CHEMICAL INDUSTRIES ASSOCIATION

CIA Economic Report

First Quarter 2025

Executive summary

Steve Elliott, Chief Executive, Chemical Industries Association

I am pleased to present our latest economic report, written by Michela Borra, Head of Economics at the Chemical Industries Association (CIA). Our economic report has two sections. The first part is a CIA analysis of official statistics; this section assesses the UK chemical industry's performance against that of the wider economy. The second section presents the results of our quarterly industry survey. Our Q1 2025 Business Survey took place between March 31st and April 11th, and we received entries from 39 chemical companies.

Economic Overview

For the first few months of the year, uncertainty has been the chosen word to describe current economic conditions. The introduction of US tariffs added a new level of unknown to the global sphere, both in terms of future expectations of growth and investment decisions. Global growth forecasts have been revised downwards, with 2025 forecasts for UK real GDP growth being decreased from 1.5%/2.0% to 1.0%. The downturn of the international industrial sector is expected to continue as manufacturers continue to battle high operating costs, lack of long-term regulation, and third-country overcapacity.

Focusing on chemicals, in 2024 output contracted by 1.8% and is expected to contract by a further 0.3% in 2025. Official data, coupled with results from our business survey and recent announcements, indicate just how challenging conditions have been for the past few years.

Headline inflation in March came in at 2.6%, just above the 2.0% target from the Bank of England. Inflation in 2025 is expected to average 3.2%, as US tariffs increase global price levels and Employer

NICs increase domestically generated inflation. The unemployment rate increasing to 4.4% and economic activity slowing led the Monetary Policy Committee to cut interest rates to 4.25% in May, but the committee will likely wait to see the impact of US tariffs on international inflation before delivering further cuts.

Due to weak demand, chemical input and output prices have deflated for roughly twenty consecutive months. Over the past three years, input prices have been higher than output prices, but recently, input prices fell quicker than output prices, narrowing the gap between the two. As of January 2025, chemical input prices are 5.4% higher than output prices, as opposed to the 7.5% recorded in January 2024.

The labour market remains challenging, with chemical companies experiencing difficulties recruiting and pressure to increase salaries. In the chemical industry, total pay rose by 3.1% in the three months to February 2025 compared to the same period a year prior.

Insights from our industry

In the first quarter of 2025, the chemical sector saw a modest uptick in demand, with 39% of respondents reporting higher sales compared to Q4 2024. However, production volumes remained largely unchanged, and the increase in sales did little to boost profitability, with fewer than 30% of businesses reporting an improvement in margins. Employment declined sharply, with 22% of respondents reporting reduced headcount — the steepest drop recorded in two years. Input costs continued to rise, with energy prices increasing for 22% of respondents and raw materials for an additional 39%. Anecdotal evidence indicates that US firms are starting to increase prices in anticipation of higher costs linked to tariffs.

Despite these pressures, sentiment for Q2 2025 showed some resilience, with 34% of respondents expecting demand to improve. However, workforce reductions are expected to continue, with 24% of businesses anticipating further reductions. Most respondents (56%) believe profit margins will remain flat in the near term. Looking ahead over the next 12 months, optimism remains muted compared to previous surveys.

Geopolitical instability and cost inflation remain top concerns. The main challenges identified were energy costs, weak demand, and rising labour costs. Many businesses also mentioned US tariffs as one of the pressing challenges for their business — both in how they impact trade with the US, global economic growth, global trade flows, and overall uncertainty.

Concerns around regulation and contractor performance were also prominent. Some (39%) reported inefficiencies in regulatory processes, with comments noting under-resourcing as a leading cause of delays, poor attention to detail, and difficulties in retaining regulatory talent. Contractor performance was rated as neutral by most, but 20% of firms noted negative impacts from unreliable or less productive contractors. Energy costs in 2024 represented over 40% of total operating expenses for energy-intensive firms, up from an average of 15% in 2018. Regarding apprenticeships, 64% of respondents indicated plans to recruit apprentices in 2025, though many cited difficulties with the Apprenticeship Levy.

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Economic Update
2025 a year of uncertainty

This first part of the economic report focuses on official releases from the Office of National Statistics (ONS), the Bank of England (BoE), the Office for Budget Responsibility (OBR), and Oxford Economics. Publications since the previous economic report (Q4 2024) provide information on GDP, chemical production, chemical trade, inflation for consumers and chemical manufacturers, and pay, as well as developments from the Spring Statement and changes to interest rates.

