2020

ECONOMIC REPORT

Evolution of
the European graphic industry

INTERGRAF

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Introduction

PRESENTATION OF INTERGRAF

Intergraf is the European Federation for Print and Digital Communication. It represents 21 national printing federations in 20 countries in Europe. Intergraf's main task is to promote and protect the interests of the graphic industry and to enhance the sector's competitiveness through lobbying, informing and networking.

Intergraf covers a wide range of European policies related to the graphic industry and interacts with the European institutions. Moreover, Intergraf is the source of information for its members regarding the different policies of the European Union affecting the graphic industry. Intergraf provides its members with contacts to other federations across Europe through meetings and conferences as well as expert working groups which ensure a close participation of its members in the process of European policy making and on market issues. Intergraf has also a comprehensive network at European level covering the entire print value chain as well as at international level. It is active on several platforms and represented in different bodies in order to defend the interests of the graphic industry.

For more information on Intergraf and its member federations, please visit the Intergraf website: www.intergraf.eu

PRESENTATION OF THE REPORT

This report provides an overview of available data on the European graphic industry, as well as highlights about the economic development of sectors which are relevant to the graphic industry, including supplying industries and print buyers.

Chapter 1 covers the review of the European print market in 2019 and chapter 2 is an outlook of the print market after 2020.

For the general economic situation (chapter 1.1), the report is based on information from the OECD and the European Commission (DG Economic and Financial Affairs). The descriptions and economic data are from both institutions.

Official statistics made available by Eurostat are the main source of information for the chapter on the European graphic industry (chapter 1.2). Data have been processed by Intergraf. Data are collected from a very large base, which include all sizes of companies including one-person companies. Since 2008, the key indicators extracted from the structural business statistics of the Eurostat database are being compiled on the new classification, NACE Rev. 2. Comparisons with older figures can still highlight significant breaks in some historical series. Classifications (NACE Rev. 2, PRODCOM and Combined Nomenclature) applicable to the data provided in the reported are explained at the beginning of each relevant chapter.

We are thankful to Smithers for their contribution in chapter 2.3. Information in the market reports (chapter 1.3) is from Eurostat and from recognised European trade associations (CEPI, EUROGRAPH, EUPIA, FEP) and information in chapter 2.2 is from Nielsen and EY.

We are grateful to our member federations who contribute with qualitative and quantitative data to the country reports (chapter 1.4).

Annexes (chapter 3) includes the supporting data used in the different chapters.

1.
2019 PRINT MARKET REVIEW

Sources

1.1:
Economic outlook, OECD annual projections, March 2020
Interim economic assessment, OECD, March 2020
International Monetary Fund database, April 2020

1.2:
OECD database
Winter forecast 2019, European Commission, Economic and Financial Affairs, February 2020

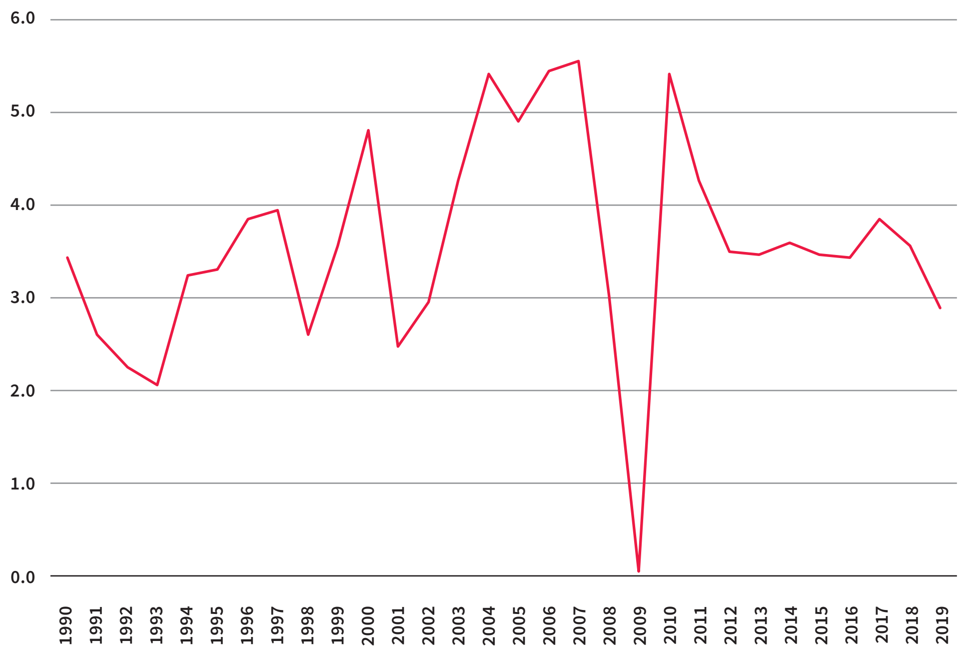
1.3:
DG Economic and Financial Affairs

Note

: = data not available

1.1.1 Global economic situation

World gross domestic product, in %-change, constant prices, 1990-2019



- Worldwide GDP growth is estimated to have decreased to 2.9% in 2019. Macroeconomic policies have also been supportive to global growth.

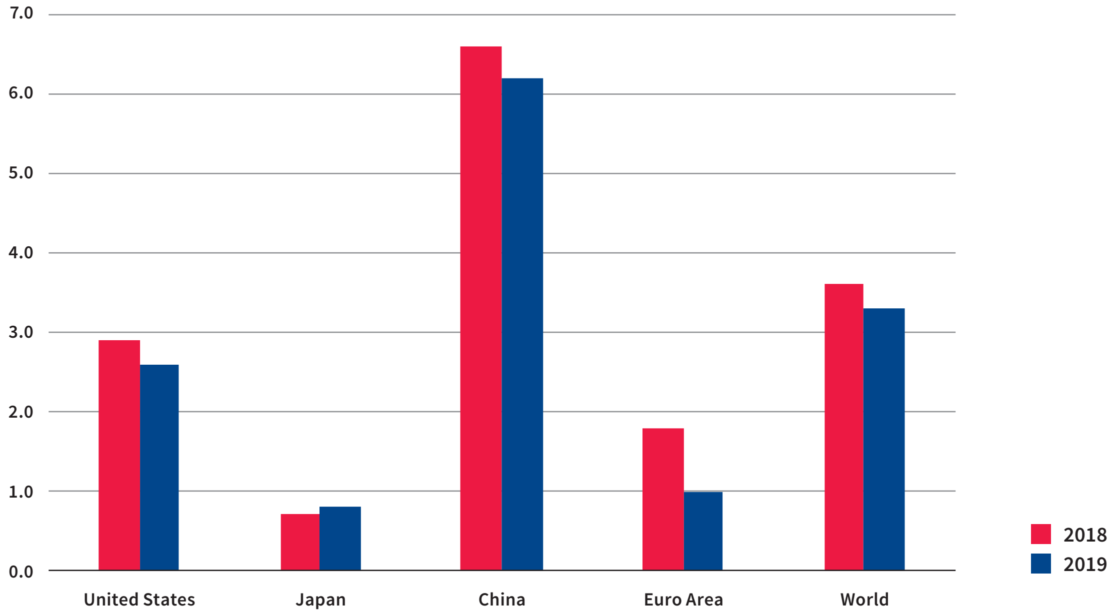
- Prior to the COVID-19 outbreak, economic indicators had begun to stabilise or improve in both manufacturing and services despite strikes, social unrest and natural disasters affecting activity in a number of countries.

- Industrial production continued to stagnate in 2019, and the growth of consumer spending lost momentum despite continued steady employment gains.

- The key economic developments in 2019 included the partial de-escalation of trade tensions between the US and China, and social unrest and geopolitical tensions in Latin America, the Middle East and Asia. 2019 also saw the outbreak of Covid-19 in China.

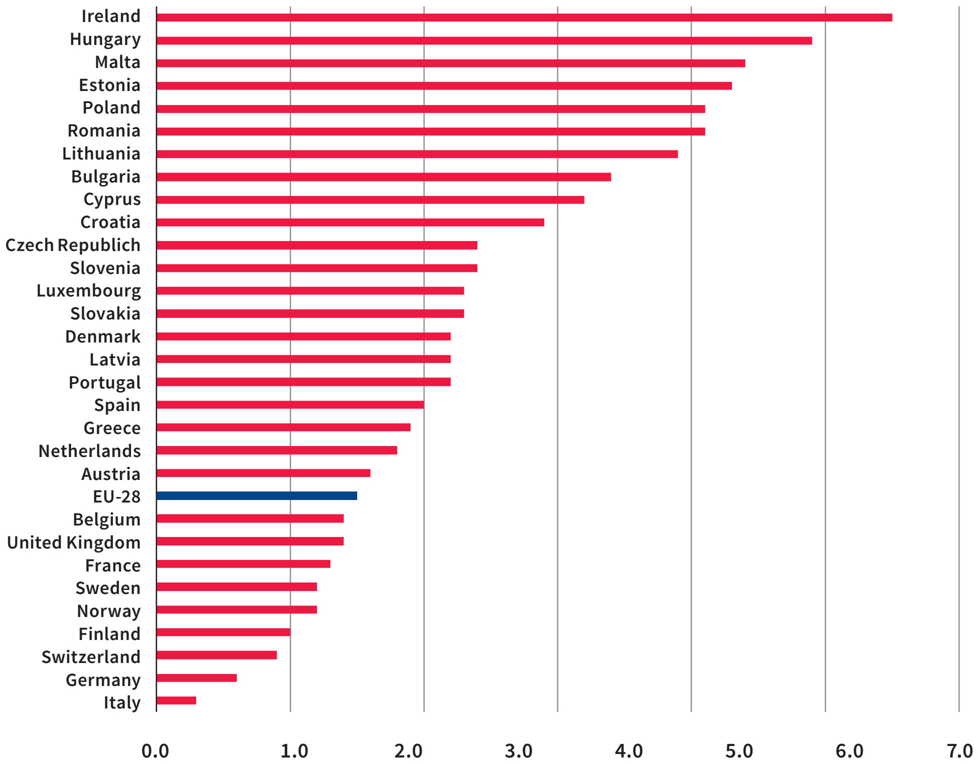
- Global trade was also very weak. Trade volumes declined in 2019 as a whole. The persistent uncertainty surrounding US trade policies and the functioning of the WTO continued weighing on the global trade. While the trading relations between the EU and the UK after Brexit remained unclear.

Real GDP growth, OECD Economic Outlook, March 2020

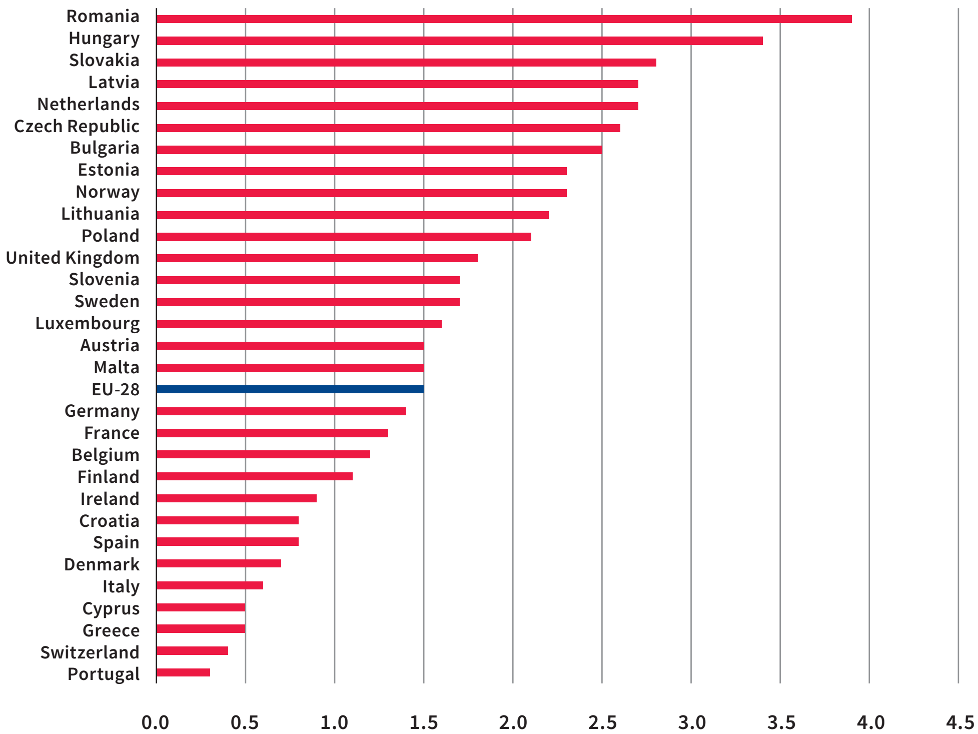


1.1.2 European economic situation

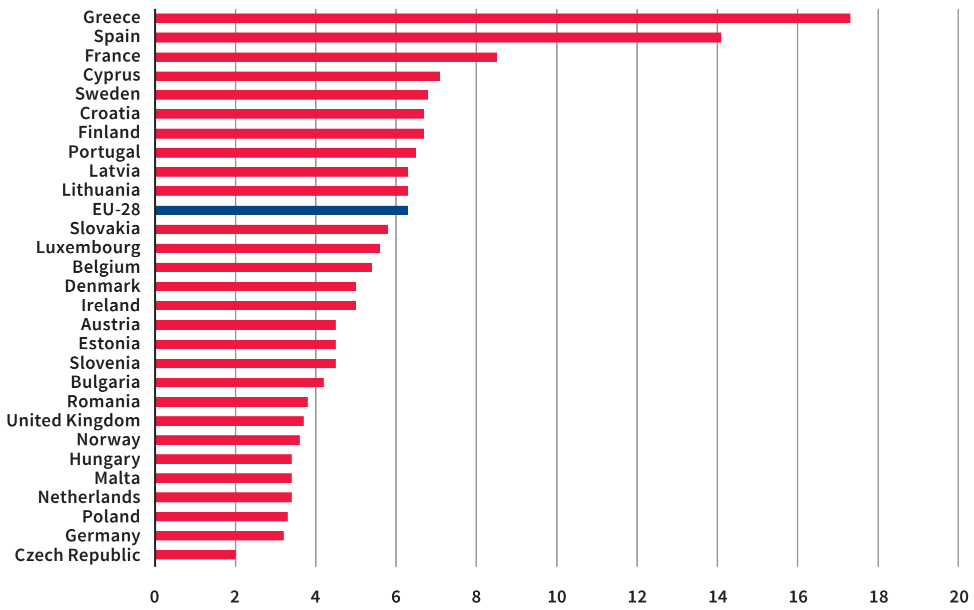
GDP growth rate, 2019, in %



Inflation rate, 2019, in %

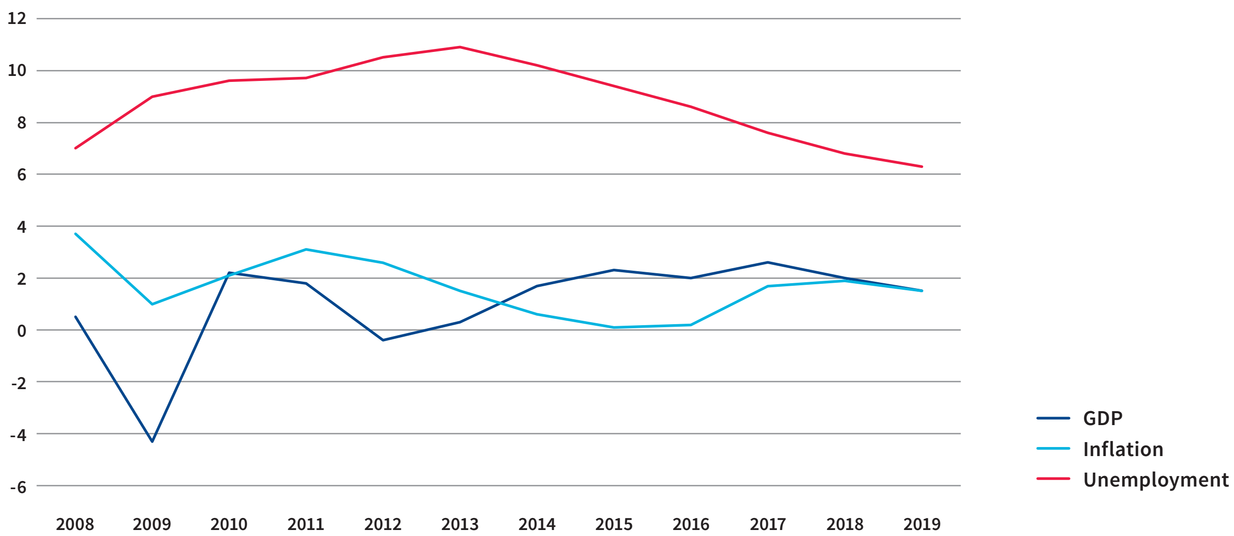


Unemployment rate, 2019, in %



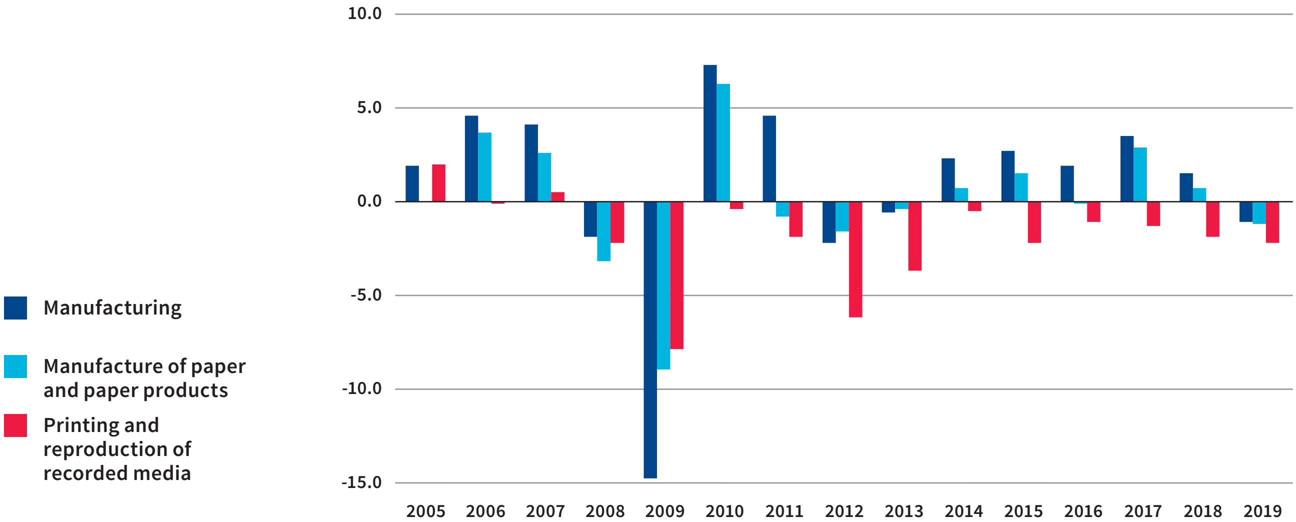
- In 2019, the European economy remained on a path of steady and moderate growth.
- Economic activity remains dampened by the still high level of uncertainty linked to trade policies but domestic demand, in particular private consumption, remained robust.
- Household income continued to benefit from ongoing improvements in the labour market, with continued though slower employment growth, as well as wage increases and fiscal measures in several countries.
- The resilience of economic growth has been remarkable against the background of the global manufacturing downturn, triggered by factors including global trade tensions and the structural headwinds facing the automobile sector.

GDP growth, inflation rate, unemployment rate, EU-28, in %, 2008-2019

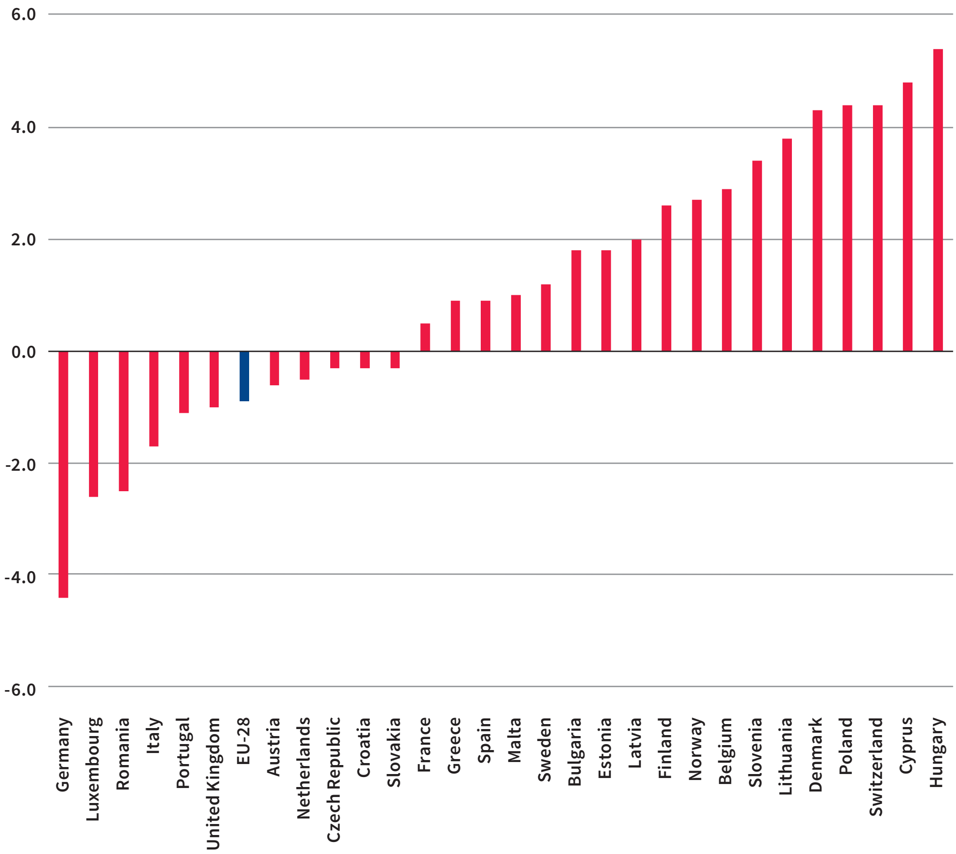


1.1.3 European manufacturing industry

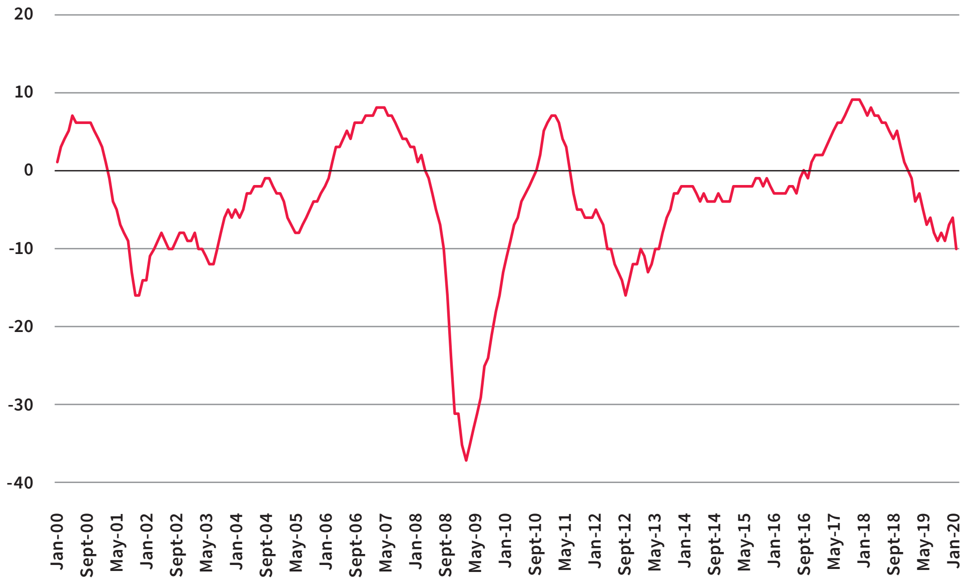
Industrial production, % change compared to the previous year, 2005-2019, EU-28



Industrial production index, European manufacturing sector, EU-28, 2019, calendar adjusted data, % comparison with previous year

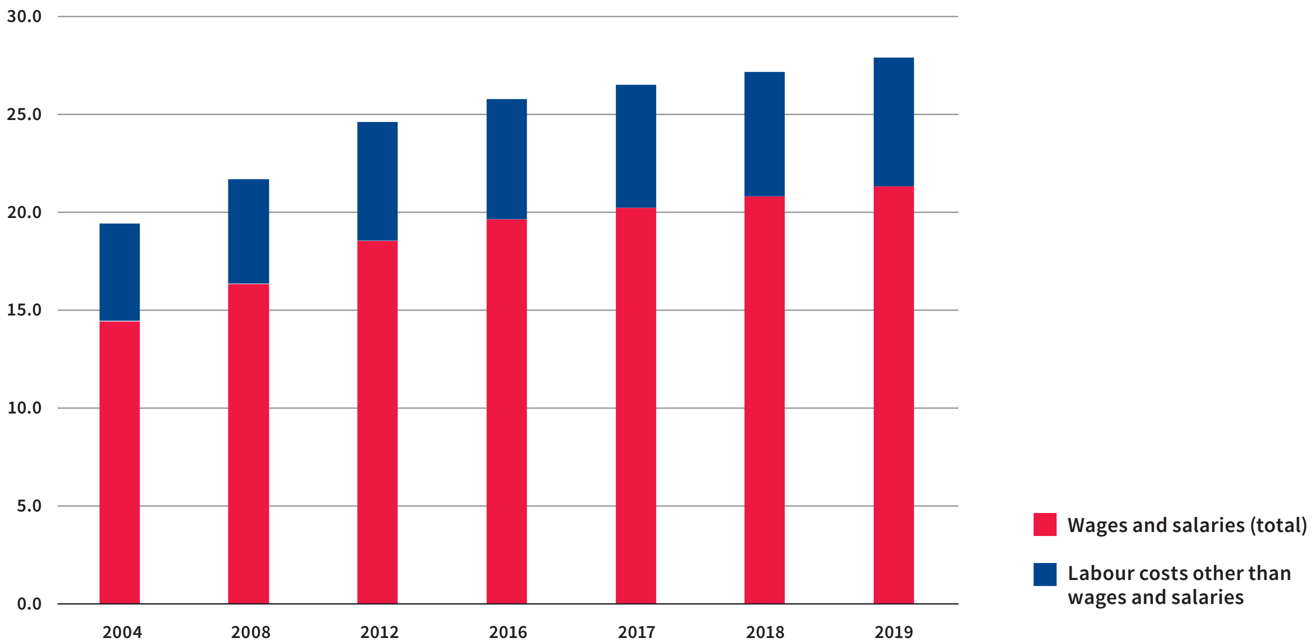


Industrial confidence, 2000 - 2019

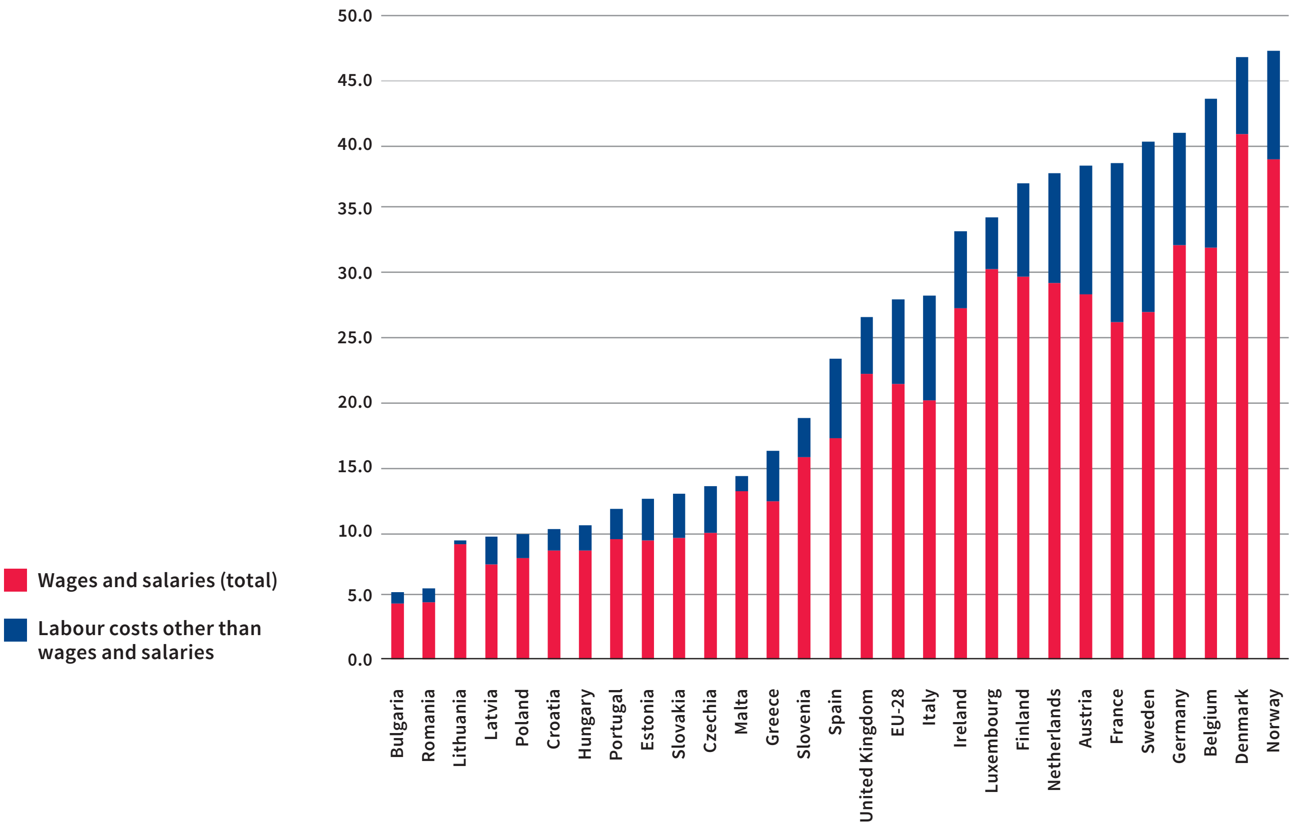


- Industrial production in the European manufacturing industry has decreased by 1.1% in 2019 compared to 2018. In the printing and recorded media industry, industrial production has decreased by 2.2%.
- Industrial confidence had significantly increased since mid-2016 but decreased during 2018 and 2019.

Hourly average labour costs in the European manufacturing industry, in €, 2004-2019



Hourly labour costs for the European manufacturing industry, 2019



- The hourly labour costs in the manufacturing industry have increased by 2.6% in 2019 compared to 2018 and by 28% compared to 2008.
- The average hourly labour cost in the manufacturing industry in 2019 reached 28 € (21.4 € of wages and salaries and 6.6 € of other labour costs) and ranged from 5.2 € to 47.3 € across Europe.
- The highest total labour costs in the manufacturing industry in 2018 have been registered in Norway, Denmark, Germany and Belgium. The lowest labour costs are registered in Bulgaria and Romania.

1. 2019 PRINT MARKET REVIEW

Sources
Eurostat

Note
: = data not available
italic = Intergraf calculation

1.2.1 Profile of the European graphic industry

Classification: NACE Rev 2

18 PRINTING AND REPRODUCTION OF RECORDED MEDIA

This division includes printing of products, such as newspapers, books, periodicals, business forms, greeting cards, and other materials, and associated support activities, such as bookbinding, plate-making services, and data imaging. The support activities included here are an integral part of the printing industry, and a product (a printing plate, a bound book, or a computer disk or file) that is an integral part of the printing industry is almost always provided by these operations.

Processes used in printing include a variety of methods for transferring an image from a plate, screen or computer file to a medium, such as paper, plastics, metal, textile articles, or wood. The most prominent of these methods entails the transfer of the image from a plate or screen to the medium through lithographic, gravure, screen or flexographic printing. Often a computer file is used to directly “drive” the printing mechanism to create the image or electrostatic and other types of equipment (digital or non-impact printing).

Though printing and publishing can be carried out by the same unit (a newspaper, for example), it is less and less the case that these distinct activities are carried out in the same physical location.

This division also includes the reproduction of recorded media, such as compact discs, video recordings, software on discs or tapes, records etc.

This division excludes publishing activities

18.1 Printing and service activities related to printing

This group includes printing of products, such as newspapers, books, periodicals, business forms, greeting cards, and other materials, and associated support activities, such as bookbinding, plate-making services, and data imaging. Printing can be done using various techniques and on different materials.

18.11 Printing of newspapers

- printing of other periodicals, appearing at least four times a week

This class excludes:
- publishing of printed matter, see 58.1
- photocopying of documents, see 82.19

18.12 Other printing

This class includes:
- printing of magazines and other periodicals, appearing less than four times a week
- printing of books and brochures, music and music manuscripts, maps, atlases, posters, advertising catalogues, prospectuses and other printed advertising, postage stamps, taxation stamps, documents of title, cheques and other security papers, smart cards, albums, diaries, calendars and other commercial printed matter, personal stationery and other printed matter by letterpress, offset, photogravure, flexographic, screen printing and other printing presses, duplication machines, computer printers, embossers etc., including quick printing
- printing directly onto textiles, plastic, glass, metal, wood and ceramics

The material printed is typically copyrighted.
This class also includes:
- printing on labels or tags (lithographic, gravure printing, flexographic printing, other)

This class excludes:
- manufacture of stationery (notebooks, binders, registers, accounting books, business forms etc.), when the printed information is not the main characteristic, see 17.23
- publishing of printed matter, see 58.1

18.13 Pre-press and pre-media services

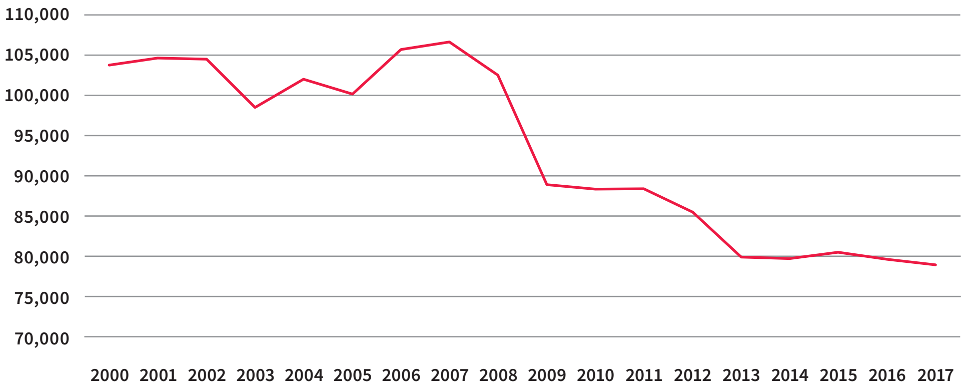
This class includes:
- composing, typesetting, phototypesetting, pre-press data input including scanning and optical character recognition, electronic make-up
- preparation of data files for multi-media (printing on paper, CD-ROM, Internet) applications
- plate-making services including image setting and plate setting (for the printing processes letterpress and offset)
- cylinder preparation: engraving or etching of cylinders for gravure printing
- plate processing: "computer to plate" CTP (also photopolymer plates)
- preparation of plates and dies for relief stamping or printing
- preparation of:
- artistic works of technical character, such as preparation of lithographic stones and wood blocks
- presentation media, e.g. overhead foils and other forms of presentation
- sketches, layouts, dummies, etc.
- production of proofs

This class excludes:
- specialised design activities

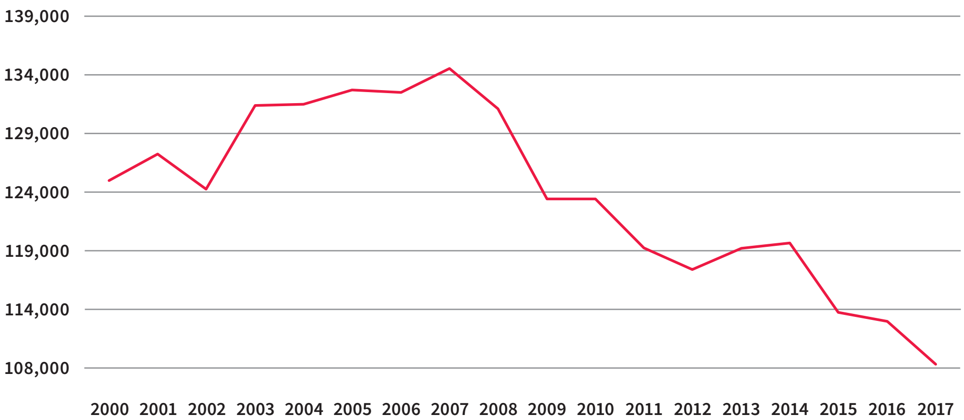
18.14 Binding and related services

This class includes:
- trade binding, sample mounting and post press services in support of printing activities, e.g. trade binding and finishing of books, brochures, magazines, catalogues, etc., by folding, cutting and trimming, assembling, stitching, thread sewing, adhesive binding, cutting and cover laying, gluing, collating, basting, gold stamping; spiral binding and plastic wire binding
- binding and finishing of printed paper or printed cardboard, by folding, stamping, drilling, punching, perforating, embossing, sticking, gluing, laminating
- finishing services for CD-ROMs
- mailing finishing services such as customisation, envelope preparation
- other finishing activities such as die, sinking or stamping, Braille copying

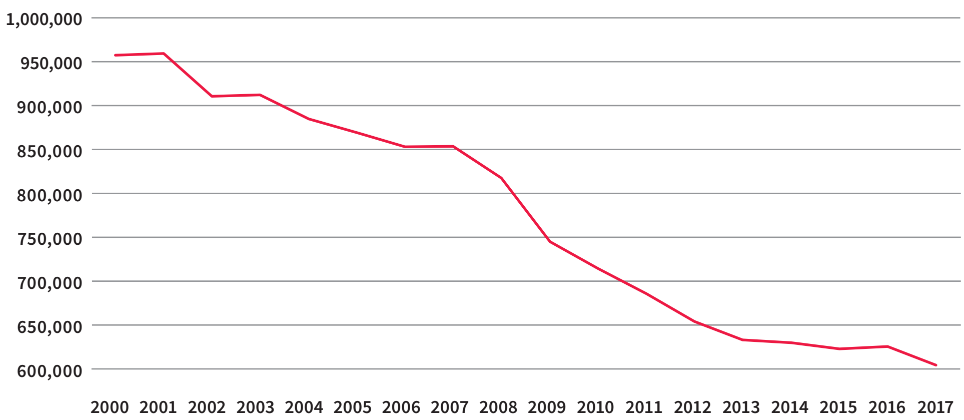
Turnover, EU graphic industry, 2000-2017, in million €



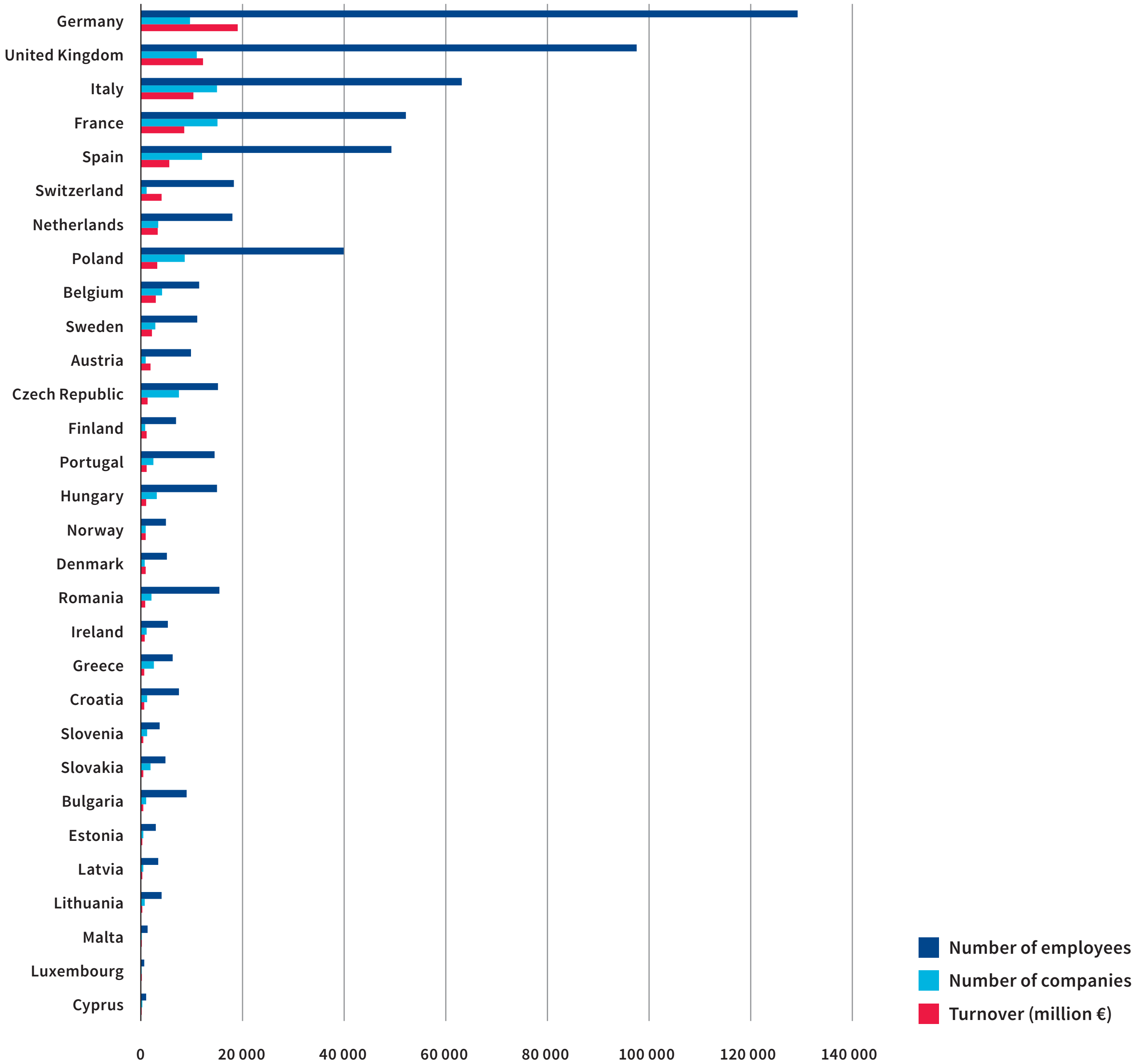
Number of EU graphic companies, 2000-2017



Number of employees in the EU, graphic industry, 2000-2017

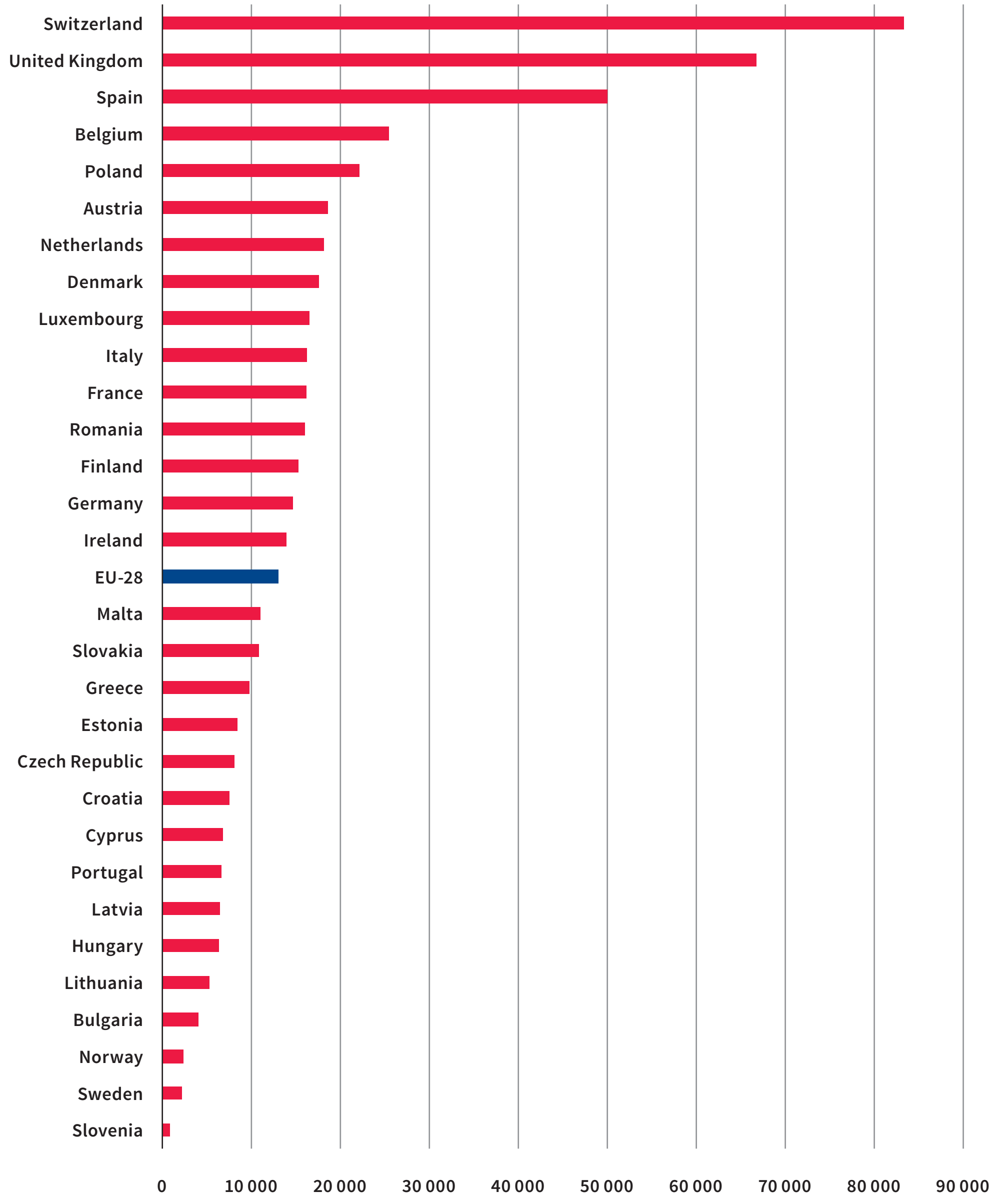


Profile of the European printing industry, EU-28, 2017

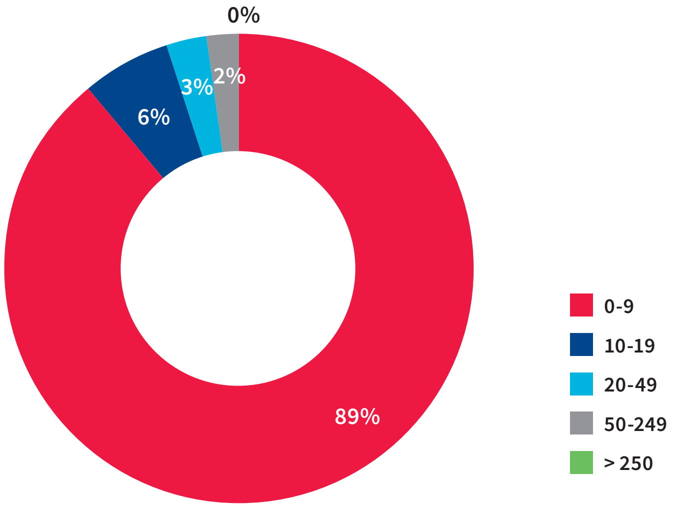


- Approximately 603,500 employees were working in the European printing industry in 2017.
- In 2017, the European printing industry counted approximately 109,000 companies, which generated a turnover of around € 79 billion.
- The turnover of the European printing industry decreased by approximately 23% over the last decade (2008-2017). The number of companies decreased by 17% and the number of employees by 26% over that period.
- Germany, the UK and Italy generate the largest turnover and register the highest number of employees in Europe whereas France, Italy and Spain have the highest number of printing companies in Europe.
- Switzerland, the UK and Spain registered the highest turnover per employee in 2017.

Turnover per employee, in euro per employee, 2017

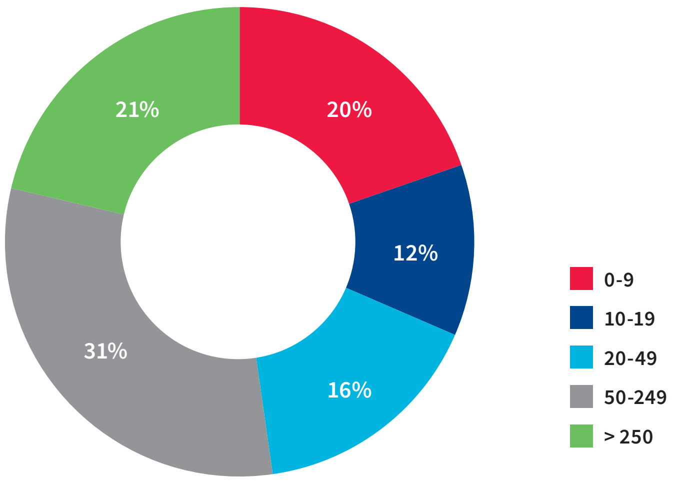


Size of the european printing industry (number of employees), EU-28, 2017



- 89% of European printing companies have fewer than 10 employees.
- 95% of European printing companies are SMEs employing fewer than 20 employees.
- Less than 1% of European printing companies employ more than 250 and 5% of European printing companies have more than 20 employees.

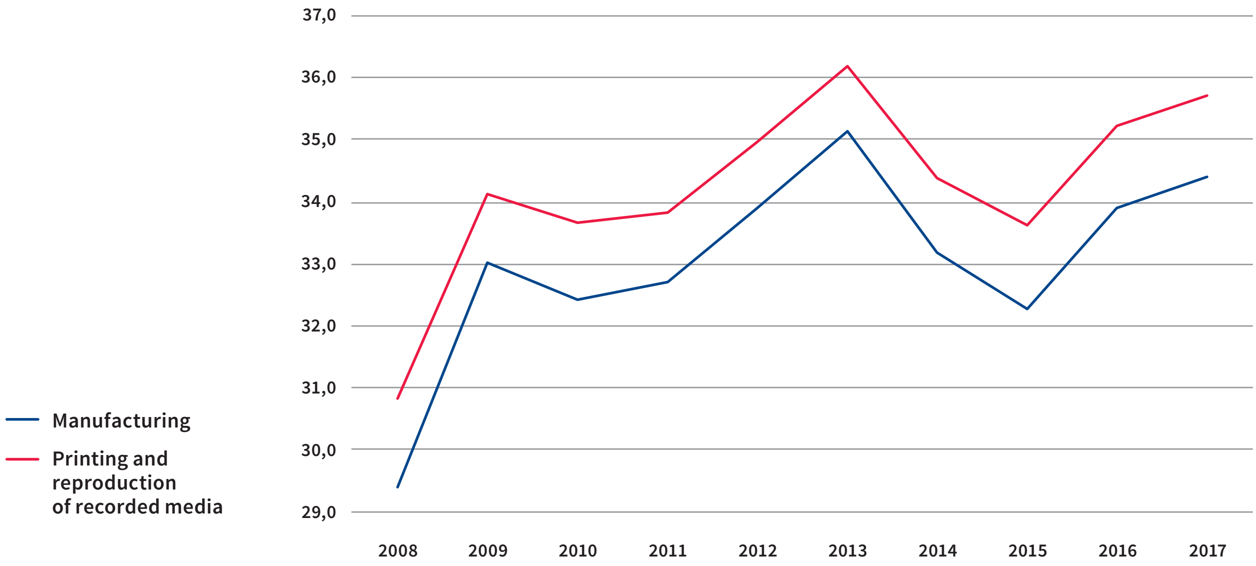
Distribution of the European printing industry turnover (by number of employees), EU-28, 2017



- 89% of European printing companies having fewer than 10 employees generate 19% of the European printing industry turnover.
- Whereas, the less than 1% European printing companies employing more than 250 workers generate 21% of the total turnover.
- Half of the European printing industry turnover is generated by companies with fewer than 50 employees and the other half is generated by companies employing more than 50 workers.

1.2.2 Labour costs

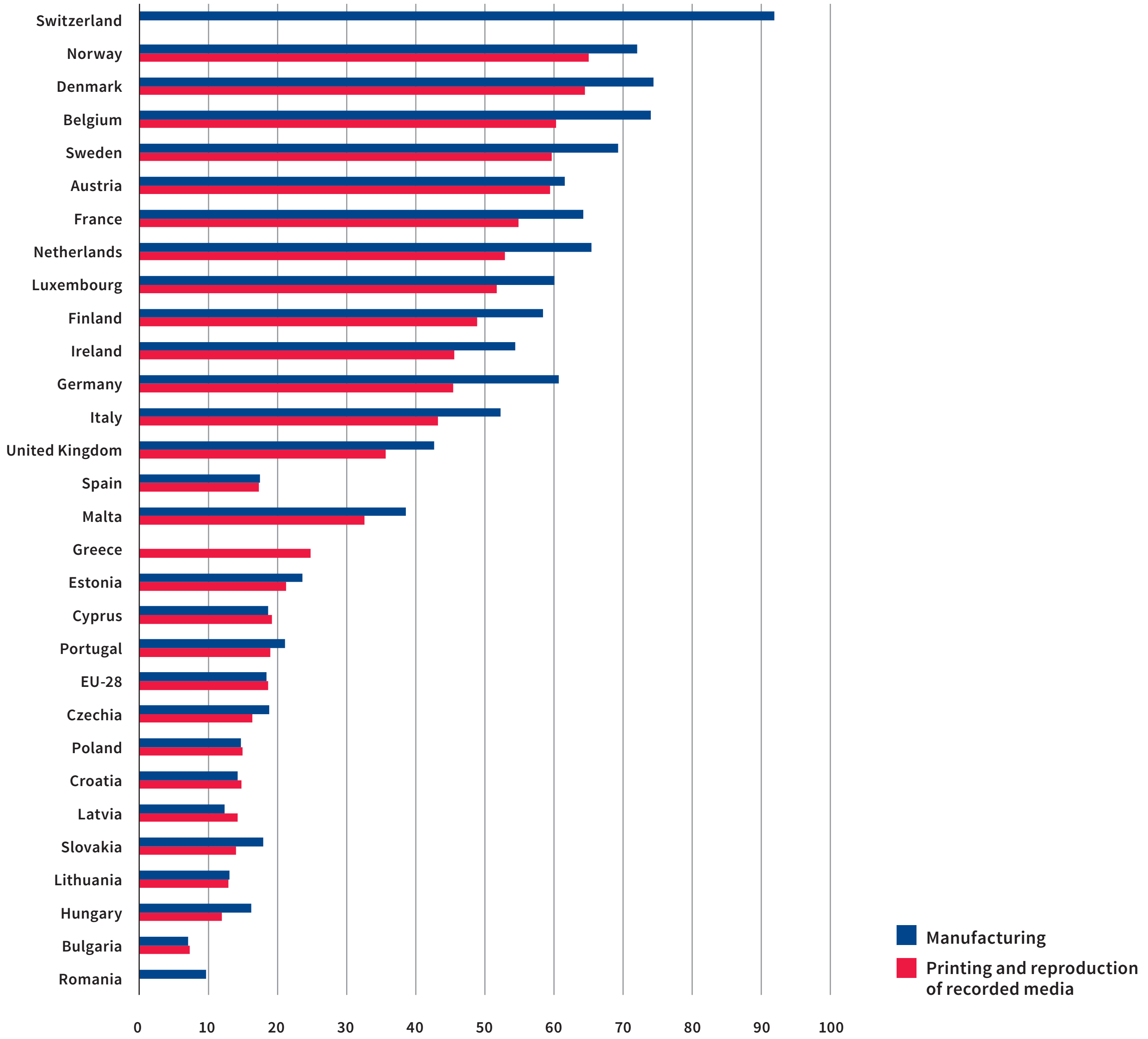
Labour costs per full time equivalent employee, EU-28, in thousand €, 2008-2017



- Labour costs in the printing and recorded media industry have increased by 16% between 2008 and 2017.

- Labour costs both in the manufacturing sector and the printing and recorded media industry have been increasing from 2010 until 2013 and then decreased until 2015. Since 2015, it showed an upward trend.

Labour costs per full time equivalent employee, in thousand €, 2017

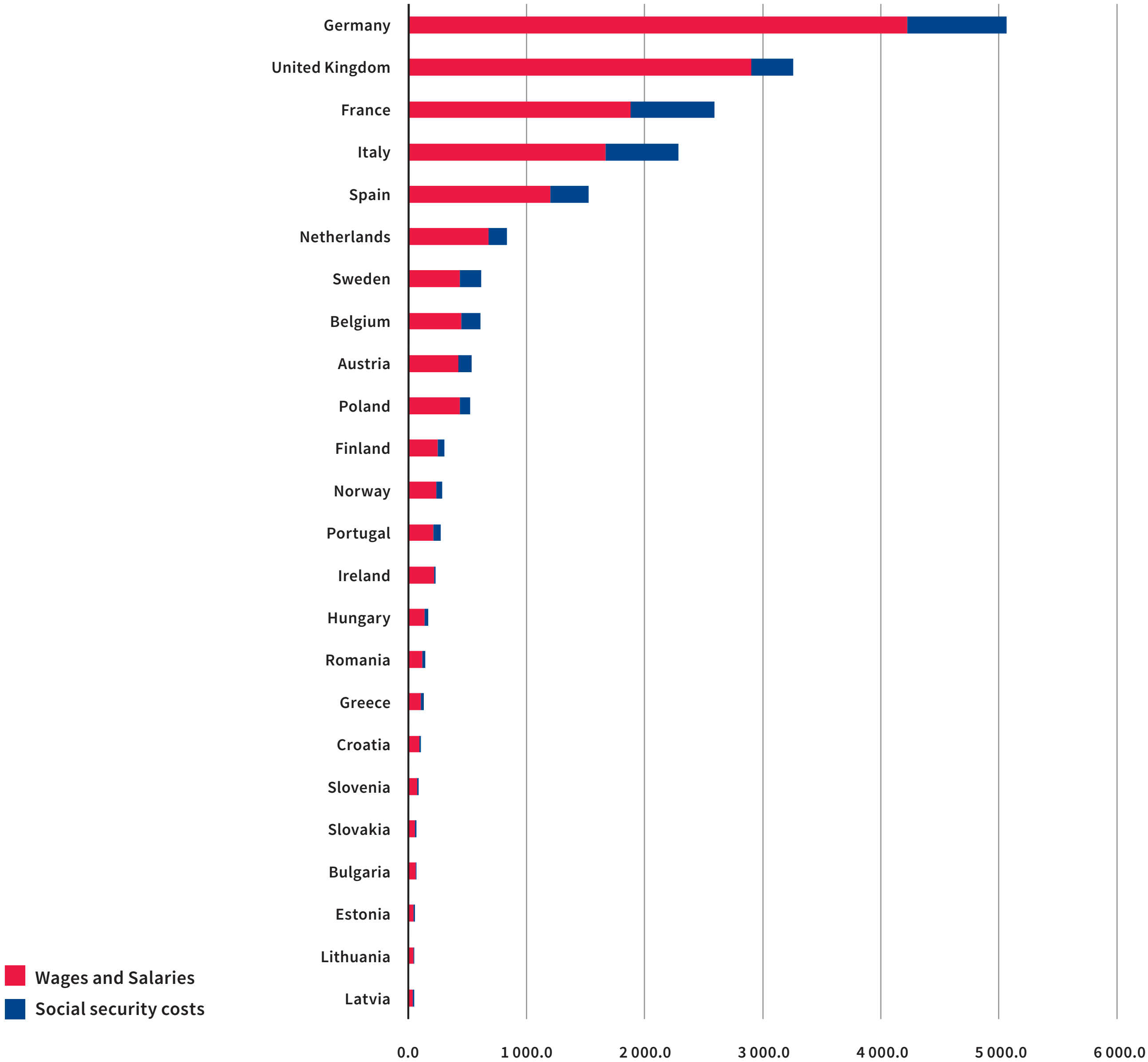


- In the printing and recorded media industry, Norway, Denmark and Belgium have the highest labour cost per employee (full time equivalent). Bulgaria has the lowest labour costs, which are more than 10 times less than in Norway, Denmark or Belgium.

- On average, labour costs in the printing and recorded media industry are 10% lower than in the whole manufacturing industry. The difference can reach approximately 35% in Hungary and Germany.

- The total personnel costs, which include only the salaries and social security costs, in the printing industry were the highest in Germany, UK and France and the lowest in Baltic states.

Personnel costs, printing industry, in million euro, 2017

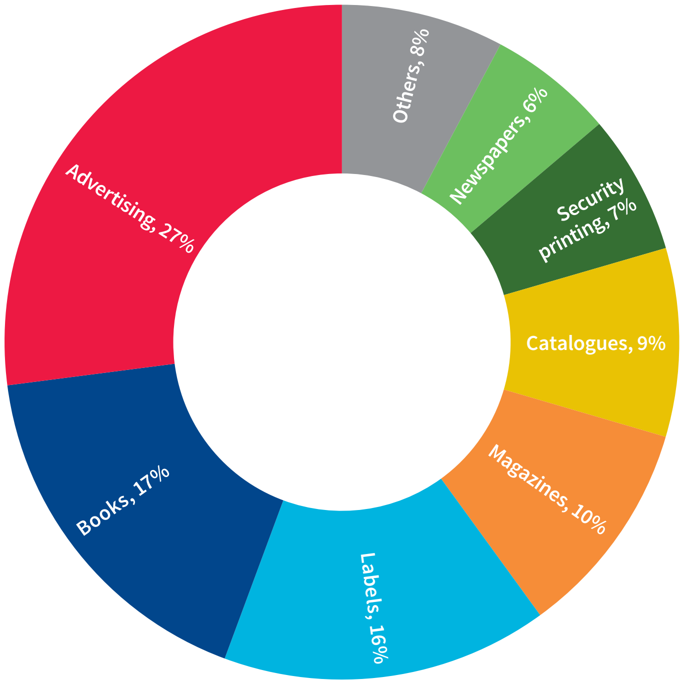


1.2.3 Production value

Classification: PRODCOM

Note books:	17231315 - Note books, letter pads, memorandum pads, of paper or paperboard
Diaries:	17231317 - Diaries, of paper or paperboard
Telephone books:	17231319 - Engagement books, address books, telephone number books and copy books, of paper or paperboard (excluding diaries)
Exercise books:	17231330 - Exercise books, of paper or paperboard
Blotting pads:	17231390 - Blotting pads and book covers, of paper or paperboard
Labels:	17291120 - Self-adhesive printed labels of paper or paperboard
	17291140 - Printed labels of paper or paperboard (excluding self-adhesive)
Newspapers:	18111000 - Printed newspapers, journals and periodicals, appearing at least four times a week
Security printing:	18121100 - Printed new stamps, stamp-impressed paper, cheque forms, banknotes, etc
Catalogues:	18121230 - Printed commercial catalogues
Advertising:	18121250 - Printed trade advertising material (excluding commercial catalogues)
Magazines:	18121300 - Printed newspapers, journals and periodicals, appearing less than four times a week
Books:	18121407 - Printed books, brochures, leaflets and similar printed matter, in single sheets
	18121414 - Printed books, brochures, leaflets and similar printed matter (excluding in single sheets)
Colouring books:	18121421 - Printed children's picture, drawing or colouring books
Dictionaries:	18121428 - Printed dictionaries and encyclopaedias, and serial instalments thereof
Maps:	18121435 - Printed maps, hydrographic or similar charts, in book-form
	18121442 - Printed maps, hydrographic or similar charts (excluding in book-form)
Postcards:	18121449 - Printed postcards, whether or not illustrated
Cards:	18121456 - Printed cards bearing personal greetings, messages or announcements, whether or not illustrated, with or without envelopes or trimmings
Photographs:	18121463 - Printed pictures, designs and photographs
Calendars:	18121910 - Printed calendars of any kind, including calendar blocks
Music:	18121920 - Printed music (including braille music)
Transfers:	18121930 - Printed transfers (decalcomanias)
Others:	18121990 - Other printed matter, n.e.c.

