CIA Economic Report

Second Quarter 2024

Executive summary

Steve Elliott, Chief Executive, Chemical Industries Association

I am pleased to present our latest economic report, which has been written by Michela Borra, our Economist. Our economic report has two sections. The first part is a CIA analysis of government statistical data, this section assesses the UK chemical industry's performance against that of the wider economy. The second section presents the results and further analysis of our quarterly industry survey. Our Q2 2024 Business Survey took place between the June 24th and July 5th and it received entries from 52 chemical companies.

After entering a recession in the last quarter of 2023, economic output grew above expectation in Q1 2024 leading more forecasters to upgrade their expectations for 2024. The expansion was linked to resilient demand for services.

On the other hand, demand for goods remains weak after almost 18 months of contraction. Weakening demand and low international industrial production continue to afflict UK manufacturers, especially chemical companies as they produce goods used in the manufacturing of other products. In 2023 our sector contracted by 10.1% and as of May 2024, our output is 23.2% below pre-pandemic levels. Forecasts suggest that we will see further contraction in 2024 and just a marginal improvement in 2025.

Headline inflation has decelerated significantly since the 10.1% recorded in January 2023 and it is currently within the 2.0% target level. Nevertheless, sticky services inflation and real terms pay growth continue to put upward pressure on prices. The Bank of England cut interest rates by 0.25 in their August meeting and we expect further cuts to take place only after official numbers show real improvement.

Prices experienced by chemical producers have deflated for the 13th consecutive month. Output prices have fallen by 4.5% and input prices by 5.5%, with input prices falling quicker than output prices the gap between the two is narrowing even if input prices remain 6.8% higher than output prices.

Lastly, on official data, pay growth has slowed down but it continues to grow quicker than prices. For chemical employees the increases were particularly generous as in the three months to May 2024 they saw total pay (which includes bonuses) increase by 9.1% and regular pay by 7.2%.

Turning to our survey, Q2 2024 was the second consecutive quarter of expansion after 18 months of contractions. Sales, production levels, and capacity utilisation have increased for 40% of respondents. Investment has also increased for the first time in two years, whilst employment continues to contract for 15% of respondents. The Red Sea crisis is pushing up input prices and the cost of trading, which in turn are putting downward pressure on margins. Margins have remained virtually unchanged since Q1 even if more companies reported a decrease than an increase.

Better operating conditions are expected to continue through Q3 with 30% of respondents expecting further increases in sales. Even if almost all variables are projected to improve, the percentage of respondents expecting an increase is low considering the contractions experienced in the past two years. The variable with the most conservative expectations is employee numbers are companies are struggling with retention costs and skills shortages. Expectations over the next 12 months are more optimistic with a mixed bag over employee numbers. It is clear that some companies are confident that demand and production levels will revert to pre-pandemic levels whilst others fear real-term losses.

After changing the framing of challenges, 'Energy costs' has ranked number one concern for businesses, followed by 'Weakening Demand' and 'Raw Materials Costs'. Issues surrounding demand remain focal for over a third of respondents. Overall, issues regarding the labour market, freight, and net zero are expected to worsen throughout the year.

The open-ended part of the survey covered several topics. In the first question, we asked respondents if their insurance costs have increased above expectations and found that 55% experienced increases for 2024 above expectations. On average insurance costs increased by 22% since 2023 and a couple of companies reported insurance costs doubling. The second question interrogated industry leaders over immediate policy priorities that the new government should deliver on for our sector. The consensus was that the a need for an industrial strategy in line with the CIA manifesto and focused on support for manufacturers coupled with a better framework surrounding energy and net zero.

Then we asked members if they are currently using AI in any aspect of their business. This question found that 3 in 5 chemical businesses have implemented AI in at least one business activity and that of the companies that have not yet started using AI 50% are looking into it. Lastly, the average capacity utilisation is 72% meaning that one-quarter of UK capacity is currently not being utilised by chemical companies. This data suggests that if demand returns our companies have the facilities to meet the increased demand.

Contents

ECONOMIC UPDATE 5-11

GDP and chemical production 5

Trade 7

Inflation

Consumer Side inflation 8

Chemical Prices 9

Labour market 10

Rounding up 11

BUSINESS SURVEY 12-20

About CIA Q2 2024 Business Survey 12

Industrial Performance 13

Performance in the second quarter of 2024

Expectations for Q3 2024

Expectations for 12 months

Challenges and Opportunities 16

Open-ended questions 18

Insurance costs

Policy priority that government should deliver for our sector

Artificial intelligence

Capacity utilisation

Continued Recovery

This first part of the economic report will focus on the official statistics released by the Office of National Statistics (ONS). Publications since the previous economic report (Q1 2024) provide information on GDP, chemical production, chemical trade, inflation for consumers and chemical manufacturers, and pay.

GDP and chemical production

The UK economy entered a recession in Q4 2023 but grew above expectations in Q1 2024 leading forecasters to upgrade their predictions for the whole year. The driver behind the 0.7% expansion in Q1 was strong services output which is currently 5.2% above pre-pandemic levels. Whilst production also expanded in the quarter it remains 8.5% below pre-pandemic levels mainly due to the repercussions of the energy price crisis and lower demand from consumers. In terms of general economic forecasts for the year ahead, the Bank of England in May projected growth of around 0.4% but more recent estimations from Oxford Economics suggest annual growth of around 1.0%.

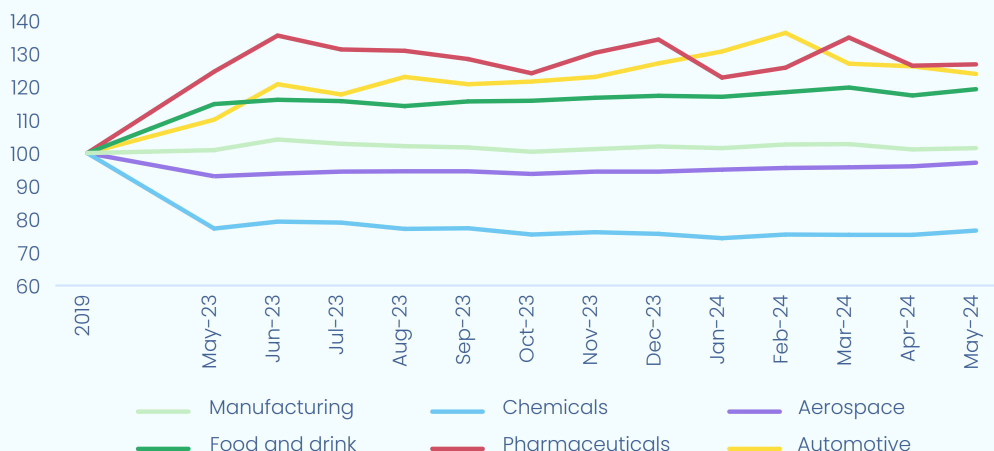
Graph 1 shows a monthly index of production over the past 12 months for chemical, food and drink, pharmaceutical, automotive, aerospace, and general manufacturing. Food and Drink, Pharmaceuticals, Automotive and Aerospace industries along with the chemical industry are colloquially referred to as the 'Manufacturing Five' or 'M5' because they are the five biggest manufacturing sectors in the UK. Indexes show contractions or expansions from a determined level, in this case, each sector's 2019 average production level.

