

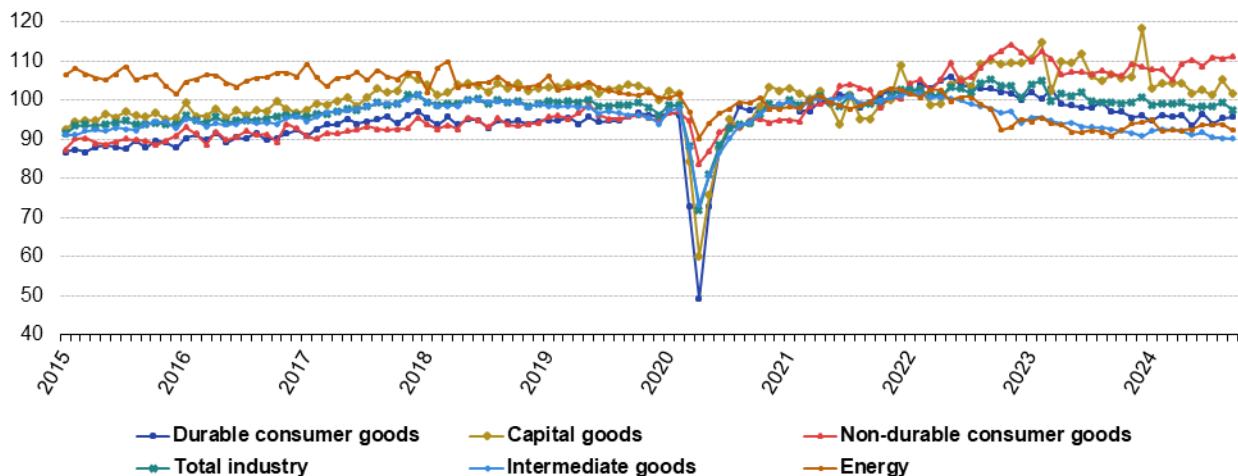
Industrial production (volume) index overview

Statistics Explained

Data extracted in November 2024.
Planned article update: November 2025.

Highlights

EU, Industrial production for total industry and main industrial groupings, 2015-2024 (2021=100)



Note: y-axis does not start at 0.

Source: Eurostat (online data code: sts_inpr_m)

eurostat 

EU, Industrial production for total industry and main industrial groupings, 2015-2024, monthly data, seasonally adjusted, (2021 = 100) Source: Eurostat (sts_inpr_m)

The [industrial production index](#) (abbreviated IPI and sometimes also called industrial output index or industrial volume index) is a [business cycle](#) indicator which measures monthly changes in the price-adjusted output of industry. This article takes a look at the industrial production index as it is calculated in the [European Union \(EU\)](#) as well as in some [EFTA](#) and [candidate countries](#).

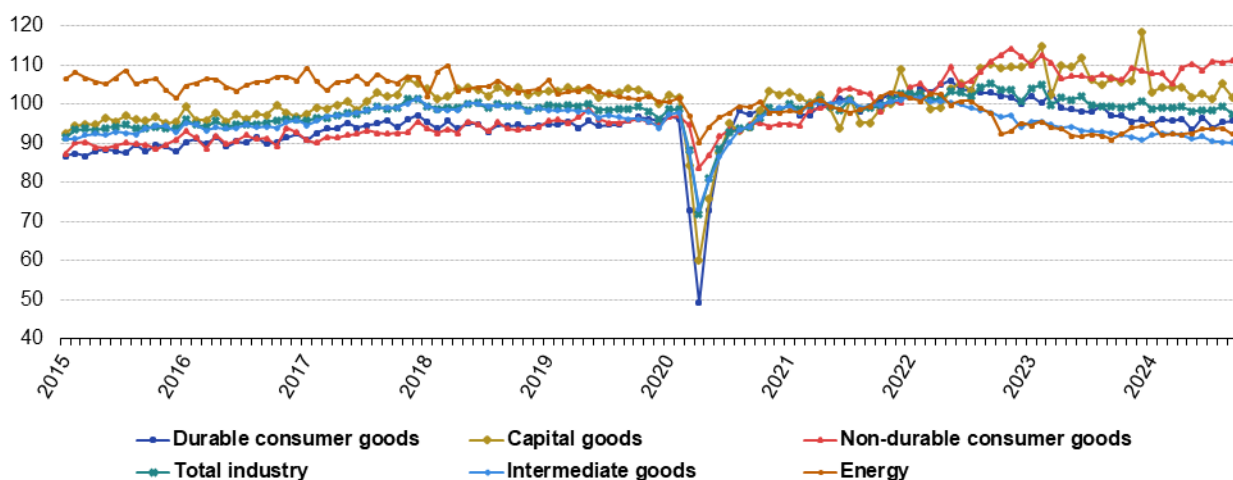
Please also see the [monthly Eurostat news release from 15 April 2025](#).