Share in production value, 2018, %



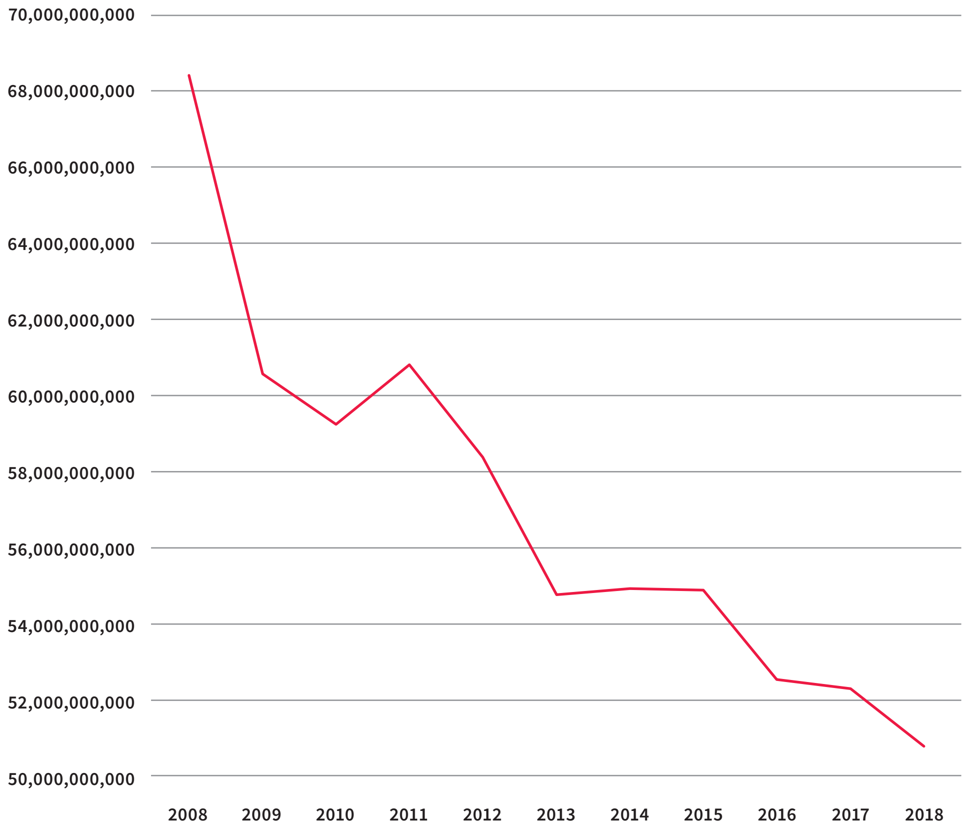
- In 2018, approximately €50.5 billion worth of printed products were produced in the European Union.

- From the identified categories of printed products, 27% of European production in value is classified as advertising; this corresponds to approximately € 10.5 billion. Catalogues represent 9% of European production of printed products.

- Magazines and newspapers represent respectively 10% (€ 4 billion) and 6% (€ 2.5 billion). Books have a share of 17%; € 6.7 billion worth of books are printed in Europe.

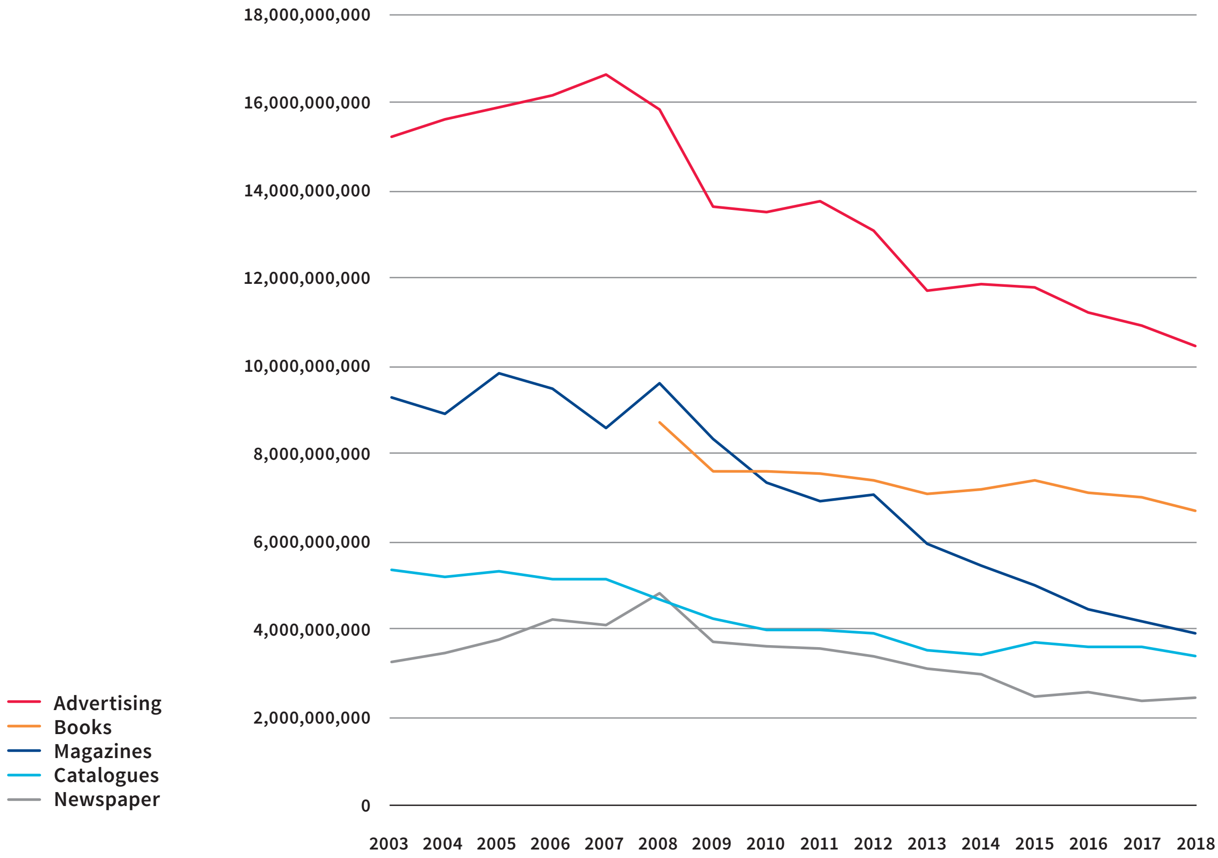
- 16% of the production in Europe belongs to the category of labels, i.e. € 6.3 billion. Security printed products represent 7% of the total production of printed products in Europe in 2018.

Evolution of production value of total printed products, 2008-2018, in €



- The total production of printed products in 2018 declined by 2.8% compared to 2017.
- After a sharp fall from 2008 to 2010 of 13.4%, the European production of printed products steadily decreased, including sharp falls in 2011 and 2012.
- The total production of printed products overall decreased by 25.8% between 2008 and 2017.

Evolution of production value of selected printed products, 2003-2018, in €



- After increases registered in 2014 and 2015, books' production decreased by 9 % since 2015.
- Catalogues and newspapers production value remained relatively stable since 2015.
- Compared to 2017, magazines production fell by 6.5%.
- The production of advertising material also decreased in 2018 by 6.7% compared to 2017.
- Taking 2008 as a reference, the production of magazines decreased by 58.8%, newspapers by 48.3%, advertising material by 33.6%, catalogues by 26.3% and books by 22%.

Production value of printed products by country, 2018, in %

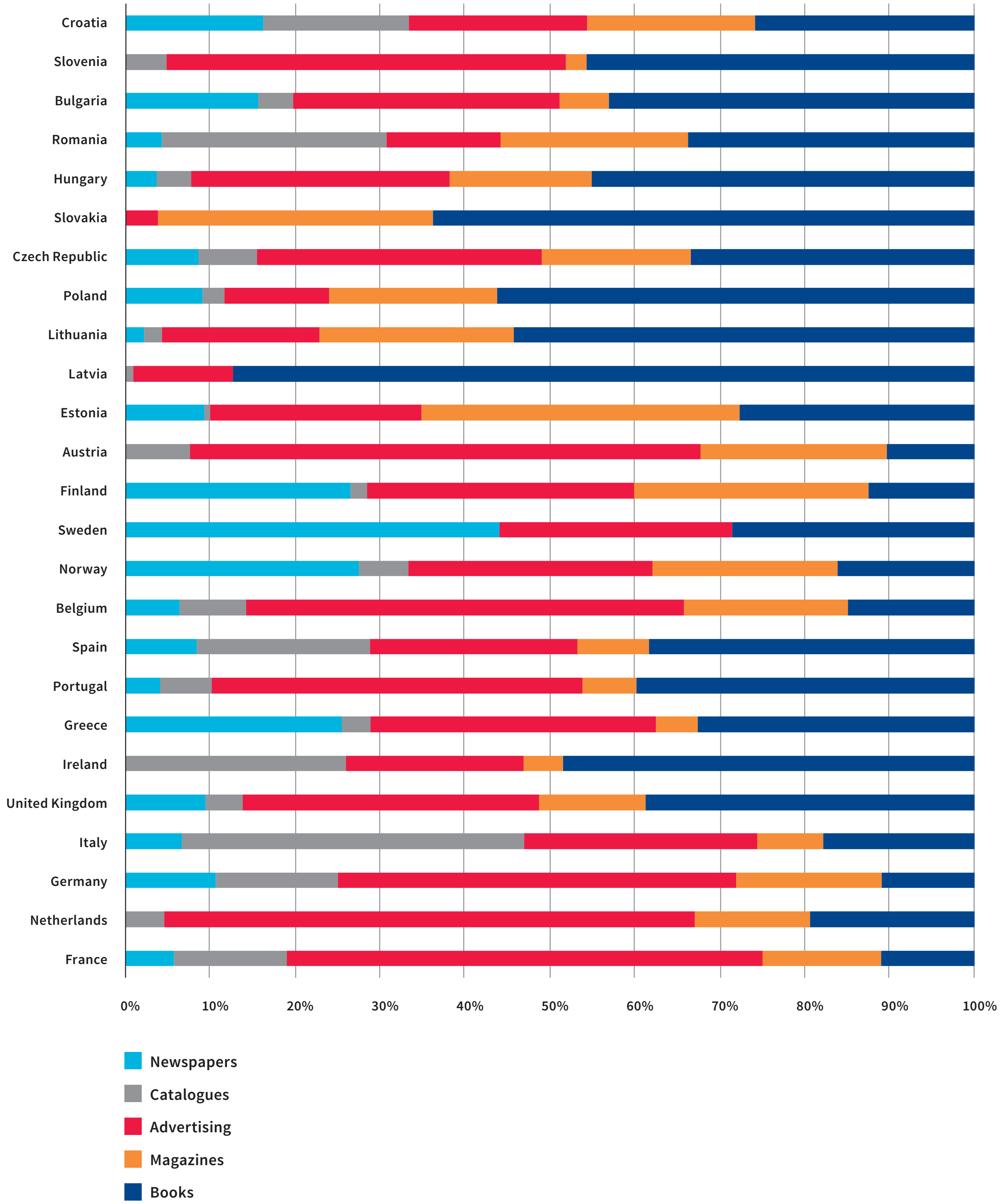
- The main producer of printed products in Europe is Germany with a total production value of € 12 billion. This corresponds to a quarter of the total European production value. Germany is the largest producer of printed advertising (€ 3.8 billion), which represents one third of its print production. Germany is also the main producer of magazines (€ 1.3 billion).

- With a total production value of € 5.5 billion, the UK is the second largest producer in Europe. The UK dedicates the largest share of its production to books and advertising. The UK is the largest producer of books in the European Union (€ 1.7 billion).

- 13% of European printed products are produced in France; this is worth € 6.7 billion. More than a quarter of France's production is allocated to advertising material.

- Italy has a total production of € 6.5 million. This represents 13% of the total European production and makes Italy the fourth largest producer of printed product in value in Europe. Its production value is mainly allocated to catalogues, advertising and books.

Production value of printed products, 2018, in %



1.2.4 Trade figures

Source: Eurostat, data are in €

Classification: Combined nomenclature

49 PRINTED BOOKS, NEWSPAPERS, PICTURES AND OTHER PRODUCTS OF THE PRINTING INDUSTRY; MANUSCRIPTS, TYPESCRIPTS AND PLANS (printed products)

4901 Printed books, brochures, leaflets and similar printed matter, whether or not in single sheets **(books)**

4902 Newspapers, journals and periodicals, whether or not illustrated or containing advertising material **(newspapers)**

4903 00 00 Children's picture, drawing or colouring books **(colouring books)**

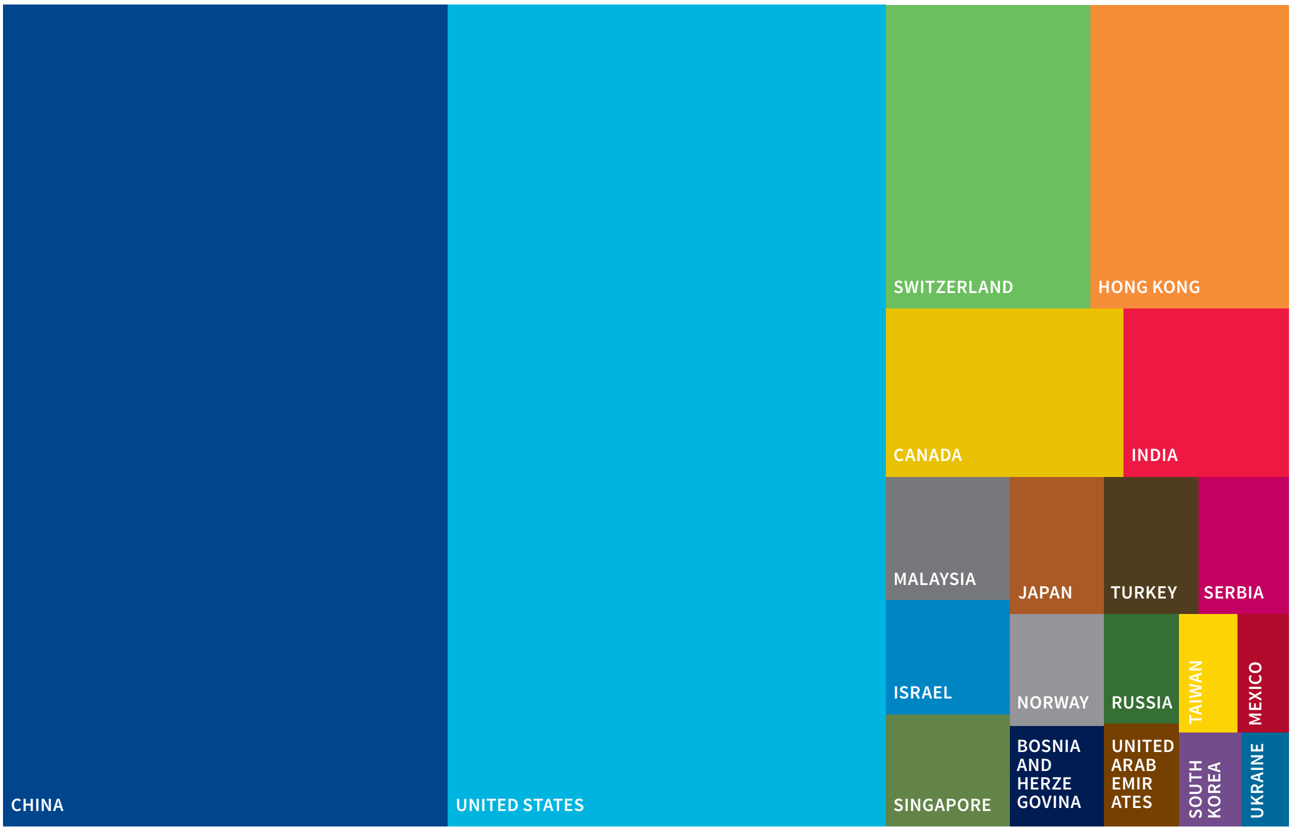
4909 00 00 Printed or illustrated postcards; printed cards bearing personal greetings, messages or announcements, whether or not illustrated, with or without envelopes or trimmings **(postcards)**

4910 00 00 Calendars of any kind, printed, including calendar blocks **(calendars)**

4911 10 Trade advertising material, commercial catalogues and the like **(advertising)**

4911 91 00 Pictures, designs and photographs **(photographs)**

Trade partners, imports to the EU, 2019

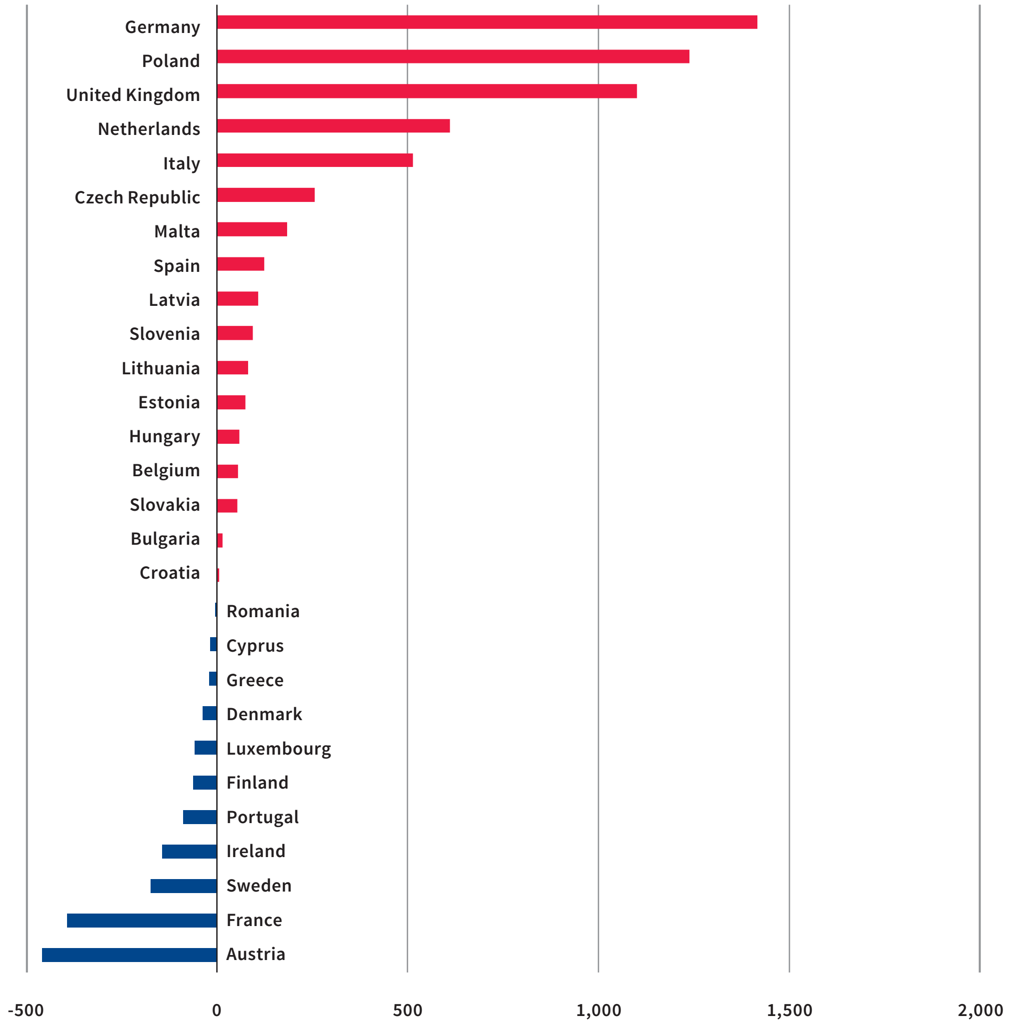


- In 2019, the European Union imported € 2.8 billion worth of printed products from non-EU countries. Half of these (€ 1.5 billion) are books.
- About one third of the total EU imports originated from China (see next chapter) and another third came from the United States (see next chapter).
- The next largest importers in 2018 were Switzerland, Hong Kong, Canada and India.

Trade partners, exports from the EU, 2019

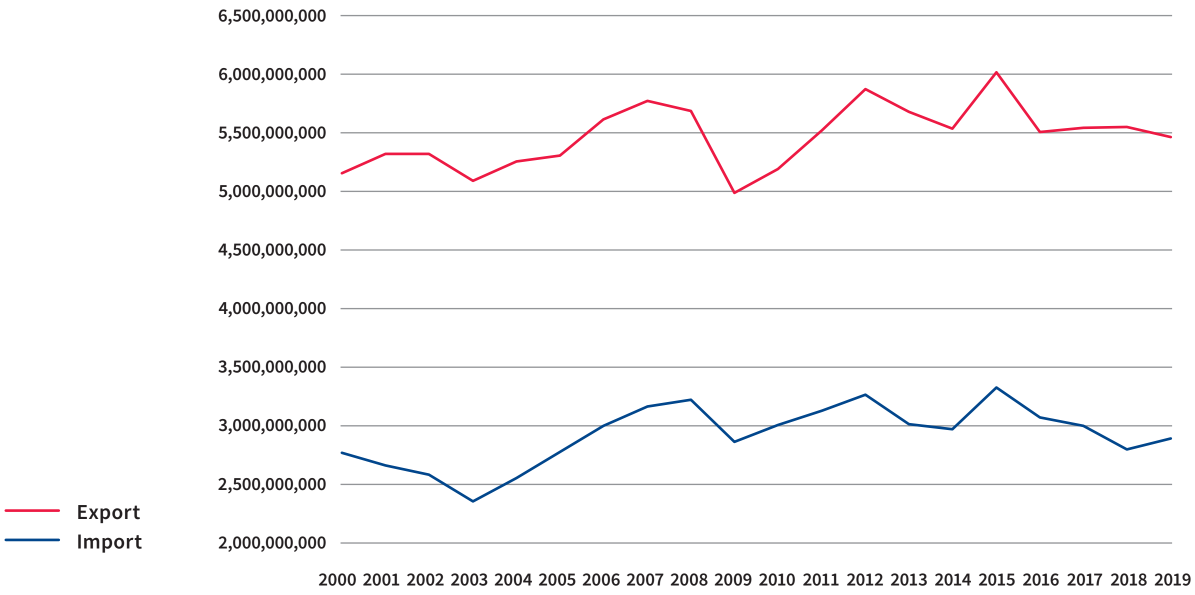
- The European Union exported in 2019 € 5.4 billion worth of printed products to non-EU countries.
- Half of the EU exports of printed products were books.
- The main benefiters of EU exports in 2019 were Switzerland (19%), the US (17%) and Australia (5%).

Trade balance, printed products, intra- and extra-EU, in million €, 2019



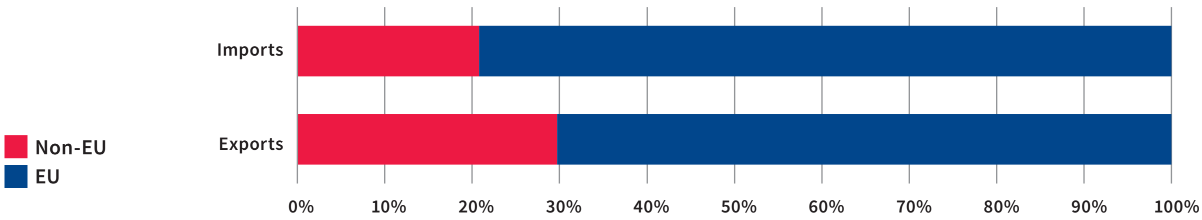
- Considering both intra- and extra-EU trade, the main net exporters of printed products in 2019 were Germany, Poland and the UK.
- With € 1.4 billion, Germany had the largest trade surplus in the EU in 2019. Germany is the largest exporter of printed advertising and catalogues.
- Poland surplus was € 1.2 billion. It is due to its exports of books and magazines.
- The UK had a surplus of € 1.1 billion surplus which is mainly owed to the trade of books.
- With a trade deficit of respectively € 0.45 and € 0.39 billion, Austria and France were the largest net importers of printed products in 2019. The deficit of Austria is mainly due to its net imports of books and France of its imports of printed advertising and catalogues.

EU trade of printed products to non-EU countries, 2000-2019, in €



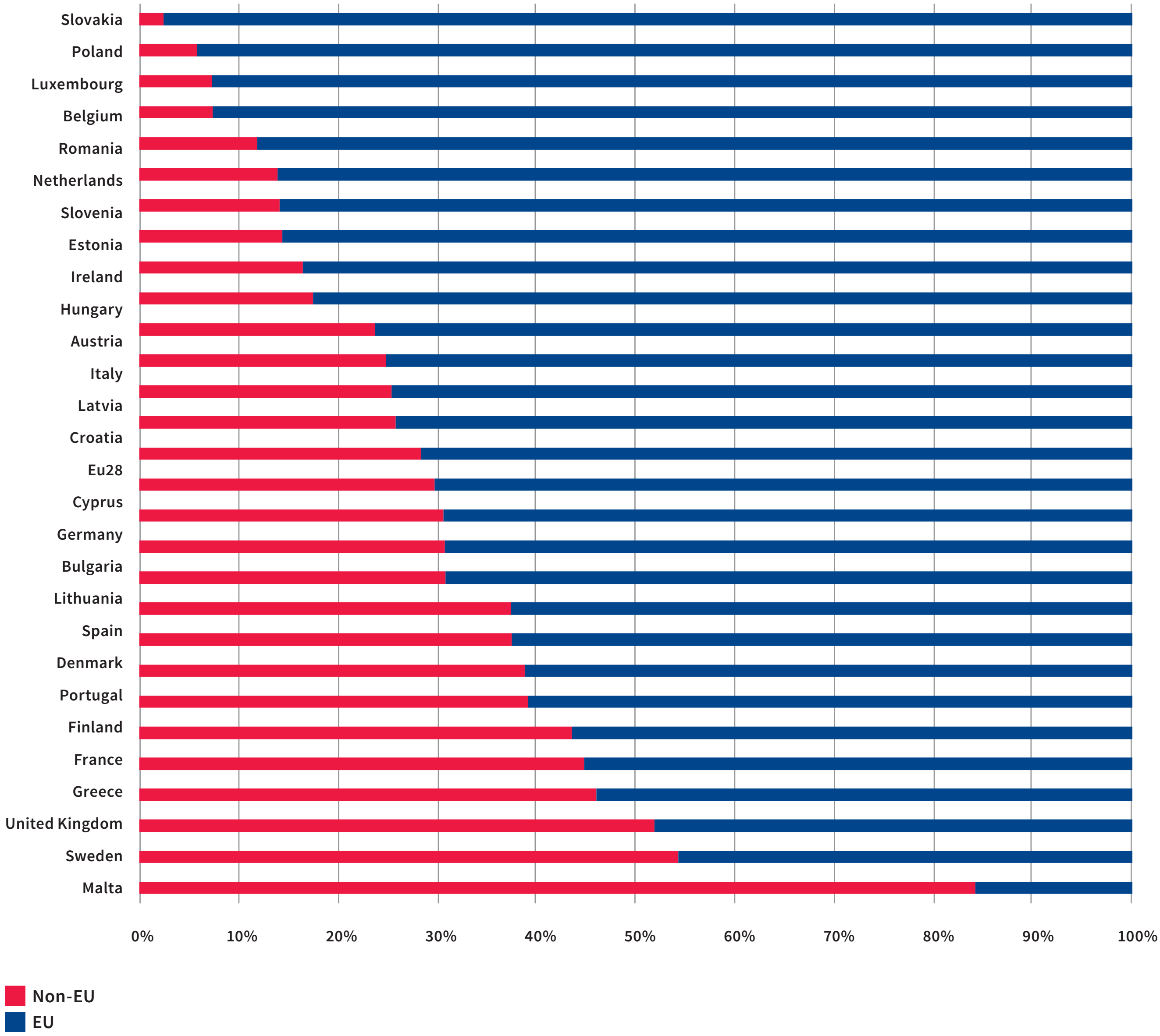
- Although the large majority of its trade is intra-EU, the European Union is a net exporter of printed products to non-EU countries with a trade surplus of € 2.5 billion.
- Exports of printed products decreased by 1.5% compared to 2018 and imports have increased by 3.3% compared to 2018.

Share of EU and non-EU trade in imports and exports of printed products, in %, 2019

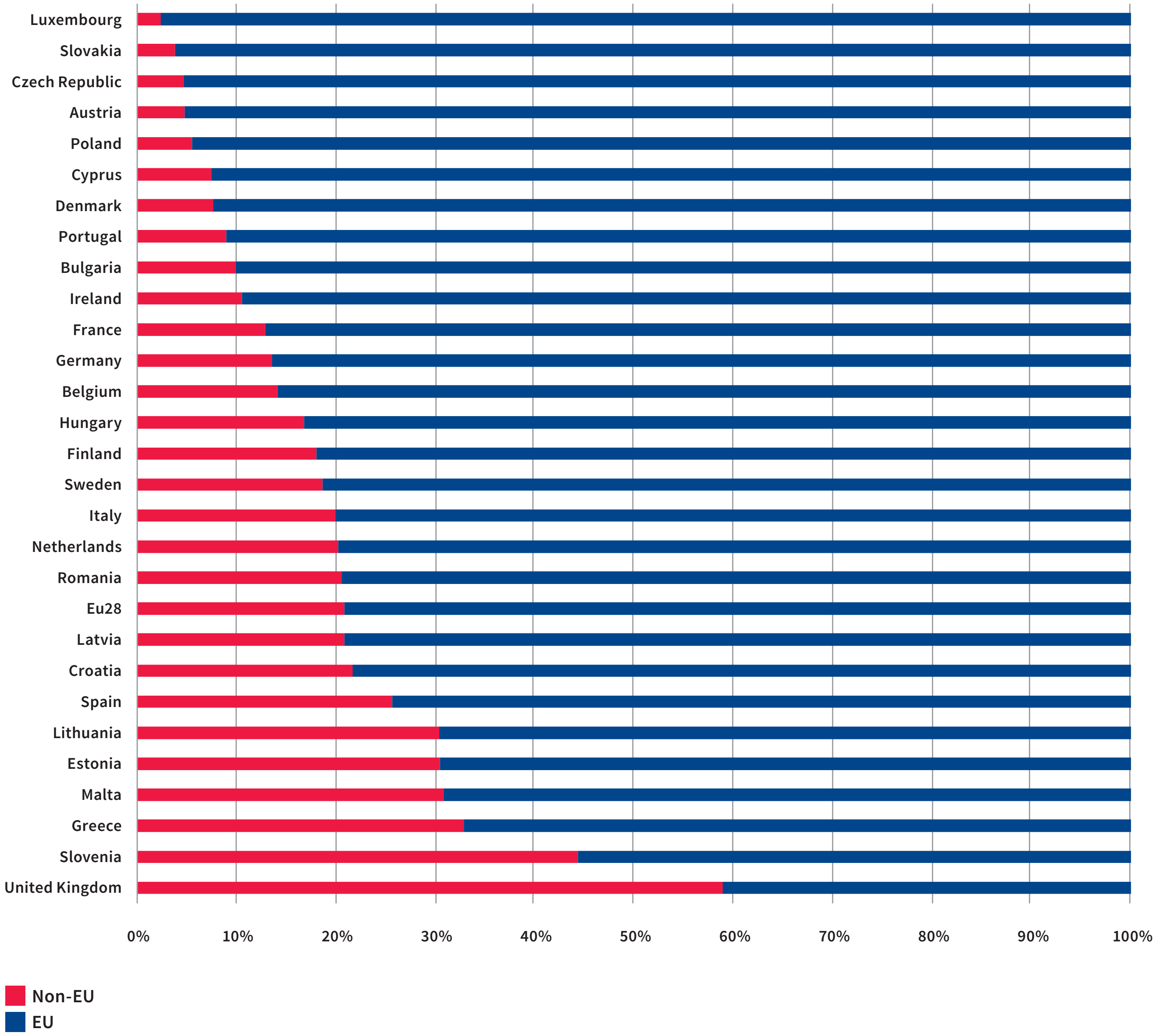


- On average, approximately 30% of the European exports of printed products are sent outside the EU.
- In Slovakia, Czech Republic, Poland and Luxembourg, less than 10% of their exports of printed products are extra-EU.
- Malta has the largest share of exports of printed products outside the EU.
- On average, approximately 20% of the European imports of printed products are from outside the EU.
- More than 50% of UK imports of printed products are extra-EU.
- The share of non-EU imports of printed products is the lowest in Luxembourg, Slovakia, Czech Republic and Austria.

Share of EU and non-EU trade in exports of printed products, in %, 2019

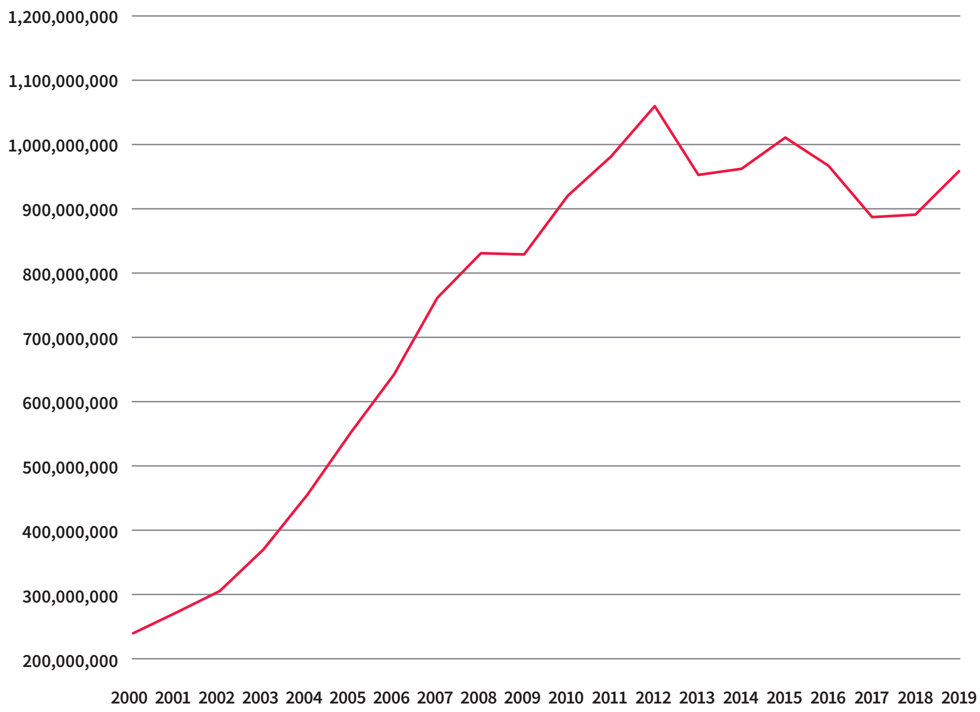


Share of EU and non-EU trade in imports of printed products, in %, 2019



1.2.5 Imports from China

Imports from China, 2000-2018, in €



- In 2019, the European Union has imported € 960 million worth of printed products from China. This is 7.5% more than in 2018.
- Chinese imports are relatively steady since 2008. However, compared to 2000, Chinese imports have quadrupled.

Main printed products imported from China to the EU, 2019

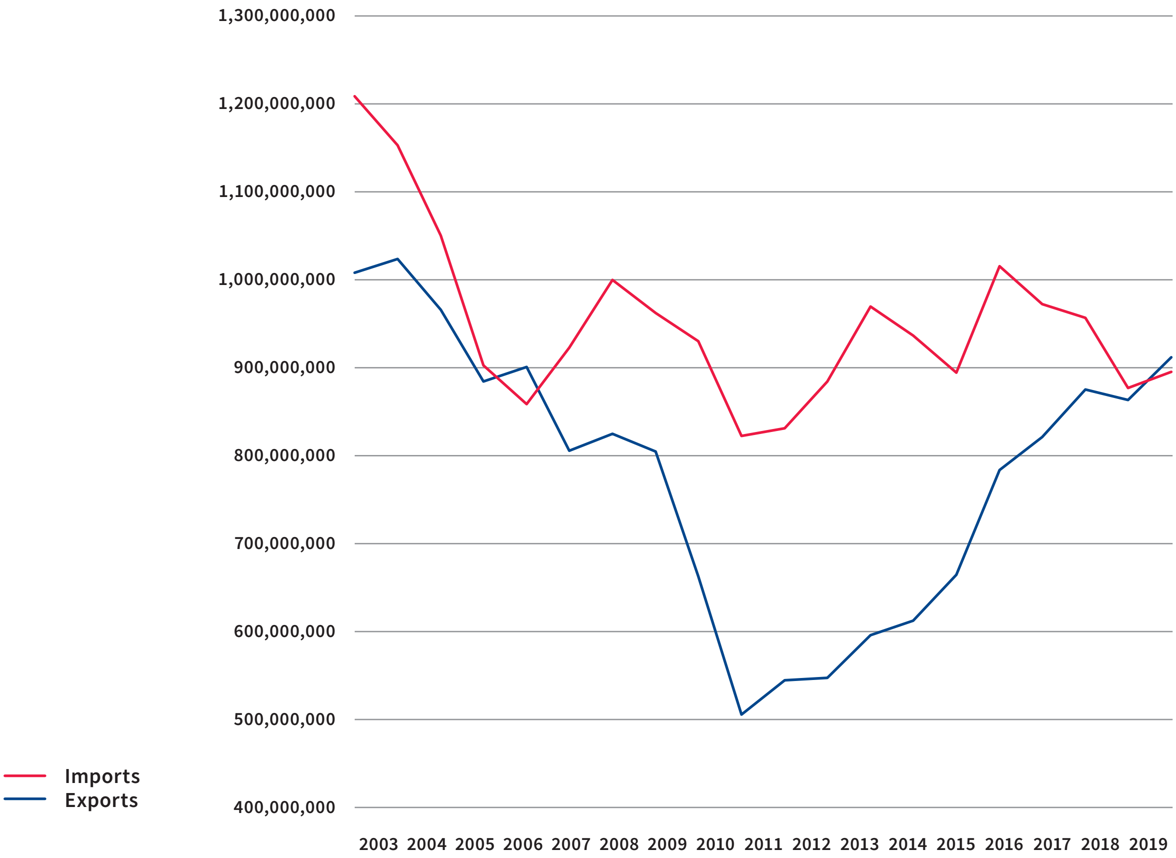
- Books account for 43% of the total imported printed products to the EU from China.
- Postcards (21%) and colouring books (13%) are the next most imported printed products from China in value terms.

Main EU importers of printed products from China, 2019

- 40% of Chinese imports are directed to the UK, i.e. this corresponds to € 381 million worth of printed products. 13% go to Germany, 10% to the Netherlands and 8% to France.

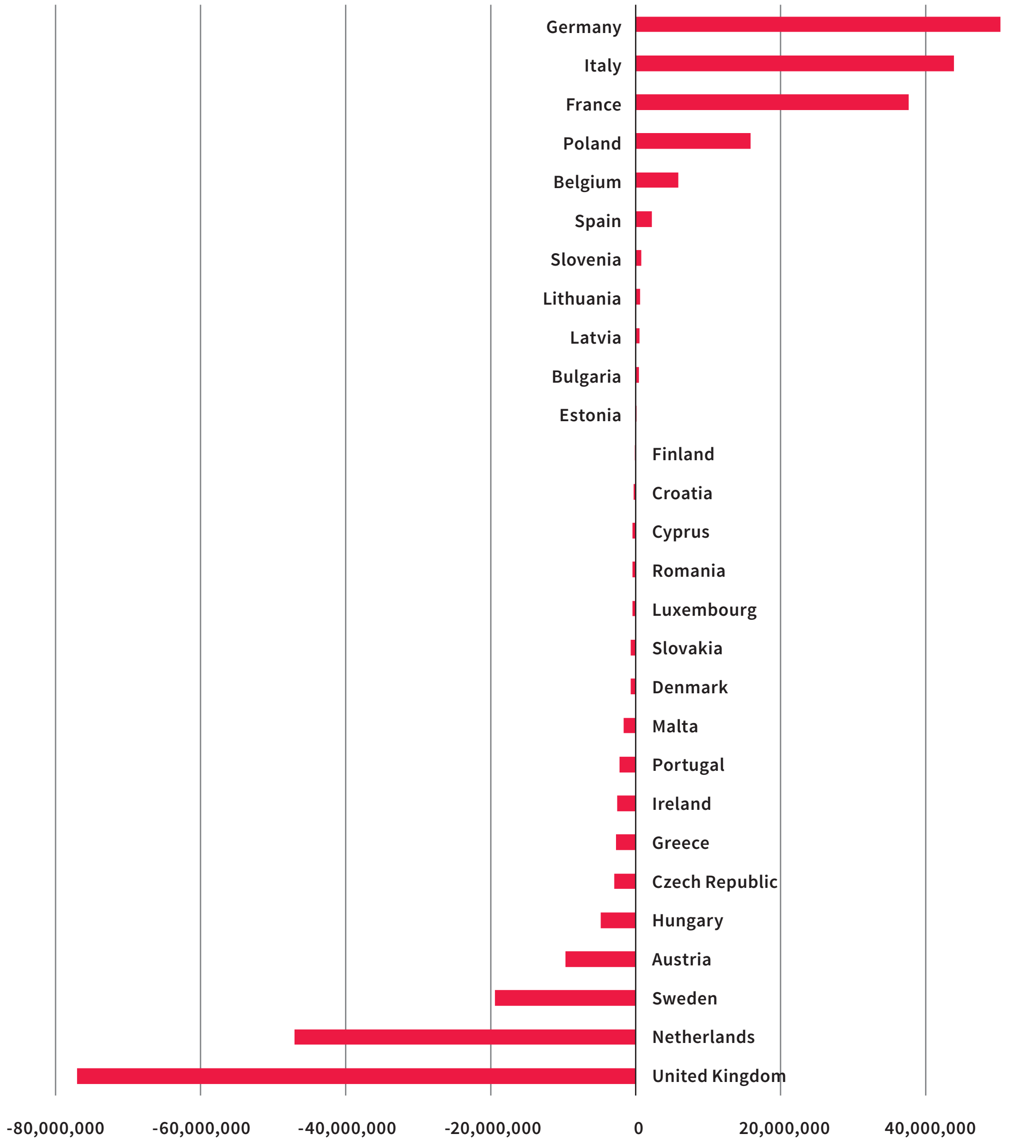
1.2.6 Trade with the US

Trade of printed products with the US, 2000-2019, in €



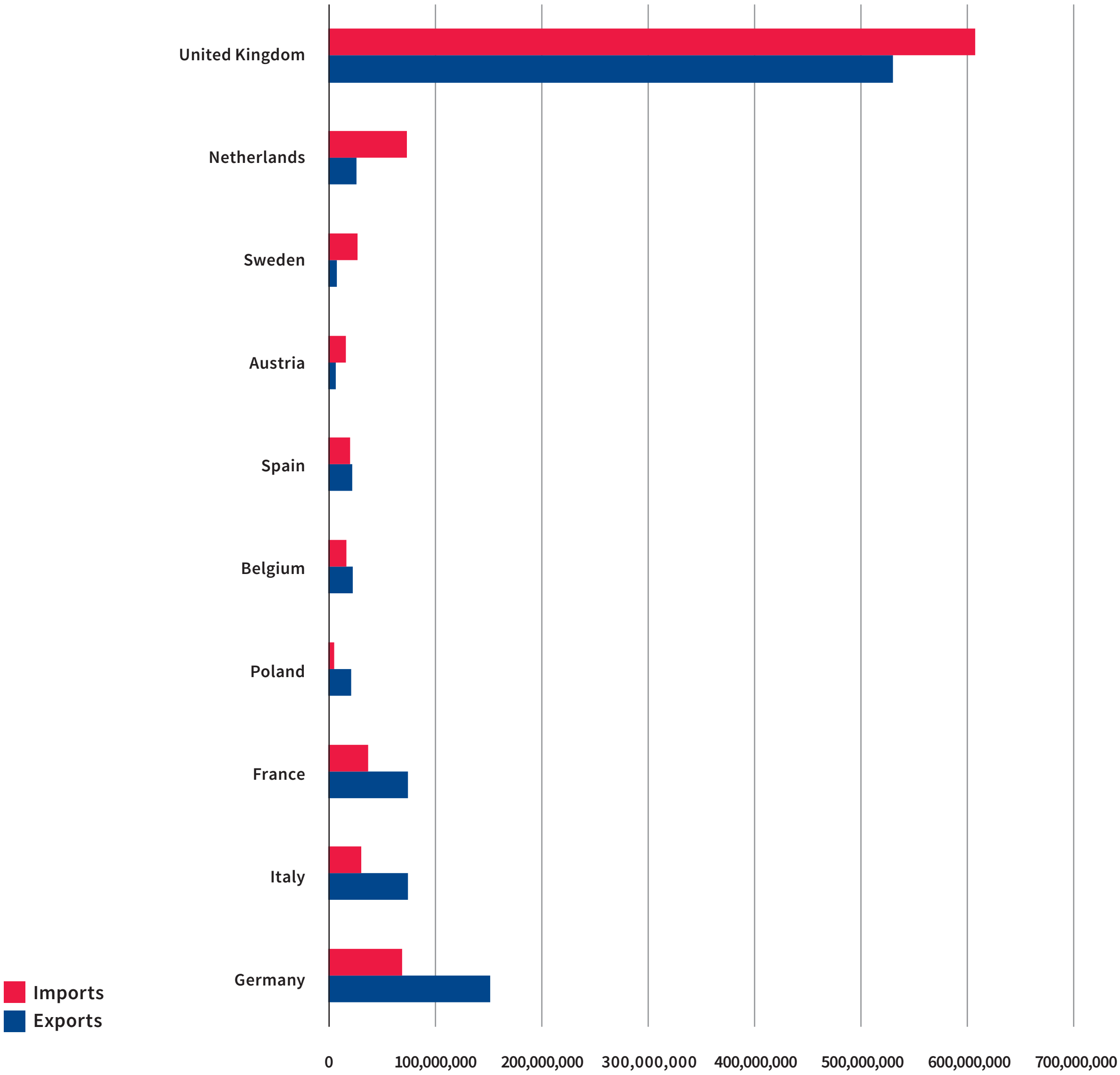
- Over more than a decade, the EU has had a negative trade balance with the US. After a sharp decrease of European exports in 2009, the trade balance progressively improved thanks to continuous increased exports.
- In 2019, exports to the US were higher than imports. The trade balance with the US registered for the first time since 2004 a benefit of 17 million €.

Trade balances of EU countries with the US, 2019, in €



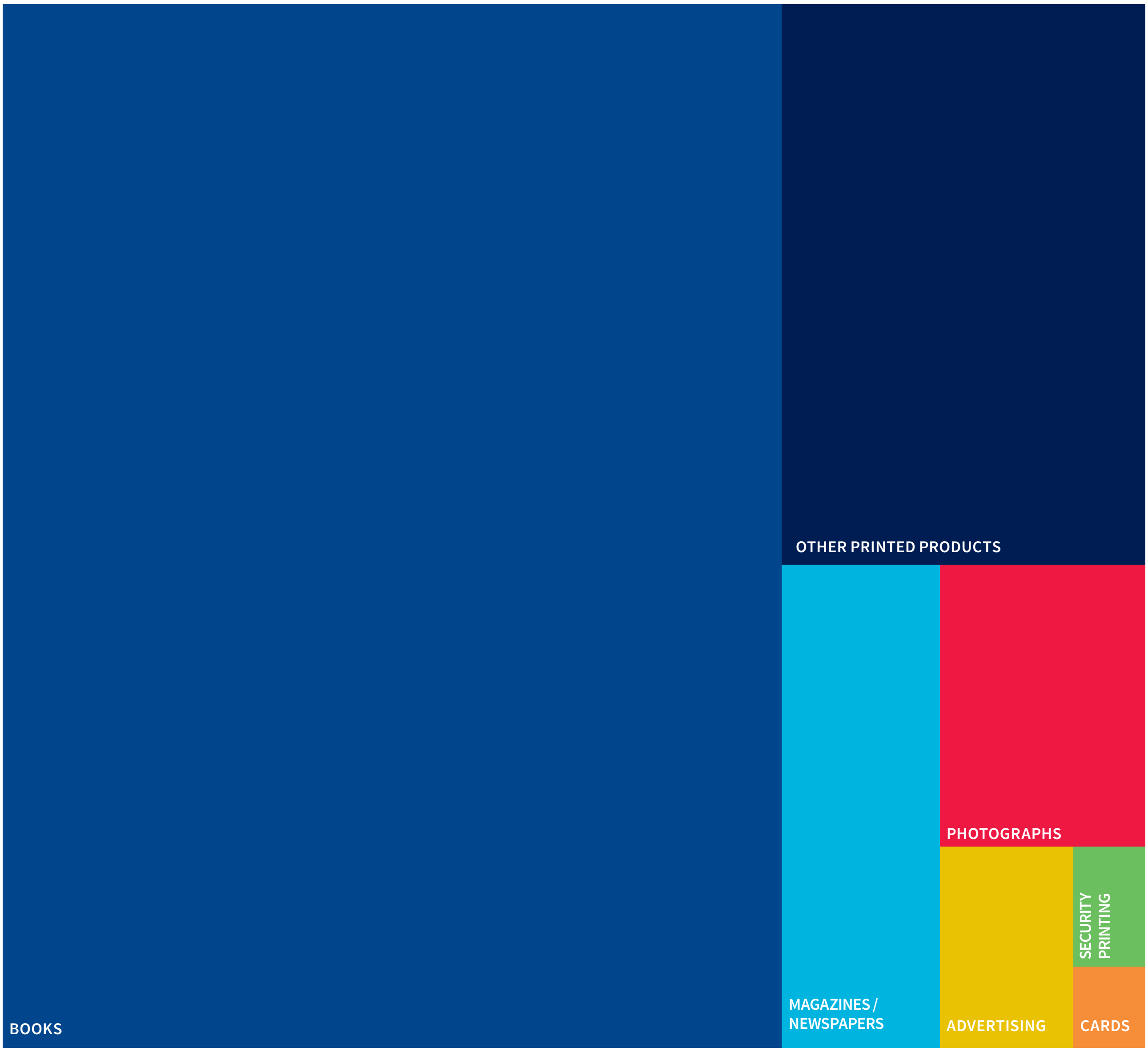
- Germany and Italy were the main net exporters to the US market in 2019.
- In 2019, the UK and the Netherlands were the main net importers of printed products from the US, followed by Sweden and Austria.

Main trade partners with the US, 2019, in €



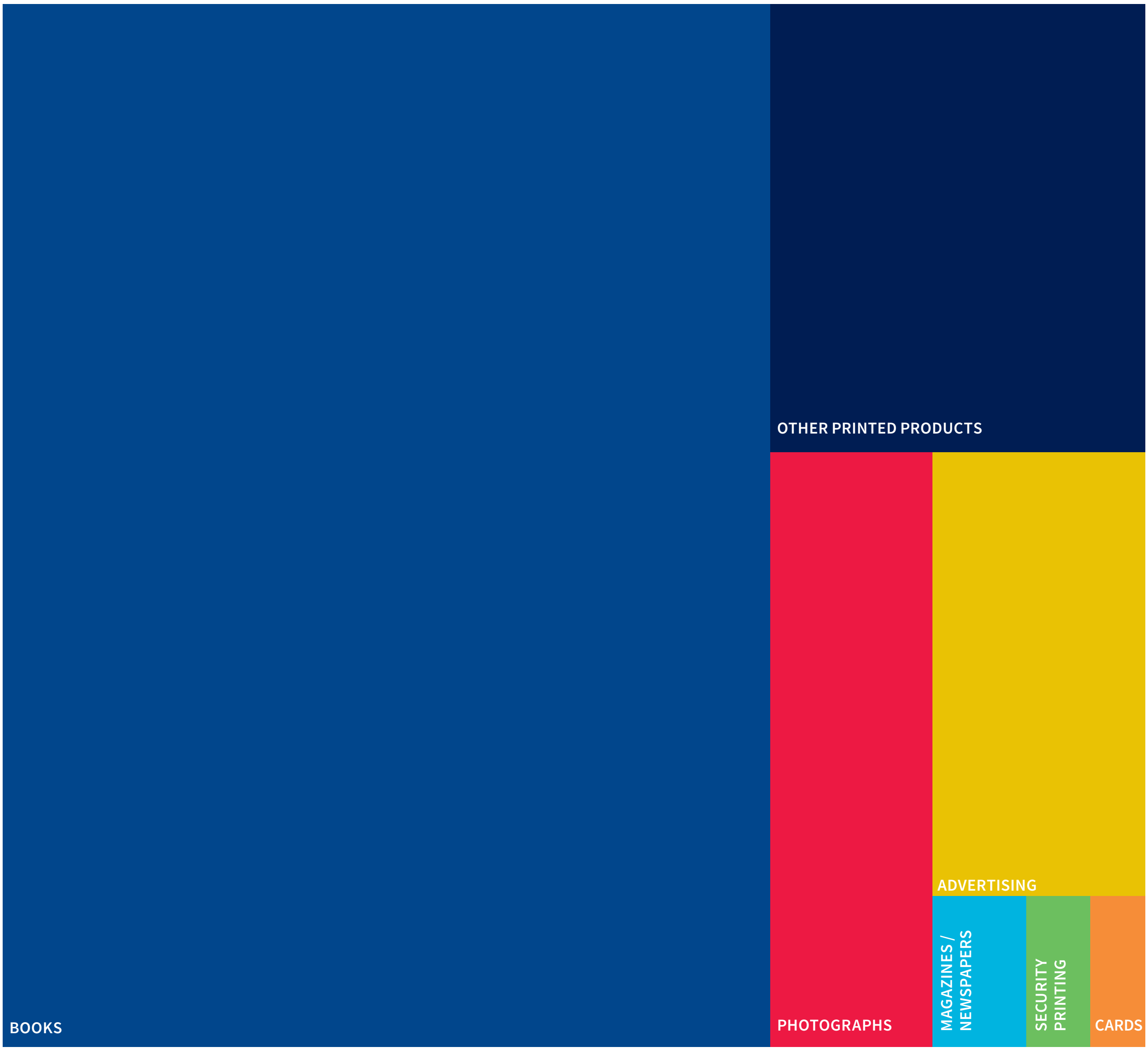
- In value terms, the UK is the main trade partner of the US for printed products.
- Germany, Italy, France and Spain are the next main trade partners to the US but contrary to the UK, they have a positive trade balance to the US.

Imported printed products from the US, 2019



- 68% of imported printed products from the US are books. They represent a value of more than € 645 million.
- Magazines and newspapers represent 6.5% of the total imported printed products from the US.

Exported printed products to the US, 2019

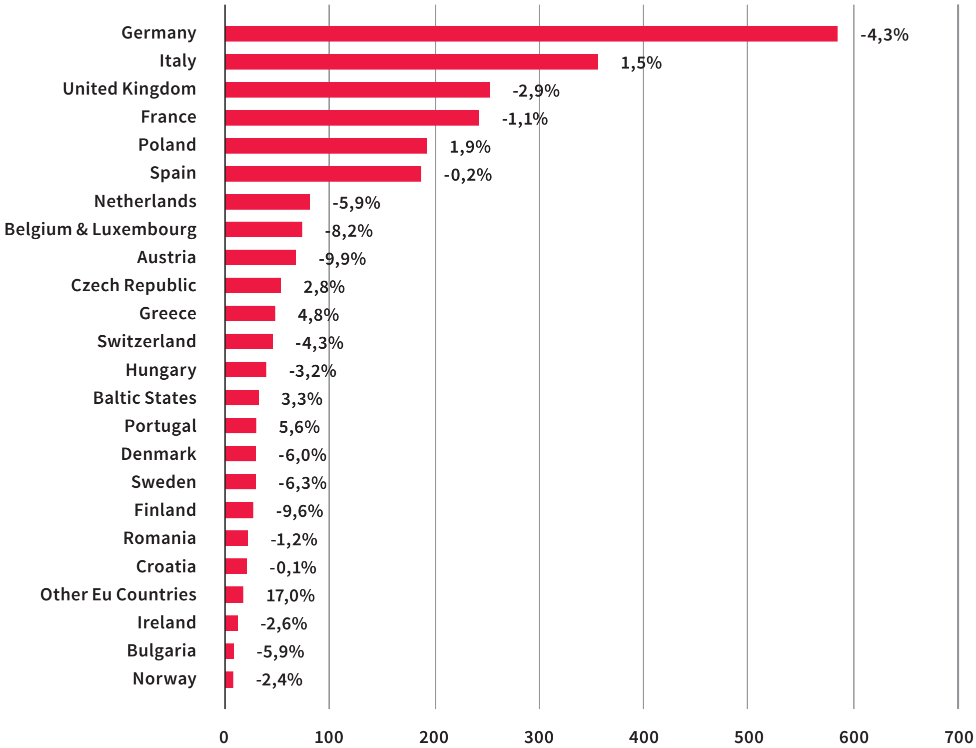


- 67% of exported printed products to the US are books. They represent around € 650 million.
- Photographs and advertising materials represent each a share of 8% of the total exported printed products to the US.

1.
2019 PRINT MARKET REVIEW

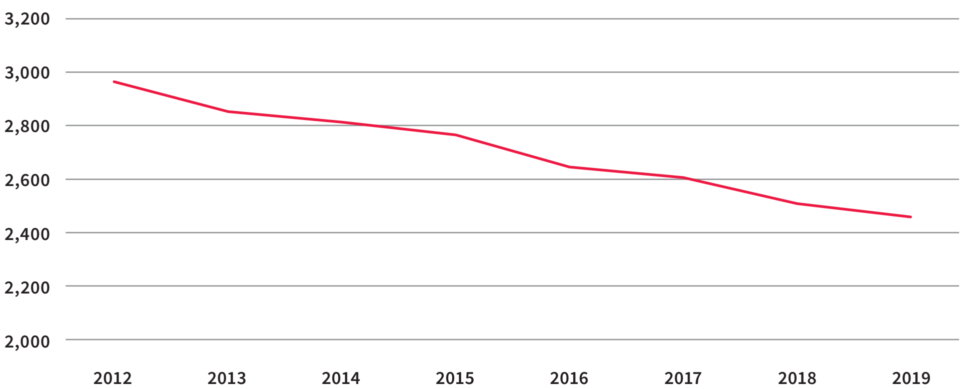
1.3.1 Ink market

Printing inks sales value by country, 2019, in million € and comparison with previous year 2018



- Germany was the largest seller of printing inks in Europe with a total sales value of € 585 million in 2019. It is 4.3% less than in 2018 and 28% less than in 2012.
- Italy is the second largest seller of printing inks with a sales value of € 356 million in 2019.

Sales value of printing inks, Europe+Switzerland+Norway, 2012-2019, in million €



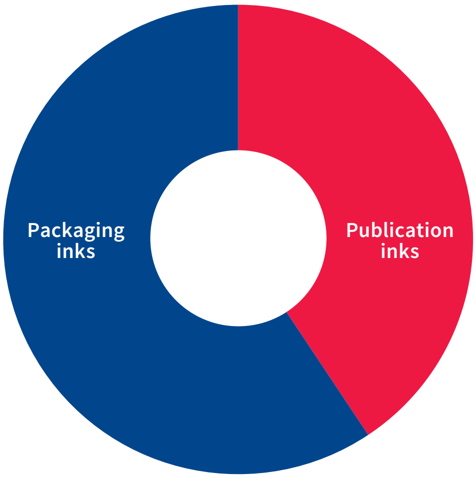
- In Europe, the sales value of printing inks reached € 2.5 billion in 2019. This is 2% less than in 2018 and 17% less than in 2012.

Sources
Eurostat

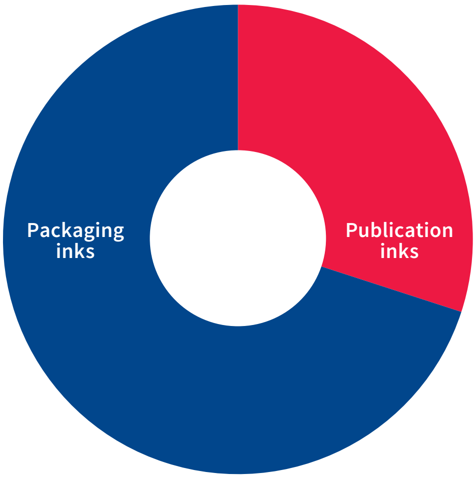
EuPIA (European Printing Ink Association)
EuPIA data are provided for the following global ink categories:
> Publication inks: they comprise web offset inks (coldset and heatset), sheetfed offset inks, publication gravure inks and related overprint varnishes.
> Packaging inks: they comprise flexographic inks, specialty gravure inks, energy curing inks and related varnishes.
It is estimated that the data represent overall more than 90% of the total European market.

Note
: = data not available

Sales volume, in tonnes, 2019

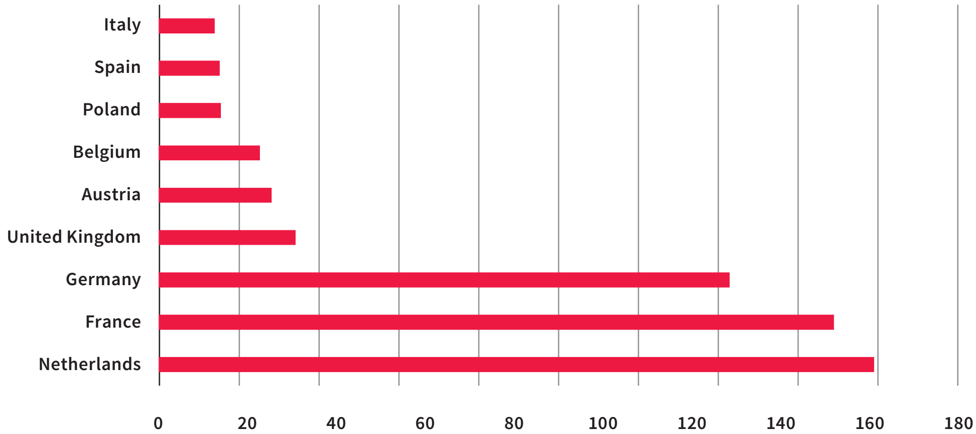


Sales value, in million €, 2019



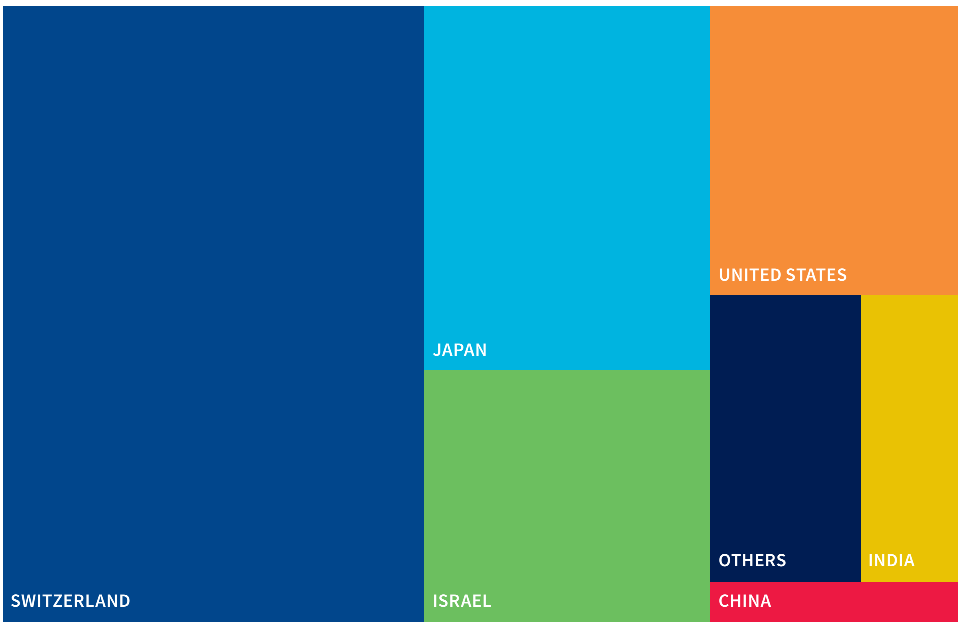
- Total European sales of printing inks were worth € 3 billion in 2019. In volume, 910,000 tonnes of printing inks were sold by European ink manufacturers in 2019.
- 370,000 tonnes of publication inks were sold (i.e. € 900 million in value). This is 10% less than in 2018.
- 540,000 tonnes of packaging inks were sold in 2019 (i.e. € 2,100 million in value). Contrary to publication inks, the tonnage of packaging inks sales has increased by 2% compared to 2018.

Main EU importers of printing inks from non-EU countries, 2018, in million €



- The European Union imported € 583 million worth of printing inks from non-EU countries in 2019.
- The main importers are the Netherlands, France and Germany.

