



CIA Economic Report

First Quarter 2024



Executive summary

Steve Elliott, Chief Executive, Chemical Industries Association

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 Q1 2024 Business Survey took place between the 8th and the 19th of April and it received entries from 50 chemical companies.

Government data from the Office for National Statistics showed that in the last quarter of 2023, the UK entered a technical recession, yet thanks to strong growth in Q1 2024 the recession was short-lived.

Tough economic conditions and high borrowing costs instituted by the Bank of England to tackle inflation resulted in low demand for goods. Weakening demand impacted industrial production, which contracted in both 2022 and 2023, especially for intermediate goods, such as chemicals. For our sector, 2023 was one of the toughest years on record, as falling production in the second half of 2022 led to further declines in 2023, and current chemical production levels are almost a fourth lower than 2019's levels. Forecasts suggest that 2024 will be a year of stagnation with an annual contraction of output of 0.2%, but that 2025 should see more positive conditions leading to a 2.6% growth

Headline inflation decelerated from 10.1% in March 2023 to 3.2% in March 2024. We expect the Monetary Policy Committee to withhold cuts to interest rates until their June meeting but their decision will likely be based on consumer spending trends.

Chemical prices have deflated for the eleventh consecutive month due to lower energy prices and weakening demand. Input prices have been higher than output prices for almost three years and their gap has almost doubled since March 2023.

Turning to our survey, Q1 2024 was the first quarter of expansion in 18 months. Sales, production levels, and capacity utilisation expanded for 50% of respondents and were all above expectations made in Q4 2023. Slower moving variables remain in contractionary territory especially employment which is expected to continue to decrease by 28% of respondents. The Red Sea crisis has impacted the cost of trading as all respondents reported them to have increased or remained the same since Q4 2023.

Better operating conditions are expected to continue through Q2 as over 50% of respondents expect higher sales, and 40% higher production levels, new orders, and capacity utilisation. Further contractions are expected for slower-moving variables, especially employee numbers, likely due to the production capacity lost during the past two years. The cost of trade is not expected to decrease and neither are raw materials prices. Expectations over the next 12 months are also optimistic despite ambiguity regarding employee numbers which are expected to decrease by a quarter of respondents and another quarter expected them to increase.

The main three challenges this quarter were 'weakening demand', 'labour cost increases', and 'raw material price increases'. Labour, raw material, and freight-related issues are expected to worsen in the short term, whilst energy to further stabilise.

The open-ended part of the survey covered apprentices and globalisation. In terms of apprentices, the survey uncovered that roughly three-quarters of respondents are relying on apprentices for some to all future needs with the vast majority believing that they can be the solution for some of their future skills needs. Most companies tend to recruit 10 or fewer apprentices per year and the areas where most companies recruit apprentices are maintenance, process operator, and admin (including IT). In terms of when the apprentices become an employee, it tends to be at the end of the apprenticeship for 57% of respondents, and from day 1 for 27%.

In terms of globalisation and share of global production, 27% of respondents are UK-only companies, whilst over half produce less than 24% of their company's total production in the UK. When comparing current global production share to 2019's 3.6 in 10 companies have decreased the amount they produce in the UK, 4.6 in 10 if we remove UK-only companies.

Contents

ECONOMIC UPDATE	5-10	BUSINESS SURVEY	12-20
GDP and chemical production	5	About CIA Q1 2024 Business Survey	12
Chemical trade	7	Industrial performance	13
Consumer-side inflation	8	<i>Q1 2024 compared to Q4 2023</i>	13
Chemical prices	10	<i>Expectations for Q2 2024</i>	14
Labour market	11	<i>Expectations for 12 months time</i>	15
Rounding up the official data	11	Challenges and opportunities	16
		Open-ended questions	18
		<i>Apprentices</i>	18
		<i>Production and globalisation</i>	18
		Key take-aways from the survey	20





Britain's chemical industry fighting for growth

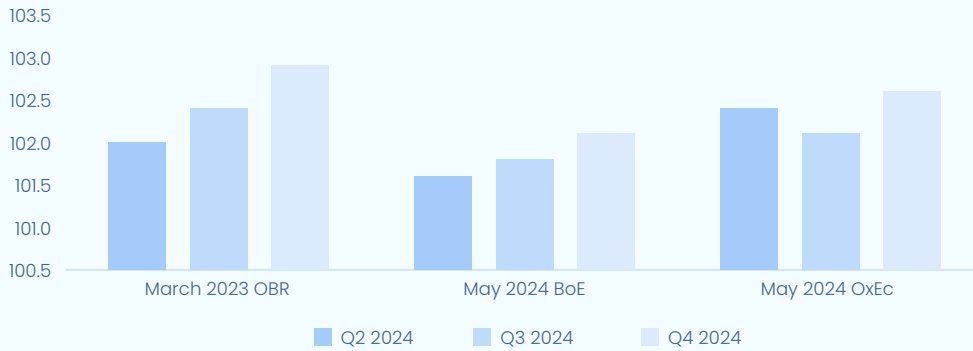
Michela Borra, Economist, Chemical Industries Association

This first part of the economic report will focus on the official statistics released by the Office of National Statistics. The relevant publications since the previous economic report (Q4 2023) provide information on GDP and chemical production, chemical trade, inflation for consumers as well as chemical manufacturers, and pay.

GDP and chemical production

2023 ended on a bitter note when the UK entered a technical recession as output contracted for two consecutive quarters. Data surrounding pay, inflation and unemployment indicated that the recession was likely to be short-lived. Newly published data from the ONS confirmed the contractions in Q4 and Q3 and indicated a strong recovery of output in Q1 2024 which bring current real GDP levels 2.4% above pre-pandemic. In Q1 2024, economic activity in the UK expanded by 0.4% and reached the highest level on record. The main drivers for the growth were services, which recorded expansion in 11 of their 14 subsectors, and are now 4.5% above pre-pandemic levels. Production output, which also expanded in Q1 thanks to strong performance of consumer goods manufacturing, remains almost 8.0% below pre-pandemic levels.