Pharmaceutical -red line- saw its output increase by 33% since the beginning of the year and it is currently 30.7% above pre-pandemic levels. The main driver of pharmaceutical output growth is the strong demand from the NHS and consumers. With the UK being a centre of excellence for medical R&D forecasts are optimistic that 2024 and 2025 will also be years of growth for this sector.

The yellow line represents automotive output. The automotive sector has strongly expanded in the past year thanks to government support and significant investment in the production of electric vehicles. Current output is 22.4% above pre-pandemic levels, but the best years for the sector were 2014 and 2015, which saw production 23% higher than pre-pandemic levels and 6% higher than 2023's. The main challenges that this sector will face in 2024 are low demand – especially for electric vans, tougher 'rules of origin' with the EU, and the tariffs in place on Chinese EVs introduced by the US and EU.

The third-best performing sector is Food, Drink & Tobacco manufacturing represented by the dark green line. This type of manufacturing rarely suffers from weak demand even if recent draughts in Spain and Morocco are impacting supply chains and will likely result in lower output through summer. Another

Graph 1: Index of monthly output of M5 sectors GDP over the past 12 months compared to 2019's level (2019=100)



Source: CIA analysis of ONS data

key topic that the industry will need to take a stance on through 2024 is the 'healthy eating' and the production/recipe changes it might induce.

The purple line represents Aerospace's output. Despite receiving substantial government support its output has remained vastly unchanged throughout the year and is currently 8.0% below pre-pandemic levels, even if 2023 was a year of growth for the sector.

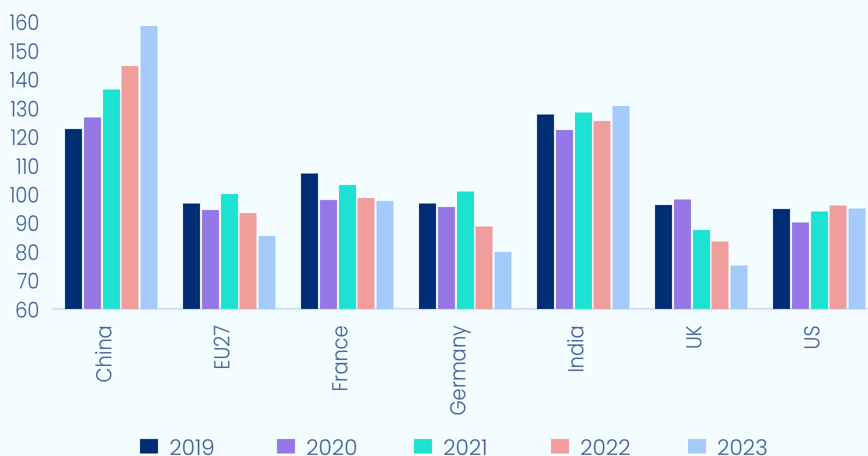
Lastly, chemical output is shown by the blue line. Since the second half of 2022 chemicals have been the worst-performing M5 sector with output contracting by 10.1% in 2023 and current levels 23.2% below pre-pandemic. High energy costs and low demand led several companies to temporarily shut down production in H2 2022, these issues – even if muted – continued to affect businesses through 2023. In Q4 2023, our Quarterly Business Survey captured a slight improvement in operating conditions and demand, but it was in Q1 2024 that the respondents who reported an improvement were more than those who reported a worsening. Official data still shows Q1 2024 as a contractionary quarter even if production in March reached the highest level since June 2023. Data for the first two months of Q2 suggest another quarterly contraction even if sentiment from our member companies indicates another quarter of expansion.

Oxford Economics expects 2024 to be another year marked by contraction for the chemical industry, but 2025 and 2026 should be better years for the sector with forecasted growth of 0.8% and 1.6% respectively. One of the key factors that has led to the downgrade of UK chemical production's forecasts is international competitiveness. In a globalised world, companies compare geographical areas to decide the location of production hubs. Historically the UK was one of the leaders in industrial production but relatively high operating costs (mainly labour and energy), low government support (other areas receive more financial and legislative support from Government), and Brexit have made the UK less competitive. These factors have incentives companies to shift production outside of the UK and forecasts do not seem to expect this lost market share to return.

The below graph shows annual chemical production levels from 2019 to 2023 for China, the EU, France, Germany, India, the UK, and the US. Chemical production in the UK, as explained earlier, has been decreasing since 2021 even if our sector was particularly resilient through COVID and it was one of the few countries to expand production in 2020. German chemical manufacturers have also been struggling in 2022 and 2023 due to the energy crisis and its effect on chemical input prices and consumer industries – automotive. Since Germany is the industrial core of Europe, European chemical production is heavily influenced by Germany so in **Graph 2** the two locations show similar trends. French chemical industries are currently performing better than the European average, but current output levels remain below pre-pandemic. The US, which amongst Western countries is the best performing, is operating below pre-pandemic levels but thanks to generous government grants, investment in the country's chemical sector has increased and we can expect stronger performance in the next few years.

Over 50% of all chemical production takes place in Asia and thanks to relatively cheap production costs an increasing number of companies is intensifying

Graph 2: Index of international chemical production (2015=100)



Source: CIA analysis of CEFIC data

production in the area. Both Chinese and Indian chemical output levels are above pre-pandemic and forecasts expect them to continue growing driven by strong government support and good availability of raw materials, as well as low production and energy costs.

Chemical trade

Globalisation has blurred the geographical boundaries increasing the incidence of trade on industrial supply chains. International trade is an essential factor for the chemical industry, in 2023 the value of UK chemical imports was £70bn and of chemical exports £60bn.

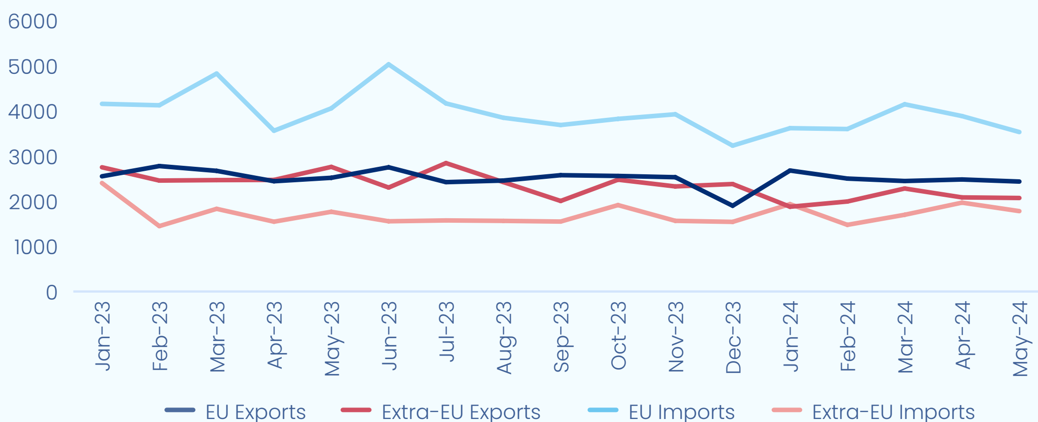
Graph 3 represents chemical imports and exports towards EU and extra-EU countries. The two blue lines represent trade flows with the EU and the two red lines trade flows with extra-EU countries. Exports are illustrated by the two darker lines (dark blue and dark red) and imports are the two lighter lines (light blue and light red).