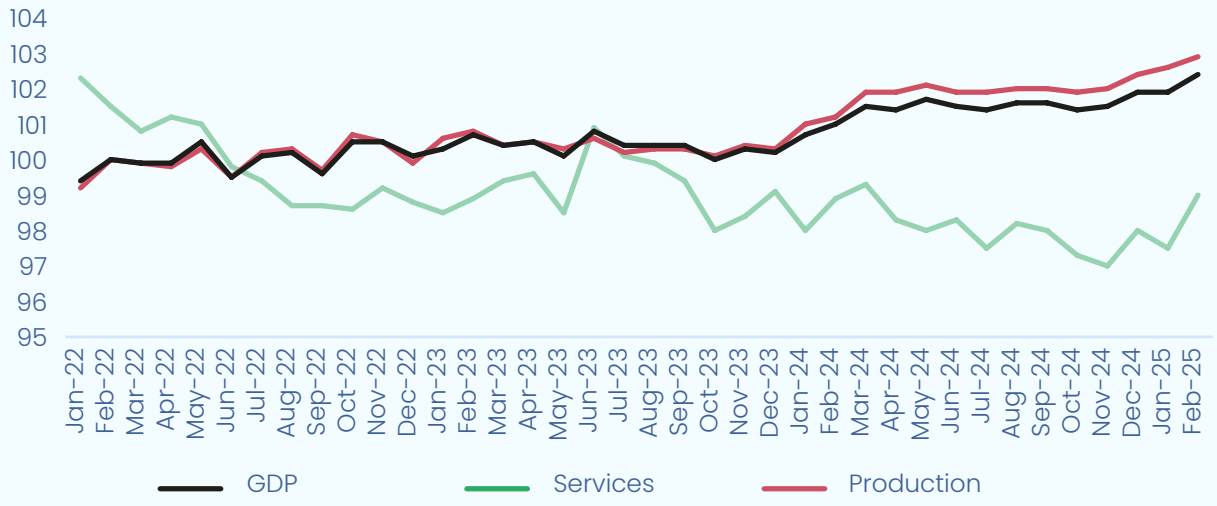
GDP and chemical production

Since the previous economic report, much has changed in the global political and economic sphere. Within his first 100 days in office, Trump has announced significant changes to tariffs for goods imported into the US. While these changes aim to solidify American industries and decrease the United States' dependency on imports, they have been poorly received internationally and have decreased 2025/2026 global economic prospects.

Focusing on UK GDP, after 2024's 0.8% annual expansion of GDP, economic activity has continued to grow in the first few months of 2025, but at a slower pace than in the same period a year prior. In January 2025, GDP did not change from December 2024's level, but it grew by 0.4% in February 2025. These monthly trends were the result of developments within the services and production sectors.

The **below graph** reports monthly GDP alongside monthly services and production output, showing the impact of these sectors on overall economic growth. The UK is a service-driven economy, as around 80% of the country's total economic output is generated by the services sector. Up until the late 19th century, the UK was a manufacturing-driven economy, but since the early 1900s, an increasing number of people started working in areas like transport, retail, and professional services. In the late 20th century, the UK saw the decline of traditional industries like coal mining and shipbuilding, while services sectors like finance, retail, law, and tourism boomed. Today, industrial

Graph 1: Index of GDP, Services and Production output from January 2022 to February 2025 (2022=100)



Source: CIA analysis of ONS data

production accounts for roughly 18% of GDP and, despite uncompetitive energy prices, the UK remains a global leader in certain manufacturing sectors, including specialty chemicals and pharmaceuticals.

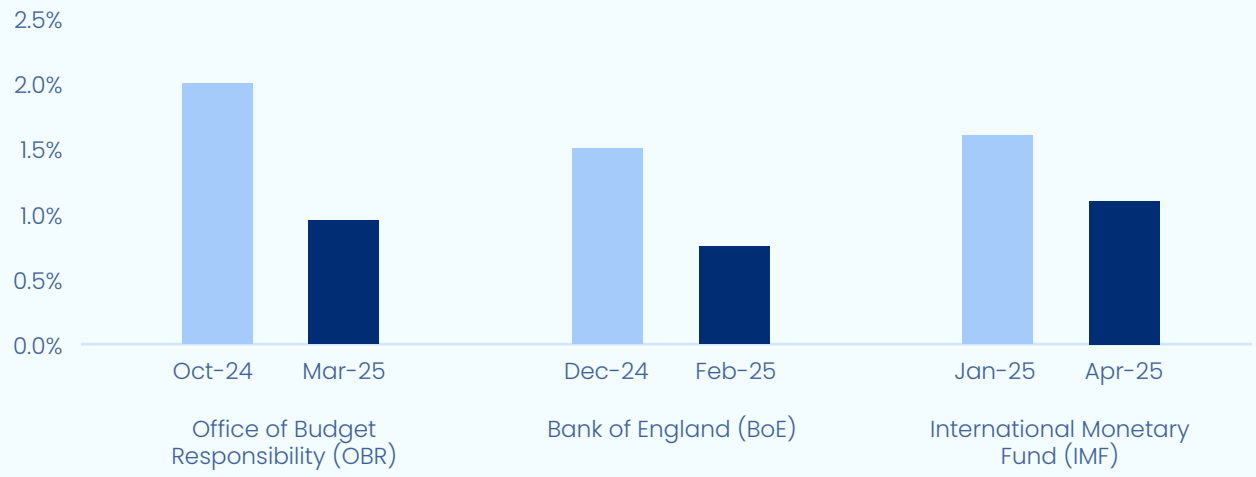
Looking at **Graph 1**, we can see that services output and GDP follow very similar paths, as services comprise the majority of GDP. Since October 2023, the red line (representing services output) has been higher than the green line (representing GDP), indicating that services output has been outperforming GDP. This divergence has occurred because production output has been extremely weak over the past two years. In fact, while services output is currently 5.7% above pre-pandemic levels, industrial production is 8.1% below them.