Graph 1: Real GDP forecasted level for 2024 from the Office for Budget Responsibility, the Bank of England, and Oxford Economics (an independent economic forecaster)



Source: CIA analysis of ONS

The above graph shows forecasts from the Office for Budget Responsibility (OBR), the Bank of England (BoE), and Oxford Economics (OxEc).

The forecasts from the OBR are used by the Chancellor ahead of the Spring Budget / Autumn Statement to decide which fiscal policies to introduce. The forecast from the BoE informs the Monetary Policy Committee on future expectations over inflation and the impact of higher / lower interest rates. Oxford Economics is the independent forecaster that the CIA relies on for UK and industry forecasts.

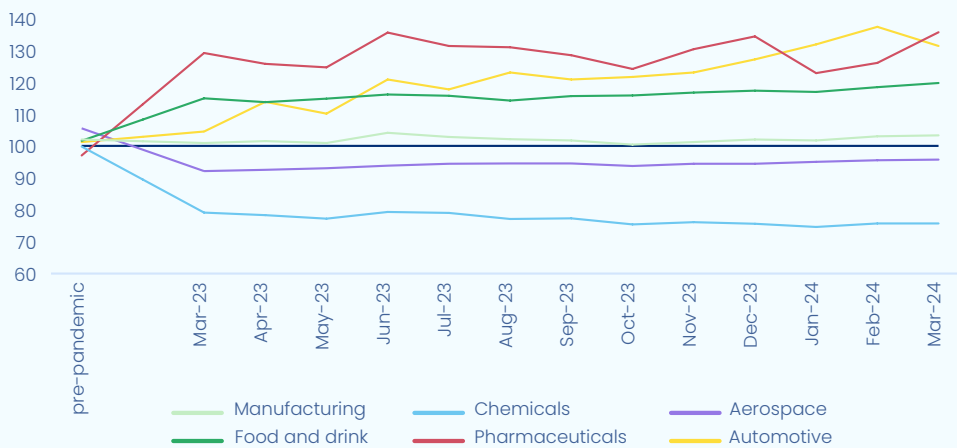
From the above graph, it is evident that the Bank of England has the most conservative forecast but they will release an updated forecast on May 9th. Both the OBR and BoE expect GDP to progressively increase throughout the year, whilst OxEc forecasts a far better start for the year followed by a slowdown in Q3 which would be offset by Q4's growth resulting in annual GDP growth of 0.9%. Oxford Economics has recently

updated and raised their forecasts for the year ahead due to stronger-than-expected outturn in Q1 2024.

Graph 2 shows a monthly index of production over the past 12 months for chemical, food and drink, pharmaceutical, automotive, aerospace, and general manufacturing industries. Food and Drink, Pharmaceuticals, Automotive and Aerospace industries along with the chemical industry are colloquially referred to as the 'Manufacturing five' or 'M5' industries 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. The dark blue line in the middle of the graph represents the index of 100, anything above that line is above 2019's levels and anything below the line is below 2019's levels.

Starting from the currently best-performing sector, pharmaceuticals represented by the red line.

Graph 2: Index of monthly output of M5 industries and manufacturing over the past 12 months, 2019=100



Source: CIA analysis of ONS

Pharmaceutical output still exhibits evidence of boosted investment and sales linked to COVID-19. Recently there have been announcements from major pharmaceutical producers of investment taking place in the UK both in terms of research and production. Given pharmaceutical's output dependency on the NHS, it is highly volatile and through 2023 it fluctuated between 20% and 30% above than pre-pandemic. As of March 2024, pharmaceutical output is 40% higher than pre-pandemic.

Automotive – yellow line – saw its output increase by over 25% since March 2023. The automotive sector has been struggling with demand since the pandemic with 2020 and 2022 being two of the worst years on the record for the industry. In 2023 Automotive received significant support from the Government and numerous investments were made around electric vehicle production. Tougher 'role of origin' of production with the EU and subdued economic demand amid high interest rates suggest that 2024 will be a tough year for the sector.

The third-best performing sector is Food, Drink & Tobacco manufacturing represented by the green line. This type of manufacturing rarely suffers from weak demand even if high interest rates and adverse economic conditions might result in another challenging year for this sector. Nevertheless, inflation and food prices have been decelerating which – coupled with growing salaries – should boost household disposable income and increase consumption whilst cutting production costs. On the other hand, new tariffs instituted by the UK and geopolitical tensions impacting delivery times will have an adverse effect on production and demand.

The purple line represents Aerospace's output. Despite receiving substantial government support its output has remained vastly unchanged throughout the year and is currently 9.3% below pre-pandemic levels.

Lastly, chemical output is represented by the blue line. Since the second half of 2022, chemicals have been the worst-performing M5 sector; in January 2024 chemical output level was the lowest since February 2014. The continued decline of output and low starting levels made 2023 one of the worst-performing years for the industry. Comparing March 2023 to March 2024 chemical production levels, there has been a fall of 4.3%, but when considering current levels to 2022's average it increases to 12.7% and current output levels are 24.1% below pre-pandemic. Q1's output contracted by 0.5% compared to Q4 2023 as a result of contraction in January, growth in

February, and stagnation in March.

Oxford Economics expects 2024 to be a transition year for the chemical industry as output will continue to stagnate resulting in a year-on-year contraction of 0.2%, 2025 and 2026 should be better years for the sector with forecasted growth of 2.6% in both years. Whilst growth in the next few years is expected to be positive, in the past quarter the forecast has been downgraded making a recovery to pre-pandemic levels appear less likely.

