

Global chemical markets: weak demand worldwide

Overall economy

After picking up somewhat in the first quarter 2023, the global economy lost momentum again in the second quarter. Both production growth in many advanced economies and dynamism in some emerging markets slowed slightly. Inflation rates remained high in many countries, irrespective of the restrictive monetary policy of central banks. That dampened consumption. Rising interest rates put a strain on growth and investment.

Industry

Industry is in a downswing worldwide. Business sentiment clouded over in the spring and remained subdued until recently. Global industrial production fell clearly in the second quarter despite the economic opening in China, and world trade showed a downward trend. Supply chain problems hardly played a role any longer while the sectors of industry were confronted with an increasing lack of orders.

Chemicals/Pharmaceuticals

Global chemical production did not yet recover from its low. Production declined slightly compared to the previous quarter. Except for China and Russia, the previous year's level remained in the far distance in the large countries. High costs on the one hand and declining demand on the other slowed down the development.

Pharmaceutical production did not maintain its high level of the previous quarter, either. The declining demand for vaccines partly led to significant production cutbacks

Outlook

There are still no signs of a rapid, noticeable recovery. Inflation has fallen recently, mainly due to lower commodity prices. Nonetheless, inflation rates are not expected to have fallen sustainably close to the target levels again until 2025. In consequence, the central banks further pursue a tight, and thus restrictive monetary policy. Developments on labour markets continue to be a factor of support in many places. The momentum of the global economy as a whole remains weak. In the USA, growth is losing in force due to the restrictive monetary policy and China's economy is lagging behind expectations – while the EU is not developing its own economic dynamics and is being held back by the poor developments in the USA and China. In the whole, we expect global production to increase by 2.3 percent in 2023, whereas growth should be even lower next year.

September 2023

- Global economy: Without momentum
- Industrial production: Weak demand for industrial goods
- Chemicals/Pharmaceuticals: High costs, weak demand, special effects coming to an end
- Outlook: No dynamic recovery in sight

Chemical and Pharma production

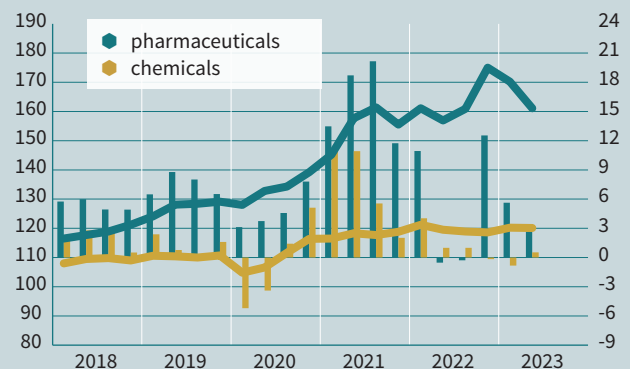
By regions, seasonally adjusted change against previous year and previous quarter in percent

	chemicals		pharmaceuticals	
	yoy	qoq	yoy	qoq
World	+0.5	-0.1	+2.7	-5.4
Europe				
EU	-10.4	+0.1	+4.0	-10.0
Germany	-14.3	-1.9	+5.4	+0.8
Russia	+8.4	+5.1	+1.2	+9.5
Americas				
USA	-3.3	-0.9	+8.5	+1.4
Brazil	-9.1	-0.1	+4.7	-8.5
Asia				
Japan	-6.9	-0.7	+6.8	+2.1
South Korea	-16.0	+0.0	+3.5	-4.9
India	-0.7	+3.5	+16.5	+7.5
China	+7.5	+0.2	-4.3	-8.1

Sources: Chemdata International, VCI

Strong pharmaceuticals – weak chemicals

Production, seasonally adjusted, Index 2015 = 100 (left axis), changes against previous year in percent (bars, right axis)



Sources: Chemdata International, VCI

Global economy without momentum

After picking up somewhat in the first quarter 2023, the global economy lost momentum again in the second quarter. Both production growth in many advanced economies and dynamism in some emerging markets slowed slightly. Inflation rates remained high in many countries, irrespective of the restrictive monetary policy of central banks. That dampened consumption. Rising interest rates put a strain on growth and investment. Especially industry is in crisis. Global industrial production declined most recently. This weak development was evident in most countries.