Focusing on imports first, the light blue line is consistently higher than the light red line indicating that imports from EU countries are higher than imports from extra-EU countries. Over the past year, there has been a slightly decreasing trend in EU imports likely the result of stagnation of the EU's chemical sector. Non-EU imports have remained vastly unchanged: whilst they peaked in January 2023 they did not follow a decreasing trend over the year and recently they have likely been impacted by recent geopolitical tensions and the ongoing Red Sea crisis.

Moving on to exports, the dark lines are much closer together and they intersect multiple times indicating that the UK exports similar values of chemicals towards EU and extra-EU countries. Exports to EU countries have stayed more or less consistent through 2023, whilst extra-EU exports are more volatile.

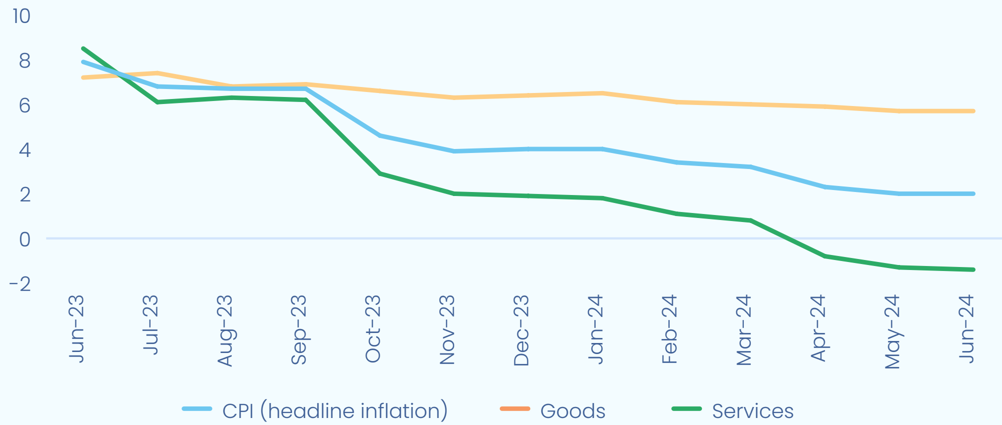
Since EU imports – light blue line – are higher than EU exports – dark blue line – the UK is a net importer of chemicals from the EU, extra-EU exports are higher than extra-EU imports making the UK a net exporter of chemicals to non-EU countries. The total amount of chemicals imported each year is higher than the amount exported so the UK is a net importer of chemicals as a whole. This means that we are highly dependent on other countries to meet the internal demand for chemicals and given that we import roughly double more chemicals from EU countries than extra-EU countries it is essential to maintain a stable relationship with the continent's trading block.

Graph 3: Monthly chemical trade in value terms from January 2023 to May 2024(£mn)



Source: CIA analysis of ONS

Graph 4: Headline inflation, goods and services prices inflation over the past 12 months



Source: CIA analysis of ONS

Consumer-side inflation

Since the pandemic, prices have been particularly discussed as the UK experienced the highest inflation rates in over 40 years. To maintain inflation under control the Bank of England increased interest rates to 5.25%. Even if recently inflation has decelerated quickly and is back at the 2.0% target level, trends in service prices inflation and pay suggest that it might increase after summer and generate concern among members of the Monetary Policy Committee (MPC).

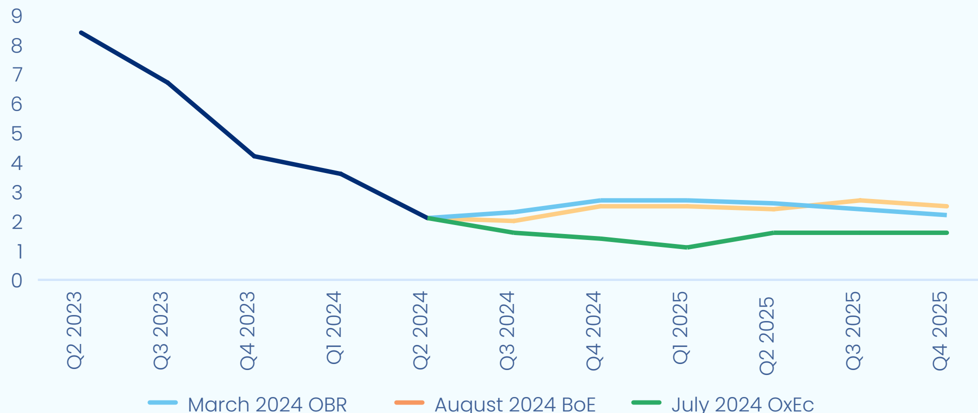
Graph 4 shows inflation of goods and services, and headline inflation (CPI) since June 2023.

The orange line represents the price of goods from June 2023 to June 2024. In H2 2022 and Q1 2023, good prices rose steeply due to energy price increases. Throughout 2023, more stable energy prices and subdued demand for goods led goods inflation to decelerate from 13.3% in January to 1.9% in December. This decelerating trend continued in Q1 2024 and in Q2 2024 prices deflated. Deflation of good prices means that prices are lower this year than last year and it is a symptom of depressed demand for goods. These prices are expected to continue falling in the next quarter and slowdown in Q4 2024 as the economy stabilises.

Although less volatile, services prices – green line – are more stubborn and cause concern within the MPC at the Bank of England. Services prices are less directly impacted by energy prices, so they peaked at a lower level and later in the year than headline inflation and goods prices. Nevertheless, they have been more stubborn over the past 13 months due to resilient demand and higher production costs linked to higher pay and rent. These factors are bumping up expectations from the Bank over medium-term inflation forecasts.

The blue line represents CPI, which is often referred to as headline inflation as it is considered to be the most accurate proxy for price trends within the country. Through 2023 CPI inflation decelerated from 10.1% in January 2023 to 4.0% in December 2023 and

Graph 5: Quarterly forecasts for inflation to Q4 2025



Source: CIA analysis of OBR, BoE, and OxEc data

it has continued to decelerate to 2.0% in the first half of 2024. Since CPI is directly impacted by energy prices, lower energy prices compared to a year ago have driven the recent deceleration in inflation even if domestically produced inflation remains elevated (as shown by services prices). Given real-world gains in terms of disposable income from households and lower volatility of energy prices, it is likely that headline inflation will slightly increase in H2 2024 as the graph 5 shows.

Forecast over CPI inflation from the Office for Budget Responsibility (OBR), the Bank of England (BoE), and Oxford Economics (OxEc) are shown in **Graph 5**. The OBR compiled their forecast in March ahead of the Spring Budget so it is the most out-of-date and less in line with the other two. The BoE expects inflation to bounce back above 2.0% after Q2 2024 and fully reach 2.0% in Q2 2026. The expectation of higher inflation is rooted in forecasted spending trends from households with higher disposable income, pay continuing to grow above inflation, sticky services inflation, and the direct impact of energy prices. Oxford Economics makes similar assumptions, but it does not forecast inflation to fully reach the 2.0% target level before 2029.

Despite the conservative estimates from the Bank of England, on Thursday 1st of August the Monetary Policy Committee meeting decided to cut interest rates by 0.25pp to 5.25%. The vote was close with 5 of the 9 members voting for a cut. Among the reasons mentioned for added volatility to inflation geopolitical tensions and import prices were mentioned in both the report and the minutes from the meeting.

