	0.2%	1
NL	5.7%	2.1%	0.1%	0.5%	33.7%	14.3%	7.5%	0.9%	33.9%	1.3%	46
PL	5.4%	1.2%	0.2%	1.9%	45.6%	10.3%	18.2%	0.9%	16.0%	0.4%	38
PT	3.3%	1.3%	1.6%	4.5%	27.1%	4.2%	21.9%	1.3%	33.3%	1.4%	9
RO	2.9%	0.4%	0.1%	0.9%	45.3%	9.0%	22.9%	1.8%	14.9%	1.7%	11
SE	8.5%	0.6%	0.1%	2.5%	12.7%	3.9%	20.1%	1.3%	49.3%	0.9%	15
SI	1.5%	0.3%	0.3%	3.7%	26.5%	2.4%	17.7%	1.5%	45.6%	0.4%	3
SK	0.8%	0.2%	0.3%	0.6%	10.4%	3.6%	66.9%	3.3%	10.5%	3.4%	7
UK	9.6%	1.4%	0.6%	1.0%	23.4%	5.7%	23.7%	3.4%	29.9%	1.3%	80
EU	4.6%	1.2%	0.5%	1.7%	30.6%	8.5%	20.2%	2.2%	29.7%	0.9%	678

P: primary; M1: food, beverages, tobacco; M2: textiles; M3: wood, paper, printing; M4: energy; M5: chemicals; M6: other non-metallic and basic metals; M7: machinery and transport equipment; S1: transport, trade and business services; S2: other services.

In 2014, 9m tCO₂ emitted in Portugal were embodied in the final demand of non-EU countries, of which 1.3% was emitted by the food, beverages and tobacco industries (M1).

C.12. EU CO₂ emissions by Member State embodied in non-EU final demand by industry (2014; %)



In 2014, 31% of the EU CO₂ emissions embodied in non-EU final demand were emitted by the energy industry (M4), 30% by the transport, trade and business services industries (S1), 20% by the other non-metallic and basic metals industries (M6), 8.5% by the chemical industry (M5) and 4.6% by the primary industry (P).

C.13. EU CO₂ emissions embodied in non-EU final demand: inter-industry linkages (2000, 2014; m tCO₂)

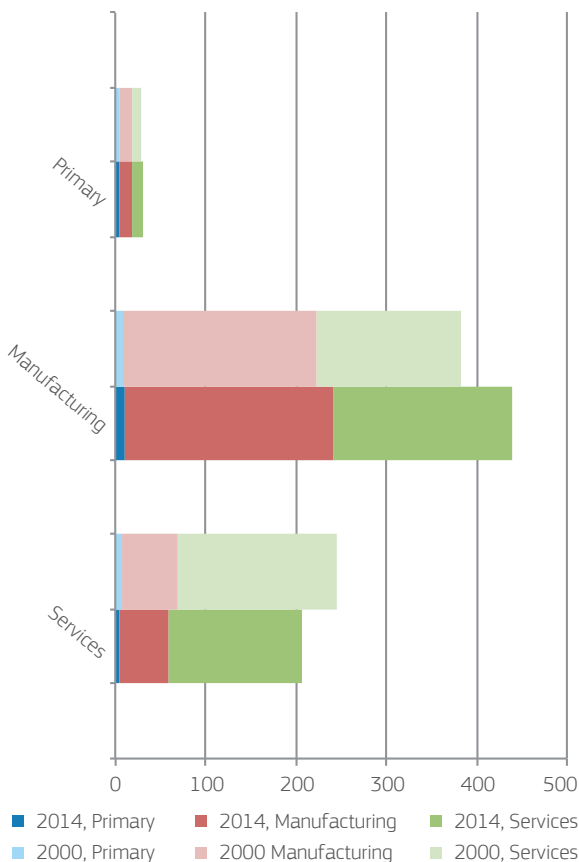
	Final producer (2000)										
	P	M1	M2	M3	M4	M5	M6	M7	S1	S2	Total
P	5	4	1	0	3	1	1	4	3	7	29
M1	0.15	4.56	0.12	0.01	0.04	0.10	0.03	0.34	0.31	0.74	6
M2	0.04	0.08	3.90	0.02	0.04	0.04	0.04	0.50	0.30	0.71	6
M3	0.17	0.92	0.39	0.64	0.16	0.30	0.19	2.16	1.98	3.08	10
M4	4.30	10.42	7.38	1.20	13.56	5.60	4.68	38.58	28.46	44.25	158
M5	1.66	2.98	3.05	0.35	1.05	8.26	1.59	9.01	4.93	12.97	46
M6	1.92	4.61	2.34	0.41	2.72	1.96	11.26	58.14	12.77	45.84	142
M7	0.14	0.24	0.15	0.03	0.19	0.10	0.11	10.83	1.16	1.92	15
S1	5.44	10.03	6.34	1.24	7.14	3.96	4.17	29.70	118.57	52.82	239
S2	0.10	0.22	0.15	0.02	0.13	0.12	0.08	0.98	1.00	2.30	5
Total	19	38	25	4	28	21	23	154	173	172	657

	Final producer (2014)										
	P	M1	M2	M3	M4	M5	M6	M7	S1	S2	Total
P	3.78	6.89	0.80	0.14	2.45	0.80	0.68	3.60	3.43	8.36	31
M1	0.20	5.23	0.12	0.01	0.07	0.16	0.05	0.42	0.49	1.06	8
M2	0.02	0.04	2.48	0.01	0.02	0.02	0.02	0.26	0.16	0.37	3
M3	0.19	1.19	0.36	0.85	0.21	0.41	0.21	2.18	2.28	3.88	12
M4	5.13	13.41	6.30	1.36	20.57	8.67	5.72	49.93	36.03	60.32	207
M5	2.16	3.56	2.55	0.41	1.64	12.26	1.89	10.10	6.13	17.08	58
M6	1.82	4.36	1.65	0.34	2.69	2.21	8.43	47.67	12.41	55.56	137
M7	0.14	0.24	0.11	0.02	0.18	0.11	0.11	10.52	1.17	2.30	15
S1	4.16	9.59	4.46	0.75	5.35	3.73	3.00	26.88	87.50	55.78	201
S2	0.11	0.28	0.13	0.02	0.17	0.16	0.10	1.13	1.35	2.62	6
Total	18	45	19	4	33	29	20	153	151	207	678

P: primary; M1: food, beverages, tobacco; M2: textiles; M3: wood, paper, printing; M4: energy; M5: chemicals; M6: other non-metallic and basic metals; M7: machinery and transport equipment; S1: transport, trade and business services; S2: other services.

In 2014, 3.73m tCO₂ emitted by the EU transport, trade and business services industries (S1) were embodied in the non-EU final demand of products of the chemical industry (M5).

C.13. EU CO₂ emissions embodied in non-EU final demand: inter-industry linkages (2000, 2014; m tCO₂)



In 2014, 440m tCO₂ emitted by the manufacturing sector across the EU were embodied in non-EU final demand, of which 231m tCO₂ were embodied in the non-EU final demand of products of the manufacturing sector and 199m tCO₂ in the non-EU final demand of services. In 2014, 207m tCO₂ emitted by the services sector across the EU were embodied in non-EU final demand, of which 147m tCO₂ were embodied in the non-EU final demand of services and 56m tCO₂ in the non-EU final demand of products of the manufacturing sector.

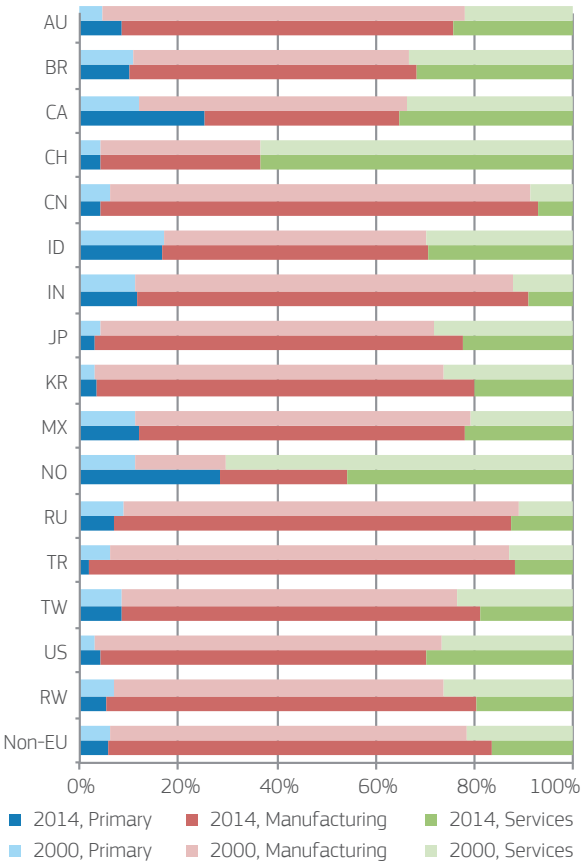
C.14. Non-EU CO₂ emissions by country embodied in non-EU final demand by sector (2000, 2014; % and m tCO₂)

	2000				2014			
	P	M	S	Total	P	M	S	Total
AU	4%	74%	22%	331	8%	67%	24%	358
BR	11%	56%	33%	302	10%	58%	32%	479
CA	12%	54%	34%	417	25%	39%	35%	450
CH	4%	32%	64%	20	4%	33%	63%	20
CN	6%	85%	9%	3,256	4%	89%	7%	9,604
ID	17%	53%	30%	269	17%	54%	29%	459
IN	11%	77%	12%	878	12%	79%	9%	1,981
JP	4%	68%	28%	1,102	3%	75%	22%	1,093
KR	3%	71%	26%	474	3%	77%	20%	591
MX	11%	68%	21%	339	12%	66%	22%	392
NO	11%	18%	70%	40	28%	26%	46%	34
RU	9%	80%	11%	1,117	7%	80%	13%	1,356
TR	6%	81%	13%	157	2%	86%	12%	239
TW	9%	68%	23%	242	9%	72%	19%	277
US	3%	70%	27%	4,936	4%	66%	30%	4,253
RW	7%	67%	26%	3,579	5%	75%	20%	6,495
Non-EU	6%	72%	22%	17,460	6%	77%	17%	28,081

P: primary; M: manufacturing; S: services

In 2014, 1,981m tCO₂ emitted in India were embodied in the final demand of non-EU countries, of which 9% was emitted by the services sector.

C.14. Non-EU CO₂ emissions by country embodied in non-EU final demand by sector (2000, 2014; %)



In 2014, 77% of non-EU CO₂ emissions embodied in non-EU final demand were emitted by the manufacturing sector (up from 72% in 2000), 17% by the services sector (down from 22% in 2000) and 6% by the primary sector (same as in 2000).