There are still no signs of a rapid, noticeable recovery. Inflation has fallen recently, mainly because of lower raw material prices. Nonetheless, inflation rates are not expected to have fallen sustainably close to the target levels again until 2025. Developments on labour markets continue to be a factor of support in many places. There are different developments in the three major economic regions of the USA, Europe and China. In the whole, we expect global production to increase by 2.3 percent in 2023, whereas growth should be even lower next year.

EU: No dynamism in sight

The **European Union** did avoid a recession, but growth was weak. The economic development stagnated in Q2. High inflation rates slowed down private consumption. Developments in the four large European countries varied. While France and Spain grew by 0.5 and 0.4 percent, respectively, the German economy stagnated and Italy's economy shrank.

GDP in **Germany** did not decline further in Q2 2023 compared to the previous quarter. In the two previous quarters, Germany's economic performance had dropped against the respective previous three months (-0.1 percent in Q1 2023 and -0.4 percent in Q4 2022). The consumption spending of private households stabilised in Q2 2023 after the weak winter half-year.

With the energy crisis and supply chain problems subsiding, the difficulties on the supply side have eased. However, high inflation and rising interest rates dampen consumption

and investment. The companies are increasingly confronted with weak demand. In addition, there is no stimulus from abroad due to the global slowdown of growth. High energy and raw material costs adversely affect the international competitiveness of companies too. For the EU economy as a whole, we are not expecting a recession, but growth should be very weak in the present year 2023. We are not anticipating a brisker business situation for 2024.

In Q2 2023, the economy in the **United Kingdom** surprisingly grew by 0.2 percent against the previous quarter. Experts had expected stagnation. The development in industrial production was also strong above expectation. In general, however, the UK was still the only major advanced economy below the level at the end of 2019. Growth prospects remain moderate as the very high inflation rate persists and interest rates are rising.

Russia's economy has de facto become a war economy. Some of the macroeconomic indicators are pointing massively upwards. The Russian economy is already showing signs of overheating. High domestic demand – driven not least by the arms industry – made up for declining exports. Production partly exceeded the capacities really available under difficult logistical conditions. Inflation increased and the rouble weakened significantly. In response, the central bank raised interest rates drastically. Lost oil and gas exports to Europe can be redirected to Asia only partly or at significant price discounts. This means the loss of an important source of income for the Russian state budget. The technology embargo is also making itself increasingly felt in many sectors of the economy. The mobilisation and the wave of emigration aggravate the labour shortage. Due to all this, growth is likely to be weak in the next years.

America: More robust than expected

The **US economy** clearly continued on its way up in Q2 2023. Growth remained robust, reflecting its potential with an improvement by 0.5 percent over the previous three months. Where output is concerned, especially the service sector grew in the period under review. As regards expenditure, in

Gross domestic product

By regions, change against previous year and previous quarter in percent

	2021	2022	2. quarter 2023	
			yoy	qoq
World	+ 6.0	+ 2.9	+ 2.5	+ 0.5
Europe				
EU	+ 5.7	+ 3.4	+ 0.4	+ 0.0
Germany	+ 3.1	+ 1.9	- 0.1	+ 0.0
Russia	+ 5.6	- 2.1	+ 4.9	+ 2.3
Americas				
USA	+ 5.9	+ 2.1	+ 2.5	+ 0.5
Brazil	+ 5.3	+ 3.0	+ 3.3	+ 0.9
Asia				
Japan	+ 2.3	+ 1.0	+ 1.7	+ 1.2
South Korea	+ 4.3	+ 2.6	+ 0.9	+ 0.6
India	+ 8.9	+ 6.7	+ 8.2	+ 5.7
China	+ 8.7	+ 3.2	+ 6.8	+ 0.8

Sources: Feri, VCI

Germany's economy: three quarters without growth
Gross Domestic Product Germany, seasonally adjusted, Index 2015 = 100 change against previous year in percent



Sources: Feri, VCI

particular the investments in equipment went up strongly. By contrast, private consumption lost somewhat in momentum but remained vigorous in view of the high inflation rates and income developments. The real estate sector stabilised while industrial production remained weak. Many sectors curbed their production.

