IKEM

ECONOMIC SUMMARY

FIGURE 1. IKEM INDEX FOR THE PERIOD Q3 2016-Q2 2021 FOR DOMESTIC SALES AND EXPORTS (VOLUME AT ANNUAL RATE). AN INDEX VALUE BELOW 100 INDICATES A SLOWDOWN (CONTRACTION).

Source: IKEM



Chemical companies reindustrialising Sweden

The negative impact of the pandemic on Swedish chemical-related production has been blown away. That is according to the data for the second quarter of the year from IKEM's member companies in the chemical, pharmaceuticals, refinery, plastics and rubber subsectors. The staffing needs of the companies are also being affected. Ever since Q3 2020, the number of people employed in the industry has been rising and this trend continued in Q2 2021, measuring at an index of 106 (where anything above 100 indicates growth). The companies also envisage a major need to hire more staff in the future, both in the short term and the long term.

The recovery from last year's lows, which began in Q1 2021, continued in earnest in Q2. The clearest recovery can be seen in

the most cyclical subsectors of chemicals, rubber and plastics, but pharmaceuticals and refineries also showed volume growth during the quarter (see Table 1).

The high growth rate is partly the result of the comparison being made with last year's heavily pandemic-hit second quarter. However, the IKEM companies are clearly at historically high production volumes, even compared with the production and export levels of 2019. For example, compared with 2019, Statistics Sweden's export statistics for April–May 2021 show growth of 3% (value) for plastics/rubber exports and 12% for chemicals exports. The upturn is even clearer in Statistics Sweden's Industrial Production Index (IPI), with all IKEM industries showing double-digit growth rates (Q2 2021/Q2 2019).

It is also clear that the acceleration in global demand for the IKEM companies' products has been faster than anticipated. Compared with the forecasts made by the companies at the end of March, 64% of chemical companies indicated that the outcome in Q2 was better than expected, while the same was true of 46% of plastics and rubber companies (see Table 2). With regard to pharmaceuticals companies and refineries, a third were surprised by the pressure of demand.

TABLE 1. INDEX FOR IKEM'S SUBSECTORS. TREND MEASURED AT ANNUAL RATE, WHERE AN INDEX OF 100 CORRESPONDS TO AN UNCHANGED LEVEL. SALES ARE MEASURED IN TERMS OF VOLUME. Source: IKEM

TABLE 2. HOW DID Q2 PERFORM COMPARED WITH THE COMPANY'S Q1 FORECAST?

Source: IKEM

| | Dou | nestic sa ExP | les Iorts Num | iber of ei Inve | mployee stment Cost | is ¹⁵ profitability |
|----------------------------|----------|------------------|---------------------|--------------------|---------------------------|-----------------------------------|
| Chemicals | 128 | 133 | 102 | 116 | 138 | 129 |
| Plastics/rubber | 122 | 111 | 112 | 112 | 143 | 95 |
| Pharmaceuticals refineries | / 109 | 113 | 107 | 115 | 129 | 115 |
| IKEM total | 117 | 119 | 106 | 115 | 134 | 116 |

SUPPLY SHORTAGES AND LOGISTICS PROB-LEMS SLOW DOWN CONTINUED GROWTH

| | Much ^b | letter Better | in line | In line with forecast Worse Much w | | | | | |
|-----------------------------|-------------------|------------------|---------|---------------------------------------|----|--|--|--|--|
| Chemicals | 40% | 24% | 23% | 12% | 0% | | | | |
| Plastics/rubber | 22% | 24% | 31% | 22% | 2% | | | | |
| Pharmaceuticals, refineries | / 0% | 31% | 67% | 1% | 0% | | | | |
| IKEM total | 16% | 28% | 48% | 8% | 0% | | | | |

There is no doubt that growth could have been even stronger were it not for the fact that global industrial growth has been more or less synchronised, creating supply shortages and logistical problems. These issues were highlighted previously in IKEM's economic summary for Q1. At that time, a majority of companies indicated that they had been unable to produce at full potential. Most companies also predicted a continued supply shortage and local/global transport and logistics problems in Q2. The supply shortage arose, as the companies expected, throwing a spanner in the works for the chemical, plastics and rubber industries in particular, but also for the pharmaceuticals industry to an extent (see Table 3). The problem is particularly evident in relation to the supply and price trend of plastic raw materials and plastic packaging (see Table 4).

TABLE 3. OVERALL, HAS THE COMPANY'S PRODUC-TION BEEN NEGATIVELY AFFECTED BY INERTIA IN THE GLOBAL VALUE CHAINS DURING Q2 (INCOM-ING AND OUTGOING GOODS FLOWS) BECAUSE OF LOGISTICAL PROBLEMS AND/OR SUPPLY SHORT-AGES?