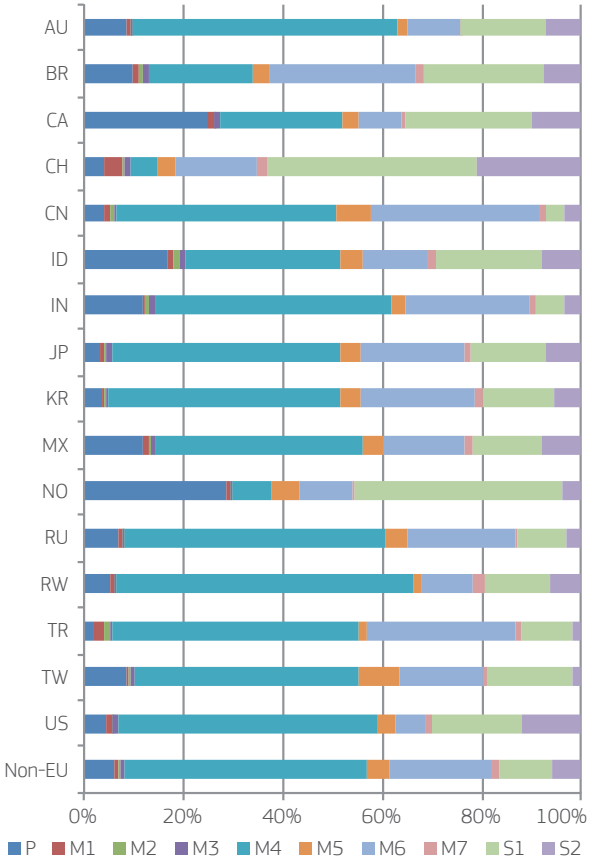
C.15. Non-EU CO₂ emissions by country embodied in non-EU final demand by industry (2014; % and m tCO₂)

	P	M1	M2	M3	M4	M5	M6	M7	S1	S2	Total
AU	8.4%	1.0%	0.1%	0.4%	52.9%	2.2%	10.6%	0.2%	17.3%	6.9%	358
BR	9.9%	1.3%	0.7%	1.1%	21.0%	3.2%	29.6%	1.2%	24.3%	7.6%	479
CA	25.1%	0.9%	0.1%	1.5%	24.3%	3.2%	8.5%	0.9%	25.7%	9.8%	450
CH	4.1%	3.6%	0.3%	1.5%	5.1%	3.6%	16.5%	2.0%	42.3%	20.9%	20
CN	4.2%	1.2%	0.6%	0.7%	44.1%	6.8%	34.0%	1.5%	3.6%	3.5%	9,604
ID	16.7%	1.1%	1.3%	1.4%	31.2%	4.3%	13.1%	1.6%	21.2%	8.1%	459
IN	11.6%	0.6%	0.6%	1.2%	47.7%	3.1%	24.9%	1.0%	5.8%	3.6%	1,981
JP	3.1%	1.0%	0.3%	1.1%	46.2%	4.1%	20.7%	1.1%	15.1%	7.2%	1,093
KR	3.5%	0.4%	0.3%	0.4%	46.8%	4.1%	23.1%	1.4%	14.6%	5.3%	591
MX	11.8%	1.0%	0.6%	0.8%	41.6%	4.2%	16.2%	1.6%	14.0%	7.9%	392
NO	28.5%	1.1%	0.0%	0.3%	7.8%	5.8%	10.6%	0.3%	41.7%	4.0%	34
RU	7.1%	0.5%	0.1%	0.3%	52.5%	4.8%	21.3%	0.7%	9.8%	3.0%	1,356
TR	2.0%	2.1%	1.1%	0.6%	49.4%	1.7%	29.9%	1.2%	10.1%	1.9%	239
TW	8.7%	0.3%	0.4%	0.7%	45.0%	8.4%	16.5%	0.9%	17.0%	1.9%	277
US	4.3%	1.4%	0.1%	0.9%	52.4%	3.6%	6.1%	1.3%	17.8%	12.1%	4,253
RW	5.3%	0.6%	0.2%	0.2%	59.8%	1.6%	10.3%	2.4%	13.2%	6.4%	6,495
Non-EU	5.9%	1.0%	0.4%	0.7%	48.9%	4.3%	20.6%	1.6%	10.7%	6.0%	28,081

P: primary; M1: food, beverages, tobacco; M2: textiles; M3: wood, paper, printing; M4: energy; M5: chemicals; M6: other non-metallic and basic metals; M7: machinery and transport equipment; S1: transport, trade and business services; S2: other services.

In 2014, 392m tCO₂ emitted in Mexico were embodied in the final demand of non-EU countries, of which 1% was emitted by the food, beverages, tobacco industry (M1).

C.15. Non-EU CO₂ emissions by country embodied in non-EU final demand by industry (2014; %)



In 2014, 50% of the non-EU CO₂ emissions embodied in non-EU final demand were emitted by the energy industry (M4), 21% by the other non-metallic and basic metals industries (M6), 11% by the transport, trade and business services industries (S1), 6% by other services (S2) and 5.9% by the primary industry (P).

C.16. Non-EU CO₂ emissions embodied in non-EU final demand: inter-industry linkages (2000, 2014; m tCO₂)

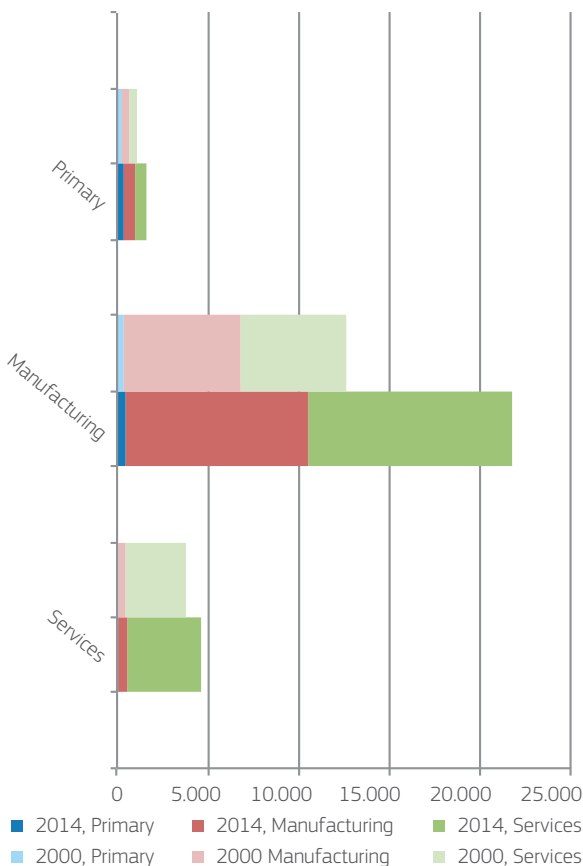
	Final producer (2000)										
	P	M1	M2	M3	M4	M5	M6	M7	S1	S2	Total
P	301	147	29	5	117	18	21	72	84	279	1,072
M1	8	153	2	0	1	1	0	2	5	31	203
M2	1	1	85	0	1	0	1	7	4	15	115
M3	3	16	5	28	2	3	3	24	34	82	199
M4	264	349	230	40	2,517	137	172	769	1,007	2,757	8,243
M5	46	42	50	5	15	172	26	103	55	231	745
M6	46	83	39	6	48	22	341	643	171	1,323	2,722
M7	4	5	4	1	5	2	3	236	24	70	353
S1	45	97	44	9	57	25	29	178	1,369	589	2,441
S2	3	7	4	1	5	2	2	14	47	1,280	1,366
Total	721	900	492	95	2,766	382	598	2,049	2,800	6,657	17,460

	Final producer (2014)										
	P	M1	M2	M3	M4	M5	M6	M7	S1	S2	Total
P	337	189	40	7	182	27	41	157	137	545	1,662
M1	10	186	4	0	1	2	1	8	8	57	275
M2	1	1	73	0	0	0	1	8	4	20	109
M3	2	14	4	28	2	3	2	24	26	81	187
M4	365	547	337	57	3,824	224	304	1,582	1,421	5,073	13,732
M5	54	66	63	7	22	203	35	199	87	476	1,213
M6	55	120	54	9	65	34	476	1,155	281	3,549	5,798
M7	4	6	5	1	5	2	5	263	31	113	435
S1	48	125	41	9	61	29	30	229	1,608	815	2,994
S2	4	8	4	1	5	2	2	21	55	1,573	1,674
Total	879	1,263	624	120	4,167	525	896	3,647	3,657	12,303	28,081

P: primary; M1: food, beverages, tobacco; M2: textiles; M3: wood, paper, printing; M4: energy; M5: chemicals; M6: other non-metallic and basic metals; M7: machinery and transport equipment; S1: transport, trade and business services; S2: other services.

In 2014, 29m tCO₂ emitted in the non-EU transport, trade and business services industries (S1) were embodied in the non-EU final demand of products of the chemical industry (M5).

C.16. Non-EU CO₂ emissions embodied in non-EU final demand: inter-industry linkages (2000, 2014; m tCO₂)



In 2014, 21,749m tCO₂ emitted by the manufacturing sector in non-EU countries were embodied in non-EU final demand, of which 11,227m tCO₂ were embodied in the non-EU final demand of services and 10,032m tCO₂ in the non-EU final demand of products of the manufacturing sector. In 2014, 4,668m tCO₂ emitted by the services sector in non-EU countries were embodied in non-EU final demand, of which 4,051m tCO₂ were embodied in the non-EU final demand of services and 567m tCO₂ in the non-EU final demand of products of the manufacturing sector.

D. By final destination

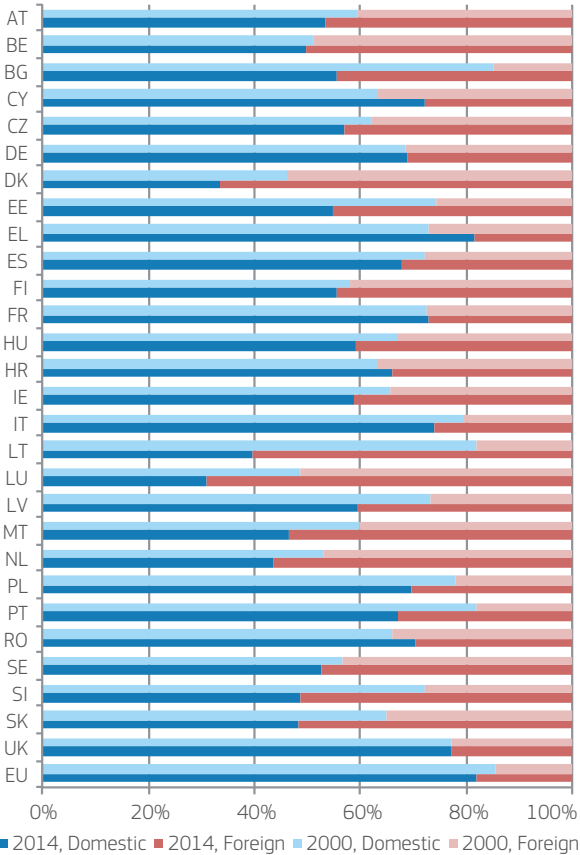
D.1. EU CO₂ emissions by Member State embodied in final demand by destination (2000, 2014; % and m tCO₂)

	2000			2014		
	Domestic	Foreign	Total	Domestic	Foreign	Total
AT	60%	40%	73	53%	47%	57
BE	51%	49%	132	50%	50%	98
BG	85%	15%	50	55%	45%	45
CY	63%	37%	8	72%	28%	7
CZ	62%	38%	134	57%	43%	96
DE	69%	31%	1,010	69%	31%	855
DK	46%	54%	77	33%	67%	71
EE	74%	26%	15	55%	45%	20
EL	73%	27%	132	81%	19%	79
ES	72%	28%	312	68%	32%	270
FI	58%	42%	68	56%	44%	51
FR	72%	28%	437	73%	27%	346
HR	63%	37%	20	66%	34%	18
HU	67%	33%	59	59%	41%	48
IE	66%	34%	44	59%	41%	44
IT	79%	21%	484	74%	26%	357
LT	82%	18%	12	40%	60%	18
LU	49%	51%	12	31%	69%	8
LV	73%	27%	8	59%	41%	9
MT	60%	40%	3	46%	54%	4
NL	53%	47%	191	44%	56%	179
PL	78%	22%	326	69%	31%	316
PT	82%	18%	68	67%	33%	49
RO	66%	34%	98	70%	30%	80
SE	56%	44%	72	53%	47%	51
SI	72%	28%	16	49%	51%	14
SK	65%	35%	42	48%	52%	34
UK	77%	23%	616	77%	23%	488
EU	85%	15%	4,516	82%	18%	3,711

Domestic CO₂ emissions including those emitted directly by households

In 2014, around 34m tCO₂ were emitted in Slovakia, of which 52% was embodied in foreign final demand. The rest were embodied in Slovakian final demand.