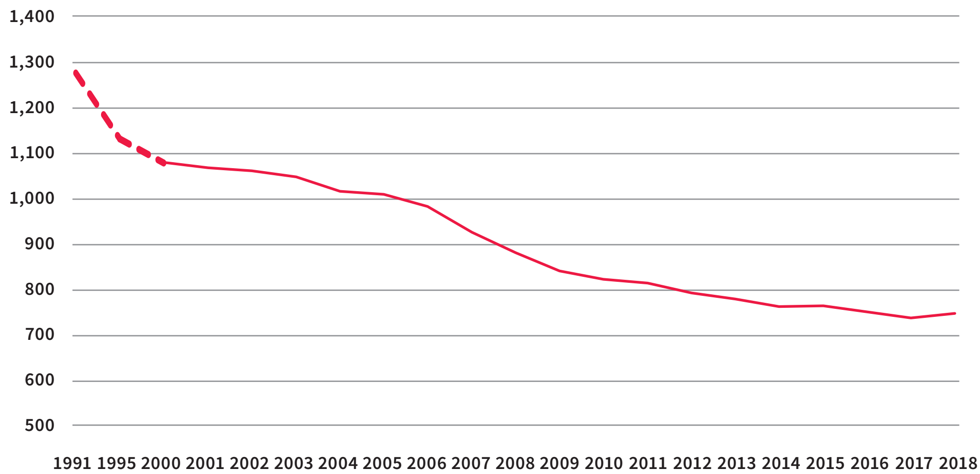
Main exporters of printing inks to the EU, 2019



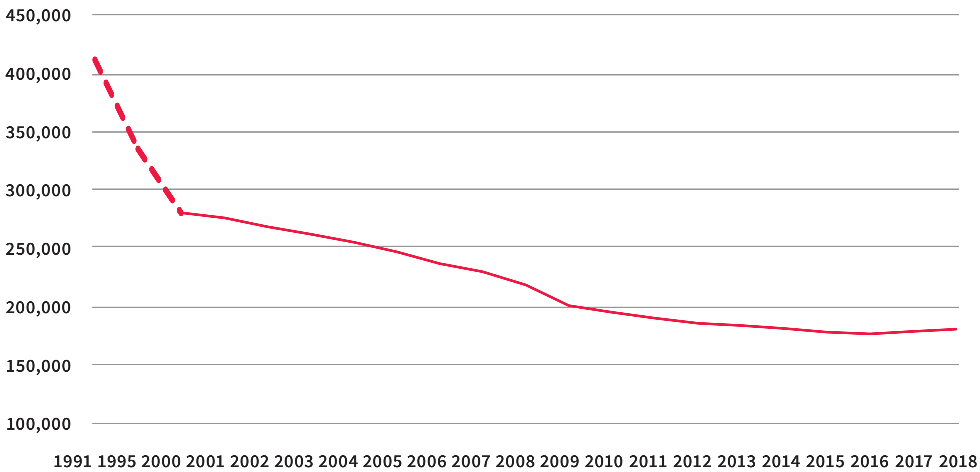
- The main exporter of printing inks to the European Union in 2019 was Switzerland, followed by Japan, the United States and Israel.

1.3.2 Paper market

Number of paper & board mills

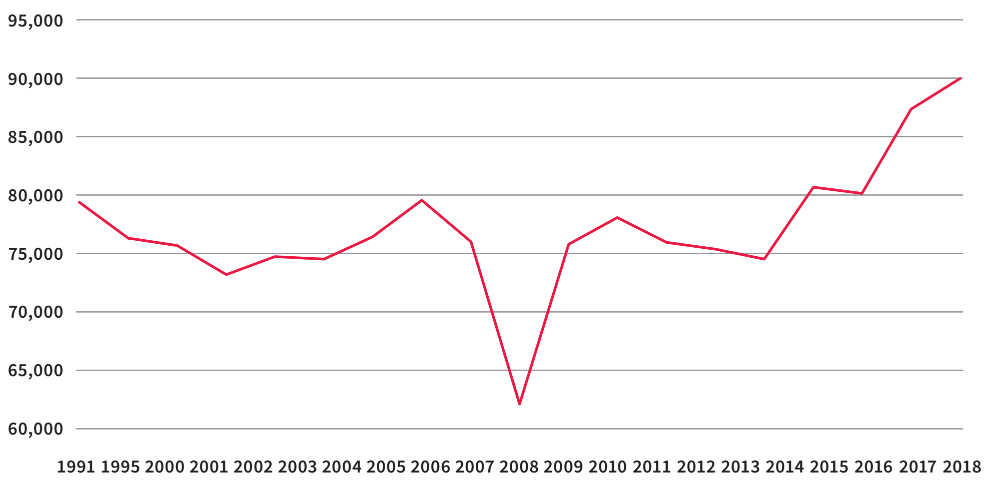


Number of employees



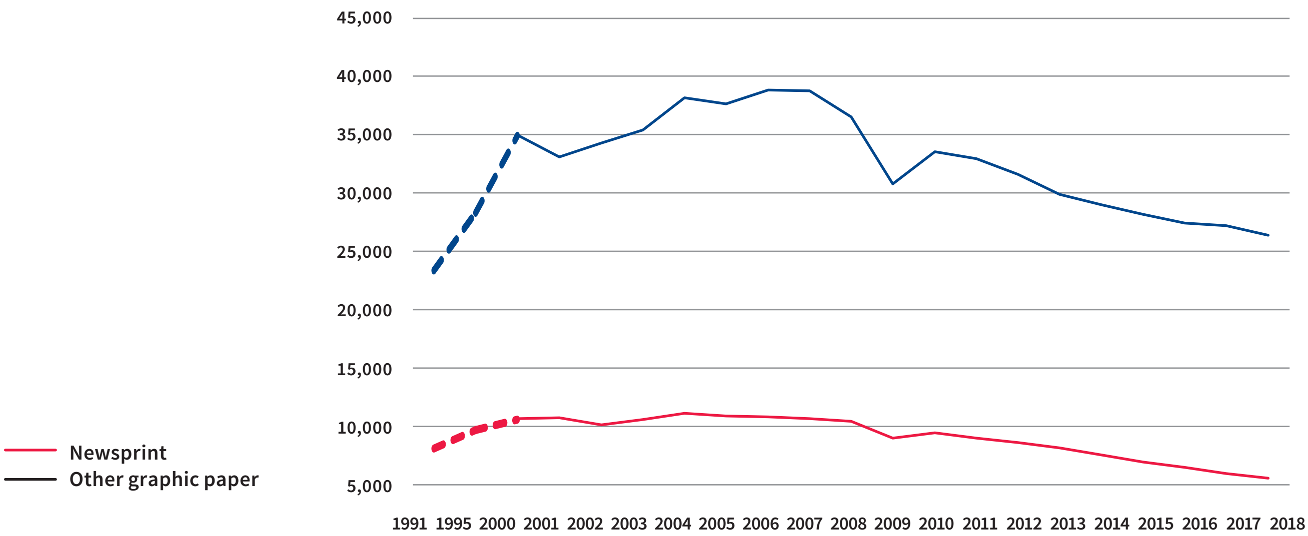
Sources
CEPI (Confederation of European Paper Industries)
Eurograph (European Association of Graphic Paper Producers)
Eurostat
Risi Fastmarket

Turnover (in million €)

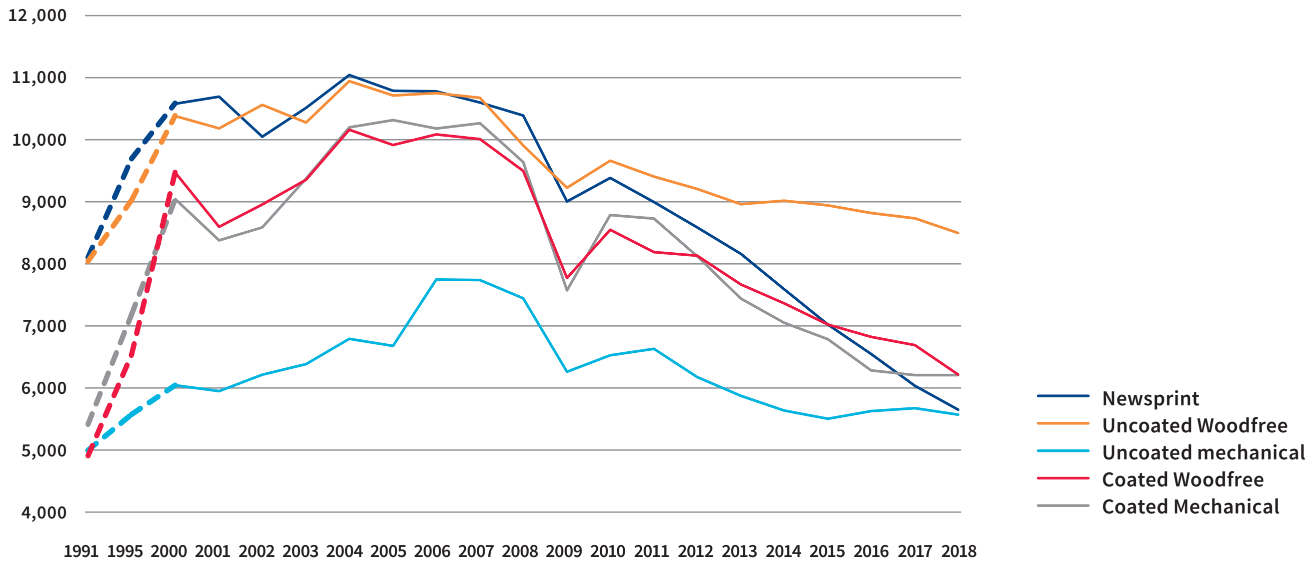


- With a turnover of approximately €90 billion, the European paper manufacturing industry was composed of 685 companies, running 746 mills and employing around 180,000 employees in 2018.
- Since 2000, the paper industry has lost one third of its companies and employees whereas the turnover has increased by 13%. Investments have also been relatively stable (-2.4%).
- Most indicators showed a positive trend in 2018, compared to 2017: turnover (+3%), number of companies (+1.3%), number of employees (+1%).

European production of newsprint paper and other graphic paper, 1991-2018, in million tonnes

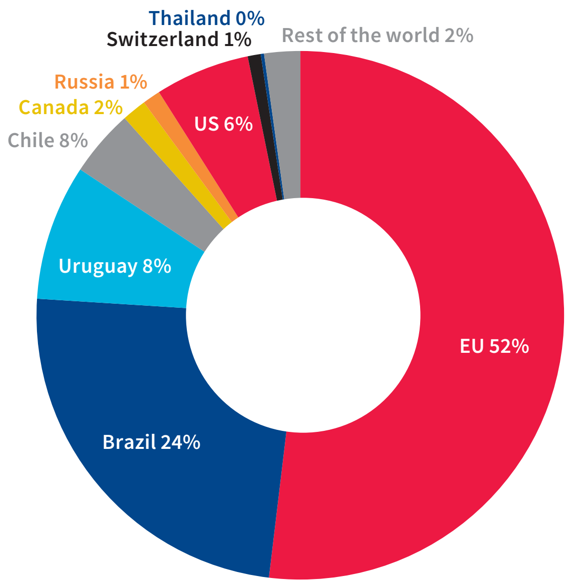


European production of graphic paper per type, 1991-2018, in million tonnes



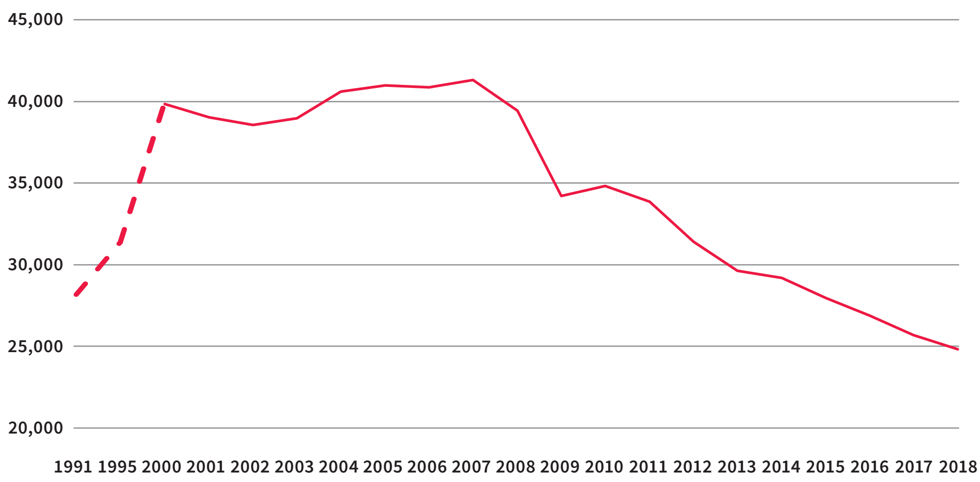
- 32.1 million tonnes of graphic paper were produced in Europe in 2018. This is 3.6% less than in 2017. The largest decrease in production was in coated woodfree production (-7.2%) and newsprint paper production (-6.4%).
- Since 2000, graphic paper production in Europe decreased by 29%. Newsprint experienced the largest decrease (-46%).

Origin of pulp consumed in Europe, in %, 2018



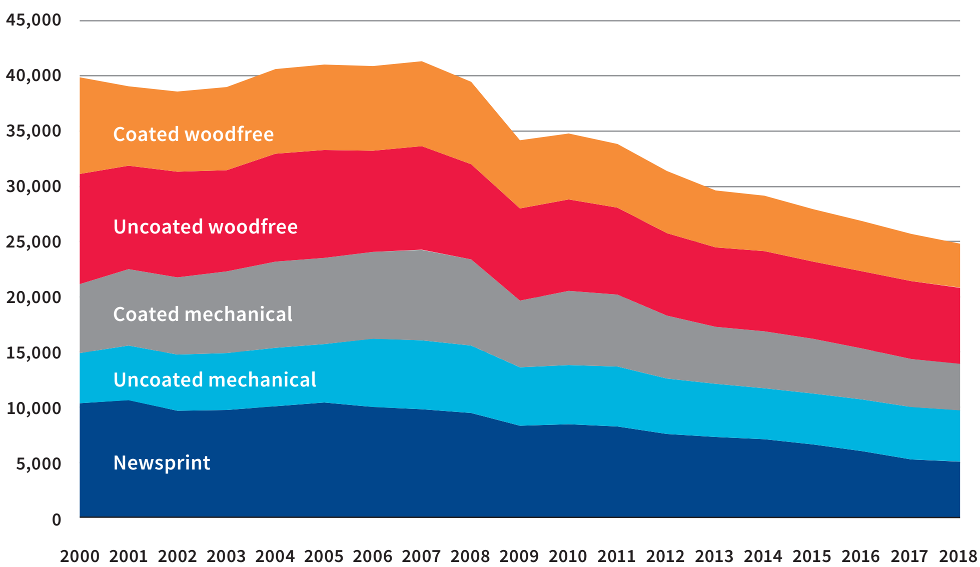
- 52% of the pulp consumed in Europe originate from Europe.
- With 24% from Brazil, 8% from Uruguay and 4% from Chile, in total, 36% of the pulp consumed in Europe originate from South America.

Graphic paper consumption in the EU, 1991-2018, in million tonnes



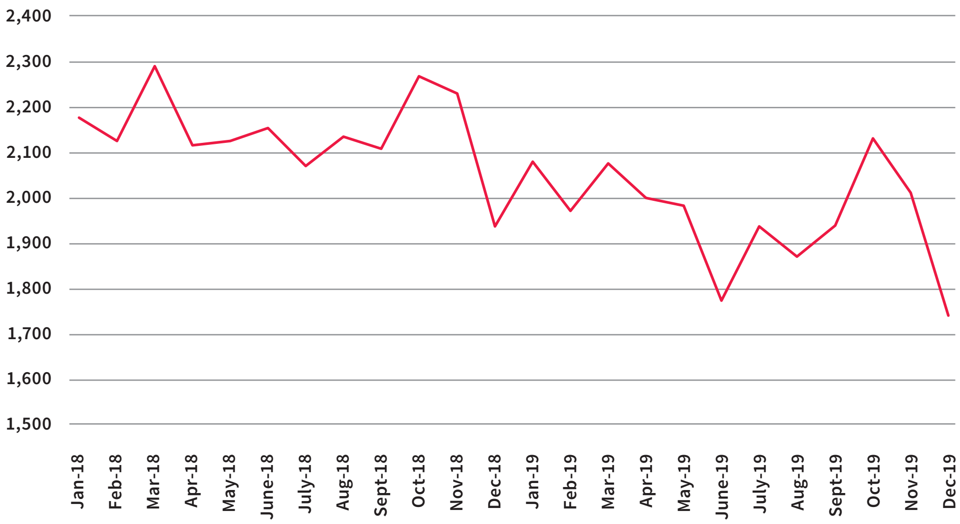
- The total graphic paper consumption in Europe amounted to 24.7 million tonnes in 2018. This is 3.4% less than in 2017.
- Graphic paper consumption has significantly decreased since 2000. It has decreased by 38%, which corresponds to about 15 million tonnes.

Graphic paper consumption in Europe, 2000-2018

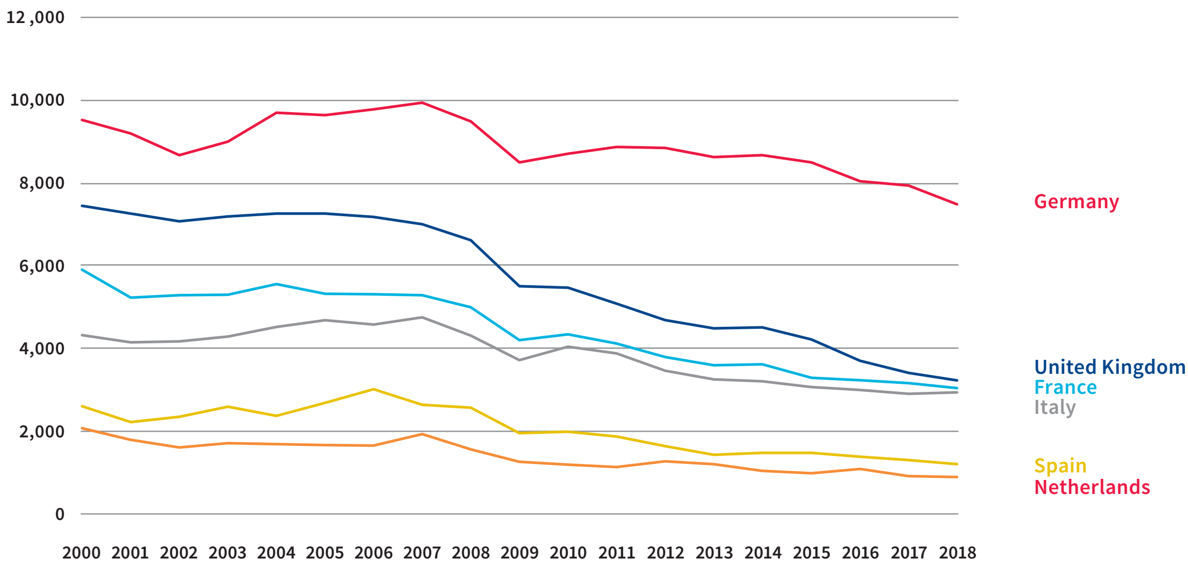


- The sharpest decrease in consumption was registered by coated woodfree (-6.8%) between 2017 and 2018.
- Compared to the level of 2000, coated woodfree paper had also the sharpest decrease (-55%) followed by newsprint (-51.1%).
- The paper grade which registered a positive trend over the years is uncoated mechanical paper. It increased by 2.1% compared to 2000. It also registered the smallest decrease compared to 2017.

Graphic paper consumption, monthly, 2018-2019, in thousand €

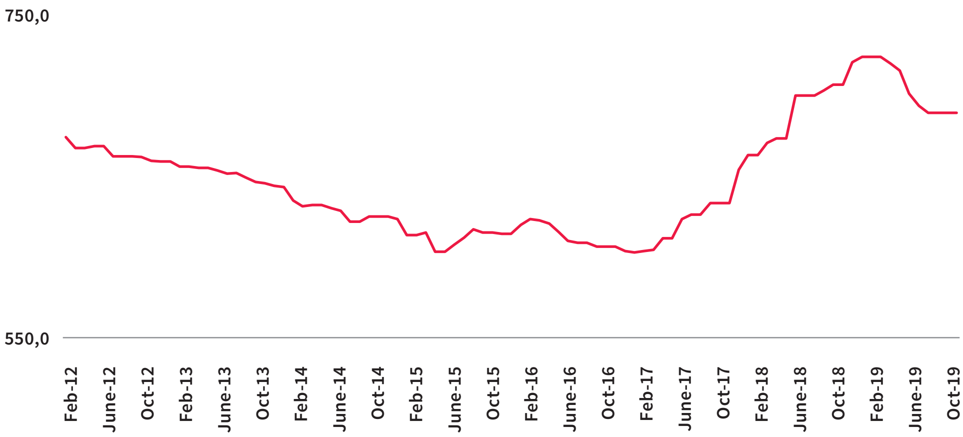


Graphic paper consumption in selected countries, 2000-2018



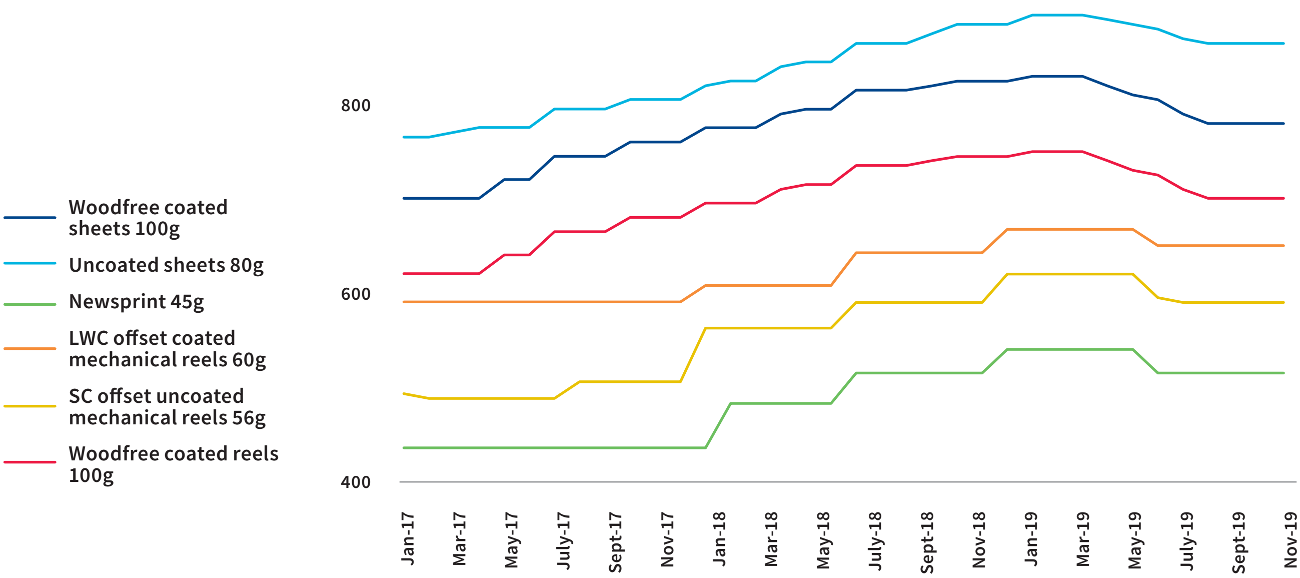
- With 7.4 million tonnes of graphic paper, Germany was the largest consumer of graphic paper in Europe in 2018, followed by the UK (3.2 million tonnes), France (3 million tonnes) and Italy (2.9 million tonnes).
- The largest decrease in graphic paper consumption compared to 2017 was registered in Slovenia (-64%) and Spain (-8%) whereas Austria experienced the largest increase in consumption (+12.7%).
- Most European countries reported decrease in consumption since 2000. The UK, Sweden, Spain, the Netherlands, France and Slovenia all reported decreases close to 50%. Unlike the general trend, Romania reported an increase by 47% since 2000.

Average graphic paper prices, Germany, €/tonne, 2012-2019

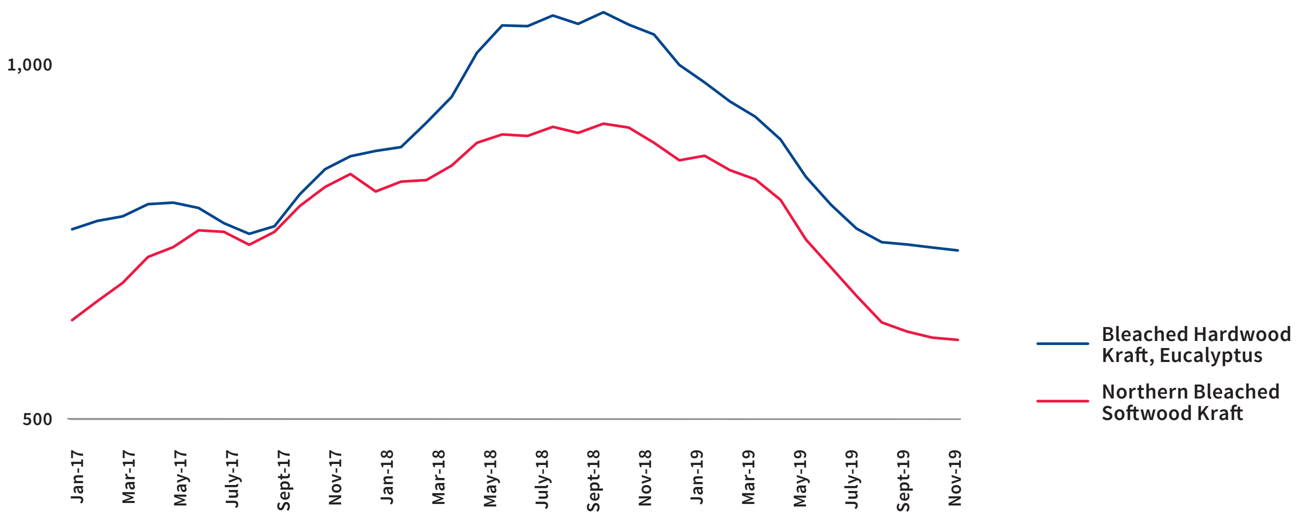


- 2018 and 2019 have been years of historically high prices for graphic papers.
- Whereas since 2012, the trend was steadily decreasing, in 2017, it reversed and rapidly went upwards reaching its maximum early 2019.
- Part of the reasons for high graphic paper prices is high increases in pulp prices in Europe. Pulp prices increased by around 50% between mid-2016 and mid-2018.
- Recovered paper prices in Europe have registered a drastic decrease. They have almost been divided by five between early 2017 and end 2019.

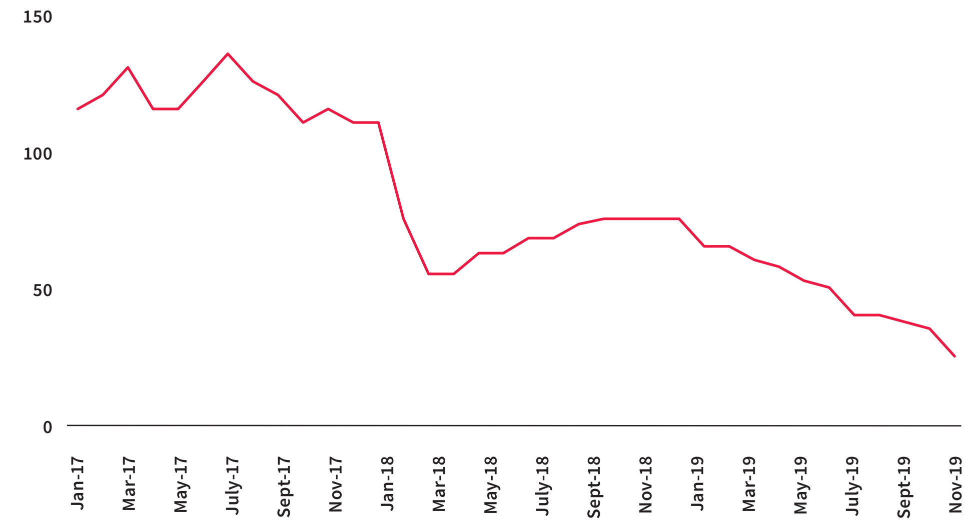
Graphic paper prices, paper in reels, Germany, 2017-2019



Pulp prices, Europe, €/tonne, 2017-2019

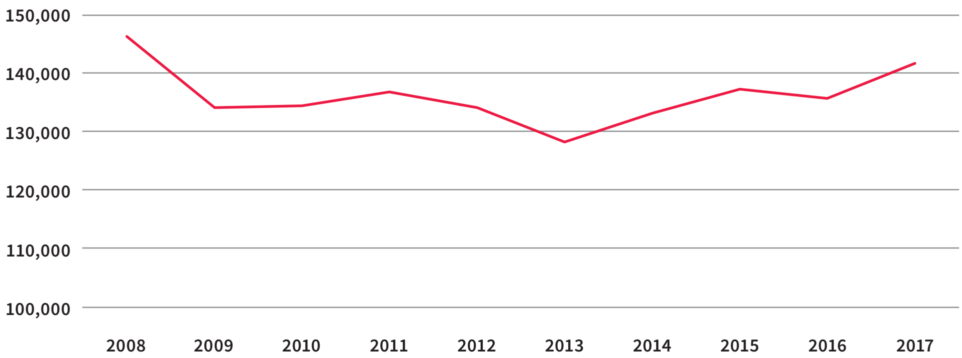


Sorted mixed paper and board prices, Germany, €/tonne, 2017-2019

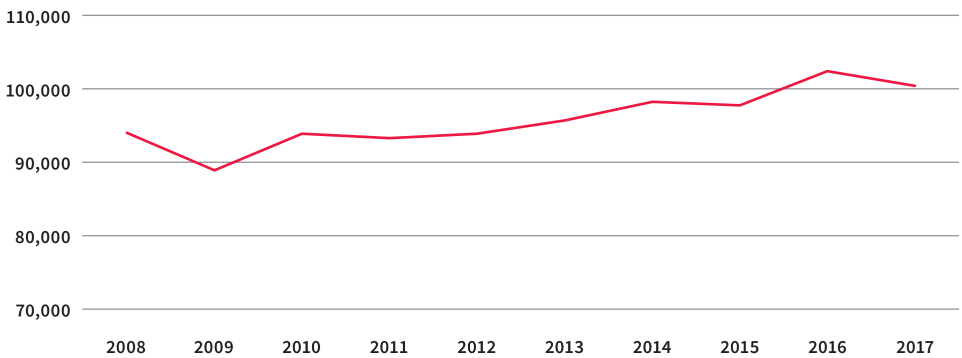


1.3.3 Publishing market

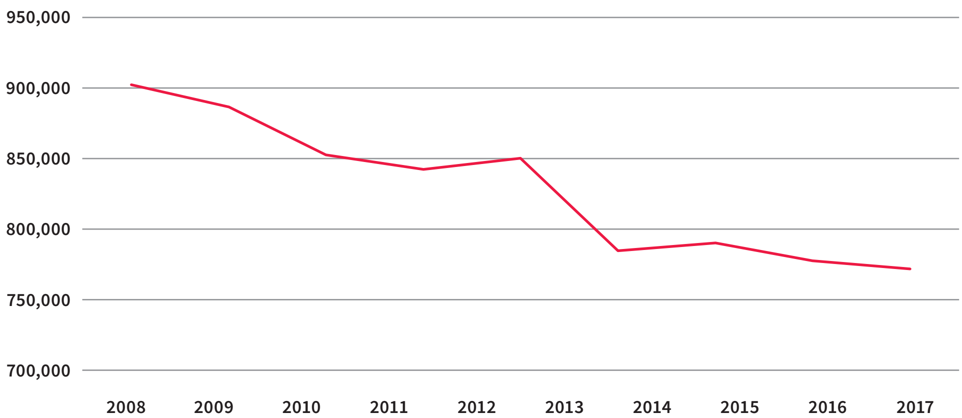
Turnover of the publishing industry, 2008-2017



Number of publishing companies, 2008-2017



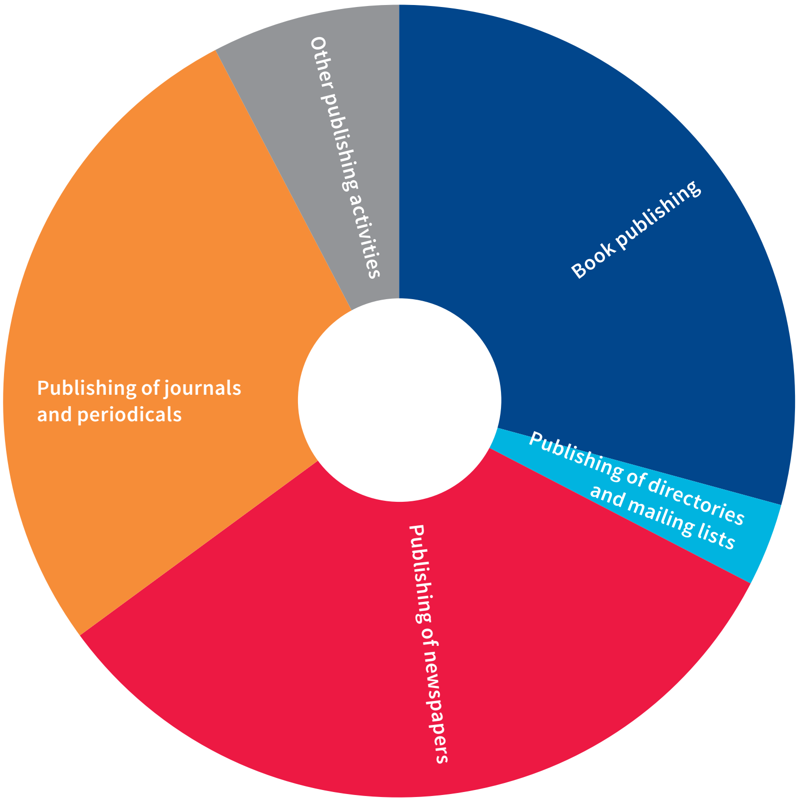
Number of employees in the publishing sector, 2008-2017



- The turnover of the European publishing industry reached € 141 billion in 2017, this is 3% less than in 2008.
- In 2017, the publishing industry was composed of approximately 100,000 companies and 782,000 employees.

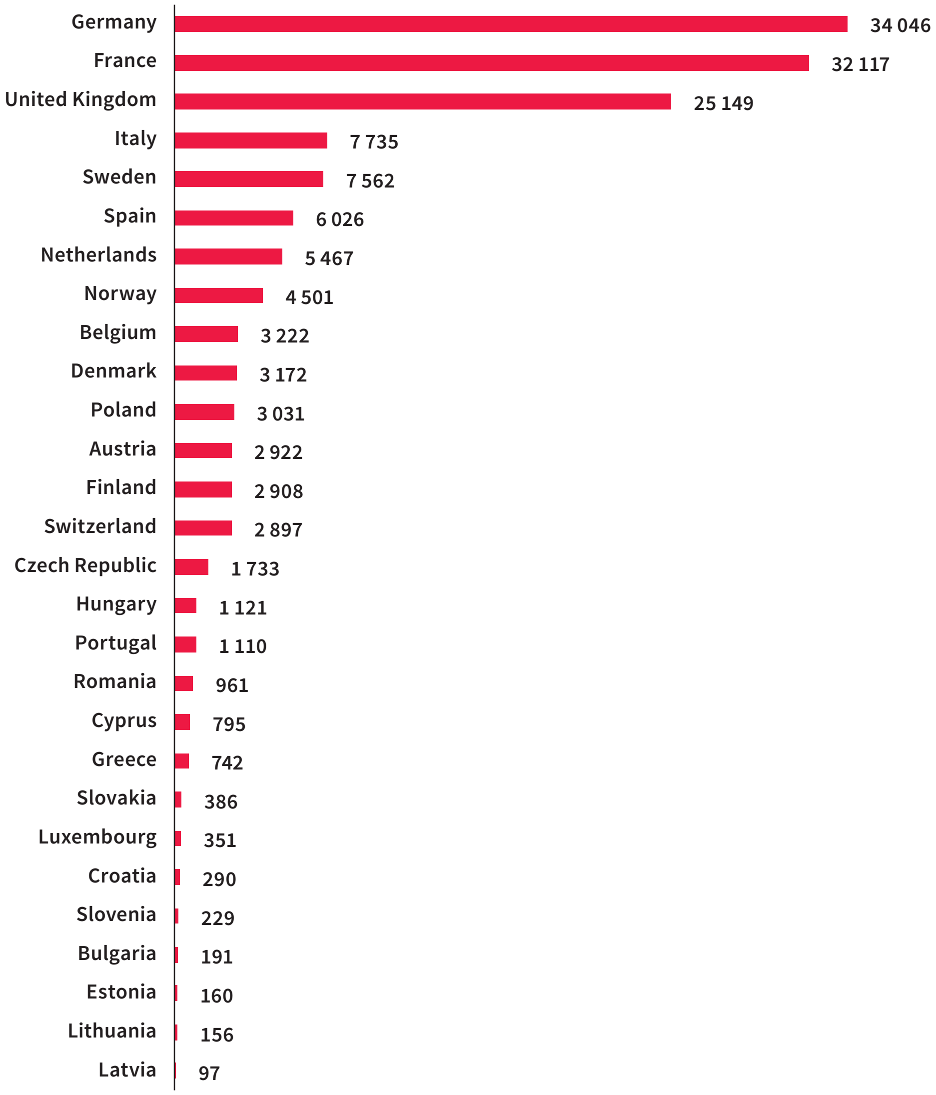
Sources
Eurostat
Book publishing (NACE 58.11) includes publishing in print, electronic (CD, electronic displays and so on) or audio form or on the internet.
The publishing of directories and mailing lists (NACE 58.12) includes the publishing of lists of facts/information that are protected in their form, but not in their content.
The publishing of newspapers (NACE 58.13) includes the activities of publishing newspapers, including advertising newspapers, appearing at least four times a week.
The publishing of journals and periodicals (NACE 58.14) includes the activities of publishing periodicals and other journals, appearing less than four times a week.
Directories and mailing lists, newspapers, journals and periodicals can be published in print or electronic form, including on the internet.
Other publishing activities (NACE 58.19) include publishing (including online) of catalogues, photos, engravings and postcards, greeting cards, forms, posters, reproduction of works of art, advertising material and other printed matter, online publishing of statistics and other information.

Distribution of turnover per publishing sector, 2017



- One third of the European publishing sector's turnover is generated by newspapers, another third by magazines and a quarter by books.

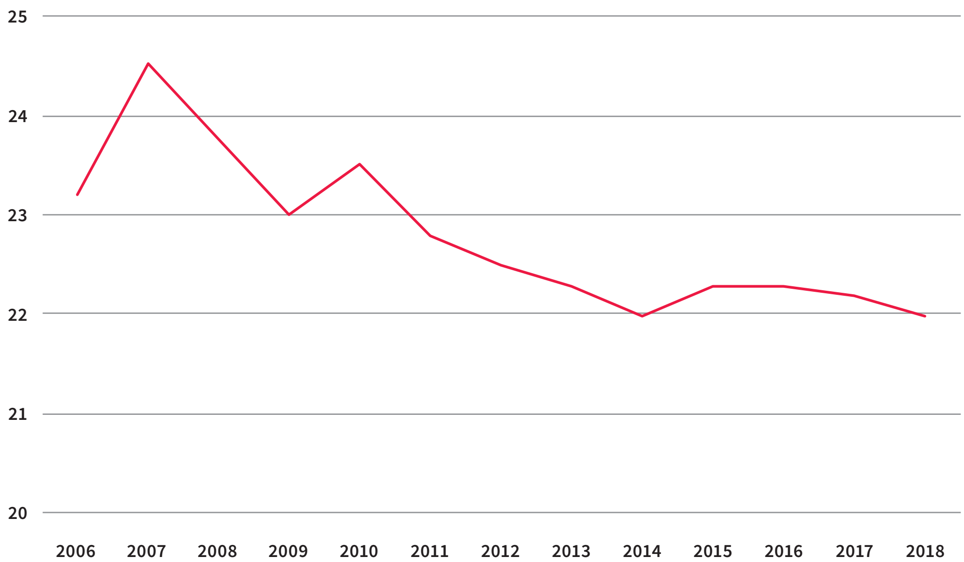
Turnover of the publishing industry per country, in million €, 2017



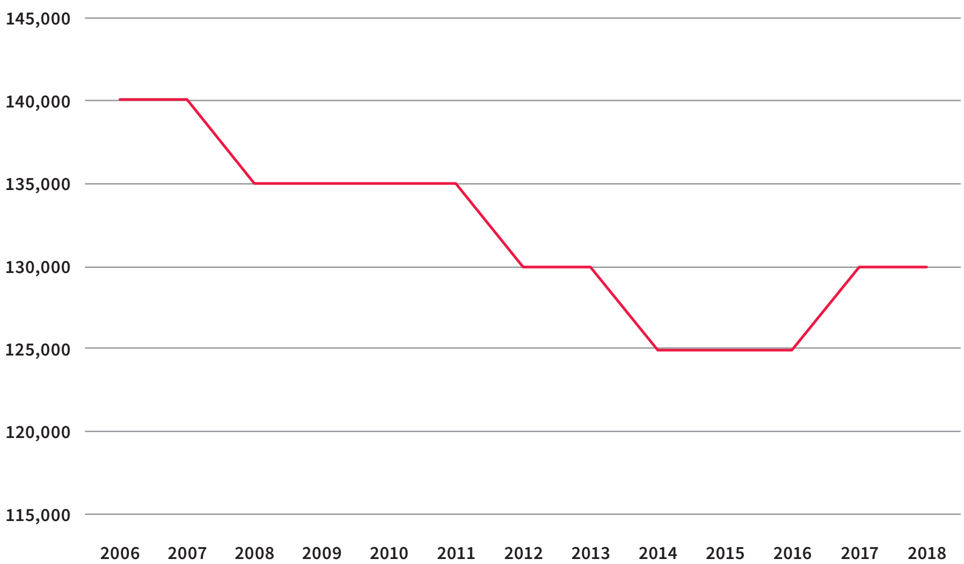
- Germany was the largest contributor to the turnover of the European publishing sector in 2017 with more than € 25 billion.

1.3.4 Book market

Publishers' revenue from sales of books (€ billion), 2006-2018



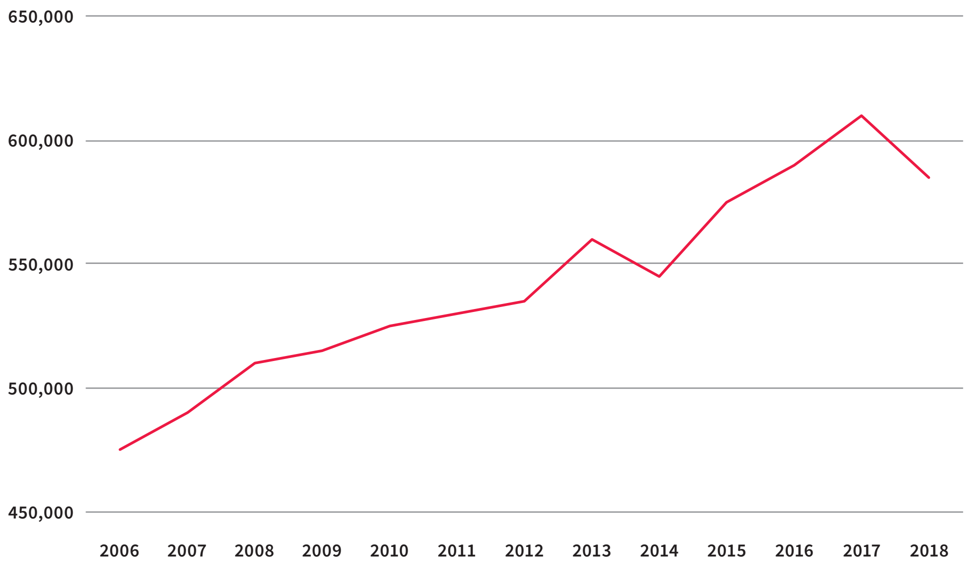
Number of persons in full-time employment in book publishing, 2006-2018



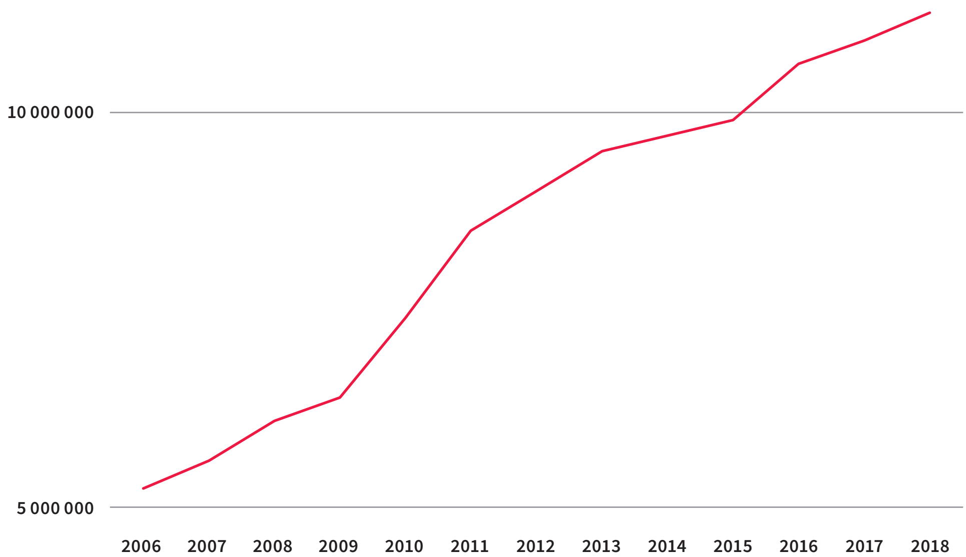
- In 2018, the revenue of the book publishing sector from sales of books was stable compared to 2017 (€22 billion). It declined by 7.4% since 2008.
- Approximately 130,000 people are employed by the European book publishing industry. This is 3.7% less than in 2008.

Sources
FEP (Federation of European publishers)
Data are estimates and figures are rounded. Figures refer to net publishers' turnover, i.e. the publishers' total revenues from the sales of books, no the total market for books (margin of booksellers or other retailers).

New book titles published in Europe, 2006-2018



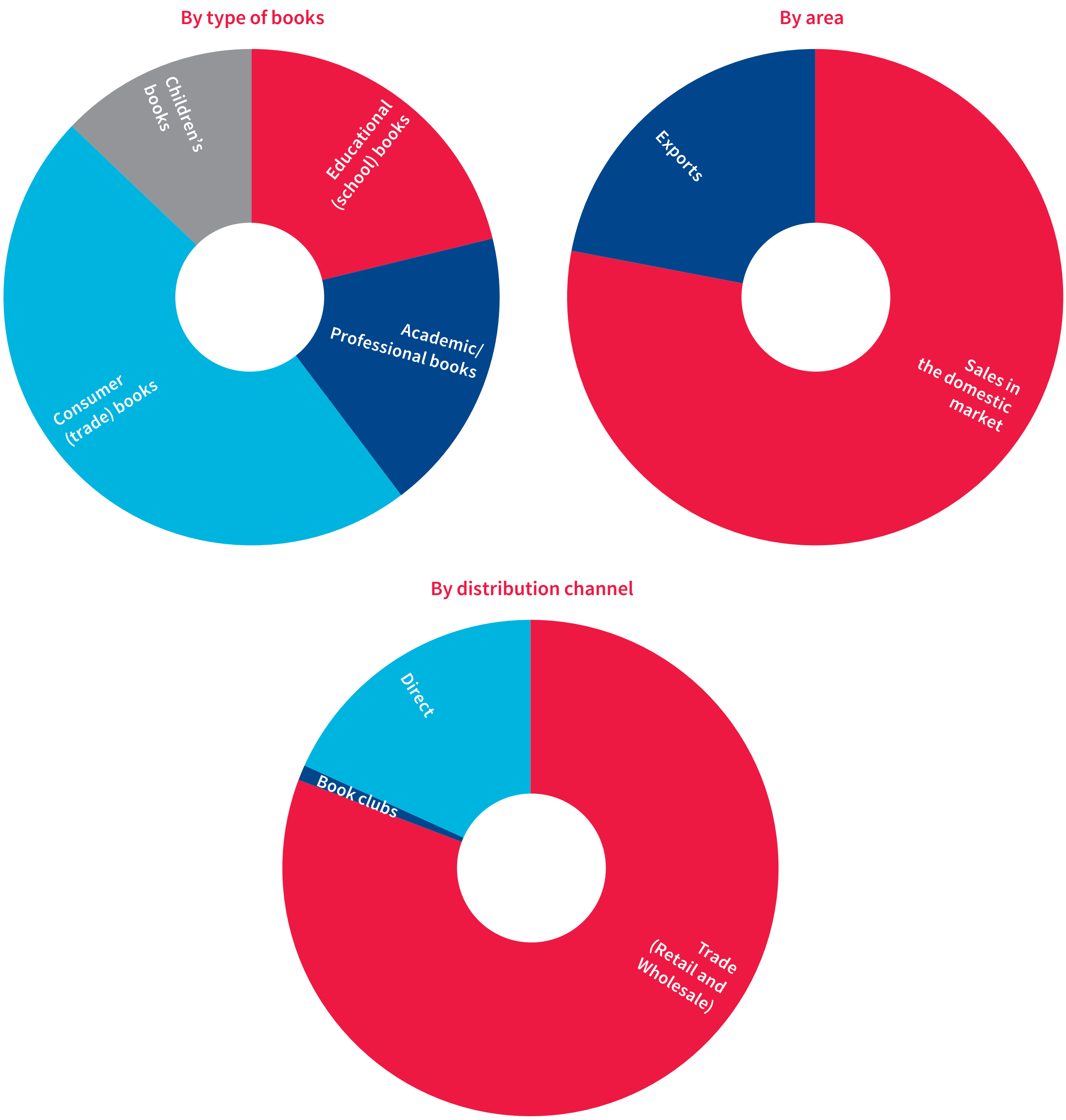
Number of titles in print (active catalogue) in Europe, 2006-2018



- In 2018, approximately 585,000 new books were published. This represents a decrease of 4.1% compared to 2017 and an increase of 14.7% compared to 2008.

- There were 11,250,000 titles in print in Europe in 2018. This is 3.2% more than in 2017 and 84% more than in 2008.

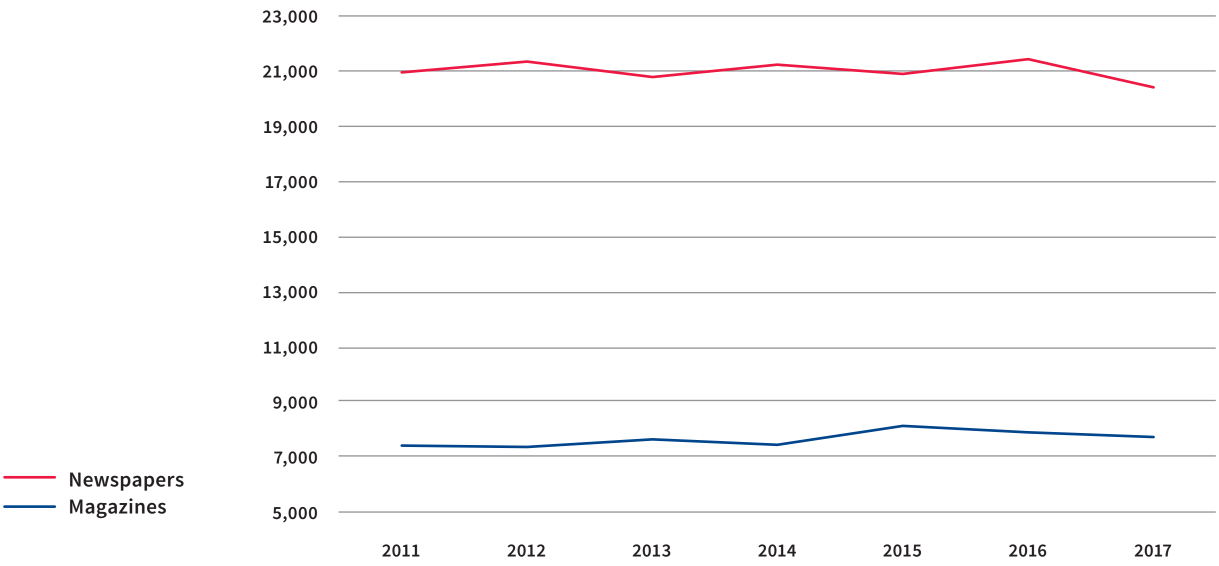
European publishers' revenue from sales of books, in € billion, 2018



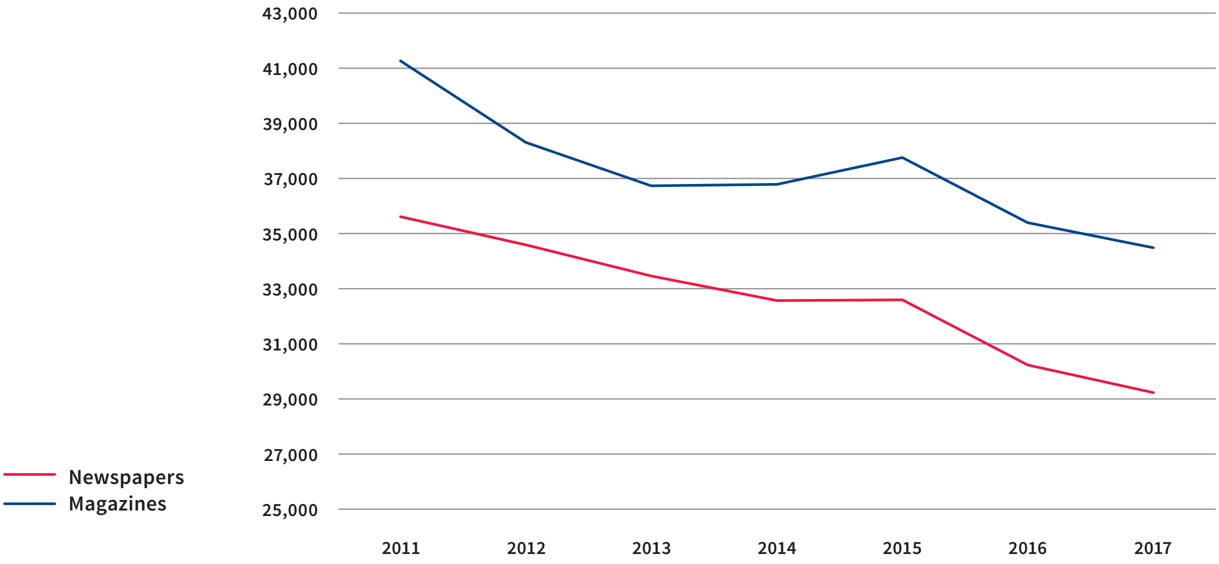
- 48% of book publishers' revenue is generated by consumer books, 20% to educational books, 19% by academic and professional books and 13% by children's books.
- 78% of book publishers' revenue comes from the sales of books in their domestic markets and 22% from the export of books.
- 81% of the total sales are distributed through retail and wholesale,17% by direct sales and 2% through book clubs.
- The e-book market accounts for 7-8% of the total book market. It shows signs of stagnation since 2014 in Europe.

1.3.5 Press market

Number of publishing companies, 2011-2017

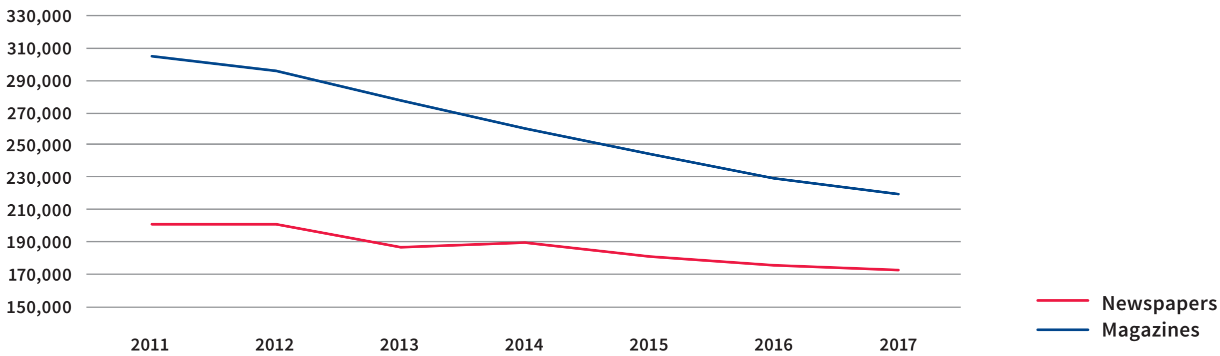


Turnover of publishing industry, 2011-2017, in million €



Sources
Eurostat
ZenithOptimedia
(Global adspend by medium)

Number of employees in the publishing industry, 2011-2017

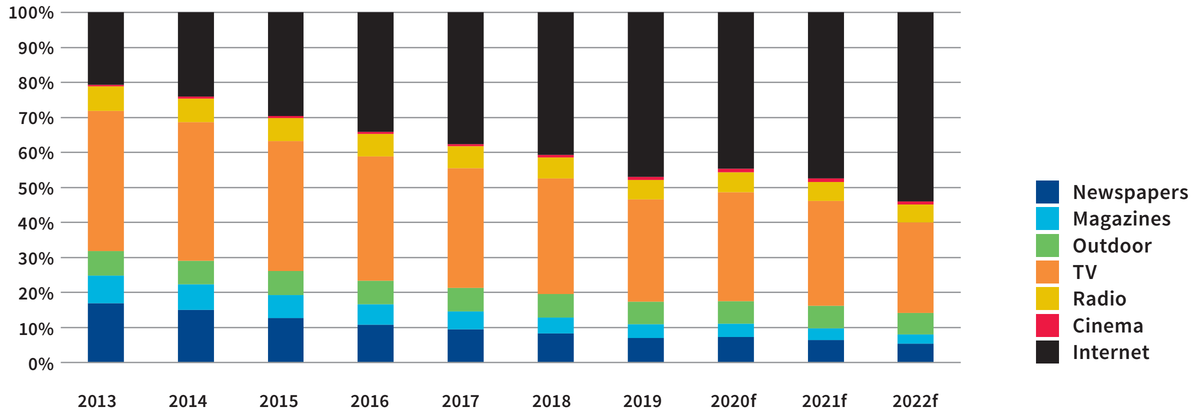


- In the European newspaper industry in 2017, there were approximately 7,700 companies employing 220,000 employees and generating a turnover of € 34.5 billion.

- In magazine publishing, there were 20,400 companies active in 2017, with 172,000 employees and a turnover reaching € 29.2 billion.

- In 2017, the turnover of newspaper publishing companies decreased by 2.5%, so did the number of companies (-2.1%), so did the number of magazine publishing companies (4.7%) with a turnover decreasing by 3.3% compared to 2016. The number of employees decreased by 4.3% in the newspaper publishing industry and by 1.7% in the magazine publishing industry.

Global adspend by medium, 2013-2022



- Globally, internet advertising continues to increase its share of advertising and stood at 47% in 2019 (compared to 40.6% in 2018).

- The share of printed advertising (newspapers, magazines and outdoor) represented 17.4% in 2019; it was 19.6% in 2018.

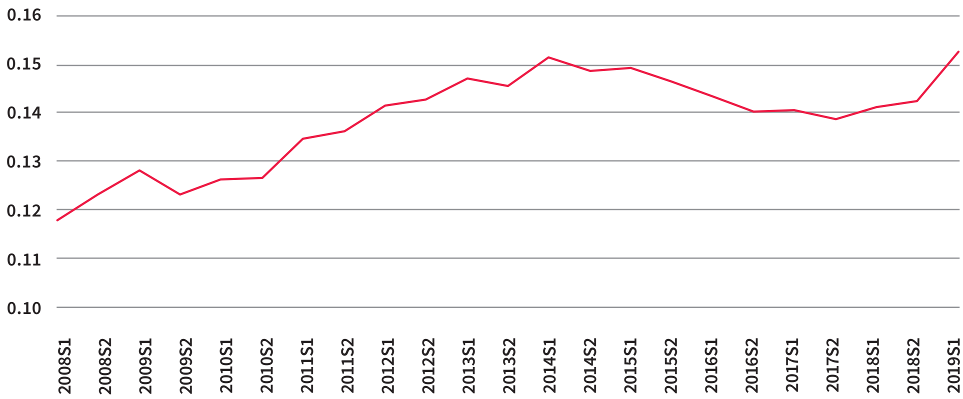
- Internet advertising is principally rising at the expense of print. Compared to 2013, newspapers' share of global spend has decreased by more than 50% while internet advertising has more than doubled.

- In 2022, the share of internet advertising in global adspend is expected to further increase and to reach 47.4%.

- The share of printed advertising (newspapers, magazines and outdoor) is set to decrease to 16.2% in 202 from 21.4% in 2018.

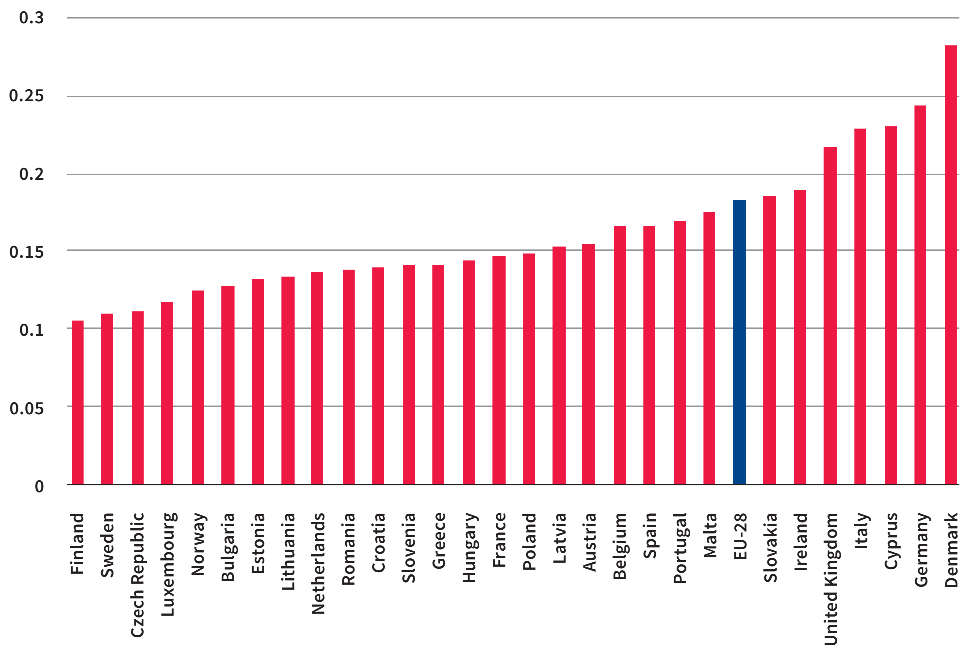
1.3.6 Energy market

EU electricity prices for industrial consumers, 2008-2019, in €/KWh



- European electricity prices for industrial consumers showed regular increases between 2008 and 2014. A steady decrease was registered as from 2014 until 2017.
- Electricity prices increased by 24% between 2008 and 2013 and decreased by 9% between 2014 and 2017. They increased by 10% since 2017.
- In the first half of 2019, the average price of electricity for industrial consumers was 0.1524 €/KWh all taxes and levies included, this is 29% more than in 2008.

