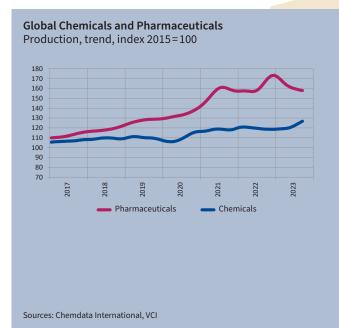
NOVEMBER 2023

Verband der Chemischen Industrie e.V. Wir gestalten Zukunft.



World Chemistry Report

The economic situation of the chemical industry worldwide in facts and figures



Global Chemicals and Pharmaceuticals Production, seasonally adjusted

	percentage change against previous year			
	2021	2022	Sep-23	Jan Sep. 2023
chemicals (20)	+ 7.2	+ 1.5	+6.2	+ 1.4
pharma (21)	+ 16.0	+ 5.5	-6.2	+2.1
20/21	+ 9.9	+ 3.1	+ 3.0	+ 2.2

The worldwide production trend of chemicals continued to grow in September. Positive impulses came from Asia. Developments in Europe as well as North- and South America were negative in September (yoy).

The worldwide production trend of pharmaceuticals declined lately. But it was still on a high level. Demand for pharmaceuticals remained stable.

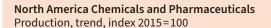
Production of Chemicals and Pharmaceuticals

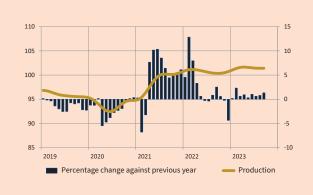
percentage change against previous year

countries and regions	2021	2022	Sep-23	Jan Sep. 2023
World	+ 9.9	+ 3.1	+ 3.0	+ 2.2
Europe	+ 10.1	+ 6.1	- 3.4	+ 0.4
Western Europe	+ 10.2	+ 6.8	- 5.1	+ 0.7
Germany	+ 5.6	- 6.7	- 9.5	- 9.2
France	+ 3.8	+ 0.5	- 0.8	- 2.5
Italy	+ 4.4	+ 2.8	+ 1.7	+ 0.2
UK	- 3.9	- 4.5	+ 1.6	+ 2.4
Spain	+ 6.0	+ 1.5	+ 5.4	+ 1.5
Eastern Europe	+ 9.7	+ 1.3	+ 10.4	- 2.0
Poland	+ 14.8	+ 9.8	+ 3.5	- 10.3
Russia	+ 8.6	+ 0.2	+ 15.6	+ 4.2
European Union (EU 27)	+ 10.0	+ 6.6	- 5.3	+ 0.5
North America	+ 4.5	+ 2.2	+ 1.3	+ 0.9
USA	+ 4.6	+ 2.2	+ 1.3	+ 1.3
Canada	+ 5.6	- 0.2	- 4.1	- 1.5
Latin America	+ 3.9	+ 1.9	- 2.8	- 3.9
Brazil	+ 1.8	+ 0.6	+ 0.0	- 3.4
Chile	+ 0.1	- 3.1	+ 19.3	- 5.9
Asia	+ 11.2	+ 2.2	+ 6.0	+ 3.3
China	+ 12.3	+ 3.9	+ 8.4	+ 5.7
Japan	+ 4.5	- 0.8	- 4.5	- 4.3
India	+ 5.9	- 1.4	+ 0.7	+ 6.2
South Korea	+ 7.8	- 6.6	+ 0.8	- 9.3
World excl. China	+ 8.7	+ 2.6	+ 0.2	+ 0.4

Sources: Chemdata International, VCI







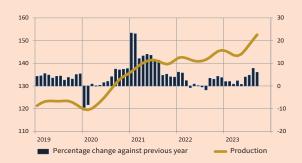
Sources: Chemdata International, VCI

Latin America Chemicals and Pharmaceuticals Production, trend, index 2015=100



Sources: Chemdata International, VCI

Asia Chemicals and Pharmaceuticals Production, trend, index 2015=100



North America Chemicals and Pharmaceuticals Production, seasonally adjusted

	percentage change against previous year			
	2021	2022	Sep-23	Jan Sep. 2023
chemicals (20)	+ 4.0	+ 2.0	- 1.4	- 2.7
pharma (21)	+ 5.2	+ 2.3	+ 6.3	+ 7.3
20/21	+ 4.5	+ 2.2	+ 1.3	+0.9

In September, production of chemicals decreased by 1.4 percent compared to last year for North America. Demand for chemical products from the domestic industry was only moderate. The decline was lower than for Europe. However, production in Asia grew.