D.1. EU CO₂ emissions by Member State embodied in final demand by destination (2000, 2014; %)



In 2014, 82% of the total CO₂ emissions of the EU were linked to the final demand of EU Member States (85% in 2000), while 18% was embodied in the final demand of non-EU countries (15% in 2000). In Belgium, Denmark, Lithuania, Luxembourg, Malta, the Netherlands, Slovenia and Slovakia at least 50% of the CO₂ emissions are embodied in the final demand of other countries.

E. Country factsheets

Austria



		Production perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	3,756	4,268	226,884	2%
Value added	bn EUR	190	293	12,488	2%
CO ₂ emissions	m tCO ₂	73	57	3,711	2%

		Consumption perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	5,263	5,758	286,551	2%
Value added	bn EUR	187	282	11,984	2%
CO ₂ emissions	m tCO ₂	89	80	4,328	2%

Share of total CO₂ emissions in Austria and in the EU supported by EU final demand, 2000-2014 (%)



Austria



EU CO2 emissions embodied in the final demand of Austria					
		2000	2014	EU 2014	
C.1	by sector of final demand	Primary	2%	2%	3%
		Manufacturing	43%	44%	46%
		Services	55%	54%	51%
CO2 emissions in Austria embodied in EU final demand					
		2000	2014	EU 2014	
C.3	by sector	Primary	5%	6%	5%
		Manufacturing	65%	71%	69%
		Services	30%	22%	25%
D.1	by final destination*	Domestic	60%	53%	82%
		Foreign	40%	47%	18%
Non-EU CO2 emissions embodied in the final demand of Austria					
		2000	2014	EU 2014	
C.6	by sector of final demand	Primary	1%	1%	2%
		Manufacturing	53%	58%	58%
		Services	46%	41%	40%
CO2 emissions in Austria embodied in non-EU final demand					
		2000	2014	EU 2014	
C.11	by sector	Primary	2%	4%	5%
		Manufacturing	84%	85%	65%
		Services	14%	11%	31%

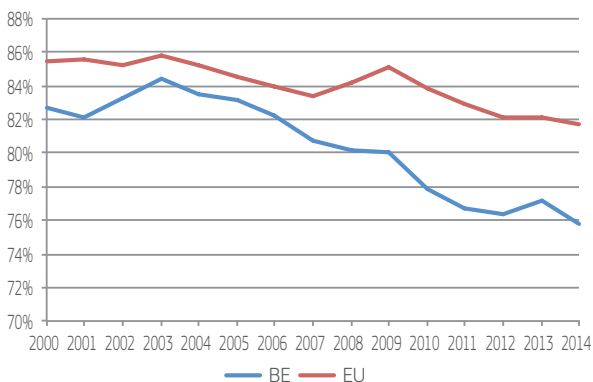
* Effects include global final demand (EU and non-EU).

Belgium



		Production perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	4,109	4,550	226,884	2%
Value added	bn EUR	230	358	12,488	3%
CO ₂ emissions	m tCO ₂	132	98	3,711	3%
		Consumption perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	7,607	7,845	286,551	3%
Value added	bn EUR	221	343	11,984	3%
CO ₂ emissions	m tCO ₂	146	138	4,328	3%

Share of total CO₂ emissions in Belgium and in the EU supported by EU final demand, 2000-2014 (%)



Belgium



EU CO2 emissions embodied in the final demand of Belgium					
		2000	2014	EU 2014	
C.1	by sector of final demand	Primary	2%	1%	3%
		Manufacturing	48%	40%	46%
		Services	50%	58%	51%
CO2 emissions in Belgium embodied in EU final demand					
		2000	2014	EU 2014	
C.3	by sector	Primary	3%	4%	5%
		Manufacturing	69%	67%	69%
		Services	27%	29%	25%
D.1	by final destination*	Domestic	51%	50%	82%
		Foreign	49%	50%	18%
Non-EU CO2 emissions embodied in the final demand of Belgium					
		2000	2014	EU 2014	
C.6	by sector of final demand	Primary	2%	1%	2%
		Manufacturing	58%	46%	58%
		Services	39%	53%	40%
CO2 emissions in Belgium embodied in non-EU final demand					
		2000	2014	EU 2014	
C.11	by sector	Primary	5%	4%	5%
		Manufacturing	71%	71%	65%
		Services	25%	25%	31%

* Effects include global final demand (EU and non-EU).

Bulgaria



		Production perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	3,319	3,600	226,884	2%
Value added	bn EUR	13	37	12,488	0%
CO ₂ emissions	m tCO ₂	50	45	3,711	1%
		Consumption perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	3,428	2,833	286,551	1%
Value added	bn EUR	16	40	11,984	0%
CO ₂ emissions	m tCO ₂	52	37	4,328	1%

Share of total CO₂ emissions in Bulgaria and in the EU supported by EU final demand, 2000-2014 (%)



Bulgaria



EU CO2 emissions embodied in the final demand of Bulgaria

		2000	2014	EU 2014	
C.1	by sector of final demand	Primary	6%	3%	3%
		Manufacturing	62%	53%	46%
		Services	32%	44%	51%

CO2 emissions in Bulgaria embodied in EU final demand

		2000	2014	EU 2014	
C.3	by sector	Primary	4%	3%	5%
		Manufacturing	86%	83%	69%
		Services	10%	14%	25%
D.1	by final destination*	Domestic	85%	55%	82%
		Foreign	15%	45%	18%

Non-EU CO2 emissions embodied in the final demand of Bulgaria

		2000	2014	EU 2014	
C.6	by sector of final demand	Primary	5%	3%	2%
		Manufacturing	67%	57%	58%
		Services	28%	40%	40%

CO2 emissions in Bulgaria embodied in non-EU final demand

		2000	2014	EU 2014	
C.11	by sector	Primary	3%	4%	5%
		Manufacturing	86%	83%	65%
		Services	11%	13%	31%

* Effects include global final demand (EU and non-EU).

Croatia



		Production perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	1,598	1,570	226,884	1%
Value added	bn EUR	20	36	12,488	0%
CO ₂ emissions	m tCO ₂	20	18	3,711	0%
		Consumption perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	1,527	1,495	286,551	1%
Value added	bn EUR	20	36	11,984	0%
CO ₂ emissions	m tCO ₂	21	20	4,328	0%

Share of total CO₂ emissions in Croatia and in the EU supported by EU final demand, 2000-2014 (%)



Croatia



EU CO2 emissions embodied in the final demand of Croatia				2000	2014	EU 2014
C.1	by sector of final demand	Primary		10%	7%	3%
		Manufacturing		49%	43%	46%
		Services		41%	50%	51%
CO2 emissions in Croatia embodied in EU final demand				2000	2014	EU 2014
C.3	by sector	Primary		11%	11%	5%
		Manufacturing		69%	60%	69%
		Services		20%	29%	25%
D.1	by final destination*	Domestic		63%	66%	82%
		Foreign		37%	34%	18%
Non-EU CO2 emissions embodied in the final demand of Croatia				2000	2014	EU 2014
C.6	by sector of final demand	Primary		24%	7%	2%
		Manufacturing		40%	53%	58%
		Services		36%	40%	40%
CO2 emissions in Croatia embodied in non-EU final demand				2000	2014	EU 2014
C.11	by sector	Primary		6%	12%	5%
		Manufacturing		48%	67%	65%
		Services		47%	21%	31%

* Effects include global final demand (EU and non-EU).

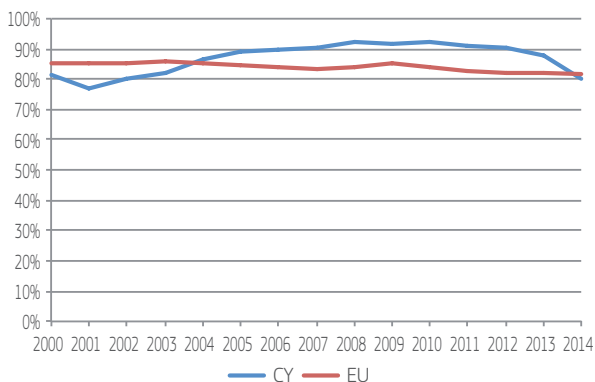
Cyprus



		Production perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	316	358	226,884	0%
Value added	bn EUR	10	16	12,488	0%
CO ₂ emissions	m tCO ₂	8	7	3,711	0%

		Consumption perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	560	530	286,551	0%
Value added	bn EUR	12	17	11,984	0%
CO ₂ emissions	m tCO ₂	9	10	4,328	0%

Share of total CO₂ emissions in Cyprus and in the EU supported by EU final demand, 2000-2014 (%)



Cyprus



EU CO ₂ emissions embodied in the final demand of Cyprus					
		2000	2014	EU 2014	
C.1	by sector of final demand	Primary	3%	2%	3%
		Manufacturing	35%	42%	46%
		Services	63%	56%	51%
CO ₂ emissions in Cyprus embodied in EU final demand					
		2000	2014	EU 2014	
C.3	by sector	Primary	2%	2%	5%
		Manufacturing	78%	86%	69%
		Services	20%	13%	25%
D.1	by final destination*	Domestic	63%	72%	82%
		Foreign	37%	28%	18%
Non-EU CO ₂ emissions embodied in the final demand of Cyprus					
		2000	2014	EU 2014	
C.6	by sector of final demand	Primary	2%	2%	2%
		Manufacturing	54%	50%	58%
		Services	45%	48%	40%
CO ₂ emissions in Cyprus embodied in non-EU final demand					
		2000	2014	EU 2014	
C.11	by sector	Primary	1%	1%	5%
		Manufacturing	67%	86%	65%
		Services	32%	12%	31%

* Effects include global final demand (EU and non-EU).

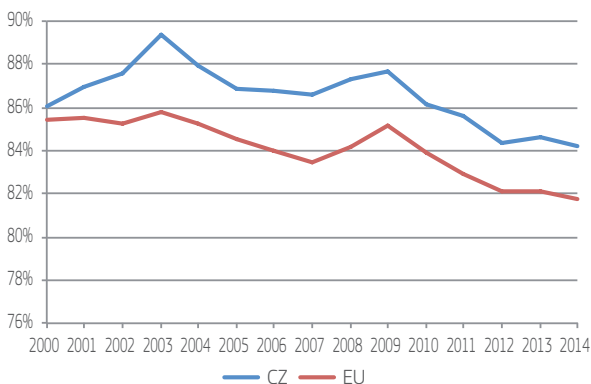
Czech Republic



		Production perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	4,859	5,109	226,884	2%
Value added	bn EUR	61	140	12,488	1%
CO ₂ emissions	m tCO ₂	134	96	3,711	3%

		Consumption perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	4,468	4,636	286,551	2%
Value added	bn EUR	62	129	11,984	1%
CO ₂ emissions	m tCO ₂	108	86	4,328	2%

Share of total CO₂ emissions in the Czech Republic and in the EU supported by EU final demand, 2000-2014 (%)



Czech Republic



EU CO ₂ emissions embodied in the final demand of the Czech Republic				
		2000	2014	EU 2014

C.1	by sector of final demand	Primary	2%	3%	3%
		Manufacturing	58%	59%	46%
		Services	40%	38%	51%

CO ₂ emissions in the Czech Republic embodied in EU final demand				
		2000	2014	EU 2014

C.3	by sector	Primary	6%	7%	5%
		Manufacturing	83%	82%	69%
		Services	10%	11%	25%

D.1	by final destination*	Domestic	62%	57%	82%
		Foreign	38%	43%	18%

Non-EU CO ₂ emissions embodied in the final demand of the Czech Republic				
		2000	2014	EU 2014

C.6	by sector of final demand	Primary	2%	2%	2%
		Manufacturing	55%	62%	58%
		Services	43%	36%	40%

CO ₂ emissions in the Czech Republic embodied in non-EU final demand				
		2000	2014	EU 2014

C.11	by sector	Primary	5%	6%	5%
		Manufacturing	74%	84%	65%
		Services	20%	10%	31%

* Effects include global final demand (EU and non-EU).