The downturn in industrial production is not limited to the UK; similar declines are being observed across Europe. The main drivers of this trend include: (i) the energy price crisis, which has led to increased price volatility and exposed vulnerabilities in Europe's energy supply systems, particularly in light of reduced reliance on Russian gas; (ii) rising production costs and higher prices for finished goods, which have reduced the global competitiveness of European-manufactured products relative to international imports, especially from regions with cheaper energy or labour; (iii) shifts in consumer demand and global trade patterns. Post-COVID, European consumers have shifted spending preferences towards services over goods. Concurrently, overproduction and sluggish economic conditions in some developing countries—especially in Asia—have led to excess capacity and an increase in exports, further pressuring European manufacturers.

There is currently no clear evidence of a recovery in the global industrial sector—particularly in the UK and Europe—as production costs remain high and global overcapacity continues. As a result, the downturn in industrial output is expected to persist at least until the second half of 2026. In 2025, US tariffs are likely to reduce international demand, slowing global economic growth and putting additional pressure on household incomes. Since exporting to the United States will become more expensive, trade flows may increasingly shift towards more open markets such as the UK. This redirection could intensify competition. On a more positive note, China has announced plans to implement demand-side policies aimed at stimulating domestic consumption. If successful, this could help ease the industrial overcapacity that has plagued the global market over the past two and a half years.

Forecasts for GDP in 2025 are presented in the graph below. **Graph 2** includes the two most recent forecasts from three non-political entities. The Office for Budget Responsibility (OBR) is an independent public body that produces economic and fiscal forecasts for the UK government to help assess the sustainability of fiscal policies and targets. These forecasts are published alongside major fiscal events, such as the Spring or Autumn Budget. The Bank of England (BoE) is responsible for setting monetary policy. The Monetary Policy

Graph 2: Forecasts for 2025 GDP growth from the OBR, BoE, and IMF



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

Committee uses the Bank's internal forecasts to guide interest rate decisions. These forecasts are published quarterly in the Monetary Policy Report and will be updated in May. Lastly, the International Monetary Fund (IMF) is a global organisation focused on monetary cooperation, financial stability, and economic growth. It typically releases World Economic Outlook forecasts twice a year, with interim updates every three months.

Graph 2 shows that, following the escalation of global trade frictions, UK growth forecasts have been revised downwards. Until early 2025, the general consensus was for real GDP growth between 1.5% and 2.0%. However, the latest projections suggest growth closer to 1.0% or slightly below. The main drivers behind the downgrade are: (i) structural weaknesses in the UK economy, such as declining productivity and stagnating GDP per capita; (ii) weaker global economic forecasts, in part due to the increase in geopolitical tensions and a rise in protectionist trade measures; (iii) continued global industrial sector weakness; and (iv) the UK's challenging fiscal position, with high public debt and limited fiscal headroom, increasing the likelihood of tax increases or spending cuts in the Autumn Budget.