General overview

Between 2015 and 2018 total industrial production in the EU increased slowly but relatively steadily. In 2018 and 2019 the development more or less stagnated (Figure 1). In 2020, the Covid-19 crisis and the resulting containment

measures, such as lockdowns, resulted in a massive reduction in industrial production, especially for durable consumer goods and capital goods. In the subsequent months industrial production largely recovered. In the summer of 2022 the trend in industrial production changed. Between August 2022 and September 2024 total industrial production fell by more than 6%. Massive decreases were in particular recorded for durable consumer goods (-7.0%) and intermediate goods (-8.5%). Contrary to the general trend in industry however, the production of non-durable consumer goods increased by almost 3% during the last 2 years.

EU, Industrial production for total industry and main industrial groupings, 2015-2024 (2021=100)



Note: y-axis does not start at 0.
 Source: Eurostat (online data code: sts_inpr_m)



Figure 1: EU Industrial production for total industry and main industrial groupings, monthly data, seasonally adjusted, 2015-2024, (2021 = 100) Source: Eurostat (sts_inpr_m)

Development of main industrial groupings and individual industries

Table 1 shows a breakdown of the general development of the main industrial groupings and the industry groups in more detailed NACE divisions. Most affected by the Covid-19 crisis were capital goods (-11.5%), in particular motor vehicles (-19.8%) and other transport equipment (-16.1%). In the main industrial grouping of non-durable consumer goods the production of wearing apparel (-26.6%) and of leather products (-25.5%) decreased massively.

The recovery from the Covid-19 crisis in the years 2021 and 2022 was particularly strong in the computer and pharmaceutical industries. 2023 saw a decrease of production in about two-thirds of all industries.

Annual rates of change for total industry, main industrial groupings and NACE divisions, calendar adjusted data, EU, 2015-2023
(%)