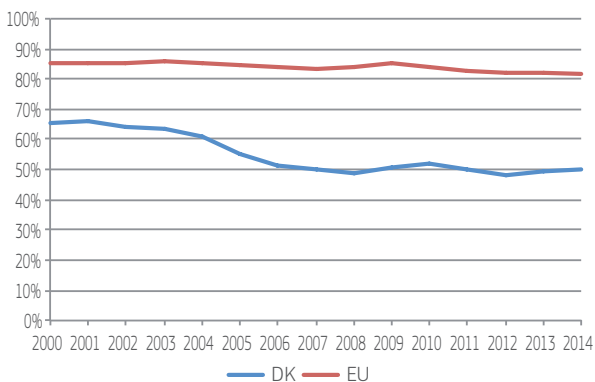
Denmark



		Production perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	2,736	2,765	226,884	1%
Value added	bn EUR	154	226	12,488	2%
CO ₂ emissions	m tCO ₂	77	71	3,711	2%

		Consumption perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	4,285	4,033	286,551	1%
Value added	bn EUR	139	207	11,984	2%
CO ₂ emissions	m tCO ₂	65	58	4,328	1%

Share of total CO₂ emissions in Denmark and in the EU supported by EU final demand, 2000-2014 (%)



Denmark



EU CO2 emissions embodied in the final demand of Denmark					
		2000	2014	EU 2014	
C.1	by sector of final demand	Primary	2%	2%	3%
		Manufacturing	50%	43%	46%
		Services	47%	55%	51%
CO2 emissions in Denmark embodied in EU final demand					
		2000	2014	EU 2014	
C.3	by sector	Primary	10%	8%	5%
		Manufacturing	66%	52%	69%
		Services	24%	40%	25%
D.1	by final destination*	Domestic	46%	33%	82%
		Foreign	54%	67%	18%
Non-EU CO2 emissions embodied in the final demand of Denmark					
		2000	2014	EU 2014	
C.6	by sector of final demand	Primary	1%	1%	2%
		Manufacturing	47%	47%	58%
		Services	51%	52%	40%
CO2 emissions in Denmark embodied in non-EU final demand					
		2000	2014	EU 2014	
C.11	by sector	Primary	6%	3%	5%
		Manufacturing	23%	13%	65%
		Services	72%	83%	31%

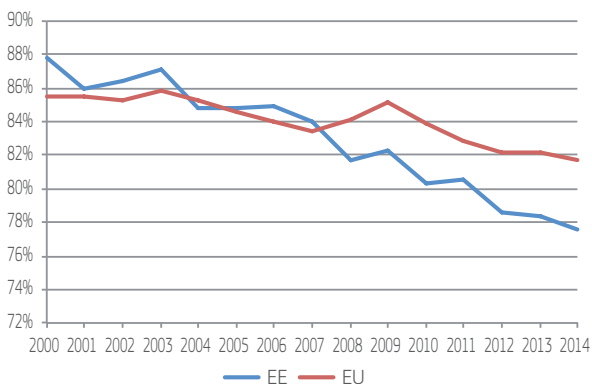
* Effects include global final demand (EU and non-EU).

Estonia



		Production perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	589	619	226,884	0%
Value added	bn EUR	5	18	12,488	0%
CO ₂ emissions	m tCO ₂	15	20	3,711	1%
		Consumption perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	686	685	286,551	0%
Value added	bn EUR	7	18	11,984	0%
CO ₂ emissions	m tCO ₂	16	16	4,328	0%

Share of total CO₂ emissions in Estonia and in the EU supported by EU final demand, 2000-2014 (%)



Estonia



EU CO2 emissions embodied in the final demand of Estonia					
		2000	2014	EU 2014	
C.1	by sector of final demand	Primary	2%	2%	3%
		Manufacturing	54%	50%	46%
		Services	44%	48%	51%
CO2 emissions in Estonia embodied in EU final demand					
		2000	2014	EU 2014	
C.3	by sector	Primary	2%	1%	5%
		Manufacturing	87%	87%	69%
		Services	11%	12%	25%
D.1	by final destination*	Domestic	74%	55%	82%
		Foreign	26%	45%	18%
Non-EU CO2 emissions embodied in the final demand of Estonia					
		2000	2014	EU 2014	
C.6	by sector of final demand	Primary	3%	3%	2%
		Manufacturing	55%	56%	58%
		Services	42%	41%	40%
CO2 emissions in Estonia embodied in non-EU final demand					
		2000	2014	EU 2014	
C.11	by sector	Primary	2%	1%	5%
		Manufacturing	71%	79%	65%
		Services	26%	20%	31%

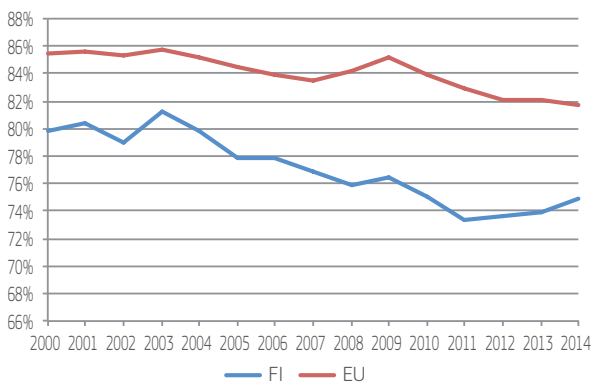
* Effects include global final demand (EU and non-EU).

Finland



		Production perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	2,298	2,499	226,884	1%
Value added	bn EUR	119	177	12,488	1%
CO ₂ emissions	m tCO ₂	68	51	3,711	1%
		Consumption perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	3,021	3,433	286,551	1%
Value added	bn EUR	105	176	11,984	1%
CO ₂ emissions	m tCO ₂	65	57	4,328	1%

Share of total CO₂ emissions in Finland and in the EU supported by EU final demand, 2000-2014 (%)



Finland



EU CO2 emissions embodied in the final demand of Finland					
		2000	2014	EU 2014	
C.1	by sector of final demand	Primary	2%	3%	3%
		Manufacturing	30%	30%	46%
		Services	68%	67%	51%
CO2 emissions in Finland embodied in EU final demand					
		2000	2014	EU 2014	
C.3	by sector	Primary	4%	5%	5%
		Manufacturing	62%	68%	69%
		Services	34%	26%	25%
D.1	by final destination*	Domestic	58%	56%	82%
		Foreign	42%	44%	18%
Non-EU CO2 emissions embodied in the final demand of Finland					
		2000	2014	EU 2014	
C.6	by sector of final demand	Primary	2%	2%	2%
		Manufacturing	46%	44%	58%
		Services	52%	55%	40%
CO2 emissions in Finland embodied in non-EU final demand					
		2000	2014	EU 2014	
C.11	by sector	Primary	4%	5%	5%
		Manufacturing	65%	69%	65%
		Services	31%	27%	31%

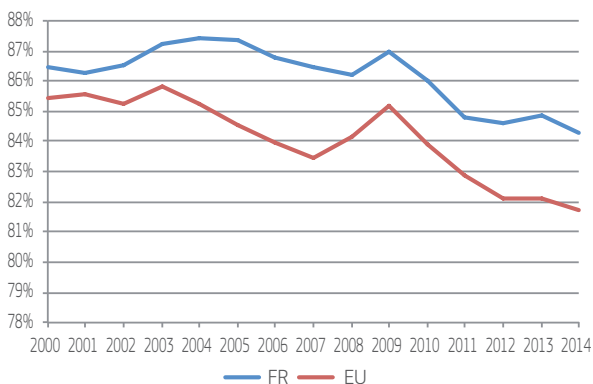
* Effects include global final demand (EU and non-EU).

France



		Production perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	25,672	27,295	226,884	12%
Value added	bn EUR	1,333	1,910	12,488	15%
CO ₂ emissions	m tCO ₂	437	346	3,711	9%
		Consumption perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	36,176	37,541	286,551	13%
Value added	bn EUR	1,308	1,931	11,984	16%
CO ₂ emissions	m tCO ₂	532	497	4,328	11%

Share of total CO₂ emissions in France and in the EU supported by EU final demand, 2000-2014 (%)



France

EU CO₂ emissions embodied in the final demand of France

		2000	2014	EU 2014	
C.1	by sector of final demand	Primary	3%	3%	3%
		Manufacturing	39%	35%	46%
		Services	58%	61%	51%

CO₂ emissions in France embodied in EU final demand

		2000	2014	EU 2014	
C.3	by sector	Primary	6%	8%	5%
		Manufacturing	51%	52%	69%
		Services	43%	40%	25%
D.1	by final destination*	Domestic	72%	73%	82%
		Foreign	28%	27%	18%

Non-EU CO₂ emissions embodied in the final demand of France

		2000	2014	EU 2014	
C.6	by sector of final demand	Primary	3%	2%	2%
		Manufacturing	61%	53%	58%
		Services	36%	45%	40%

CO₂ emissions in France embodied in non-EU final demand

		2000	2014	EU 2014	
C.11	by sector	Primary	3%	5%	5%
		Manufacturing	53%	60%	65%
		Services	43%	36%	31%

* Effects include global final demand (EU and non-EU).

Germany



		Production perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	39,917	42,706	226,884	19%
Value added	bn EUR	1,909	2,623	12,488	21%
CO ₂ emissions	m tCO ₂	1,010	855	3,711	23%

		Consumption perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	56,409	54,132	286,551	19%
Value added	bn EUR	1,835	2,340	11,984	20%
CO ₂ emissions	m tCO ₂	1,069	952	4,328	22%

Share of total CO₂ emissions in Germany and in the EU supported by EU final demand, 2000-2014 (%)



Germany



EU CO2 emissions embodied in the final demand of Germany					
			2000	2014	EU 2014
C.1	by sector of final demand	Primary	2%	1%	3%
		Manufacturing	54%	56%	46%
		Services	43%	43%	51%
CO2 emissions in Germany embodied in EU final demand					
			2000	2014	EU 2014
C.3	by sector	Primary	2%	2%	5%
		Manufacturing	69%	78%	69%
		Services	29%	20%	25%
D.1	by final destination*	Domestic	69%	69%	82%
		Foreign	31%	31%	18%
Non-EU CO2 emissions embodied in the final demand of Germany					
			2000	2014	EU 2014
C.6	by sector of final demand	Primary	6%	2%	2%
		Manufacturing	65%	68%	58%
		Services	29%	30%	40%
CO2 emissions in Germany embodied in non-EU final demand					
			2000	2014	EU 2014
C.11	by sector	Primary	1%	2%	5%
		Manufacturing	61%	72%	65%
		Services	38%	26%	31%

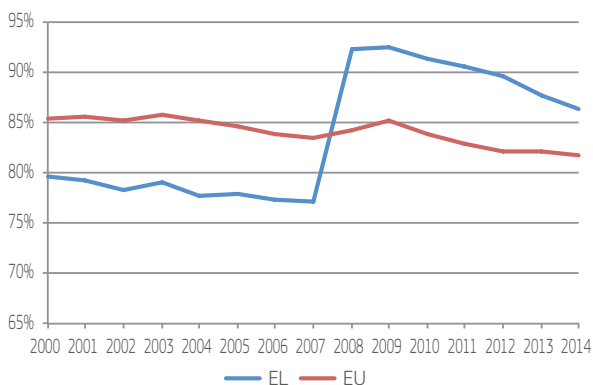
* Effects include global final demand (EU and non-EU).