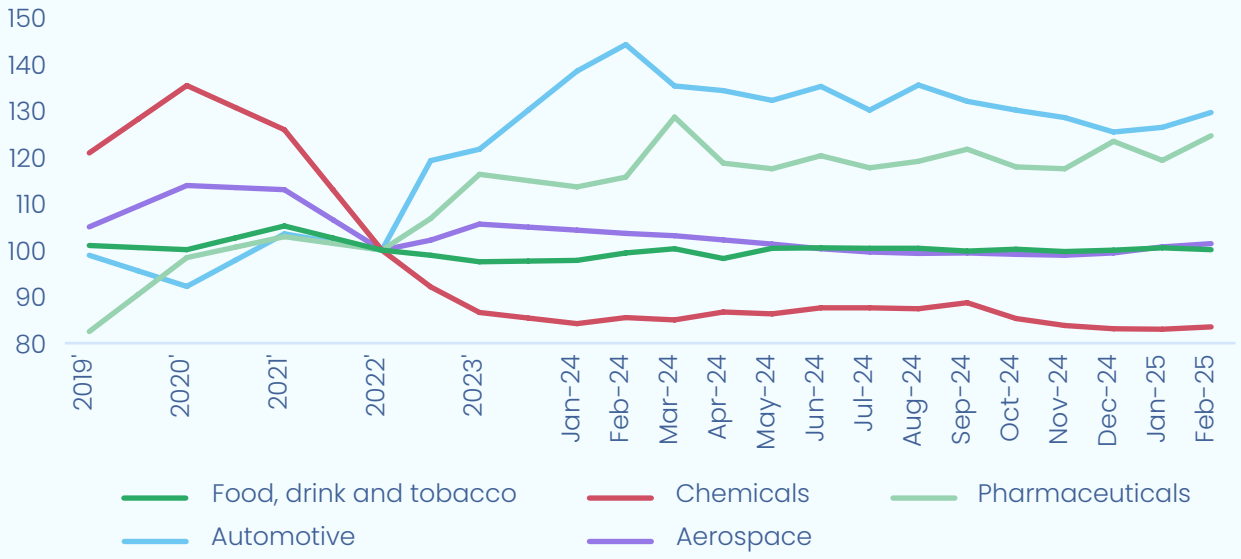
Focusing on the manufacturing sector and its five biggest sub-sectors, **Graph 3** shows monthly output for the Food and Drink, Pharmaceutical, Chemical, Automotive, and Aerospace industries, which are colloquially referred to as the 'Manufacturing 5' or 'M5'.

The blue line represents automotive output. The automotive sector has recorded the highest growth amongst manufacturing sub-sectors since the pandemic. Thanks to substantial government support and investment in electric vehicles, automotive output grew by 9.3% in 2024, and it is currently 28.4% higher than pre-pandemic levels. High input costs, fierce competition from third-country markets, strict trade regulations on EVs, and tight regulation around EV sales — coupled with consumers' demand shifting away from EVs — will likely lead to a small contraction in automotive output this year.

The pharmaceutical sector — light green line — saw its output increase by 2.6% in 2024 and, thanks to strong performance in February 2025, output levels are currently over 50% higher than pre-pandemic. With the UK being a centre of excellence for medical R&D, forecasts are optimistic that 2025 will also be a year of moderate growth for this sector, but some concerns remain over Trump's position on pharmaceutical exports into the US. Moreover, together with Automotive and Aerospace, this sub-sector is at the core of the Advanced Manufacturing Plan and upcoming Industrial Strategy.

The third-best performing sector is Aerospace, represented by the purple line. Despite receiving

Graph 3: Index of monthly output of M5 sectors over the past 14 months compared to yearly level (2022=100)



Source: CIA analysis of ONS data

substantial government support, its output contracted by 4.5% throughout 2024 and is currently 6.3% lower than pre-pandemic. Some growth is expected in 2025 and 2026 due to increased spending on defence, which will likely boost demand for aircraft and related systems.

Food, Drink and Tobacco manufacturing, represented by the dark green line, has been struggling with stagnation for the past couple of years. In 2024, its output expanded by 2.4%, but due to contractions in 2022 and 2023, it remains 1.3% below pre-pandemic levels. While demand for Food and Drink will remain high, lower trade and stricter regulation on food items will pose substantial challenges this year.

Lastly, chemical output is shown by the red line. This sub-sector has been the worst-performing across the M5 for over two years. After strong contractions in 2022 and 2023, 2024 was a mixed year: expansions in the first half were offset by contractions in the second half, resulting in a yearly production fall of 1.8%. Official data show that since November 2024, chemical output has reached the lowest level in 11 years and is currently 32.3% below pre-pandemic levels.

This contraction has been reflected in the news, with several chemical companies around Europe and the UK announcing site closures and restructuring. After the energy cost crisis and the recession in the industrial sector, operating energy-intensive chemical plants in the UK (and Europe) has become extremely uncompetitive, especially for companies with foreign headquarters. For this reason, over the past year, numerous UK (and European) chemical sites have lost investment to areas with cheaper operating costs and/or stronger financial aid.

Whilst at the beginning of the year Oxford Economics was expecting the sector to grow by 1.7% in 2025, the latest geopolitical developments have resulted in a downgrade of predictions to a 0.3% yearly contraction in 2025. Oxford Economics believes that the American protectionist stance will diminish international demand, severely impacting intermediate goods. Additionally, their analysis shows that shale gas projects in the US will further reduce the international competitiveness of UK chemical sites. These trends clearly indicate that UK chemical manufacturers need the Government and its Industrial Strategy to provide a clear path for energy security and long-term policies to support investment.