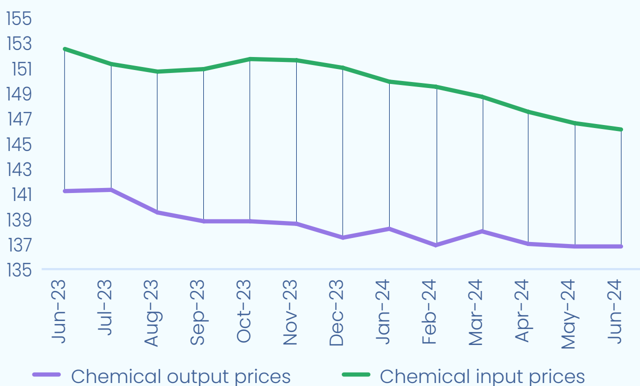
In June inflation was recorded above 2.0% for the US – 3.3%, Germany – 2.2%, France – 2.1%, and the Eurozone – 2.6%. Whilst China continues to battle through a subdued domestic market and recorded inflation of 0.2%. The baseline effect created by high energy prices through 2023 is the main driver of the UK's current low inflation, countries that experienced less severe energy price raises have a lower baseline effect and higher inflation.

Chemical prices

Graph 6.2 shows the growth rate of chemical input and output prices between June 2023 and June 2024, where the purple line represents output prices and the green one inputs ones. Both prices have been deflating since May 2023, meaning that input and output prices for chemicals were lower in 2023 than in 2022. The driving factor for the deflation of input prices was the stabilisation of energy costs, whilst for output prices it was low demand. Between August 2023 and April 2024, input prices shrunk slower than output prices but recently the trend has switched. Nevertheless, at CIA, we have heard anecdotal evidence of raw material prices increasing and as the survey part of the report shows it is one of the top three challenges for businesses.

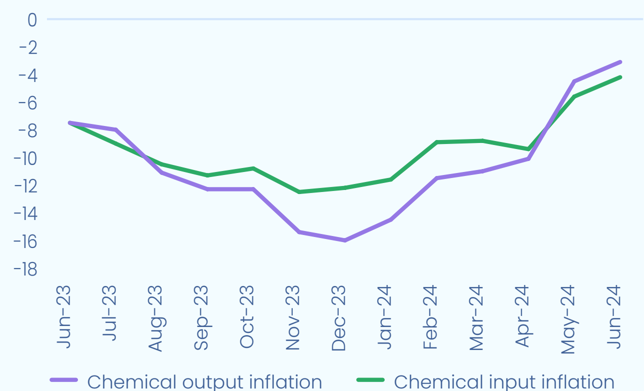
For the greater part of the past three years, input prices have grown quicker and deflated slower than output prices leading to a gap between the two which is represented in **Graph 6.1**, where the purple line is higher than the green one, indicating that input prices are higher than output's. In the past 13 months, this gap has narrowed: in June 2023 input prices were 8.0% higher than output prices and 6.8% in June 2024. This continues to put strain on chemical companies' margins especially as demand remains uncertain and input prices elevated.

Graph 6.1: Title: Price level of chemical outputs and inputs over the past 13 months



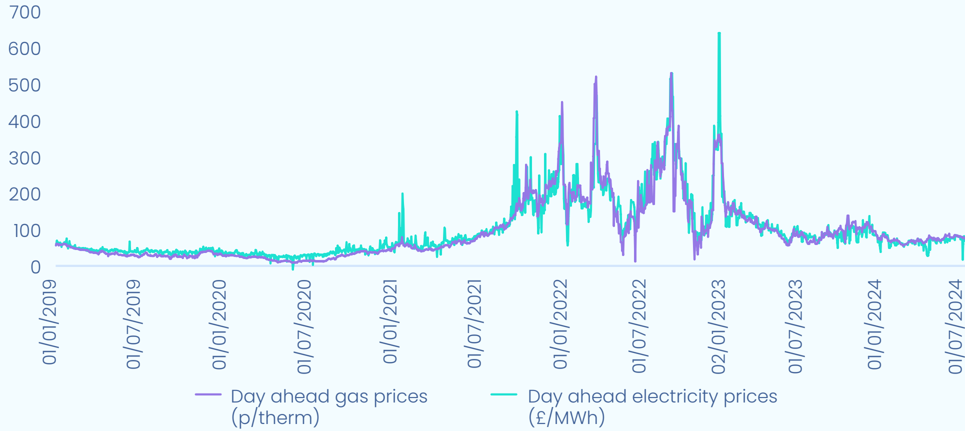
Source: CIA analysis of ONS

Graph 6.2: Growth rate of chemical output and input prices over the past 13 months



Source: CIA analysis of ONS

Graph 7: Day Ahead Gas and Eletricity Price from January 2022 to July 2024, (p/therm and £/MWh)



Source: CIA analysis of ONS

Graph 7 displays the day-ahead wholesale gas and electricity prices in the UK over the last year. UK gas and electricity prices have settled at the lowest level since summer 2021 but they remain roughly two times higher than pre-pandemic and extremely uncompetitive on an international level. Given the peaks reached in 2022 and volatility through 2023, 2024 should mark a relief for energy-intensive industries as prices will settle at a new equilibrium, but with European LNG being more expensive than Russian pipeline gas, the new prices will be higher than the historic average.

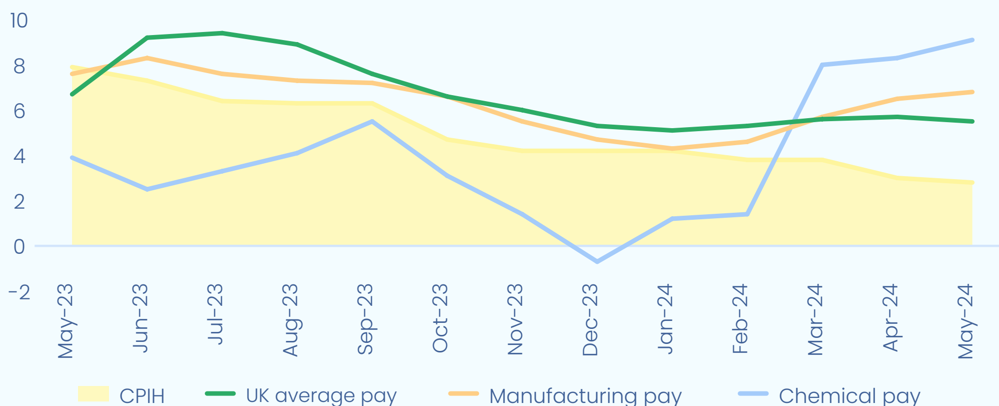
Labour market

In the past two years, UK inflation reached its highest peak in 40 years. Since then, high interest rates from the Bank of England and tight Fiscal policy aided the deceleration to the 2.0% target. Nevertheless, high inflation increased cost-of-living which pushed up pay. Over the past 12 months, pay has been growing quicker than prices resulting in real terms pay increases and bumping up expectations for medium-term inflation. **Graph 8** shows the average UK, manufacturing, and chemical pay compared to CPIH inflation. CPIH inflation is considered to be the most accurate measure of the cost of living as it includes owner-occupiers' housing costs.