Greece



		Production perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	4,308	3,963	226,884	2%
Value added	bn EUR	128	157	12,488	1%
CO ₂ emissions	m tCO ₂	132	79	3,711	2%
		Consumption perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	6,258	5,052	286,551	2%
Value added	bn EUR	153	171	11,984	1%
CO ₂ emissions	m tCO ₂	143	94	4,328	2%

Share of total CO₂ emissions in Greece and in the EU supported by EU final demand, 2000-2014 (%)



Greece

EU CO₂ emissions embodied in the final demand of Greece

		2000	2014	EU 2014	
C.1	by sector of final demand	Primary	4%	2%	3%
		Manufacturing	54%	63%	46%
		Services	42%	35%	51%

CO₂ emissions in Greece embodied in EU final demand

		2000	2014	EU 2014	
C.3	by sector	Primary	4%	1%	5%
		Manufacturing	78%	84%	69%
		Services	18%	14%	25%
D.1	by final destination*	Domestic	73%	81%	82%
		Foreign	27%	19%	18%

Non-EU CO₂ emissions embodied in the final demand of Greece

		2000	2014	EU 2014	
C.6	by sector of final demand	Primary	13%	7%	2%
		Manufacturing	57%	66%	58%
		Services	30%	27%	40%

CO₂ emissions in Greece embodied in non-EU final demand

		2000	2014	EU 2014	
C.11	by sector	Primary	1%	2%	5%
		Manufacturing	15%	81%	65%
		Services	84%	17%	31%

* Effects include global final demand (EU and non-EU).

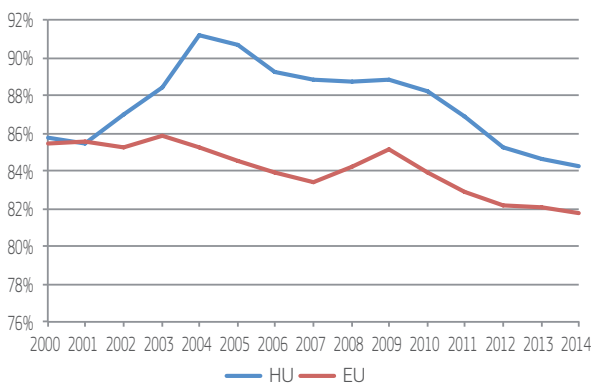
Hungary



		Production perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	4,237	4,234	226,884	2%
Value added	bn EUR	44	88	12,488	1%
CO ₂ emissions	m tCO ₂	59	48	3,711	1%

		Consumption perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	4,016	3,660	286,551	1%
Value added	bn EUR	47	82	11,984	1%
CO ₂ emissions	m tCO ₂	63	49	4,328	1%

Share of total CO₂ emissions in Hungary and in the EU supported by EU final demand, 2000-2014 (%)



Hungary



EU CO₂ emissions embodied in the final demand of Hungary

		2000	2014	EU 2014	
C.1	by sector of final demand	Primary	5%	4%	3%
		Manufacturing	50%	41%	46%
		Services	45%	54%	51%

CO₂ emissions in Hungary embodied in EU final demand

		2000	2014	EU 2014	
C.3	by sector	Primary	6%	7%	5%
		Manufacturing	75%	61%	69%
		Services	19%	31%	25%
D.1	by final destination*	Domestic	67%	59%	82%
		Foreign	33%	41%	18%

Non-EU CO₂ emissions embodied in the final demand of Hungary

		2000	2014	EU 2014	
C.6	by sector of final demand	Primary	16%	6%	2%
		Manufacturing	47%	53%	58%
		Services	38%	41%	40%

CO₂ emissions in Hungary embodied in non-EU final demand

		2000	2014	EU 2014	
C.11	by sector	Primary	3%	7%	5%
		Manufacturing	69%	68%	65%
		Services	28%	25%	31%

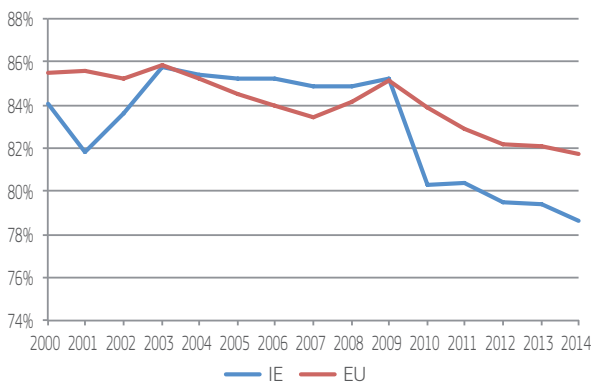
* Effects include global final demand (EU and non-EU).

Ireland



		Production perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	1,712	1,914	226,884	1%
Value added	bn EUR	97	171	12,488	1%
CO ₂ emissions	m tCO ₂	44	44	3,711	1%
		Consumption perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	2,536	3,383	286,551	1%
Value added	bn EUR	81	135	11,984	1%
CO ₂ emissions	m tCO ₂	50	53	4,328	1%

Share of total CO₂ emissions in Ireland and in the EU supported by EU final demand, 2000-2014 (%)



Ireland



EU CO2 emissions embodied in the final demand of Ireland					
		2000	2014	EU 2014	
C.1	by sector of final demand	Primary	4%	3%	3%
		Manufacturing	41%	36%	46%
		Services	55%	62%	51%
CO2 emissions in Ireland embodied in EU final demand					
		2000	2014	EU 2014	
C.3	by sector	Primary	5%	4%	5%
		Manufacturing	73%	57%	69%
		Services	22%	39%	25%
D.1	by final destination*	Domestic	66%	59%	82%
		Foreign	34%	41%	18%
Non-EU CO2 emissions embodied in the final demand of Ireland					
		2000	2014	EU 2014	
C.6	by sector of final demand	Primary	2%	2%	2%
		Manufacturing	40%	31%	58%
		Services	58%	67%	40%
CO2 emissions in Ireland embodied in non-EU final demand					
		2000	2014	EU 2014	
C.11	by sector	Primary	5%	4%	5%
		Manufacturing	78%	43%	65%
		Services	16%	53%	31%

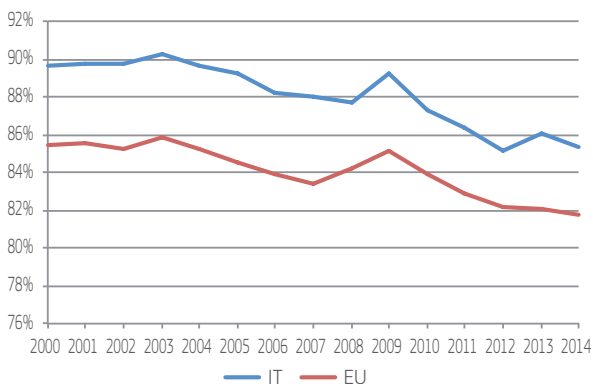
* Effects include global final demand (EU and non-EU).

Italy



		Production perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	23,021	24,368	226,884	11%
Value added	bn EUR	1,111	1,449	12,488	12%
CO ₂ emissions	m tCO ₂	484	357	3,711	10%
		Consumption perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	32,586	30,306	286,551	11%
Value added	bn EUR	1,109	1,403	11,984	12%
CO ₂ emissions	m tCO ₂	600	438	4,328	10%

Share of total CO₂ emissions in Italy and in the EU supported by EU final demand, 2000-2014 (%)



Italy



EU CO2 emissions embodied in the final demand of Italy					
			2000	2014	EU 2014
C.1	by sector of final demand	Primary	3%	4%	3%
		Manufacturing	53%	43%	46%
		Services	45%	53%	51%
CO2 emissions in Italy embodied in EU final demand					
			2000	2014	EU 2014
C.3	by sector	Primary	3%	5%	5%
		Manufacturing	79%	69%	69%
		Services	18%	26%	25%
D.1	by final destination*	Domestic	79%	74%	82%
		Foreign	21%	26%	18%
Non-EU CO2 emissions embodied in the final demand of Italy					
			2000	2014	EU 2014
C.6	by sector of final demand	Primary	2%	2%	2%
		Manufacturing	58%	57%	58%
		Services	40%	41%	40%
CO2 emissions in Italy embodied in non-EU final demand					
			2000	2014	EU 2014
C.11	by sector	Primary	1%	2%	5%
		Manufacturing	74%	79%	65%
		Services	24%	19%	31%

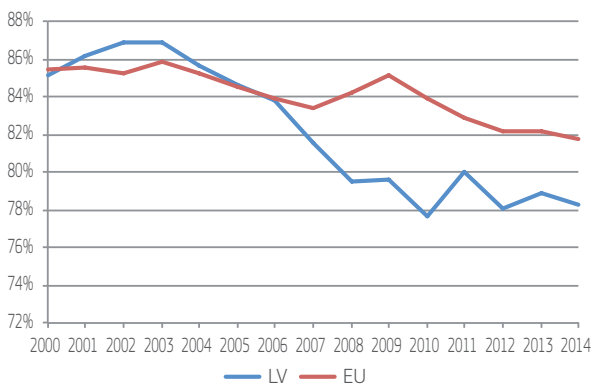
* Effects include global final demand (EU and non-EU).

Latvia



		Production perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	924	898	226,884	0%
Value added	bn EUR	8	21	12,488	0%
CO ₂ emissions	m tCO ₂	8	9	3,711	0%
		Consumption perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	1,029	927	286,551	0%
Value added	bn EUR	9	21	11,984	0%
CO ₂ emissions	m tCO ₂	12	12	4,328	0%

Share of total CO₂ emissions in Latvia and in the EU supported by EU final demand, 2000-2014 (%)



Latvia



EU CO ₂ emissions embodied in the final demand of Latvia					
			2000	2014	EU 2014
C.1	by sector of final demand	Primary	-5%	5%	3%
		Manufacturing	54%	42%	46%
		Services	51%	54%	51%
CO ₂ emissions in Latvia embodied in EU final demand					
			2000	2014	EU 2014
C.3	by sector	Primary	8%	8%	5%
		Manufacturing	58%	50%	69%
		Services	34%	42%	25%
D.1	by final destination*	Domestic	73%	59%	82%
		Foreign	27%	41%	18%
Non-EU CO ₂ emissions embodied in the final demand of Latvia					
			2000	2014	EU 2014
C.6	by sector of final demand	Primary	3%	4%	2%
		Manufacturing	55%	51%	58%
		Services	42%	45%	40%
CO ₂ emissions in Latvia embodied in non-EU final demand					
			2000	2014	EU 2014
C.11	by sector	Primary	9%	9%	5%
		Manufacturing	36%	34%	65%
		Services	56%	58%	31%

* Effects include global final demand (EU and non-EU).

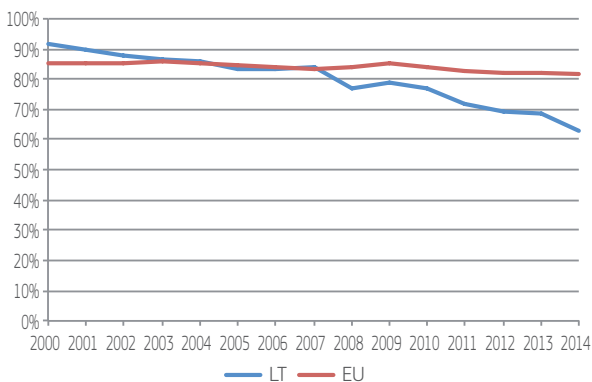
Lithuania



		Production perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	1,399	1,317	226,884	1%
Value added	bn EUR	11	33	12,488	0%
CO ₂ emissions	m tCO ₂	12	18	3,711	0%

		Consumption perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	1,554	1,399	286,551	0%
Value added	bn EUR	13	32	11,984	0%
CO ₂ emissions	m tCO ₂	24	19	4,328	0%

Share of total CO₂ emissions in Lithuania and in the EU supported by EU final demand, 2000-2014 (%)



Lithuania



EU CO ₂ emissions embodied in the final demand of Lithuania					
		2000	2014	EU 2014	
C.1	by sector of final demand	Primary	5%	6%	3%
		Manufacturing	65%	57%	46%
		Services	31%	37%	51%
CO ₂ emissions in Lithuania embodied in EU final demand					
		2000	2014	EU 2014	
C.3	by sector	Primary	4%	2%	5%
		Manufacturing	73%	53%	69%
		Services	22%	45%	25%
D.1	by final destination*	Domestic	82%	40%	82%
		Foreign	18%	60%	18%
Non-EU CO ₂ emissions embodied in the final demand of Lithuania					
		2000	2014	EU 2014	
C.6	by sector of final demand	Primary	33%	14%	2%
		Manufacturing	46%	58%	58%
		Services	21%	28%	40%
CO ₂ emissions in Lithuania embodied in non-EU final demand					
		2000	2014	EU 2014	
C.11	by sector	Primary	4%	2%	5%
		Manufacturing	59%	35%	65%
		Services	38%	63%	31%

* Effects include global final demand (EU and non-EU).