	2015	2016	2017	2018	2019	2020	2021	2022	2023
Total industry	2.6	1.7	3.1	1.2	-0.5	-7.4	9.1	2.9	-1.8
Intermediate goods	2.2	1.8	3.8	1.3	-2.2	-6.2	9.8	-0.8	-5.8
Energy	0.5	-0.2	0.7	-1.7	-1.9	-4.9	2.2	-1.1	-5.8
Capital goods	5.5	2.0	4.1	2.0	0.0	-11.5	9.3	5.5	3.0
Durable consumer goods	2.9	3.1	4.1	0.1	0.8	-7.5	13.4	3.2	-4.4
Non-durable consumer goods	2.4	2.1	1.1	1.7	2.2	-3.0	7.5	7.9	0.2
Mining of coal and lignite	-1.9	-10.0	-8.5	-4.7	-15.3	-18.9	10.6	18.7	-15.9
Extraction of crude petroleum and natural gas	-14.8	-7.3	-5.1	-11.5	-12.8	-22.7	-8.4	-6.0	-17.9
Mining of metal ores	-3.2	-0.1	4.9	-9.1	-0.9	-0.3	-6.5	-1.5	1.9
Other mining and quarrying	-1.3	2.2	5.3	2.2	-0.1	-5.1	7.5	-3.0	-6.0
Mining support service activities	-1.1	-12.2	-9.4	-1.5	13.5	-1.0	-18.8	-2.9	11.1
Food products	1.1	1.7	1.3	0.9	1.1	-1.7	3.3	0.9	-1.2
Beverages	-1.3	0.7	2.1	2.3	1.5	-9.5	6.6	7.5	-3.2
Tobacco products	-4.6	1.1	7.5	0.1	-6.0	1.7	2.0	0.2	4.1
Textiles	0.6	1.5	2.2	-1.4	-3.6	-11.8	10.0	-1.1	-6.5
Wearing apparel	-1.5	-0.2	-3.0	-1.5	-6.9	-26.6	-0.7	10.3	-3.4
Leather and related products	-4.5	-1.7	3.4	0.3	-0.1	-25.5	14.4	9.7	-6.3
Wood and wood products (excluding furniture)	1.1	1.9	4.3	1.4	-1.5	-1.3	8.1	-1.6	-10.6
Paper and paper products	1.5	0.5	2.2	0.8	-1.6	-3.7	6.0	-1.2	-9.7
Printing and reproduction of recorded media	-3.2	-1.9	-1.7	-1.6	-3.1	-14.4	5.2	-2.6	-9.9
Coke and refined petroleum products	3.5	-0.8	1.3	-0.2	-4.2	-11.8	3.2	6.3	-3.6
Chemicals and chemical products	0.1	1.2	3.7	-0.5	-1.6	-2.5	6.0	-6.0	-8.5
Pharmaceuticals	11.1	6.2	0.1	2.9	11.0	8.2	11.9	22.1	5.7
Rubber and plastic products	3.1	2.8	4.9	0.5	-1.3	-7.4	8.7	-1.6	-4.4
Other non-metallic mineral products	0.7	2.9	4.3	1.5	0.0	-5.7	11.0	-0.7	-11.6
Basic metals	0.5	0.1	3.3	0.5	-4.2	-12.0	12.1	-4.3	-5.3
Fabricated metal products (excluding machinery)	0.7	2.9	5.0	1.9	-2.1	-10.6	12.0	0.5	-2.3
Computer, electronic and optical products	39.1	2.7	4.9	-2.6	1.6	0.7	23.9	10.8	-7.4
Electrical equipment	0.6	1.3	4.5	2.3	-2.7	-5.9	12.5	3.8	2.1
Machinery and equipment n.e.c.	0.7	1.1	5.8	3.9	-0.5	-11.8	11.5	5.4	0.9
Motor vehicles, trailers and semi-trailers	4.2	2.5	3.3	-0.2	-3.4	-19.8	0.9	5.0	12.0
Other transport equipment	0.7	4.5	3.1	6.5	4.5	-16.1	0.7	6.0	10.6
Furniture	2.5	4.4	2.0	-0.2	-0.7	-7.8	10.4	-0.9	-8.2
Other manufacturing	4.4	4.8	2.0	5.0	-0.4	-4.2	15.5	6.1	0.3
Repair and installation of machinery and equipment	1.8	-0.9	3.2	5.4	2.4	-8.8	4.3	4.4	6.4
Electricity, gas, steam and air conditioning supply	2.7	0.8	1.5	-0.8	-0.6	-3.4	2.0	-1.9	-5.2