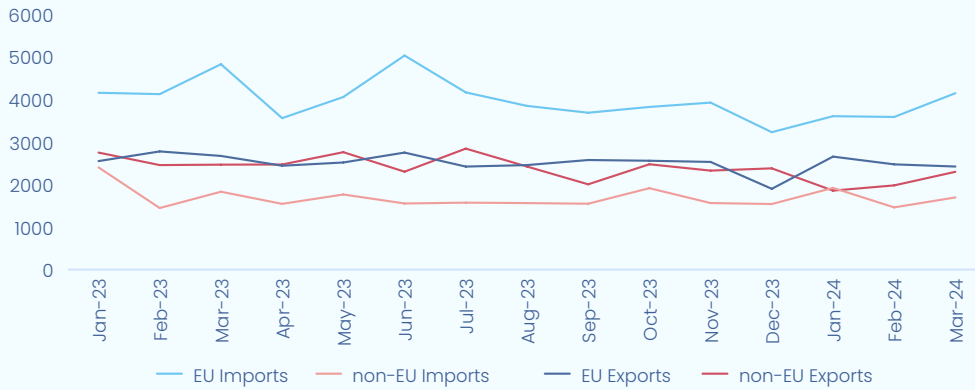
Chemical trade

Globalisation has blurred the boundaries of industrial production as companies decentralise their production units to areas with more competitive operational costs. This has led to an intensification of trade as many UK companies rely on imports and exports of raw materials and finished goods.

In 2023 the value of all chemicals imported by the UK was almost £70bn and £60bn for all chemical exports from the country. These figures do not account for inflation but they still show the importance of the chemical industry as it is the second largest manufacturing exporter of the country.



Graph 3: Monthly chemical imports and exports from and to EU and non-EU countries from January 2023 to March 2024, value term (£m)



Source: CIA analysis of ONS

Graph 3 represents chemical imports and exports towards EU and non-EU countries. The two blue lines represent trade flows with the EU and the two red lines trade flows with non-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 non-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 and have followed a relatively stable even if recent geopolitical tensions might be impacting Q1’s figures.

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 non-EU countries. The dark blue line has remained roughly constant throughout 2023, despite a drastic fall in December 2023. On the other hand, exports towards non-EU countries show more volatility and in January 2024 were 32% lower than in January 2023.

Whilst exports to EU and non-EU countries are comparable, the UK remains highly dependent on the EU for chemicals and efforts to maintain a stable relationship with the continent’s trading block is essential for the future of UK manufacturing.

Consumer-side inflation

Inflation has been one of the key economic topics for the past three years as the UK experienced the quickest price increases since the 1940s. Last year the Chancellor promised to halve inflation by December 2023, his promise was maintained but prices continue to grow quicker than the 2.0% targeted by the Bank of England.

Graph 4: Percentage change of CPI, core CPI, Goods, and Services prices from January 2023 to March 2024



Source: CIA analysis of ONS

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

The green line represents the price of goods from January 2023 to March 2024. At the beginning of last year, good prices rose steeply due to energy price increases. Through 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 is continuing in Q1 2024 as good prices in March 2024 were just 0.8% more expensive than in March 2023. We expect this deceleration to continue but slow down as industrial demand slowly recovers throughout the year.

Although more stable, service prices – orange line – remain stubborn. Services inflation peaked in May 2023 and July 2023 at 7.4%. Despite decelerating since then, in March 2024 they recorded the same increase as in January 2023 (6.0%). Stickier services inflation is the result of more resilient demand from consumers and higher production costs linked to higher salaries. The higher minimum wage which came into effect on April 1st will likely impact services inflation for Q2 2024 and will further increase costs hindering services price deceleration.

The red and blue lines represent core CPI – which excludes the direct impact of energy, food, alcohol, and tobacco – and CPI respectively. CPI (often referred to as headline inflation) stands for Consumer Price Index and is considered to be the most accurate proxy for price trends. Through 2023 CPI inflation decelerated from 10.1% in January to 4.0% in December. The direct impact of energy and lower energy prices was the main driver of this deceleration. Indeed, core CPI which is not directly impacted by energy prices has not decelerated as quickly. Another strong downward contribution to CPI which is not accounted for in core CPI is food prices, which went

from 19.1% in March 2023 to 4.0% in March 2024.

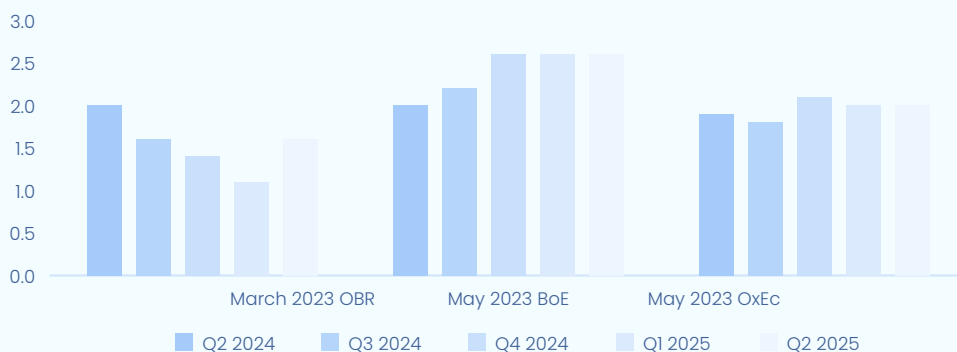
Forecast over CPI inflation from the Office for Budget Responsibility (OBR), the Bank of England (BoE), and Oxford Economics (OxEc) are shown in graph 5. The BoE has the most conservative forecast as they expect inflation to reach 2.0% in Q2 2024 but bounce back up in the following quarter and remain around 2.6% for the remainder of the forecast period. The OBR is more optimistic expecting inflation to undershoot the 2.0% target level and hover around 1.5% for 2024 and 2025. Oxford Economics forecasts inflation around 1.9% in Q2 2024 as lower energy prices put downward pressure on CPI and then remain under 2.0% until 2025 when stronger economic activity will boost demand and consumption.

After the pre-election pro-growth Spring Budget, in March and May the Monetary Policy Committee decided to maintain interest rates at 5.25%. The factors that we identify as having driven this decision are the increase to minimum wage from £10.42 to £11.44, the 2 percentage points decrease in National Insurance Contributions, the general trend of growing salaries due to cost-of-living crisis, sticky core CPI, and resilient consumer spending boosting services demand.