The yellow line indicates the level of CPIH inflation and any point within the yellow area is below inflation, so results in real terms pay cuts.

The green and orange lines show that since the three months to June 2023 average total (including bonuses) pay in the general economy and for the manufacturing sector has been growing quicker than inflation. In the three months to May 2024, the UK average worker experienced a regular pay increase of 5.6% and a total pay (which includes bonuses) increase of 5.5%, with CPIH at 2.8%, these resulted in effective pay increases of 2.8% and 2.7%, respectively. For the manufacturing sector, in the same period,

Graph 8: Growth rate of UK average, manufacturing, and chemical pay over the past 13 months compared to CPIH inflation



Source: CIA analysis of ONS

regular pay grew by 6.6% and total pay by 6.8%, resulting in effective pay increases of 3.8% and 4.0%.

Even if pay increases have slowed down in recent months, the numbers continue to worry members of the MPC because they will likely translate into higher demand for services leading to stickier services inflation.

Lastly, according to data from the Labour Force Survey, chemical employees have experienced real terms pay cuts up until March 2024. In May 2024, regular pay increased by 7.2% and total pay by 9.1% resulting in real terms pay growth of 4.4% and 6.3% respectively. One of the reasons why chemical pay may differ from manufacturing and total is linked to the sample size. The Labour Force Survey is a voluntary disclosure survey meaning that the type of people and the amount of people that submit information may differ across different periods and, with small samples, data might not accurately reflect real-life trends.

Rounding up the official data

In 2023 the UK entered a technical recession but output in Q1 2024 exceeded expectations thanks to the strong performance of the services sector boosted by resilient consumer spending. Forecasts expect growth to continue through the year resulting in an annual expansion of 1.0%.

Chemical manufacturing is the weakest performing sector within the M5, with current levels 23% below pre-pandemic levels and no real expectation of strong sustained recovery.

Headline inflation has been within the 2.0% target level for two consecutive months, but most of the downward pressure came from lower domestic energy prices and this effect is expected to fizzle out after July. Sticky services inflation continues to put upward pressure on prices and with real terms pay gains it is likely that consumer demand will remain strong. In their August meeting, the Monetary Policy Committee decided to cut interest rates to 5.0% from 5.25%.

Chemical prices have deflated for thirteen consecutive months due to a baseline effect from last year and weak demand. Nevertheless, output prices fell less quickly than input prices narrowing the gap between the two. Currently, chemical input prices are 6.8% higher than output prices as opposed to the 8.0% from June 2023.

The UK's labour market remains challenging with chemical companies experiencing difficulties recruiting and pressure to increase remuneration to ensure retention of experienced workers. In the chemical industry, total pay rose by 9.1% in the three months to May 2024 compared to the same period a year prior.

Survey results

About the survey

At the close of each quarter, we survey member companies of the Association for industry data about current trading conditions and views on what lies ahead. The information from this is incredibly useful in our work and we are grateful to all who respond.

The CIA's Q2 2024 Business Survey was live between June 24th and July 5th 2024. The survey received responses from around 50% of CIA members. This edition of the survey was split into three sections. The first and second sections contained the standard industry performance and challenges & opportunities questions. In the third section, we asked respondents some questions focusing on Insurance, New Government, AI/Digitalisation, and Capacity Utilisation.

In the industry performance section, there were three questions that asked respondents whether the 19 variables listed below had increased, decreased or stayed the same in the second quarter of 2024 compared to the first quarter of 2024 and expectations for these variables in the third quarter of 2024 and 12 months.

Industry performance variables:

1. Total sales
2. Domestic sales
3. Exports
4. EU exports
5. The rest of the world exports
6. New orders
7. Production levels
8. Capacity utilisation
9. Employee numbers
10. R&D spend
11. Business investment
12. Your level of business optimism
13. Time to deliver
14. Raw material (input) prices
15. Cost of importing
16. Cost of exporting
17. Your energy costs
18. Finished goods (output) prices
19. Your company/site profit margins

When displaying the industry performance data diffusion indexes are used. These are easy-to-interpret statistical tools that can be read in the same way as S&P Global's Purchasing Managers Indexes (PMIs), therefore any figure below 50 indicates a contraction, above 50 an expansion while 50 means it remained constant. To compute these indexes, we combined the percentage of respondents who reported experiencing an increase with half of those who reported experiencing no change.

Industry performance

Performance in the second quarter of 2024

Table 1 displays the diffusion indexes for the 19 variables mentioned in 'About the survey' and the percentage of respondents that reported experiencing a decrease in the variables. The first column is the diffusion index for the performance in the second quarter, the second column contains the diffusion index for what was expected for the second quarter of 2024 when respondents were asked in the CIA's Q1 2024 Business Survey, the third column contains the diffusion index for the performance in the first quarter of 2024, and the final two columns contain the percentage of respondents that experienced a decrease of that variable in the current quarter and in the previous one. This allows comparisons to be made between the performance in the second quarter of 2024 compared to expectations and the prior quarter.

Table 1: Q2 performance compared to Q1's and expectations made in Q1

	Q2 Actual	Q2 Expected	Q1 Actual	Percentage that experienced a decrease in Q2 2024	Percentage that experienced a decrease in Q1 2024
Total sales	63	70	66	15.4%	18.0%
Domestic sales	54	59	60	11.5%	10.0%
Exports	62	59	62	13.5%	12.0%
EU exports	63	60	58	11.5%	14.0%
Rest of the world exports	60	60	56	11.5%	12.0%
New orders	64	66	58	11.5%	14.0%
Production levels	63	58	64	15.4%	14.0%
Capacity utilisation	63	60	64	11.5%	18.0%
Employee numbers	49	44	39	15.4%	28.0%
R&D spend	50	49	46	7.7%	4.0%
Business investment	54	54	46	9.6%	22.0%
Your level of business optimism	61	58	65	13.5%	8.0%
Time to deliver	52	48	45	5.8%	12.0%
Raw material (input) prices	49	56	53	28.8%	18.0%
Cost of importing	59	58	65	1.9%	0.0%
Cost of exporting	60	58	65	1.9%	0.0%
Your energy costs	39	41	38	36.5%	34.0%
Finished goods (output) prices	50	49	45	23.1%	24.0%
Your company/site profit margins	49	50	57	28.8%	22.0%

Source: Source: CIA Q2 and Q1 2024 Business Survey

Key take away

2024 continues on a positive note for chemical manufacturers. Sales increased for 42% of respondents, with production and capacity utilisation continuing to expand above expectations. Slower variables are also on the rise. Yet over 2 years of adverse conditions have left margins in a tough spot with 3 in 10 respondents still experiencing falling profit margins.

After Q1's strong growth, Q2 has continued off the same positive path with most variables continuing to record improvements and some exceeding expectations. Sales have increased for 42% of respondents since Q1, when 50% of respondents reported higher sales. With fewer members reporting falling sales than in Q1, there is evidence that demand is becoming more uniform across sub-sectors. The indices on page 13 show that the UK remains the weakest market even if domestic sales continue to expand for over 20% of respondents. Exports to EU and non-EU countries, as well as new orders, exceeded expectations and outperformed Q1 indicating the ongoing recovery of global demand for chemicals.