Chemical trade

Globalisation has blurred geographical boundaries, increasing the incidence of trade in industrial supply chains. Every year, roughly 70% of all chemicals produced in the UK are exported, so international trade and strong trade agreements are essential for our member companies. In 2023, the value of UK chemical imports was £70bn and £62bn for chemical exports. In 2024, the value of UK chemical trade decreased for two reasons: firstly, UK chemical and industrial production fell; and secondly, export figures do not account for inflation, and in 2023 prices rose more quickly than in 2024. The value of UK chemical imports in 2024 was £67bn, and £55bn for chemical exports.

Graph 4 represents chemical imports and exports to EU and extra-EU countries. The two blue lines represent trade flows with the EU, and the two red lines represent trade flows with extra-EU countries. Exports are illustrated by the two darker lines (dark blue and dark red), and imports by the two lighter lines (light blue and light red).

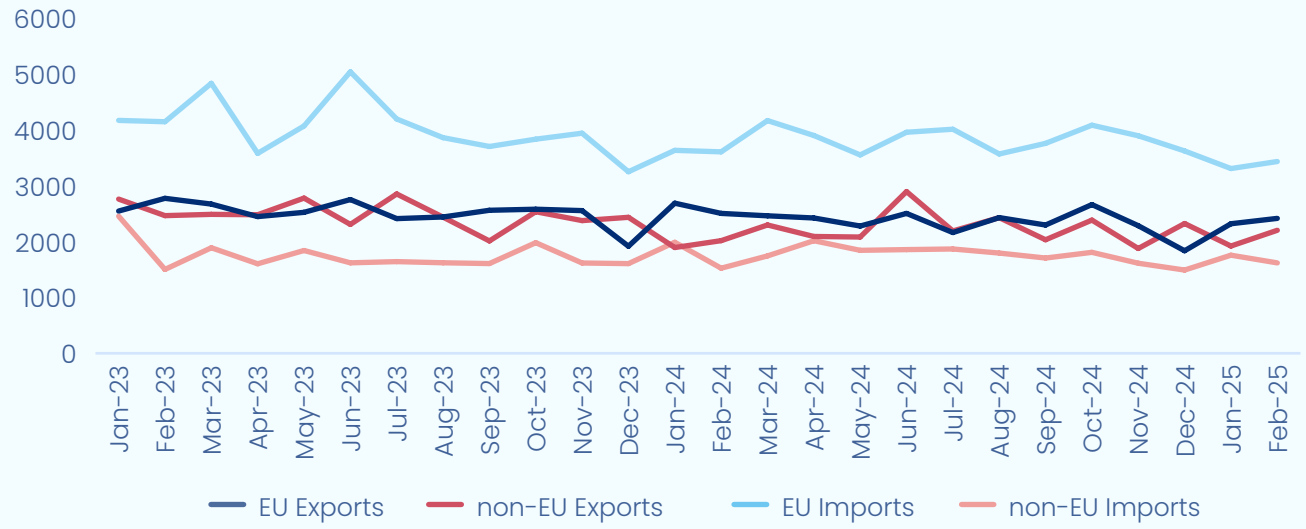
Focusing on imports first, the light blue line is consistently higher than the light red line, indicating that imports from EU countries are higher than imports from extra-EU countries. In 2024, EU imports fell by roughly £3bn, whilst the value of non-EU imports remained largely unchanged.

Moving on to exports, the dark lines are much closer together and intersect multiple times, indicating that the UK exports similar values of chemicals to both EU and extra-EU countries. Throughout 2024, exports fell by £5bn, with the strongest fall recorded for non-EU exports.

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. This means the UK has a trade deficit with the EU, as it imports more than it exports. Comparing overall trade figures for 2024 and 2023, the trade deficit with the EU has increased by £1bn this year because EU exports fell more than EU imports. With extra-EU countries, the UK has a trade surplus, as it exports more than it imports. Nevertheless, due to weaker domestic production, this year the trade surplus has contracted by £4bn. The total amount of chemicals imported each year is higher than the amount exported, so the UK is a net importer of chemicals overall. This means we are highly dependent on other countries to meet internal demand for chemicals, and given that we import roughly twice as many chemicals from EU countries than from extra-EU countries, it is essential to maintain a stable relationship with the continent's trading bloc.