Source: IKEM

| | Yes, ^{to} | a great exter Yes, to | nt a significan Yes, to | _{it} extent a small extent No, not at a |
|--------------------------------|--------------------|--------------------------|-------------------------------|--|
| Chemicals | 57% | 15% | 5% | 24% |
| Plastics/rubber | 23% | 64% | 14% | 0% |
| Pharmaceuticals/ refineries | 0% | 2% | 31% | 68% |
| IKEM total | 21% | 14% | 19% | 45% |

Many companies report that they have put tremendous effort into resolving various kinds of supply and distribution bottlenecks during the quarter. Individual companies say that they have had to reduce the number of shifts because they are unable to obtain sufficient volumes of raw materials, which has of course resulted in longer lead times. A large number of companies also report that deliveries have been slowed down by their customers within other industries being forced to reduce or stop production because other components are not available in sufficient quantities, such as semiconductors in the automotive industry. This has affected many of the companies within the Swedish plastics and rubber industry in particular.

GOOD FUTURE FORECASTS

Despite the bottleneck problems, the companies continue to envisage good opportunities for production growth going forward. All subsectors expect volumes to increase during the second half of the year. The chemical industry is by far the most optimistic, with a production index of 120 for the second half of the year. The overall IKEM index is 115. This is particularly remarkable given that the second half of 2021 is compared with six months of growth in 2020. At the same time, the companies believe that the supply and distribution problems will continue to act as a brake during Q3. Around half of the chemical, plastics and rubbercompanies expect this to be the case. In particular, the companies point to the global container chaos, which is causing additional concern in terms of both supply

TABLE 4. HAS THE COMPANY BEEN SPECIFICALLY AFFECTED BY THE SHORTAGE OF MATERIAL IN RELA-TION TO PLASTIC RAW MATERIALS? HOW HAVE YOU BEEN AFFECTED?

Source: IKEM

| | Strong rise in Purchase | costs Difficult to | obtain raw mater Difficult to obti plastic pro | ials ain oducts Other |
|--------------------------------|----------------------------|-----------------------|--|--------------------------------|
| Chemicals | 80% | 36% | 14% | 3% |
| Plastics/rubber | 92% | 93% | 27% | 2% |
| Pharmaceuticals/ refineries | 3% | 32% | 29% | 0% |
| IKEM total | 39% | 39% | 22% | 1% |

and the pricing of shipping. The pharmaceuticals industry/refineries have limited concerns about supply problems, however.

COST INCREASES ACCELERATE

The distribution problems and raw materials shortages also caused the companies' costs to rise sharply in Q2. An index of 134 for purchases of input goods/raw materials is the highest index value to date since 2017, when IKEM began publishing economic summaries for chemical-related industries. The index for the chemical and plastics and rubber companies was around 140, which represents a significant cost increase. It is true that this comparison is being made with the temporarily reduced purchase costs that were recorded in Q2 last year, but even measured in absolute terms, the cost levels for the central components of IKEM production are high. In fact, this is merely part of a general global commodity price rally, fuelled by factors already mentioned: strong global demand, supply shortages and logistical problems.

PROFITABILITY POINTING IN DIFFERENT DIRECTIONS

The opportunities available to the companies to compensate in the short term for the sharply rising costs varies between companies and subsectors. The chemical companies managed to improve profitability in Q2, while the profitability of the plastics and rubber companies worsened (see Table 1). The improvement in profitability in the chemical industry is, of course, down to a combination of volume growth and price increases. However, the industrial customer mix also has a bearing on the opportunities to implement price increases. It is not unusual, for example, for subcontractors in the automotive industry, including many plastics

and rubber-producing companies, to be tied to long contracts with little opportunity for adjusting prices, whatever the situation on the procurement side.

REVERSAL IN EMPLOYMENT TREND

There is no doubt that Swedish industry is currently experiencing a positive development phase. One of the ways this has manifested itself for the IKEM companies is in the number of employees, which has been increasing ever since Q3 2020. The number of people employed continues to rise during Q2 2021, as demonstrated by an index of 106.

So how do the companies view their need for staff in the slightly longer term? Over the next five years, the chemical, plastics and rubber companies all intend to increase the number of employees by around 15%, which is an annual average of just under 3%. The pharmaceuticals companies and refineries have a more cautious forecast, but are still expecting 3% growth in employment over the five-year period. As the chemical, plastics and rubber industries employ by far the largest number of people, this gives a total increase in employment for the IKEM

industries as a whole of 12% over the next five years.

If the forecasts of the chemical, plastics and rubber companies prove correct, this represent a clear reversal of the trend for these central Swedish industries. Since the turn of the century, for example, the plastics and rubber industry has lost almost 4,000 employees as a result of streamlining, digitisation and the outsourcing of functions to service companies. It would now appear that this trend has been reversed. If the forecast is accurate in the plastics and rubber industry, by 2025 the number of employees will be restored to the same level as it was in 2000. The reduction in employees in the chemical industry in the wake of the financial crisis is also recovered towards the end of the forecast period.