For the further course of 2023, we expect positive but weaker growth rates. The labour market remains very robust. Inflation rates are falling slowly but are still above the target level of the US Federal Reserve. Thus, interest rates should remain high for the time being. The dampening effect of inflation and interest rates on consumption and investment will become visible only in 2024 through significantly lower growth rates.

The economy of **Brazil** grew significantly in the first two quarters of 2023. Important reforms made progress and the economy proved relatively resilient to external shocks. Nevertheless, high inflation and rising interest rates slowed down developments.

The outlook is subdued against the backdrop of the global slowdown. Moreover, the framework conditions for investment remain difficult despite reform efforts: high capital costs, excessive bureaucracy, a complex tax system, the high tax rate and poor infrastructure are slowing down growth prospects. Political uncertainties recently decreased under President Lula who showed himself more conciliatory and willing to compromise than his predecessor.

Asia: weakening of the Chinese economy

Growth in **China** remained well below expectations. Although growth accelerated compared to the previous year, which was characterised by hard lockdowns in the Shanghai region. The real estate market remained problematic. Uncertainty among consumers remained high. The inflation rate dropped into the negative range in July. That was reflected in subdued domestic consumption, especially for goods. In industrial

production, the encouraging start into 2023 did not last and a decline was recorded.

The rebound effects after the end of the corona measures were only temporary. The economic outlook remains subdued. Industry has already lost considerable momentum. So far, the recovery has not led to job creation. This is weighing on private consumption. The real estate market continues to be strained by high vacancy rates and the weakness of many property developers. There is hardly any impetus from the export business due to the global slowdown. The geopolitical tensions with the USA are further burdening the economy. We are expecting falling growth rates.

India's economy was very dynamic in all sectors in Q2 2023. No national economy had higher GDP growth. Most recently, the service sector too contributed to the strong performance of the economy in India. In addition, the government in New Delhi hopes to benefit from China's weakness and from the tensions between Beijing and the West. India is trying to gain more weight in the supply chains of European and American companies that want to break away from their dependence on China. However, it remains to be seen whether India can become a new growth driver for the global economy. Shortcomings in infrastructure, education and public administration are holding back medium-term growth for structural reasons.

Japan's economy continued to grow in the period under review. Industrial production increased too. Altogether, the country is slowly moving out of the trough caused by corona.

The economy of **South Korea** also continued to recover. But this strongly export-oriented country is being slowed by the weak global growth environment so that growth is less marked than in previous years.

National economic indicators:

GDP, industrial and chemical production, changes against previous year in percent, forecasts for 2023/2024

	GDP			Manufacturing			Chemicals (excl. Pharma)		
	2022	2023	2024	2022	2023	2024	2022	2023	2024
World	2.9	2.3	2.0	3.0	1.1	1.1	1.5	0.6	1.9
Europe									
EU	3.4	0.5	0.6	3.7	-0.5	0.0	-6.2	-8.0	1.5
Germany	1.9	-0.4	0.6	-0.2	0.0	-0.5	-12.1	-11.0	1.0
Russia	-2.1	2.6	1.3	0.2	6.5	2.0	-3.8	4.5	3.0
Americas									
US	2.1	1.9	0.5	2.7	-0.5	1.0	2.2	-1.5	1.5
Brazil	3.0	3.3	1.4	-0.3	-1.0	1.5	1.1	-6.0	1.5
Asia									
Japan	1.0	2.1	1.4	0.0	-1.0	0.5	-3.8	-6.0	1.5
South Korea	2.6	1.2	2.0	1.4	-5.5	3.0	-9.9	-10.5	3.5
India	6.7	8.8	6.3	4.0	7.5	4.0	4.2	5.0	3.5
China	3.2	4.9	4.2	3.1	3.5	2.5	5.8	5.5	3.0