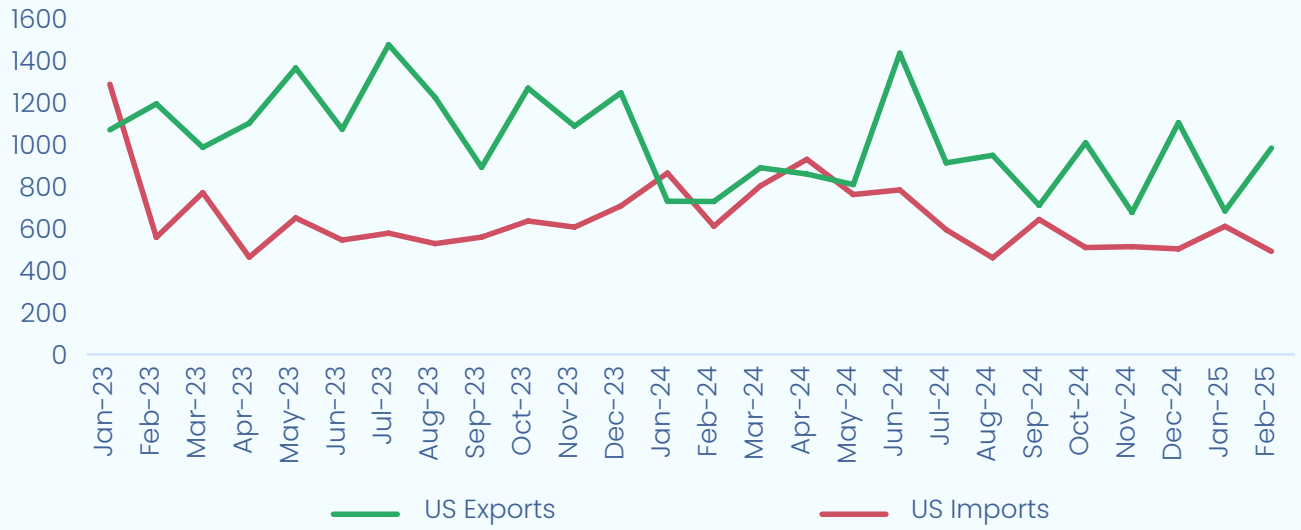
Given the focus on US tariffs, this quarter's analysis will include a more detailed look at chemical trade between the UK and the US, which is presented in **Graph 5**. Since the green line (representing UK exports to the US) is higher than the red line (representing UK imports from the US), the UK is a net exporter to the US in the chemical sector. The US is the UK's largest single export market

Graph 4: Monthly chemical trade in value terms from January 2023 to February 2025 (£mn)



Source: CIA analysis of ONS

Graph 5: Monthly chemical trade in value terms from January 2023 to February 2025 with the US (£mn)



Source: CIA analysis of ONS data

and also a key source of chemical imports. The announcement of US tariffs will be extremely damaging for our sector — not only due to the direct impact on trade, but also because of broader implications for the global economy and increased uncertainty. The CIA is concerned that the lack of certainty surrounding future tariff developments will impact our members' ability to conduct trade with the US and may reduce investment into both the UK and the US.

Consumer Side Inflation

Since the pandemic, the UK has experienced the highest inflation in over 40 years. To keep inflation under control, the Bank of England tightened its monetary policy by gradually increasing interest rates to 5.25%. High interest rates have reduced economic activity and curbed inflationary pressures. With inflation under control, the Monetary Policy Committee (MPC) was able to cut interest rates to 5.0% in August 2024, and then to 4.75% in November 2024. In their latest meeting in May 2025, they decided to cut interest rates again, to 4.25%.

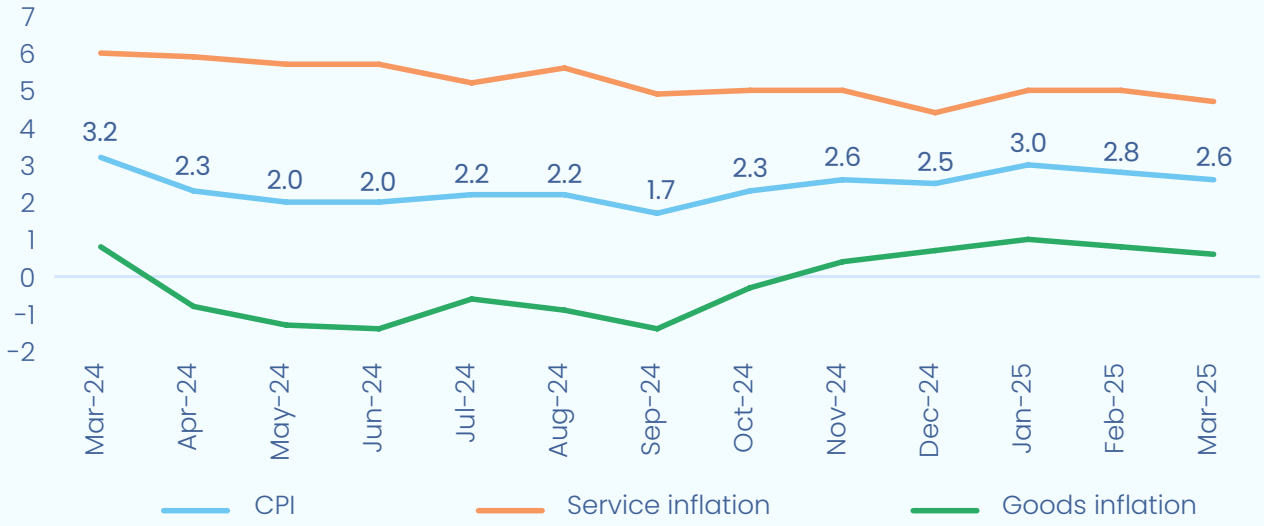
Whilst concerns from the MPC around wages growing more quickly than inflation persist, unemployment has increased to 4.4% and economic growth has slowed. These two developments were the main drivers behind the committee's decision to lower interest rates in May. Nevertheless, tariffs tend to have an inflationary effect, and the MPC will want to see how global inflation evolves before delivering further interest rate cuts. Domestically, the changes to Employer NICs that came into effect in April 2025 will also likely lead to higher inflation in the short run. In fact, independent forecasters agree that inflation will be higher in 2025 than in 2024, with 2024's average inflation at 2.5% and 2025's forecast at 3.2%.