Luxembourg



		Production perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	263	405	226,884	0%
Value added	bn EUR	21	44	12,488	0%
CO ₂ emissions	m tCO ₂	12	8	3,711	0%
		Consumption perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	578	701	286,551	0%
Value added	bn EUR	17	33	11,984	0%
CO ₂ emissions	m tCO ₂	11	10	4,328	0%

Share of total CO₂ emissions in Luxembourg and in the EU supported by EU final demand, 2000-2014 (%)



Luxembourg



EU CO ₂ emissions embodied in the final demand of Luxembourg					
		2000	2014	EU 2014	
C.1	by sector of final demand	Primary	2%	2%	3%
		Manufacturing	52%	53%	46%
		Services	46%	44%	51%
CO ₂ emissions in Luxembourg embodied in EU final demand					
		2000	2014	EU 2014	
C.3	by sector	Primary	2%	1%	5%
		Manufacturing	42%	37%	69%
		Services	57%	62%	25%
D.1	by final destination*	Domestic	49%	31%	82%
		Foreign	51%	69%	18%
Non-EU CO ₂ emissions embodied in the final demand of Luxembourg					
		2000	2014	EU 2014	
C.6	by sector of final demand	Primary	1%	1%	2%
		Manufacturing	47%	60%	58%
		Services	52%	39%	40%
CO ₂ emissions in Luxembourg embodied in non-EU final demand					
		2000	2014	EU 2014	
C.11	by sector	Primary	0%	1%	5%
		Manufacturing	20%	27%	65%
		Services	80%	72%	31%

* Effects include global final demand (EU and non-EU).

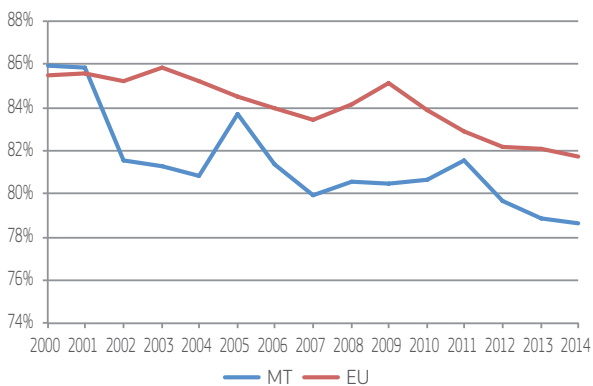
Malta



		Production perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	151	194	226,884	0%
Value added	bn EUR	4	7	12,488	0%
CO ₂ emissions	m tCO ₂	3	4	3,711	0%

		Consumption perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	243	231	286,551	0%
Value added	bn EUR	5	7	11,984	0%
CO ₂ emissions	m tCO ₂	5	4	4,328	0%

Share of total CO₂ emissions in Malta and in the EU supported by EU final demand, 2000-2014 (%)



Malta



EU CO ₂ emissions embodied in the final demand of Malta					
		2000	2014	EU 2014	
C.1	by sector of final demand	Primary	2%	2%	3%
		Manufacturing	55%	37%	46%
		Services	44%	61%	51%
CO ₂ emissions in Malta embodied in EU final demand					
		2000	2014	EU 2014	
C.3	by sector	Primary	1%	0%	5%
		Manufacturing	47%	36%	69%
		Services	52%	63%	25%
D.1	by final destination*	Domestic	60%	46%	82%
		Foreign	40%	54%	18%
Non-EU CO ₂ emissions embodied in the final demand of Malta					
		2000	2014	EU 2014	
C.6	by sector of final demand	Primary	2%	1%	2%
		Manufacturing	68%	53%	58%
		Services	31%	46%	40%
CO ₂ emissions in Malta embodied in non-EU final demand					
		2000	2014	EU 2014	
C.11	by sector	Primary	0%	0%	5%
		Manufacturing	21%	19%	65%
		Services	79%	81%	31%

* Effects include global final demand (EU and non-EU).

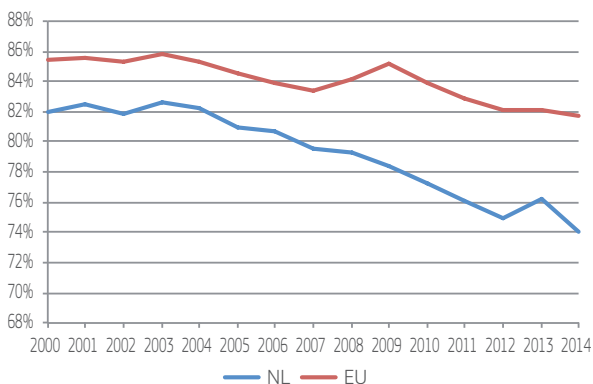
Netherlands



		Production perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	8,207	8,727	226,884	4%
Value added	bn EUR	402	597	12,488	5%
CO ₂ emissions	m tCO ₂	191	179	3,711	5%

		Consumption perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	13,463	13,317	286,551	5%
Value added	bn EUR	373	510	11,984	4%
CO ₂ emissions	m tCO ₂	193	181	4,328	4%

Share of total CO₂ emissions in the Netherlands and in the EU supported by EU final demand, 2000-2014 (%)



Netherlands



EU CO ₂ emissions embodied in the final demand of the Netherlands					
		2000	2014	EU 2014	
C.1	by sector of final demand	Primary	3%	2%	3%
		Manufacturing	49%	45%	46%
		Services	49%	53%	51%
CO ₂ emissions in the Netherlands embodied in EU final demand					
		2000	2014	EU 2014	
C.3	by sector	Primary	9%	9%	5%
		Manufacturing	68%	67%	69%
		Services	23%	25%	25%
D.1	by final destination*	Domestic	53%	44%	82%
		Foreign	47%	56%	18%
Non-EU CO ₂ emissions embodied in the final demand of the Netherlands					
		2000	2014	EU 2014	
C.6	by sector of final demand	Primary	4%	1%	2%
		Manufacturing	53%	57%	58%
		Services	42%	42%	40%
CO ₂ emissions in the Netherlands embodied in non-EU final demand					
		2000	2014	EU 2014	
C.11	by sector	Primary	6%	6%	5%
		Manufacturing	51%	59%	65%
		Services	43%	35%	31%

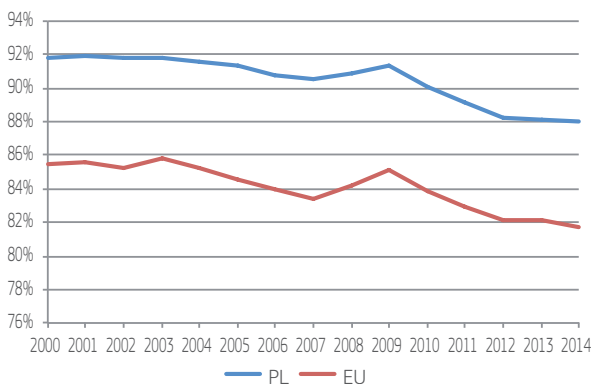
* Effects include global final demand (EU and non-EU).

Poland



		Production perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	14,777	15,572	226,884	7%
Value added	bn EUR	165	365	12,488	3%
CO ₂ emissions	m tCO ₂	326	316	3,711	9%
		Consumption perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	14,602	14,582	286,551	5%
Value added	bn EUR	177	353	11,984	3%
CO ₂ emissions	m tCO ₂	315	293	4,328	7%

Share of total CO₂ emissions in Poland and in the EU supported by EU final demand, 2000-2014 (%)



Poland

EU CO₂ emissions embodied in the final demand of Poland

		2000	2014	EU 2014	
C.1	by sector of final demand	Primary	7%	4%	3%
		Manufacturing	48%	49%	46%
		Services	45%	47%	51%

CO₂ emissions in Poland embodied in EU final demand

		2000	2014	EU 2014	
C.3	by sector	Primary	9%	6%	5%
		Manufacturing	82%	78%	69%
		Services	9%	16%	25%
D.1	by final destination*	Domestic	78%	69%	82%
		Foreign	22%	31%	18%

Non-EU CO₂ emissions embodied in the final demand of Poland

		2000	2014	EU 2014	
C.6	by sector of final demand	Primary	5%	3%	2%
		Manufacturing	48%	60%	58%
		Services	47%	37%	40%

CO₂ emissions in Poland embodied in non-EU final demand

		2000	2014	EU 2014	
C.11	by sector	Primary	10%	5%	5%
		Manufacturing	74%	78%	65%
		Services	16%	16%	31%

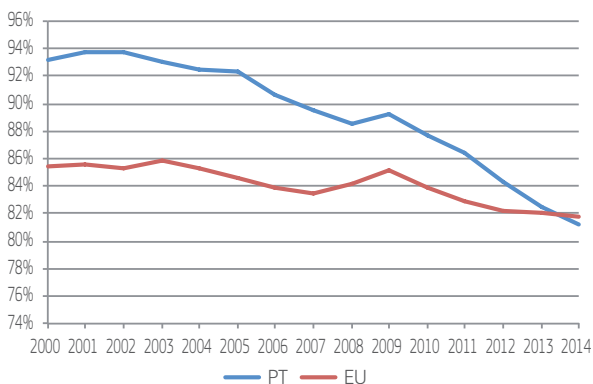
* Effects include global final demand (EU and non-EU).

Portugal



		Production perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	5,042	4,545	226,884	2%
Value added	bn EUR	113	152	12,488	1%
CO ₂ emissions	m tCO ₂	68	49	3,711	1%
		Consumption perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	6,361	4,995	286,551	2%
Value added	bn EUR	134	159	11,984	1%
CO ₂ emissions	m tCO ₂	85	58	4,328	1%

Share of total CO₂ emissions in Portugal and in the EU supported by EU final demand, 2000-2014 (%)



Portugal



EU CO2 emissions embodied in the final demand of Portugal

		2000	2014	EU 2014	
C.1	by sector of final demand	Primary	3%	5%	3%
		Manufacturing	46%	49%	46%
		Services	51%	47%	51%

CO2 emissions in Portugal embodied in EU final demand

		2000	2014	EU 2014	
C.3	by sector	Primary	5%	6%	5%
		Manufacturing	71%	69%	69%
		Services	24%	25%	25%
D.1	by final destination*	Domestic	82%	67%	82%
		Foreign	18%	33%	18%

Non-EU CO2 emissions embodied in the final demand of Portugal

		2000	2014	EU 2014	
C.6	by sector of final demand	Primary	3%	3%	2%
		Manufacturing	59%	64%	58%
		Services	38%	33%	40%

CO2 emissions in Portugal embodied in non-EU final demand

		2000	2014	EU 2014	
C.11	by sector	Primary	3%	3%	5%
		Manufacturing	60%	62%	65%
		Services	37%	35%	31%

* Effects include global final demand (EU and non-EU).