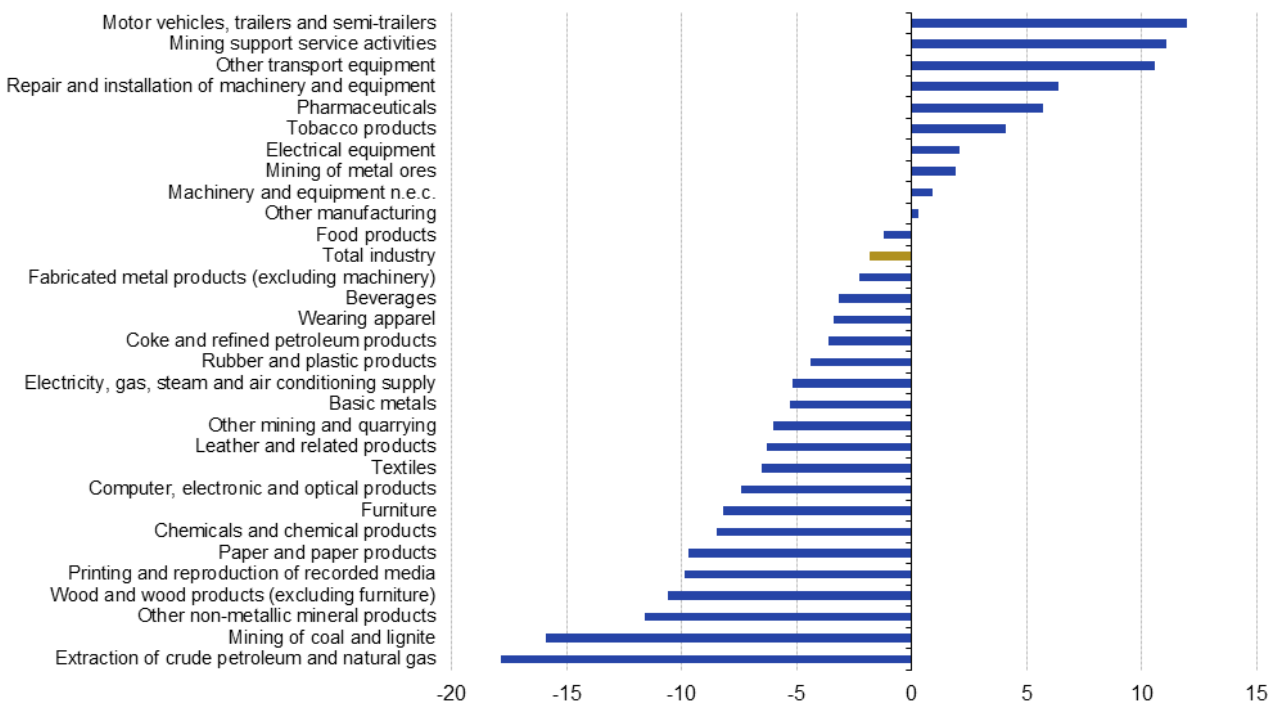
Source: Eurostat (online data code: sts_inpr_a)

eurostat 

Table 1: Annual rates of change for total industry, main industrial groupings and NACE divisions, calendar adjusted data, EU, 2015-2023 Source: Eurostat (sts_inpr_a)

The growth rates for the different industrial sectors for the year 2023 are displayed in Figure 2. Relatively high increases were recorded for the production of motor vehicles and for other transport equipment. On the other side of the spectrum the extraction of crude petroleum and natural gas decreased by 17.9%, the mining of coal and lignite by 15.9%.

Industrial production, rate of change 2023 (%)



Source: Eurostat (online data code: sts_inpr_a)

eurostat

Figure 2: Industrial production, rate of change 2023 (%) Source: Eurostat (sts_inpr_a)

Development by country

The financial and economic crisis in 2008/2009 was followed by 2 years of recovery, which were followed by a negative industrial development in 2012 and 2013. Starting around 2013 several years of slow but relatively steady growth followed. In 2019, industrial production dropped again in the EU and in the euro area, in particular in Slovakia, Luxembourg, and Germany.

As a result of the Covid-19 crisis and the containment measures all EU countries with the exceptions of Ireland and Malta displayed negative rates of change in industrial production in 2020. The rates were, however, quite heterogeneous, ranging from around -11% in Italy, France, and Luxembourg to only -0.2% in Lithuania. The recovery in 2021 brought comparatively high growth rates (9.1% in the EU, 8.8% in the euro area). Positive developments were, in particular, recorded in Ireland, Belgium, and Lithuania.

