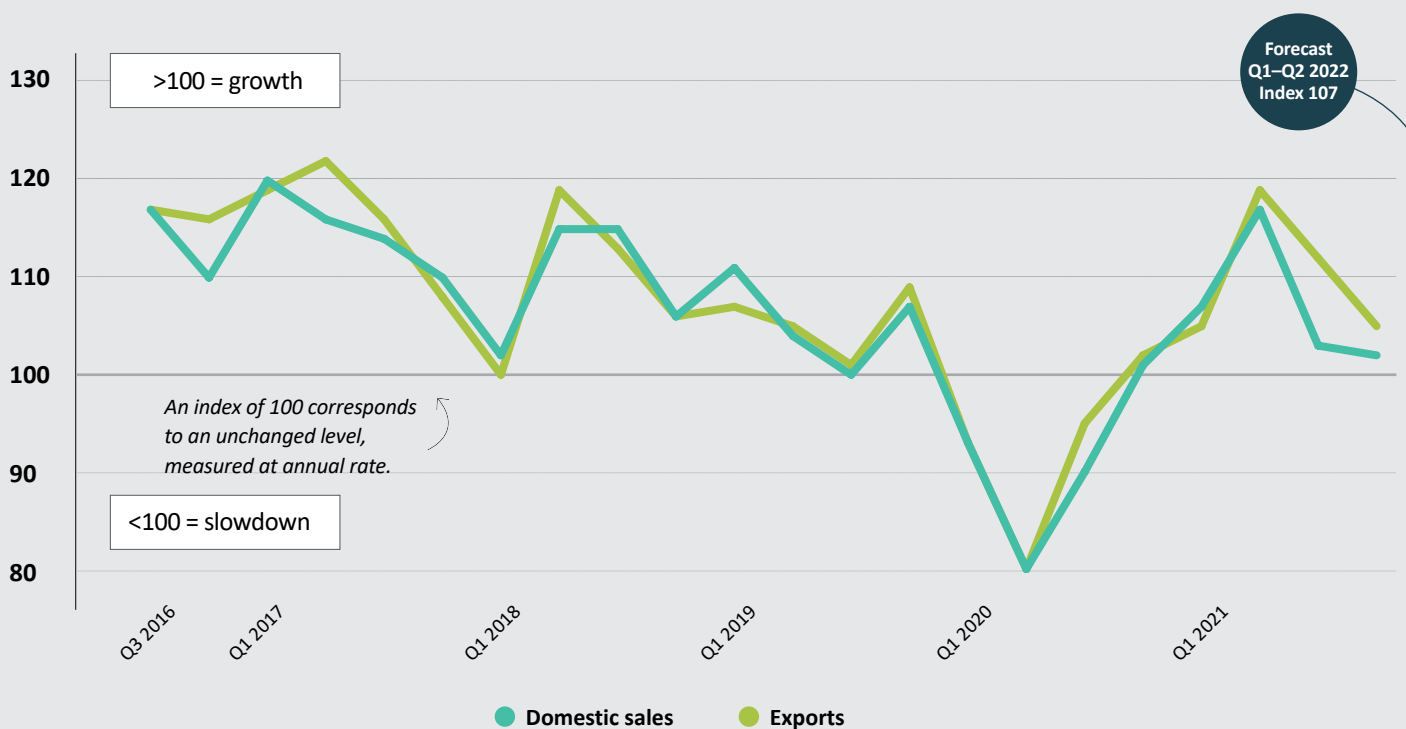


ECONOMIC SUMMARY

FIGURE 1. IKEM INDEX FOR THE PERIOD Q3 2016–Q4 2021 FOR DOMESTIC SALES AND EXPORTS (VOLUME AT ANNUAL RATE). AN INDEX VALUE BELOW 100 INDICATES A SLOWDOWN (CONTRACTION).

Source: IKEM



Increased production volumes – despite significant challenges

The one-fifth of Swedish industry that consists of chemical-related production – pharmaceuticals, chemicals, plastics and rubber and refineries – achieved slight growth in volume during the fourth quarter of 2021, despite widespread disruptions to supply. Cost inflation during the quarter for raw materials and input goods and increased transport and electricity costs during the period mainly affected the plastics and rubber and chemicals subsectors. As much as one-third of the Swedish plastics and rubber industry implemented downtime during the fourth quarter due to high electricity prices.

Swedish chemical-related production experienced strong global demand during the fourth quarter of 2021. The industry was able to achieve a slight growth in volume, despite disruptions

in the supply chain. In fact, ever since 2016, when IKEM began measuring development, the chemical industry has achieved growth in every single fourth quarter, including the Covid-affected fourth quarter of 2020. The overall production trend for IKEM as a whole has resulted in an increase in the total value added over the past five years, measured both quarterly and annually.

The increase in the companies' activity in 2021, as well as their expansive plans for the future, are also reflected in the continued net growth in the number of employees. The positive employment trend we have seen since the third quarter of 2020 therefore continues.