Sources: Feri, Chemdata International, forecasts 2023/2024: VCI

Industrial production

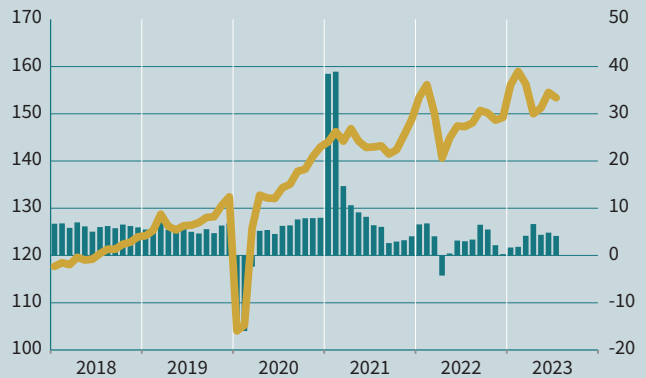
By regions, seasonally adjusted, change against previous year and previous quarter in percent

	2021	2022	2. quarter 2023	
			yoy	qoq
World	+9.6	+3.0	+2.2	-1.3
Europe				
EU	+9.7	+3.7	-0.3	-1.0
Germany	+4.7	-0.2	+1.3	-0.6
Russia	+7.3	+0.2	+10.8	+4.2
Americas				
USA	+5.0	+2.7	-0.9	-0.0
Brazil	+4.6	-0.3	-1.6	-0.1
Asia				
Japan	+5.8	+0.0	+1.0	+1.1
South Korea	+8.4	+1.4	-7.8	+2.4
India	+13.5	+4.0	+5.0	+7.2
China	+11.0	+3.1	+5.3	-0.9

Business sentiment in companies clouded over again in the spring and remained subdued until most recently. Global industrial production declined significantly in Q2 despite the economic opening in China, and world trade is trending downwards. Supply chain problems hardly played a role anymore, but the sectors of industry were confronted with an increasing lack of orders. High inflation and rising interest rates slowed the demand for industrial goods almost everywhere.

China's industry cuts production

Industrial production in China, seasonally adjusted, Index 2015=100, change against previous year in percent



The good start in 2023 for industry in China did not last. Compared to the previous quarter, production even declined significantly. Demand was below expectations. Due to the weak global economy, impulses from abroad were lacking. The domestic demand was mainly for services. Among the industrial sectors, only the electrical industry and vehicle construction recorded visible growth. The chemical and plastics industries still saw at least a weak improvement. All other sectors curbed production.

Customer industries worldwide

Industrial production by industries, seasonally adjusted, change against previous year and quarter in %

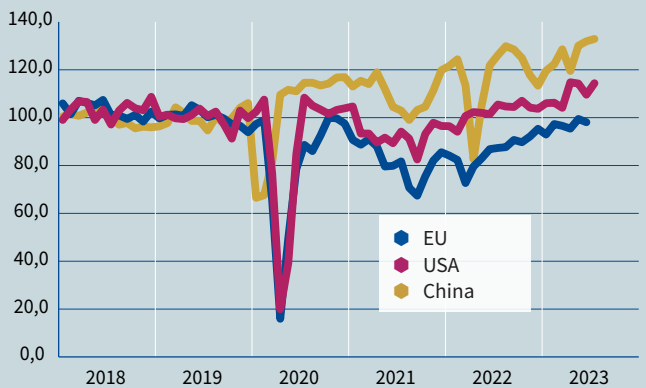
	2021	2022	2. quarter 2023	
			yoy	qoq
manufacturing industry	+9.6	+3.0	+2.2	-1.3
basic metals	+5.8	+0.6	+4.0	+0.0
fabricated metals	+12.5	+0.8	+0.0	-1.7
chemicals	+7.2	+1.5	+0.5	-0.1
pharmaceuticals	+16.0	+5.5	+2.7	-5.4
plastics processors	+8.3	-0.9	-1.6	-0.1
automotive industry	+5.4	+6.1	+18.4	+4.4
mechanical engineering	+13.5	+3.2	+2.1	-1.7
electrical appliances	+15.9	+8.8	+11.8	-0.6
electrical equipment	+16.5	+6.0	-2.5	+3.1
food and beverages	+4.6	+1.6	-0.1	-1.6
textile industry	+6.2	-2.6	-3.2	-3.5
furniture industry	+10.4	-2.5	-7.9	-1.2
paper industry	+5.1	-0.6	-5.9	-0.9
printing industry	+6.3	-0.2	-6.3	-2.6
glass/ceramic industry	+10.3	-0.4	-3.1	-5.8