In 2022 rates of change were still positive in the large majority of countries but much lower than in the recovery year 2021. Countries with an especially strong development were Ireland, Bulgaria, Denmark, and Poland. In 2023 the trend changed again. The EU and the euro area experienced a decline of industrial production of around 2%. The largest decreases were recorded in Estonia, Bulgaria, and Ireland. Positive rates were only measured in Denmark, Greece, France, Cyprus, Malta, Slovakia, and Sweden.

Industrial production by country, annual rates of change 2015-2023

(%)

	2015	2016	2017	2018	2019	2020	2021	2022	2023
EU	2.6	1.7	3.1	1.2	-0.5	-7.4	9.1	2.9	-1.8
Euro area	2.5	1.6	2.8	0.8	-1.0	-7.7	8.8	2.2	-2.2
Belgium	-1.0	4.5	2.9	1.2	5.2	-4.1	25.5	-0.5	-7.3
Bulgaria	2.7	2.5	4.0	0.3	0.6	-6.3	10.1	13.0	-8.4
Czechia	4.5	2.6	6.5	3.1	-0.6	-7.0	6.5	2.0	-0.8
Denmark	0.6	3.8	1.6	2.2	2.7	-5.5	9.8	12.4	9.2
Germany	0.9	0.8	3.2	0.9	-3.2	-9.6	4.6	-0.3	-1.9
Estonia	0.1	2.8	4.0	4.9	7.1	-2.7	12.8	1.6	-12.1
Ireland	36.0	4.9	-2.5	-4.9	6.9	14.6	28.4	18.9	-7.7
Greece	0.9	2.7	4.1	1.7	-0.6	-2.2	10.4	2.5	2.3
Spain	3.4	1.6	3.0	0.7	0.4	-9.5	7.5	2.5	-1.6
France	1.4	0.5	2.4	0.8	0.5	-11.0	5.5	0.0	0.8
Croatia	2.6	4.8	1.8	-0.7	0.5	-3.3	6.3	1.7	-0.2
Italy	1.2	1.9	3.6	0.9	-1.1	-11.4	12.2	0.3	-2.0
Cyprus	4.8	9.2	8.6	7.3	4.4	-7.3	6.4	3.2	1.4
Latvia	3.4	4.7	8.7	2.0	0.8	-1.8	6.5	0.8	-5.2
Lithuania	4.0	2.3	6.7	5.4	3.2	-0.2	21.1	8.9	-6.4
Luxembourg	1.2	-0.5	3.9	-1.1	-3.3	-10.7	8.2	-3.7	-4.2
Hungary	7.0	0.7	5.3	3.8	5.7	-6.9	9.8	5.8	-4.8
Malta	-0.2	-7.2	6.9	3.3	2.9	1.2	-0.9	1.5	7.3
Netherlands	-3.5	1.2	1.4	1.7	-1.6	-3.3	3.9	3.9	-1.1
Austria	1.8	2.1	5.8	5.0	0.0	-6.0	11.3	6.1	-0.3
Poland	4.6	3.1	6.8	5.8	4.2	-1.9	14.8	10.6	-1.1
Portugal	2.0	1.6	2.2	0.3	-2.2	-8.1	3.8	0.6	-3.1
Romania	2.7	2.9	8.7	3.4	-2.6	-9.2	6.4	1.0	-2.5
Slovenia	4.8	7.7	8.2	5.3	2.8	-6.4	10.0	2.0	-4.9
Slovakia	5.1	0.6	1.6	-3.5	-6.1	-9.1	10.9	-4.4	4.2
Finland	-0.9	4.1	3.4	3.4	1.6	-3.2	4.2	3.8	-2.1
Sweden	2.8	1.6	4.8	2.8	2.4	-4.6	6.5	2.2	0.6
Norway	1.1	-1.4	-0.2	-1.8	-4.0	6.0	2.5	-0.4	0.2
Switzerland	-1.7	0.4	5.4	4.7	4.0	-3.9	8.5	6.0	0.9
Bosnia and Herzegovina	2.9	4.3	3.2	1.7	-5.5	-6.5	9.6	1.0	-3.8
Montenegro	8.5	-3.0	-4.2	22.2	-6.0	-1.1	4.6	-2.8	6.2
North Macedonia	4.9	3.3	0.2	5.4	3.7	-9.5	1.4	-0.2	0.6
Serbia	7.5	4.7	4.4	1.1	0.3	-0.7	7.0	1.9	2.7
Türkiye	5.7	3.5	8.9	1.3	-0.5	1.6	17.5	4.4	1.6