Graph 6 shows inflation of goods and services, and headline inflation (CPI) from March 2024 to March 2025.

The green line represents the inflation of goods over the past 13 months. The energy price crisis led to goods prices rising sharply at the end of 2022. With energy prices under control and subdued demand for goods, goods inflation decelerated from 13.3% to 1.9% between January and December 2023. This decelerating trend continued through 2024, and in April 2024, prices deflated. Deflation means that prices were lower in 2024 than in 2023, and it is a symptom of weakened demand for goods. This deflationary trend officially ended in October 2024, and in March 2025, goods prices grew by 0.6%. While this level of inflation remains low, it indicates a modest recovery in demand for goods.

Although less volatile, services prices — orange line — are more persistent and serve as a better indicator of domestically generated inflation and long-term price trends. Services prices are less directly impacted by energy prices, so they peaked later than headline inflation and goods prices, but are now more persistent due to higher rent and labour costs. The most recent data show that

Graph 6: Headline (CPI), Goods and Services prices inflation over the past 13 months



Source: CIA analysis of ONS data

service inflation was 4.7% in March 2025.

The blue line represents CPI, often referred to as headline inflation, as it is considered to be the most accurate proxy for overall price trends within a country. Through 2023, CPI inflation decelerated from 10.1% in January to 4.0% in December, reaching the 2.0% target in March 2024. However, with winter driving up energy prices, CPI rose again to 2.5% in Q4 2024. While CPI stood at 2.6% in March 2025, it is expected to rise again in April due to the implementation of higher Employer NICs and other price pressures.

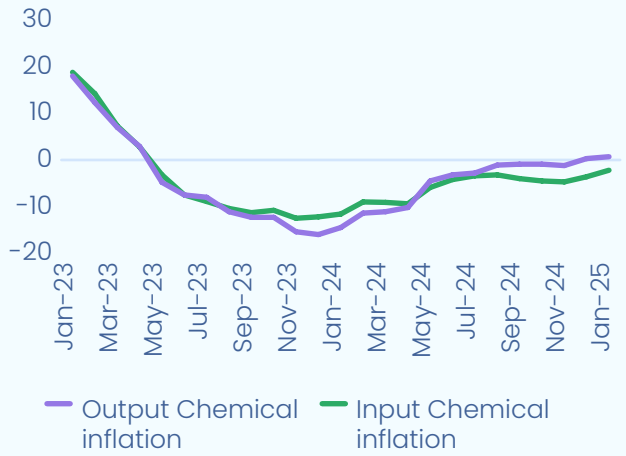
In March 2025, US inflation was 2.4%, Germany 2.2%, France 2.5%, and the Eurozone 2.2%. China continues to struggle with a depressed domestic market, with inflation around 0.1% in March 2025.

Chemical prices

Due to inaccuracies in the publication, the Office for National Statistics has temporarily paused the publication of Producer Inflation data, so the latest data available covers January 2025.

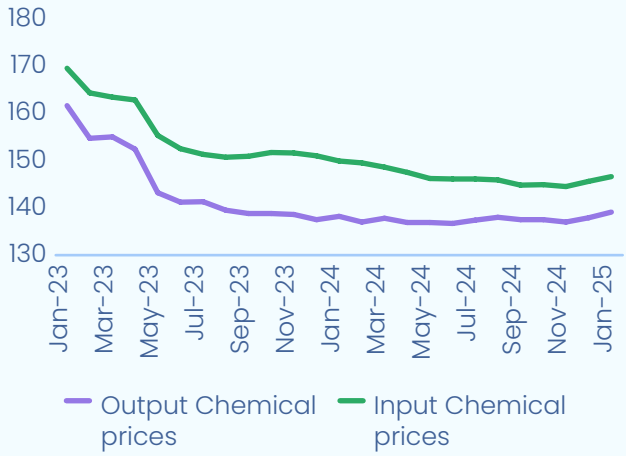
Graph 7.1 shows the growth rate of chemical input and output prices from January 2023 to January 2025, where the blue line represents output prices and the orange line represents input prices. Just

Graph 7.1: Growth rate of chemical output and input prices over the past 25 months



Source: CIA analysis of ONS

Graph 7.2: Price level of chemical output and input over the past 25 months



Source: CIA analysis of ONS

as with headline inflation, inflation for chemical prices is measured by considering how much prices have grown — or shrunk — since the previous year. Therefore, January 2025 inflation shows the percentage change between prices in January 2024 and January 2025.