April 2024 inflation will show the impact of lower National Insurance Contributions, lower domestic energy prices, and higher minimum wage. All these factors are likely to decrease short-term inflation but increase consumer spending and long-term trends. This suggests that whilst we might see the MPC cut interest rates in June 2024 the cuts will be careful and more significant falls will only take place after more data on consumer spending becomes available.

In March inflation remained above 2.0% also for the US – 3.5% –, Germany – 2.2% –, France – 2.3% –, and the Eurozone – 2.4% –. Whilst China continues to battle through a subdued domestic market and recorded inflation of 0.1%.

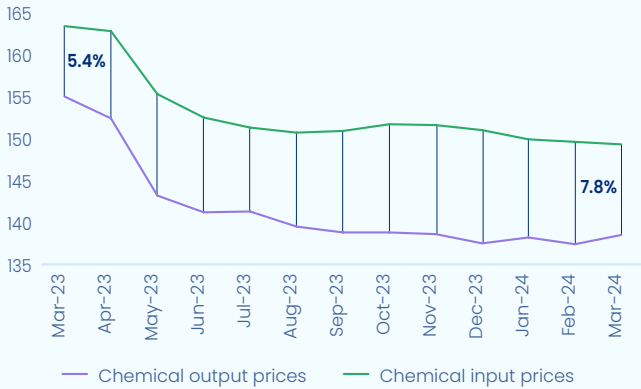
Graph 5: Inflation forecasts for 2024 and H1 2025 from the Office for Budget Responsibility, the Bank of England, and an Independent Economic Forecaster



Source: CIA analysis of ONS

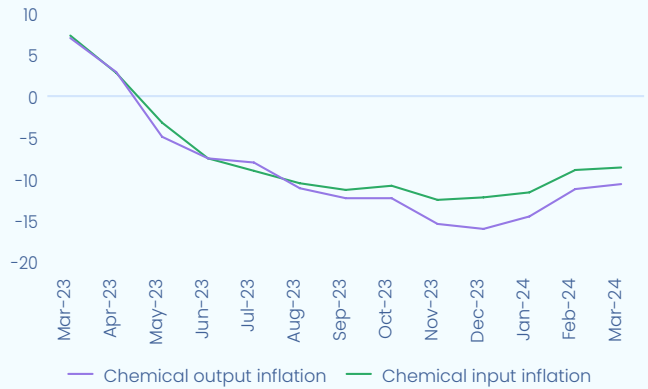
Chemical prices

Graph 6.1: Chemical input and output price levels from March 2023 to March 2024, 2019=100



Source: CIA analysis of ONS

Graph 6.2: Growth rate of chemical input and output prices from March 2023 to March 2024



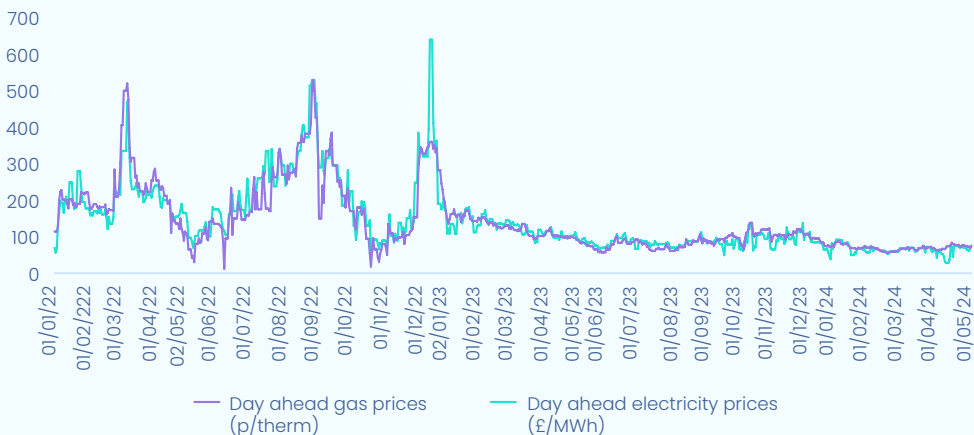
Source: CIA analysis of ONS

Graph 6.2 shows the growth rate of chemical input and output prices between March 2023 and March 2024, where the purple line represents output prices and the green one input 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. Throughout the past 12 months chemical input prices have grown quicker (and shrunk slower) than chemical output prices as shown by the green line being more or less consistently above the purple one. The increasing gap between input and output prices is represented in Graph 6.1, where the green line is higher than the purple one indicating that input prices throughout the year were consistently higher than output ones. In

March 2023 chemical input prices were 5.4% higher than output prices, and in March 2024 7.8% higher. With subdued demand for chemicals, these trends for input and output prices put additional strain on chemical companies' margins.

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.

Graph 7: Day Ahead Gas and Electricity Price since January 2022 to April 2024, (p/therm and £/MWh)



Source: CIA analysis of ONS

Labour market

In 2022 inflation was recorded at 9.1% and whilst it decelerated to 7.3% in 2023, it is still above the 2.0% target level. Inflation increased the cost of living which in turn pushed up pay and increased employment. Graph 8 shows the average UK, manufacturing, and chemical pay and compares it 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 resulted in real terms pay cuts.

The orange and aqua lines show that since the three month 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 March 2024, the UK average worker experienced a regular pay increase of 5.4% and a total pay (which includes bonuses) increase of 5.1%, with CPIH at 3.8%, these resulted in effective pay increases of 1.6% and 1.3%, respectively. For the manufacturing sector, in the same period, regular pay grew by 5.8% and total pay by 5.1%, resulting in effective pay increases of 2.0% and 1.3%.

The same cannot be said for chemical employees, whose pay is represented by the blue line. Whilst in the last quarter of 2022 chemical pay increased significantly higher than inflation resulting in real terms pay increases, pay growth rates decreased throughout the first half of the year and reached 12 months low in the three months to December 2023. Chemical pay returned to grow above inflation in March 2024 when weakly earnings also reached the highest level on record. In the three months to March 2024, regular pay grew by 5.0% and total pay by 5.1%, resulting in effective pay increases of 1.2% and 1.3% respectively.