Romania



		Production perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	10,707	8,804	226,884	4%
Value added	bn EUR	37	133	12,488	1%
CO ₂ emissions	m tCO ₂	98	80	3,711	2%
		Consumption perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	9,059	7,665	286,551	3%
Value added	bn EUR	38	133	11,984	1%
CO ₂ emissions	m tCO ₂	78	85	4,328	2%

Share of total CO₂ emissions in Romania and in the EU supported by EU final demand, 2000-2014 (%)



Romania



EU CO2 emissions embodied in the final demand of Romania					
			2000	2014	EU 2014
C.1	by sector of final demand	Primary	7%	4%	3%
		Manufacturing	55%	49%	46%
		Services	38%	47%	51%
CO2 emissions in Romania embodied in EU final demand					
			2000	2014	EU 2014
C.3	by sector	Primary	6%	4%	5%
		Manufacturing	86%	78%	69%
		Services	8%	19%	25%
D.1	by final destination*	Domestic	66%	70%	82%
		Foreign	34%	30%	18%
Non-EU CO2 emissions embodied in the final demand of Romania					
			2000	2014	EU 2014
C.6	by sector of final demand	Primary	7%	3%	2%
		Manufacturing	54%	58%	58%
		Services	39%	38%	40%
CO2 emissions in Romania embodied in non-EU final demand					
			2000	2014	EU 2014
C.11	by sector	Primary	5%	3%	5%
		Manufacturing	89%	80%	65%
		Services	6%	17%	31%

* Effects include global final demand (EU and non-EU).

Slovakia



		Production perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	2,013	2,223	226,884	1%
Value added	bn EUR	20	69	12,488	1%
CO ₂ emissions	m tCO ₂	42	34	3,711	1%

		Consumption perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	2,060	2,368	286,551	1%
Value added	bn EUR	23	65	11,984	1%
CO ₂ emissions	m tCO ₂	40	34	4,328	1%

Share of total CO₂ emissions in Slovakia and in the EU supported by EU final demand, 2000-2014 (%)



Slovakia

EU CO₂ emissions embodied in the final demand of Slovakia

		2000	2014	EU 2014	
C.1	by sector of final demand	Primary	3%	3%	3%
		Manufacturing	52%	53%	46%
		Services	45%	44%	51%

CO₂ emissions in Slovakia embodied in EU final demand

		2000	2014	EU 2014	
C.3	by sector	Primary	1%	1%	5%
		Manufacturing	76%	71%	69%
		Services	23%	28%	25%
D.1	by final destination*	Domestic	65%	48%	82%
		Foreign	35%	52%	18%

Non-EU CO₂ emissions embodied in the final demand of Slovakia

		2000	2014	EU 2014	
C.6	by sector of final demand	Primary	4%	3%	2%
		Manufacturing	61%	73%	58%
		Services	35%	24%	40%

CO₂ emissions in Slovakia embodied in non-EU final demand

		2000	2014	EU 2014	
C.11	by sector	Primary	0%	1%	5%
		Manufacturing	82%	85%	65%
		Services	17%	14%	31%

* Effects include global final demand (EU and non-EU).

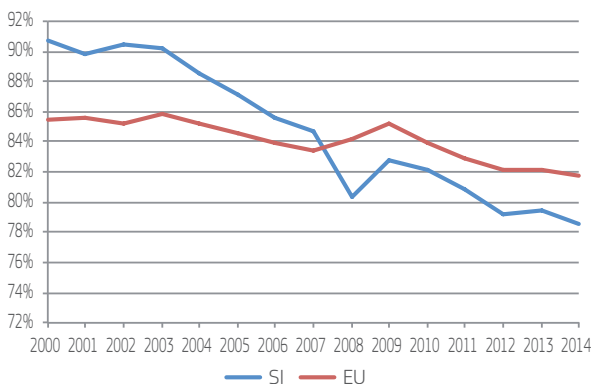
Slovenia



		Production perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	906	940	226,884	0%
Value added	bn EUR	19	32	12,488	0%
CO ₂ emissions	m tCO ₂	16	14	3,711	0%

		Consumption perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	1,077	1,082	286,551	0%
Value added	bn EUR	22	31	11,984	0%
CO ₂ emissions	m tCO ₂	20	16	4,328	0%

Share of total CO₂ emissions in Slovenia and in the EU supported by EU final demand, 2000-2014 (%)



Slovenia

EU CO₂ emissions embodied in the final demand of Slovenia

		2000	2014	EU 2014	
C.1	by sector of final demand	Primary	4%	4%	3%
		Manufacturing	53%	47%	46%
		Services	44%	50%	51%

CO₂ emissions in Slovenia embodied in EU final demand

		2000	2014	EU 2014	
C.3	by sector	Primary	3%	3%	5%
		Manufacturing	74%	62%	69%
		Services	23%	35%	25%
D.1	by final destination*	Domestic	72%	49%	82%
		Foreign	28%	51%	18%

Non-EU CO₂ emissions embodied in the final demand of Slovenia

		2000	2014	EU 2014	
C.6	by sector of final demand	Primary	10%	3%	2%
		Manufacturing	59%	63%	58%
		Services	31%	35%	40%

CO₂ emissions in Slovenia embodied in non-EU final demand

		2000	2014	EU 2014	
C.11	by sector	Primary	2%	2%	5%
		Manufacturing	72%	52%	65%
		Services	26%	46%	31%

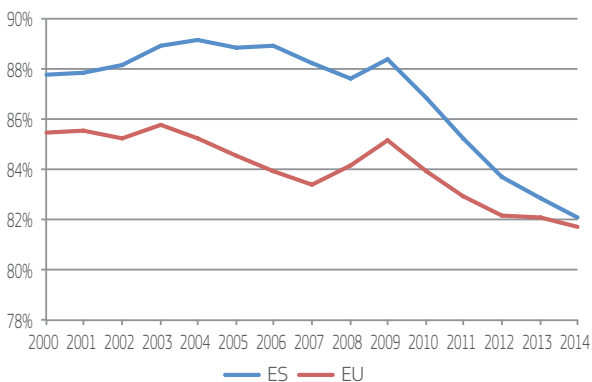
* Effects include global final demand (EU and non-EU).

Spain



		Production perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	16,691	17,965	226,884	8%
Value added	bn EUR	586	948	12,488	8%
CO ₂ emissions	m tCO ₂	312	270	3,711	7%
		Consumption perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	22,287	22,985	286,551	8%
Value added	bn EUR	620	947	11,984	8%
CO ₂ emissions	m tCO ₂	341	300	4,328	7%

Share of total CO₂ emissions in Spain and in the EU supported by EU final demand, 2000-2014 (%)



Spain



EU CO2 emissions embodied in the final demand of Spain					
			2000	2014	EU 2014
C.1	by sector of final demand	Primary	3%	4%	3%
		Manufacturing	43%	41%	46%
		Services	54%	55%	51%
CO2 emissions in Spain embodied in EU final demand					
			2000	2014	EU 2014
C.3	by sector	Primary	4%	9%	5%
		Manufacturing	71%	65%	69%
		Services	25%	27%	25%
D.1	by final destination*	Domestic	72%	68%	82%
		Foreign	28%	32%	18%
Non-EU CO2 emissions embodied in the final demand of Spain					
			2000	2014	EU 2014
C.6	by sector of final demand	Primary	2%	2%	2%
		Manufacturing	56%	64%	58%
		Services	42%	33%	40%
CO2 emissions in Spain embodied in non-EU final demand					
			2000	2014	EU 2014
C.11	by sector	Primary	2%	6%	5%
		Manufacturing	57%	67%	65%
		Services	42%	27%	31%

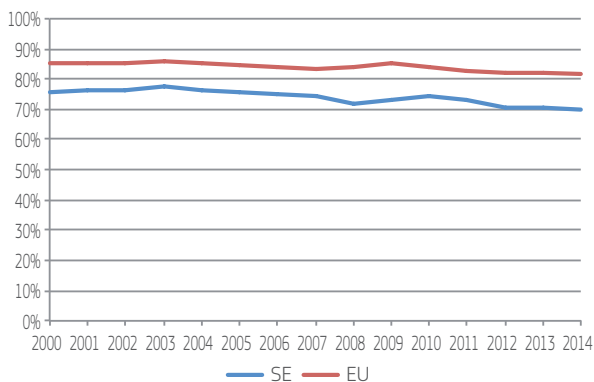
* Effects include global final demand (EU and non-EU).

Sweden



		Production perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	4,301	4,750	226,884	2%
Value added	bn EUR	249	382	12,488	3%
CO ₂ emissions	m tCO ₂	72	51	3,711	1%
		Consumption perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	5,920	6,662	286,551	2%
Value added	bn EUR	227	359	11,984	3%
CO ₂ emissions	m tCO ₂	89	82	4,328	2%

Share of total CO₂ emissions in Sweden and in the EU supported by EU final demand, 2000-2014 (%)



Sweden



EU CO ₂ emissions embodied in the final demand of Sweden					
		2000	2014	EU 2014	
C.1	by sector of final demand	Primary	2%	3%	3%
		Manufacturing	39%	39%	46%
		Services	59%	58%	51%
CO ₂ emissions in Sweden embodied in EU final demand					
		2000	2014	EU 2014	
C.3	by sector	Primary	3%	9%	5%
		Manufacturing	48%	52%	69%
		Services	49%	38%	25%
D.1	by final destination*	Domestic	56%	53%	82%
		Foreign	44%	47%	18%
Non-EU CO ₂ emissions embodied in the final demand of Sweden					
		2000	2014	EU 2014	
C.6	by sector of final demand	Primary	1%	1%	2%
		Manufacturing	54%	50%	58%
		Services	44%	48%	40%
CO ₂ emissions in Sweden embodied in non-EU final demand					
		2000	2014	EU 2014	
C.11	by sector	Primary	2%	9%	5%
		Manufacturing	46%	41%	65%
		Services	52%	50%	31%

* Effects include global final demand (EU and non-EU).

United Kingdom



		Production perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	27,482	30,726	226,884	14%
Value added	bn EUR	1,502	2,007	12,488	16%
CO ₂ emissions	m tCO ₂	616	488	3,711	13%

		Consumption perspective			
		2000	2014	EU 2014	%EU
Employment	1,000 jobs	46,751	44,315	286,551	15%
Value added	bn EUR	1,511	2,024	11,984	17%
CO ₂ emissions	m tCO ₂	748	649	4,328	15%

Share of total CO₂ emissions in the United Kingdom and in the EU supported by EU final demand, 2000-2014 (%)



United Kingdom



EU CO ₂ emissions embodied in the final demand of the United Kingdom					
		2000	2014	EU 2014	
C.1	by sector of final demand	Primary	2%	2%	3%
		Manufacturing	47%	41%	46%
		Services	50%	57%	51%
CO ₂ emissions in the United Kingdom embodied in EU final demand					
		2000	2014	EU 2014	
C.3	by sector	Primary	6%	6%	5%
		Manufacturing	64%	58%	69%
		Services	30%	35%	25%
D.1	by final destination*	Domestic	77%	77%	82%
		Foreign	23%	23%	18%
Non-EU CO ₂ emissions embodied in the final demand of the United Kingdom					
		2000	2014	EU 2014	
C.6	by sector of final demand	Primary	2%	2%	2%
		Manufacturing	53%	55%	58%
		Services	45%	44%	40%
CO ₂ emissions in the United Kingdom embodied in non-EU final demand					
		2000	2014	EU 2014	
C.11	by sector	Primary	14%	10%	5%
		Manufacturing	54%	59%	65%
		Services	32%	31%	31%

* Effects include global final demand (EU and non-EU).