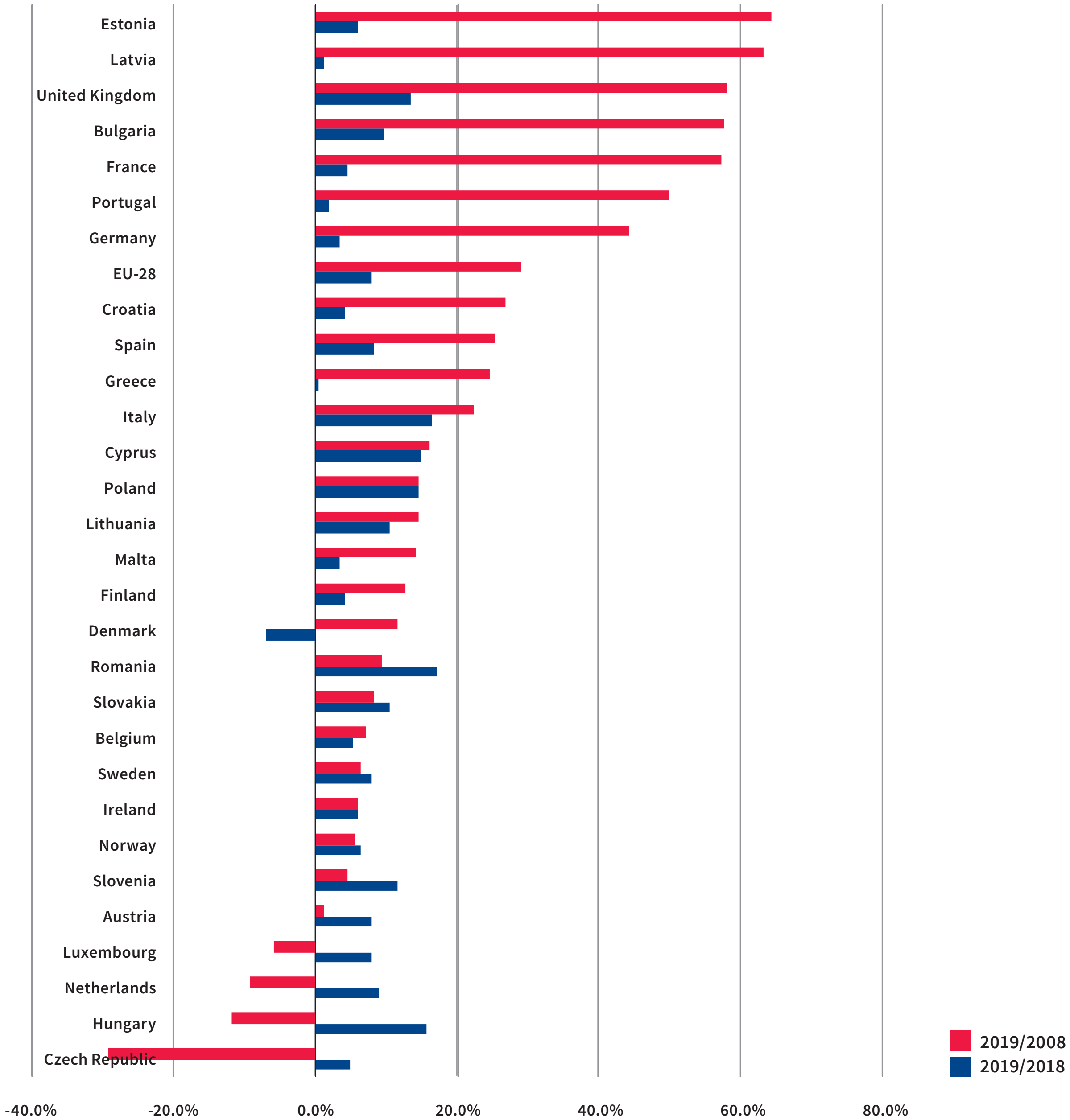
EU electricity prices for industrial consumers, 2019 (first semester), in €/KWh



- In 2019, Denmark registered the highest price whereas Finland registered the lowest in Europe.
- After Denmark, the highest prices are in Germany, Italy,Cyprus and the UK well above European average.

Sources
Eurostat
The prices mentioned refer to Electricity prices for industrial consumers (all taxes and levies included) in €/KWh, which correspond to medium standard industrial consumption band with an annual consumption of electricity between 500 and 2000 MWh.

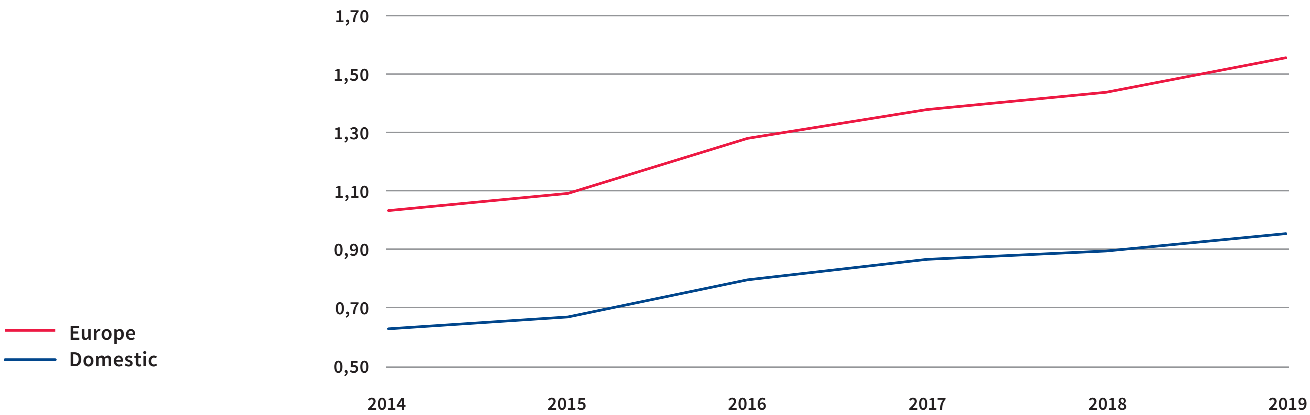
%-change in EU electricity prices for industrial consumers, 2019/2018 and 2019/2008, in €/KWh



- Hungary and Romania registered the largest increases between 2018 and 2019 whereas prices in Denmark decreased compared to 2018.
- Compared to 2008, Estonia and Latvia experienced the sharpest increase in electricity prices in 2019. Prices in Czechia decreased the most compared to 2008 (-29%).

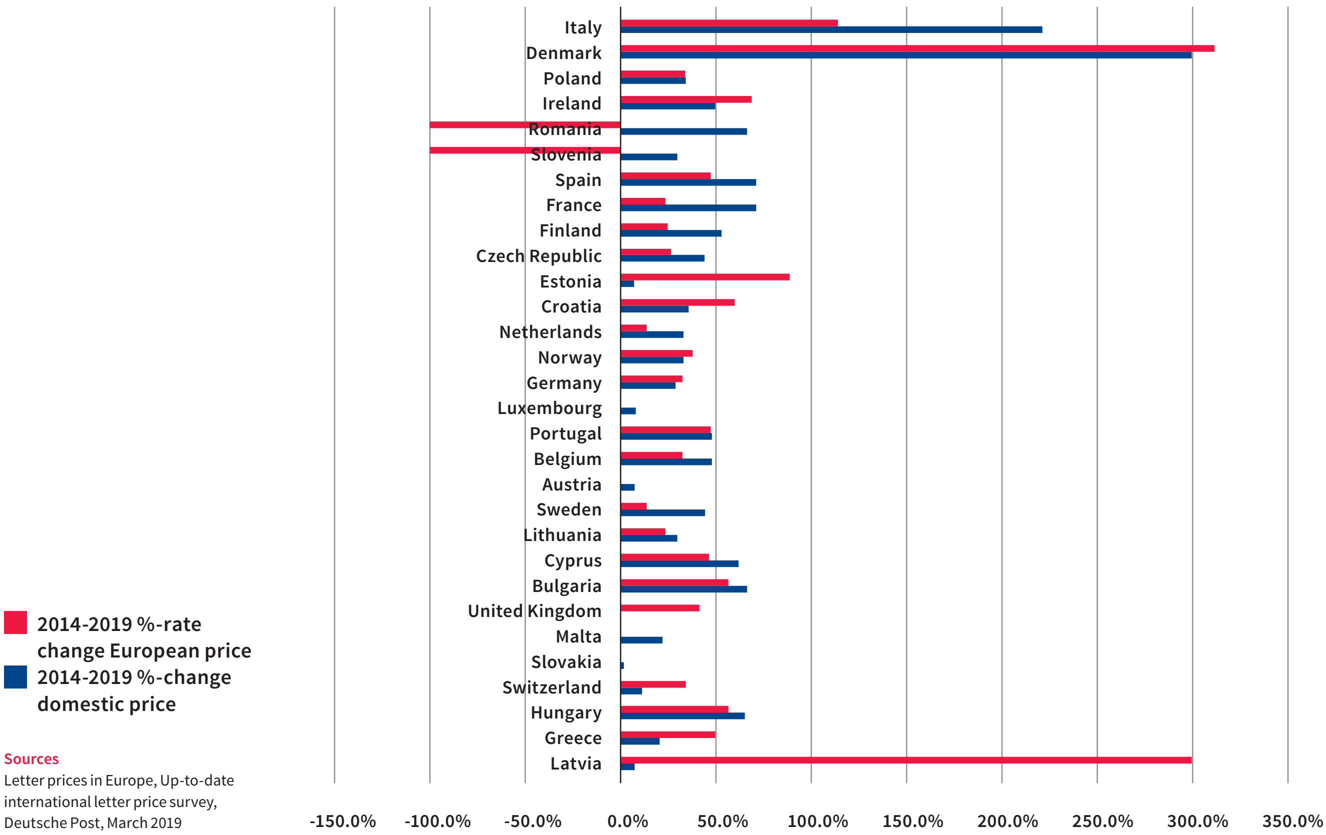
1.3.7 Postal market

Evolution average postal prices in Europe, in €, 2014-2019



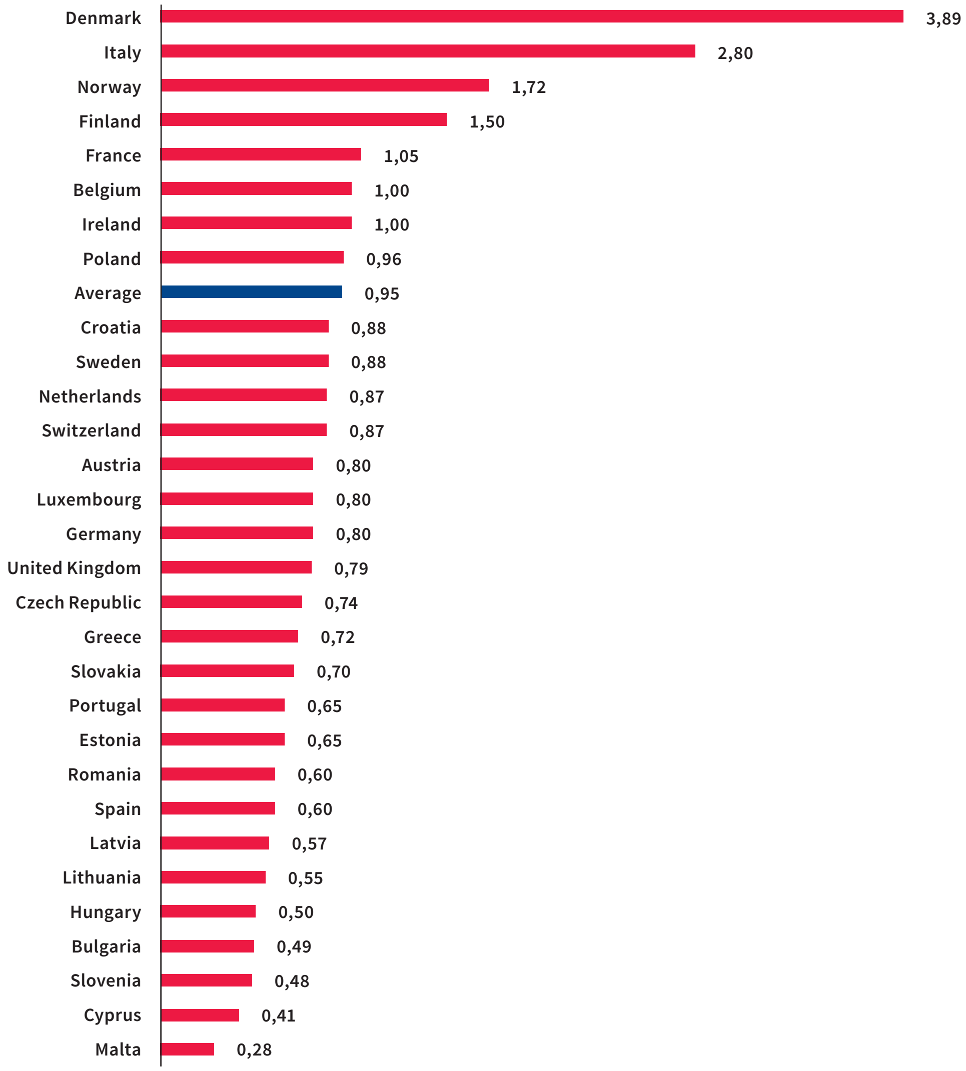
- On average, postal prices in Europe have increased by 53% in the last 5 years for a domestic sending and 51.5% for European sending.
- In the last year, prices have increased by 6.7% on average for domestic sending and 8.3% for European sending.

Evolution postal prices, in %-change, 2014-2019



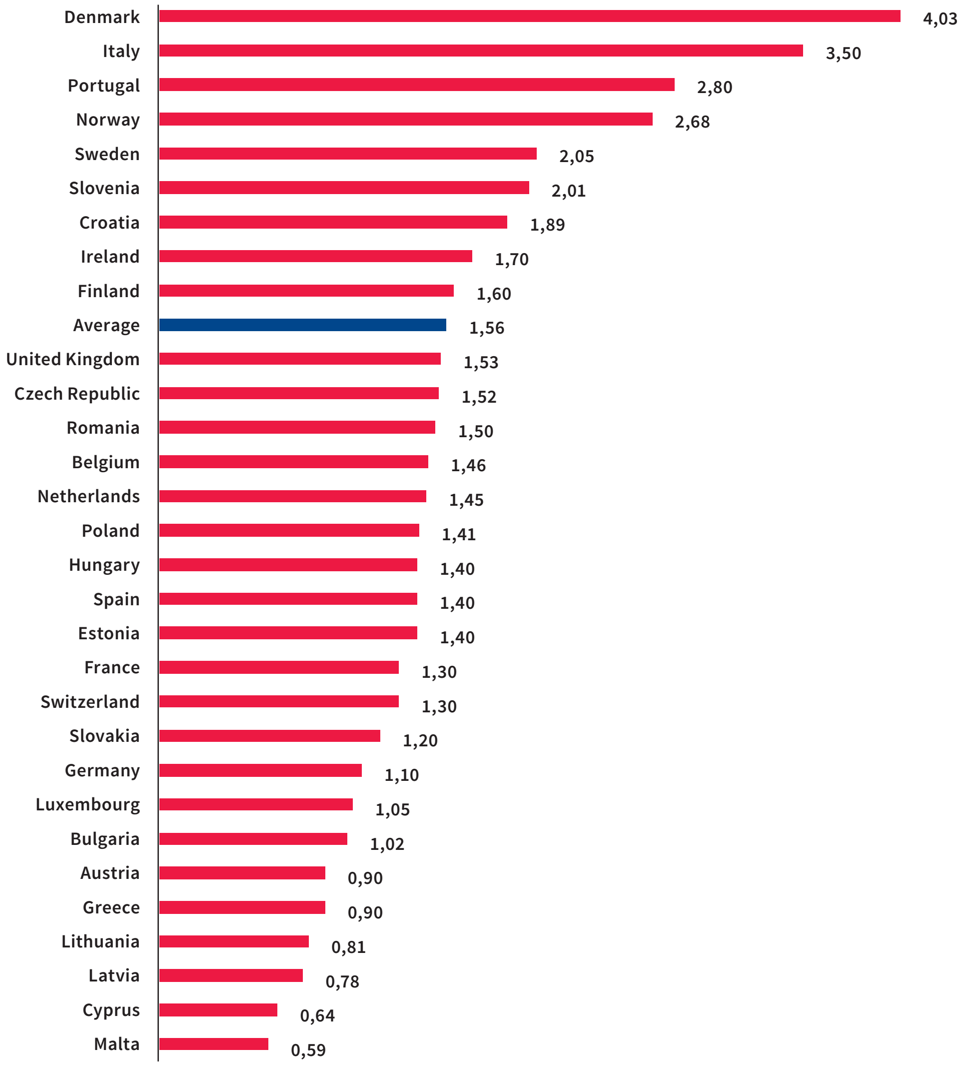
Sources
Letter prices in Europe, Up-to-date international letter price survey, Deutsche Post, March 2019

Nominal price for a domestic standard letter, in €, 2019



- The average price for a domestic standard letter is 0.95€ in Europe. This is 7% more than in 2018.
- Denmark and Italy have the highest prices for domestic standard letters in Europe. In both countries, the price per piece is above 2.50€.
- Between 2018 and 2019, the largest increases in price were registered in Romania (+94%) and Poland (+28%).

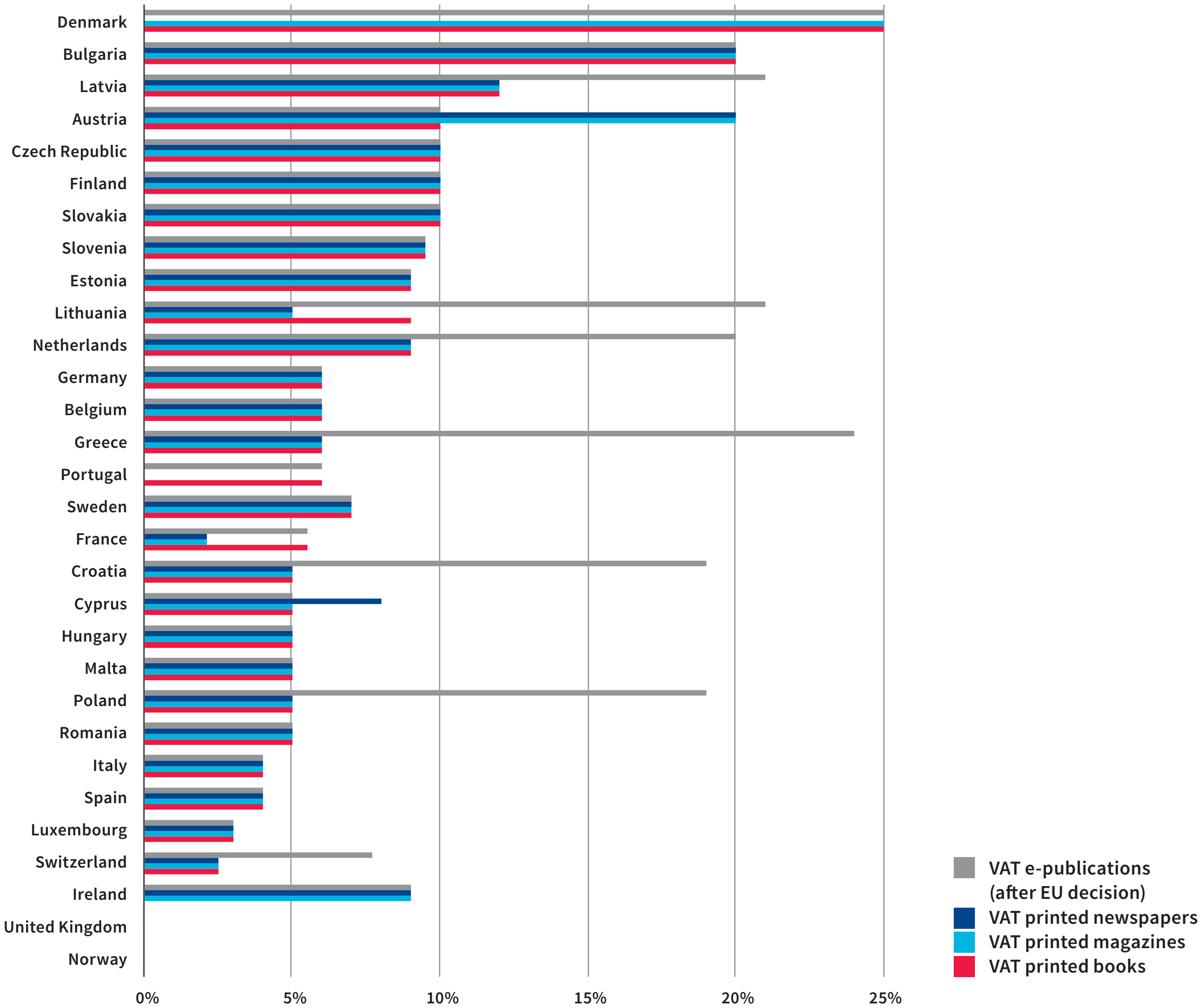
Nominal price for a letter mail in Europe, in €, 2019



- The average price for letter mail sent in Europe is 1.56€. This is 8% more than in 2018.
- The situation of the price for letter mail in Europe is similar to the domestic market. Denmark and Italy have also the highest price for letter mail in Europe with a price close to 3.50€.
- Malta and Cyprus have the lowest prices in Europe with less than 0.70€ per piece.
- Romania has registered the largest price increase since 2017 (+70%).

1.3.8 VAT rates

VAT rates applicable to printed books, printed magazines, printed newspapers and electronic publication, January 2020



- Most European countries are using the possibility of granting printed publications with a reduced VAT rate with the exception of Denmark and Bulgaria. Both countries are also applying the highest standard VAT rate. There is however an exception in Denmark for newspapers which benefit from a 0%-rate.

- Norway and the UK are granting a zero % VAT rate on printed books, magazines and newspapers. Ireland is granting it only to printed books.

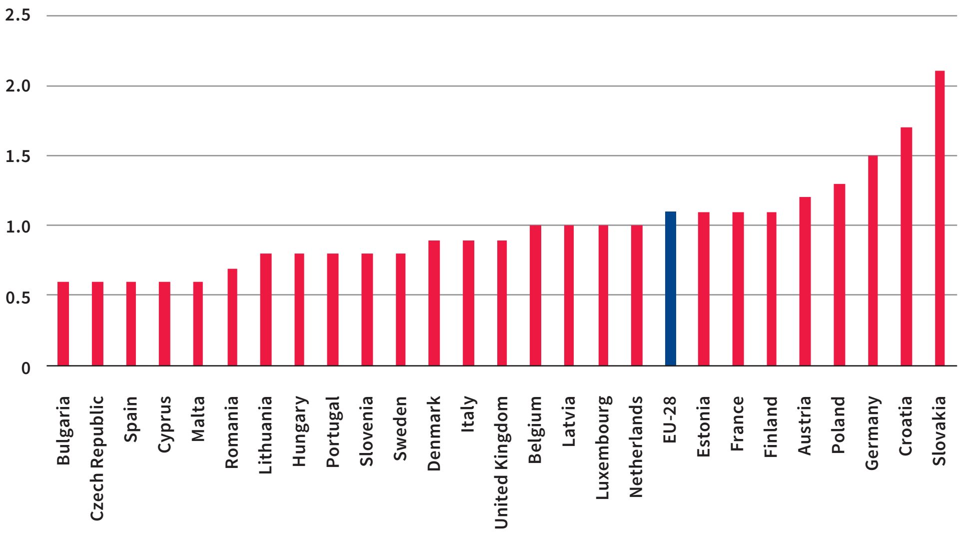
- Reduced rates are ranging from 0% to 12%.

- Member States are allowed to apply a reduced VAT for e-books and e-press since December 2018. The only countries which did not reduce their VAT for e-publications and still apply a standard VAT are Estonia, Lithuania, Greece, Romania, Cyprus and Switzerland.

Sources
European Commission, January 2020

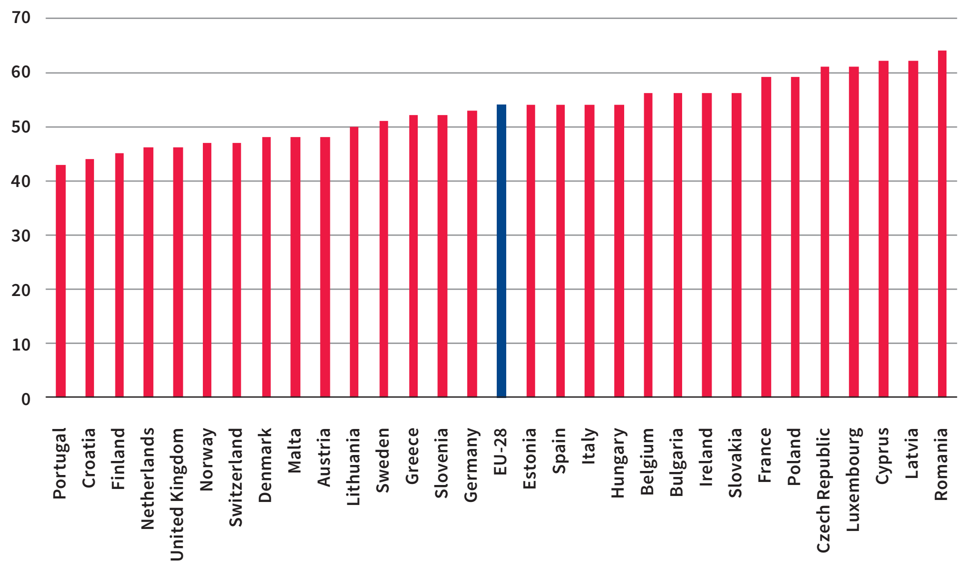
1.3.9 Socio-economic data

Share of newspapers, books and stationery in total household expenditure, in % of total expenditure, 2018



- In Europe, on average 1.1% of the total household expenditure was dedicated to newspapers, books and stationery in 2018.
- Slovakia registered the largest share, with more than 2%, in Europe.

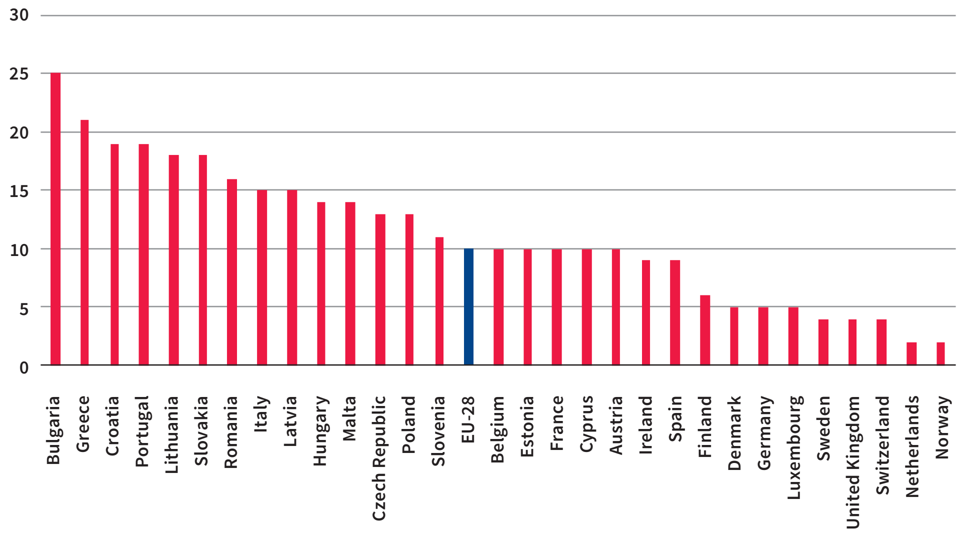
Individuals who have only basic, low or no digital skills, 2019



- On average, 54% of Europeans have only basic, low or no digital skills.
- In Romania, this is 63% of the population whereas Portugal, this is 43% of the population.

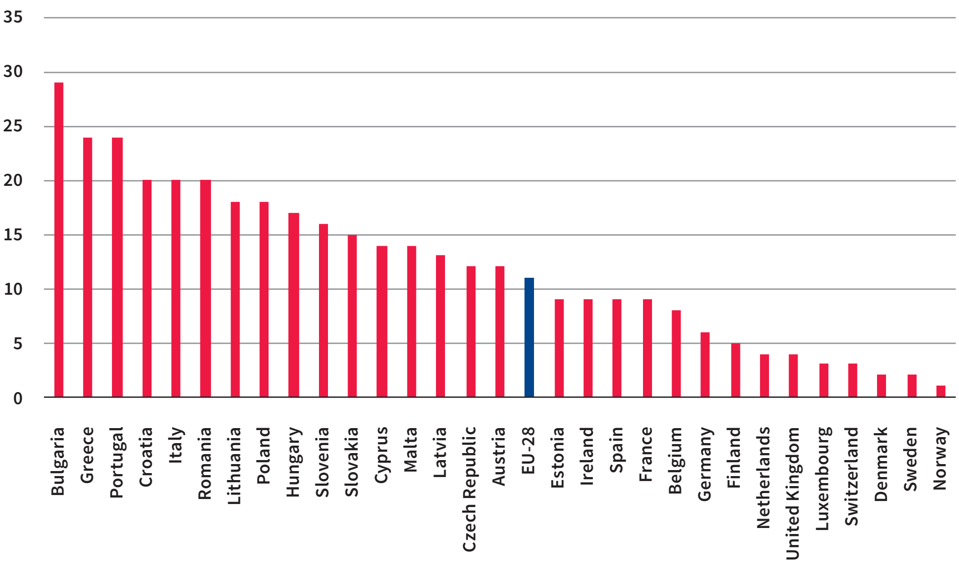
Sources
European Commission, April 2020

Households who have not an internet access, in %, 2019



- The share of households who do not have access to internet in Europe is on average 10%.
- In Bulgaria, the share reaches 25% and, in the Netherlands, and Norway, only 2% of households do not have access to internet.

Individuals who used the internet more than a year ago or never used it, in %, 2019



- On average, 11% of individuals have either never used the internet or used it more than one year ago.
- In Bulgaria, the share reaches 29% whereas in Norway, only 1% of individuals used internet more than a year ago or never used it.

1. 2019 PRINT MARKET REVIEW

Sources
Intergraf's member federations' information

1.4.1 Bulgaria

2019 turnover

In 2019, good macroeconomic indicators have been reported for the Bulgarian economy as a whole. The GDP grew by 3.8%, the purchasing power of the population increased by 10%, and exports of goods and services increased by more than 6%. Unemployment reached a minimum of 4.1%.

The printing industry maintained also an upward trend. The number of printing companies reached 1,020 (10 more than in 2018), the number of employees reached 8,747 (67 less than in 2018). Compared to 2018, the volume of the print production increased by BGN 22 million and reached BGN 722 million (1 BGN = 0.51 EUR), the exported production has been for about EUR 68 million (EUR 5 million more than in 2018). The average monthly salary was BGN 1,100, in the printing industry, it reached BGN 1,700.

Trends in specific printing market segments

In 2019, the global trend of reduction in the volume of book production continued in Bulgaria. Regardless of the method of printing and the print media, all circulations of books, newspapers, magazines, catalogues, advertising materials, etc. significantly decreased.

Trends in the printing labour market

The statistics show that the number of companies and employees has remained almost the same as in the last few years. There are no bankruptcies of companies in the industry, only restructuring of production and activities. Unemployment in the industry is as high as the national level - about 4%. A number of printing companies has introduced a very effective social care for their employees, which strengthens the working environment and workers' loyalty. Because of the lack of qualified workers and experts, companies are organising continuous training courses.

Trends in the number of operating printing companies

In 2019, there were no bankruptcies of companies in the industry.

Trends in foreign trade

In 2019, the value of exports of Bulgarian print production was about € 68 million, which is about 8% more than in 2018. There is no producer of books who does not strive to export. Over 60% of Bulgarian exports are to EU countries, the rest is to Balkan countries. In terms of products, these are mainly packaging, labels and holographic protections.

As in previous years, the main competitors on the Bulgarian book market are Turkey and China. Due to government benefits in these countries, prices are much lower, while the quality, the layout and all other parameters are fully commensurate.

Trends in printing processes

Digital printing has a constant annual growth of 3%. The reasons for the growth in digital printing include low circulations, shortened delivery times, lack of specialists to work with large offset machines, need for personalisation ... Large format printing and flexography also grew by 1%. Packaging is growing by more than 5% per year.

Trends in labour costs

In the Bulgarian printing industry, salaries increased by an average of 15% compared to 2018. For working pensioners, whose number is constantly growing, the amount of pensions increases by 5% per year. The total expenses for wages in the printing industry have increased by 4% compared to 2018.

Trends in production costs

As observed during the last few years, in 2019 the prices of all materials and consumables for the printing process have increased once again. In Bulgaria, the most significant price increases were those for paper, cardboard and energy. The prices for postal services, transportation, insurance and other services have been stable.

Specific developments which affect the competitiveness of the industry

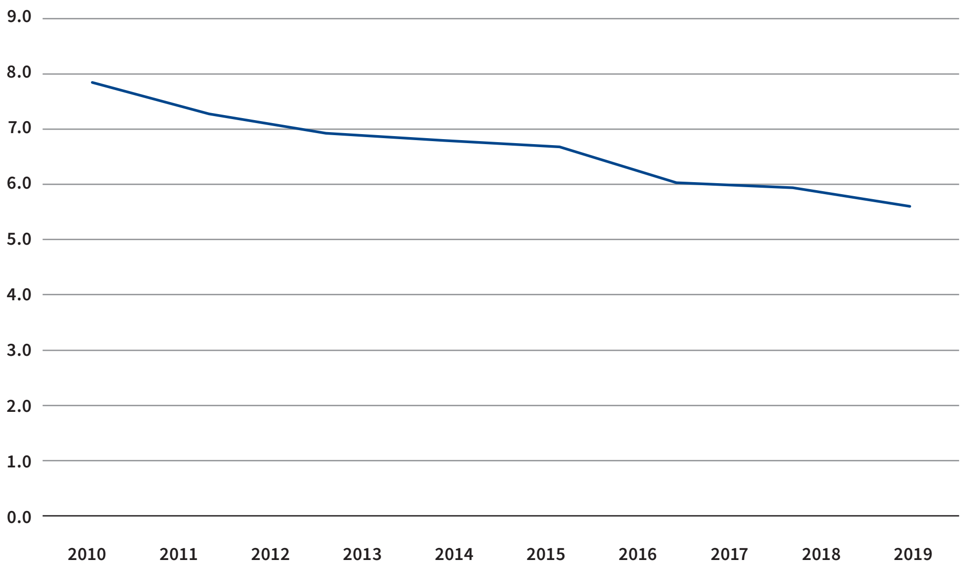
During the last year, there were no change in the Bulgarian legislation which could be considered prejudicial to the printing industry.

1.4.2 Denmark

2019 turnover

The overall turnover in the Danish printing industry was slightly falling through 2019.

Printing turnover, Billion DKK



Trends in specific printing market segments

The book market was stable, while the number of magazines and newspapers sold was still decreasing. Both newspapers and magazines are still struggling to find ways to monetise online-content.

The sale of other commercial printing was slightly falling. The turnover of door drops fell more, i.e. by around 8%. Some door drops from the supermarkets are getting thinner with less pages and some door drops are sent out less frequently. The number of people opting out for direct mails has slightly increased.

Trends in the printing labour market

In 2019, the number of employed people has decreased in the printing industry. The number of employed skilled workers decreased faster than the number of unskilled workers. This might be due to substitution from offset printing to digital printing.

Trends in labour costs

Wages in the printing industry have grown at a slower pace than in other industries. Taking into account the current low level of unemployment in Denmark, the wages have not been rising a lot. Danish wages rose at the same pace as the rest of western Europe.

Trends in the number of operating printing companies

There is still a decrease in the number of operating companies and some companies are struggling.

The number of bankruptcies has been falling for the last few years and the number of closing companies increased. The total is relatively stable. It seems like struggling companies are closing before they go bankrupt. There are more companies merging with other companies, than companies closing and going bankrupt per year.

Trends in foreign trade

Both imports and exports decreased with imports falling more than exports. The Danish trade deficit on printed products has decreased and Denmark almost does not have a trade deficit anymore.

Trends in printing processes

Printing companies generally expect demand for print on paper to decline in the coming years. The demand for large format is expected to rise.

Uptake of new media services

Some companies see new media services as competition to print. Others see it as an opportunity to do new types of business. Some printing companies have started advertising agencies that make advertisements both for print and for online.

Developments affecting competitiveness

In 2019, there have been a lot of discussions about door drops and whether the current opt-out scheme should be replaced by an opt-in scheme. A big chain of supermarkets has proposed a ban on door drops.

There is an increasing focus on the environmental and climate footprints of printed products and all other products.

1.4.3 ESTONIA

2019 turnover

The turnover of the Estonian printing industry still showed a positive trend in general in 2019: € 233 million compared to € 223 million in 2018.

The printing industry figures do not include the figures of main packaging manufacturers, which also print on packaging. Those figures are represented in material-based sectors like metal, plastic, paper.

Trends in specific printing market segments

The book market was slightly decreasing. Magazines were stable whereas newspapers decreased. Direct mail was also stable and other commercial printing slightly increased. The trend in printed packaging and labels is increasing.

Trends in the labour market

In 2019, the unemployment rate was the lowest ever in Estonia: 4.4% for 2019 and even 3.9% in the third quarter of 2019. There is a constant demand for qualified and skilled workers in the Estonian printing industry. The number of employees has decreased in 2019 reaching 3,500 people working in the printing industry.

Training for working in the printing industry is only available at vocational level, in Tallinn Polytechnic School. As a result, the number of young people who is willing to study and work in the printing industry is low. Short-term courses and specific trainings in print-related skills offered as part of lifelong learning and training are provided by companies at the workplace.

Trends in the number of operating companies

The number of printing companies in Estonia reached around 400 in 2019, around 150 of them are operating actively.

Trends in foreign trade

As Estonia is a small country with only 1.3 million inhabitants, the domestic market is not large enough. Exports are a vital part of Estonian printing industry. The value of total exports has decreased slightly in 2019, the value of exports represented approximately 50% of the total turnover of printed products and 75% of the total turnover of packaging. The main export partners are in Europe. Finland and Sweden are the top export destinations, followed by Norway, Denmark and Latvia.

Trends in digitalisation

Estonia is well known as digitalised country, the digitalisation is everywhere, also in the printing industry. The Estonian printing sector is a technology-driven industry with a high use of digital technologies. The uptake of new media services by printing companies is increasing but is still in a small base. Several companies offer customers multiple channels of communication.

Digitalisation is still very much seen as competition for print, especially for certain markets like magazines and advertising. At the same time, new materials and techniques allow the use of printing more widely: personalisation in advertising or labelling, more opportunities in decoration, architecture, fashion industry, smart printing solutions for packaging printing etc.

Trends in labour and production costs of the printing industry

Due to lowest unemployment rates ever in 2019 and continuous lack of qualified labour force, the pressure on labour costs continued to grow in 2019. The high labour costs already affected the investment capacity.

Paper, inks and energy prices increased whereas postal rates, transport and insurance costs were stable.

1.4.4 FRANCE

2019 turnover
The turnover of the printing industry in France in 2019 was around 4.8 billion of €.

Trends in specific market segments
1,810,000 tonnes of paper were dedicated to printing and 480,000 tonnes were consumed for newspaper printing.

Trends in foreign trade
France imports 19.5% of its total consumption of printed products. This is 4.5% less than last year.

Trends in production costs
In offset sheetfed, paper prices increased by 6%, inks by 12% and solvent prices by 3% but the amount used decreased. Compared to 2018, energy prices have increased by 2%. The increase in transport costs and insurance was also about 2%.

In weboffset, ink prices increased by 7%, paper prices were relatively stable but spare parts significantly increased by 50%.

Developments affecting the competitiveness of the industry
The most significant developments in 2019 in France were in the area of mineral oils. Printers get a benefit on the Extended Producer Responsibility fees when using inks without mineral oils. A new law also bans the use of mineral oils in unaddressed advertising and catalogues as of 2023, in any printed product intended to the public as of 2025 and in packaging printing as of 2022.

A further development was the continuous discussions on a possible restrictions of door drops in the future in France.

The end of the fee contribution to the Extended Producer Responsibility for the press sector will end in 2023.

Moreover the competition from Eastern countries and the competition from online sales platforms are still very important.

1.4.5 GERMANY

2019 turnover

The seasonally and calendar adjusted turnover in 2019 has decreased by 3.1% on a year-on-year basis.

Also on a year-on-year basis, the turnover of the printing of newspapers decreased by 7.6%, other printing by 1.3%, pre-press and pre-media services by 9.4% and binding and related services by 4.6%.

The preceding statistics are referring to the development of the turnover-index which is encompassing all printing-related production units (employing 50 or more employees) within a company.

Trends in specific printing market segments

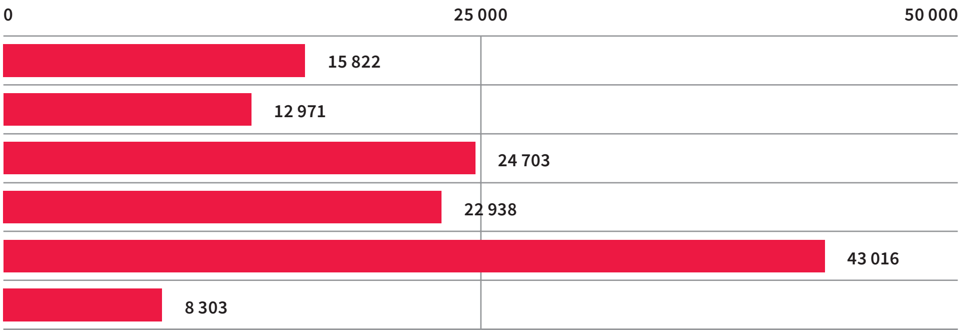
Regarding the development of the production value in 2019, books increased by 3%, magazines decreased by 8%, newspapers decreased by 15%.

PRODUCTION VALUES	2019		
	In million euros	Share	Year-on-year
Advertising prints/catalogues	4,850	39.8%	-2%
Catalogues	983	8.1%	-16%
Posters	519	4.3%	8%
Annual reports	39	0.3%	-8%
Brochures	2,189	17.9%	-
Mailings	240	2.0%	-
Other advertising matters	881	7.2%	-
Business stationery	1,153	9.5%	-6%
Journals	916	7.5%	-8%
Newspapers	1,136	9.3%	-
Daily newspapers	739	6.1%	-15%
Weekly newspapers	163	1.3%	-7%
Advertising newspapers	233	1.9%	-
Books/cartographic products	925	7.6%	3%
Printed labels	1,365	11.2%	10%
Calendar/Cards	137	1.1%	-15%
Other printed matter	1,715	14.1%	-2%
Textile printing	31	0.3%	-
Printing on materials other than paper	661	5.4%	-
Other prints	1,023	8.4%	-
Total printed matter	12,197	100.0%	-2%
Print and media prepress	890	58.4%	-9%
Print finishing	634	41.6%	-10%
Total printing services	1,524	100.0%	-9%
TOTAL	**13,721**		**-3%**

Trends in the labour printing market

The labour market continued to register a downwards trend in the printing industry (on average 128,006 in 2019; -2,2% on average in 2019 on a YOY basis). This trend is mainly impacted by the continuous decrease in the number of operating companies on the market.

Number of Employees by Firm Size



	500+	100-499	50-99	20-49	10-19	1-9
Beschäftigte	8 303	43 016	22 938	24 703	12 971	15 822

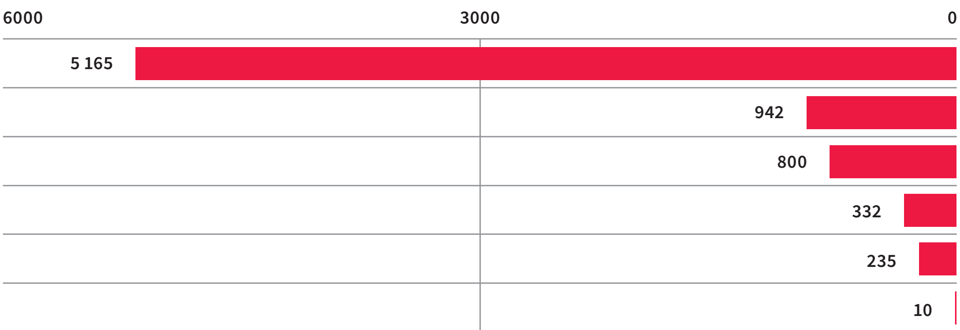
Source
Federal Employment Agency of Germany (30.09.2019)

Nonetheless, the unemployment rate has declined by 0.1 %-points over the course of the last year (in 2019 the rate was about 2.9%). However, a certain part of this development can be ascribed to the fact that employees, who originally used to work in the printing industry, have decided to seek work in sectors outside of the printing industry.

Trends in the number of operating printing companies

The concentration process that could be observed in the last couple of years has continued, in 2019.The total number of operating companies has decreased by approximately 3% compared to 2018 and has amounted to 7,544 on average in 2019. However, the total number of bankruptcies has declined by 4.2% on YOY basis and has dropped to 91 in 2019.

Number of Operating Firms



	500+	100-499	50-99	20-49	10-19	1-9
Betriebe	10	235	332	800	942	5 165

Source
Federal Employment Agency of Germany (30.09.2019)

Trends in foreign trade

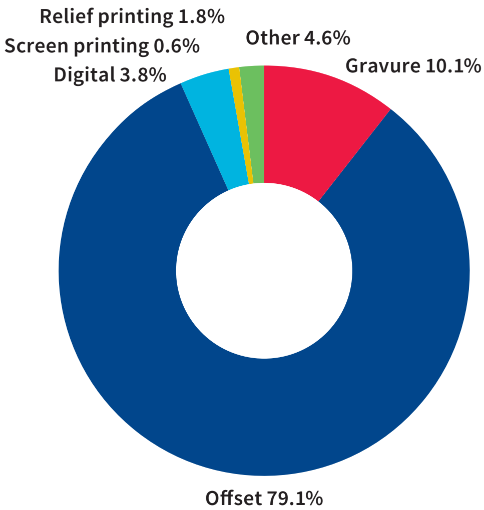
No significant changes in trends in comparison to last year was observed but there is a large increase of imports of printing products from the US (by 21%) and Spain (22%) and large decrease of imports of printing products from Italy (-26%) and France (-20%). The most important 10 trade partners according to exports of printing products (2019):

Country	Exports in 1,000 €	Percentage change in comparison to previous year	Imports in 1,000€	Percentage change in comparison to previous year
Switzerland	311,460	-4.2	53,231	-5.9
France	306,995	-18.1	46,605	-1.5
Austria	193,082	-8.4	135,437	-6.3
Czechia	185,225	-6.7	152,800	-1.7
Netherlands	152,636	-6.4	120,345	-20.1
UK	118,825	-1.6	49,887	11.4
Italy	110,628	-2.3	53,419	-25.6
Poland	88,695	-5.2	178,879	3.8
USA	78,864	-0.5	61,587	20.5
Spain	68.826	18,4	7.425	21,8

Trends per printing process

Note that the revision of the German CPA is significantly exacerbating and hampering the pre-year comparison, so that some of the respective rates of change are representing calculated estimations or educated guesses. Furthermore, the graphical illustration is demonstrating the shares of the respective processes according to the most recent revision of the CPA. Hence, the comparability with last year's graphic is not pertinent.

Digital printing is estimated to have increased by 7.9 %. Offset (including sheetfed offset) is estimated to have decreased by -8.4% and publication gravure by 2.4%. Screen printing decreased by -5.5%. Relief printing decreased by 8.7% and large format increased by 7.96%. Other printing processes decreased by -15.7%.



Trends in digitalisation

Even if certain companies have extended the total amount of offered new media services, a large share of the companies is intending to invest into digitalisation but is still considering it as a challenge. One of the main reasons is that companies are finding it difficult to acquire adequate and skilled employees, who are acquainted with digitalisation-related issues and artificial intelligence.

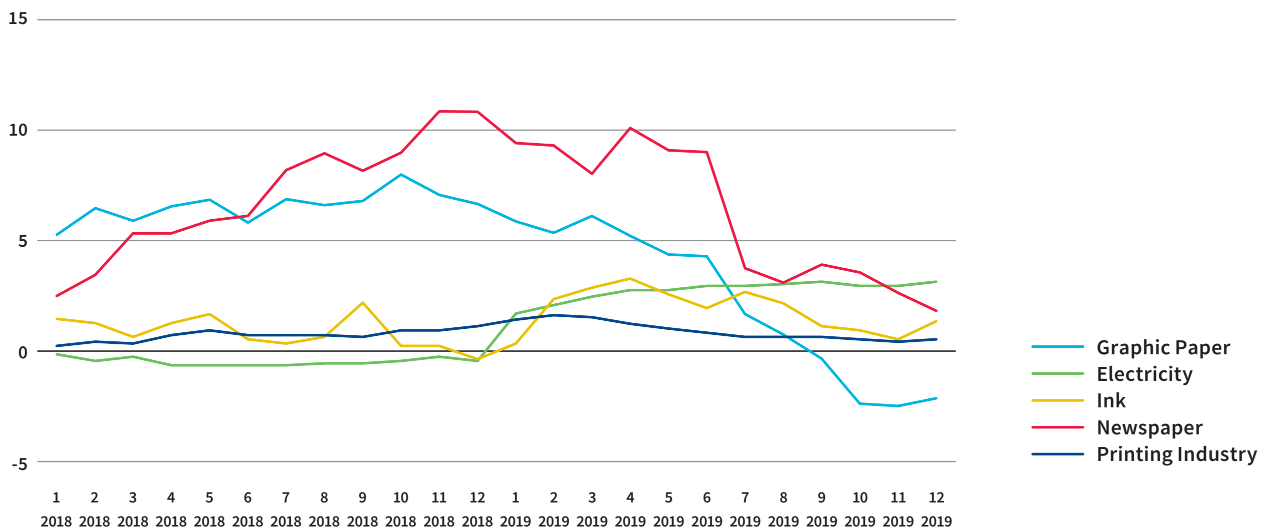
Trends in labour costs in the printing industry

Labour costs have increased by 2.4%, according to the collective agreement concluded in 2019, but this surge in wages is only constrained to the companies that are operating within the scope of the collective agreement. Labour costs, in general, have increased by 3.0% (calendar adjusted) in Germany. The results of the most recent bvdm-survey conclude that 61% of all participants have experienced an increase in labour costs in comparison to 2018, whereas only 10% stated that their labour costs decreased.

Trends in production costs in the printing industry

Generally speaking, 2019 was characterised by a rise in all kinds of costs. Graphic paper prices increased by 2.1%, however the growth rate has significantly weakened in the third and even turned negative in the fourth quarter of 2019. Ink prices increased by 1.8%. Energy prices increased by 2.7% and transport costs increased, according to the results of the most recent bvdm-survey, indeed 67% of all participants have stated an increase in comparison to 2018. IT costs increased, according to the results of the most recent bvdm-survey, as 41% of all participants have stated an increase in comparison to 2018.

Development of producer prices of certain input goods (2018 – 2019) - In % on YOY basis



Developments affecting the competitiveness of the industry

A comparatively high taxation is considered to be one of the most salient problems, which is directly influencing the profitability of companies.

The German corporate tax burden is among the highest among all OECD countries and is close to 30% and impact German companies' international competitiveness.

Electricity prices are among the highest in Europe and are continuing to increase, partly because of the rise in the EEG-levy/surcharge, which was raised by 0,351 cent/kWh at the beginning of 2020.

Energy costs in general will rise at the beginning of the next year, since a carbon price mechanism, which was implemented by the German legislation in 2019, will start to take effect. The initial price will be 25 €/ton. Afterwards it will gradually increase from year to year.

High bureaucratic obstacles are also taking a toll on companies. The legal permission of the reducing balance method of depreciation is also demanded by companies in order to increase the amount of depreciation in the initial periods, to cause a concomitant reduction in the pre-tax income and hence, in the total amount of taxes payments.

1.4.6 ITALY

2019 turnover

After a difficult start into the year in the 1st quarter, the turnover of printing companies grew in the following quarters, and the year 2019 closed with a near-zero variation (-0.1%) over 2018, based on a survey by the Osi (Osservatorio Stampa ed Imballaggio, Printing and Packaging Observatory) of Assografici.

An analysis of the companies' turnover shows a similar trend in companies with negative and positive results in 2019, as compared to 2018: 50% of the companies experienced an average income reduction of 9%, and the remaining 50% increased their turnover by an average of 6.4%.

Trends in specific market segments

Production in the printing sector as a whole increased by 1% in 2019, compared to 2018, due to a modest increase in the publishing printing segment (+0.2%) and a greater increase in the advertising and commercial printing segment (+1.8%).

In the publishing printing segment, the positive production result of 2019 is imputable to books (+1.6%), due to the positive performance registered in the 2nd half of 2019, whereas the production of magazines fell by 2.8% over 2018.

In the advertising and commercial printing segment, the production of such printed matter in 2019 registered a considerable increase (+2%) compared to 2018, whereas the production of forms continued to decrease (-9.7%), with absolute production values for this product reaching exceptionally low levels.

For book printing, 2019 saw an increase in the recovery signs already glimpsed in 2018. The general publishing sector, relating to books and essays in paper and e-book form, grew by 4.9% in terms of turnover and, for the first time since 2010, an increase was also registered in the number of copies sold (+3.4%).

With respect to magazines, press advertising remained in great difficulty in 2019, in terms of demand. According to Nielsen, the Italian advertising market closed in 2019 at € 8.77 billion, registering a slight decline (-0.9%) over 2018. In this context, the 2019 trend in press advertising continued to be significantly more negative than that for the other media and worse than the negative result already registered in 2018: -11.6%, resulting from a -10% for newspapers and a -13.9% for magazines; the value of press advertising fell considerably below € 1 billion (around € 875 million).

Regarding advertising and commercial printed matters, in terms of demand, direct mail advertising continued to drop in 2019 (-3% over 2018), and billposting advertising also saw a further significant decline (-8.4%). In sectoral terms, the production growth of advertising and commercial printed matters may be linked to the positive increase in retail advertising (+4.9%), this channel being a leading investor in printed advertising.

Trends in the labour market

Based on the latest Eurostat data, employment in the printing sector in Italy increased slightly in 2018 over 2017 (+0.5%), up from 82,076 to 82,459 workers. Assografici estimates a decrease in 2019 of around 2.1% of employees over 2018.

The number of hours provided to the Cassa Integrazione Guadagni [Redundancy Fund System] in the "Publishing, printing and reproduction of recorded media" segment decreased throughout 2019 by 23.2% over 2018, totalling approximately 4.7 million hours.

Trends in the number of operating companies

In 2019, Infocamere data reported 16,852 companies operating in the "Printing and reproduction of recorded media" segment, about 95% of which have less than 20 employees. Active companies dropped by 395 units compared to 2018, i.e. by -2.3%.

This decline is continuing, albeit in a structurally stable context, with competitors still operational in the printing market being more capable of tackling the competition. The market is characterised by a few forms of consolidation. This is because acquisitions are a means of diversification, in new activities and/or in new end markets.

Trends in foreign trade

The year 2019 ended with an overall 6% drop, compared to 2018, in the export value of the printing industry, its share of the industry's turnover falling from 17.2% in 2018 to 16.2% in 2019.

Considering products, in 2019 a significant decrease was registered in exports in terms of the value of magazines (-19.3%) and advertising and commercial printed matter (-10.2%); on the contrary, books performed positively, also on the export side, with export value growing by 5.5%. Among minor products, a decrease was registered in the export of manuscript or printed music (-44.9%), albums/picture books (-24.6%), postcards (-18.5%), transfers (-12.1%) and cartographic works (-7%); but an increase was registered in the exports of calendars (+5.5%) and, even more distinctly, stamps (+26.6%).

From the geographical standpoint, in 2019 the export value of printing products (compared to 2018) was diversified among the five main countries of destination. There was a significant increase in 2019 exports to the main country of destination, France (+18.9%), whereas a decrease was registered in exports to the second country, Germany (-20.6%); exports declined to the third country of destination, namely the United Kingdom (-3.3%), and towards Switzerland (-5.4%); exports towards the United States grew slightly (+1.3%), exceeding Spain in this ranking. Taking a look at the 15 leading destination countries with regard to printed matters, exports registered a significant drop from Spain (-5.7%) and even more so from Poland (-46.5%) and Belgium (-25.6%). Instead, 2019 exports tripled to Libya (+212.9%) and a double-digit increase was registered towards Morocco (+20%) and the Czech Republic (+26.6%).

On the front of the printing sector's import value, the closure of the year 2019 was characterised by a slight increase compared to 2018 (+0.7%), owing to the upturn in imports of books (+13%) and magazines (+2.6%), against a decrease in the imports of advertising and commercial print (-18.3%).

From the geographical standpoint, an analysis of the 5 main countries of origin of printing products showed a decrease in imports in 2019 over 2018 from Germany (-9.5%). On the other hand, there was a significant increase in imports from the 2nd and 3rd countries of origin, namely the United Kingdom (+10.9%) and China (+15.7%). Imports from Spain decreased (-2.7%), whereas a double-digit increase was registered in imports from France (+17.7%). Taking a look at the 15 leading countries of origin with regard to printed matters, imports in 2019 increased from the United States (+3.2%), doubled from Poland (+107.2%) and also increased significantly from Slovakia (+41.6%). Instead, a significant drop was registered in imports from Austria (-14.1%), the Czech Republic (-24.9%) and Switzerland (-9.1%).

Trends per printing process

As regards investments in printing and paper converting machines, the Acimga Association points out that, after a very positive 2018, driven also by investments linked to Industrial Plan 4.0, there was a moderate drop (-2.4%) in the sector's turnover in 2019 over 2018. This turnaround, after years of growth, was mainly due to a drop in exports (-9.3%), which account for about 60% of total turnover, as well as the fact that the incentives provided under Industrial Plan 4.0 are obviously decreasing.

In terms of technology, as indicated by the Argi Association, investments in offset printing machinery increased in 2019, especially as regards machines that produce large formats and new finishing units. The number of installed digital printing units is still growing, more for sheet-fed that for web-fed presses, and also in this context, investments are particularly aimed at machines that can produce increasingly large formats. There is a new and increasing trend in the use of flexographic printing, also in hybrid forms matched with digital printing. Investments are still being made in rotogravure machines for packaging, whereas the market of rotogravure machines for publishing is stagnant. The market with the highest growth prospects remains that of paper converting and packaging-labelling machines.

Trend in the uptake of new media services

In 2019, the integration of online communication services by traditional printing companies continued, as did the increase in industrial, decorative and 3D printing.

In 2019, what contributed to the positive production result registered by books is the significant development of online sales channels (especially Amazon), which in 2019 accounted for more than one out of every 4 books sold (26.7%). Bookshops, instead, saw a reduction in their market share (66.2%), while the mass retail channel remained essentially stable (7.1%). Nevertheless, the number of physical bookshops fell to 3,300, down 6.9% over 2018, due to numerous closures.

Furthermore, in 2019, various printed packaging segments continued to see an increase (especially folding cartons and self-adhesive labels), with a number of printers, and in particular book printers, developing other activities in packaging.

Trends in labour and production costs

According to Istat data, hourly wages in contracts for workers and employees in the printing industry remained stable in 2019 over 2018, as the printing industry is still waiting for the renewal of the collective agreement, which is still in a stalemate.

On the raw materials front, different trends were observed in the 1st and 2nd half of 2019: the 1st half of the year was characterised by increases in the price of printing papers compared to the 1st half of 2018, while in the 2nd half of the year this trend was essentially inverted. In 2019 as a whole, compared to 2018, the average price of virgin paper fell moderately by 0.5% and that of forms by 1.8%, while the price of coated papers varied in the range of -2.3% and +1.1%, according to the data of the Milan Chamber of Commerce.

Ink prices were essentially stable in 2019, with end-of-year increases. The price of solvents varied by type. Based on Istat data, energy prices fell slightly in 2019 over 2018 (-1.4%). Transport costs, postal charges and insurance costs were essentially stable.

Specific developments affecting the competitiveness of the industry

From the point of view of national legislation relating to the printing industry, the 18app continued to have a positive effect on the book market in 2019. This is a Culture Bonus of € 500 for teenagers born in 2001, promoted and supported by the Federazione Carta e Grafica [Federation of the Industry Associations for Paper, Printing, Converting and related Technologies], of which Assografici is a member together with the Acimga and Assocarta Associations. In 2019, € 131.5 million were spent in books (source: the Aie Association), accounting for 66% of total expenditure, which is a very positive result. Unfortunately, the total budget allocated to 18app by the Government has progressively reduced (€ 290 million in 2018, € 240 million in 2019 and € 160 million in 2020), therefore the impact on the 2020 book market could be significant.

With regard to advertising legislation, in order to support press advertising investments, the Italian Legislative Decree 59/2019 had made permanent a tax credit on incremental advertising investments on newspapers, periodicals, TV and radio channels. It should be noted, however, that Legislative Decree 18/2020 (the so-called “Cura Italia” decree establishing a series of economic provisions to contain the negatives effects of the measures adopted to fight the COVID-19 health emergency) has introduced some important changes, only for the year 2020: the facilitated 30%-tax credit on advertising investments will be calculated on the advertising investments costs incurred in their entirety, and no longer only on incremental costs over the previous year.

1.4.7 THE NETHERLANDS

2019 turnover

In the Netherlands, the Gross Domestic Product (GDP) in 2019 is still growing by 1.7%, but this is not the case for the printing industry. The domestic market for print products and services is shrinking further in 2019 by -3.9%. The turnover for the foreign market was going up strongly in 2016 and going down in the last three years. All the print industry index figures in 2019 are on a lower level compared to 2017 and 2018. The total print turnover in 2019 is € 3,265 million.

Printing industry turnover and GDP NL; index (2015=100)*

Year	Domestic market	Foreign market	Total turnover	GDP-NL
2010	152.9	87.1	132.8	96.3
2011	146.4	93.9	130.4	97.8
2012	125.3	96.9	116.6	96.8
2013	120.8	101.6	114.9	96.7
2014	109.7	100.1	106.8	98.1
2015	100.0	100.0	100.0	100.0
2016	98.8	126.6	107.2	102.2
2017	92.1	118.7	100.1	105.1
2018	90.3	116.9	98.4	107.7
2019	85.4	115.3	94.5	109.4

* Gross Domestic Product (GDP) in the Netherlands; Source: GOC Research analysis of CBS Statline data

Trends in specific market segments

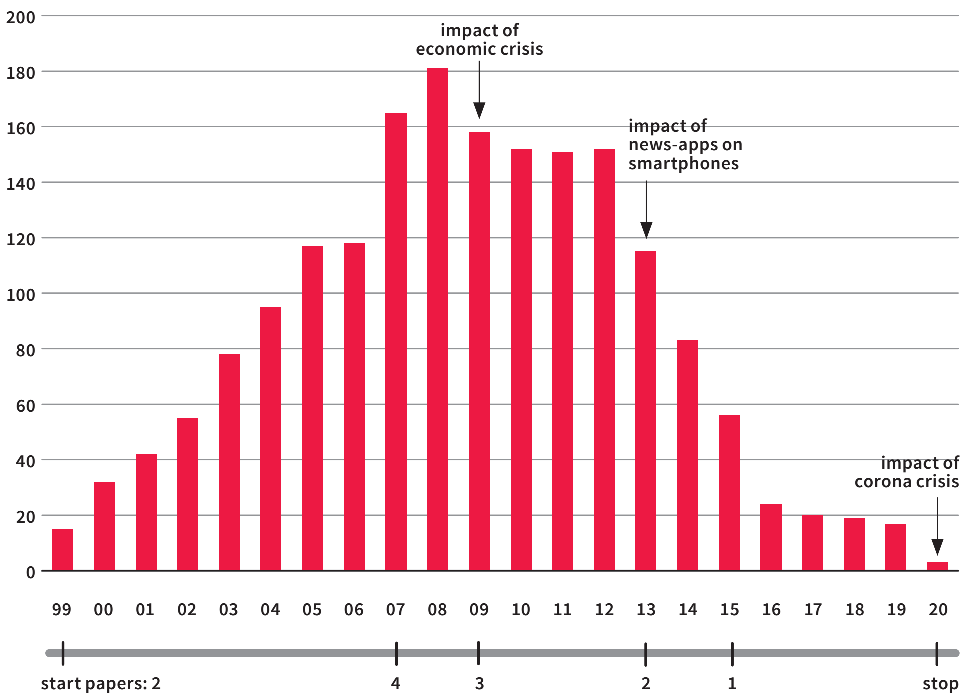
Books: The quantity and turnover are growing for paper books in 2019. The share of e-books in total turnover for books is about 6 to 7% and does not grow strongly in the past years. Almost all popular titles are available on internet for free. Reading books on e-reader devices is not very popular in the Netherlands, paper books are preferred. In book printing, there is a strong competition with Denmark and China.

Magazines: The number of magazine titles is growing but circulation figures are going down in 2019. This is the case for almost all titles and for the total sell of magazines. Almost all magazine titles have a paper and an e-based version.

Newspapers: Payed-for newspaper circulations have gone down very strongly and continues to go down in 2019. The number of newspaper titles is stable. All the titles also have an e-news portal version. E-news portals partly have free access and partly payed subscription or pay per article. The loss of paper-based turnover is still not compensated by the payed subscription for e-news access.

Next to payed-for newspapers, there was a change in the distribution of the national market for freesheets. The figure shows the rise and fall of the national freesheets between 1999 and 2020. The local freesheets market is different from the national market because local freesheets are distributed door-to-door while national freesheets are picked up from central public places like train and subway stations or other public buildings like libraries. Travelers are taking the freesheets less and less because they prefer their smartphone or e-reader devices. The impact of news-apps on smartphones caused a rapid decline in the circulation of the freesheets, the corona crisis may put a definitive stop.