Rounding up the official data

In 2023 the UK entered a technical recession but in Q1 2024 output expanded to the highest level on record. Forecasts suggest that UK GDP should grow by roughly 1.0% in 2024. The outlook remains negative for manufacturing and industrial production as these sectors are still affected by historically high energy costs and weak demand.

Chemical output is currently almost 25% below pre-pandemic levels and is expected to contract by a further 0.2% in 2024 to then expand by 2.6% in 2025 and 2026.

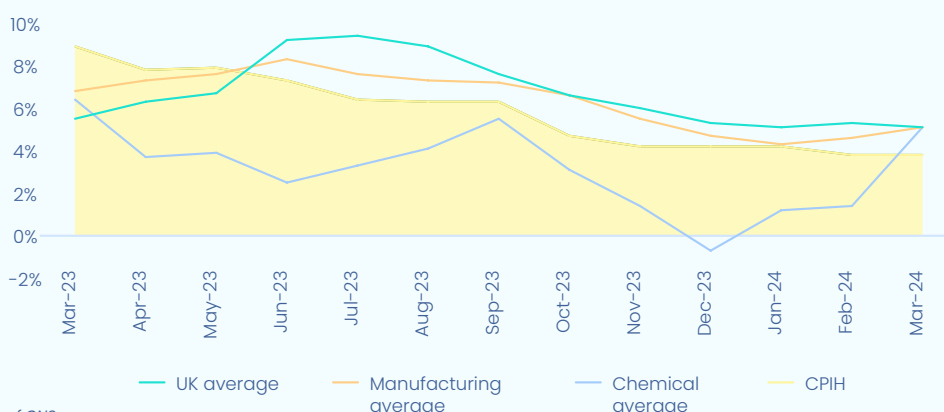
Headline inflation has decelerated to 3.2% in March 2024 compared to 10.1% in March 2023. Nevertheless, the pro-growth policies instituted by the Chancellor during the Spring Budget might result in higher inflation as consumer's disposable income increases. Depending on pay and inflation data, the Bank of England is likely to start cutting interest rates in June.

Moving on to chemical trade, the UK remains highly reliant on the EU as over a third of imports come from member countries, but trade is intensifying with non-EU countries, especially in terms of exports.

Chemical prices have been deflating for eleven consecutive months due to lower energy prices and weakening demand. Input prices are significantly higher than output prices and the gap has almost doubled since March 2023.

The UK's labour market remains challenging as chemical companies are experiencing difficulties recruiting and pressure to increase remuneration to ensure the retention of experienced workers. In March pay for chemical workers increased to the highest level on record and returned to grow above inflation: total pay rose by 5.1% in the three months to February 2024 but resulted in a 1.3% pay increase after inflation.

Graph 8: Index figure of GDP and Chemical Output, September 2019–July 2023, Q4 2019 = 100



Source: CIA analysis of ONS

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 Q1 2024 Business Survey was live between the 8th and the 19th of April 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 apprentices and globalisation.

In the industry performance section, three questions asked respondents whether the 19 variables listed below had increased, decreased or stayed the same in the first quarter of 2024 compared to the last quarter of 2023 and expectations for these variables in the second quarter of 2024 and 12 months' time.

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 first quarter

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 first quarter, the second column contains the diffusion index for what

was expected for the first quarter of 2024 when respondents were asked in the CIA’s Q4 2023 Business Survey, the third column contains the diffusion index for the performance in the fourth quarter of 2023, 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 first quarter of 2024 compared to expectations and the prior quarter.

Table 1

	Q1 Actual	Q1 Expected	Q4 Actual	Percentage that experienced a decrease in Q1 2024	Percentage that experienced a decrease in Q4 2023
Total sales	66	63	27	18.0%	52.1%
Domestic sales	60	56	30	10.0%	50.0%
Exports	62	58	33	12.0%	45.8%
EU exports	58	59	32	14.0%	45.8%
Rest of the world exports	56	57	31	12.0%	45.8%
New orders	58	63	35	14.0%	39.6%
Production levels	64	59	26	14.0%	56.3%
Capacity utilisation	64	60	30	18.0%	50.0%
Employee numbers	39	38	41	28.0%	29.2%
R&D spend	46	47	44	4.0%	14.6%
Business investment	46	42	36	22.0%	31.3%
Your level of business optimism	65	52	36	8.0%	35.4%
Time to deliver	45	52	46	12.0%	14.6%
Raw material (input) prices	53	53	41	18.0%	35.4%
Cost of importing	65	60	56	0.0%	8.3%
Cost of exporting	65	61	58	0.0%	4.2%
Your energy costs	38	54	46	34.0%	27.1%
Finished goods (output) prices	45	53	49	24.0%	25.0%
Your company / site profit margins	57	49	34	22.0%	41.7%

Source: CIA Q1 2024 Business Survey

Key take away

After 18 months of contraction, Q1 2024 marked the first quarter of expansion as sales, production levels, and capacity utilisation increased for 50% of respondents. Geopolitical tensions increased the cost of trading for a third of respondents, but stronger demand increased margins for almost 40% of respondents.

For the first time in two years, actual figures were better than expectations and stronger demand led to stronger performance of sales, production levels and capacity utilisation. In terms of sales, exports expanded for more companies than domestic sales suggesting that domestic demand remains more subdued than international one. The table below shows that in the previous quarter, 52% of respondents experienced falling sales, this quarter that percentage decreased to 18% and an index of 66 further indicates an expansion, especially compared to Q4's index of 27.