With more companies reporting decreasing employee numbers (15%) than increasing (13%) it is clear that the future remains uncertain especially in terms of demand and UK chemical capacity. R&D spending and Business Investment seem to be recovering with almost double more companies increasing their investment than decreasing it this quarter. The different developments within these variables could be rooted in data on capacity utilisation, as will be discussed in the capacity utilisation section of the report [1].

In concordance with official data on chemical prices, our survey found that raw materials costs have overall slightly contracted as 28% of respondents experienced a decrease since Q1. Nonetheless, the higher cost of trade and more complicated geopolitical situation have increased these input costs for 27% of respondents indicating that different subsectors are experiencing different price trends. Energy costs show far less volatility than a year ago and more companies saw a decrease than an increase. Lastly, over 2 years of adverse economic conditions are impacting both business optimism and profit margin which have both performed slightly worse than in Q1. In particular, more respondents saw their margins shrink since Q1 than expand indicating that even if sales are recovering, lower-than-normal capacity utilisation and high operating costs continue to afflict UK chemical businesses.

Expectations for the second quarter of 2024

Table 2 displays the diffusion indexes for what is expected for each of the 19 variables in the third quarter of 2024 and the percentage of respondents who expect to see an increase.

Table 2: Expectations for Q3 2024

	Q3 expectation	Percentage that expects an increase in Q3 2024
Total sales	61	31%
Domestic sales	58	25%
Exports	61	29%
EU exports	58	25%
Rest of the world exports	63	29%
New orders	60	27%
Production levels	61	33%
Capacity utilisation	60	31%
Employee numbers	44	8%
R&D spend	53	10%
Business investment	52	13%
Your level of business optimism	61	27%
Time to deliver	54	8%
Raw material (input) prices	55	15%
Cost of importing	57	17%
Cost of exporting	58	17%
Your energy costs	57	21%
Finished goods (output) prices	53	15%
Your company/site profit margins	50	23%

Source: CIA Q2 2024 Business Survey

As is often the case, future expectations are optimistic with almost a third of respondents foreseeing higher sales in Q3 than in Q2. Both

1 *See page 19 of the report for the section on capacity utilisation and how that relates to future employment and investment.*

Key take away

Sales, production levels, and capacity utilisation are expected to continue recovering, however, 20% of respondents fear further decreases in employee numbers. Cost of trading, inputs and energy are anticipated to increase, but so are finished goods prices. Members are divided over future margins.

production levels and capacity utilisation are also expected to increase overall even if 12% of respondents remain apprehensive.

Expectations over employee numbers provide the most worrying picture as 20% of respondents fear further job losses and restructuring due to limited utilisation of available capacity and unclear recovery of demand. Investment and R&D spending should slightly improve as more companies invest in greener production processes and upgrade current equipment.

In terms of costs, raw material prices are expected to increase by 15% of respondents and 17% see geopolitical tensions continuing to bump up the cost of trading. Energy costs will also increase by over 20% due to more unstable international supply and political uncertainty.

The combination of all these expectations suggests that the situation over margins will not be overly different in Q3. No expected change over margins indicates that increasing demand is not offsetting the high operating costs that our members have been facing since late 2021. Moreover, even if these expectations are positive they come after two years of contraction and further indicate the level of uncertainty that our members are facing.

Expectations for twelve months' time

The data in **Table 3** is derived from members' expectations over the next 12 months, and due to the nature of the survey, this data should be used as a gauge of the sentiment of the industry rather than rigid forecasts. Like Table 2, this data contains an index that aims to describe if the variables will increase or decrease and the percentage of respondents that estimate an increase in the next 12 months.

Our sector has been navigating adverse economic conditions for the greater part of the past two years and since the beginning of 2024, many companies have started to see real improvements in demand. This low base and initial signs of improvement are the likely roots for the relatively high levels of medium-term expectations.

Table 3: Medium-term expectations

	12 months expectation	Percentage that expects an increase in 12 months time
Total sales	79	62%
Domestic sales	73	54%
Exports	75	56%
EU exports	72	50%
Rest of the world exports	74	50%
New orders	77	58%
Production levels	76	60%
Capacity utilisation	78	62%
Employee numbers	50	15%
R&D spend	55	13%
Business investment	64	33%
Your level of business optimism	72	48%
Time to deliver	52	6%
Raw material (input) prices	57	21%
Cost of importing	59	19%
Cost of exporting	59	19%
Your energy costs	51	19%
Finished goods (output) prices	62	29%
Your company/site profit margins	66	38%

Source: CIA Q2 2024 Business Survey

Medium-term expectations from our Q2 2024 Business Survey on the whole are slightly more muted than in our Q1 2024 Business Survey. In Q1 72% of respondents expected to see higher sales, in Q2 that percentage has decreased to 62% this is probably because the baseline for 'higher sales' has increased from Q1 to Q2. On a positive note, there are also fewer companies expecting lower sales suggesting that fewer companies are worried that weakening

Key take away

62% of respondents expect higher sales driven by higher exports, resulting in higher production levels and capacity utilisation. Expectations over slower-moving variables remain more conservative but are in a better place than in Q1 2024.

demand will persist. Similarly, production levels and capacity utilisation are also expected to increase in 12 months' time but less respondents expect an increase compared to in Q1.

Projections for employee numbers are expected to improve just by 15% of respondents whilst another 15% fear further restructuring. Future employment trends are telling overestimated long-term demand, the 15% of respondents that foresee further job cuts are likely also assuming that the lost capacity and demand over the past two years will not come back resulting in long-term losses for the company. The other 15% has a more optimistic stance believing that demand will return requiring them to increase employment and production levels.

A third of respondents are planning to increase business investment over the next 12 months likely linked to Net Zero initiatives and green investments.

Input prices and cost of trading are expected to further increase as a result of more unstable geopolitical relations resulting in higher freight prices and more intricated supply chains. Energy costs are expected to remain vastly unchanged but implicate severe productivity losses given the internationally uncompetitive price level.

Due to high energy prices and other input costs, margins are expected to recover by 38% of respondents, whilst the remainder 62% believe that either they will not change or will contract.