Rise and fall of the Dutch national freesheets – Turnover expenditures in million Euro



Source
data Nielsen, processing of figure by GOC

Direct mail: In the past ten years, personalised direct mail was growing rapidly because of digitalisation of personal information and one-to-one marketing strategies of institutions (health care, government) and companies. More and more this kind of personalised communication take place over the internet instead of paper. A more recent threat for personalised direct mail is the European data protection regulation. On the one hand, because it is more difficult to collect and use personalised information, on the other hand because the public opinion becomes more hostile to personalised direct mail. In Amsterdam, the local government has changed the distribution of all non-addressed commercial print to a system that allows posting only with a sticker YES on the individual post box. The print employers' organization KVGO has lost a court case against this local legislation. Other cities in the Netherlands want to introduce the same sticker-system. In 2019, KVGO achieve a first success in a court case against a local government. The judge suspended the political decisions to hold back the door-to-door distribution of all non-addressed direct mail. The final decision is not certain.

Other commercial printing (catalogues, advertising…): Job advertisements, manuals, phone books and timetables moved already completely to internet and social media devices. Product advertising in newspapers partly moved to internet whereas advertising in magazines is mostly stable. Because of the circulation decline, the prices for advertisement declined too and big discounts are offered to advertisers because of the strong competition between publishers.

Printed packaging: Printed packaging growth is strong because of the economic growth. In general, the position of paper packaging is growing against the pollution problems with plastic packaging. Paper packaging are gaining grounds on plastic packaging already in the Netherlands.

Trends in the labour printing market

Employment is shrinking and the unemployment rate in the printing industry increased in 2019 but is still two times as high as the national unemployment rate. In the Netherlands, unemployment was 3.5% at the end of 2019. The unemployment rate in the printing industry is 7%. In 2009, the employers' organization and trade unions have established a mobility agency (Centre for Creative Careers; C3works!). This mobility agency organizes career support and training for unemployed printers and other unemployed graphic personnel directly at the start of unemployment, while unemployment agencies of the government only starts after 6 months of unemployment. The government has changed the unemployment benefit period step by step from 38 month to 24 months. At the same time, the government is changing the year of retirement in steps of 3 month to 66 in 2018, 67 in 2021 and even further to 68 in 2033. The age of retirement is coupled with the average life expectancy age of the whole population. In parliament, there is an ongoing discussion to find a solution for those employees who are working in physically demanding occupations. The government tries to organise with the employers' organisations and the labour unions a system of flexible retirement in combination with a system where employees have more personal options with variation in the age of pensions. It is expected that there will be an agreement at the end of 2020. The results will be very important for the employers and employees in the printing industry because of production problems with ageing staff and with finding new staff on a tight labour market.

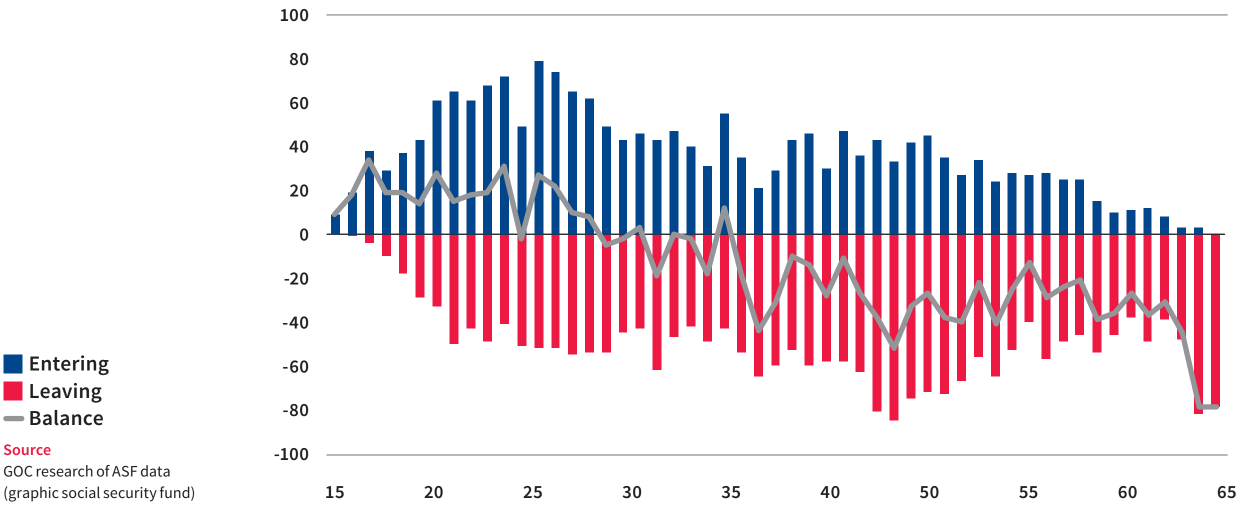
Printing industry turnover and GDP NL; index (2015=100)*

Year	Employees	Self-employed	Total
2010	29,000	1,650	30,650
2011	27,000	1,740	28,740
2012	25,000	1,750	26,750
2013	24,000	1,765	25,765
2014	21,000	1,715	22,715
2015	20,000	1,705	21,705
2016	19,500	1,735	21,235
2017	19,000	1,710	20,710
2018	18,500	1,690	20,190
2019	18,000	1,575	19,575

Source
GOC Research analysis of CBS Statline data

In the training market, there was a strong shift to alternative training programs for a career move to other professions outside the printing industry. In 2019, it is very difficult for employers to find qualified workers. The numbers of students in printing professions in the regular vocational education schools is very low and by far not enough to compensate the number of retiring printing workers. The branch training centre GOC started in 2017 a dual training program for printing and finishing. In the last five years, the number of staff on temporary work contracts has increased. In 2018 and 2019, about 12% of the total workers in the printing industry left the branch and in the same year, 9% entered the branch. The consequences of the great flows of people leaving and entering the companies translates into the need for ongoing training of entering staff. Often, this training is given on the job by qualified workers.

Number of staff entering and leaving the print industry in 2018



Source
GOC research of ASF data (graphic social security fund)

Trends in the number of operating printing companies

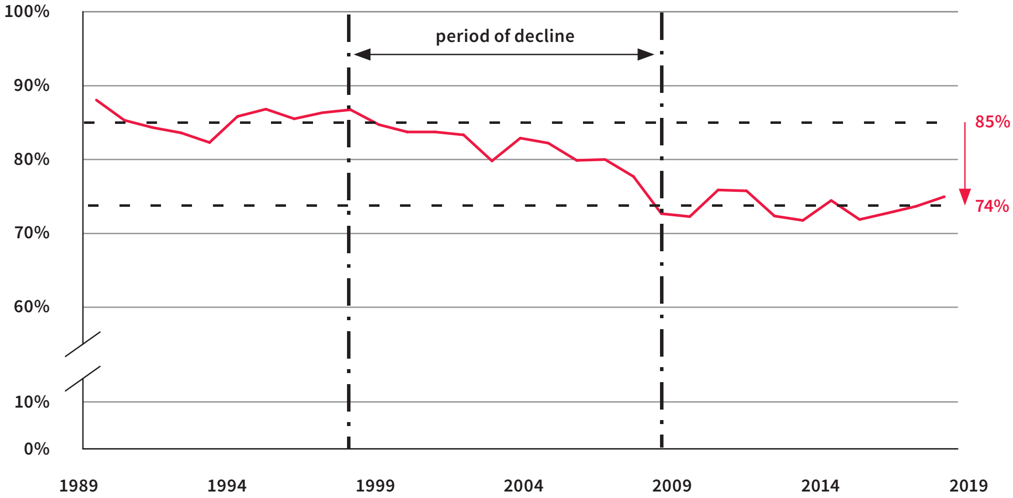
The number of total companies is shrinking already for 25 years. The number of one-person companies (self-employed without personnel) is rather stable but also decreased in 2019. The number of companies with personnel fell sharply. This is the reason why one-person companies were making an increasing share of total companies every year until 2019. In 2019, the share of self-employed has gone down too for the first time.

Companies and self-employed

Year	Self-employed	Companies	Total	Share of self-employed
2010	1,650	2,065	3,715	44.4%
2011	1,740	1,990	3,730	46.6%
2012	1,750	1,845	3,595	48.7%
2013	1,765	1,720	3,485	50.6%
2014	1,715	1,605	3,320	51.7%
2015	1,705	1,530	3,235	52.7%
2016	1,735	1,460	3,195	54.3%
2017	1,710	1,370	3,080	55.5%
2018	1,690	1,280	2,970	56.9%
2019	1,575	1,315	2,890	54.5%

There are three main reasons to declare the long term and structural decline of companies and employment in the printing industry in The Netherlands. First, the ongoing change of communication and distribution of information from paper to internet and social media devices: expenditures of advertising follow that trend. It even happened to other older media distribution systems like broadcasting and radio. The second main reason is the strong productivity growth in production technology in the printing process, particularly in prepress but also now also in the binding and finishing process. Less employees are needed in the production process to get the work done. The figure shows the decline of the production utilisation between 1998 and 2010 as a result of the growing production capacity despite of the ongoing shrinking of the number of companies and employees. The third reason is the consequences of the climate policy that changes the attitude of the population about the use of printed paper as an important source of the distribution of information.

Production utilization in the Printing industry fell down to a structurally lower level



Source
CBS statistical data/editing by GOC

The number of bankruptcies was 6.4% in the beginning of the economic crisis but was less every year until 2017. In 2017, there was an increase from 1.7% in 2016 to 2.3%. In 2018, the number of bankruptcies was low with 1.5% of total companies (with staff), and in 2019 even lower (1.4%).

Bankruptcies (excl. self-employed)

Year	Companies	Share
2010	134	6.4%
2011	129	6.2%
2012	97	4.9%
2013	88	4.8%
2014	71	4.1%
2015	58	3.6%
2016	26	1.7%
2017	34	2.3%
2018	20	1.5%
2019	18	1.4%

Source
GOC Research analysis of CBS Statline data

Trends in foreign trade

Unfortunately, the data of foreign trade in 2019 was not available at the time of reporting. We expect that the trends shown in 2018 are continuing in 2019. In 2018, imports from EU countries to the Dutch market is growing whereas imports from non-EU countries are shrinking. Total imports in 2018 were growing. The export is split up between exports of print products made in The Netherlands and transit exports. The Netherlands-made exports were less than in 2017 because 2017 was exceptionally high. Compared to the normal range, exports in 2018 were growing. Exports to non-EU countries was rising too. A large amount of exports is transit to other EU-15 countries. Total exports in 2018 is lower than in 2017 but rising compared to the normal range.

Import and export print products inside EU and outside EU (x 1.000 €)

	Import to NL			Export from NL			
Year	EU	Outside-EU	Total	EU	EU	Outside EU	Total
				NL-made	Transit	NL-made	
2010	680,319	209,955	890,274	741,507	406,337	108,163	1,256,007
2011	684,195	224,873	909,068	707,755	433,786	98,694	1,240,235
2012	689,230	226,536	915,766	730,411	391,572	117,744	1,239,727
2013	660,686	208,411	869,097	734,033	334,428	126,836	1,195,297
2014	551,825	189,398	741,223	739,505	291,883	151,704	1,183,092
2015	695,373	183,632	879,005	740,818	249,580	164,494	1,154,892
2016	697,427	194,530	891,957	714,691	344,111	163,636	1,222,438
2017	711,358	203,436	914,794	862,546	307,801	175,754	1,346,101
2018	750,980	188,378	939,358	750,165	321,499	179,728	1,251,393
2019*	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

* 2019 data not yet avaiable by CBS Statline

Source
GOC Research analysis of CBS Statline data

The most important countries for imports and exports of print products are Germany, Belgium and the United Kingdom. France is also an important country for the Dutch export of print products but less important for imports. In the last eight years (2010-2018), imports of print from the UK reduced with 26.3% while exports to the UK was rather stable. Imports from and exports to Germany increased in the same period. So, Germany becomes more important for the Dutch print industry. Exports to Belgium declined by 22.6% but remained the most important export country for the Dutch printing industry. Of all countries, imports from Italy increased sharply but the total amount of imports was still small (3.1%). China accounts for 6.2% in total imports of printed products to The Netherlands, so not very large compared to neighbouring countries.

In 2019, one of the largest Dutch printing companies went bankrupted, only one of the three large printing plants continued their production. With the closure of the other two plants, a part of the orders for magazine printing moved to Germany. Some magazine printing orders moved back to The Netherlands during the year 2019 but not all. Because of that change, Germany is growing in imports of printed products to the Dutch market.

Top export and import countries for printed products

	Import to NL from country		Export from NL to country	
Countries	Share of total import	Growth 2010-2018	Share of total export	Growth 2010-2018
Germany	27.0%	13.0%	21.8%	14.3%
Belgium	20.0%	-2.1%	23.9%	-22.6%
United Kingdom	10.6%	-26.3%	12.8%	-0.9%
China	7.2%	6.2%	0.2%	45.1%
USA	6.2%	-8.7%	1.6%	64.3%
France	3.6%	22.0%	11.4%	8.3%
Italy	3.1%	48.7%	2.7%	-29.1%

Source
GOC Research analysis of CBS Statline data

Trends in printing processes

Digital printing: Digital printing is rapidly growing in the Dutch printing industry. In 2004, already 22% of the companies had digital printing systems (inkjet and laser) for print productions in addition to offset, flexography and gravure printing systems. These printing systems were used for small runs (max. 250 prints) and for personalised direct mail. In 2019, more than two of three companies (70%) had also digital printing systems. In 2004, about 5% of total print turnover was realised by digital printing, in 2019 this is already 27%.

In 2020, the first Dutch printing company will install a nanographic type Landa press machine.

Share of digital printing: companies and total turnover

Year	Companies with digital printing in addition to offset	Share of digital printing in total turnover
2004	22%	5%
2008	43%	8%
2012	62%	17%
2018	64%	21%
2020*	70%	27%

* Data from survey februari 2020 (N=672 company respondents)

Source
GOC annual survey research

Web-offset: In the Netherlands, web-offset is still strong in production of newspapers and magazines but is losing share of production to sheetfed offset and flexography. That is because the production quality of flexography has become much better in the last ten years, and the print speed of sheetfed offset is very high, while the printing runs are much smaller nowadays.

Sheetfed offset: Sheetfed offset still has a strong position in printing production because of outstanding quality and speed (18.000 sheet per hour) combined with automated inking systems, automated plate change, automated clean up systems and automated visual ink density control systems. The automation system creates a complete control circuit. This is the reason why offset is still a leading printing process. Printing companies are using more and more large format and 8-colour-unit printing machines to combine different orders in one production run. All the printing companies use computer-to-plate equipment for plate making and for automated digital operation of offset (sheet and web) and flexography presses.

Publication gravure: Publication gravure disappeared in 2019 in The Netherlands for the printing of magazines or other publications.

Packaging gravure: Packaging gravure is still in production but slowly replaced by flexography.

Flexography: In the Netherlands, flexography has a strong position in packaging. These are large presses with 10 printing units and completely automated. Most of the presses are sleeve printing. Behind the presses are fixed robotic arms in production lines like the automotive production industry.

Large format: The small sized printing companies (less than 20 staff) have small or medium size format presses. The medium sized and larger printing companies have more and more large format presses. Large format presses offer the possibility to combine different production orders to one press production run. It makes production cheaper and faster. In doing this, a modern printing company has a much larger production capacity than small sized print companies. Their prices are therefore lower than in small sized companies.

Trends in digitalisation

For already 20 years, a growing amount of printing companies were offering more and more new media services like database management and website building. There is however a very strong competition with specialised IT, design and communication companies offering the same services. The large publishing companies have their own specialised social media and web-based publishing departments. So, it is not an easy way to make more money to compensate the reduction of print.

In 2019, most printing companies still experience digitalisation in the media as an ongoing competition for their business because the total amount of print is declining every year. Their strategy is first of all oriented to more efficiency in printing production process and not in developing more digital media business.

(Bar)coding and print-to-web are techniques most companies can offer but creating and hosting websites much less. That is because of competition with designing, communication and IT companies. Mobile apps and mobile marketing are emerging techniques and services, also under strong competition with design and IT companies.

In 2019, there was a growing number of successful printing companies doing business almost only by web-to-print ordering systems. They were collecting a large amount of small digital print runs for low prices. For a part, they created a new market for small runs and cheap printed products.

Print companies offering new techniques and services in 2018

Techniques an services	Companies
(Bar)Coding	56.3%
Print-to-web	41.6%
Coating	36.9%
1-to-1 communication	36.2%
Foil materials	33.5%
Create websites	21.8%
Crossmedia marketing	20.0%
E-mail marketing	16.4%
Websites hosting	13.6%
Optic techniques	12.3%
Mobile apps	9.8%
Video production	7.0%
Mobile marketing	6.5%

Source
GOC annual survey research

Trends in labour and production costs in the printing industry

In the Netherlands, labour costs were rather stable for many years because wages did not increase much. The situation is changing. Wages as a large part of the labour costs are rising, also in the printing industry. Collective bargaining in 2018 between employers' organisation and labour unions ended in an agreement about a yearly average wage growth of 2.57% in the next 28 months (1 April 2018 – 1 August 2020).

In 2019, prices for paper and solvents went down, all other prices went up. Especially the prices for energy went up considerably. The prices for print products were going down between 2010 and 2018, but in 2018 and in 2019 they went up. There is no information about insurance costs, but it is likely that they went up. Energy costs for small and medium sized companies are going up and it is still uncertain what the costs for the energy transition will be for companies. The Dutch government has a policy that stimulates companies to invest in climate neutral buildings. These costs are not expressed in the figures of the table about production costs.

Trends in production costs and prices print products; Index (2015=100)

Year	Production costs							Output prices
	Paper	Ink	Solvent	Postal	Transport	Energy 1*	Energy 2*	Print industry
2012	96,5	108,7	102,4	79,7	95,8	92,0	108,5	104
2013	96,7	106,8	104,0	85,5	97,7	101,8	107,3	101,5
2014	99,1	102,8	110,1	92,8	99,7	103,6	102,4	101,1
2015	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**
2016	98,8	97,3	87,7	105,8	100,5	103,3	96,3	97,1
2017	102,8	94,8	108,7	113,0	98,8	98,9	89,0	95,9
2018	109,6	92,4	117,6	120,3	97,9	101,5	96,3	98,5
2019	106,3	93,0	100,3	126,1	100,3	111,0	107,3	99,9

* Energy 1= heating (<10 TJ),
* Energy 2= electricity (<500 MWh)

Source
GOC Research analysis of CBS Statline data;

Development affecting competitiveness

The consequences of the Brexit for imports and exports of print products of the Netherlands are an important development. The UK is the third in importance for foreign trade for the Dutch graphic industry.

The cost effects of the energy transition are a further relevant issue. Energy costs will go up for the energy intensive paper industry and thus impact paper prices.

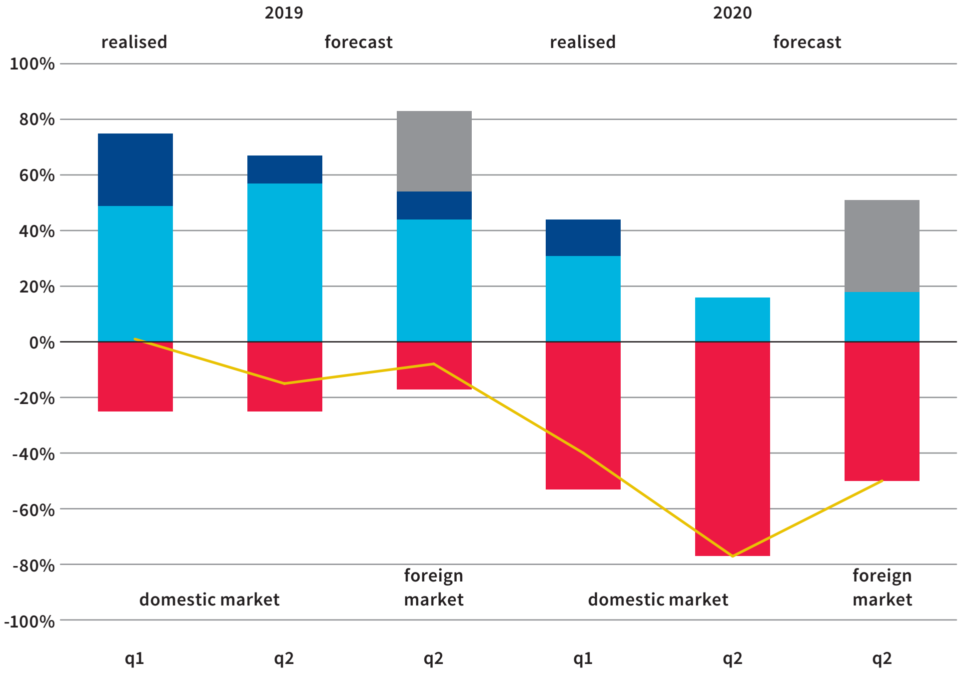
The changeover in packaging materials from printing on many plastics to printing more and more on paper packaging is a further trend. Printing companies have to invest for new production equipment.

National and local legislation aiming at reducing environmental pollution and waste of raw materials is also an important trend in the printing industry and so is automation and robotisation in production.

Although these trends remain very relevant, the impact of the corona crisis on the short-term future of many printing companies is enormous. At the time of reporting, the sharp decline in number of print orders and of the direct consequences of this for the production level in the printing companies will be significant. We give the figures looking back to the realised first quarter of the year 2020 and as forecast for the coming quarter. We compare the figures of 2020 with those of the same period in 2019. Both figures show a dramatic fall in order position and in production for printing companies.

Sharp decline in number of print orders Dutch Printing industry due to corona crisis

Situation april 2020 compared to april 2019.
Percentage of companies; balance= growth minus decline; n/a= not active.



stable
growth
decline
n/a
balance

Source
GOC Research analysis of CBS data Business survey, reference date april 2019 and april 2020

Sharp decline in production Dutch Printing industry due to corona crisis

Situation april 2020 compared to april 2019.
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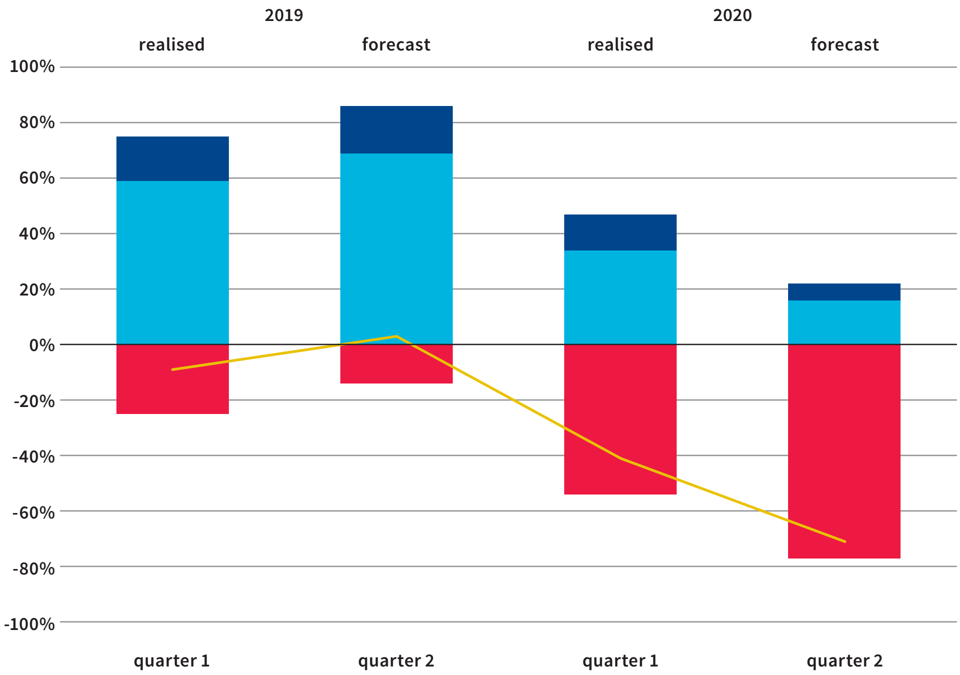


stable
growth
decline
balance

Source
GOC Research analysis of CBS data Business survey, reference date april 2019 and april 2020

1.4.8 NORWAY

2019 turnover
The turnover of the Norwegian printing industry registered a reduction of 4.4% compared to 2018.

Trends in specific printing market segments
Books decreased by -6.8%, magazines by -4.8% and newspapers by -13% on paper, whereas the digital version increased by 12%.

Trends in the number of operating companies
We have registered a small number of bankruptcies and concentrations.

Trends in foreign trade
Imports of printed products are decreasing since 2017.

Trends in digitalisation
Digitalisation is still seen as a competition to print.

Trends in labour and production costs of the printing industry
In 2019, labour costs increased by 3.5%. Paper, inks and solvents were more expensive because of the extra costs due to weaker Norwegian currency (NOK) +2.7% vs €. This effect is much bigger this year because of the weakness of NOK. Electricity prices decreased compared to 2018, postal rates increased and transport costs were stable.

Developments affecting the competitiveness
In Norway, a heavy CO_2 tax was introduced which affects companies using gas. This tax has been postponed due to the COVID-19 situation.

1.4.9 PORTUGAL

2019 turnover

Printing industry revenues, jointly considering the manufacture of paper and paperboard products and the printing and reproduction of recorded media, registered in 2018 an increase of 1.7%, compared to 2017, this being the sixth consecutive growth period.

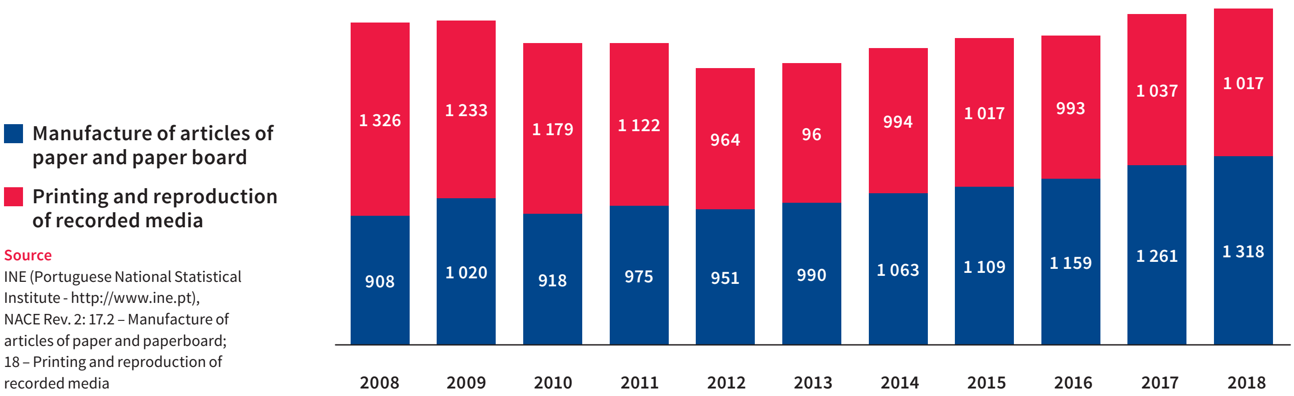
However, it should be noted that this growth is only due to the performance of the paper and paperboard products manufacturing sector, which in fact grew by 4.5% compared to 2017. On the other hand, in the printing and reproduction of the recorded media sector the turnover fell by 1.9%.

Trends in paper and printing industry turnover

Year	% (compared to previous year)
2015	3.35
2016	1.21
2017	6.79
2018(*)	1.65

(*) Last year available.

Printing industry annual turnover (Euro Million)



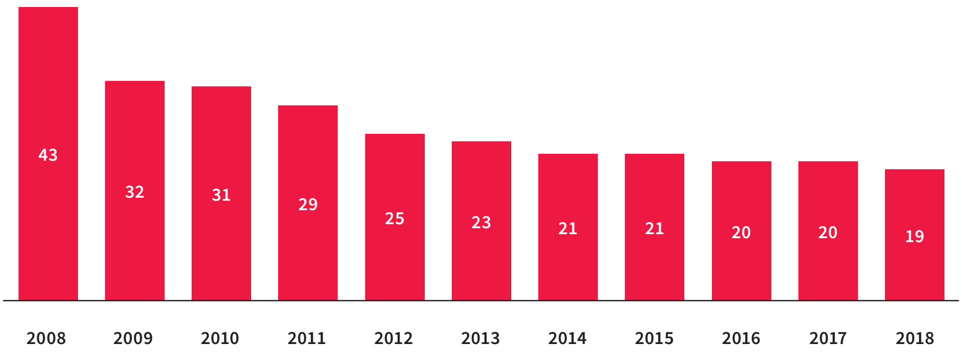
Source
INE (Portuguese National Statistical Institute - http://www.ine.pt), NACE Rev. 2: 17.2 – Manufacture of articles of paper and paperboard; 18 – Printing and reproduction of recorded media

Trends in specific market segments

Books		Prox: Book Publishing
Magazines		Proxy: Magazines Publishing
Newspapers		-
Direct mail		Proxy: Advertising
Other commercial printing		No data available
Printed packaging		Proxy: Paper packaging

As regards to the newspaper segment, its turnover registered a significant decrease compared to the previous year (-5.8%). This segment shows a persistent downward trend in the last decade.

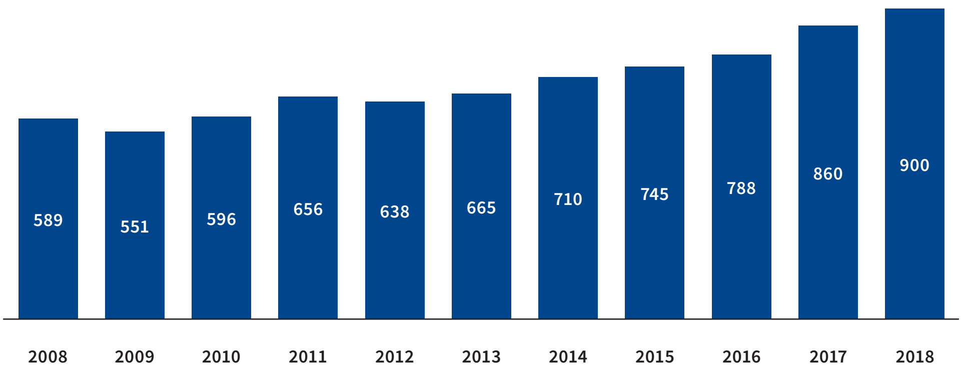
Newspapers printing annual turnover (Euro Million)



Source
INE (Portuguese National Statistical Institute - http://www.ine.pt), NACE Rev. 2: 18.11 – Printing of newspapers

In relation to the paper packaging segment (as a proxy to the printed packaging), there has been a steady increase in turnover in recent years. In comparison with the previous year, it grew by about 4.7%.

Paper packaging annual turnover (Euro Million)

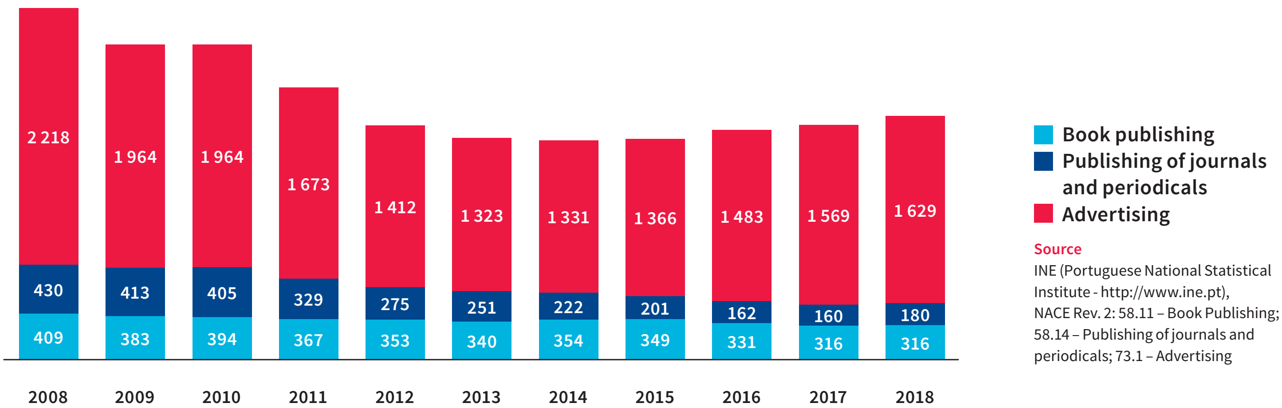


Source
INE (Portuguese National Statistical Institute - http://www.ine.pt), NACE Rev. 2: 17.21 – Manufacture of corrugated paper and paperboard and of containers of paper and paperboard

Using the economic activities of book publishing, magazines publishing and advertising as proxy for the respective segments of the printing industry, we find that in 2018:

> the book publishing segment revenues stagnated compared to the previous year;
> the magazines publishing segment revenues registered a significant increase of over 12.4%
> the advertising segment revenues remains on a recovery path, started in 2014, registering, compared to the previous year, a growth of 3.8%.

Annual turnover (Euro Million)

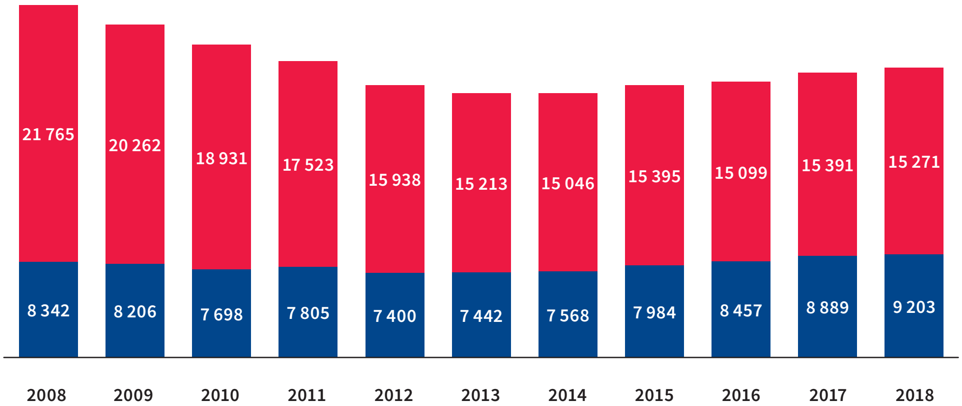


Source
INE (Portuguese National Statistical Institute - http://www.ine.pt), NACE Rev. 2: 58.11 – Book Publishing; 58.14 – Publishing of journals and periodicals; 73.1 – Advertising

Trends in the labour market

The number of employees in the printing industry, including the manufacture of paper products and the printing and reproduction of recorded media, after a significant increase in 2017, shows in 2018 some signs of stagnation with only a slight improvement of 0.8%.

Persons employed in the printing industry (N°)



Manufacture of articles of paper and paper board

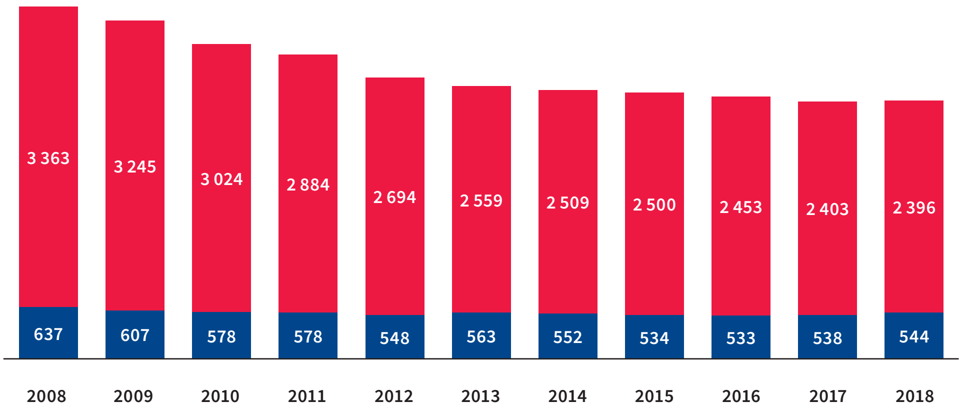
Printing and reproduction of recorded media

Source
INE (Portuguese National Statistical Institute - http://www.ine.pt), NACE Rev. 2: 17.2 – Manufacture of articles of paper and paperboard; 18 – Printing and reproduction of recorded media

Trends in the number of operating companies

In 2018, there were 2,940 operating companies registered (considering the manufacture of paper products and the printing and reproduction of recorded media), 1 unit less than in 2017. The present number of operating companies is still far below from the one registered in 2008.

Printing industry enterprises (N°)



Manufacture of articles of paper and paper board

Printing and reproduction of recorded media

Source
INE (Portuguese National Statistical Institute - http://www.ine.pt), NACE Rev. 2: 17.2 – Manufacture of articles of paper and paperboard; 18 – Printing and reproduction of recorded media

Due to the lack of disaggregated data, the business demography values contemplate only the companies in the printing and reproduction of recorded media sector (NACE 18).

Trends in Business Demography

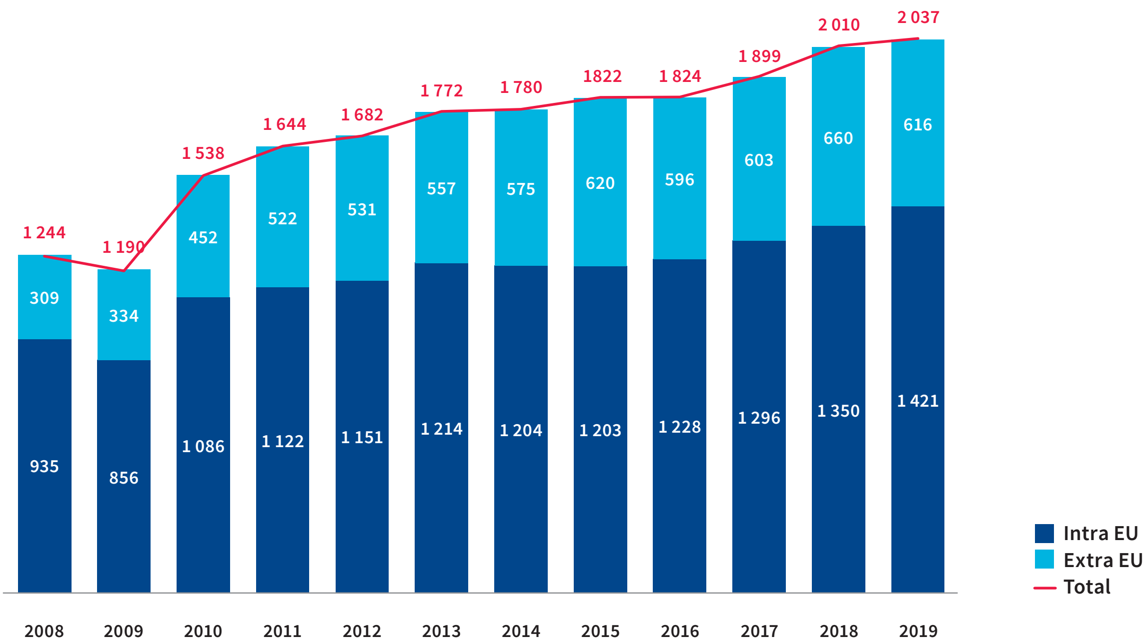
Year	2014	2015	2016	2017	2018
Operating Companies (No)	2 509	2 500	2 453	2 403	2 396
New Companies (No)	211	205	174	165	182
Dissolved Companies (No)	214	222	211	186	n/a
Birth Rate (%)	8.4	8.2	7.1	6.9	7.6
Mortality Rate (%)	8.5	8.9	8.6	7.7	n/a
Survival Rate (%) after two years	69.2	69.4	65.9	65.9	69.5

Source
INE (Portuguese National Statistical Institute - http://www.ine.pt), NACE Rev. 2:18 – Printing and reproduction of recorded media

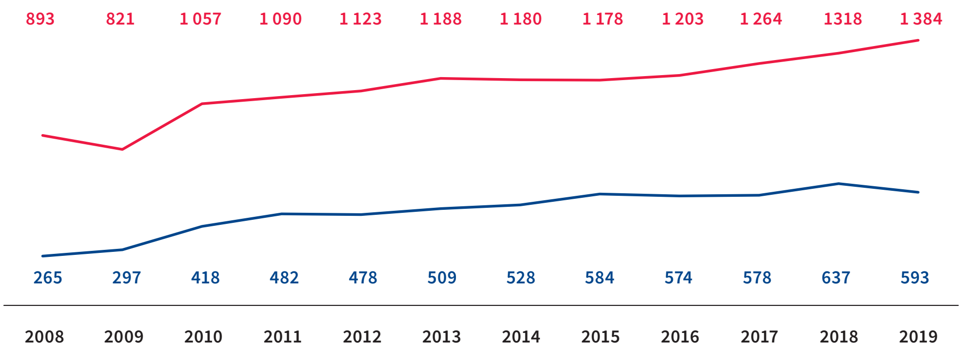
Trends in foreign trade

In 2019, exports reached € 2,037 million, representing a growth of only 1.4% compared to the value reached in 2018. However, when analysing the different types of products, paper products exports grew only by 1.1%, while printed products' exports registered a significant increase of 9.9%. Exports of these products were mainly aimed at intra-European Union markets.

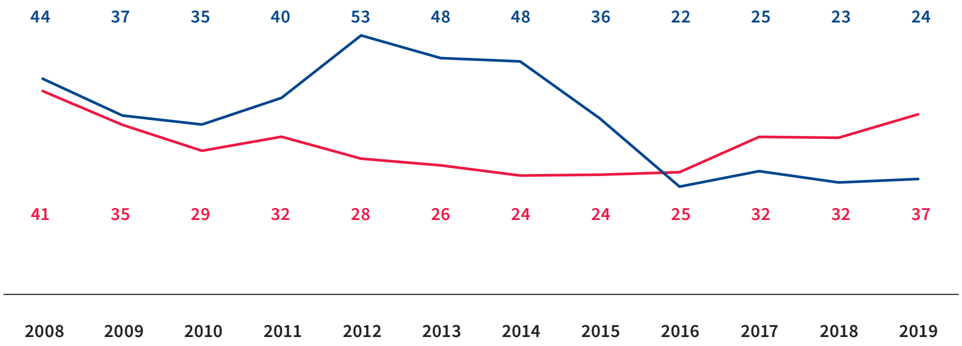
Printing industry annual Exports (€ million)



Paper and paper articles (NC8-48)



Printing industry product (NC8-49)

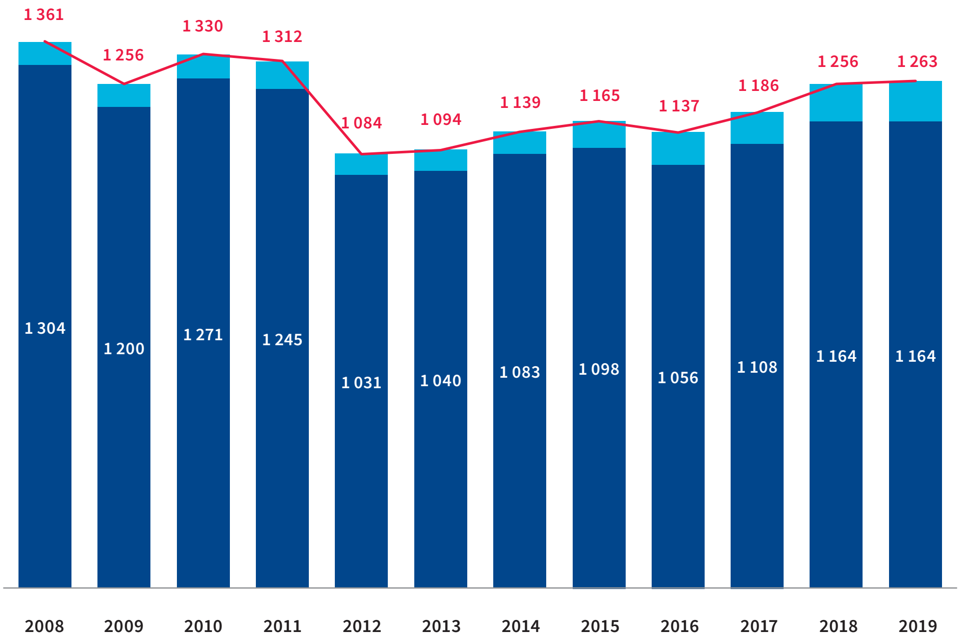


— Intra EU
— Extra EU

Source
INE (Portuguese National Statistical Institute - http://www.ine.pt),
NC8 48 – Paper and paperboard; articles of paper pulp, of paper or of paperboard
NC8 49 – Printed books, newspapers, pictures and other products of the printing industry...

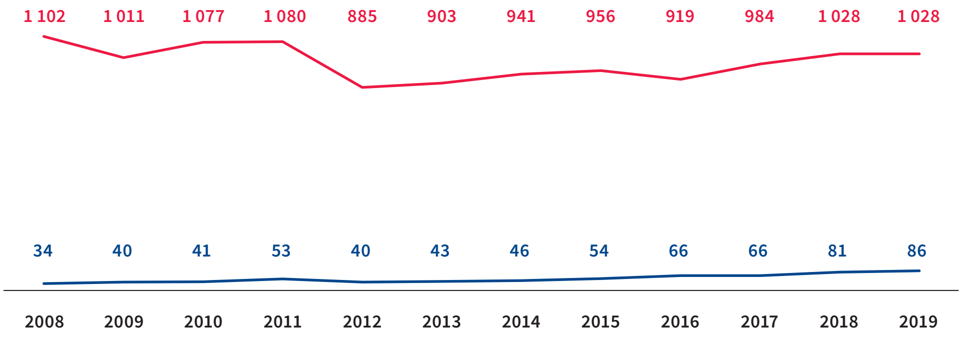
Imports of printed and paper products (CN48 and CN49) amounted to € 1,263 million in 2019. Imports are mainly from EU countries and, compared with the previous year, total annual imports grew only by 0.6%.

Printing Industry Annual Imports (Euro million)

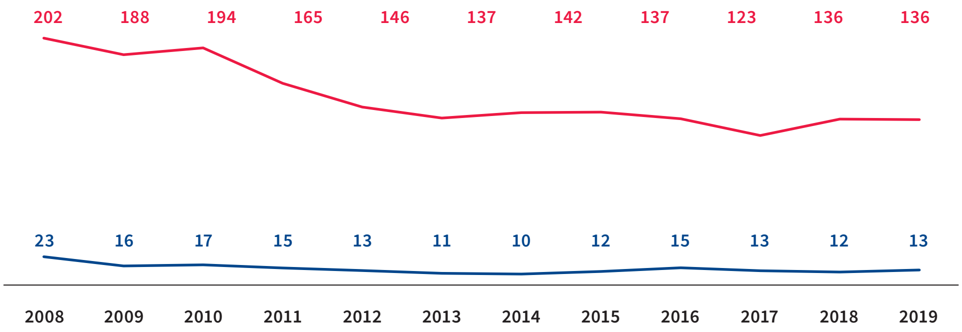


Intra EU
Extra EU
— Total

Paper and paper articles (NC8-48)



Printing industry product (NC8-49)



— Intra EU
— Extra EU

Source
INE (Portuguese National Statistical Institute - http://www.ine.pt),
NC8 48 – Paper and paperboard; articles of paper pulp, of paper or of paperboard
NC8 49 – Printed books, newspapers, pictures and other products of the printing industry...

The main competitors of the Portuguese printing industry are Spain, Germany, France and Italy. These countries are the main source of imports of paper products (CN48) and products of the printing industry (CN49). In 2019, these countries accounted for more than 83% of the total value of imports.

Trends in foreign trade

Digital printing	▲
Weboffset	▼
Sheetfed offset	▼
Publication gravure	▼
Packaging gravure	▲
Flexography	▲
Large format	▲

Digital printing technologies remains a priority for most printing companies.

Packaging gravure continues to grow due to increased pre-press automation, which can now be operated fully automatically and with faster engraving and shorter preparation time in printers.

Flexography and large formats are still major trends in the Portuguese printing industry.

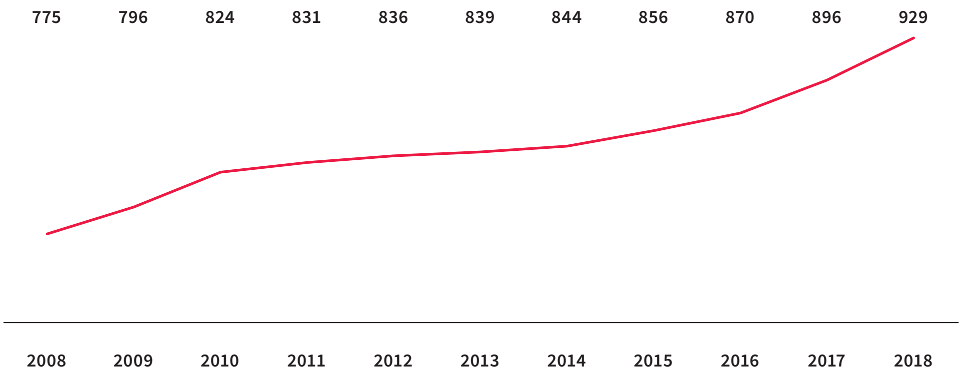
Uptake of new media

The uptake of media services is growing and the new digital services are part of the product portfolio in most printing companies. Thus, digitisation is now viewed as complementary to traditional printing products and not so much as a competitive product, many companies do both. In line with developments in recent years, technology innovation keeps pushing the printing industry forward, and print businesses must constantly look for ways to broaden their services and give their customers a wider range of solutions. One of the promising trends is online printing technology powered by web-to-print (benefiting from all the prominence of social media in recent years), showing potential to saving time and manpower in many small businesses.

Trends in labour and production costs of the printing industry

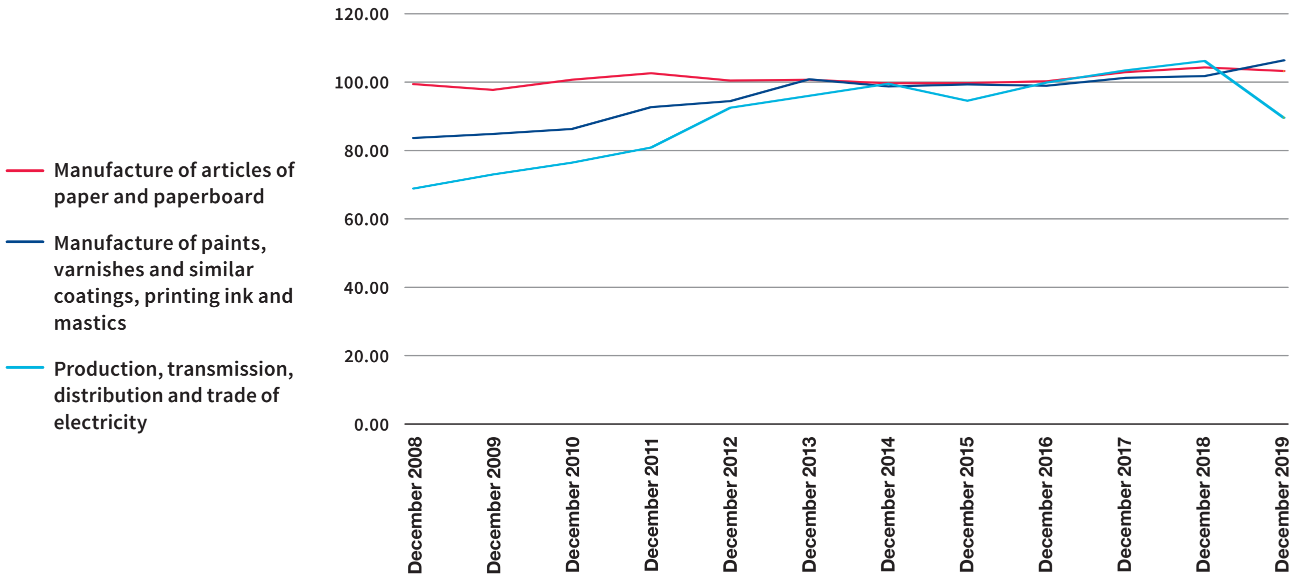
Labour costs are on a growing path, although the average value of monthly remunerations remains low. In the industrial sectors, the average monthly value reached, in 2018, the amount of € 929.15, which means an increase of 3.7% compared to the previous period.

Monthly average base salary (Euros)



The evolution of the price index of both paper and electricity points tend to decrease. On the other hand, printing inks keep a price growth trend. Average prices of fuel in Portugal are expected to grow moderately, mainly due to the increase in the incorporation of biofuels and the carbon tax. Postal and insurance costs have also increased slightly.

Indexes output prices of domestic market



1.4.10 SWEDEN

2019 turnover
The turnover for commercial printing declined by 6.5% compared to 2018 and increased by 2% for label printing. Large format printing decreased by 12% during the same period.

Trends in specific printing market segments
There are just few book printers left in Sweden. Book printing decreased by 4%. The magazines market segment somewhat declines and so did direct mail. Newspapers decreased by 10% and other commercial printing was down by 5-10%. Printed packaging slightly increased by 2%.

Trends in the labour market
As the number of training facilities dedicated to the printing sector has declined fast during the last years, it is an increasing problem for employers to find skilled workers. Suppliers have taken a more active role in the training of employees. In the shift from analogue to digital printing, the suppliers provide much of the needed training. However vocational training remains a key issue to the graphic industry.

Trends in the number of operating companies
The number of operating companies decline approximately by 10% per year, mainly due to a continuous consolidation in the Industry.

Trends in foreign trade
Sweden is exporting only small amounts of print. Imports of catalogues, books and magazines. However, we do see rather rapid movements of some graphic productions following shifts in the value of the Swedish currency. In the last years, there is also a rising interest from Danish and German printers to expand to the Swedish market. Some larger Danish printers have acquired facilities in Sweden.

Trends per printing process
Digital printing increased by 4%, web offset is down by 5-10% and sheetfed offset by 8.5%. Flexography slightly increased by 2% and large format decreased by 12%.

Uptake of new media
A decline by 15% in new media services by printing companies starting from a small base. Services are at a level of 5% of total turnover. Digitalisation is for a fact a competition to print. However, the printing industry is very digitalised, and has accepted and adapted to this and most companies offer customers multiple channels of communication.

Trends in labour and production costs of the printing industry
Labour costs are steadily going up by 2% per year. Paper prices decreased by 7% and ink prices increased by 8-10%. Solvent prices increased by 5% and energy costs are stable. Postal rates and transport costs increased by 5% and insurance costs increased by 3%.

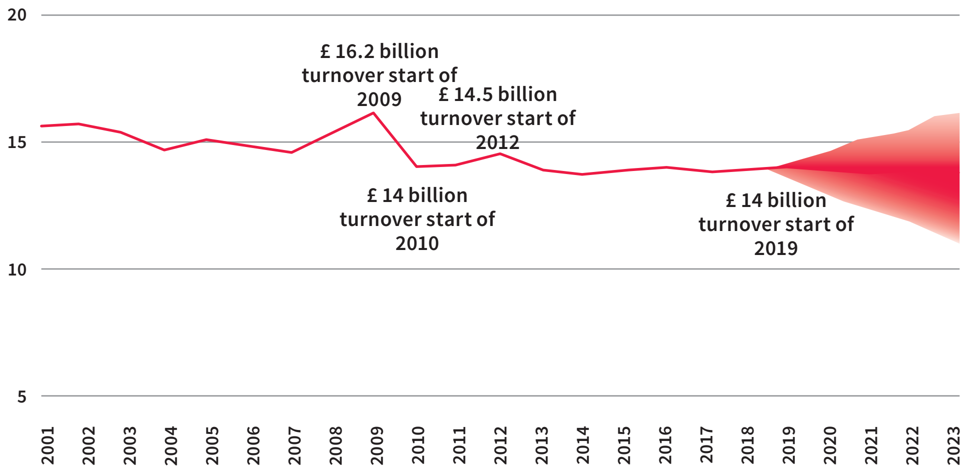
Developments affecting the competitiveness
A new legislation for packaging and paper waste collection will require producers to collect waste in basically every residence as compared today where people bring the waste to designated collection centers. The cost for collection will escalate and calculations indicate that prices for recycled paper can increase by 30-50% which will make printed products significantly more expensive. Especially the newspaper sector is very worried that this will accelerate the decline in printed newspapers. Also, other sectors of the graphic industry are concerned how this will affect competitiveness with other materials.

1.4.11 UNITED KINGDOM

2019 turnover

Detailed 2019 data is not yet available, however preliminary data suggests that 2019 turnover data may be very slightly down (around 2%, in comparison to 2018) for the entire printing industry. The fan chart below shows turnover on recent years and expectations for the next few years.

UK Printing industry - turnover (£bn) 2001-2023

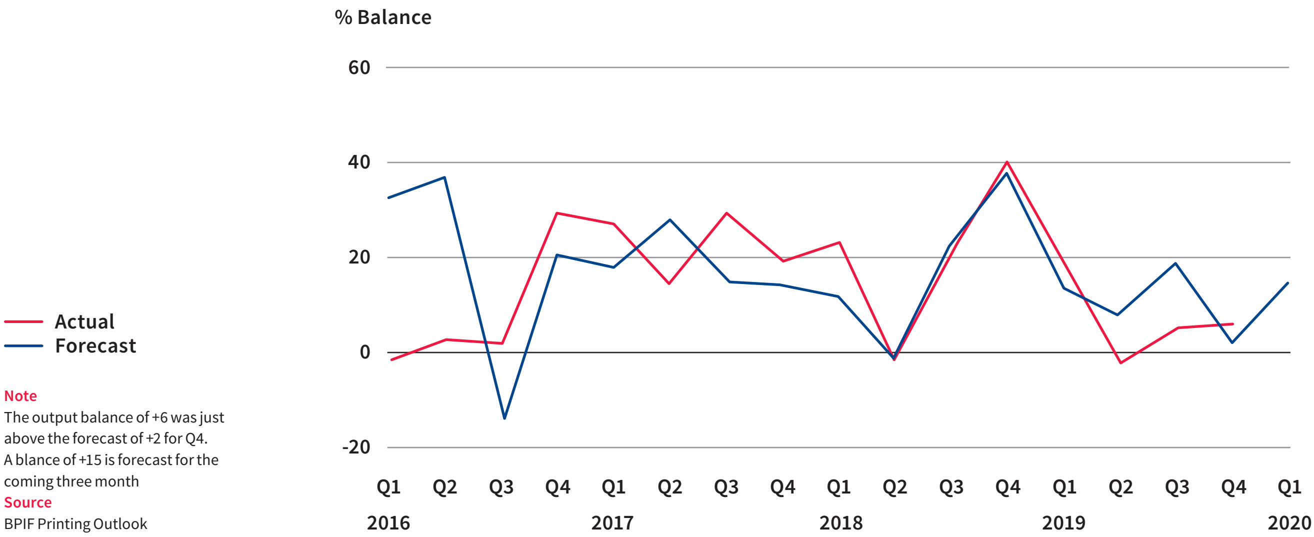


Source
BPIF Research; 2018 – 2023 forecast estimates

Note
forecasts have not yet been adjusted to account for the impact of Coronavirus.

As in recent years, much of the headlines are often dominated by the changes that have been occurring in the newspaper and magazine sectors – which continue to face considerable disruption from the rise of digital media and changing consumer behaviour. However, other sectors have exhibited more stability and some have seen healthy growth. The charts below from the BPIF Printing Outlook survey show that companies have generally struggled to achieve output and order growth throughout 2019. The economic climate in the UK has been affected by political and Brexit related uncertainty.

Volume of output - Q4 just above subdued expectation, positive Q1 forecast



Note
The output balance of +6 was just above the forecast of +2 for Q4. A blance of +15 is forecast for the coming three month

Source
BPIF Printing Outlook

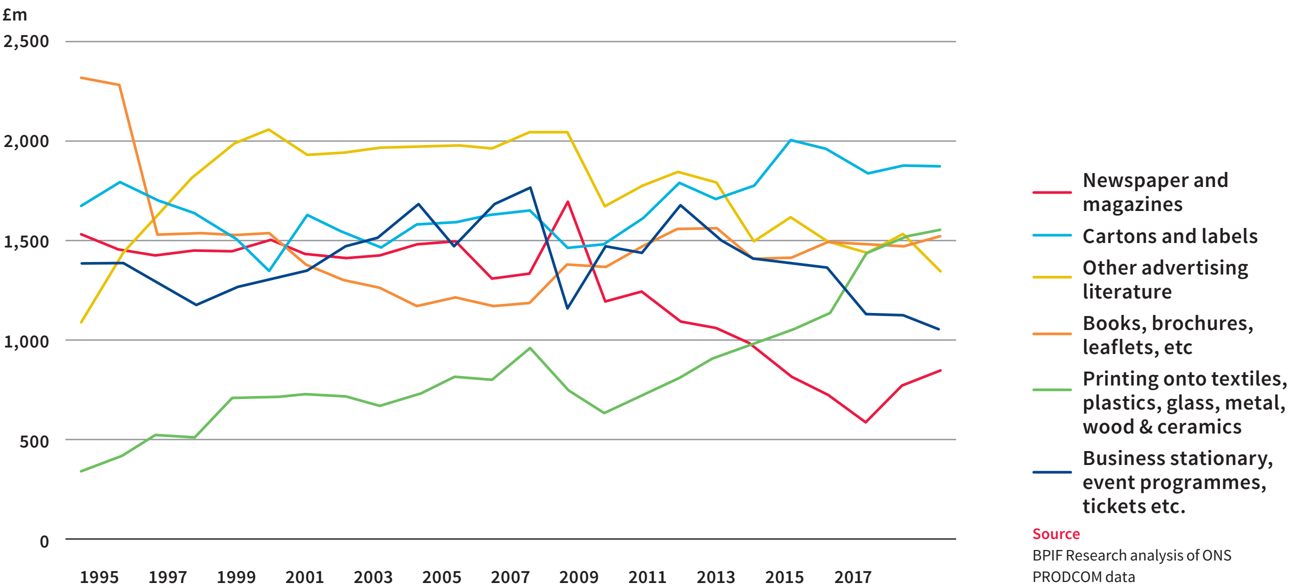
Volume of orders - some recovery in Q4, expectations pick-up for Q1

Note
The order balance of +5 was above the forecasted balance of +2. A balance of +14 is expected for the comming three months
Source
BPIF Printing Outlook

Trends in specific market segments

Turnover data is not yet available for 2019 but the chart below shows recent turnover performance for some of the main sectors in the UK printing Industry in the last 20 years.

Printing - sector performance (turnover)



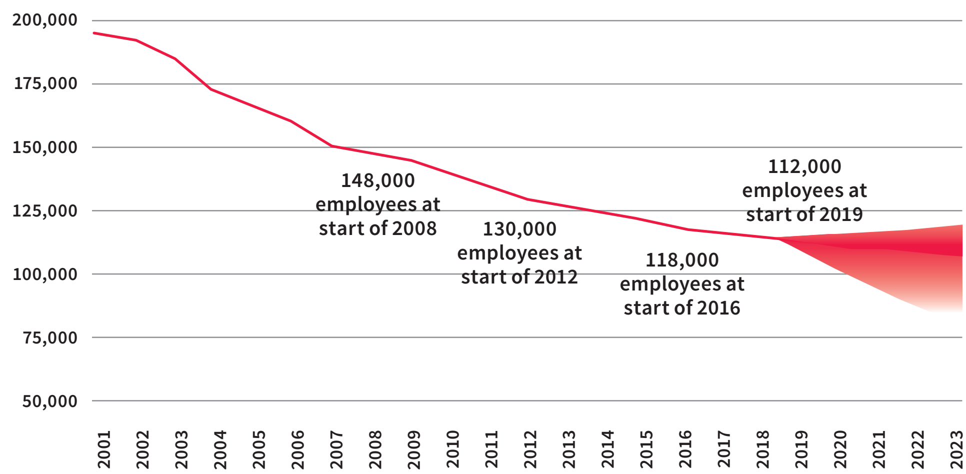
Source
BPIF Research analysis of ONS PRODCOM data

Printing on to materials other than paper/board (such as signage, large format, textile and vehicle graphics) has been the stand-out performer and grown considerably over the last 10 years. The book sector has maintained some healthy growth in recent years, and paper and board based printed packaging and labels has generally performed well. Personalised and variable data printing services are expected to grow in the coming years.

It remains notable that a number of high profile brands (Ikea, Apple, Facebook and Google being some examples) have run significant print campaigns and have been highly positive of their use of print.