Slower moving variables, on the other hand, remain in contractionary territory as Employee Numbers, R&D Spending, and Business Investment all report indices below 50. R%D Spending tends to be the most stable of the three as 88% of respondents reported no change. In Q1 2024 Business Investment also resulted quite stable overall as the difference between the percentage that reported an increase and a decrease was less than 4 percentage points. The same cannot be said about Employee Numbers which 28% reported decreased and just 8% increased. Overall falling employee numbers coupled with increased capacity utilisation indicated just how much spare capacity UK chemical businesses currently have due to low demand and it further stresses that even if sales have increased they are still significantly below historic levels.

Raw materials costs have increased in line with expectations made in Q4 2023, one of the driving factors for raising raw materials costs is linked with geopolitical tensions, which also increased the cost of trading for a third of respondents. Further settlements of energy prices have resulted in a lower burden for 34% of survey participants far below the expectations of the increase made in Q4 2023. Despite higher demand less than 20% of respondents were able to increase their output prices, suggesting that demand remains precarious.

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 second quarter of 2024 and the percentage of respondents who expect to see an increase.

Table 2

	Q1 Expected	Percentage that expects an increase in Q1 2024
Total sales	70	54%
Domestic sales	59	34%
Exports	59	32%
EU exports	60	34%
Rest of the world exports	60	30%
New orders	66	44%
Production levels	58	40%
Capacity utilisation	60	40%
Employee numbers	44	8%
R&D spend	49	6%
Business investment	54	18%
Your level of business optimism	58	28%
Time to deliver	48	6%
Raw material (input) prices	56	26%
Cost of importing	58	22%
Cost of exporting	58	22%
Your energy costs	41	8%
Finished goods (output) prices	49	16%
Your company / site profit margins	50	26%

Source: CIA Q1 2024 Business Survey

Key take away

Expectations over most variables are optimistic. Sales and production levels are expected to recover further by the majority of respondents, whilst the majority expects no change over new orders and capacity utilisations. The cost of trading is expected to marginally increase and more members expect an increase in raw materials costs rather than a decrease.

Optimistic after the most positive quarter over the past two years over 50% of respondents expect sales to further increase, with more companies expecting a recovery of domestic demand over exports. Production levels are also expected to increase by 40% of members, even if 20% expect a decrease. Capacity utilisation and new orders are not expected to change by the majority of respondents, even if the overall index records an expansion as more people expect it to increase than decrease.

Expectations over slowing moving variables are less volatile with more than 70% of respondents not expecting any change. However, more members expect a decrease in Employee Numbers than an increase resulting in an index of 44 which indicates a marginal contraction.

In terms of operating costs, raw material prices are expected to increase by 26% of respondents as geopolitical tensions continue to impact trade costs and times. Energy costs are expected to further stabilise whilst finished goods prices are not expected to increase by over two-thirds of respondents.

The combination of all these expectations suggests that margins will not change in Q2 according to half of respondents. No expected change in margins suggests that the industry is not overly confident that 2024 will be an expansion year.

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.

Table 3

	12 months time	Percentage that expects an increase in 12 months time
Total sales	83	72%
Domestic sales	66	46%
Exports	75	58%
EU exports	73	54%
Rest of the world exports	71	50%
New orders	74	56%
Production levels	79	70%
Capacity utilisation	78	70%
Employee numbers	49	26%
R&D spend	51	18%
Business investment	56	32%
Your level of business optimism	69	48%
Time to deliver	49	8%
Raw material (input) prices	57	28%
Cost of importing	57	22%
Cost of exporting	57	22%
Your energy costs	42	8%
Finished goods (output) prices	52	24%
Your company / site profit margins	60	36%

Source: CIA Q1 2024 Business Survey

Key take away

72% 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 with 24% of respondents still expecting lower employee numbers. Margins are likely to take longer to recover with 64% of respondents expecting no change or a decrease.

Challenges and Opportunities

The second section of the CIA’s Q1 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.

Since ‘Weakening Demand’ was introduced as one of the challenges in Q2 2023 it has ranked as the biggest challenge every quarter. The green bar on the below graph shows the ranking of the challenges in this quarter’s survey, whilst the blue bar ranking in the previous quarter (Q4 2023). In the case of Weakening Demand, the blue bar is higher than the green bar meaning that more members ranked it as a business concern in Q4 2023 than in Q1 2024. This is also evident from the position of the dots, the purple dot indicating the percentage that ranked Weakening Demand as their main challenge in Q4 2023 is above the aqua dot, which indicates the percentage that ranked it as a main challenge this quarter.

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

The worsening of geopolitical tensions has likely induced many companies to favour local producers of raw materials over international ones even if it

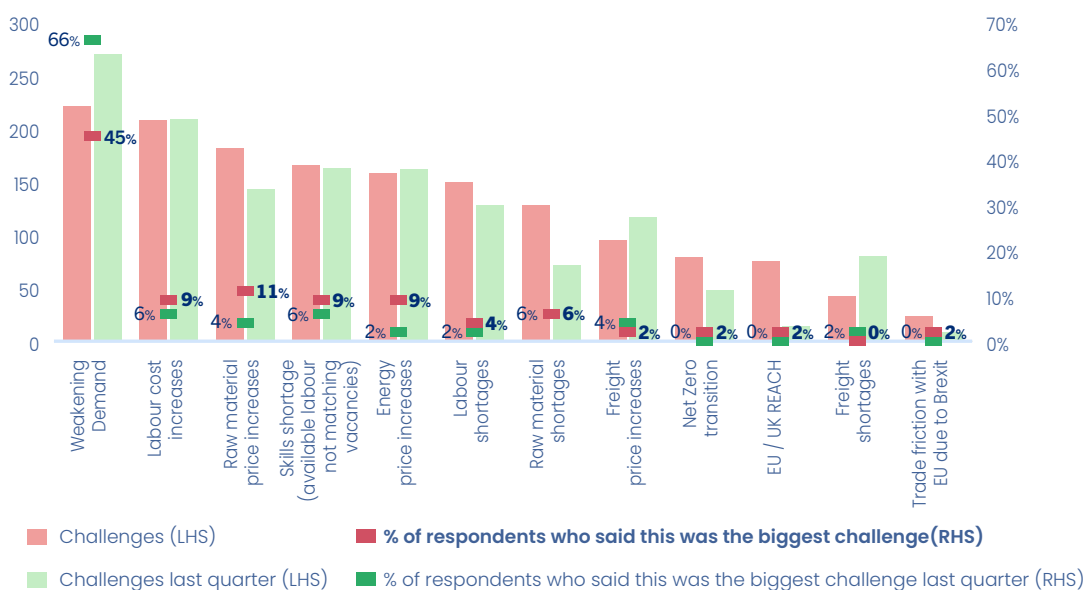
came at higher costs. Moreover, longer delivery times and higher transport costs likely boost the price of international raw materials. The dots also show that in Q4 2023 4% of respondents recorded Raw Materials Price Increases as their main concern, whilst in Q1 2024 that percentage increased to 11%.