Production of pharmaceuticals grew strongly by 6.3 percent compared to last year.

Latin America Chemicals and Pharmaceuticals Production, seasonally adjusted

	percentage change against previous year			
	2021	2022	Sep-23	Jan Sep. 2023
chemicals (20)	+ 5.5	+ 2.3	- 2.0	- 6.3
pharma (21)	+ 1.7	+ 1.6	- 5.2	+ 1.9
20/21	+ 3.9	+1.9	- 2.8	- 3.9

Production trend for the chemical-pharmaceutical industry stagnated lately for Latin America. High inflation rates, a restrictive monetary policy, and a low domestic demand for chemical products weakened production.

Production of chemicals sunk by 2 percent in September (yoy). Production of pharmaceuticals decreased as well.

Asia Chemicals and Pharmaceuticals Production, seasonally adjusted

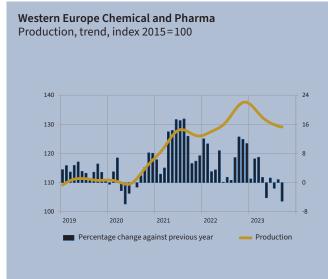
	percentage change against previous year			
	2021	2022	Sep-23	Jan Sep. 2023
chemicals (20)	+ 8.3	+ 3.3	+ 9.9	+ 5.2
pharma (21)	+ 20.3	-1.4	- 5.9	- 2.8
20/21	+11.2	+ 2.2	+6.0	+ 3.3

Production trend of the chemical-pharmaceutical industry remained positive for Asia.

Production of chemicals increased by 5.2 percent in the current year compared to last year for Asia. Production of pharmaceuticals decreased by 2.8 percent. Development of production in Asia was thus contrary to Europe.

Sources: Chemdata International, VCI





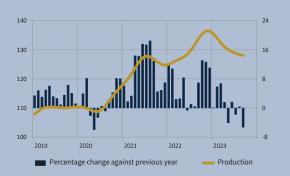
Sources: Chemdata International, VCI

Eastern Europe Chemical and Pharma Production, trend, index 2015=100



Sources: Chemdata International, VCI

European Union Chemical and Pharma Production, trend, index 2015=100



Western Europe Chemical and Pharma Production, seasonally adjusted

percentage change against previous year Sep-23 Jan. - Sep. 2021 2022 2023 chemicals (20) + 5.8 - 6.2 -4.1 - 9.7 pharma (21) + 15.2 + 18.2 - 11.6 + 7.4 20/21 + 10.2 +6.8 - 5.1 + 0.7

The development of the industry was divided in two parts for Western Europe. While production of chemicals decreased strongly by 9.7 percent in the current year compared to last year due to high production costs and low demand by customer industries, production of pharmaceuticals increased by 7.4 percent. Demand for pharmaceuticals remained stable.

Eastern Europe Chemical and Pharma Production, seasonally adjusted

	percentage change against previous year				
	2021	2022	Sep-23	Jan Sep. 2023	
chemicals (20)	+ 9.5	-1.4	+ 10.7	- 2.5	
pharma (21)	+ 7.6	+ 9.0	+ 9.3	+ 0.4	
20/21	+ 9.7	+1.3	+ 10.4	- 2.0	

Production trend of the chemical-pharmaceutical industry has continued to recover for Eastern Europe.

But production of the chemical-pharmaceutical industry remained negative in the current year for Eastern Europe. However, production of pharmaceuticals increased slightly by 0.4 percent.