The figures on global industrial production show a clear picture: Industry is in crisis worldwide. Only a few sectors are still recording an expansion of production. Even compared to the previous year's level, many sectors are in the negative range. Only the automotive industry was able to achieve a significant increase both against the previous quarter and the previous year. However, here the order books are still full due to the chip crisis of the previous years, with this backlog being dealt with.

A growing lack of orders is a common feature of all sectors: High inflation rates slow down consumption, rising interest rates adversely affect the financing conditions for investments. Geopolitical conflicts increase the uncertainties and cause further restraint in investment and consumption.

Heterogeneous developments in the automotive industry

Industrial production, seasonally adjusted, Index 2015=100 change against previous year in percent



The recovery process of the automotive industry continued in all major car-making regions. The easing of the chip crisis and the full order books contributed to this. But the developments in the various regions remain heterogeneous.

In the EU, the industry is still far from its pre-crisis level. Q2 2023 was very dynamic for automobile production in the USA. China once more significantly expanded its production after a short period of weakness.

Overall, the development in the three major automobile markets converged again somewhat, after it had been highly heterogeneous in the past two years – with Europe in particular lagging behind. However, the problems of the industry in Europe persist. The dramatic structural change with the transition towards electromobility in the European automotive industry, the chip shortage which is resolving only slowly, production problems at suppliers and high costs for energy and raw materials are hampering the development. In view of the incentive programmes in the USA such as the Inflation Reduction Act and in China through the promotion of e-mobility, this setting of different speeds might endure.

EU: Customer industries

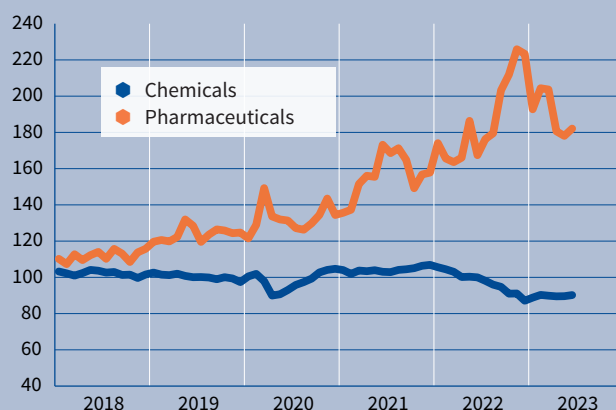
production, seasonally adjusted, changes in percent

	2021	2022	2. quarter 2023	
			yoy	qoq
manufacturing industry	+9.7	+3.7	-0.3	-1.0
basic metals	+11.5	-4.3	-6.2	-0.8
fabricated metals	+11.8	+1.0	-2.7	-1.1
chemicals	+6.1	-6.2	+0.0	+0.0
pharmaceuticals	+17.9	+19.5	+0.0	+0.0
plastics processors	+8.8	-1.7	-5.8	-1.4
automotive industry	+1.1	+5.2	+17.4	+2.1
mechanical engineering	+12.1	+5.1	-0.6	-2.0
electrical appliances	+12.7	+4.7	+3.2	-1.2
electrical equipment	+29.0	+11.1	-0.0	+16.4
food and beverages	+3.8	+2.1	-0.9	+0.2
textile industry	+9.1	-1.5	-9.4	-2.1
furniture industry	+10.6	-1.0	-9.6	-2.4
paper industry	+6.1	-1.1	-12.9	-2.0
printing industry	+5.4	-1.3	-11.1	-1.4
glass/ceramic industry	+10.5	-0.2	-12.9	-5.3
construction	+5.4	+2.6	+0.1	-2.1

Industry in the EU remains in crisis. Almost all sectors cut back production. The previous year's level was missed almost everywhere. Irrespective of falling energy prices, the competitive position of energy-intensive industries remained poor. Weak private consumption led to production cutbacks in industries close to consumers. Rising interest rates slowed down the capital goods industries. The period under review saw a drop even for electrical equipment, and the increase for electrical appliances was not enough to exceed the previous year. The recovery process continued in the automotive industry, even though with lower growth rates.