Energy Price Increases are the primary concern for 9% of respondents, up from 6% in the previous quarter. Even if they ranked fifth overall, during conversations with members it was clear that energy prices are currently double what they were pre-pandemic and international uncompetitive. This implies that while energy prices may not be projected to rise, the existing levels still place the industry at a disadvantage. For this reason, we have decided to change the framing around this question and all cost-related questions to ‘Energy Costs’ rather than ‘Energy Price Increases’.

Even if inflation is getting closer to the 2% target level, Labour cost increases remain a significant challenge for our sector and it was ranked as the main challenge for 9% of respondents. One of the main contributors to increasing labour expenses is retention. Because of skills shortages, chemical companies find themselves in competition with each other 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,

Graph 9: Ranking of Challenges in Q1 2024 and Q4 2023



Source: CIA Q1 2024 Business Survey

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.

Members also mentioned other challenges that were not in the survey, such as: political uncertainty after the elections, lack of government support, low EU demand, geopolitical tensions reducing demand and increasing raw material costs, and low funds impacting investment.

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

	Index	Percentage that expects this challenge to worsen
Weakening Demand	49	35%
Labour cost increases	19	61%
Raw material price increases	31	47%
Skills shortage (available labour not matching vacancies)	35	33%
Energy price increases	65	12%
Labour shortages	37	31%
Raw material shortages	50	14%
Freight price increases	36	37%
Net Zero transition	37	29%
EU / UK REACH	40	20%
Freight shortages	49	8%
Trade friction with EU due to Brexit	46	8%

Source: CIA Q1 2024 Business Survey

Issues around costs, especially raw materials, cost and labour costs are expected to worsen by roughly half of respondents. The cost of labour is expected to worsen by 61% of respondents as skills shortages are also expected to worsen, with less than 5% of respondents expecting to see an improvement.

The issues surrounding raw materials prices are also expected to worsen by over 45% of respondents,



likely linked to Freight Price Increases which 78% of respondents expect to worsen or remain unchanged.

Despite Weakening Demand ranking once again as the biggest challenge facing the industry, its outcome it's extremely ambiguous as 35% of respondents expect to see worsening and another 35% improvements. This contradiction is likely linked to the type of chemicals produced as well as sales in Q1 2024.

Lastly, energy price increases are expected to improve by 45% of respondents. This percentage does not necessarily indicate that energy prices will decrease, but that energy price increases will cease to be an issue as energy prices are expected to exhibit lower volatility.

Moving onto opportunities, the most recurrent themes were:

- 1) Increased demand through exports, expansions to new markets, and fewer imports.
- 2) The outcome of the upcoming elections might bring more government support for decarbonisation and industry.
- 3) Business improvements – introduction of more efficient processes, introduction of new products, business transformation, and international expansion (in terms of production facilities).
- 4) One-off investment opportunities.

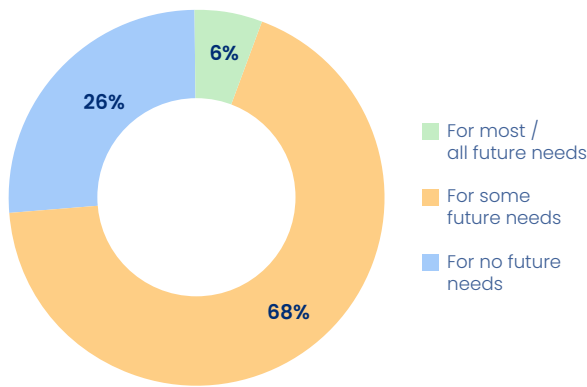
Open-ended questions

The final part of the survey asked members some open-ended questions around two topics: apprentices and production.

Apprentices

The first question on this topic asked respondents to what extent they rely on apprentices for future skills needs.

Graph 10: To what extent do you rely on apprentices for future skills needs?



Source: CIA Q1 2024 Business Survey

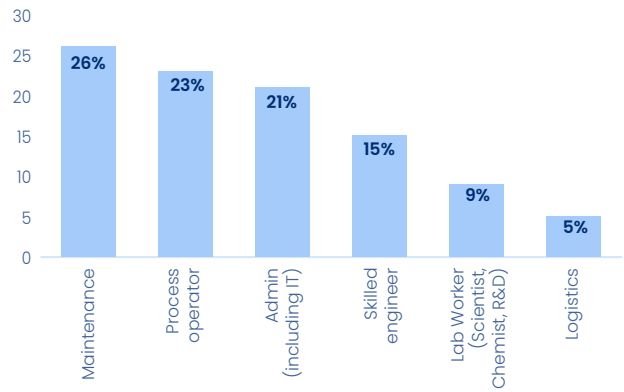
Our survey uncovered that 68% of respondents are relying on apprentices for some future needs, 6% for most / all future needs, and 26% for no future needs.

Among the members that are relying on apprentices, 92% recruit 10 to less each year, 5% 11 to 30, and 3% 31 or more.

The number of apprentices recruited tends to be consistent with the size of the company, meaning that small companies do not tend to hire more than 10 apprentices.

According to these statistics, it seems that companies are trying to adapt to the current issues surrounding skills shortages through the recruitment of candidates who undergo training to develop the requested skills.