European Union Chemical and Pharma Production, seasonally adjusted

	percentage change against previous year					
	2021	2021 2022 Sep-23 Jan Sep 2023				
chemicals (20)	+ 6.1	- 6.3	- 3.8	- 10.6		
pharma (21)	+ 17.9	+ 19.5	- 13.0	+ 7.8		
20/21	+ 10.0	+ 6.6	- 5.3	+ 0.5		

The chemical-pharmaceutical industry in Europe faces high production costs, rising interest rates and a decline in order intakes. Therefore, the production trend developed negatively in the last months.

In September, production of chemicals decreased by 3.8 percent for the EU27 (yoy). Production of pharmaceuticals dropped even by 13 percent.

Sources: Chemdata International, VCI

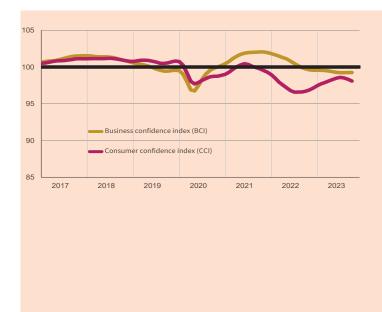


Production of Chemicals (excl. Pharma)

percentage change against previous year

countries and regions	2021	2022	Sep-23	Jan Sep. 2023
World	+ 7.2	+ 1.5	+ 6.2	+ 1.4
Europe	+ 6.4	- 5.3	- 1.3	- 8.3
Western Europe	+ 5.8	- 6.2	- 4.1	- 9.7
Germany	+ 5.7	- 12.1	- 5.2	- 13.7
France	+6.1	- 3.4	+ 0.8	- 3.1
Italy	+ 7.8	- 4.1	+ 0.8	- 8.3
UK	- 10.9	- 4.3	- 5.4	- 10.5
Spain	+ 6.4	- 4.1	+ 5.7	- 4.7
Eastern Europe	+ 9.5	- 1.4	+ 10.7	- 2.5
Poland	+ 17.4	+ 8.5	+ 1.7	- 14.3
Russia	+ 7.1	- 2.3	+ 15.8	+ 6.0
European Union (EU 27)	+ 6.1	- 6.3	- 3.8	- 10.6
North America	+ 4.0	+ 2.0	- 1.4	- 2.7
USA	+ 4.2	+ 2.2	- 0.2	- 1.9
Canada	+ 7.4	- 2.9	- 4.6	- 3.3
Latin America	+ 5.5	+ 2.3	- 2.0	- 6.3
Brazil	+ 3.6	+ 1.1	+ 0.8	- 6.4
Chile	- 1.1	- 5.7	+ 25.8	- 4.2
Asia	+ 8.3	+ 3.3	+ 9.9	+ 5.2
China	+ 8.4	+ 6.4	+ 13.6	+ 9.2
Japan	+ 5.1	- 3.8	- 2.7	- 6.9
India	+ 8.0	+ 4.2	- 5.5	+ 0.0
South Korea	+ 8.6	- 9.9	+ 0.2	- 12.6

Sources: Chemdata International, VCI



BCI stagnated in October

The business confidence indicator provides information on future developments, based upon opinion surveys on developments in production, orders and stocks of finished goods in the industry sector. It can be used to monitor output growth and to anticipate turning points in economic activity. Numbers above 100 suggest an increased confidence in near future business performance, and numbers below 100 indicate pessimism towards future performance.

CCI decreased and remained well below long term trend

The consumer confidence indicator provides an indication of future developments of households' consumption and saving, based upon answers regarding their expected financial situation, their sentiment about the general economic situation, unemployment and capability of savings. An indicator above 100 signals a boost in the consumers' confidence towards the future economic situation. Values below 100 indicate a pessimistic attitude towards future developments.

Calculation of the World Production Index

The World Production Index (WPI) measures the production volume of the business of chemistry. As input the WPI uses production indices of around 50 nations as published by national sources and Eurostat. Missing values have been calculated using the FERI forecasts. All indices are seasonally adjusted. The WPI measures production activity generally consistent with the overall industry nomenclature of NACE 20 and 21. As weights the WPI uses fixed weights based on the production values in the base year 2015.

World Chemistry Report



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