At the same time, the subsectors performed differently during the fourth quarter of 2021. Plastics and rubber, along with

TABLE 1. IKEM INDEX BROKEN DOWN BY SECTOR.

An index of 100 corresponds to an unchanged level (annual rate). Minimum value = 50, maximum value = 150.

Source: IKEM

	Domestic sales	Exports	Employees	Investment	Cost trend	Profitability (EBIT)
Plastics/rubber	110	108	117	119	147	103
Chemicals	98	113	103	102	147	107
Pharmaceuticals/refineries	102	100	107	103	120	103
Total	102	105	107	105	133	104

chemicals, moved up a gear in terms of volumes on the export market, while pharmaceuticals and refineries remained at the same volumes as before.

Overall, the year 2021 as a whole can be described as a strong recovery year for the chemical-related industries, following a Covid-hit 2020. At the same time, the pandemic continues to cause concern for the companies at global level, owing to a transport crunch and its repercussions on both supply chains and costs.

BOTTLENECKS CAUSING DISRUPTION ACROSS THE BOARD

Almost 80% of the companies report that their production has been slowed down by supply-related issues. The strongest impact has been felt by the plastics, rubber and chemical industries. Almost all companies say they have been unable to obtain sufficient quantities of raw materials. In addition, costs have risen sharply, with an index of 147, where 150 indicates the absolute maximum value. Pharmaceuticals and refineries are also experiencing problems with the availability of raw materials, although the shortage here has not been accompanied by similarly sharp increases in costs, with the index standing at 120.

Supply shortages and increased transport costs are also the main problems affecting plastics and rubber manufacturers and, to a lesser extent, the chemical sector. Pharmaceuticals companies and refineries are not experiencing any problems at all in terms of transport, although they too have noted some cost inflation.

It is still the view, therefore, that the global economy's main challenges are on the supply side, as demand remains high.

Despite these supply-related barriers and increased costs, the companies mostly managed to meet (66%) or even exceed (31%) their own "production forecasts" during the fourth quarter.

Companies that successfully perform the rope trick of obtaining increased volumes of raw materials and also booking transport are able to achieve sales on their production. In addition, despite the pandemic once again taking a grip on the global economy, with restrictions and large-scale vacancies, the companies expect to be able to increase their production slightly during the first half of 2022, expressed in an index of 107. This estimated growth in volume is taking place against the background of a first

TABLE 2. HAS THE COMPANY'S PRODUCTION BEEN NEGATIVELY AFFECTED BY INERTIA IN THE GLOBAL VALUE CHAINS DURING Q4 AND WHAT IS THE FORECAST FOR Q1 2022? PRODUCTION HAS OR IS EXPECTED TO:

Source: IKEM

	Outcome Q4	Forecast Q1
Slow(ed) down a lot	3%	2%
Slow(ed) down somewhat	32%	23%
Slow(ed) down to a small extent	44%	54%
Remain(ed) completely unaffected	21%	21%

half of 2021 that shows a clear recovery in production. At the same time, the companies are well aware that their supply challenges are set to continue for some time. In the first quarter of 2022 alone, eight out of ten companies expect their production to be limited, to varying degrees, by disruptions to supply.

MAJOR DEFICIENCIES IN SWEDISH ELECTRICITY SUPPLY

One of the main cost challenges during the fourth quarter was soaring electricity prices in electricity areas 3 and 4. Electricity costs skyrocketed, particularly for the plastics, rubber and pharmaceuticals industries, as well as for refineries. The reason why the chemical industry has suffered a lesser impact is probably related to the fact that the companies are major consumers of electricity and have hedged their electricity prices using futures to a greater extent. This applies in particular to process-oriented chemical production.

The deficiencies in the Swedish electricity supply have increasingly emerged as an unwelcome challenge in the production conditions for Swedish industry. The majority of industrial companies are located in electricity areas 3 and 4, where electricity prices hit record levels during late 2021 and early 2022.

During the fourth quarter, the high electricity prices resulted in one-third of the Swedish plastics and rubber industry

implementing downtime. This was in a situation where the order books were full; a unique measure for a large number of companies to take. A further one in ten companies also considered doing the same.

Whatever the views on the source of energy, the timing of the decommissioning of two nuclear reactors in 2019 and 2020 in southern Sweden, combined with significant delays to the expansion of transmission cables between the northern and southern ends of the country, can therefore only be described as extremely unfortunate from an industrial perspective. It fundamentally changes the production conditions for electricity-dependent industry, which also needs to increase its electricity consumption in order to meet climate targets.

NO QUICK FIX IN SIGHT

When asked to predict how the electricity market will develop, the vast majority of companies respond that they either do not know or that they do not believe it is possible to achieve a balance between supply and demand for electricity over the next 15 years. Just under six out of ten companies expect it to be at least six years before stable electricity prices return in Sweden. What does the chemical-related industry do then to prepare for a situation with an uncertain and expensive electricity supply in Sweden?