EU: slump in pharmaceuticals – stagnation in chemicals

chemical and pharmaceutical production, seasonally adjusted, Index 2015 = 100



Chemical production in the EU has been moving sideways rather than upwards since the end of 2020. High energy and raw material costs caused production cutbacks in 2022. The last few months did not bring a turnaround. Production stagnated at a low level. A dynamic recovery cannot be expected. The cost burden will remain high and result in competitive disadvantages compared to other regions. In addition, there is a decrease in demand due to the global weakness of industry.

Parts of the pharmaceutical industry are affected by cost increases too. The strong demand during the corona pandemic and the high demand for and production of vaccines are coming to an end, leading to major production cutbacks in Q2 2023. We are not expecting further decreases as the current year progresses; we are anticipating growth rates to return to normal.

USA: Customer industries

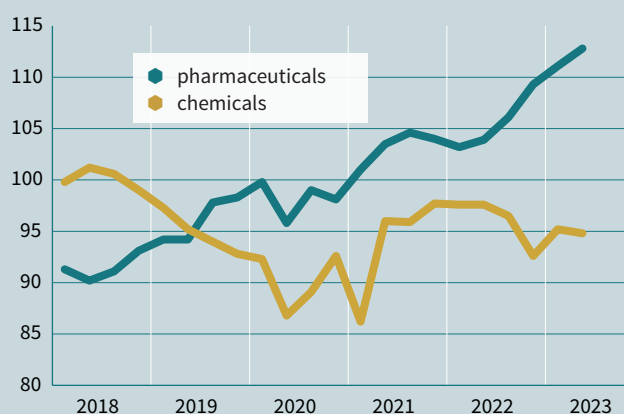
production, seasonally adjusted, changes in percent

	2021	2022	2. quarter 2023	
			yoy	qoq
manufacturing industry	+5.0	+2.7	-0.9	-0.0
basic metals	+9.6	-0.5	-3.1	+2.0
fabricated metals	+5.7	+3.4	-1.3	-1.1
chemicals	+4.2	+2.3	+0.0	+0.0
pharmaceuticals	+5.2	+2.3	+0.0	+0.0
plastics processors	+6.7	+2.8	-5.1	-0.3
automotive industry	+5.8	+9.8	+10.8	+7.0
mechanical engineering	+7.1	+5.6	-0.6	-0.8
electrical appliances	+4.8	+3.6	-0.8	+0.7
electrical equipment	+9.4	+12.7	+11.0	+4.3
food and beverages	+0.5	+1.4	-1.7	-1.3
textile industry	+6.6	-0.8	-2.7	-2.3
furniture industry	+2.7	+2.3	-9.4	-2.9
paper industry	-0.0	-1.1	-9.8	-2.1
printing industry	+2.1	-2.6	-8.1	-7.4
glass/ceramic industry	+5.7	+5.4	-0.2	-1.7
construction	+6.4	+5.3	-2.0	+1.3

In contrast to the overall economy, US industry is rather moving backward. Only a few sectors were able to expand production, many were below the previous year's levels. Rising interest rates increased financing costs and the still high inflation dampened the buying mood.

USA: Pharmaceuticals on the upswing – no dynamics in chemicals

chemical and pharmaceutical production, seasonally adjusted, Index 2015 = 100



The positive trend lasted without interruption for the US pharmaceutical industry. By contrast, the positive trend of early 2023 did not continue in chemical production. Therefore, it was not possible to make up for the slump caused by the winter storms. Now the output is not being held back by production problems. Instead, the demand for chemical products is stifled by the global weakness of industry.

Further data on production of the chemical and pharmaceutical industry worldwide is available on a monthly basis in the World Chemistry Report: https://bit.ly/World_CR

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