Trends in the labour market

UK Printing Industry - number of employees 2001-2023

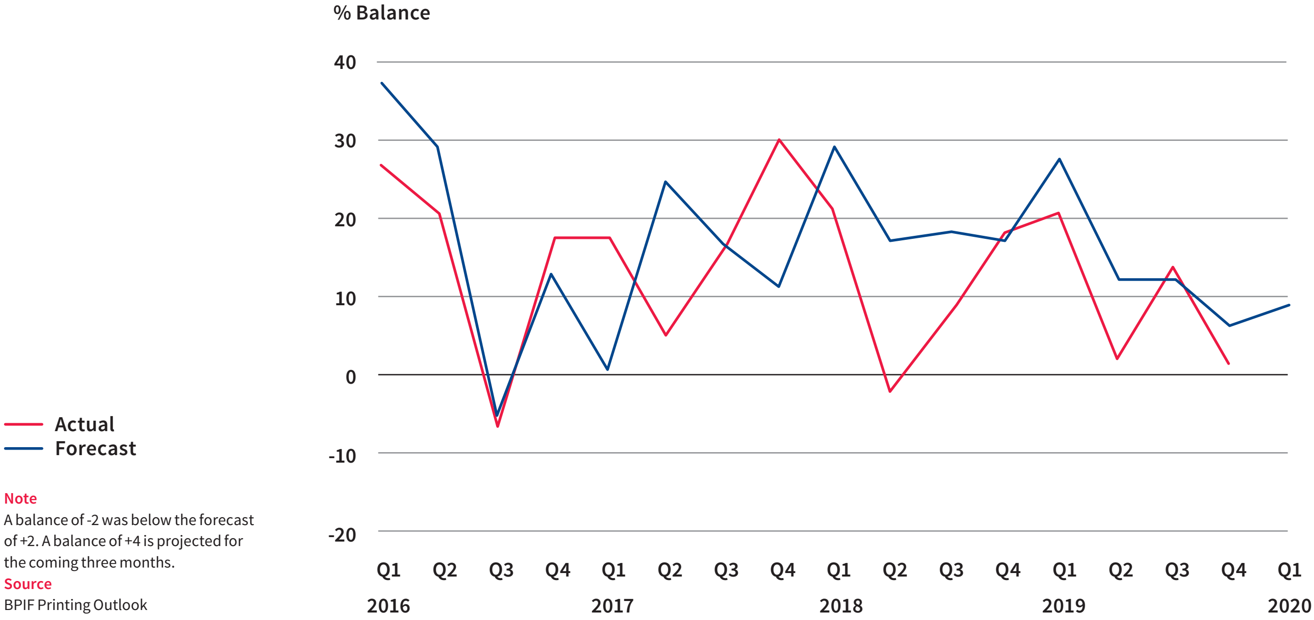


Source
BPIF Research; 2018 – 2023 forecast estimates

Note
forecasts have not yet been adjusted to account for the impact of Coronavirus.

Whilst the overall number of employees in the industry is falling, the headline data is swamped by the decline of certain sectors. Again, the BPIF Printing Outlook survey shows that there are companies that have been growing employment levels to some degree.

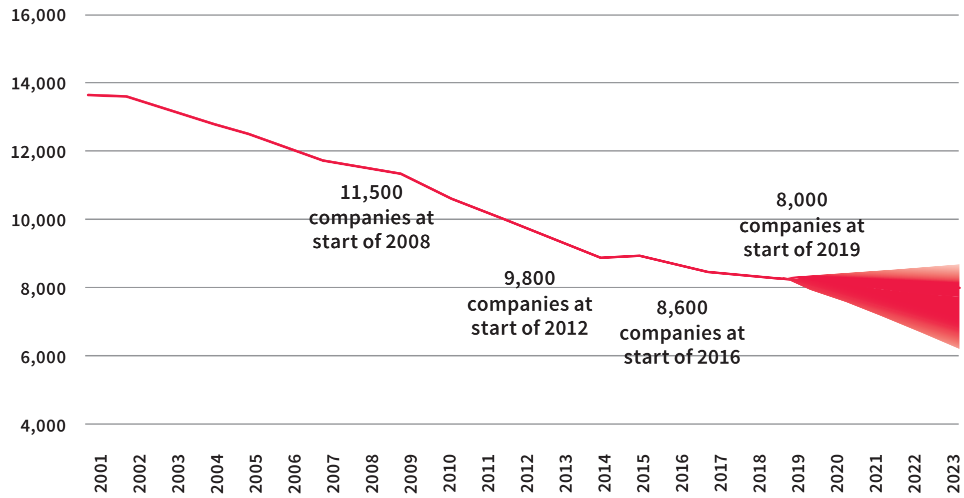
Employment - Q recruitement below forecast, improvement expected



Note
A balance of -2 was below the forecast of +2. A balance of +4 is projected for the coming three months.
Source
BPIF Printing Outlook

Trends in the number of operating companies

UK Printing Industry – number of companies 2001-2023

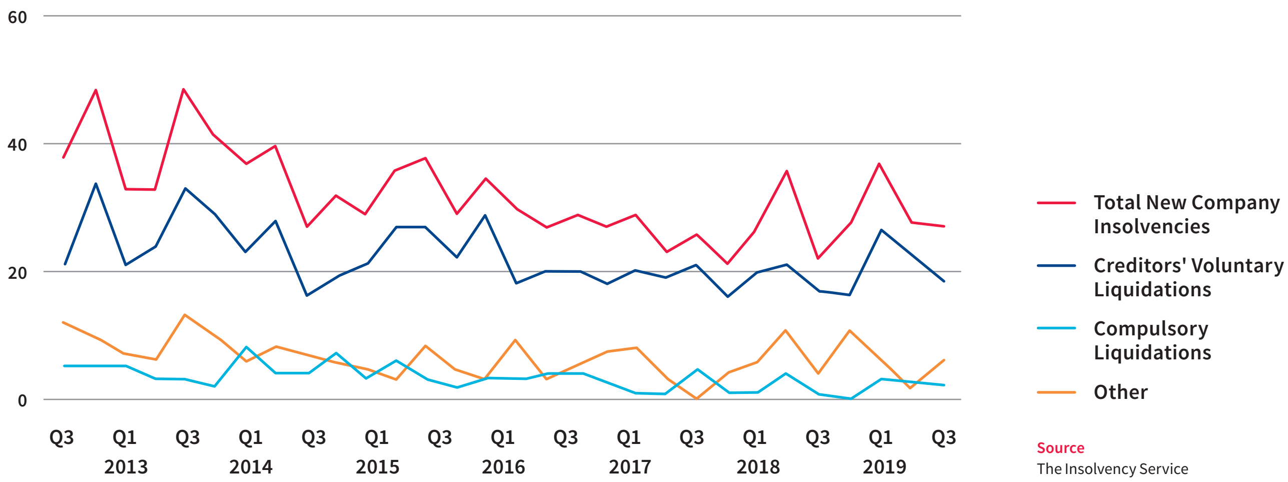


Source
BPIF Research; 2018 – 2023 forecast estimates

Note
forecasts have not yet been adjusted to account for the impact of Coronavirus.

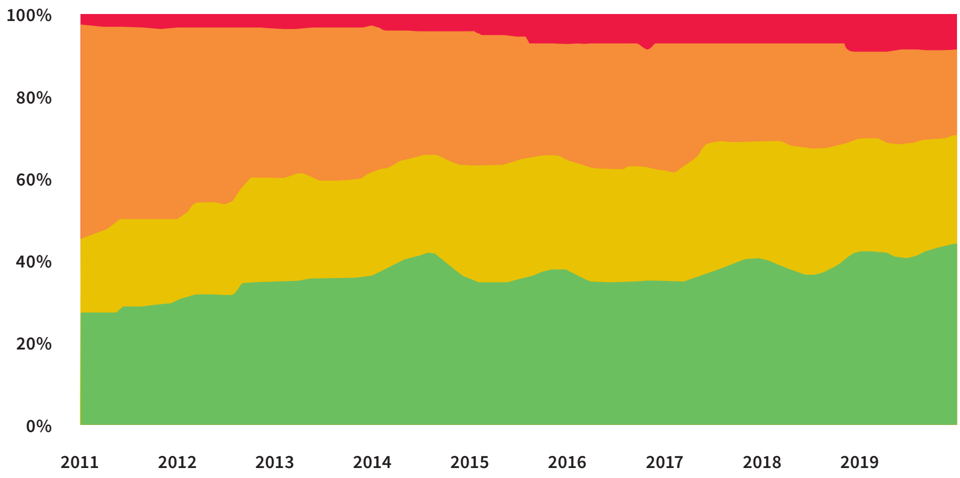
There were 119 new company insolvencies in the printing industry (SIC 181) in England, Wales and Scotland in 2019. This total is derived from 85 creditors' voluntary liquidations, eight compulsory liquidation and 23 administrations and three company voluntary arrangements. The latest total figure is very a 12.3% increase from 106 in 2018.

Company insolvencis – printing (SIC 181)



Source
The Insolvency Service

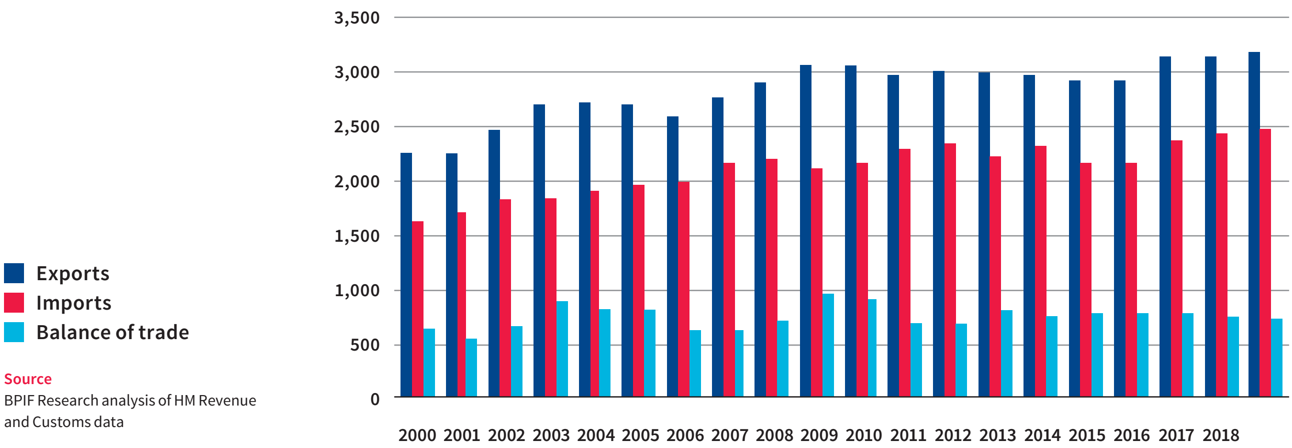
Financial health – Printing & printed packaging companies



Trends in foreign trade

Trade in printed matter has risen to record levels in 2019, both export and import levels have reached their highest ever values after what was really only a marginal increase on 2018. In comparison to 2018 imports increased by a greater proportion than exports – and so that the trade balance has declined slightly. However, at £689 million it remains significantly positive.

Overseas trade in printed matter 2000-2018, in £m



Source
BPIF Research analysis of HM Revenue and Customs data

Exports - growth boosted in Q despite concerns

Note
A balance of +5 was well above the Q3 balance (+19) and Q4 forecast (-8). The forecast balance for Q1 is + 78
Source
BPIF Printing Outlook

The top 20 country ranking by value of printed product imports to the UK in 2019 was: United States, China, Germany, Hong Kong, Netherlands, Italy, France, Poland, Belgium, India, Irish Republic, Spain, Turkey, Malaysia, Czech Republic, Denmark, Singapore, Canada, Switzerland, UAE.

The United States and China are be some way ahead of the rest, and extended the difference in 2019. In turn, Germany, Hong Kong and the Netherlands remain well ahead of those counties following them. France should considerable growth in 2019, whilst imports from India are also growing.

The top 20 county ranking by value of printed product exports from the UK in 2019 was: United States, Irish Republic, Germany, Australia, , France, Netherlands, Italy, Spain, Poland, China, Belgium, Sweden, UAE, Czech Republic, South Africa, India, Japan, Singapore, Switzerland, Canada.

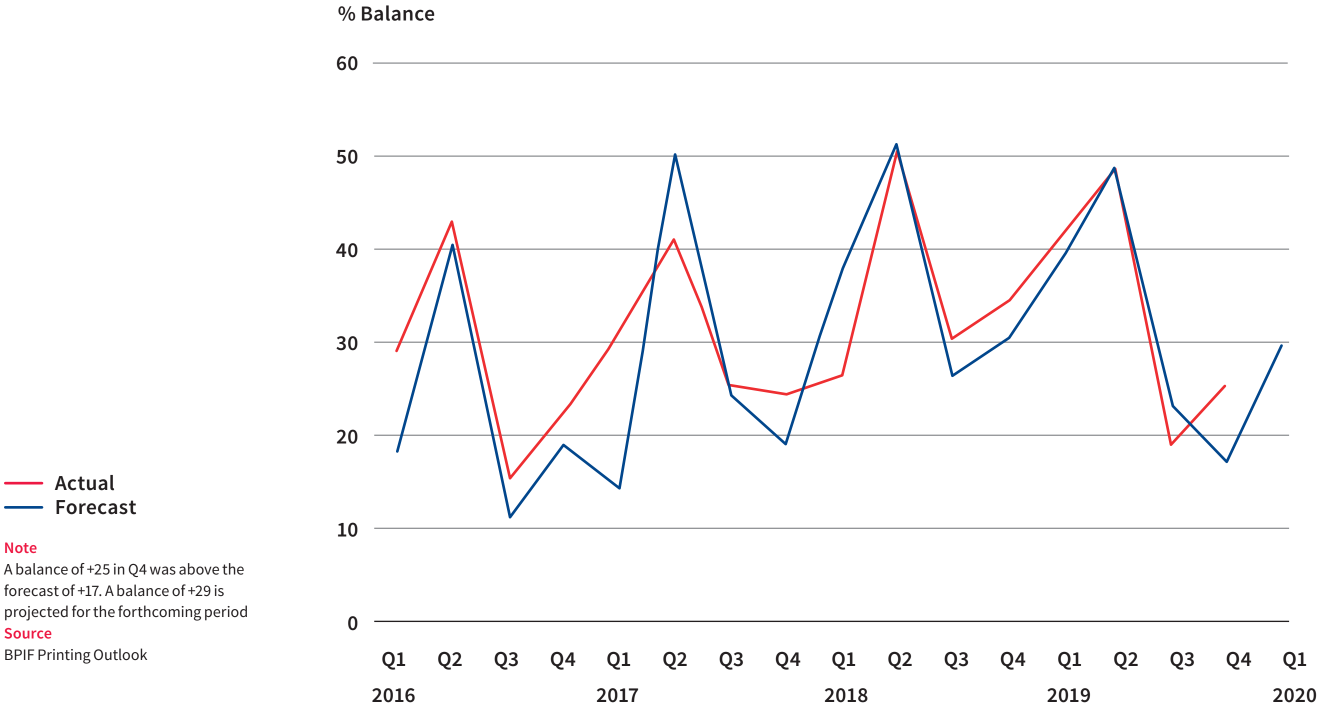
The United States was some way ahead of the rest. Then Ireland, Australia and Germany and France were well ahead of the Netherlands and Spain.

In 2019, there were 21 countries that the UK had a negative trade balance of printed products with – the top 10 ranking was: China, Hong Kong, United States, India, Netherlands, Germany, Turkey, Belgium, Malaysia, Italy.

The top 10 ranking for countries that the UK had a positive trade balance of printed product with was: Irish Republic, Australia, France, Spain, Sweden, South Africa, UAE, Japan, Switzerland, Singapore.

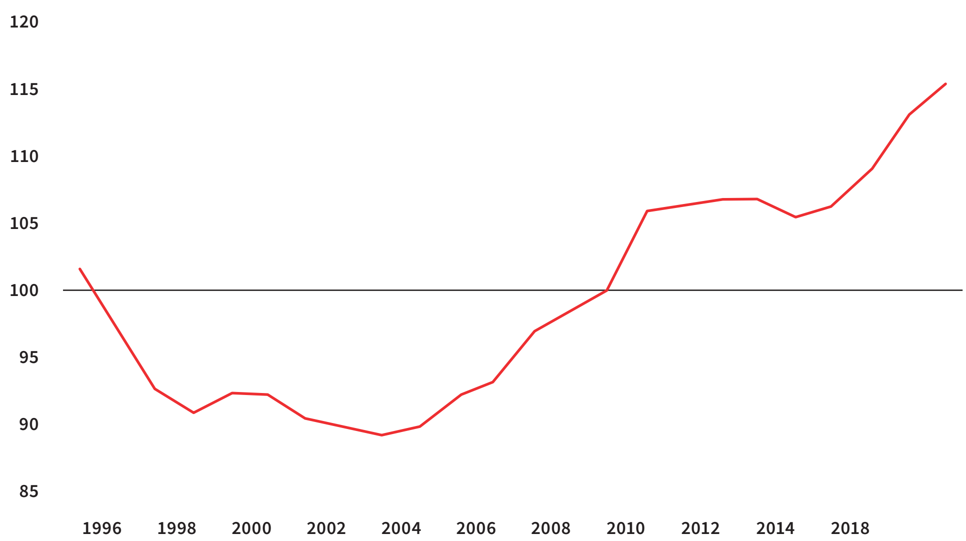
Trends in labour and production costs of the printing industry

Labour costs - Above forecast in Q4, Pressure expected to build in Q1



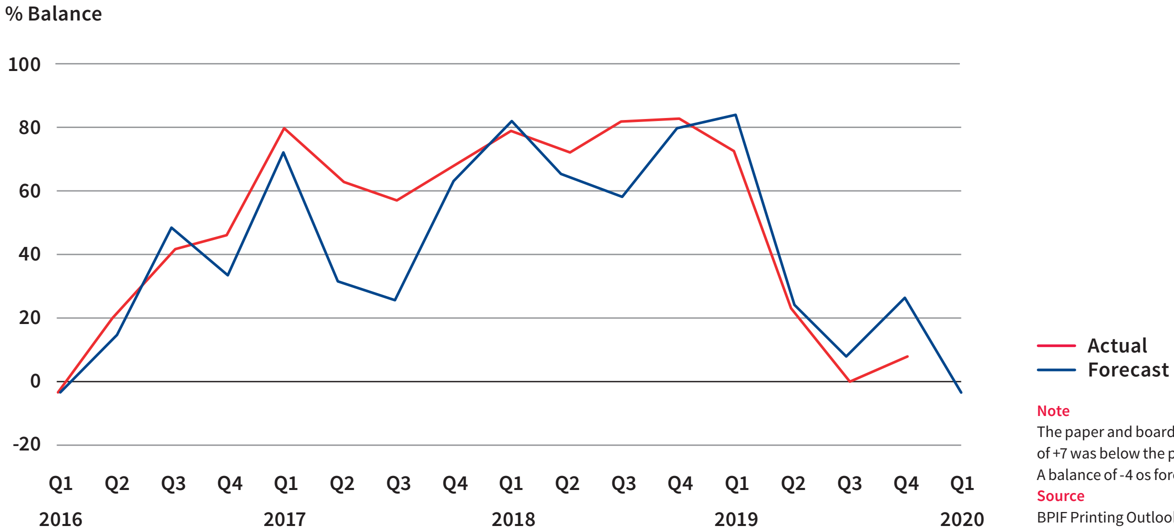
Note
A balance of +25 in Q4 was above the forecast of +17. A balance of +29 is projected for the forthcoming period
Source
BPIF Printing Outlook

Input price: Printing and recording services (SIC 18 - 2010 = 100)



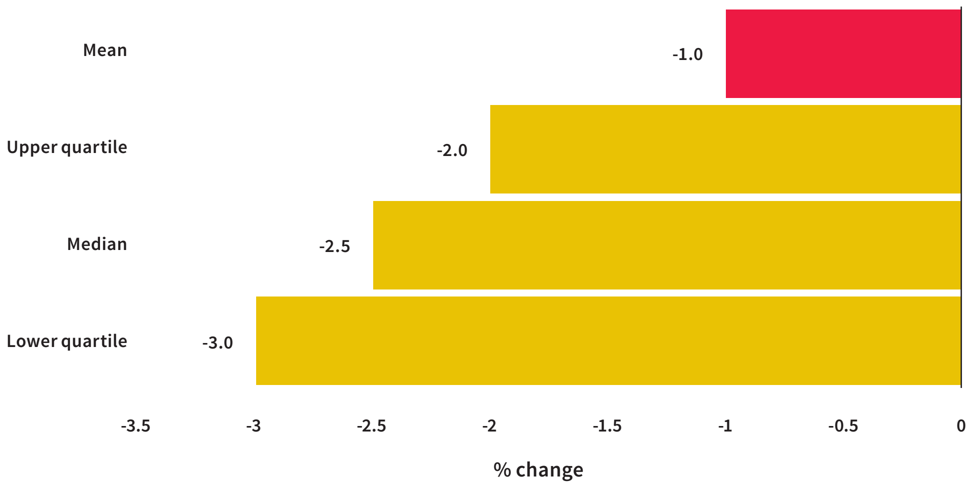
Source
BPIF Research analysis of HM Revenue and Customs data

Cost of paper & board - Largely stable in Q4, little change expected in Q1



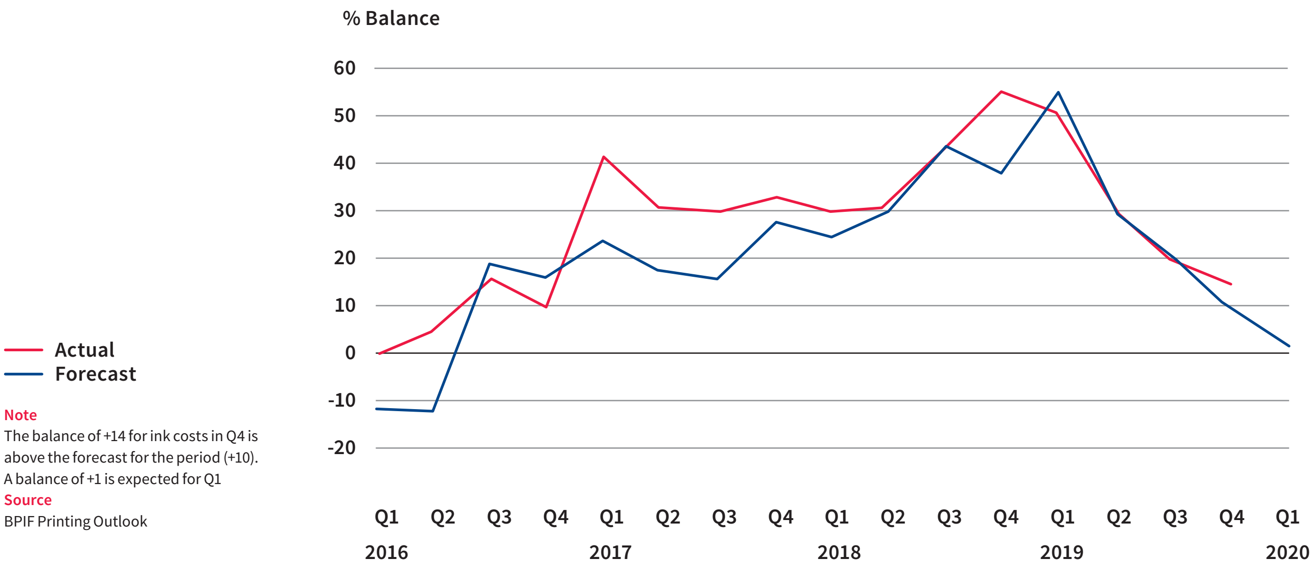
Note
The paper and board costs balance of +7 was below the projection of +28. A balance of -4 os forecast for Q1
Source
BPIF Printing Outlook

Paper and board price movements, Q4 2019



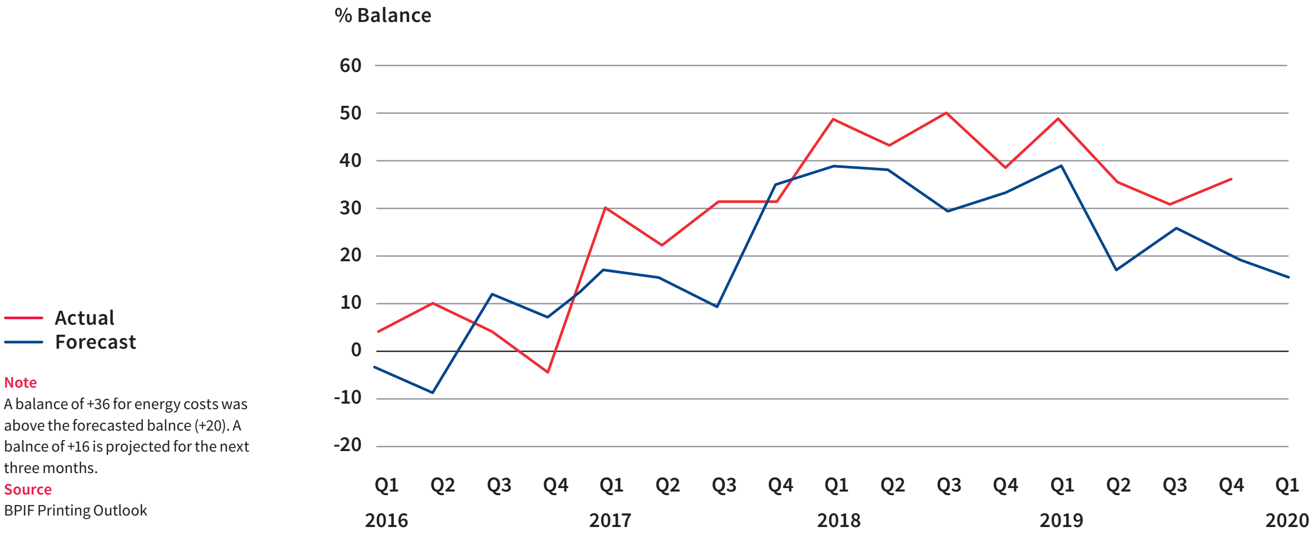
Source
BPIF Printing Outlook

Cost of ink - Price stability continuing to improve



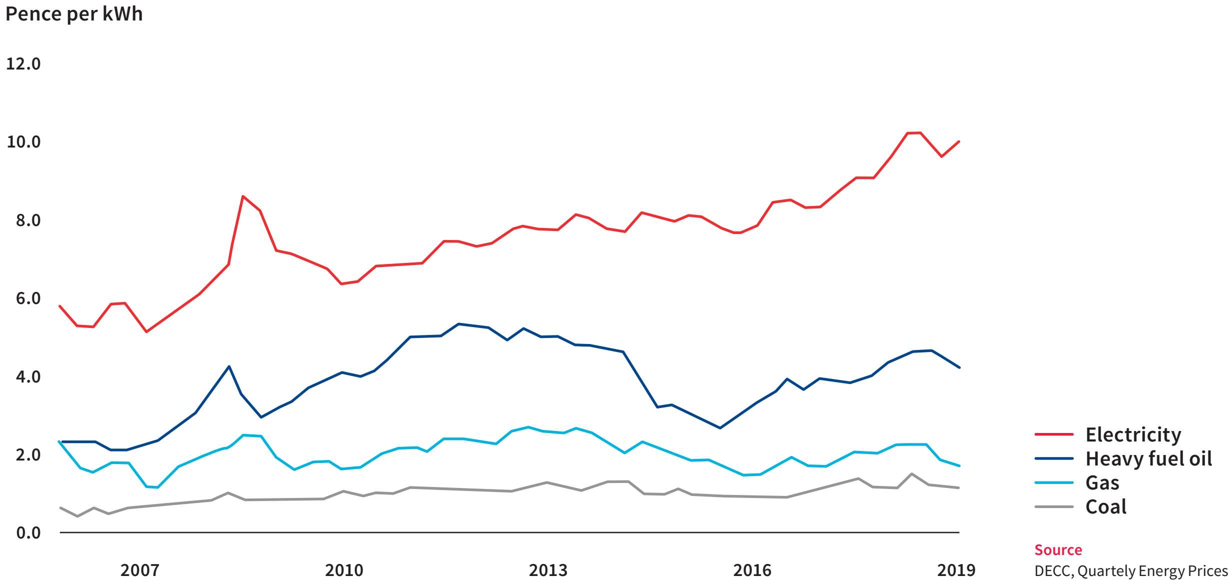
Note
The balance of +14 for ink costs in Q4 is above the forecast for the period (+10). A balance of +1 is expected for Q1
Source
BPIF Printing Outlook

Energy costs - Upward pressure in Q4, fewer increases expected in Q1



Note
A balance of +36 for energy costs was above the forecasted balnce (+20). A balnce of +16 is projected for the next three months.
Source
BPIF Printing Outlook

Manufacturing industry fuel prices - in cash terms



Source
DECC, Quartely Energy Prices

Developments affecting the competitiveness

The management of the COVID-19 crisis became a key development. Additionally, the following areas are also relevant developments for the printing industry in the UK: developing skills, encouraging capital investment, promoting research and development, securing prompt payment, limiting pre-pack arrangement and improving ability to trade. The sector also focusses on securing fairness for public sector procurement.

Brexit remains a key development: certainty over plan, access to EU single market and customs union, stabilising exchange rates and freedom of movement for EU workers are all elements important for industry.

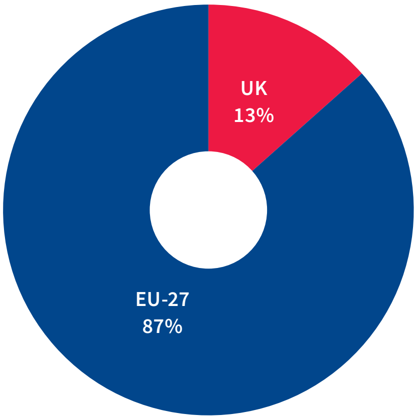
At national level, there are further areas of concern, like the apprenticeship levy, national Living Wage, the pension reform and in general the digital economy.

2.
2020 PRINT MARKET OUTLOOK

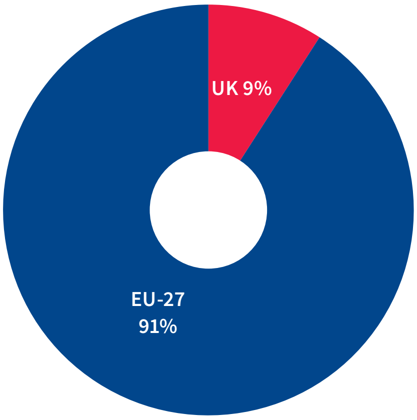
Sources
Eurostat

2.1.1 Share of UK in EU print market

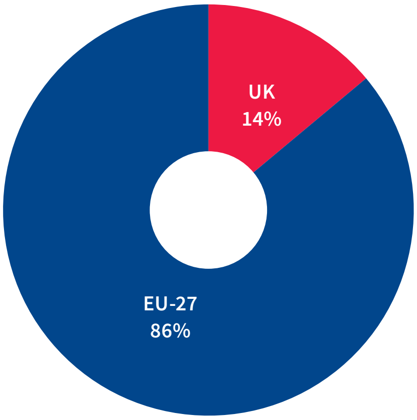
Share of UK in EU-28 printing tunover, 2017, in %



Share of UK in EU-28 number of printing companies, 2017, in %



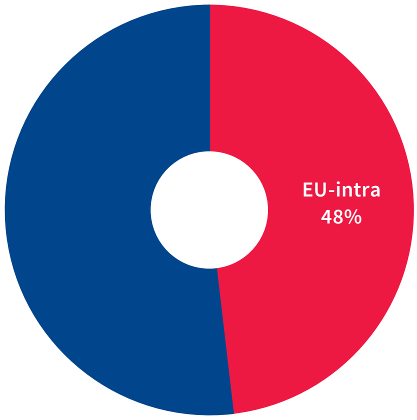
Share of UK in EU-28 number of employees in the printing industry, 2017, in %



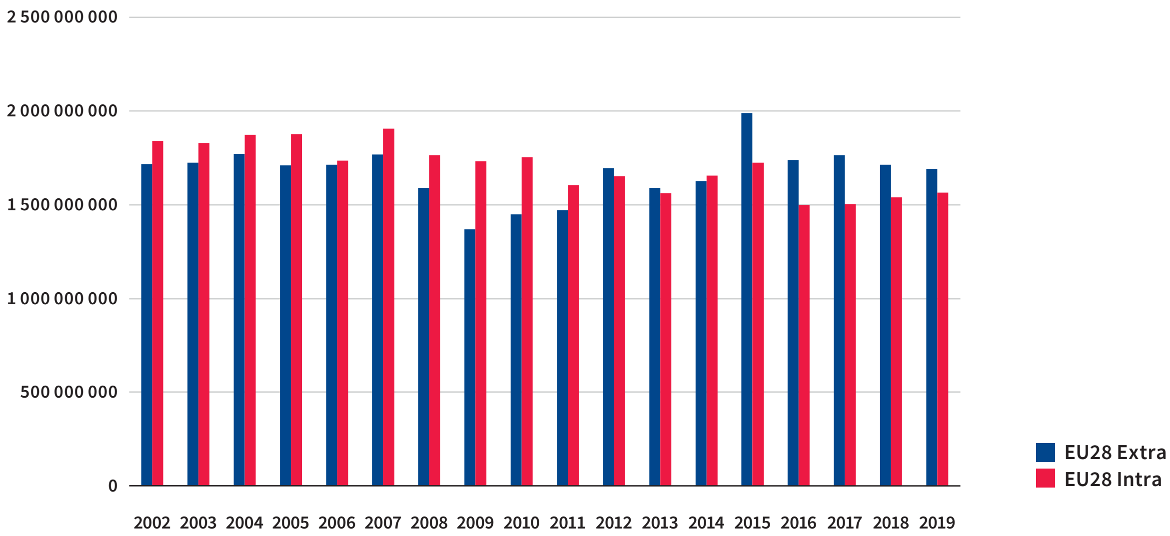
- The UK share in the turnover of the EU printing industry is 13%, this corresponds to € 12 billion.
- 9% of the European printing companies are UK companies, this corresponds to 11,000 companies.
- The UK represents 14% of the total number of employees in the European printing industry.

2.1.2 UK trade of printed products with EU-27

Share of intra-EU trade in UK exports of printed products, 2019, in %

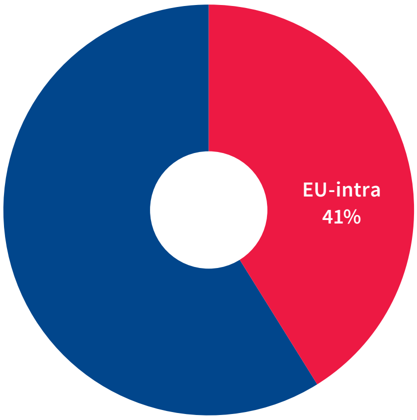


Evolution of share of EU-intra trade in UK exports of printed products, 2002-2019

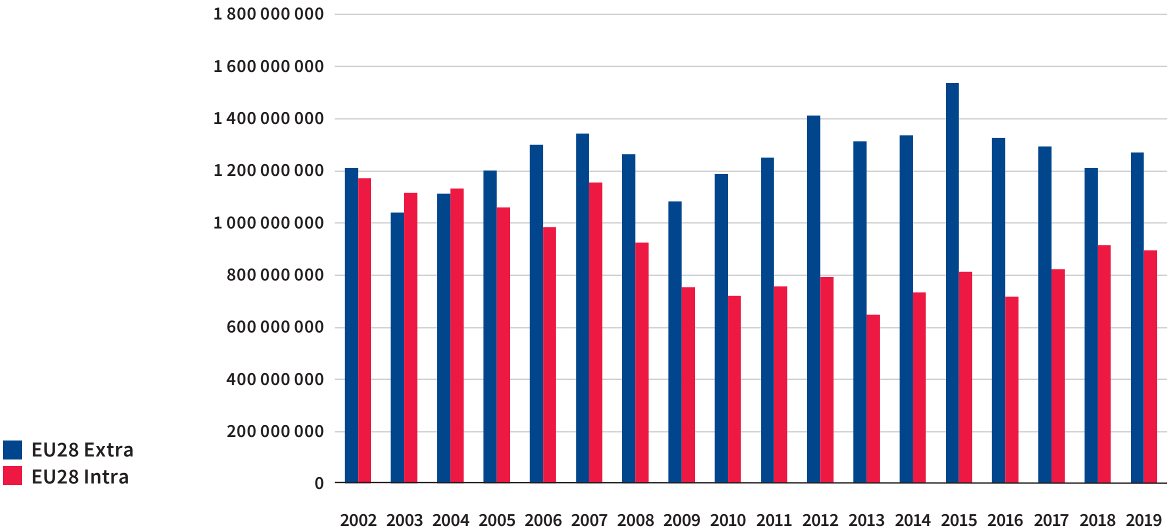


- 48% of UK exports of printed products are intra EU, this corresponds to € 1.5 billion in value.

Share of intra-EU trade in UK imports, 2019, in %

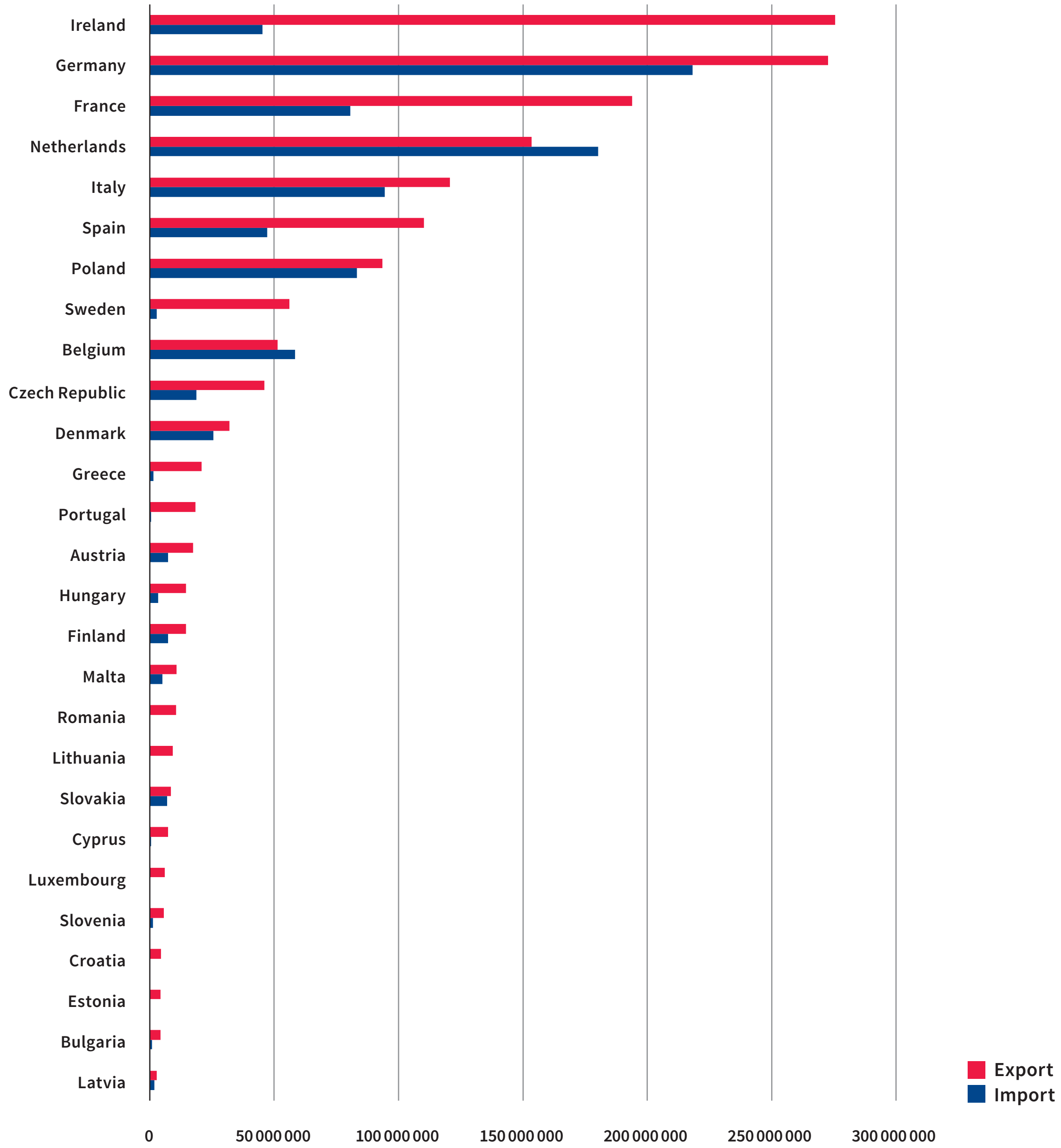


Evolution of share of EU-intra trade in UK imports of printed products, 2002-2019

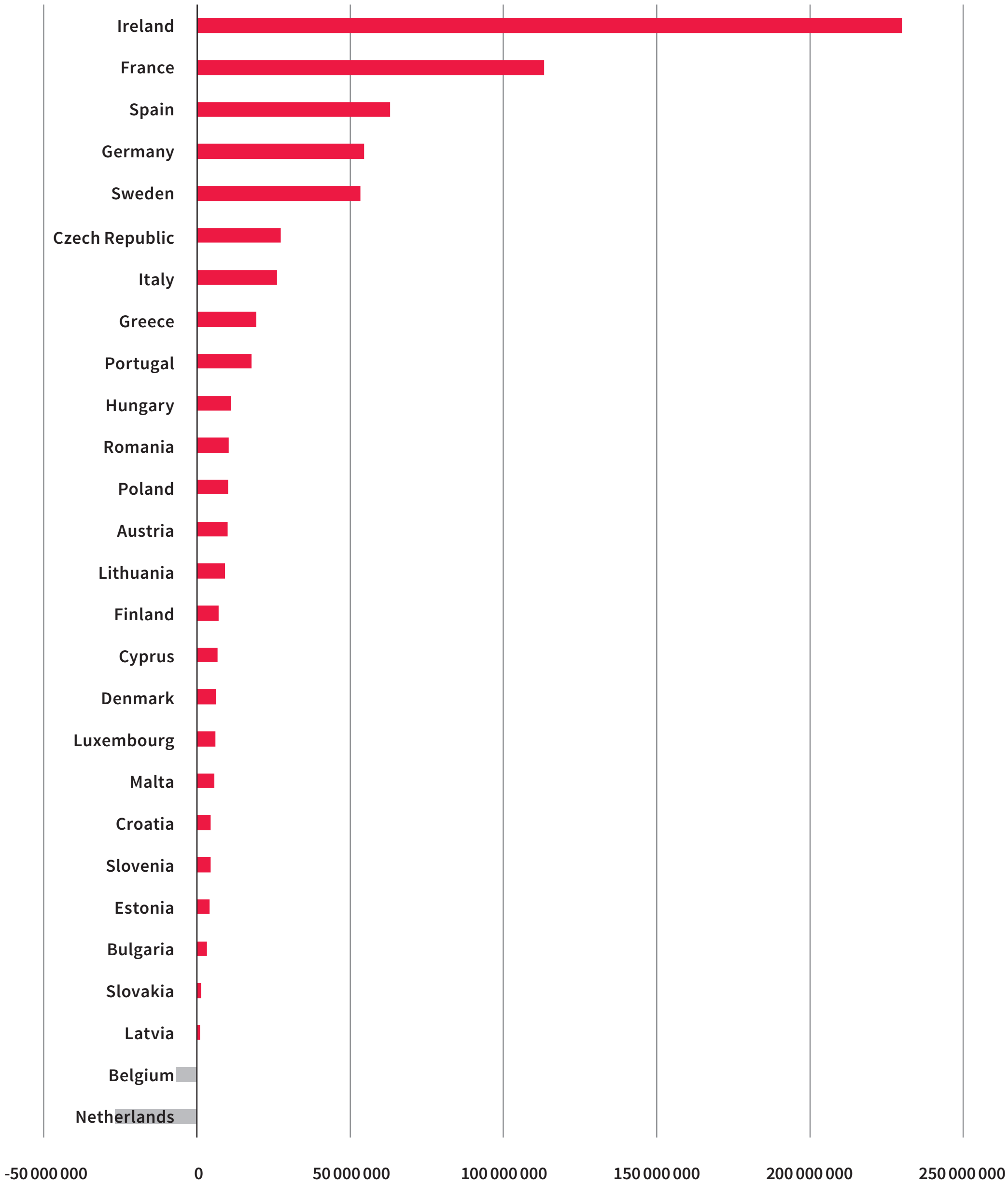


- 41% of UK imports of printed products are intra EU, this corresponds to € 0.8 billion in value.

UK trade partners within EU-27, trade of printed products, 2019, in €



UK trade balance with EU-27 countries, 2019, in €



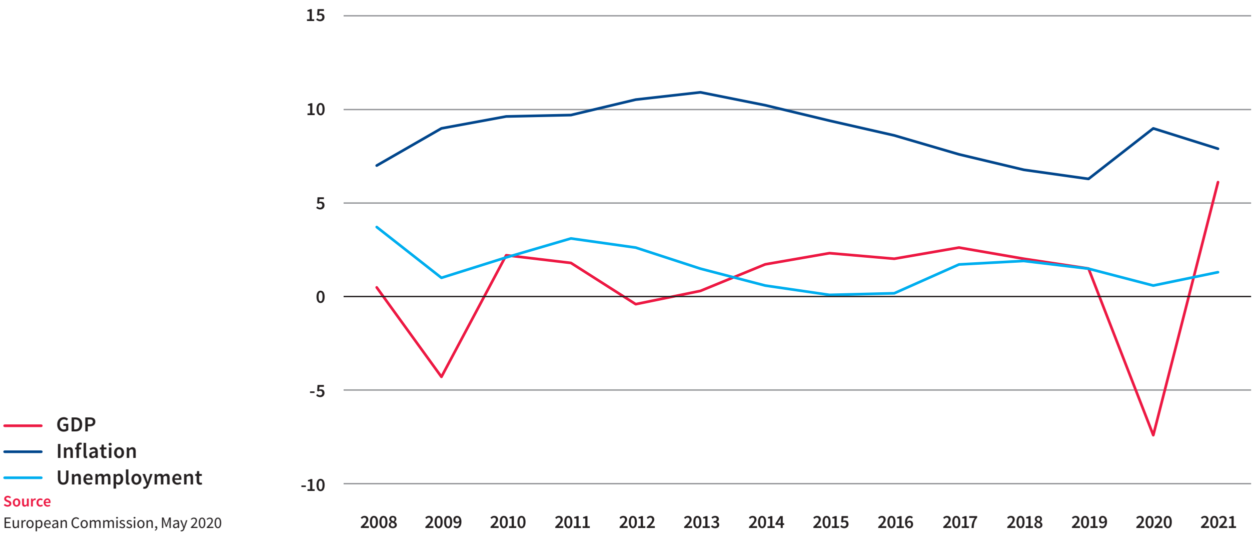
- The UK has a trade surplus with most European countries, except Belgium and the Netherlands.
- For printed products, Ireland, Germany, France and the Netherlands are the main trade partners of the UK. The UK is exporting more than € 270 million worth of printed products to Ireland and Germany, but importing only for a value of € 45 million from Ireland against a value of more than € 200 million from Germany.

2.
2020 PRINT MARKET OUTLOOK

Sources
Eurostat
World Federation of Advertisers
Nielsen
EY

2.2.1. European macro-economic forecasts

GDP growth, inflation rate, unemployment rate, EU-28, in %, 2008-2021f



Source
European Commission, May 2020

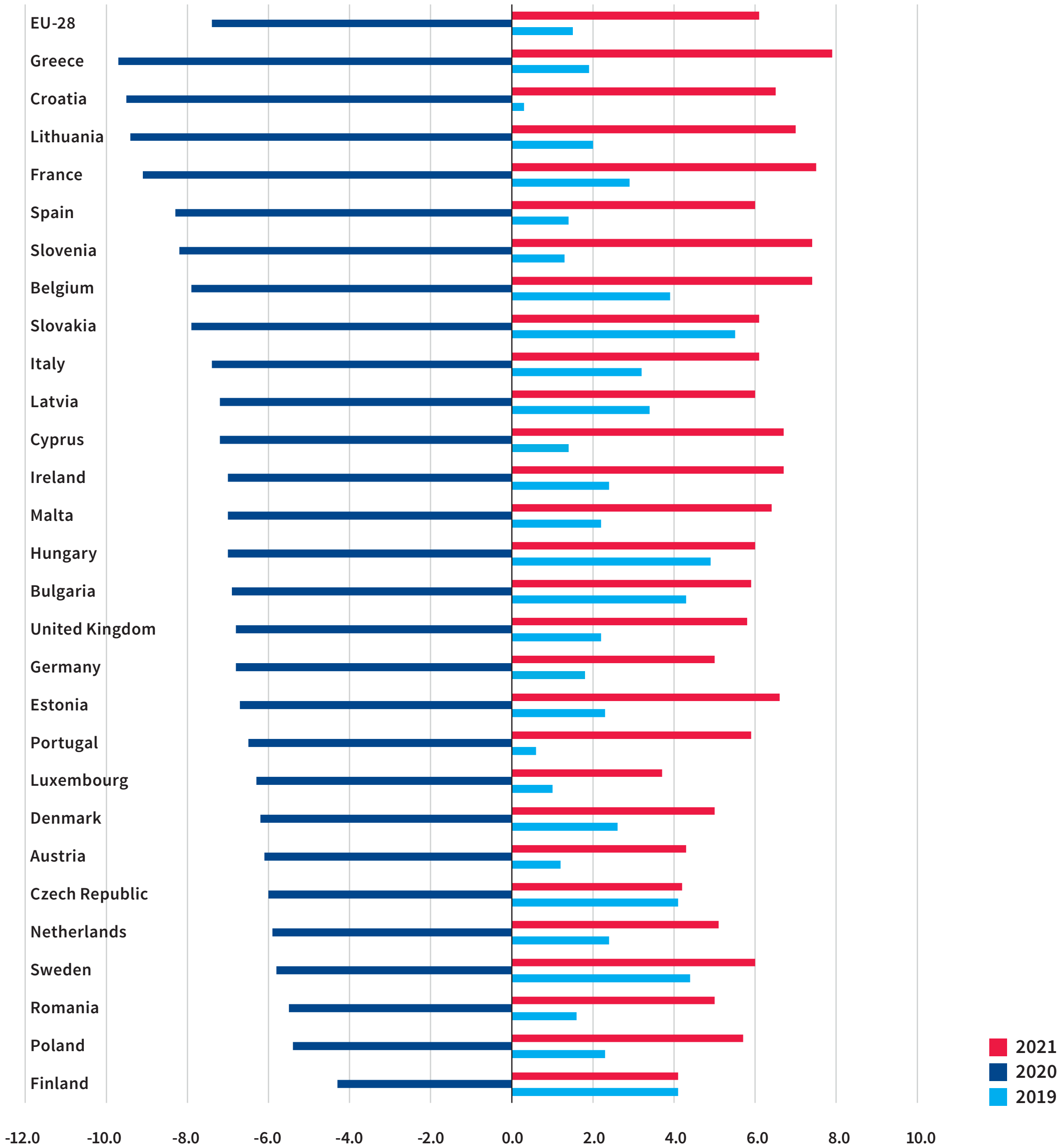
- The COVID-19 crisis is expected to have a stronger impact on the GDP growth than the 2008 economic crisis. The GDP growth is expected to reach -7.4% in 2020 but a strong rebound of 6.1% is forecasted in 2021.

- Whereas the European unemployment rate was constantly decreasing since 2013, reaching a level of 6.3% in 2019, it is expected to reach 9% in 2020 and decrease to 7.9% in 2021.

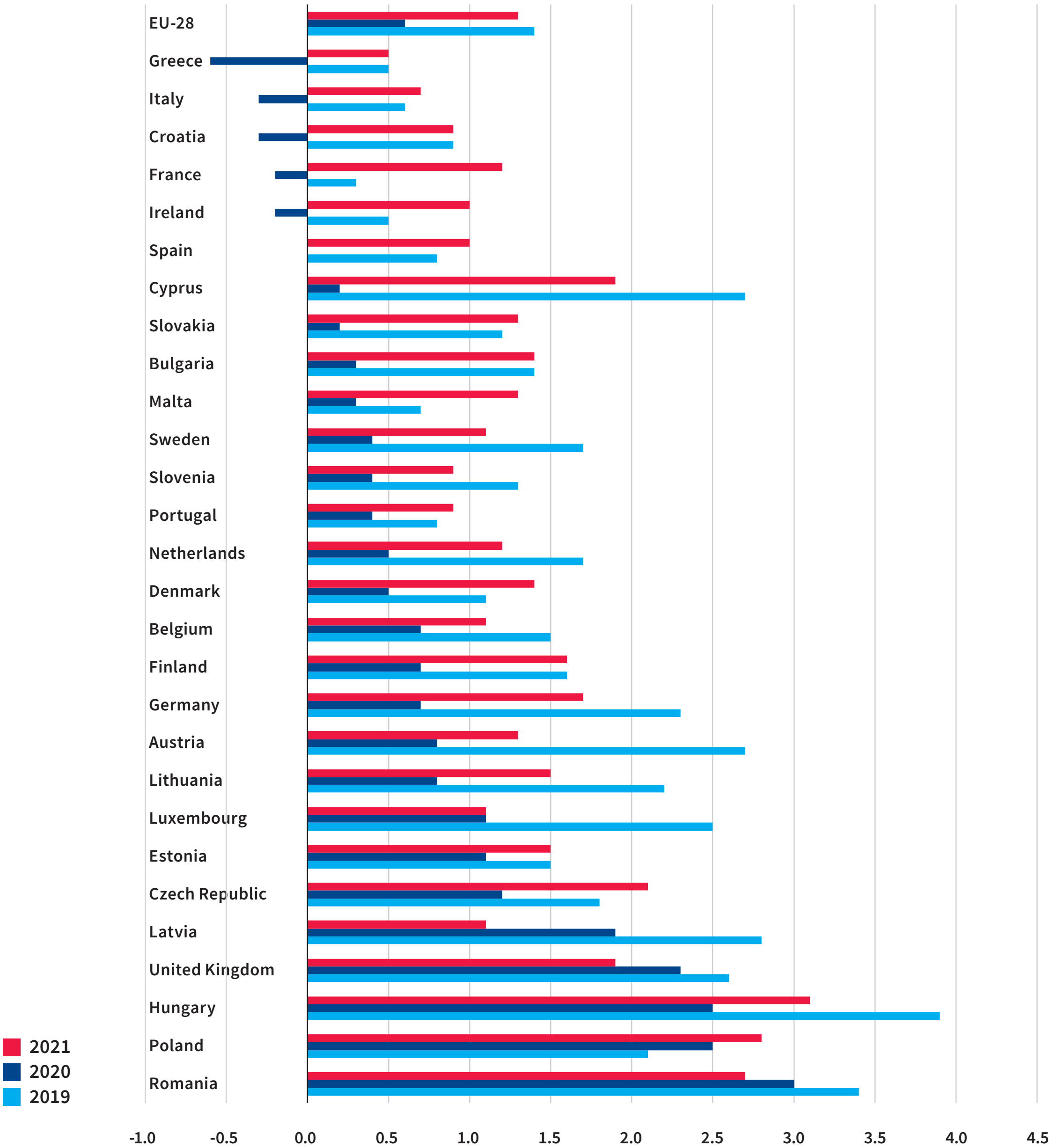
- The inflation rate is expected to reach 0.6% in 2020 and 1.3% in 2021.

- Greece, Spain and Italy are expected to register the highest unemployment rate and lowest GDP growth in 2020.

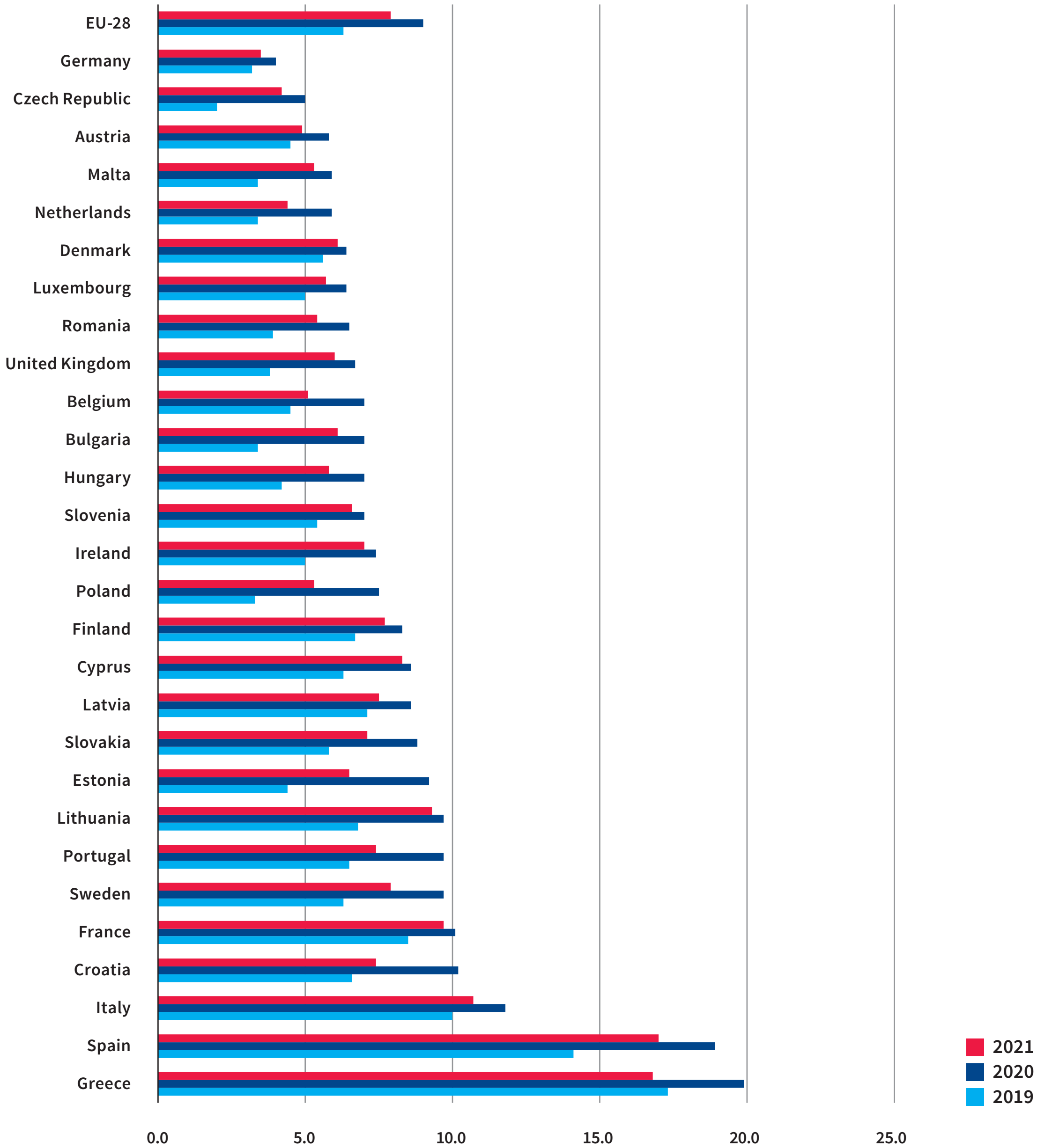
GDP growth rate, 2019-2021f, in %



Inflation rate, 2019-2021f, in %

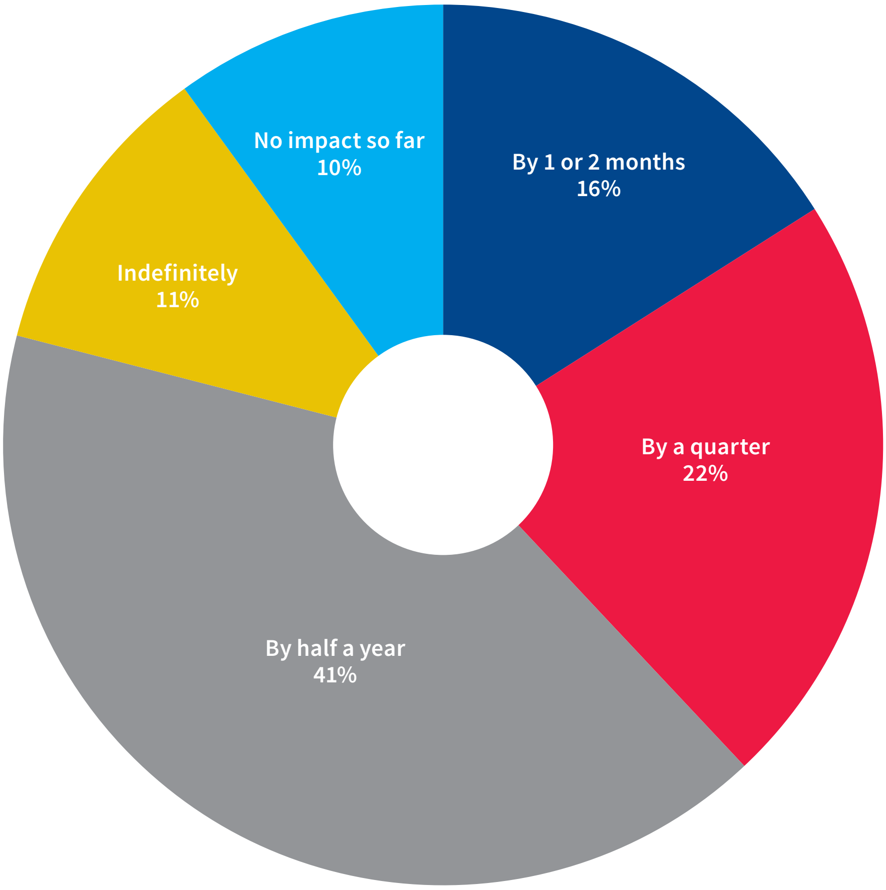


Unemployement rate, 2019-2021f, in %



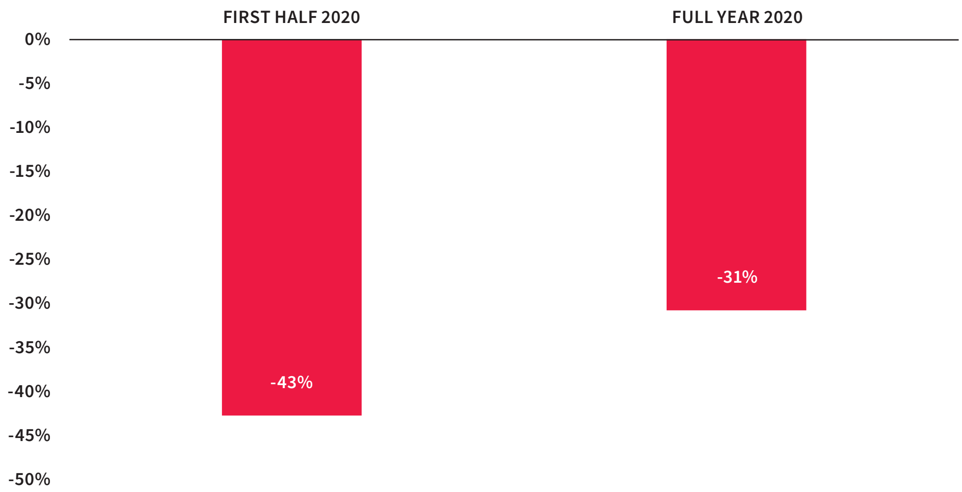
2.2.2 Short-term impacts on advertising

Deferral of advertising campaigns due to COVID-19, April 2020



- Based on a survey carried out on 22-28 April 2020 with 38 multinational companies , the World Federation of Advertisers is assessing brands' response to the COVID-19 crisis.
- 90% of brands are deferring their advertising campaign. 41% of companies are deferring their campaign by half a year (from April 2020), 38% by a 1 to 3 months and 11% indefinitely.