Challenges and Opportunities

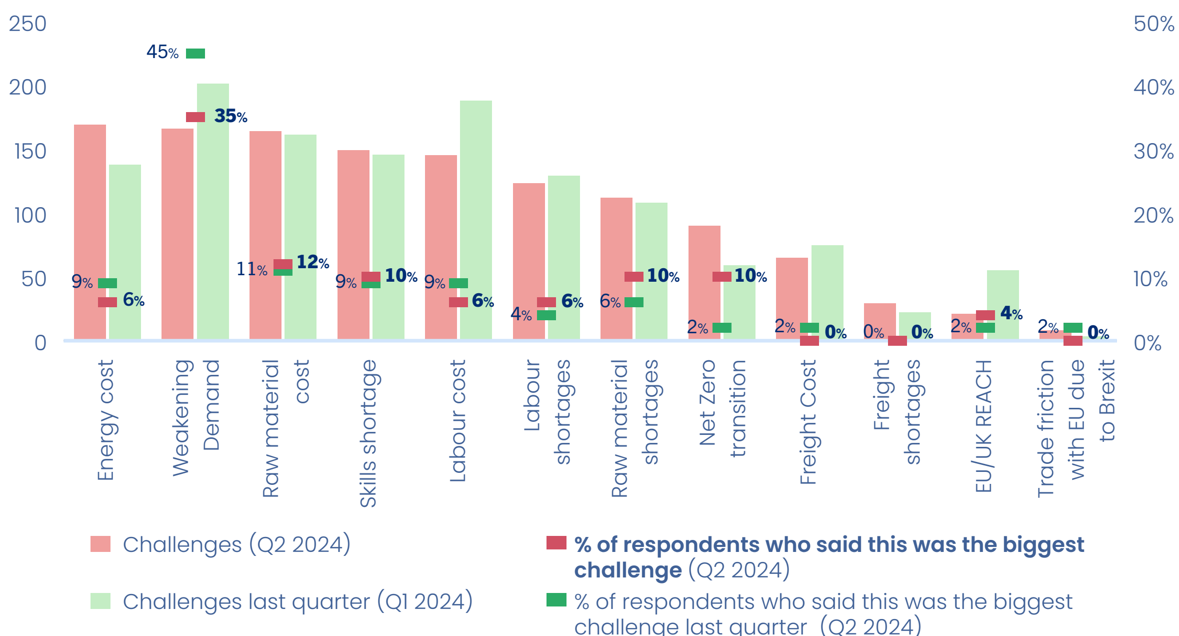
The second section of the CIA's Q2 Business Survey focused in more detail on the challenges faced by members and the opportunities that they identified. The first question asked respondents to rank 13 challenges faced by the industry from greatest to smallest with '1' signalling the greatest issue and '13' the smallest.

Upon request from members we decided to change the framing of cost-related issues from 'price increases' to 'costs'. By asking about 'Raw Material Cost Increases', 'Labour Cost Increases' and 'Energy Prices Increase' previous surveys focused on the volatility of prices, the switch to costs aims to uncover the weight of the business of current costs. Prices are becoming less volatile thanks to the re-establishment of energy supply chains and world trade after COVID and the Russian invasion of Ukraine. A lower volatility means fewer threats from price increases even if current price levels are elevated by historic and international standards. This has ultimately informed our decision to change all costs-related challenges to 'costs' from 'price increases'.

This quarter's survey recognised: Energy Costs, Weakening Demand, and Raw Material Costs as the three main challenges. Last quarter the three main challenges were: Weakening Demand, Labour Cost Increases, and Raw Material Price Increases.

The red bar on the **below graph** shows the ranking of the challenges in this quarter's survey, whilst the

Graph 9: Industry ranking of business challenges in Q2 and Q1 2024



Source: CIA Q2 and Q1 2024 Business Survey

green bar ranking in the previous quarter (Q1 2024). In the case of Energy Costs, the red bar is higher than the green bar meaning as a challenge it ranked higher in Q2 than in Q1, probably due to a change in framing from 'price increases' to 'costs'. The squares represent the percentage of respondents that ranked each challenge as number one, the red square is the percentage in Q2 2024 and the green one in Q1 2024. Focusing on Energy Costs, less members have ranked it as the main challenge in Q2 2024 than in Q1 2024 but due to the overall rankings, it was considered the main concern for chemical businesses. On the other hand, Weakening Demand was ranked number one by 35% of respondents but since other respondents did not consider it a pressing challenge to business ranked lower than Energy Costs.

The worsening of geopolitical tensions has likely induced many companies to favour local producers of raw materials to international ones even if it came at higher costs. Moreover, longer delivery times and higher transport costs likely boost the price of international raw materials. The dots also show that the percentage that recognises Raw Materials Costs as the main business challenge has increased by 1pp.

Skills shortage has ranked in the top five for over a year now. This issue has been affecting chemical and non-chemical businesses alike for over two decades now and the new government has mentioned it as one of its objectives within their manifesto.

Labour Costs are currently ranking fifth even if in Q1 they ranked third. For chemical companies labour costs are a relatively small part of costs given the high price of energy and raw materials, moreover decelerating inflation is aiding in pay negotiations. Nevertheless, one of the main contributors to increasing labour expenses is retention. Because of skills shortages, chemical companies find themselves in competition with each other (and other sectors) to retain talented and experienced chemical engineers, thereby driving up retention costs.

The 'smallest' challenges still pose a serious threat to the industry in the mid-to-long term. They however are not being felt as acutely as low demand, and labour frictions. It is therefore important that these challenges, including REACH, the Net Zero Transition, and Trade Friction with the EU, are not underestimated.

In particular the percentage of members that ranked Net Zero Transition as the main business concern has increased from 2% to 10% indicating that more and more companies are starting to see the impact of the limited Net Zero framework on investment and future business operations.

Members also mentioned other challenges that were not in the survey, such as regulations/legislations (lack of necessary regulation, long waits, uncertainty, newly introduced EU regulations), additional challenges related to 2+ years of challenging business conditions (high costs, low demand, low stock level), unstable politics/unfavourable investment environment, Chinese exports saturating the market, and insurance costs.

The next question asked respondents whether the 13 challenges from the previous question were improving, worsening, or remaining unchanged. **Table 4** displays the diffusion indexes of the answers with figures above 50 indicating an improvement, below 50 worsening, and 50 equals no change, and the percentage of respondents that expect a worsening in the near future.

Table 4: Expectations over challenges

	12 months expectation	Percentage that expects this challenge to worsen
Energy cost	55	22%
Weakening Demand	50	24%
Raw material cost	39	39%
Skills shortage	26	41%
Labour cost	19	61%
Labour shortages	35	22%
Raw material shortages	38	29%
Net Zero transition	33	29%
Freight Cost	27	39%
Freight shortages	42	14%
EU/UK REACH	39	14%
Trade friction with EU due to Brexit	39	10%

Source: CIA Q2 2024 Business Survey

Other than energy costs and weakening demand all other challenges are expected to worsen, in particular labour-related issues, Freight Costs, and Net Zero Transition.

Labour Costs are expected to worsen by 61% of respondents and Skills Shortages by 41% indicating further difficulties in recruitment. In conversations with members, it was also noticed that numerous

chemical employees are moving to the nuclear or insurance sector and from this data, it seems that respondents believe that this trend might continue.

Freight Costs are also expected to worsen as geopolitical tensions continue to exacerbate the cost of importing and exporting.

Raw Materials Costs are also expected to worsen by 39% of respondents, whilst Raw Materials Shortages worry less members with 'just' 29% of respondents expecting worsening.

As we get closer to 2025 and 2030, the number of members who believe that issues surrounding the Net Zero Transition have increased from 10% to 29% between Q1 and Q2 Business Surveys.

Moving onto opportunities, the most recurrent themes were:

1) Expansion to new markets, seasonal demand, general higher demand
2) The introduction of new products or the initiation of new internal projects
3) Schemes that help reduce costs/Net Zero initiatives
4) CBAM/anti-dumping
5) New investments and acquisitions of other companies
6) Reshoring of parts of manufacturing
7) Lower competition due to the failure of a main competitor company.

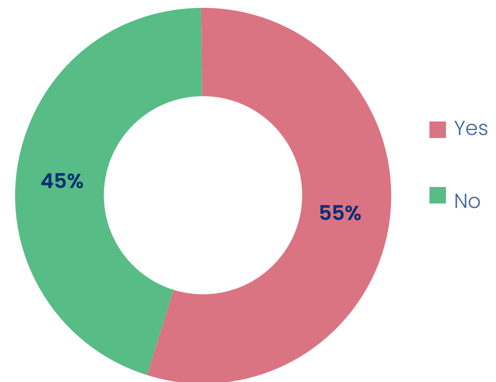
Open-ended questions

The final part of the survey asked members some open-ended questions around four topics: insurance costs, asks from the new government, artificial intelligence, and capacity utilisation.