Graph 11: What areas of work are apprentices recruited for?



Source: CIA analysis of ONS

Graph 11 shows the percentage of respondents who mentioned each area of work in their answers.

The area where most respondents reported hiring apprentices was Maintenance, followed by Process Operator, and Admin (including IT).

Table 5

	Percentage of respondents
At the end of the apprenticeship	57%
Day 1	27%
After 12 months	14%
After 24 months	3%

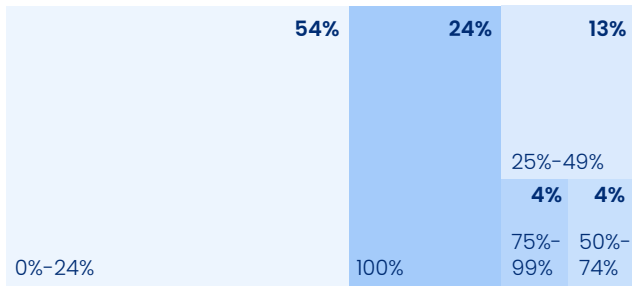
Source: CIA Q1 2024 Business Survey

The above table indicates that more than half of the companies that hire apprentices will consider them employees after they have ended the apprenticeship, whilst a quarter consider them employees from Day 1.

Production and Globalisation

The second round of questions was about production and globalisation and how much of their company's total production takes place in the UK.

Graph 12: What percentage of your company's global production takes place in the UK?

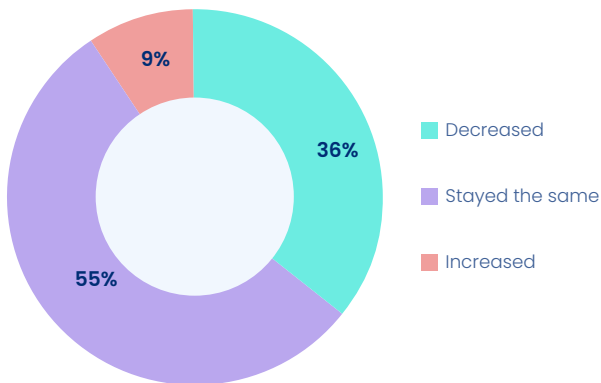


Source: CIA analysis of ONS

Graph 12 shows that roughly half of respondents' companies produce between 0% and 24% of their total global production in the UK. A fifth of respondents are domestic-only companies meaning that all of their company's production takes place in the UK.

More telling about the status of the UK economy and the UK as a place to do business for chemical companies was the last question of the survey asking how this percentage has changed since 2019.

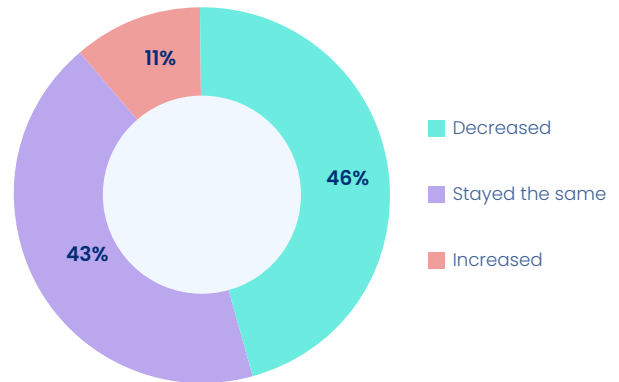
Graph 13.1: How has this percentage changed since 2019?



Source: CIA analysis of ONS

According to the above graph, the percentage of production that takes place in the UK has remained the same for 55% of respondents, but it has decreased for 36%. Putting these numbers into context it means that since 2019, 3.6 companies out of 10 have decreased the amount they produce in the UK.

Graph 13.2: How has this percentage changed since 2019? (minus UK only companies)



Source: CIA analysis of ONS

If we do not consider domestic companies, as they cannot decrease the share of global production that takes place in the UK, the percentage of companies that reduced UK production increases to 46%.

Whilst these numbers clearly show that over the past five years, the UK has lost some of its chemical production to other countries, it is unclear whether the lost production is only limited to unprofitable and inefficient processes.



Key takeaways from the survey

Q1 Business Survey marked the first quarter in 18 months of growing sales, production levels, and capacity utilisations. Slower moving variables were affected by the consecutive quarters of contraction and employment contracted for the fourth consecutive quarter.

Looking ahead to the second quarter of 2024, respondents remain optimistic as over 50% expect higher sales and production levels. The ongoing Red Sea crisis has increased the cost of trade and respondents do not believe that the issues will be resolved in Q2. Energy costs are expected to continue to stabilise. With historically high energy and raw materials costs, respondents are not expecting better margins. The outlook in 12 months' time is also positive as over 70% of respondents expect higher sales, new orders, production levels, and capacity utilisation. Yet, estimations over employment, business investment and margins still show contractions suggesting that the improvements might not make up for the production capacity lost over the past couple of years.

The main three challenges for the sector are 'Weakening Demand', 'Labour Cost Increases', and 'Raw Material Cost Increases'. Whilst 'Skill Shortages' and 'Energy Price Increases' ranked fourth and fifth.

Open-ended questions uncovered that many companies have resorted to apprentices as a way to deal with future skills needs and that the most common apprentices' recruitment areas are Maintenance, Process Operator, and Admin (including IT). In terms of globalisation, a quarter of respondents are UK-only companies, whilst roughly 50% manufacture less than 24% of their total global production in the UK. Since 2019, 4 in 10 UK chemical businesses have decreased the share of global production they manufacture in their UK site(s).

Michela Borra

Economist

Chemical Industries Association, UK

Tel. +44(0) 20 7963 6761 Mob. +44 (0)7908 897013

Email: BorraM@cia.org.uk

Simon Marsh

Director of Communications

Chemical Industries Association, UK

Tel. +44 (0) 20 7963 6725 Mob. +44 (0)7951 389197

Email: MarshS@cia.org.uk