A large majority of 85% of the plastics and rubber companies are considering various methods and investments to better protect themselves against high electricity prices. For chemicals, the figure is 53% and for pharmaceuticals and refineries 43%. The relatively large differences here are probably down to the different conditions of the industries in terms of installing energy-saving technology/equipment.

Seven out of ten plastics and rubber companies are considering investing in a range of energy-saving technologies, as is one in three pharmaceuticals companies. Half of the plastics and rubber companies are considering actively trading on the electricity market, while a

TABLE 4. DO YOU THINK THAT SWEDISH ELECTRICITY GENERATION WILL BE ABLE TO INCREASE AS QUICKLY AS THE DEMAND FOR ELECTRICITY OVER THE NEXT 15 YEARS?

Source: IKEM

Yes	2%
No	58%
Don't know	40%

TABLE 5. WHEN DO YOU ENVISAGE THE POSSIBILITY OF A RETURN TO MORE STABLE (LOW) PRICES AND A RELIABLE ELECTRICITY SUPPLY IN SWEDEN? IKEM TOTAL.

Source: IKEM

Within the next year	12%
Within 1–2 years	14%
Within 2–4 years	10%
Within 4–6 years	9%
Within 6–8 years	48%
> 8 years	8%

significantly lower proportion of the companies in the other two subsectors are considering this. Hedging electricity consumption is another measure that most plastics and rubber companies are considering.

Five per cent of the plastics and rubber companies and twelve per cent of the chemical companies have invested in their own electricity generation. This usually involves solar power plants. A further fifteen per cent of companies in these industries are also

TABLE 3. HOW WAS THE COMPANY'S PRODUCTION AFFECTED DURING Q4? PROPORTION OF ALL COMPANIES.

Source: IKEM

	Supply: Difficult to obtain raw materials	Supply: Shortage of plastic products	Supply: Shortage of available transport	Costs: Significant increase in input/raw material costs	Costs: Significant increase in transport costs	Costs: Considerably more expensive electricity consumption
Plastics/rubber	95%	61%	70%	96%	80%	91%
Chemicals	39%	16%	25%	42%	41%	41%
Pharmaceuticals/refineries		58%	23%	1%	3%	24%
IKEM Total	58%	27%	20%	30%	38%	70%

TABLE 6. IS THE COMPANY PLANNING TO ADAPT ITS BUSINESS TO AN UNCERTAIN ELECTRICITY SUPPLY? IF SO, HOW?

Source: IKEM

	Plastics/rubber	Chemicals	Pharmaceuticals/ refineries	Total
No	15%	47%	57%	47%
By actively trading in electricity on the electricity market	49%	15%	9%	17%
By investing in technology to adapt electricity use to the price	7%	5%	25%	16%
By investing in technology to reduce the need for electricity	71%	19%	30%	33%
By hedging electricity prices	29%	15%	17%	18%
By relocating electricity-intensive production to another production facility in Sweden	0%	2%	6%	4%
By relocating electricity-intensive production to another production facility in another country	55%	13%	0%	13%

investigating opportunities to make similar investments.

In a serious development for Swedish industry, just over half of the plastics and rubber companies are considering moving parts of their production to another country if the high Swedish electricity prices become a regular feature. Many plastics and rubber companies are part of international groups that have facilities all over the world. Some companies have already shifted more of their production to facilities in countries with lower electricity prices.

For chemical and pharmaceuticals companies, this is either impossible or is only possible to a small extent – in the short term at least. In the long term, however, high electricity prices may affect the willingness to invest in Swedish facilities. The price of electricity is an important part of the overall cost picture that global companies examine when choosing which facilities to continue investing in.

TABLE 7. HAS THE COMPANY IMPLEMENTED DOWNTIME DUE TO THE SOARING ELECTRICITY COSTS OVER THE PAST YEAR?

Source: IKEM

	Plastics/rubber	Chemicals	Pharmaceuticals/ refineries	Total
Yes	34%	0%	0%	6%
No, but we have considered doing so	9%	13%	0%	6%
No	56%	87%	100%	89%

TABLE 8. IS YOUR COMPANY PLANNING TO GENERATE ITS OWN ELECTRICITY?

Source: IKEM

	Plastics/rubber	Chemicals	Pharmaceuticals/ refineries	Total
Yes	5%	12%	0%	5%
No, but we have considered doing so	16%	15%	9%	12%
No	79%	73%	91%	83%

IKEM's member companies operate across a broad range in the production of plastics, rubber, chemicals and pharmaceuticals. The total value added by the industry represents almost one-fifth of total industrial production in Sweden. The value of exports was SEK 304 billion in 2020. Unless otherwise indicated, all the responses reported from the economic survey are weighted according to the company's turnover. The economic summary is reported every quarter.



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