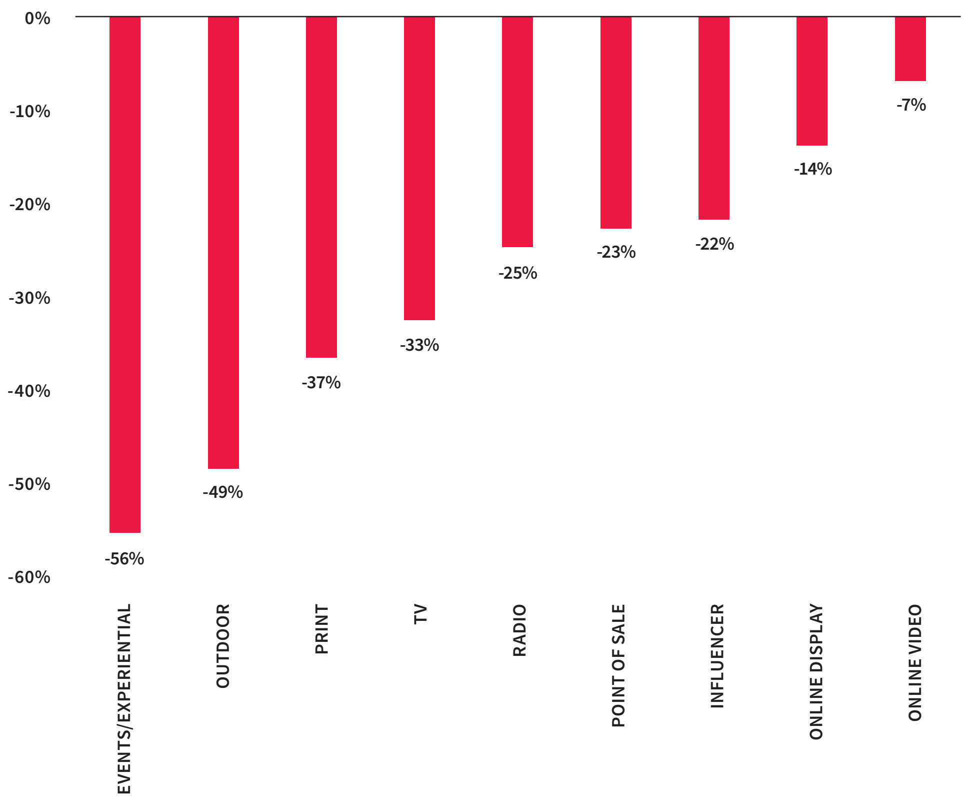
Impact of Covid-19 on advertising budgets in Europe, April 2020



Source
WFA,May 2020

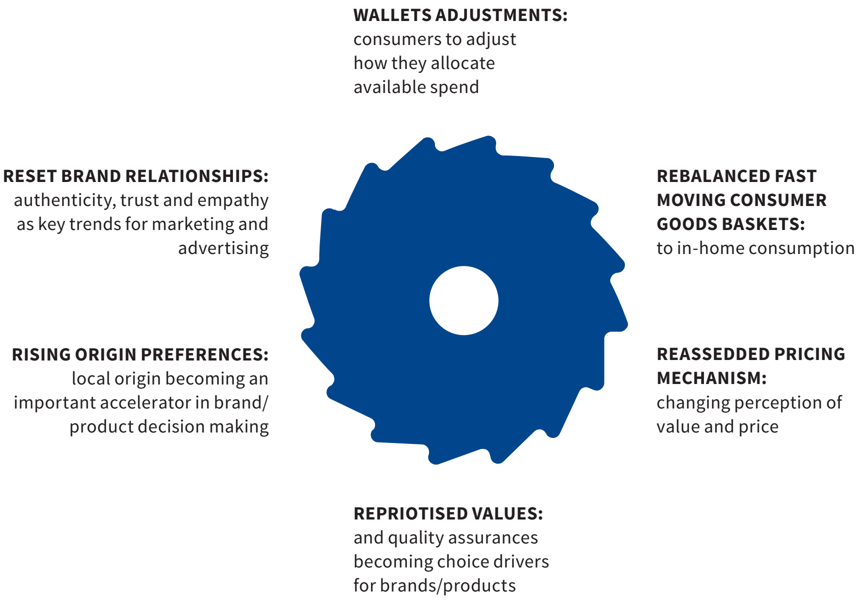
- European average budgets are expected to be down 43% during the first half of 2020 and 31% for the full year of 2020.
- Globally, advertising budgets for all channels are down for the first half of 2020: the most impacted are events budgets (down by 56%), outdoor advertising is down by 49% followed by print (-37%).

Impact of Covid-19 on brands' advertising channel mix, first half of 2020



2.2.3. Post-COVID-19 consumption patterns

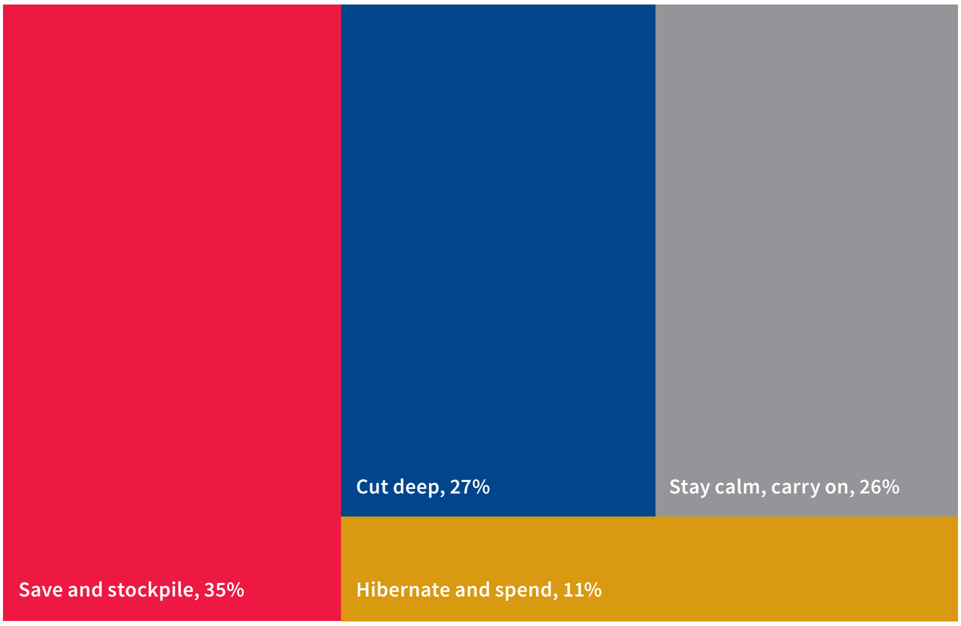
Six majors areas of consumption affected by Covid-19



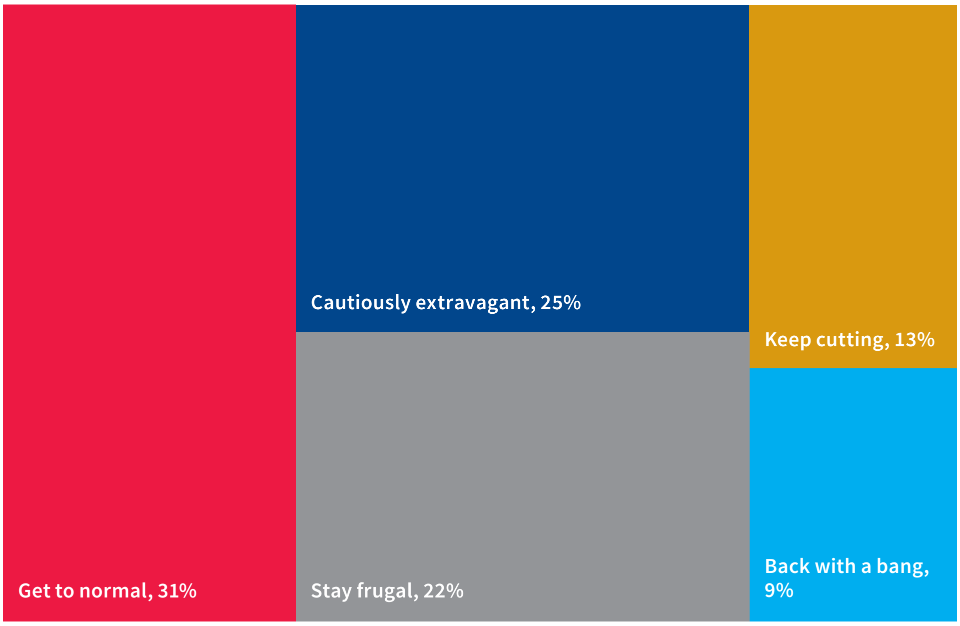
Source
Nielsen, May 2020

- Initial analysis of possible post-COVID-19 consumer patterns are starting to emerge.
- Nielsen has identified six major areas where consumption dynamics will change moving forward.
- Consumers will adjust how they allocate their available spend depending on their circumstances.
- The fast-moving consumers goods industry (i.e. non-durable household goods such as packaged foods, beverages, hygiene products…) will benefit from the shift to in-home consumption.
- Retailers and manufacturers will have the opportunity to reset what value means to consumers as perception of value and price will change.
- Consumers will reassess the brand aspects they value most with new priorities, like health, safety and quality assurances.
- Local origin has become a major choice driver for consumers. With interrupted global supply chains, the need for local transparency and trust of ingredients and sourcing become more relevant.
- For consumers, authenticity, trust and empathy have become relevant in consumers emerging needs.

Consumers' segments during COVID-19



Consumers' segments post-COVID-19



- EY has identified new consumers' segments created by Covid-19
- While the majority of consumers tended to save and stockpile (35%) during the pandemic, during the post-COVID-19 crisis, the majority of consumers are expected to get back to normal consumption behavior (31%).
- 25% of consumers, segmented as cautiously extravagant, will spend more in areas important to them like health. They believe that how they shop will have changed permanently. They are the most attracted to purposeful brands and are more likely to purchase from brands that they feel are doing good for society.

Source
EY, May 2020. 4,859 consumers surveyed across the US, Canada, UK, France and Germany during the week of 6 April 2020.

2.
2020 PRINT MARKET OUTLOOK

Sources
Smithers

2.3.1 Introduction

In 2019, European printing and printed packaging output grew by 1.4% in current terms to €162 billion, although taking out the effect of inflation and exchange rate movements, revenues actually declined by 0.2% in real terms in comparison with 2018. As in previous years, there was growth in packaging revenues (incl. labels), which is moving at a faster rate than GDP growth trends, offset by a 2.8% decline in graphic printing output.

Although the market situation could hardly be said to have been particularly favourable in 2019, especially for the graphic print sector, into 2020 a completely new challenge emerged for the European printing industry in the face of the COVID-19 global pandemic. March 2020 will be remembered as the month that the world changed as governments across the world took extraordinary measures against the spread of COVID-19. Governments made avoiding overwhelming healthcare systems their key priority, with public spaces and military ships converted into hospital beds as pressure on intensive care grew across the world. The unprecedented actions taken have had significant impacts on all businesses and organisations as governments acted to contain the pandemic and protect the vulnerable population. Locking down populations has resulted in some sectors being particularly hard hit with schools, shops, theatres, cinemas, bars, restaurants, hotels and gyms closed.

Printing and packaging companies are also impacted, although some are regarded as essential industries, particularly in label and packaging production but also as a method of informing populations. Thus far, demand for packaging and labels has held up reasonably well, increasing in some cases but decreasing in others (especially non-food areas outside of healthcare), while graphics demand has fallen significantly in some applications and sectors. There will be short and long-term impacts on various printed products directly resulting from the pandemic.

2.3.2 The European Print Market

2.3.2.1 Basis of presentation

Smithers Pira undertakes ongoing research into European and global print markets, and maintains a database of print market information covering printed output by print product, printing process and industry sector, as well as data on the key supply markets of new printing equipment, inks/colourants, paper/other substrates and prepress consumables. Some extracts here are based (initially at least) on our report on The Future of Global Printing to 2024, themselves based on updates undertaken to the database towards the end of 2019.

Smithers published the Future of Global Printing to 2024 report in late 2019, and as such this was finalised well before the impacts of the COVID-19 pandemic struck. The pandemic will have a significant impact on print output in Europe and throughout the world, and consequently Smithers prepared a number of scenarios taking into account the likely economic impacts, and changes in consumer behaviour resulting from the pandemic in the short and medium term.

In this report, we show what we would regard as the most likely/probable scenario, the economic basis for which is the IMF's April 2020 World Economic Outlook. The COVID-19 pandemic is inflicting high and rising human costs worldwide, and the necessary protection measures are severely impacting economic activity. As a result of the pandemic, the global economy is projected to contract sharply by 3% in 2020, much worse than during the 2008–09 financial crisis. In a baseline scenario – which assumes that the pandemic fades in the second half of 2020 and containment efforts can be gradually unwound – the global economy is projected to grow by 5.8% in 2021 as economic activity normalizes, helped by policy support.

The risks for even more severe outcomes, however, are substantial. Effective policies are essential to forestall the possibility of worse outcomes, and the necessary measures to reduce contagion and protect lives are an important investment in long-term human and economic health. Because the economic fallout is acute in specific sectors, policymakers will need to implement substantial targeted fiscal, monetary, and financial market measures to support affected households and businesses domestically. Internationally, strong multilateral cooperation is essential to overcome the effects of the pandemic, including to help financially-constrained countries facing twin health and funding shocks, and for channelling aid to countries with weak health care systems.

Economics remains the single largest driver for print demand, and as such the forecasts in economic outlook are significant. They show sharp falls from previous forecasts with global output in 2020 forecast to be 6.4% lower than the forecast published in October 2019.
The forecast for 2021 is for higher growth, albeit from the lower restated 2020 level. The European economy as a whole is forecast to contract by 6.8% in 2020 according to the IMF, with Western Europe down 7.2% and Eastern Europe down 5.2%, although there have been more severe contractions forecast by independent analysts as well as government, with a distinct possibility of double-digital falls in some countries.

Whatever the economic outcomes, the overall print sector will certainly fall as consumers spend less and change their behaviours, with labels and packaging the least affected – but even they will see declines as the European economy contracts. Publishing output will fall further, accelerating the existing decline, although there are short-term boosts for books. In commercial print lower marketing spend by businesses in recession depresses demand, with volume and values falling. Packaging and labels, meanwhile, will decline overall, but not to the same extent and growth is set to resume in the short-medium term.

2.3.3 Sources and data

We continue to consult with a wide number of secondary sources, including official sources and also printing and related, publishing and packaging trade associations. We also undertake regularly primary research projects including surveys of printers in addition to more wide-ranging discussions with key players in supply industries. This is backed up by a variety of other information on the operating environment for print, including economic, demographic, literacy, advertising and postal data, as well as data on trends IT and communications. Major research projects undertaken in 2019 and through into early 2020 have covered prospects for digital print for packaging, long-term prospects for digital printing, functional & industrial print, security printing, flexo, inkjet, package printing, printed labels and signage, in addition to other one-off projects and an ongoing prepress consumables syndicate.

We continue to consult Eurostat data when putting together our figures on trends in printing output, machinery, inks, paper and other elements. We also look at the original national statistics data sources from which the data is drawn, which generally provide an indication as to any changes in the respondent base and degree of error in reporting, and consequently enables us to assess whether data is comparable from one year to the next. It is true that accurate comparisons cannot be made in some cases, but in other instances there is genuinely useful data that is especially valuable in an industry that is difficult to track and define. On the matter of definition, it is also important to note that Eurostat data focuses on the commercial printing industry and excludes various printing undertaken by some in-house printing operations, packaging companies and business support services such as some transactional printers and direct mail publishing houses. Furthermore, often the practise of classification into product segments on the part of companies submitting revenue data can vary from one company to the next, with ‘other printing’ often including data on products classified separately elsewhere. Nevertheless, as one becomes more acquainted with the data, it becomes easier to establish that data that is consistent and provides a useful indication on printing trends.

Given that there is no single official source that surveys print output in all its forms from all types of companies engaged in printing activities, ultimately, almost all available data on print is indicative. The key is to undertake as much research as possible and ensure that final figures are consistent with key data, especially relating to inks consumption and paper/other substrate consumption. In terms of Smithers Pira data on printing output – including for digital print – this is given at ex-factory prices, whereby the design and prepress work billed by the print supplier is included, along with the substrate value (unless supplied by the customer), and any printing/converting and finishing. We are concerned with the invoice value to the print buyer rather than the final retail value of the product, and we do not include delivery costs, or any local taxes or VAT.

For companies offering mailing services the data handling, mail sorting (to obtain postal discounts) and inserting are included, but the postage costs are not. For in-plants, where the print supplier is a part of the buyer group, costs are apportioned at commercial rates rather than trying to follow the range of inter-company costing and transfer pricing. The value data includes substrates where there is more than one type of print process; in hybrid manufacture or two-pass overprinting, part of the value is apportioned to the digital production and part to the other processes in developing the final report data. The costs of the packaging substrates are included in the figures.

We cover all materials produced by specialist converters that are sold for profit, and estimates of values are provided for materials produced internally by in-plant operations, e.g. for in-house billing and statement applications. We do not distinguish between output from high-volume, industrial production equipment and low-cost, low-volume systems when sold for profit or used to pack or label goods produced by the user.

For the purposes of this publication, value data has been converted into Euros. In some cases, data is presented in terms of constant 2018 prices and exchange rates to reflect real changes in demand after the effects of inflation (as measured by the consumer prices index) and exchange rate movements. Volume data is generally presented in terms of tonnages unless otherwise stated.

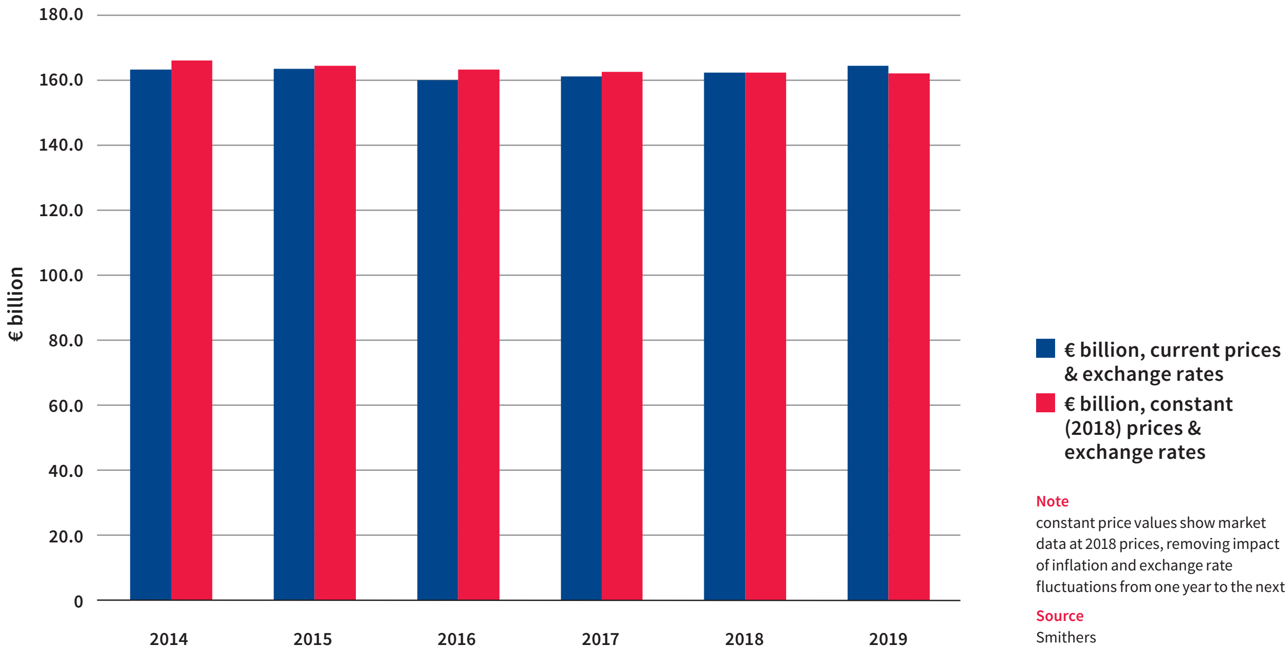
2.3.4 The market in 2019 and beyond

European printing output, including package printing output, grew by an estimated 1.4% in current terms to €162.3 billion in 2019, but fell by 0.2% in real value terms after taking into account the effects of inflation and exchange rate movements. Package and label printing demand continued to grow steadily and is generally moving at a faster rate than GDP growth trends. However, graphic printing markets continued to decline with a 2.8% fall in real terms during 2019.

Again, there was a marginally stronger performance in southern European markets like Spain and Greece in comparison to some in northern Europe as rebounding continued in countries hit the hardest by the Eurozone crisis. In Eastern Europe, the market grew by 2.4% in real terms for the second successive year versus a 0.6% real decline in Western Europe.

Euro-Graph statistics for 2019 pointed to an acceleration in the move away from graphic papers with total European shipments down by 7.9% versus 2018 after a 5.4% decline in 2018 versus 2017, and European demand down 8.4% versus 2018 (5.5% decline in 2018 on 2017). Newsprint demand fell by a reported 8.3% in 2019 in line with the trend in 2018, with coated woodfree paper demand declining by 9.8% (8.4% decline in 2018). Across other grades, demand for coated mechanical reels fell by 11.7% in 2019 (3.8% down in 2018); SC-magazine demand was down 8.6% (4.8% down in 2018); other uncoated mechanical papers (including improved newsprint) were down by 12.6% after three years of quite stable sales; and uncoated woodfree paper demand fell by 3.7% after a 4.0% decline in 2018. Overall, the data points to greater weakness in magazine and advertising markets and continuing falls in the newspaper market.

FIGURE 1 European Printing & Printed Packaging Output, 2014-2019

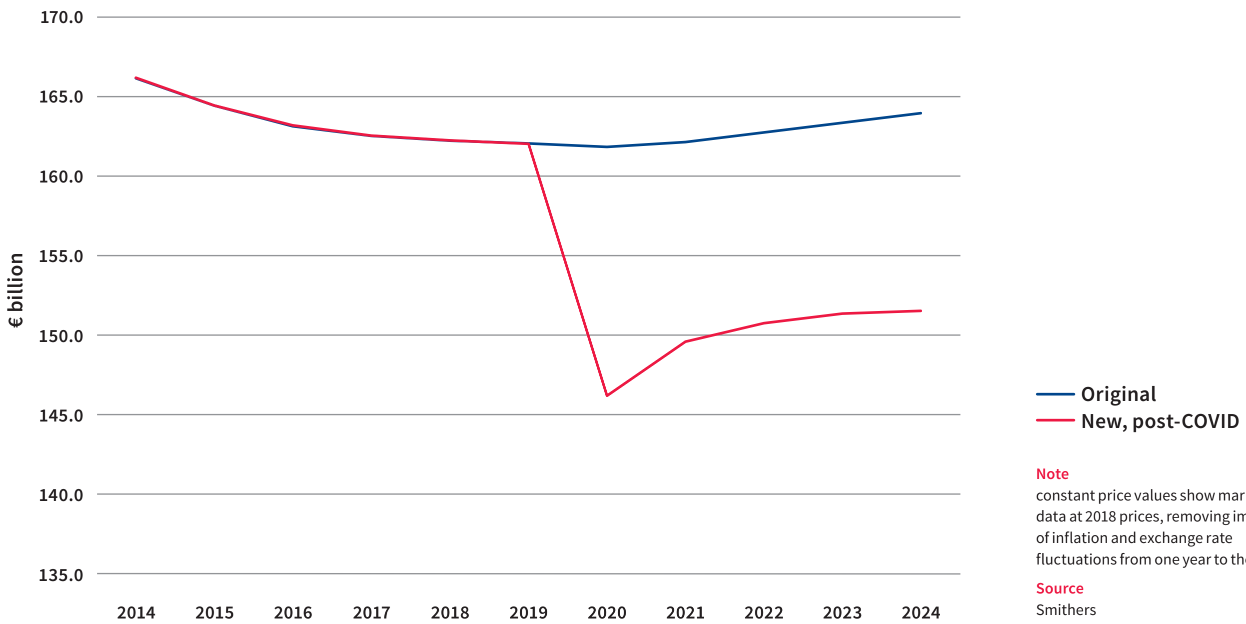


Note
constant price values show market data at 2018 prices, removing impact of inflation and exchange rate fluctuations from one year to the next

Source
Smithers

Into 2020, the European print market is forecast to decline by almost 10% to €146.2 billion vs €162.1 billion in 2019, before recovering slightly to €149.6 billion in 2021 and then €151.6 billion by 2024. As a result, over the period 2019-2024 the value of the market will decline by 1.3% on average. The impacts today will be felt into the long term, with much of the business lost unlikely to be ever regained.

FIGURE 2 European Printing & Printed Packaging Output, 2014-2024f (€ billion, constant 2018 prices & exchange rates)

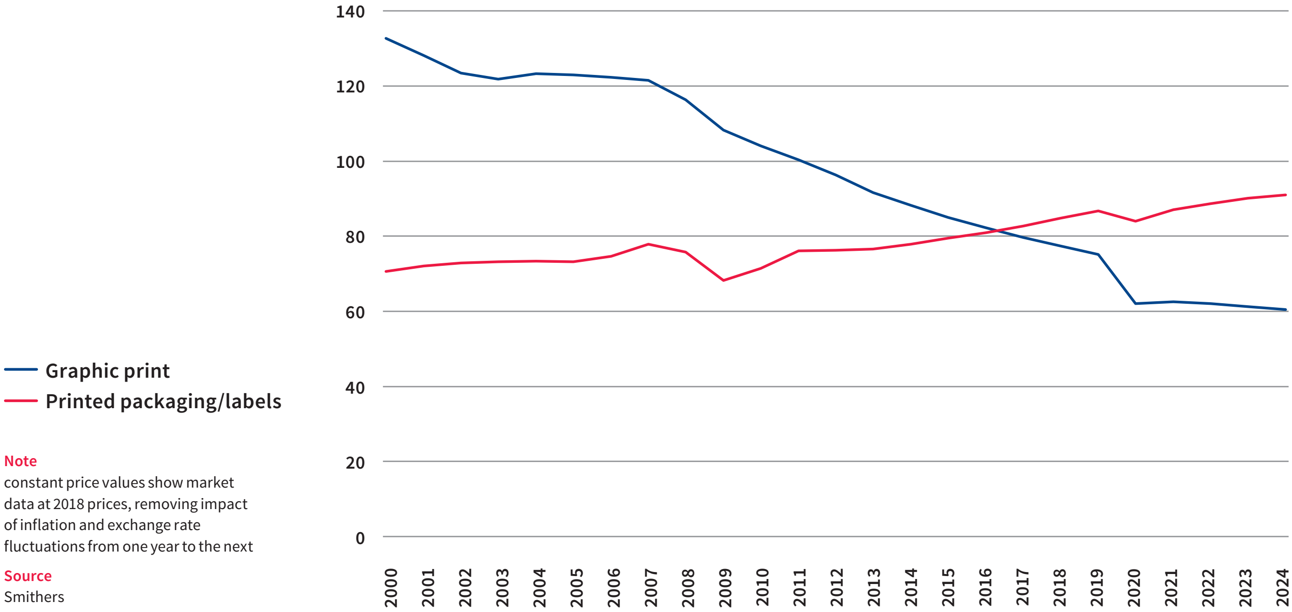


Note
constant price values show market data at 2018 prices, removing impact of inflation and exchange rate fluctuations from one year to the next

Source
Smithers

In real terms, we expect package and label printing revenues to decline by 3.2% to €84 billion in 2020 before rallying again in the short-medium term. In the case of graphic print, by comparison, we expect revenues to decline by 17.4% in 2020 with only small rallies in 2021 and 2022 before declining again into 2023 and beyond.

FIGURE 3 Trends in European Printing & Printed Packaging Output, 2000-2024f (€ billion, constant 2018 prices & exchange rates)



Note
constant price values show market data at 2018 prices, removing impact of inflation and exchange rate fluctuations from one year to the next

Source
Smithers

Out of overall estimated printing revenues of €165 billion in 2019 at current prices, Western European countries contributed €139 billion, led by Germany (€34 billion), the UK (€22 billion) and France (€20 billion). Over the past five years, demand for combined graphic print and printed packaging has declined by around €0.7 billion in current terms, but in real terms has declined by almost €7 billion. As time has moved on, average growth rates across Western Europe have come more into line alongside a partial recovery in those countries worst affected by the recession.

Of the €25.8 billion in Eastern European printing revenues in 2019, Russia and Poland between themselves accounted for half of the total at €8 billion and €7 billion respectively. Russian print revenues grew by 3% in constant terms after a number of years of real declines. Overall, print demand continued to hold up well in key Central European countries like Poland.

TABLE 1: European Printing & Printed Packaging Output by Country and by Region, 2014-2019 (€ billion)

Country	Current prices & exchange rates			Constant (2018) prices & exchange rates*		
	2014	2018	2019e	2014	2018	2019e
Western Europe	139.5	137.6	138.8	143.6	137.6	136.8
Germany	33.5	33.4	33.7	35.2	33.4	33.2
UK	23.6	22.1	22.4	23.0	22.1	22.0
France	19.6	19.9	20.1	20.5	19.9	19.9
Italy	17.9	18.1	18.1	18.4	18.1	18.0
Spain	10.9	11.4	11.6	11.3	11.4	11.5
Netherlands	5.9	5.6	5.7	6.1	5.6	5.6
Switzerland	4.5	4.7	4.7	4.8	4.7	4.6
Belgium	4.6	4.5	4.5	5.0	4.5	4.5
Austria	3.8	3.8	3.8	4.1	3.8	3.7
Sweden	4.2	3.6	3.5	4.0	3.6	3.5
Denmark	2.1	2.1	2.1	2.1	2.1	2.1
Norway	2.0	1.7	1.6	1.9	1.7	1.7
Greece	1.5	1.6	1.6	1.6	1.6	1.6
Finland	1.8	1.6	1.6	1.8	1.6	1.6
Portugal	1.5	1.5	1.6	1.6	1.5	1.5
Ireland	1.4	1.4	1.4	1.5	1.4	1.4
Other Western Europe	0.6	0.6	0.6	0.7	0.6	0.6
Eastern Europe	23.7	24.7	25.8	22.6	24.7	25.3
Russia	8.3	7.6	7.9	7.2	7.6	7.8
Poland	5.9	7.0	7.3	6.0	7.0	7.2
CzechRepublic	2.0	2.5	2.6	2.3	2.5	2.5
Hungary	1.3	1.5	1.6	1.4	1.5	1.5
Romania	1.0	1.1	1.2	1.0	1.1	1.2
Slovenia	0.6	0.6	0.7	0.6	0.6	0.6
Bulgaria	0.5	0.6	0.6	0.6	0.6	0.6
Other Eastern Europe	4.1	3.7	3.9	3.5	3.7	3.8
Europe	163.3	162.3	164.6	166.2	162.3	162.1

***Note**
removes impact of inflation and exchange rate fluctuations from one year to the next

Source
Smithers

Into 2020 and beyond, the forecast points to impacts will be felt reasonably consistently throughout Europe, although we need to be clear that this only holds if IMF April 2020 economic forecasts bear out. There is a chance, for example, given the way that the situation has developed in the past two months that countries like the UK, Spain and Italy will be more affected and also that Sweden – having implemented less severe lockdown restrictions – might be less affected. In the meantime, we anticipate a 10.3% decline in Western European revenues in 2020 and 7.0% decline in Eastern Europe.

TABLE 2: European Printing & Printed Packaging Output by Country and by Region, 2019-2024 (€ billion, constant 2018 prices & exchange rates)*

Country	2019e	2020p	% change, 2019-20	2021f	2024f	CAGR (%), 2019-24
Western Europe	**136.8**	**122.7**	**-10.3**	**125.1**	**125.2**	**-1.7**
Germany	33.2	29.8	-10.1	30.4	30.4	-1.7
UK	22.0	19.8	-9.9	20.2	20.3	-1.5
France	19.9	18.1	-9.2	18.4	18.4	-1.6
Italy	18.0	16.0	-10.8	16.4	16.6	-1.6
Spain	11.5	10.4	-9.6	10.6	10.9	-1.0
Netherlands	5.6	4.9	-11.8	5.0	4.9	-2.6
Switzerland	4.6	4.2	-9.6	4.2	4.2	-1.9
Belgium	4.5	4.0	-11.0	4.0	4.0	-2.1
Austria	3.7	3.3	-11.3	3.4	3.3	-2.2
Sweden	3.5	3.0	-13.0	3.1	3.0	-3.0
Denmark	2.1	1.9	-9.3	1.9	1.9	-1.1
Norway	1.7	1.4	-14.4	1.4	1.3	-4.2
Greece	1.6	1.4	-14.0	1.4	1.5	-1.2
Finland	1.6	1.4	-11.3	1.4	1.3	-3.1
Portugal	1.5	1.4	-10.6	1.4	1.4	-1.8
Ireland	1.4	1.2	-12.0	1.3	1.2	-2.3
Other Western Europe	0.6	0.6	-11.6	0.6	0.5	-2.9
Eastern Europe	**25.3**	**23.5**	**-7.0**	**24.5**	**26.3**	**0.8**
Russia	7.8	7.3	-6.8	7.6	8.4	1.4
Poland	7.2	6.9	-5.2	7.1	7.6	0.9
CzechRepublic	2.5	2.3	-8.9	2.4	2.6	0.7
Hungary	1.5	1.4	-4.7	1.5	1.6	0.5
Romania	1.2	1.1	-8.3	1.1	1.2	0.2
Slovenia	0.6	0.6	-14.1	0.6	0.6	-1.5
Bulgaria	0.6	0.5	-8.2	0.6	0.6	-0.3
Other Eastern Europe	3.8	3.5	-8.2	3.6	3.9	0.3
Europe	**162.1**	**146.2**	**-9.8**	**149.6**	**151.6**	**-1.3**

*Note
removes impact of inflation and exchange rate fluctuations from one year to the next

Source
Smithers

2.3.5 Print products

Into 2019, trends in the various print sectors followed past trends with newspapers, magazines, catalogues and directories continuing to experience difficult trading conditions and posting value declines in real terms of 4-6% versus 2018. Commercial printing output was down 3% despite something of a boost from digital printing growth, with advertising down 2% and book printing broadly static (up 0.3%). Package and label printing revenues grew by 2.4% by comparison.

Into 2020, however, all sectors are set to experience declines with package and label printing revenues down by more than 3%, book printing down by around 7% and other areas down by anywhere between 12-22%.

In the case of books there have been some short-term boosts with home education and trade segments performing comparatively well during the early phases of the lockdown as on-line demand has grown. At the same time, retail sales are well down and the spike in is unlikely to be maintained going forward, with similar prospects for the sector into 2021 as forecast originally. However, a reshoring of print is likely to boost digital going forward and European digital book printers specifically.

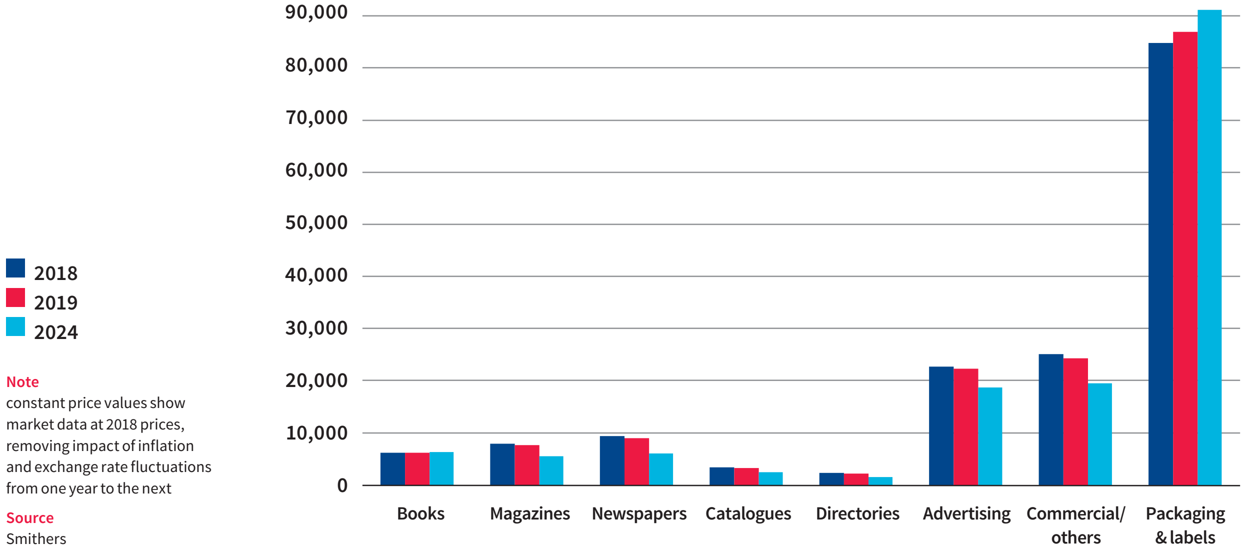
Magazines and newspapers, by comparison, will be affected more severely with declining advertising revenues and circulations set to lead to respective declines of 17% and 21% for the full year 2020. The transition to online is likely to be accelerated going forward, and many titles will simply disappear or become online only. Printed directories, similarly, are set to decline faster, with revenues forecast to decline by 22.

Across advertising segments, catalogue printing revenues are forecast to decline by 12% in 2020, although moves to provide more targeted versions with better customer profiles may help to ease the transition going forward. PoS/display markets meanwhile are being badly hit by retail closures although the current sharp downturn in signage is likely to be a blip rather than a long-term trend. Elsewhere, direct mail has fallen off sharply with inserts down in line with declines in magazines and newspapers.

For the commercial sector, there are huge issues in the short term with demand falling across the board. Major consolidation is likely going forward, with strong companies prospering and gaining market share. Innovation will drive many companies to diversify and enter new markets. The agile nature of digital print may make this more resilient, with strong on-line and trade print services flourishing if they survive the initial downturn.

In labels, there have been some short-term boosts as companies take action to maintain stocks, with long-term trends set to be broadly similar to those originally expected, with more on-demand service. In the case of packaging, flexibles and rigid plastics will be less affected than some other areas due to the greater reliance on core food and beverage categories, and metal cans will also perform better by comparison with food cans experiencing a one-off boost at the outset of the crisis. Beverage cans also performed well at the beginning of the year, but although the growth in the off trade at the expense of the on trade favours printed packaging, there will be other effects from the crisis on demand. Across other areas the picture is more mixed with some cartons doing well but others for more discretionary declining; similarly corrugated will be hit by the downturn in global trade and industrial segments, although transit packaging for food, etc. is likely to hold up better.

FIGURE 3 European Printing & Printed Packaging Output by Print Product, 2018-2024f (€ million, constant 2018 prices & exchange rates)



Note
constant price values show market data at 2018 prices, removing impact of inflation and exchange rate fluctuations from one year to the next

Source
Smithers

2.3.6 Printing processes

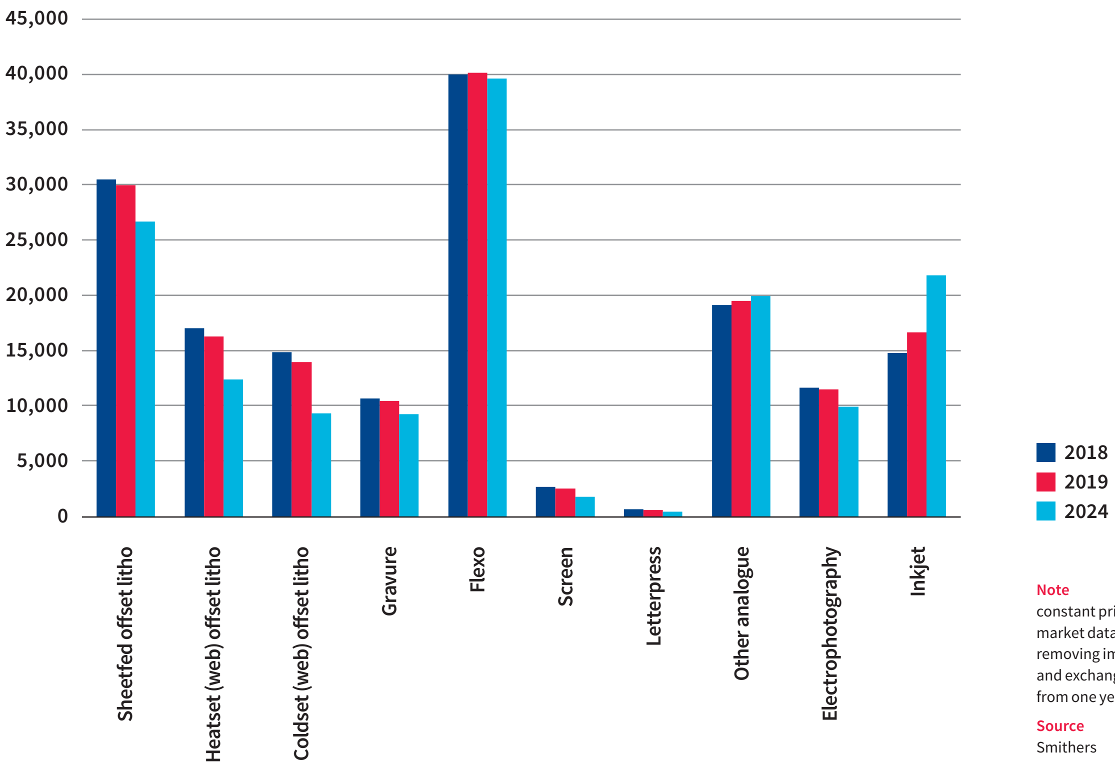
In 2019, flexo was still the single largest printing process sector ahead of sheetfed offset litho, with output valued at €40.2 billion in 2019, representing an increase of 0.4% in real terms as compared to 2018. This was mainly accounted for by package and label printing, with corrugated packaging representing the single largest element.

Sheetfed offset printing litho presses continue to be among the most cost-effective, particularly for medium-large runs, with companies in Germany and elsewhere responding to end-user requirements for greater flexibility in operation and automation. In 2019, sheetfed offset litho printing output declined by 1.6% in real terms to €30.0 billion, while heatset was down 4.1% and coldset fell by 6% as key publication and catalogue categories continued to experience difficult trading conditions. Across other areas, gravure fell by almost 2% with screen and letterpress down by 5-6%.

The growth in digital printing remained a key trend, with overall digital printing revenues standing at €28.2 billion. Electrophotographic printing revenues were actually down 1%, but inkjet continued to grow strongly, up 12% in real terms.

Into 2020, we expect to see some further market share gains for digital as a whole from analogue printing, but all processes will see declines. Flexo will be least hit due to its greater reliance on package/label printing markets, down 4%, followed by other analogue printing (down 6%, again due to large share accounted for by dry offset package printing), and then inkjet (down 7%). Coldset web offset revenues are forecast to decline by more than 20% by comparison. Heidelberg has published the output from sheetfed presses weekly as the pandemic developed, comparing the printed volume each week with the corresponding week from 2019. Across Europe the situation in packaging (cartons, corrugated litho-lam and some labels) has held up much better than in “Commercial” print applications. Contiweb has published a similar study looking at heatset web offset presses, showing falls down to 56% of the 2019 volume at the end of March when lockdowns were widely imposed. There will be some recovery, but also a fall out of weaker companies unable to ride out the downturn and falling demand. Overall, litho, flexo, gravure, screen print processes will fall in real terms at a faster rate as short runs and faster responses are required. Automation will increase, with growth in web-to-print and trade printing as companies look to provide a wide range of products. Inkjet is set to pick up again going forward, with some opportunities still available to electrophotography.

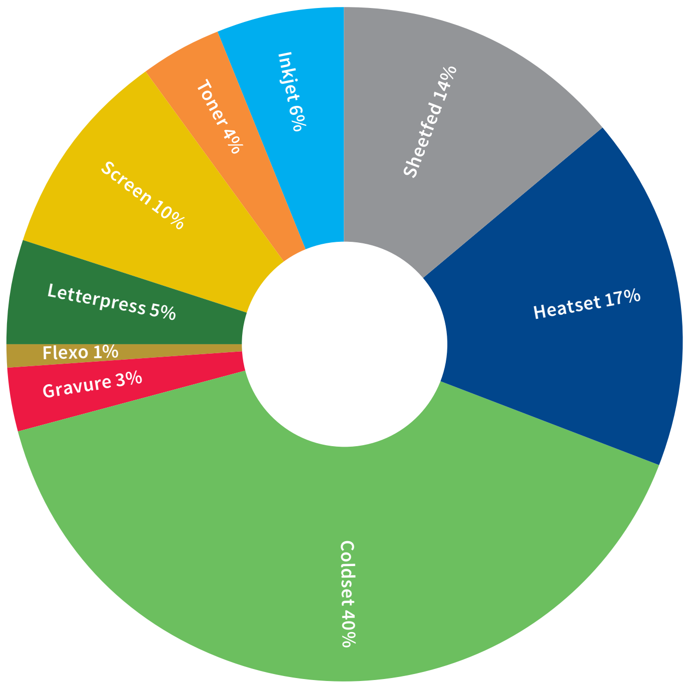
FIGURE 5 European Printing & Printed Packaging Output by Process, 2018-2024f (€ million, constant 2018 prices & exchange rates)



Note
constant price values show market data at 2018 prices, removing impact of inflation and exchange rate fluctuations from one year to the next

Source
Smithers

FIGURE 6 European Printing Inks Consumption by Type, 2019 (% share by volume)



Total printing inks & colourants consumption: 806,000 tonnes

Source
Smithers

2.3.7 Printing equipment

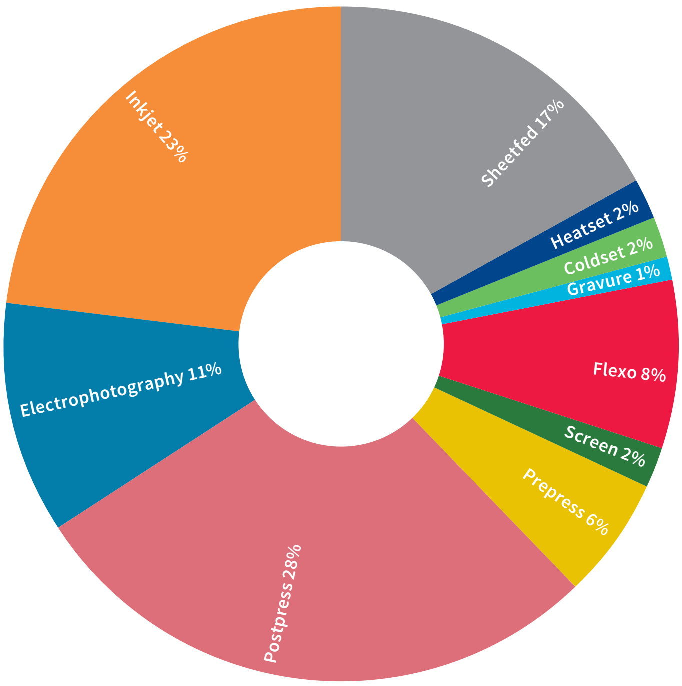
After an adjustment to our figures for sheetfed offset litho and also postpress printing equipment, Smithers now values the European printing equipment market at €3.71 billion for 2019. Over the past five years, the biggest declines have been seen in web offset printing equipment, down by around half overall with heatset sales now valued at €55 million and coldset €63 million. In real terms, by comparison, sheetfed offset litho sales fell by almost 20% to €866 million.

Flexographic printing equipment sales held up broadly well through to 2019, almost unchanged on 2014 terms at constant prices at €303 million. Across other analogue segments, gravure has been falling by around 3% per annum to €41 million over the past five years, with screen down by 4% per annum to €80 million.

Digital print equipment overall sales remained strong with a growth rate of 2.9% per annum over the last five years, but electrophotographic printing equipment sales have been declining by around 2% per annum since 2014 as compared with almost 6% annual growth for inkjet.

Into 2020, however, there has been a significant slowdown in new equipment investment across the board, with the cancellation of drupa (and the likely decision by some suppliers to follow the lead of Xerox and Bobst and not attend the re-scheduled event) not helping the situation. Investment in new sheetfed technology is likely to pick up going forward, as well as new investment in production-lite toner systems, toner and inkjet package/label printing equipment and inkjet more generally.

FIGURE 7 European Sales of New Printing Equipment by Type, 2019 (% share by value)



Total sales of new printing equipment: €3.71 billion

Source
Smithers

2.3.8 Summary

Trends in European printing markets in 2019 were in line with those seen during the last few years with the declines seen in most graphic printing areas, while package and label printing continued to grow.

Technological, commercial and cultural changes will continue to favour investment into inkjet print as printers seek to meet the demand of their customers by improving response/lead times, communications and the range of products available. Further consolidation of the industry is expected, and this will accelerate in the current climate.

The economic impact of COVID-19 will create permanent changes in printing demand. It is a truly disruptive event, and it will accelerate some of the long-term trends that are already impacting upon print. There will be major industry restructuring with weak print companies and suppliers failing as demand falls. Remaining companies will innovate and diversify, as companies collaborate and widen the range of products and services they offer, with routes to market changing toward on-line. The recovery in digital print across Europe will be quicker than analogue alternatives, the result being an acceleration of the trend from analogue to digital printing methods.

3.
ANNEX

Annex to 1.2.1

Turnover, 2017, in million €

	Printing and service activities related to printing	Printing of newspaper	Other printing	Pre-press and pre-media services	Binding and related services
Austria	1 823,2	159,1	1 529,1	77,2	57,8
Belgium	2 903,5	197,6	2 285,2	334,2	86,4
Bulgaria	360,2	20,1	316,4	15,5	8,2
Croatia	557,0	14,6	497,5	40,3	4,5
Cyprus	64,3	:	62,5	1,8	:
Czech Republic	1 220,6	:	:	:	:
Denmark	892,2	:	763,4	67,8	61,0
Estonia	242,6	0,2	231,6	9,9	:
Finland	1 048,1	111,5	885,5	47,3	3,8
France	8 464,2	219,7	6 508,9	1 541,0	194,6
Germany	19 045,0	1 154,1	14 649,7	1 959,3	1 281,9
Greece	607,3	15,4	444,4	112,4	35,1
Hungary	959,9	6,1	827,2	106,5	20,0
Ireland	730,7	:	623,6	44,5	:
Italy	10 281,6	339,4	8 509,9	827,1	605,2
Latvia	214,4	0,3	204,7	5,4	4,1
Lithuania	211,6	1,6	190,7	16,7	2,7
Luxembourg	95,3	0,0	93,5	1,8	:
Malta	137,4	:	:	:	:
Netherlands	3 275,4	:	2 835,2	:	:
Poland	3 200,2	51,4	2 815,7	216,6	116,4
Portugal	1 026,4	20,3	794,2	190,1	21,8
Romania	759,2	61,1	650,4	28,4	19,3
Slovakia	396,5	1,5	285,1	96,4	13,6
Slovenia	423,3	0,7	344,3	72,5	5,8
Spain	5 523,5	234,9	4 538,0	552,1	198,6
Sweden	2 101,4	200,8	1 729,0	134,2	37,4
United Kingdom	12 223,3	60,0	10 880,6	920,3	362,4
EU-28	**78 788,3**	**2 870,4**	**63 496,3**	**7 419,3**	**3 140,6**
Norway	924,1	167,2	639,8	98,1	19,0
Switzerland	4 043,0	:	:	:	:

Annex to 1.2.1

Number of companies, 2017

	Printing and service activities related to printing	Printing of newspaper	Other printing	Pre-press and pre-media services	Binding and related services
Austria	845	9	640	117	79
Belgium	4 148	59	1 941	2 013	135
Bulgaria	999	17	719	189	74
Croatia	1 208	20	808	304	76
Cyprus	247	:	230	17	:
Czech Republic	7 438	:	:	:	:
Denmark	648	6	461	138	43
Estonia	387	3	328	45	11
Finland	784	10	599	144	31
France	15 052	25	4 734	9 696	598
Germany	9 585	153	6 444	2 132	856
Greece	2 534	40	1 480	859	155
Hungary	3 040	16	1 330	1 507	187
Ireland	1 079	:	745	264	:
Italy	14 901	35	11 652	2 102	1 112
Latvia	451	5	322	74	50
Lithuania	700	3	283	99	315
Luxembourg	71	0	46	21	4
Malta	135	:	:	:	:
Netherlands	3 305	28	2 221	500	556
Poland	8 611	350	4 806	2 647	808
Portugal	2 365	24	1 435	761	145
Romania	2 012	57	1 536	207	212
Slovakia	1 812	6	813	871	122
Slovenia	1 165	9	561	535	60
Spain	11 982	68	9 249	2 277	388
Sweden	2 738	21	1 944	619	154
United Kingdom	10 933	31	9 235	1 365	302
EU-28	**109 175**	**995**	**64 562**	**29 503**	**6 473**
Norway	849	33	509	288	19
Switzerland	1 056	:	:	:	:

Annex to 1.2.1

Number of employees, 2017

	Printing and service activities related to printing	Printing of newspaper	Other printing	Pre-press and pre-media services	Binding and related services
Austria	9 784	641	8 050	613	480
Belgium	11 391	552	8 997	1 324	518
Bulgaria	8 979	275	7 957	515	232
Croatia	7 436	170	6 541	624	101
Cyprus	942	:	911	31	:
Czech Republic	15 145,0	:	:	:	:
Denmark	5 075	:	4 280	417	378
Estonia	2 889	12	2 769	74	:
Finland	6 854	491	5 836	480	48
France	52 243	815	38 979	10 589	1 860
Germany	129 520	6 700	93 460	17 548	11 812
Greece	6 211	324	4 178	1 212	497
Hungary	14 987	79	12 355	1 828	725
Ireland	5 227	:	4 682	301	:
Italy	63 244	1 648	50 212	5 420	5 964
Latvia	3 333	14	2 980	166	173
Lithuania	4 031	48	3 642	306	35
Luxembourg	576	0	565	11	:
Malta	1 251	:	:	:	:
Netherlands	18 033	47	14 911	1 472	1 603
Poland	39 904	624	33 569	3 438	2 273
Portugal	14 430	300	10 616	3 077	437
Romania	15 412	1 143	12 407	895	967
Slovakia	4 743	28	3 476	972	267
Slovenia	3 659	:	2 908	683	68
Spain	49 347	1 541	39 041	5 778	2 987
Sweden	11 019	953	8 795	891	380
United Kingdom	97 722	337	85 756	7 798	3 830
EU-28	**603 387**	**16 742**	**467 873**	**66 463**	**35 635**
Norway	4 842	690	3 432	487	233
Switzerland	18 279	:	:	:	:

Annex to 1.2.1

Turnover 18.1, 1995-2017, in million €

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Austria	1 947,7	:	1 750,3	1 888,7	1 981,5	2 086,2	2 126,1	2 083,7	2 019,8	2 029,3	2 017,8
Belgium	3 078,0	3 187,8	3 066,0	3 157,6	3 336,1	3 378,5	3 864,6	3 864,6	3 678,8	3 585,7	3 640,2
Bulgaria	:	83,4	79,9	78,3	84,7	94,8	114,2	141,2	147,4	171,6	189,0
Croatia	:	:	:	:	:	:	:	:	:	:	:
Cyprus	:	:	:	:	:	85,7	89,3	84,9	82,1	87,6	92,5
Czech Republic	531,3	:	:	608,3	471,6	:	:	846,5	947,7	1 026,1	:
Denmark	1 653,2	1 802,0	1 714,0	1 818,9	1 928,1	1 936,2	1 802,4	1 722,1	1 616,0	1 517,7	1 518,5
Estonia	:	:	:	:	:	:	:	94,4	101,4	114,2	132,3
Finland	1 219,9	1 273,0	1 379,7	1 460,3	1 474,6	1 543,0	1 579,1	1 536,7	1 458,9	1 457,8	1 624,6
France	:	13 147,0	12 987,2	13 543,9	13 797,0	14 135,5	14 365,4	13 993,7	13 318,7	13 136,9	13 082,8
Germany	:	:	:	:	24 754,0	21 337,8	21 275,0	20 975,8	18 805,9	20 067,7	21 115,0
Greece	:	:	:	:	:	:	:	:	1 354,3	1 504,9	1 464,4
Hungary	:	:	:	385,9	448,2	591,1	823,6	890,3	931,6	991,5	989,5
Ireland	:	:	742,9	789,3	828,0	858,9	854,5	837,3	741,3	667,4	878,2
Italy	8 889,5	9 706,5	10 128,0	10 747,9	10 996,9	12 851,9	13 223,2	13 377,5	14 058,6	14 241,1	13 426,3
Latvia	:	:	39,0	66,8	80,2	80,1	96,1	97,2	99,9	124,5	130,8
Lithuania	:	:	:	:	:	62,9	78,7	94,5	99,1	106,1	116,1
Luxembourg	103,4	95,8	98,4	103,9	117,0	134,5	139,7	140,8	154,1	151,9	152,0
Malta	:	:	:	:	71,5	90,7	81,1	96,6	105,1	:	104,5
Netherlands	5 502,9	5 836,5	5 431,9	5 572,5	5 664,7	5 886,3	5 936,8	5 599,4	5 207,4	5 228,8	5 178,3
Poland	:	819,7	1 050,8	1 253,9	1 575,0	1 868,8	2 247,9	2 295,3	2 061,0	2 193,4	2 514,8
Portugal	:	:	:	:	1 247,8	1 299,0	1 391,5	1 237,7	1 269,3	1 395,4	1 305,9
Romania	:	:	:	:	:	314,7	303,5	330,9	385,4	473,8	549,2
Slovakia	135,0	:	148,5	154,1	126,6	174,5	225,3	220,1	202,7	202,8	225,8
Slovenia	251,6	246,4	257,3	280,9	274,2	305,1	330,4	406,0	376,6	388,3	392,9
Spain	4 947,7	5 400,6	5 538,5	6 249,0	6 248,3	7 826,6	7 681,3	8 239,7	8 116,9	8 545,3	8 593,5
Sweden	2 766,5	3 044,8	3 038,6	3 086,6	3 130,3	3 284,6	2 994,0	2 904,5	2 802,9	2 870,7	2 804,9
United Kingdom	:	15 050,2	20 020,2	20 290,6	21 389,1	23 639,1	23 118,3	22 505,5	18 398,7	19 843,2	17 980,2
EU-28	**31 026,7**	**59 693,7**	**67 471,2**	**71 537,4**	**100 025,4**	**103 866,5**	**104 742,0**	**104 616,9**	**98 541,6**	**102 123,7**	**100 220,0**
Norway	:	1 151,4	1 236,9	1 295,1	1 363,7	1 505,1	1 400,1	1 424,7	1 285,7	1 316,1	1 424,3
Switzerland	:	:	:	:	:	:	:	:	:	:	:

Slovakia: include as from 2010 individual entrepreneurs

2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
2 167,9	2 171,8	2 325,8	2 090,8	1 976,5	2 030,1	1 988,2	1873,9	1 852,5	1 863,7	1 900,7	1 823,2
3 888,0	3 963,5	3 636,0	3 636,0	3 475,4	3 382,9	4 054,1	3202,1	3 248,0	3 028,1	2 792,6	2 903,5
224,3	284,3	277,2	274,6	278,9	298,0	312,6	315,3	348,0	330,7	339,1	360,2
:	:	564,3	546,0	528,1	538,2	521,6	516,3	537,5	577,8	558,2	557,0
102,8	112,3	121,0	121,0	101,2	100,0	83,7	63,9	63,9	63,9	65,0	64,3
1 276,5	1 470,3	1 607,8	1 607,8	1 347,7	1 336,2	1 336,2	1227,0	1 220,6	1 220,6	1 220,6	1 220,6
1 521,2	1 547,2	1 535,5	1 535,5	962,7	931,8	1028,9	959,1	1 006,5	952,8	896,6	892,2
157,1	157,1	188,4	159,4	197,6	201,7	204,5	216,9	216,9	218,1	236,2	242,6
1 657,4	1 716,1	1 671,7	1 433,4	1 355,1	1 407,8	1 454,8	1343,3	1 206,2	1 119,0	1 060,0	1 048,1
13 019,5	12 736,8	12 447,2	10 694,9	10 554,0	10 220,0	9 491,1	8904,5	8 787,6	8 390,7	8 670,9	8 464,2
22 099,1	21 600,8	21 505,6	20 405,8	20 677,2	21 133,1	20 446,1	19151,3	18 260,8	17 528,9	18 763,2	19 045,0
1 579,7	1 629,5	888,0	862,3	862,3	862,3	595,6	509,3	493,8	616,7	595,7	607,3
970,6	1 077,9	1 086,8	850,3	889,8	893,0	881,3	871,7	890,3	926,3	888,2	959,9
711,3	686,7	971,0	742,1	827,5	758,4	891,8	711,7	640,7	652,9	713,8	730,7
14 848,3	14 512,1	14 133,5	11 422,3	11 766,5	11 617,4	10 824,8	10169,2	9 976,9	10 007,1	10 652,5	10 281,6
193,7	208,2	178,6	134,7	142,5	155,3	184,2	218,8	204,0	202,9	202,5	214,4
170,7	195,5	170,7	127,5	132,4	167,8	197,7	208,7	217,2	218,8	212,4	211,6
146,1	146,1	133,7	133,7	133,7	141,4	139,5	107,4	111,6	105,6	100,3	95,3
:	131,2	:	:	:	:	:	:	159,4	159,4	137,4	137,4
5 088,1	5 432,8	5 381,6	4 809,2	4 645,5	4 537,2	4 176,6	3935,3	3 748,4	3 472,5	3 467,6	3 275,4
2 812,2	3 453,2	2 803,8	2 080,0	2 455,3	2 556,0	2 515,9	2733,6	2 977,4	3 124,4	3 095,6	3 200,2
1 265,8	1 282,6	1 303,5	1 212,7	1 163,4	1 109,5	954,3	950,8	983,4	1 007,0	983,4	1 026,4
624,5	779,9	806,8	649,5	665,3	687,4	662,0	679,2	737,1	741,6	749,9	759,2
294,3	365,1	391,0	391,0	431,2	386,8	386,4	401,6	381,7	378,4	372,8	396,5
426,4	469,4	465,7	448,2	416,8	428,7	415,1	410,2	415,2	420,3	423,9	423,3
9 041,9	9 298,1	8 794,7	7 781,3	7 466,4	6 833,8	5 734,3	5525,2	5 559,5	5 622,1	5 625,2	5 523,5
2 891,3	2 918,7	2 858,1	2 363,7	2 682,9	2 706,2	2 701,5	2529,0	2 331,9	2 473,2	2 132,0	2 101,4
18 652,6	18 438,3	16 374,5	12 365,6	12 182,6	12 946,2	13 201,6	12008,9	13 014,9	14 693,4	12 649,5	12 223,3
105 831,3	**106 785,5**	**102 622,5**	**88 879,3**	**88 318,5**	**88 367,2**	**85 384,4**	**79744,2**	**79 592**	**80 392**	**79 506**	**78 788,3**
1 448,5	1 536,0	1 507,4	1 286,7	1 390,5	1 406,1	1 441,5	1294,4	1 128,2	1 128,2	937,1	924,1
:	:	:	3 340,5	3 516,5	3 649,2	3 725	3725,4	3 532,8	4 043,0	4 043,0	4043

Annex to 1.2.1

Number of companies 18.1, 1995-2017, in million €

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Austria	1 065	1 141	1 110	1 129	1 016	1 045	1 010	1 088	1 095	1 070	1 032
Belgium	:	:	:	:	3 914	3 728	3 905	:	3 748	3 810	3 965
Bulgaria	:	549	588	594	643	628	672	786	818	815	857
Croatia	:	:	:	:	:	:	:	:	:	:	:
Cyprus	:	:	:	:	:	277	302	316	318	322	286
Czech Republic	2 535	2 113	2 901	3 944	2 995	4 112	3 708	5 675	6 104	6 192	6 822
Denmark	2 358	2 222	2 145	2 105	1 789	1 736	1 569	1 473	1 352	1 252	1 192
Estonia	:	:	:	:	:	140	153	168	168	195	210
Finland	1 487	1 470	1 438	1 480	1 415	1 368	1 311	1 276	1 237	1 208	1 172
France	:	17 903	17 731	17 537	17 289	17 114	16 962	16 766	17 986	17 852	17 648
Germany	:	:	:	:	13 828	13 584	14 680	12 934	12 574	11 294	12 228
Greece	:	:	:	:	:	:	:	:	4 431	4 426	4 649
Hungary	:	:	:	528	590	661	4 265	4 322	4 487	4 540	4 340
Ireland	:	333	343	343	343	353	357	380	391	357	326
Italy	19 317	19 354	19 277	19 930	20 168	20 386	20 323	20 262	19 603	19 355	19 272
Latvia	:	:	165	212	245	273	258	298	324	376	389
Lithuania	:	:	:	:	:	262	274	291	295	284	386
Luxembourg	87	84	89	90	86	86	78	77	82	84	88
Malta	:	:	:	:	200	194	198	201	167	171	162
Netherlands	4 130	4 180	4 325	4 770	4 450	4 140	3 885	3 915	3 665	3 635	3 425
Poland	:	7 742	9 357	11 290	11 601	11 001	10 333	11 416	10 426	11 626	11 023
Portugal	:	:	:	:	3 201	3 056	3 116	2 987	3 237	3 251	4 699
Romania	:	:	:	:	:	1 026	1 141	1 330	1 662	1 945	2 073
Slovakia	36	:	41	40	41	186	240	245	201	200	216
Slovenia	1 264	1 294	1 147	1 190	1 287	1 282	1 413	1 133	1 094	1 112	1 120
Spain	9 286	10 318	9 914	10 357	14 254	15 445	14 452	14 445	13 958	15 070	14 593
Sweden	3 545	3 478	4 093	4 066	3 994	3 951	3 835	3 683	3 728	3 673	3 704
United Kingdom	:	19 296	19 521	19 405	19 785	18 937	18 814	18 777	18 283	17 433	16 906
EU-28	**45 110**	**91 477**	**94 185**	**99 010**	**123 134**	**124 971**	**127 254**	**124 244**	**131 434**	**131 548**	**132 783**
Norway	:	1 158	1 253	1 208	1 054	1 100	990	961	867	1 734	1 606
Switzerland	:	:	:	:	:	:	:	:	:	:	:

2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
1 008	1 022	985	935	931	893	877	854	854	842	856	845
4 022	4 677	4 426	4 426	4 229	4 043	3 506	3480	4 158	4 032	3 813	4 148
914	988	957	1 135	1 123	1 104	1 036	1023	1 026	1 013	1 013	999
:	:	1 816	1 905	1 752	1 624	1 542	1490	1 399	1 300	1 248	1 208
287	288	292	292	257	256	259	248	250	248	251	247
8 330	9 483	9 483	8 994	8 785	7 006	7 840	7598	7 546	7 528	7 571	7 438
1 137	1 081	1 063	992	950	892	842	806	771	715	685	648
241	245	263	279	308	310	332	362	357	383	377	387
1 153	1 169	1 158	1 137	1 072	1 028	968	918	887	863	814	784
17 601	17 916	15 848	14 987	15 352	16 192	17 772	19065	21 320	17 920	17 256	15 052
11 967	12 224	11 982	12 206	13 014	12 243	11 330	11536	11 002	10 065	10 046	9 585
4 753	4 852	4 852	3 360	3 360	3 360	2 434	2336	2 217	2 756	2 651	2 534
4 182	4 082	3 984	3 695	3 573	3 506	3 360	3198	3 198	3 153	3 098	3 040
337	374	943	989	957	950	980	1 005	1 014	1 007	1 032	1 079
19 069	18 782	17 837	16 901	16 567	16 248	15 981	15851	15 206	14 869	15 057	14 901
433	456	444	422	425	402	441	475	471	463	469	451
395	375	370	349	360	418	496	537	605	625	661	700
91	99	97	103	102	95	90	94	90	83	79	71
:	152	:	:	:	:	:	:	135	135	135	135
3 400	3 720	3 592	3 620	3 766	3 652	3 697	3787	3 656	3 492	3 375	3 305
10 464	10 960	10 553	8 186	8 616	8 335	8 157	8629	8 254	8 423	8 820	8 611
4 276	4 013	3 299	3 183	2 962	2 833	2 654	2 519	2 467	2 451	2 415	2 365
2 128	2 227	2 313	2 165	1 964	1 786	1 845	1915	1 973	1 998	1 928	2 012
262	270	245	245	1 252	1 276	1 299	1302	1 410	1 535	1 675	1 812
1 169	1 183	1 218	1 219	1 231	1 198	1 194	1179	1 183	1 189	1 182	1 165
15 023	14 853	14 866	14 427	14 128	13 638	13 177	14041	13 649	12 340	12 380	11 982
3 573	3 406	3 321	3 178	3 122	3 099	3 006	2946	2 896	2 821	2 782	2 738
16 356	15 725	14 943	14 055	13 246	12 788	12 201	11973	11 608	11 400	11 208	10 933
132 571	**134 622**	**131 150**	**123 385**	**123 404**	**119 175**	**117 316**	**119 167**	**119 602**	**113 649**	**112 877**	**109 175**
1 524	1 362	1 382	1 311	1 220	1 211	1 162	1097	1 036	968	920	849
:	:	:	:	:	:	:	2571	2488	2416	1131	1056

Annex to 1.2.1

Number of employees 18.1, 1995-2017, in million €

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Austria	18 451	:	17 075	17 075	16 550	16 803	16 560	16 066	15 196	14 572	14 270
Belgium	24 170	23 372	21 750	21 780	21 315	21 161	22 619	:	20 067	19 585	19 284
Bulgaria	:	7 154	7 238	6 680	6 599	6 391	6 520	7 895	7 952	8 549	8 697
Croatia	:	:	:	:	:	:	:	:	:	:	:
Cyprus	:	:	:	:	:	1 382	:	:	1 573	1 491	1 498
Czech Republic	19 292	:	:	18 016	15 694	:	17 531	18 457	20 272	19 676	18 957
Denmark	16 963	16 740	:	16 562	16 247	16 643	15 023	14 025	12 590	10 728	10 096
Estonia	:	:	:	:	:	:	:	2 489	2 336	2 565	2 761
Finland	12 299	11 839	12 813	13 400	13 560	13 317	13 129	12 390	11 951	11 462	11 490
France	:	124 146	122 968	121 084	121 387	120 978	119 698	115 796	109 811	104 070	100 330
Germany	:	:	:	:	195 245	196 489	191 822	186 432	165 511	161 553	160 339
Greece	:	:	:	:	:	:	:	:	7 580	7 946	8 045
Hungary	:	:	:	14 107	14 727	16 076	21 213	23 683	25 437	21 936	19 727
Ireland	:	:	8 981	8 780	9 159	8 672	8 523	7 936	7 456	6 450	6 664
Italy	95 959	93 457	91 048	92 435	91 766	99 099	98 981	93 673	94 903	92 428	91 196
Latvia	:	:	3 012	3 289	4 427	3 609	3 917	4 193	3 716	4 639	4 339
Lithuania	:	:	:	:	:	3 145	3 363	3 515	3 628	3 840	3 828
Luxembourg	987	971	1 008	1 054	1 065	1 141	1 143	1 140	1 285	1 519	1 180
Malta	:	:	:	:	1 119	1 284	1 061	1 111	1 245	:	1 192
Netherlands	49 885	45 664	44 427	44 805	45 160	45 836	43 561	39 383	36 532	36 198	34 577
Poland	:	30 073	32 198	33 792	39 093	38 653	38 233	34 684	39 549	41 816	42 213
Portugal	:	:	:	:	26 321	24 588	25 259	22 857	24 762	24 425	24 831
Romania	:	:	:	:	:	14 091	14 346	15 238	16 749	19 012	19 949
Slovakia	6 053	:	5 594	5 380	4 901	5 592	6 118	5 046	3 863	4 476	4 345
Slovenia	5 829	5 787	5 777	5 721	5 735	5 731	5 778	6 058	5 686	5 567	5 555
Spain	69 721	74 102	72 623	75 278	72 097	87 209	82 852	84 949	82 864	84 311	85 069
Sweden	23 833	23 226	25 847	25 897	25 039	24 314	23 839	22 606	20 492	19 986	19 772
United Kingdom	:	193 693	175 075	198 184	193 632	186 205	179 224	171 728	170 058	156 611	149 384
EU-28	**343 442**	**650 224**	**647 434**	**723 319**	**940 838**	**958 409**	**960 313**	**911 350**	**913 064**	**885 411**	**869 588**
Norway	:	9 982	10 491	11 090	10 330	10 456	9 490	8 820	8 355	8 318	7 927
Switzerland	:	:	:	:	:	:	:	:	:	:	:

2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
14 119	14 305	14 264	13 176	12 136	11 833	11 278	10 679	10 625	10 391	10 389	9 784
18 954	18 073	16 526	16 526	14 170	13 258	15 043	13 180	13 088	12 254	11 010	11 391
9 565	9 815	9 244	9 585	9 081	8 796	8 408	8 340	8 570	8 244	8 692	8 979
:	:	9 077	8 692	7 835	7 794	7 613	7 439	7 515	7 402	7 466	7 436
1 497	1 434	1 462	1 462	1 210	1 182	1106	969	969	969	904	942
19 717	21 458	21 458	18 083	15 050	14 830	14 830	15 145	15 145	15 145	15 145	15 145
10 207	10 007	9 594	9 594	6 411	6 411	6 578	6 117	6 403	6 142	5 174	5 075
2 906	2 906	2 920	2 554	2 695	2 728	2 565	2 593	2 593	2 799	2 871	2 889
11 175	11 586	11 965	11 185	10 238	9 810	9 699	9 185	8 487	7 867	7 047	6 854
96 714	92 307	79 618	74 253	71 400	68 485	62 719	59 101	57 095	54 665	53 832	52 243
155 260	159 118	160 643	154 068	158 904	156 358	145 550	144 151	138 748	134 465	137 342	129 520
8 109	8 534	8 534	9 448	9 448	9 448	8 180	7 409	6 702	6 011	6 602	6 211
18 195	19 560	17 152	15 211	14 467	14 282	13 650	13 263	13 302	14 928	14 755	14 987
5 988	5 745	6 729	5 390	5 002	4 887	4 650	4 511	4 593	4 569	5 142	5 227
90 240	89 887	84 259	82 299	75 673	70 779	68 462	65 091	62 519	60 520	65 632	63 244
4 713	4 974	4 406	3 061	2 766	2 703	3 040	3 211	3 439	3 382	3 214	3 333
4 733	4 939	4 255	3 787	3 430	3 577	3 831	4 009	4 162	4 239	4 137	4 031
1 166	1 166	926	926	926	887	874	709	699	689	599	576
:	1 260	:	:	:	:	:	:	1260	1260	1251	1 251
34 947	34 889	34 474	31 927	28 213	26 064	24 386	22 939	20 744	19 041	18 942	18 033
42 695	45 789	34 652	32 220	32 985	34 231	32 461	34 280	35 300	38 390	38 643	39 904
23 143	22 210	20 371	18 914	17 802	16 393	14 869	14 251	14 135	14 437	14 132	14 430
19 780	20 583	20 200	18 502	16 851	16 990	16 134	15 884	15 378	15 200	15 223	15 412
4 683	5 573	6 225	6 225	6 341	5 348	5 373	5 322	5 797	5 024	4 698	4 743
5 477	5 441	4 981	4 921	4 516	4 252	4 048	3 759	3 647	3 631	3 653	3 659
83 903	81 367	78 252	69 512	65 796	61 010	55 478	49 091	48 670	49 578	50 062	49 347
18 422	18 468	18 321	16 822	16 204	15 282	14 588	13 609	12 933	12 935	11 718	11 019
147 364	142 702	137 378	106 255	104 562	97 797	97 797	97 797	106 324	106 324	106 324	97 722
853 672	**854 096**	**817 886**	**744 598**	**714 112**	**685 414**	**653 209**	**632 034**	**628 842**	**622 213**	**624 599**	**603 387**
7 905	7 634	7 514	7 099	6 733	6 317	6 102	5 826	5 229	5 360	5 022	4 842
:	:	:	:	:	:	:	20 076	19 213	18 279	18 279	18 279

Annex to 1.2.2

Printing and recorded media, labour cost per employee, full-time equivalent

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Austria	52,0	50,7	53,8	54,1	56,4	58,2	58,8	61,7	59,3	59,4
Belgium	51,6	53,6	55,8	56,3	59,4	60,6	60,4	60,3	59,9	60,3
Bulgaria	4,2	4,3	4,2	4,6	4,8	5,2	5,5	5,9	6,4	7,3
Croatia	14,9	14,5	15,3	14,8	15,0	14,8	14,4	14,9	14,2	14,8
Cyprus	22,1	23,2	22,9	23,4	22,0	19,7	20,0	18,5	19,2	19,0
Czech Republic	14,2	14,1	14,8	15,3	15,1	14,8	14,2	14,8	15,2	16,4
Denmark	58,0	57,2	59,6	58,5	60,6	60,3	60,8	61,9	62,8	64,5
Estonia	14,2	13,2	13,1	13,6	14,9	15,4	16,0	16,3	17,9	19,2
Finland	43,4	43,0	44,5	46,4	47,0	47,2	48,7	48,8	50,5	48,9
France	:	49,6	51,3	52,6	51,9	52,3	53,0	55,0	53,2	54,9
Germany	40,9	41,0	40,3	39,9	41,6	41,8	41,3	43,2	42,9	45,4
Greece	23,8	34,7	29,0	28,1	25,6	22,8	22,1	21,6	21,4	21,3
Hungary	11,0	9,7	9,9	10,1	10,5	10,6	10,7	10,6	11,0	12,0
Ireland	49,4	62,3	41,4	46,1	45,6	45,0	42,0	49,4	51,5	45,6
Italy	40,0	40,6	41,2	41,6	42,2	42,4	44,5	44,7	45,5	43,2
Latvia	8,8	7,9	9,0	10,1	10,5	11,6	11,2	12,4	14,3	14,3
Lithuania	9,4	8,7	7,9	8,8	9,6	10,5	10,8	11,6	12,2	12,9
Luxemburg	:	:	:	:	50,8	48,1	48,7	50,1	49,3	51,7
Malta	:	:	:	:	23,6	22,4	22,5	22,0	23,8	24,8
Netherlands	45,0	47,2	49,5	53,5	52,8	53,5	55,5	55,6	51,6	52,9
Poland	:	:	:	12,2	12,6	13,0	14,0	13,8	13,9	15,0
Portugal	17,4	17,7	18,1	18,3	17,7	17,9	17,9	18,0	18,4	18,7
Romania	6,4	5,7	5,7	5,8	6,4	:	:	:	:	:
Slovakia	15,9	17,7	12,8	12,8	13,5	13,5	12,4	13,2	13,0	14,0
Slovenia	:	:	:	:	:	:	:	:	:	:
Spain	32,4	32,3	33,5	33,2	33,8	33,2	33,1	31,7	32,3	32,6
Sweden	49,5	45,3	51,4	54,9	59,2	61,1	59,0	58,4	59,2	59,7
United Kingdom	34,8	37,5	28,8	28,7	32,6	33,8	32,9	35,0	:	35,7
EU	**28,7**	**30,5**	**29,7**	**29,7**	**31,0**	**31,9**	**31,9**	**32,7**	**32,8**	**33,3**
Norway	57,1	57,2	66,1	66,8	74,4	74,0	67,2	:	62,0	65,0
Switzerland	:	57,5	64,0	72,5	70,8	69,7	:	:	:	:

Annex to 1.2.2

Manufacturing industry, labour cost per employee, full-time equivalent

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Austria	49,3	49,9	51,6	53,3	55,5	57,1	58,4	59,7	61,0	61,6
Belgium	59,7	64,2	65,3	66,2	69,4	71,9	73,5	73,1	72,8	74,0
Bulgaria	3,7	3,9	4,1	4,4	4,7	5,0	5,3	5,8	6,4	7,1
Croatia	15,4	14,5	14,6	14,1	14,3	13,7	14,1	14,5	14,0	14,3
Cyprus	21,7	22,3	22,5	22,5	21,7	20,6	20,2	19,8	20,5	21,1
Czech Republic	14,6	14,2	15,3	16,3	16,4	16,1	15,7	16,3	17,2	18,8
Denmark	56,3	62,2	64,5	65,1	66,7	68,1	69,7	71,8	73,0	74,4
Estonia	12,1	11,8	12,2	13,1	13,8	14,8	15,7	16,4	17,7	18,7
Finland	50,4	49,7	51,1	53,3	55,3	55,2	56,5	58,3	58,7	58,4
France	:	52,8	54,2	55,6	56,5	57,6	58,2	59,1	60,4	64,2
Germany	49,9	49,6	50,3	51,4	53,3	54,5	56,2	58,3	58,7	60,7
Greece	27,0	28,4	28,7	28,6	26,2	24,8	24,0	23,8	23,4	23,6
Hungary	13,1	12,2	12,8	13,5	13,6	13,7	13,9	14,2	15,0	16,2
Ireland	50,7	52,8	50,8	50,9	52,5	52,3	54,7	54,9	55,0	54,4
Italy	42,9	43,4	45,2	46,5	47,0	48,1	50,9	51,4	52,0	52,3
Latvia	8,5	8,0	8,9	9,7	10,6	10,8	9,9	10,8	12,0	12,4
Lithuania	9,5	8,8	8,6	8,9	9,2	9,8	10,3	11,0	12,0	13,1
Luxembourg	:	:	:	:	55,9	56,7	57,8	58,8	58,5	60,1
Malta	:	:	:	:	:	:	:	:	19,2	:
Netherlands	52,9	53,9	56,1	59,1	60,2	61,0	63,7	64,0	64,2	65,4
Poland	:	:	:	11,7	12,2	12,5	13,1	13,5	13,5	14,7
Portugal	15,9	16,2	16,8	17,0	17,1	17,2	17,4	17,6	17,8	18,4
Romania	5,7	5,5	5,8	6,2	6,3	6,7	7,2	7,6	8,5	9,7
Slovakia	13,1	14,2	13,4	13,9	14,9	15,5	15,9	16,3	17,0	18,0
Slovenia	:	:	:	:	:	:	:	:	:	:
Spain	35,7	36,7	37,4	38,3	39,1	39,4	39,3	38,9	38,3	38,6
Sweden	56,3	51,1	58,9	64,4	68,0	69,9	68,0	67,2	68,2	69,3
United Kingdom	39,0	35,8	36,9	36,8	40,5	39,9	42,7	47,8	43,7	42,7
EU-28	**30,6**	**31,8**	**32,8**	**32,8**	**34,7**	**35,1**	**35,9**	**36,6**	**36,2**	**37,8**
Norway	61,0	61,6	69,1	70,8	78,1	77,3	75,4	74,9	71,5	72,0
Switzerland	:	64,2	70,6	80,8	82,3	79,8	81,6	94,2	93,0	91,9

Annex to 1.2.3

Detailed production value of printed products, 2018, in €

	Notebooks, letter pads, memorandum pads, of paper or paperboard	Diaries, of paper or paperboard	Engagement books, address books, books, telephone number books and copy books, of paper or paperboard (excluding diaries)	Exercise books, of paper or paperboard	Blotting pads and book covers, of paper or paperboard	Self-adhesive printed labels of paper or paperboard	Printed labels of paper or paperboard (excluding self-adhesive)	Printed newspapers, journals and periodicals, appearing at least four times a week	Printed new stamps, stamp-impressed paper, cheque forms, banknotes, etc	Printed commercial catalogues	Printed trade advertising material (excluding commercial catalogues)	Printed newspapers, journals and periodicals, appearing less than four times a week
France	93 547 999	66 089 521	5 133 890	86997536	20470542	820 660 779	96 749 342	151 481 155	407 606 808	353 271 555	1 490 266 961	370 822 502
Netherlands	6652000	:	4131000	:	758 000	290 558 000	109501000	:	:	46 571 000	638 100 000	138 076 000
Germany	100 781 335	:	19456927	27 758 013	109 019 309	983 449 070	262 862 197	863 622 139	:	1 164 926 694	3 804 105 571	1 388 852 585
Italy	8 265 000	80 232 000	145 174 000	53 223 000	:	651 583 000	114 565 000	162 302 000	38 022 000	977 951 000	667 313 000	188 935 000
United Kingdom	43 801 924	18 441 071	:	18 711 216	0	874 285 359	47 541 002	412 981 655	526 137 378	192 133 015	1 530 667 676	550 050 299
Ireland	2 045 000	889000	0	:	:	94 298 000	:	:	21 435 000	50 579 000	40 805 000	9 050 000
Denmark	37 434	0	0	0	0	149 388 853	2 434 256	0	0	0	0	0
Greece	:	0	:	8 448 474	:	43 394 357	2 271 862	37 635 437	:	4 993 428	49 661 161	7 211 063
Portugal	:	406 411	:	4 331 233	13 918	13 933 654	13 303 735	10 539 628	15 795 931	15 569 798	111 974 264	16 249 819
Spain	30979474	17 714 649	1 720 868	40 057 812	9 799 894	534 333 833	118 615 450	132 836 998	144 495 657	320 551 954	384 929 212	132 828 937
Belgium	:	:	:	:	:	166 612 223	:	55 009 575	:	67 715 236	444 489 230	166 127 232
Luxemburg	0	0	0	0	0	0	0	0	0	0	0	0
Norway	0	0	0	:	:	18 203 178	0	74 851 889	0	15 740 349	78 212 347	59 386 715
Sweden	0	0	0	0	0	:	8259653	159302029	68 936 568	:	99 291 696	:
Finland	20 880	0	0	6 874	686 939	27 720 712	13 488 861	113 648 001	2412419	8 516 138	134 797 474	118 414 429
Austria	18 971 134	0	0	:	:	122 930 060	32 628 727	:	65466253	55 529 362	439 685 961	160266745
Malta	0	0	0	0	0	0	0	0	0	0	0	0
Estonia	290 505	740 766	0	15 338 977	0	19 600 202	3 280 666	11 297 193	721 799	843 506	30 253 791	45 464 830
Latvia	523 147	:	:	299 614	0	10 265 012	2 559 435	:	:	1 080 875	13 784 663	:
Lithuania	50 835	0	0	2595321	0	60 137 365	7 797 488	2542976	21410229	2 458 662	21 701 341	26 709 835
Poland	9 705 174	:	4 773 202	44 366 139	:	129 399 437	41 476 475	106 629 074	:	30 253 807	144 999 202	231 729 555
Czech Republic	3 151 831	:	1024525	:	0	79 290 599	33 752 330	52 753 226	22 390 650	41 920 381	205 202 558	107 501 267
Slovakia	:	415 355	0	:	0	19494958	5 507 818	:	:	62 384	6 814 791	57 970 114
Hungary	1407545	:	:	3345937	179 545	26 329 258	15 465 173	10827944	100202788	11 873 621	89 455 505	49 218 555
Romania	306614	8 553 973	:	8416159	:	25 616 033	6 796 600	7688191	:	47 659 514	24 141 393	39 607 983
Bulgaria	518 161	823 704	:	2 425 928	2 077 804	10 627 876	4 238 675	16 996 625	18 197 157	4 508 232	34 163 294	6 343 696
Slovenia	:	0	0	:	:	16844036	:	:	:	7436624	71 828 901	3 717 734
Croatia	2 740 315	1 849 581	0	3 940 189	0	25 372 563	10 604 913	20 608 000	26 550 048	21 799 377	26 627 602	25 089 589
EU-28	**331 359 314**	**221 934 725**	**202 620 692**	**343 233 293**	**148 425 346**	**5 325 933 785**	**972 118 267**	**2 464 873 411**	**2 544 344 856**	**3 429 300 000**	**10 505 060 247**	**3 948 000 000**
Cyprus	0	0	0	0	0	0	0	0	0	0	0	0

Printed books, brochures, leaflets and similar printed matter, in single sheets	Printed books, brochures, leaflets and similar printed matter (excluding in single sheets)	Printed children's picture, drawing or colouring books	Printed dictionaries and encyclopaedias, and serial instalments thereof	Printed maps, hydrographic or similar charts, in book-form	Printed maps, hydrographic or similar charts (excluding in book-form)	Printed postcards, whether or not illustrated	Printed cards bearing personal greetings, messages or announcements, whether or not illustrated, with or without envelopes or trimmings	Printed pictures, designs and photographs	Printed calendars of any kind, including calendar blocks	Printed music (including braille music)	Printed transfers (decalcomanias)	Other printed matter	**TOTAL**
34 127 906	258 690 014	:	:	:	429500	4 434 580	44 211 611	:	29702414	:	38 501 102	2 391 707 080	**6 764 902 797**
41 299 000	156 543 000	:	:	:	:	:	31309000	17443000	35 914 000	:	:	261 469 000	**1 778 324 000**
416 069 217	472 583 220	:	3 073 095	2 614 173	2 478 965	13 272 441	57 682 655	121 205 245	95 488 656	:	89601682	2 124 356 362	**12 123 259 551**
160 803 000	272 645 000	14 488 000	:	212 104 000	78 401 000	329 000	23 723 000	29 606 000	67 058 000	0	41 994 000	2 526 895 000	**6 515 611 000**
381 355 472	1 315 766 748	17 024 788	1 442 281	213 629	13 789 829	14 122 142	89 948 119	85 226 797	27 225 871	6 473 308	43 211 900	1 203 189 746	**7 413 741 225**
83 930 000	10 569 000	:	0	0	0	389 000	1 914 000	9 694 000	774 000	0	911 000	179 854 000	**507 136 000**
0	0	0	0	0	0	0	0	0	0	0	0	0	**151 860 543**
35 329 702	12 839 281	1 591 482	0	:	0	:	2946045	2 993 036	3 639 837	0	:	90 607 521	**303 562 686**
35 780 278	66 343 703	271 172	458 015	4 328	91 443	448 690	125 104	15 782 908	595 740	0	0	315 611 338	**637 631 110**
245 338 939	358 853 576	3 459 724	4440645	422623	1741800	10 812 533	5 394 609	34 097 281	31 425 841	:	2 007 379	161 320 038	**2 728 179 726**
39 401 217	89 356 282	536254	0	0	:	:	:	:	3 186 387	0	0	353 492 306	**1 385 925 942**
0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11 545 194	32 333 108	:	0	:	104 194	95 858	1 719 198	5 010 680	1 415 264	0	:	98 163 897	**396 781 871**
103 343 731	0	0	:	:	0	:	510 416	:	183 364	0	:	:	**439 827 457**
14 444 811	39 290 311	593 036	0	0	102 433	1 227 584	1 909 917	3 102 687	2 618 386	0	0	246 206 157	**729 208 049**
10 117 532	65 210 198	:	0	0	45 765	4 356 639	743 342	:	11 420 031	0	19447980	364 148 574	**1 370 968 303**
0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
32 322 594	1 353 834	0	0	290 403	0	126 870	32 082	1 360 042	975 317	0	0	2 417 974	**166 711 351**
9 950 515	92 635 399	1 637 156	:	0	:	:	:	:	1 006 587	0	:	21 140 020	**154 882 423**
3 821 435	59 587 154	9 098	0	0	8 419	0	825400	0	868 002	0	0	54 723 223	**265 246 783**
490 276 827	170 246 416	10 648 739	19 698 369	:	:	302687	:	20 545 254	18 230 036	0	1 986 155	331 940 115	**1 807 206 663**
30 094 631	174 095 489	524 428	0	16 493	589 621	595 937	563 770	13 108 512	13 051 819	9 592	1 532 421	125 156 276	**906 326 356**
46 564 245	67 749 614	:	0	0	0	349 207	:	0	1 068 119	0	0	33 927 744	**239 924 349**
48 742 181	83 769 642	1788629	:	:	126 235	:	26696	358 864	3 398 495	:	116 793	128 309 558	**574 942 964**
17 296 147	43 412 316	553 466	:	0	:	243 215	24419	:	2 481 311	0	:	314 051 251	**546 848 585**
34 986 195	11 900 501	735 760	0	:	127 314	381 430	443 297	425 401	4 680 182	:	:	149 929 379	**304 530 611**
28 030 701	41864539	21 558	0	0	0	125 594	0	:	2470257	0	0	39676598	**212 016 542**
1 707 690	31 119 038	399778	44105	25 357	9 172	391 551	28 324	23 873	1 489 052	421 359	0	197 980 311	**398 821 787**
2 345 133 967	**4 407 643 969**	**63 472 893**	**35 814 811**	**216 448 425**	**98 411 388**	**73 130 453**	**274 657 690**	**435 880 385**	**358 951 704**	**8 269 833**	**244 651 705**	**11 789 650 762**	**50 789 321 921**
0	0	0	0	0	0	0	0	0	0	0	0	0	**0**

Annex to 1.2.4

Trade of printed products, 2019, in €

	Export			Import			
	EU28 Extra	EU28 Intra	Total	EU28 Extra	EU28 Intra	Total	Trade balance
Austria	103 381 050	312 859 548	416 240 598	41 286 630	834 208 464	875 495 094	-459 254 496
Belgium	91 390 250	680 091 940	771 482 190	100 938 852	616 426 119	717 364 971	54 117 219
Bulgaria	16 364 390	36 666 898	53 031 288	3 942 285	35 934 339	39 876 624	13 154 664
Croatia	15 270 435	38 623 857	53 894 292	10 604 224	38 378 441	48 982 665	4 911 627
Cyprus	191 963	435 290	627 253	1 439 182	17 943 136	19 382 318	-18 755 065
Czech Republic	51 755 682	837 249 829	889 005 511	29 292 998	604 936 179	634 229 177	254 776 334
Denmark	87 785 911	138 420 843	226 206 754	20 224 520	244 610 769	264 835 289	-38 628 535
Estonia	15 261 797	77 412 680	92 674 477	5 650 427	12 936 923	18 587 350	74 087 127
Finland	27 188 141	35 200 351	62 388 492	22 276 372	101 438 196	123 714 568	-61 326 076
France	632 739 864	778 830 151	1 411 570 015	231 336 615	1 573 446 585	1 804 783 200	-393 213 185
Germany	1 262 527 710	2 838 005 567	4 100 533 277	363 520 717	2 320 002 871	2 683 523 588	1 417 009 689
Greece	34 840 629	40 879 194	75 719 823	31 831 132	65 047 661	96 878 793	-21 158 970
Hungary	46 978 569	150 522 191	197 500 760	23 336 257	115 986 880	139 323 137	58 177 623
Ireland	19 226 450	90 432 791	109 659 241	26 764 905	227 942 121	254 707 026	-145 047 785
Italy	270 300 191	792 887 180	1 063 187 371	109 495 492	441 247 505	550 742 997	512 444 374
Latvia	34 528 039	99 305 647	133 833 686	5 394 335	20 511 017	25 905 352	107 928 334
Lithuania	41 840 280	69 831 728	111 672 008	9 279 384	21 270 919	30 550 303	81 121 705
Luxembourg	1 116 861	13 977 523	15 094 384	1 701 834	72 601 072	74 302 906	-59 208 522
Malta	167 026 400	31 458 755	198 485 155	4 701 990	10 565 158	15 267 148	183 218 007
Netherlands	239 861 245	1 456 844 262	1 696 705 507	219 079 326	867 498 621	1 086 577 947	610 127 560
Poland	142 207 260	1 788 954 615	1 931 161 875	37 813 650	655 077 628	692 891 278	1 238 270 597
Portugal	23 601 688	36 687 560	60 289 248	13 287 862	136 085 304	149 373 166	-89 083 918
Romania	13 805 272	85 482 180	99 287 452	21 365 512	82 876 072	104 241 584	-4 954 132
Slovakia	4 542 829	180 166 909	184 709 738	4 980 403	127 497 664	132 478 067	52 231 671
Slovenia	24 790 345	147 359 251	172 149 596	34 897 072	43 801 467	78 698 539	93 451 057
Spain	288 675 904	481 071 120	769 747 024	165 514 239	480 880 272	646 394 511	123 352 513
Sweden	113 199 347	95 331 234	208 530 581	71 442 621	312 376 855	383 819 476	-175 288 895
United Kingdom	1 690 749 499	1 569 877 112	3 260 626 611	1 272 011 093	889 090 818	2 161 101 911	1 099 524 700
EU	**5 461 148 001**	**12 904 866 206**	**18 366 014 207**	**2 883 409 929**	**10 970 619 056**	**13 854 028 985**	**4 511 985 222**

Annex to 1.2.4

Trade of books, 2019, in €

	Export			Import			
	EU28 Extra	**EU28 Intra**	**Total**	**EU28 Extra**	**EU28 Intra**	**Total**	**Trade balance**
Austria	13 243 245	48 430 323	61 673 568	6 540 793	428 369 068	434 909 861	-373 236 293
Belgium	18 587 450	223 599 915	242 187 365	45 026 831	332 073 516	377 100 347	-134 912 982
Bulgaria	2 742 569	20 712 263	23 454 832	1 479 301	7 088 674	8 567 975	14 886 857
Croatia	5 248 177	13 640 014	18 888 191	4 679 683	9 192 194	13 871 877	5 016 314
Cyprus	37 318	335 745	373 063	612 420	12 423 550	13 035 970	-12 662 907
Czech Republic	11 601 443	395 117 208	406 718 651	11 854 062	237 468 945	249 323 007	157 395 644
Denmark	36 592 827	32 390 285	68 983 112	7 546 097	89 985 249	97 531 346	-28 548 234
Estonia	2 698 217	21 118 695	23 816 912	3 328 529	4 031 597	7 360 126	16 456 786
Finland	5 771 967	4 819 987	10 591 954	5 241 348	40 650 443	45 891 791	-35 299 837
France	320 631 914	348 341 596	668 973 510	106 156 172	575 960 339	682 116 511	-13 143 001
Germany	428 104 010	1 055 272 858	1 483 376 868	120 389 824	1 074 123 195	1 194 513 019	288 863 849
Greece	29 317 885	18 749 579	48 067 464	15 047 376	25 461 351	40 508 727	7 558 737
Hungary	20 605 987	59 872 130	80 478 117	6 075 320	21 243 611	27 318 931	53 159 186
Ireland	7 751 950	60 127 638	67 879 588	10 901 723	96 062 063	106 963 786	-39 084 198
Italy	104 243 626	313 530 369	417 773 995	45 229 280	238 365 925	283 595 205	134 178 790
Latvia	27 820 576	75 333 323	103 153 899	2 880 978	6 584 958	9 465 936	93 687 963
Lithuania	12 951 768	39 887 912	52 839 680	1 923 903	5 715 795	7 639 698	45 199 982
Luxembourg	291 753	4 114 866	4 406 619	1 153 785	34 538 075	35 691 860	-31 285 241
Malta	118 160	3 782 137	3 900 297	714 081	6 667 633	7 381 714	-3 481 417
Netherlands	41 239 748	539 591 374	580 831 122	82 143 761	376 052 655	458 196 416	122 634 706
Poland	34 967 335	910 638 658	945 605 993	9 039 537	461 399 739	470 439 276	475 166 717
Portugal	18 656 793	9 207 731	27 864 524	6 390 342	39 507 189	45 897 531	-18 033 007
Romania	6 894 936	25 739 915	32 634 851	8 547 150	32 475 078	41 022 228	-8 387 377
Slovakia	2 662 279	110 336 644	112 998 923	1 956 323	66 775 433	68 731 756	44 267 167
Slovenia	9 272 468	66 954 519	76 226 987	26 777 917	15 842 573	42 620 490	33 606 497
Spain	247 802 434	249 914 180	497 716 614	113 417 791	231 827 396	345 245 187	152 471 427
Sweden	44 764 743	33 422 591	78 187 334	36 277 474	100 281 763	136 559 237	-58 371 903
United Kingdom	1 281 307 375	993 734 695	2 275 042 070	879 150 851	404 069 586	1 283 220 437	991 821 633
EU28	**2 735 928 953**	**5 678 717 150**	**8 414 646 103**	**1 560 482 652**	**4 974 237 593**	**6 534 720 245**	**1 879 925 858**

Annex to 1.2.5

Imports from China to the EU, 2019, in €

	Printed books, newspapers, pictures and other products of the printing industry; manuscripts, typescripts and plans	Printed books, brochures and similar printed matter, whether or not in single sheets (excl. Periodicals and publications which are essentially devoted to advertising)(1988-2500)	Newspapers, journals and periodicals, whether or not illustrated or containing advertising material (1988-2500)	Children's picture, drawing or colouring books (1988-2500)	Printed or illustrated postcards; printed cards bearing personal greetings, messages or announcements, whether or not illustrated, with or without envelopes or trimmings (1988-2500)	Calendars of any kinds, printed, incl. Calendars blocks (1988-2500)	Trade advertising material, commercial catalogues and the like	Pictures, prints and photographs, n.E.S.
Austria	6 349 448	1 198 315	5 916	244 801	615 885	191 030	262 169	1 566 444
Belgium	50 279 904	23 443 430	6 948	11 781 403	6 778 862	1 794 246	1 796 450	1 675 353
Bulgaria	1 077 650	546 373	:	306 108	37 965	5 630	47 405	96 193
Croatia	2 641 019	1 094 190	530	755 712	56 409	26 105	20 532	43 627
Cyprus	268 750	29 526	32	8 504	163 454	4 415	23 488	22 165
Czechia	7 679 073	2 474 971	:	2 331 673	318 314	416 227	167 967	433 544
Denmark	8 156 877	1 905 293	1 117	2 940 706	897 406	779 613	133 416	655 266
Estonia	1 215 158	546 830	6 568	379 487	43 118	1 279	47 031	141 497
Finland	5 358 104	1 947 824	848	1 392 033	655 690	415 625	85 292	304 841
France	77 720 726	38 521 711	219 993	10 659 649	4 610 352	5 354 658	2 822 610	7 521 695
Germany	130 319 056	40 729 589	130 920	29 429 245	18 695 234	8 818 486	7 120 240	13 016 644
Greece	7 576 121	2 153 421	83 855	1 690 057	188 834	119 164	168 998	171 239
Hungary	6 519 029	2 507 162	180	978 464	378 280	86 378	165 995	429 473
Ireland	6 081 802	1 760 165	12 743	252 765	1 937 046	138 645	149 188	827 093
Italy	51 358 218	30 063 964	212 981	5 561 150	2 679 734	631 885	6 512 449	2 235 653
Latvia	666 819	322 741	:	146 043	226	4 131	14 639	137 016
Lithuania	1 477 550	384 964	124	806 960	26 167	183 488	7 221	39 331
Luxembourg	72 089	27 005	53	98	20 690	1 033	5 082	2 339
Malta	827 016	91 390	:	171 047	7 390	10 397	4 933	498 703
Netherlands	96 093 747	30 768 225	34 677	14 585 998	22 231 810	2 686 970	3 301 054	8 432 757
Poland	15 830 923	3 227 232	1 332	4 400 448	3 435 871	1 604 838	363 435	671 940
Portugal	3 241 562	1 417 038	1 297	657 373	111 241	22 520	194 198	270 709
Romania	4 598 863	1 924 425	1 548	1 632 906	18 522	12 832	82 702	61 319
Slovakia	1 061 913	547 603	180	184 679	263 761	18 348	19 442	9 524
Slovenia	2 321 762	1 509 968	24	156 372	110 757	18 694	80 887	71 485
Spain	75 851 938	57 636 098	14 512	4 597 271	1 936 327	1 964 676	1 423 221	3 786 142
Sweden	14 871 289	3 625 344	5 942	2 878 360	2 303 137	1 818 618	192 491	732 793
United Kingdom	381 012 855	166 090 768	209 730	29 792 178	131 766 410	11 723 668	1 635 362	21 549 968
EU-28	**960 529 261**	**416 495 565**	**952 050**	**128 721 490**	**200 288 892**	**38 853 599**	**26 847 897**	**65 404 753**

Annex to 1.2.6

Trade of printed products with the US, 2019, in €

	Exports	Imports	Trade balance
Austria	7 069 009	16 772 311	-9 703 302
Belgium	23 008 854	17 104 997	5 903 857
Bulgaria	688 006	227 370	460 636
Croatia	153 181	448 557	-295 376
Cyprus	52 976	472 258	-419 282
Czech Republic	2 943 604	5 922 408	-2 978 804
Denmark	4 419 982	5 104 952	-684 970
Estonia	432 760	283 972	148 788
Finland	3 303 221	3 398 951	-95 730
France	75 064 148	37 408 955	37 655 193
Germany	152 246 345	69 467 915	82 778 430
Greece	933 974	3 617 118	-2 683 144
Hungary	494 689	5 349 233	-4 854 544
Ireland	6 805 530	9 360 447	-2 554 917
Italy	75 037 814	31 178 373	43 859 441
Latvia	679 065	133 322	545 743
Lithuania	881 964	285 200	596 764
Luxembourg	290 084	755 244	-465 160
Malta	220 853	1 897 181	-1 676 328
Netherlands	26 738 338	73 819 763	-47 081 425
Poland	21 420 414	5 548 983	15 871 431
Portugal	503 109	2 724 825	-2 221 716
Romania	564 958	1 004 837	-439 879
Slovakia	760 352	1 444 993	-684 641
Slovenia	1 198 604	456 784	741 820
Spain	22 695 824	20 479 938	2 215 886
Sweden	8 233 788	27 677 442	-19 443 654
United Kingdom	530 074 833	607 081 096	-77 006 263
EU28	**966 916 279**	**949 427 425**	**17 488 854**

Annex to 1.3.2

Total graphic paper consumption (in '000 tonnes)

	1991	1995	2000	2001	2002	2003	2004	2005	2006
Newsprint	7 618	8 605	10 351	10 640	9 665	9 704	10 087	10 381	9 996
Uncoated mechanical	4 188	4 219	4 539	4 927	5 115	5 177	5 290	5 332	6 218
Coated mechanical	4 618	5 260	6 283	6 917	6 970	7 382	7 802	7 838	7 832
Uncoated woodfree	7 272	7 991	9 937	9 402	9 586	9 194	9 758	9 726	9 173
Coated woodfree	4 480	5 303	8 771	7 163	7 244	7 527	7 681	7 736	7 687
TOTAL	**28 176**	**31 378**	**39 882**	**39 050**	**38 580**	**38 984**	**40 619**	**41 013**	**40 907**

	1991	1995	2000	2001	2002	2003	2004	2005	2006
Austria	634	713	1 077	1 120	1 018	1 042	892	923	961
Belgium	1 173	1 387	1 801	1 813	1 841	1 867	1 890	1 871	2 007
Czech Republic	222	285	401	425	453	491	525	556	676
Finland									
France	4 001	4 557	5 915	5 235	5 293	5 306	5 559	5 328	5 318
Germany	7 750	8 015	9 518	9 189	8 660	8 989	9 702	9 641	9 780
Italy	3 102	3 543	4 329	4 160	4 182	4 299	4 533	4 694	4 593
Netherlands	1 661	1 298	2 093	1 804	1 614	1 720	1 702	1 673	1 670
Norway	343	418	492	404	407	563	546	575	556
Poland	272	606	1 014	987	1 057	1 112	1 332	1 251	1 414
Portugal	275	299	450	405	376	415	591	487	264
Romania	98	111	128	146	158	178	232	257	268
Slovak Republic	85	136	169	189	226	220	233	239	230
Slovenia	138	131	116	130	143	122	155	194	186
Spain	1 808	1 972	2 622	2 231	2 361	2 608	2 380	2 698	3 033
Sweden	975	664	1 094	1 238	1 137	966	1 034	993	1 093
United Kingdom	4 810	6 252	7 455	7 268	7 084	7 202	7 269	7 272	7 188
Other countries	829	991	1 208	1 572	1 156	1 190	1 190	1 081	709
TOTAL	**28 176**	**31 378**	**39 882**	**39 050**	**38 580**	**38 984**	**40 619**	**41 013**	**40 907**

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
	9 794	9 488	8 284	8 442	8 269	7 560	7 255	7 061	6 606	5 999	5 259	5 061
	6 256	6 057	5 322	5 345	5 430	5 017	4 843	4 646	4 623	4 700	4 715	4 636
	8 188	7 845	6 035	6 764	6 479	5 711	5 172	5 143	4 926	4 611	4 379	4 221
	9 410	8 599	8 379	8 298	7 867	7 501	7 175	7 247	7 036	6 974	7 075	6 915
	7 698	7 480	6 187	5 977	5 816	5 606	5 163	5 083	4 754	4 565	4 244	3 954
	41 345	**39 470**	**34 207**	**34 826**	**33 861**	**31 396**	**29 608**	**29 180**	**27 946**	**26 849**	**25 672**	**24 788**

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
	1 051	1 002	871	928	899	690	659	649	606	626	612	690
	1 956	1 906	1 687	1 869	1 953	1 890	1 887	1 850	1 936	1 926	1 851	1 818
	733	745	569	602	537	520	496	523	558	529		
										163		
	5 294	5 004	4 201	4 343	4 119	3 792	3 586	3 619	3 282	3 232	3 162	3 036
	9 941	9 481	8 489	8 695	8 860	8 837	8 622	8 659	8 484	8 027	7 920	7 468
	4 766	4 324	3 726	4 047	3 886	3 467	3 248	3 210	3 062	2 995	2 899	2 935
	1 943	1 573	1 264	1 193	1 138	1 278	1 208	1 041	980	1 091	920	892
	593	546	527	490	475	400	379	379				
	1 502	1 600	1 397	1 463	1 469	1 435	1 436	1 504	1 447	1 473		
	374	462	665	551	358	369	300	311	345	332		
	255	231	198	185	171	175	161	137	165	171	184	188
	248	258	255	266	266	243	254	249	235			
	185	176	174	179	190	208	202	115	116		119	43
	2 652	2 580	1 961	1 989	1 872	1 643	1 433	1 480	1 479	1 382	1 307	1 203
	1 059	985	777	827	783	745	604	613	479	503	450	471
	7 009	6 626	5 501	5 468	5 079	4 684	4 488	4 510	4 217	3 694	3 398	3 222
	679	748	507	688	549	404	392	516	778	914	3 357	3 321
	41 345	**39 470**	**34 207**	**34 826**	**33 861**	**31 396**	**29 686**	**29 180**	**27 946**	**26 849**	**25 671**	**24 788**

Annex to 1.3.4

Profile of the European book publishing sector, 2006-2018

	2006	2007	2008	2009	2010
PUBLISHERS' REVENUE FROM SALES OF BOOKS (€ BILLION)	**23,2**	**24,5**	**23,75**	**23**	**23,5**
Educational (school) books	14,8%	18,9%	15,9%	17,6%	17,9%
Academic/Professional books	29,4%	22,5%	21,5%	20,0%	20,5%
Consumer (trade) books	47,5%	48,9%	50,6%	50,5%	49,6%
Children's books	8,3%	9,7%	12,0%	11,9%	12,0%
SALES BY AREA					
Sales in the domestic market	77,8%	82,7%	83,0%	84,4%	81,5%
Exports	22,2%	17,3%	17,0%	15,6%	18,5%
SALES BY DISTRIBUTION CHANNELS					
Trade (retail and wholesale)	77,7%	78,3%	77,5%	79,5%	78,0%
Book Clubs	7,6%	6,9%	5,9%	5,6%	5,7%
Direct	14,7%	14,8%	16,6%	14,9%	16,3%
NUMBER OF TITLES PUBLISHED IN PERIOD					
New titles	475 000	490 000	510 000	515 000	525 000
Number of titles in print (active catalogue)	5 250 000	5 600 000	6 100 000	6 400 000	7 400 000
Number of persons in full-time employment in book publishing	140 000	140 000	135 000	135 000	135 000

2011	2012	2013	2014	2015	2016	2017	2018
22,8	**22,5**	**22,3**	**22**	**22,3**	**22,3**	**22,2**	**22**
18,7%	19,8%	18,8%	19,2%	19,9%	21,0%	21,2%	19,8%
19,5%	19,7%	19,5%	19,5%	19,5%	18,7%	18,5%	18,9%
49,8%	48,7%	49,5%	49,2%	48,4%	47,2%	47,4%	48,4%
12,1%	11,8%	12,3%	12,2%	12,2%	13,0%	12,9%	12,9%
80,5%	79,6%	81,0%	80,0%	77,1%	77,9%	78,0%	77,9%
19,5%	20,4%	19,0%	20,0%	22,9%	22,1%	22,0%	22,1%
80,9%	80,2%	79,3%	79,5%	83,2%	82,8%	80,7%	80,8%
6,0%	4,7%	3,5%	3,3%	2,2%	1,7%	1,0%	1,8%
13,1%	15,1%	17,2%	17,2%	14,6%	15,5%	18,2%	17,4%
530 000	535 000	560 000	545 000	575 000	590 000	610 000	585 000
8 500 000	9 000 000	16 000 000	16 900 000	22 000 000	22 500 000		11 250 000
135 000	130 000	130 000	125 000	125 000	125 000	130 000	130 000

Annex to 1.3.6

Electricity prices for industrial consumers, 2008-2018

	2008S1	2008S2	2009S1	2009S2	2010S1	2010S2	2011S1	2011S2	2012S1	2012S2
Austria	0,1276	0,1286	0,1421	0,1394	0,1352	0,1353	0,1351	0,1353	0,1322	0,1339
Belgium	0,1293	0,1163	0,1344	0,1305	0,1274	0,1276	0,1328	0,1381	0,1302	0,1340
Bulgaria	0,0675	0,0782	0,0777	0,0767	0,0782	0,0798	0,0778	0,0800	0,0832	0,0935
Croatia	0,0922	0,1142	0,1057	0,1110	0,1155	0,1112	0,1115	0,1094	0,1120	0,1175
Cyprus	0,1638	0,2075	0,1360	0,1715	0,1727	0,1984	0,1919	0,2419	0,2601	0,2732
Czech Republic	0,1318	0,1335	0,1271	0,1335	0,1239	0,1297	0,1330	0,1299	0,1247	0,1234
Denmark	0,2113	0,2245	0,2067	0,2140	0,2270	0,2293	0,2423	0,2343	0,2391	0,2421
Estonia	0,0669	0,0711	0,0759	0,0774	0,0833	0,0873	0,0862	0,0902	0,0941	0,0981
Finland	0,0781	0,0822	0,0841	0,0833	0,0846	0,0841	0,0930	0,0923	0,0928	0,0915
France	0,0778	0,0736	0,0865	0,0774	0,0930	0,0835	0,1014	0,0948	0,1117	0,0951
Germany	0,1410	0,1428	0,1505	0,1515	0,1507	0,1562	0,1668	0,1662	0,1703	0,1727
Greece	0,0941	0,1006	0,1037	0,1020	0,1036	0,1139	0,1182	0,1256	0,1337	0,1381
Hungary	0,1371	0,1461	0,1487	0,1618	0,1320	0,1312	0,1271	0,1317	0,1190	0,1255
Ireland	0,1489	0,1604	0,1364	0,1327	0,1263	0,1277	0,1281	0,1460	0,1488	0,1575
Italy	0,1565	0,1704	0,1773	0,1581	0,1596	0,1663	0,1741	0,1908	0,1919	0,2075
Latvia	0,0779	0,0940	0,1085	0,1082	0,1076	0,1096	0,1201	0,1344	0,1346	0,1344
Lithuania	0,0978	0,0990	0,1099	0,0954	0,1205	0,1265	0,1269	0,1256	0,1378	0,1384
Luxembourg	0,1035	0,1038	0,1227	0,1228	0,1078	0,1086	0,1063	0,1060	0,1113	0,1074
Malta	0,1282	0,1700	0,1581	0,1356	0,1809	0,1898	0,1869	0,1886	0,1881	0,1904
Netherlands	0,1252	0,1234	0,1321	0,1263	0,1205	0,1154	0,1175	0,1131	0,1159	0,1152
Poland	0,1075	0,1110	0,1100	0,1139	0,1194	0,1204	0,1247	0,1158	0,1127	0,1176
Portugal	0,0939	0,0946	0,0984	0,0989	0,0982	0,0964	0,1048	0,1146	0,1403	0,1409
Romania	0,1057	0,1134	0,0970	0,0990	0,1018	0,1008	0,1024	0,1055	0,1058	0,1091
Slovakia	0,1424	0,1533	0,1693	0,1670	0,1397	0,1426	0,1531	0,1513	0,1579	0,1525
Slovenia	0,1118	0,1182	0,1235	0,1155	0,1192	0,1206	0,1185	0,1157	0,1138	0,1129
Spain	0,1108	0,1238	0,1338	0,1299	0,1354	0,1290	0,1342	0,1364	0,1433	0,1447
Sweden	0,0866	0,0965	0,0832	0,0861	0,1005	0,1050	0,1116	0,1036	0,1012	0,0970
United Kingdom	0,1147	0,1279	0,1283	0,1164	0,1162	0,1164	0,1179	0,1253	0,1372	0,1432
EU-28	**0,1194**	**0,1248**	**0,1299**	**0,1252**	**0,1275**	**0,1284**	**0,1360**	**0,1376**	**0,1422**	**0,1439**
Norway	0,0980	0,1089	0,0987	0,0994	0,1288	0,1173	0,1381	0,1136	0,1154	0,1074

2013S1	2013S2	2014S1	2014S2	2015S1	2015S2	2016S1	2016S2	2017S1	2017S2	2018S1	2018S2	2019S1
0,1337	0,1329	0,1307	0,1266	0,1247	0,1260	0,1264	0,1229	0,1116	0,1196	0,1196	0,1215	0,1290
0,1305	0,1325	0,1283	0,1309	0,1301	0,1297	0,1349	0,1398	0,1367	0,1314	0,1313	0,1373	0,1385
0,0976	0,0871	0,0896	0,0909	0,0831	0,0939	0,1202	0,0946	0,0915	0,0890	0,0972	0,1015	0,1065
0,1186	0,1180	0,1195	0,1148	0,1150	0,1159	0,1129	0,1096	0,0987	0,1040	0,1124	0,1144	0,1169
0,2440	0,2367	0,2070	0,2256	0,1648	0,1668	0,1238	0,1532	0,1664	0,1637	0,1653	0,2137	0,1901
0,1237	0,1198	0,1003	0,0991	0,0934	0,0947	0,0884	0,0885	0,0832	0,0859	0,0887	0,0872	0,0930
0,2496	0,2463	0,2562	0,2606	0,2589	0,2599	0,2664	0,2651	0,2544	0,2579	0,2537	0,2510	0,2358
0,1169	0,1164	0,1100	0,1117	0,1066	0,1117	0,1054	0,1075	0,1044	0,1015	0,1038	0,1109	0,1100
0,0929	0,0929	0,0910	0,0895	0,0877	0,0875	0,0849	0,0861	0,0827	0,0838	0,0844	0,0876	0,0880
0,1157	0,1022	0,1183	0,1126	0,1232	0,1141	0,1191	0,1191	0,1198	0,1102	0,1174	0,1053	0,1225
0,1879	0,1902	0,2071	0,1992	0,1979	0,1960	0,1974	0,1958	0,1991	0,1985	0,1967	0,1987	0,2036
0,1411	0,1400	0,1510	0,1467	0,1460	0,1299	0,1363	0,1260	0,1215	0,1315	0,1157	0,1184	0,1172
0,1210	0,1229	0,1142	0,1123	0,1080	0,1084	0,1004	0,0992	0,0922	0,0957	0,1042	0,1023	0,1206
0,1534	0,1541	0,1541	0,1532	0,1601	0,1531	0,1498	0,1404	0,1392	0,1399	0,1491	0,1518	0,1579
0,1951	0,1995	0,2000	0,2033	0,1873	0,1855	0,1771	0,1807	0,1712	0,1675	0,1642	0,1662	0,1913
0,1362	0,1394	0,1417	0,1374	0,1425	0,1432	0,1410	0,1453	0,1427	0,1402	0,1257	0,1267	0,1273
0,1489	0,1485	0,1414	0,1417	0,1198	0,1205	0,1136	0,1069	0,1024	0,1000	0,1014	0,1089	0,1119
0,1042	0,1063	0,1067	0,1046	0,1003	0,0965	0,0943	0,0926	0,0849	0,0873	0,0905	0,0914	0,0975
0,1879	0,1869	0,1856	0,1870	0,1679	0,1475	0,1493	0,1469	0,1480	0,1432	0,1414	0,1420	0,1462
0,1144	0,1143	0,1131	0,1075	0,1091	0,1024	0,1037	0,0974	0,0995	0,0925	0,1044	0,0978	0,1138
0,1145	0,1079	0,1015	0,1025	0,1085	0,1059	0,0993	0,1003	0,1079	0,1061	0,1078	0,1088	0,1233
0,1416	0,1397	0,1427	0,1460	0,1402	0,1420	0,1384	0,1396	0,1408	0,1411	0,1381	0,1440	0,1409
0,1337	0,1185	0,1087	0,1001	0,1029	0,0989	0,0913	0,0926	0,0915	0,0936	0,0989	0,1030	0,1157
0,1543	0,1523	0,1382	0,1409	0,1351	0,1346	0,1310	0,1334	0,1378	0,1336	0,1399	0,1441	0,1543
0,1160	0,1153	0,1056	0,1033	0,1009	0,1061	0,1033	0,1015	0,0957	0,0956	0,1050	0,1057	0,1170
0,1482	0,1454	0,1507	0,1412	0,1420	0,1371	0,1337	0,1245	0,1284	0,1249	0,1282	0,1329	0,1389
0,1006	0,0934	0,0885	0,0833	0,0778	0,0738	0,0770	0,0820	0,0810	0,0808	0,0855	0,0909	0,0922
0,1375	0,1436	0,1548	0,1606	0,1788	0,1823	0,1653	0,1534	0,1512	0,1487	0,1603	0,1699	0,1813
0,1481	**0,1468**	**0,1529**	**0,1495**	**0,1497**	**0,1474**	**0,1453**	**0,1453**	**0,1415**	**0,1389**	**0,1414**	**0,1422**	**0,1524**
0,1208	0,1082	0,0998	0,1010	0,0962	0,0856	0,0930	0,1017	0,0888	0,0879	0,0973	0,1090	0,1036

Annex to 1.3.7

European postal rates, 2014-2019, in €

	Nominal price for a domestic standard letter					
	2014	2015	2016	2017	2018	2019
Malta	0,26	0,26	0,26	0,26	0,26	0,28
Cyprus	0,34	0,41	0,41	0,41	0,41	0,41
Slovenia	0,29	0,34	0,36	0,37	0,40	0,48
Bulgaria	0,44	0,44	0,44	0,43	0,49	0,49
Hungary	0,49	0,47	0,47	0,50	0,50	0,50
Lithuania	0,45	0,45	0,45	0,45	0,45	0,55
Latvia	0,57	0,57	0,57	0,57	0,57	0,57
Romania	0,36	0,36	0,36	0,31	0,31	0,60
Spain	0,37	0,42	0,45	0,50	0,55	0,60
Portugal	0,50	0,55	0,58	0,58	0,65	0,65
Estonia	0,45	0,55	0,65	0,65	0,65	0,65
Slovakia	0,65	0,65	0,65	0,70	0,70	0,70
Greece	0,72	0,72	0,72	0,72	0,72	0,72
Czech Republic	0,50	0,47	0,48	0,59	0,72	0,74
United Kingdom	0,73	0,78	0,88	0,79	0,76	0,79
Austria	0,62	0,68	0,68	0,68	0,68	0,80
Luxembourg	0,60	0,60	0,70	0,70	0,70	0,80
Germany	0,60	0,62	0,70	0,70	0,70	0,80
Netherlands	0,64	0,69	0,73	0,78	0,83	0,87
Switzerland	0,81	0,82	0,94	0,92	0,90	0,87
Croatia	0,61	0,60	0,85	0,86	0,87	0,88
Sweden	0,69	0,77	0,70	0,74	0,93	0,88
Average	**0,62**	**0,66**	**0,79**	**0,86**	**0,89**	**0,95**
Poland	0,56	0,56	0,56	0,73	0,75	0,96
Belgium	0,77	0,77	0,79	0,79	0,87	1,00
Ireland	0,60	0,68	0,70	1,00	1,00	1,00
France	0,66	0,76	0,80	0,85	0,95	1,05
Finland	1,00	1,10	1,20	1,30	1,50	1,50
Norway	1,28	1,26	1,23	1,40	1,50	1,72
Italy	0,70	0,80	2,80	2,80	2,80	2,80
Denmark	1,21	1,34	2,55	3,63	3,63	3,89

Nominal price for letter mail within Europe						
	2014	**2015**	**2016**	**2017**	**2018**	**2019**
Malta	0,59	0,59	0,59	0,59	0,59	0,59
Cyprus	0,51	0,64	0,64	0,64	0,64	0,64
Latvia	0,78	0,78	0,78	0,78	0,78	0,78
Lithuania	0,71	0,81	0,81	0,81	0,81	0,81
Austria	0,70	0,70	0,80	0,80	0,80	0,90
Greece	0,90	0,90	0,90	0,90	0,90	0,90
Bulgaria	0,77	0,77	0,77	0,77	1,02	1,02
Luxembourg	0,85	0,85	0,95	0,95	0,95	1,05
Germany	0,75	0,80	0,90	0,90	0,90	1,10
Slovakia	1,00	1,00	1,00	1,00	1,10	1,20
France	0,83	0,95	1,00	1,10	1,20	1,30
Switzerland	1,14	1,15	1,41	1,38	1,35	1,30
Hungary	0,99	1,05	1,10	1,20	1,25	1,40
Spain	0,75	0,90	1,15	1,25	1,35	1,40
Estonia	1,00	1,20	1,40	1,40	1,40	1,40
Poland	1,24	1,24	1,24	1,38	1,41	1,41
Netherlands	1,05	1,15	1,25	1,33	1,40	1,45
Belgium	1,17	1,20	1,23	1,23	1,36	1,46
Romania	0,48	0,47	0,90	0,89	0,88	1,50
Czech Republic	0,96	0,91	0,92	1,18	1,33	1,52
United Kingdom	1,14	1,24	1,45	1,43	1,43	1,53
Average	**0,74**	**1,09**	**1,28**	**1,38**	**1,44**	**1,56**
Finland	1,00	1,10	1,30	1,40	1,60	1,60
Ireland	0,90	1,00	1,05	1,35	1,50	1,70
Croatia	1,45	1,44	1,45	1,46	1,47	1,89
Slovenia	1,19	1,29	1,29	1,77	1,77	2,01
Sweden	1,62	1,54	1,39	2,22	2,18	2,05
Norway	1,66	1,68	1,57	1,83	1,93	2,68
Portugal	1,90	2,35	2,45	2,45	2,80	2,80
Italy	0,85	0,95	3,50	3,50	3,50	3,50
Denmark	1,88	1,95	3,35	3,36	3,63	4,03

Annex to 1.3.8

VAT rates applied to printed and electronic publications, 2019

	VAT printed books	VAT printed magazines	VAT printed newspapers	VAT e-publications
Norway	0%	0%	0%	0%
United Kingdom	0%	0%	0%	0%
Ireland	0%	9%	9%	9%
Switzerland	2,5%	2,5%	2,5%	7,7%
Luxembourg	3%	3%	3%	3%
Italy	4%	4%	4%	4%
Spain	4%	4%	4%	4%
Croatia	5%	5%	5%	5%
Cyprus	5%	5%	5%	19%
Hungary	5%	5%	5%	5%
Malta	5%	5%	5%	5%
Poland	5%	5%	8%	5%
Romania	5%	5%	5%	19%
France	5,5%	2,1%	2,1%	5,5%
Germany	7%	7%	7%	7%
Belgium	6%	0%	0%	6%
Greece	6%	6%	6%	24%
Portugal	6%	6%	6%	6%
Sweden	6%	6%	6%	6%
Estonia	9%	9%	9%	20%
Lithuania	9%	5%	5%	21%
Netherlands	9%	9%	9%	9%
Slovenia	9,5%	9,5%	9,5%	9,5%
Austria	10%	10%	10%	10%
Czech Republic	10%	10%	10%	10%
Finland	10%	10%	10%	10%
Slovakia	10%	20%	20%	10%
Latvia	12%	12%	12%	21%
Bulgaria	20%	20%	20%	20%
Denmark	25%	25%	0%	25%

AUSTRIA
PROPAK
www.propak.at

BELGIUM
Fédération Belge Des
Industries Graphiques (FEBELGRA)
www.febelgra.be

BULGARIA
Printing Industry Union
Of Bulgaria
www.printunion-bg.org

DENMARK
GRAKOM
www.grakom.dk

ESTONIA
Association of Estonian Printing and
Packaging Industry (AEPPI)
www.etpl.ee

FINLAND
Graafinen
Teollisuus Ry
www.graafinenteollisuus.fi

FRANCE
Union Nationale des Industries
de l'Impression et de la Communication (UNIIC)
www.uniic.org

GERMANY
Bundesverband Druck und Medien e.V. (bvdm)
www.bvdm-online.de

HUNGARY
Federation of Hungarian
Printers and Papermakers
(FEDPRINT)
www.fedprint.hu

IRELAND
Irish Printing Federation
www.irishprintingfederation.ie

ITALY
Italian Association of Printing and Paper Converting
Industries (ASSOGRAFICI)
www.assografici.it

LATVIA
Latvian Printers Association
www.lpua.lv

LITHUANIA
Association of Lithuanian Printing Industries (LISPA)
www.lispa.net

LUXEMBOURG
Association Des Maitres Imprimeurs
Du Grand-Duché De Luxembourg (AMIL)
www.amil.lu

NORWAY
Norwegian Printing Federation
www.nhografisk.no

PORTUGAL
APIGRAF
www.apigraf.pt

SWEDEN
Grafiska Företagens (GF)
www.grafiska.se

SWITZERLAND
Schweizerischer Verband
für Visuelle Kommunikation
(VISCOM)
www.viscom.ch

SWITZERLAND
Verband Der Schweizer
Druckindustrie (VSD)
www.druckindustrie.ch

THE NETHERLANDS
Koninklijk Verbond Van Grafische
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