(:) not available

Source: Eurostat (online data code: sts_inpr_a)

eurostat 

Table 2: Industrial production by country, annual rates of change, calendar adjusted, 2015-2023 Source: Eurostat (sts_inpr_a)

Source data for tables and graphs

- [Industrial production \(volume\) index overview: tables and figures](#)

Data sources

Despite its name, the industrial production index is not intended to measure production but should – in theory – reflect the development of value added in the different branches of industry. This means that the inputs obtained by one branch from another must be deducted from its gross output. In this way double counting of production is prevented and the degree of vertical integration of branches should not influence the results for the indicator.

In practice, however, it is difficult to collect value-added data on a monthly basis. Most statistical institutes therefore derive monthly production data from other sources including [deflated turnover](#) , physical production data, labour input, intermediate consumption of raw materials and energy, etc..

[Eurostat](#) publishes, on a monthly basis, the industrial production index for the EU, for the [euro area](#) and the Member States; data are also collected for several non-EU countries (Table 2). Data are presented in [calendar adjusted/working-day adjusted](#) and in [seasonally adjusted](#) form. The data in this article were calculated with the [base year 2021](#) (=100).

Context

The industrial production index is one of the most important short-term statistics indicators. It is used to identify turning points in the economic development at an early stage and to assess the future development of [GDP](#) . In order to serve this purpose it is available on a monthly basis in a detailed activity breakdown and with a rather short delay (1 month and 10 days). The industrial production index is one of the so-called ' [Principal European economic indicators \(PEEI\)](#) ' which are used to monitor and steer economic and monetary policies in the EU and in the euro area.

Explore further

Other articles

- [Industrial production statistics](#)
- [All articles on short-term business statistics](#)

Database

- [Short-term business statistics \(sts\)](#) , see:

Industry (NACE Rev.2) (sts_ind)

Industry production index (NACE Rev.2) (sts_ind_prod)

Thematic section

- [Short-term business statistics](#)

Publications

- [All Short-term business statistics publications](#)
- [High-technology and medium-high technology industries main drivers of EU-27's industrial growth, Statistics in focus 1/2013](#)
- [Industrial output in the EU and euro area, Statistics in focus 36/2011](#)
- [The economic crisis in the non-financial business economy – where was it more heavily felt?, Statistics in focus 21/2010](#)
- [Recession in the EU-27: length and depth of the downturn varies across activities and countries, Statistics in focus 97/2009](#)
- [Recession in the EU-27: output measures, Statistics in focus 17/2009](#)
- [Industrial production indices – global developments, Statistics in focus 61/2008](#)
- [Evolution of high-technology manufacturing and knowledge intensive services, Statistics in focus 68/2007](#)

Selected datasets

- [Short-term business statistics \(t_sts\)](#) , see:

Industry (NACE Rev.2) (t_sts_ind)

Industry production index (NACE Rev.2) (t_sts_ind_prod)

Methodology

- [European Business Statistics Manual – 2021 edition](#)
- [European business statistics manual for short-term business statistics – 2021 edition](#)
- [Short-term business statistics - Metadata in SDMX format](#) (ESMS metadata file — sts_esms)

External links

- [United Nations Statistics Division: International Recommendations for the Index of Industrial production \(2010\)](#)