FIGURE 2. THE NUMBER OF PEOPLE EMPLOYED IN THE SWEDISH CHEMICAL, PLASTICS AND RUBBER INDUSTRIES. FORECAST FOR 2020–2025.

Source: Statistics Sweden and IKEM



The optimistic tones can be interpreted as a sign that the industry is looking forward to a brighter future, including a continued transition towards more sustainable and circular production.

As IKEM's economic summary for Q4 2020 showed, a clear majority (88%) of the IKEM companies believe that they are ahead of their competitors in terms of resource efficiency and environmental

TABLE 5. PERCENTAGE OF COMPANIES REPORTING DIFFICULTIES IN FINDING DIFFERENT TYPES OF SKILLS (DIFFICULT OR VERY DIFFICULT). Source: IKEM

| | Total | unionised proc | staff ess operat Mair | ors ntenance e Othe | ngineers r specialis Tota | sms Salaried f Me | employees chanical el Che | ngineers mical engi pro | neers cess engine IT S | ers pecialists Cher | nists (scienti Techi | _{ist} s) hical sales st Econo | aff omists Corpo | rate lawyers Other si |
|--------------------------------|-------|-------------------|-----------------------------|---------------------------|---------------------------------|-------------------------|---------------------------------|-------------------------------|------------------------------|---------------------------|-------------------------|--|------------------------|--------------------------|
| Chemicals | 6% | 4% | 22% | 51% | 41% | 15% | 90% | 93% | 27% | 74% | 67% | 4% | 4% | 3% |
| Plastics/rubber | 27% | 58% | 61% | 19% | 59% | 28% | 71% | 41% | 46% | 34% | 59% | 10% | 6% | 9% |
| Pharmaceuticals/ refineries | 0% | 1% | 27% | 25% | 5% | 1% | 6% | 7% | 30% | 6% | 1% | 0% | 0% | 0% |
| IKEM total | 5% | 12% | 30% | 29% | 20% | 11% | 39% | 36% | 29% | 26% | 27% | 2% | 4% | 2% |

impact in a global comparison. Major investments and considerable efforts are still needed, however, in order for industrial companies to provide an even greater response to the world's need for climate-neutral production. The plans for expansion and transition in the chemical, plastics and rubber industries therefore require a great deal of recruitment. Overall, the IKEM companies indicate that they are expecting a net increase of approximately 6,000 employees over the next five years.

RISK OF SKILLS SHORTAGE – 11,000 NEED-ED, RECRUITMENT ALREADY DIFFICULT IN MANY CASES

In addition to their ambitions to increase the number of employees, the companies must also manage the vacancies arising from retirements at the same time. The five-year forecast of the companies is that 9% of today's employees will have left because they have reached retirement age. Over the next ten years, the forecast is 15%. This means that the companies' HR departments will all have some busy days ahead of them. Not only will they need to fill the many vacancies, they will also have to find staff for newly created positions. Roughly speaking, a total of 11,000 posts will need to be filled across the IKEM companies over the next five years.

It is therefore worrying that the companies are already finding it difficult or very difficult to recruit workers in many professions at the end of a pandemic and with high unemployment levels (see Table 5). The situation is particularly critical for the chemical industry, where 93% of the companies are finding it difficult or very difficult to recruit process engineers. For the plastics and rubber industry, maintenance engineers are proving the hardest to recruit, with 61% of the companies stating that it is difficult or very difficult to find the right skills. The recruitment situation is not quite as difficult for the pharmaceuticals industry, but even here there are certain professions that are very difficult to recruit.

There are not enough people currently on the labour market to meet the entire recruitment needs of the industry. It is therefore pleasing to hear from the companies that they are generally satisfied with the standard of newly qualified applicants to the industry. There are two professions, however, to which this does not apply. With regard to process engineers, 47% of the companies in the chemical industry report that the skills of the newly qualified are far or very far from expectations, while for technical sales staff, 65% of the companies report that the skills are far or very far from their expectations.

The combined effect of the lack of skills of newly qualified process engineers and the difficulties in recruiting them presents major challenges for the companies, especially given that such people are highly sought after by other industries, such as the forestry, steel and recycling industries. The training period is also long.

The situation is therefore serious, especially in light of the fact that these are sectors which are important for Sweden's ambitions to lead the way in climate transition. What we need here is a concerted effort from industry, the education sector and society in general.

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.



If you have any questions, please contact: Carl Eckerdal, Chief Economist 070-497 11 98 carl.eckerdal@ikem.se

IKEM

Innovation and Chemical Industries in Sweden Innovations- och kemiindustrierna i Sverige Box 55915 | SE 102 16 Stockholm | Sweden www.ikem.se