Insurance costs

Following conversations with members CIA has realised that several companies had seen their insurance costs increase significantly above expectations, to understand the severity of the increases two questions were added to our quarterly business survey.

Graph 10: Have you insurance costs (2024) increased more than expected?



Source: CIA Q2 2024 Business Survey

The first question uncovered that 55% of respondents experienced insurance costs far above expectations. The second question investigated the extent of the increase and found that insurance costs increased by an average of 22% with a few members reporting over 50% increases in their insurance premiums.

Policy priority that government should deliver for our sector

The second topic in the open-ended part of our survey focused on New Government and which is the main immediate policy priority it should deliver for our sector.

Table 5: What is the main immediate policy priority that the new government should deliver for our sector?

Support to manufacturers and energy strategy	26%
Net Zero	18%
Support to R&D and investment	11%
Stable politics	9%
UK REACH/better EU/UK relations	9%
CBAM	7%
FTAs (non EU)	7%
Labour Market	7%
Tax Stabilisation	3%
Support to Construction Sector	3%
EU/UK REACH	39
Trade friction with EU due to Brexit	39

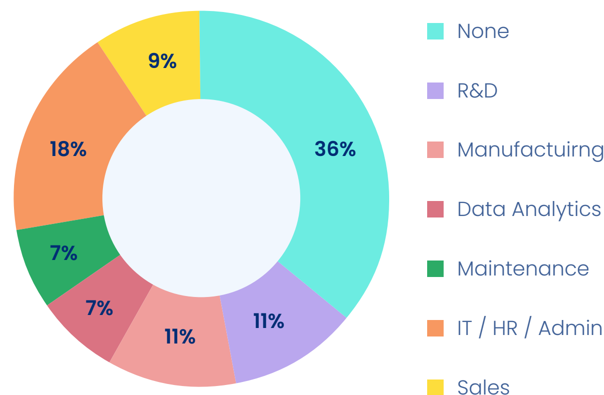
Source: CIA Q2 2024 Business Survey

Table 5 shows what members said should be the main immediate policy priorities of the new government. Over 1 in 5 members has mentioned some sort of manufacturing or energy support. This encompasses the inclusion of chemicals within the Advanced Manufacturing Plan and higher government support for energy-intensive industries. The second most popular request from government was additional support and a more detailed framework/timelines regarding the Net Zero target. Companies are finding that compared to other global locations, the UK does not have a competitive net zero plan which hinders international investment in the country and might hinder the future of the industry. The third most common recommendation covers support for R&D and other forms of business investment. After years of underinvestment, UK companies need to invest in new production processes and machinery to increase their productivity, but with internationally uncompetitive support for investment, it is challenging for foreign-owned businesses to secure funds. All these asks are in line with the CIA Manifesto published earlier this year and available on our website.

Artificial intelligence

The third topic in the open-ended part of our survey asked members about the areas of business they apply Artificial intelligence (AI).

Graph 11: In which business activity(ies), if any, do you use Artificial Intelligence (or Machine Learning)?



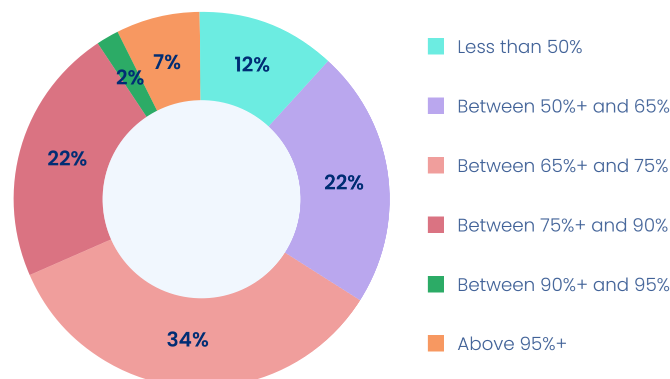
Source: CIA Q2 2024 Business Survey

The above graph shows that 3 in 5 chemical businesses use artificial intelligence within their business and among the ones that have not introduced it yet 1 in 2 has expressed the desire to implement it. The fields where AI is currently being mainly adopted are HR/IT/Admin, Manufacturing, and R&D.

Capacity utilisation

The last question in the open-ended part of the survey covered capacity utilisation and how much of their current UK capacity members are using.

Graph 12: What percentage of your UK capacity is currently being utilised?



Source: CIA Q2 2024 Business Survey

The average capacity utilisation in the UK is 72% meaning that we currently have over 25% of spare capacity in the country. Current capacity utilisation is relatively low due to weak demand, without a full recovery of customer industries production levels and capacity utilisation will remain subdued.

It is concerning that 12% of respondents are using 50% or less of their total UK capacity hinting that their demand and production levels have fallen significantly in the past few years and highlighting the baseline effect in recent surveys. This number coupled with the 4 in 10 companies that decreased the UK share of global production since 2019 paints a worrying picture for the state and future of our sector.

On a positive note, nearly 1 in 10 chemical companies are operating at over 90% of their UK capacity, and some respondents have mentioned initiating work to further increase their capacity. Additionally, when informed about their level of spare capacity, members noted that it would serve as a valuable resource if and when demand increases.

Key takeaways from the survey

After 18 months of contraction, the Q2 2024 Business Survey is the second consecutive industry sentiment survey to capture an improvement in operating conditions and demand. Sales increased for the majority of respondents with less than 16% reporting a contraction. The domestic market continues to be outperformed by exports. Higher demand has led to increased production levels and capacity utilisation for over 40% of respondents. Employee numbers are still contracting for 15% of respondents whilst overall investment recorded the first expansion of the past two years. After several quarters of contraction margins remain in a tough spot with almost a third of respondents recording a further decrease in Q2.

Looking ahead to the third quarter of the year, expectations are on the whole optimistic despite high levels of uncertainty. Employee numbers and input/energy costs are expected to worsen due to unclear demand and geopolitical tensions. Projections over the next 12 months are more optimistic as 62% of respondents expect higher sales. Nevertheless, these numbers need to be contextualised as capacity utilisation is relatively low and it is on the back of several quarters of contraction.

The main three challenges for the sector are 'Energy Costs', 'Weakening Demand', and 'Raw Material Costs'. Changing the framing of the question from 'price increases' to 'cost' changed the ranking and further highlighted that even if energy prices are no longer volatile, they remain internationally uncompetitive and a barrier to business. Among the issues that are expected to worsen are labour-related ones, freight cost, and Net Zero.

Open-ended questions showed that insurance costs have increased above expectations for 55% of members and the average increase was of 22%. The main three asks from government in terms of immediate policy changes to benefit the sector are: 1) support to manufacturing and delivery of an energy strategy, 2) a clearer framework around Net Zero, and 3) support to R&D and investment. 6 in 10 chemical companies use AI in at least one business activity. Lastly, capacity utilisation, coupled with the UK's share of global chemical production, paints a worrying picture for the sector. Even if given current capacity utilisation and employment, if demand from customer industries increases the UK has the resources and capacities to meet it.

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