European Union



Production perspective				
		2000	2014	2014/2000
Employment	1,000 jobs	215,311	226,884	5%
Value added	bn EUR	8,560	12,488	46%
CO ₂ emissions	m tCO ₂	4,516	3,711	-18%
Consumption perspective				
		2000	2014	2014/2000
Employment	1,000 jobs	293,810	286,551	-2%
Value added	bn EUR	8,471	11,984	41%
CO ₂ emissions	m tCO ₂	4,991	4,328	-13%

Share of total CO₂ emissions in the EU supported by EU final demand, 2000-2014 (%)



European Union



EU CO₂ emissions embodied in the final demand of the EU			2000	2014
C.1	by sector of final demand	Primary	3%	3%
		Manufacturing	49%	46%
		Services	48%	51%
C.3	by sector	Primary	5%	5%
		Manufacturing	70%	69%
		Services	25%	25%
D.1	by final destination*	Domestic	85%	82%
		Foreign	15%	18%
Non-EU CO₂ emissions embodied in the final demand of the EU			2000	2014
C.6	by sector of final demand	Primary	4%	2%
		Manufacturing	57%	58%
		Services	39%	40%
CO₂ emissions in the EU embodied in non-EU final demand			2000	2014
C.11	by sector	Primary	4%	5%
		Manufacturing	58%	65%
		Services	37%	31%

* Foreign includes non-EU final demand.

DATA SOURCES AND METHODOLOGY

World Input-Output Database

The European Commission-funded World Input-Output Database (WIOD) consists of a set of harmonised Supply, Use, and Input-Output (IO) tables, valued at current prices and prices of the previous year. It also includes data on international trade, industry output, value added (VA), capital stock and investment, as well as satellite accounts with various environmental and socio-economic indicators, such as energy, water, land, and materials consumption, emissions, wages and employment. The latest version of the database (Release 2016) covers 28 EU Member States and 15 other major economies in the world as well as the “Rest of the World” as an aggregated region. The new WIOD database features a breakdown of 56 industries, but lacks data on CO₂ emissions.

Therefore, the WIOD database has been complemented with data from the EU Science Hub of the European Commission. This organism published in 2019 the update of the WIOD Environmental Accounts for the period 2000 – 2016 (Corsatea et al. 2019). These accounts are consistent with the WIOD 2016 <http://www.wiod.org/release16>, and include CO₂ emissions by 56 industries and households.

The WIOD database is freely downloadable at www.wiod.org. A detailed description of the content is also available there. Likewise, the update of the WIOD Environmental Accounts with the accompanying documentation are available at <https://ec.europa.eu/jrc/en/research-topic/economic-environmental-and-social-effects-of-globalisation>.

Methodology

As mentioned in the introduction, this publication includes a set of tables related to the CO₂ emissions embodied in the final demand of the countries covered by the WIOD database. The information for the calculation of the general indicators comes directly from the WIOD database with only minor additional calculations to obtain some derived indicators such as shares or intensities.

However, the method for the calculation of these indicators is not straightforward and requires further explanation. In order to obtain the EU and Non-EU CO₂ emissions embodied in the final demand of EU and Non-EU countries we have used a Multi-Regional Input-Output (MRIO) model together with the information of WIOD. These

models have been widely used to explore different economic and environmental consequences of trade (Miller and Blair, 2009; Murray and Lenzen, 2013).

Following Arto et al. (2019), the methodology is described for the case of four regions (2 EU countries and 2 Non-EU countries) with n industries, but it can be applied to any number of regions and industries. In this study, the model was applied to 44 regions, 56 industries (for simplicity we have aggregated the results to 10 industries and 3 sectors). Note that the MRIO tables used in the calculations are industry by industry IO tables. Accordingly, all the data reported in this document is reported by industry (e.g. we report the CO₂ emissions embodied in the final demand of products of the manufacturing industry).

The starting point of the model is a MRIO table at basic prices. This table describes the flows of goods and services from all industries to all intermediate and final users, explicitly broken down by countries of origin and by countries of destination in each flow.

We can distinguish three main components in the MRIO table:

$$\mathbf{Z} = \begin{bmatrix} Z^{11} & Z^{12} & Z^{13} & Z^{14} \\ Z^{21} & Z^{22} & Z^{23} & Z^{24} \\ Z^{31} & Z^{32} & Z^{33} & Z^{34} \\ Z^{41} & Z^{42} & Z^{43} & Z^{44} \end{bmatrix}, \quad \mathbf{f} = \begin{bmatrix} f^{11} + f^{12} + f^{13} + f^{14} \\ f^{21} + f^{22} + f^{23} + f^{24} \\ f^{31} + f^{32} + f^{33} + f^{34} \\ f^{41} + f^{42} + f^{43} + f^{44} \end{bmatrix}, \quad \mathbf{x} = \begin{bmatrix} x^1 \\ x^2 \\ x^3 \\ x^4 \end{bmatrix},$$

where Z^{rs} is the intermediate matrix with sectorial deliveries from country r to country s ; f^{rs} is the column vector of country s final demand (including household consumption, government consumption, and investment) for goods produced by country r ; and x^r is the column vector of gross output for country r . Furthermore, let us assume that the MRIO table is extended to include a vector of CO₂ emissions by industry \mathbf{w} and a vector of CO₂ emissions emitted directly by households \mathbf{h} :

$$\mathbf{w} = \begin{bmatrix} w^1 \\ w^2 \\ w^3 \\ w^4 \end{bmatrix}, \quad \mathbf{h} = \begin{bmatrix} h^1 \\ h^2 \\ h^3 \\ h^4 \end{bmatrix}$$

The relation between \mathbf{x} , \mathbf{Z} and \mathbf{f} is defined by the accounting equation $\mathbf{x} = \mathbf{Z}\mathbf{i} + \mathbf{f}$, where \mathbf{i} is the column summation vector consisting of ones.

The input coefficient matrix for the EU is defined as $\mathbf{A} = \mathbf{Z}(\hat{\mathbf{x}})^{-1}$, where $(\hat{\mathbf{x}})$ is a diagonal matrix with the values of vector along the diagonal and zero elsewhere. Thus, the accounting equation can now be written as the standard input-output model: $\mathbf{x} = \mathbf{A}\mathbf{x} + \mathbf{f}$. For an certain final demand vector \mathbf{f} , the solution to the model is

given by $\mathbf{x} = \mathbf{B}\mathbf{f}$, where $\mathbf{B} \equiv (\mathbf{I} - \mathbf{A})^{-1}$ is the Leontief inverse of the word input-output table. Thus, multiplying the Leontief inverse by the final demand- we obtain the total output to satisfy the final demand of goods and services:

$$\mathbf{X} = \mathbf{B}\mathbf{f} \quad [1]$$

The CO₂ emissions coefficients vector, $\mathbf{v} = (\hat{\mathbf{x}})^{-1}$, yields the CO₂ emissions per unit of output. Hence, the CO₂ emissions by industry and country associated to the production of goods in order to satisfy total final demand \mathbf{f} is given by

$$\mathbf{w} = \hat{\mathbf{v}}\mathbf{B}\mathbf{f} \quad [2]$$

We can write expression [2] in its partitioned form as:

$$\begin{bmatrix} \mathbf{w}^1 \\ \mathbf{w}^2 \\ \mathbf{w}^3 \\ \mathbf{w}^4 \end{bmatrix} = \begin{bmatrix} \hat{\mathbf{v}}^1 & \mathbf{0} & \mathbf{0} & \mathbf{0} \\ \mathbf{0} & \hat{\mathbf{v}}^2 & \mathbf{0} & \mathbf{0} \\ \mathbf{0} & \mathbf{0} & \hat{\mathbf{v}}^3 & \mathbf{0} \\ \mathbf{0} & \mathbf{0} & \mathbf{0} & \hat{\mathbf{v}}^4 \end{bmatrix} \begin{bmatrix} \mathbf{B}^{11} & \mathbf{B}^{12} & \mathbf{B}^{13} & \mathbf{B}^{14} \\ \mathbf{B}^{21} & \mathbf{B}^{22} & \mathbf{B}^{23} & \mathbf{B}^{24} \\ \mathbf{B}^{31} & \mathbf{B}^{32} & \mathbf{B}^{33} & \mathbf{B}^{34} \\ \mathbf{B}^{41} & \mathbf{B}^{42} & \mathbf{B}^{43} & \mathbf{B}^{44} \end{bmatrix} \begin{bmatrix} \mathbf{f}^{11} + \mathbf{f}^{12} + \mathbf{f}^{13} + \mathbf{f}^{14} \\ \mathbf{f}^{21} + \mathbf{f}^{22} + \mathbf{f}^{23} + \mathbf{f}^{24} \\ \mathbf{f}^{31} + \mathbf{f}^{32} + \mathbf{f}^{33} + \mathbf{f}^{34} \\ \mathbf{f}^{41} + \mathbf{f}^{42} + \mathbf{f}^{43} + \mathbf{f}^{44} \end{bmatrix} \quad [3]$$

From expression [3] we can derive the different indicators reported in this publication. For example, the CO₂ emissions in the EU embodied in the final demand of EU country 1 can be calculated as:

$$\begin{aligned} c^{EU,1} &= (\mathbf{v}^1)' \mathbf{B}^{11}\mathbf{f}^{11} + (\mathbf{v}^1)' \mathbf{B}^{12}\mathbf{f}^{21} + (\mathbf{v}^1)' \mathbf{B}^{13}\mathbf{f}^{31} + (\mathbf{v}^1)' \mathbf{B}^{14}\mathbf{f}^{41} \\ &+ (\mathbf{v}^2)' \mathbf{B}^{21}\mathbf{f}^{11} + (\mathbf{v}^2)' \mathbf{B}^{22}\mathbf{f}^{21} + (\mathbf{v}^2)' \mathbf{B}^{23}\mathbf{f}^{31} + (\mathbf{v}^2)' \mathbf{B}^{24}\mathbf{f}^{41} + \mathbf{h}^1 \end{aligned} \quad [4]$$

where $(\mathbf{v}^i)' \mathbf{B}^{ij}\mathbf{f}^{jk}$ is the CO₂ emissions in country i of the EU embodied in the final demand of EU country k of final products produced by country j and \mathbf{h}^1 is the CO₂ emissions emitted directly by households in country 1. The domestic component of the CO₂ emissions footprint of EU country 1 would be the sum of the first four components of expression [4] plus the last one.

Similarly, the emissions in country 1 of the EU embodied in the demand of the whole EU can be calculated as:

$$\begin{aligned} c^{1,EU} &= (\mathbf{v}^1)' \mathbf{B}^{11}\mathbf{f}^{11} + (\mathbf{v}^1)' \mathbf{B}^{12}\mathbf{f}^{21} + (\mathbf{v}^1)' \mathbf{B}^{13}\mathbf{f}^{31} + (\mathbf{v}^1)' \mathbf{B}^{14}\mathbf{f}^{41} \\ &+ (\mathbf{v}^1)' \mathbf{B}^{11}\mathbf{f}^{12} + (\mathbf{v}^1)' \mathbf{B}^{12}\mathbf{f}^{22} + (\mathbf{v}^1)' \mathbf{B}^{13}\mathbf{f}^{32} + (\mathbf{v}^1)' \mathbf{B}^{14}\mathbf{f}^{42} + \mathbf{h}^1 \end{aligned} \quad [5]$$

From expression [3] we can also derive the Non-EU CO₂ emissions embodied in the final demand of the EU country 1:

$$\begin{aligned} c^{noEU,1} &= (\mathbf{v}^3)' \mathbf{B}^{31}\mathbf{f}^{11} + (\mathbf{v}^3)' \mathbf{B}^{32}\mathbf{f}^{21} + (\mathbf{v}^3)' \mathbf{B}^{33}\mathbf{f}^{31} + (\mathbf{v}^3)' \mathbf{B}^{34}\mathbf{f}^{41} \\ &+ (\mathbf{v}^4)' \mathbf{B}^{41}\mathbf{f}^{11} + (\mathbf{v}^4)' \mathbf{B}^{42}\mathbf{f}^{21} + (\mathbf{v}^4)' \mathbf{B}^{43}\mathbf{f}^{31} + (\mathbf{v}^4)' \mathbf{B}^{44}\mathbf{f}^{41} \end{aligned} \quad [6]$$

The total CO₂ emissions footprint of country 1 would be the sum of the elements in expressions [4] and [6].

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