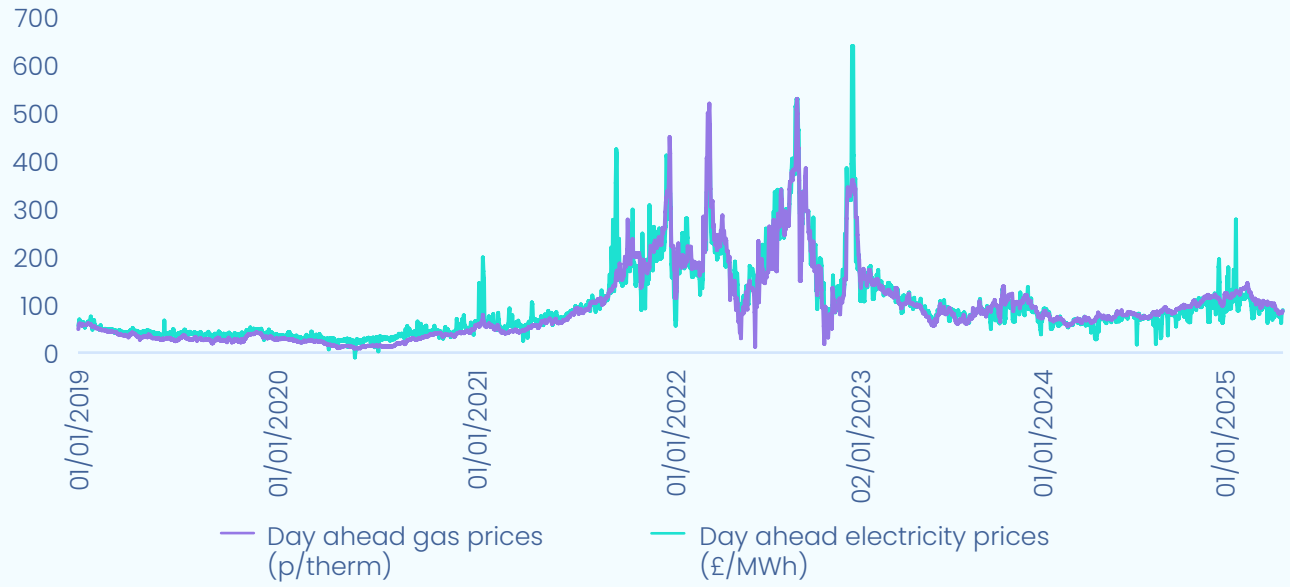
Since April 2023, both chemical input and output prices have been falling, with the sharpest decline recorded in December 2023. Despite this sustained fall, input prices remain higher than output prices, as shown by the orange line being above the blue one in **Graph 7.2**. Whilst input prices have been higher than output prices for over three consecutive years, recently input prices have been falling more quickly than output prices. In January 2024, chemical input prices were 8.5% higher than chemical output prices; in January 2025, the difference was 5.4%.

To better understand the narrowing of this gap, in Graph 7.1 two different periods can be identified: the first running from December 2022 to April 2023, and the second from May 2023 to January 2025. In the first period, prices were inflating — that is, prices increased compared with the previous year. This was due to the energy crisis, which led to inflation of over 20% in December 2022 for both chemical input and output prices. Following this energy price shock, and thanks to a strong baseline effect, prices started to fall in May 2023 — marking the beginning of a deflationary trend. This fall was the result of lower energy prices and reduced demand. After the reopening of the global economy, industrial production — especially in Europe — stagnated due to low demand, high costs, and fierce international competition.

These trends in prices experienced and charged by chemical manufacturers highlight the additional toll on margins from the energy crisis and weakening demand. Despite experiencing input prices 5.4% higher than output prices, UK chemical businesses have been unable to pass these additional costs onto consumers.

Graph 8 displays the day-ahead wholesale gas and electricity prices in the UK from January 2019. UK gas and electricity prices have settled at their lowest level since summer 2021, but they remain roughly twice the level of 2019 and are extremely uncompetitive internationally. Data from DESNZ indicates that electricity prices in the UK are almost double the International Energy Agency average and about four times higher than in the US. Industrial gas prices are also around four times higher than in the US, and the new US president's approach to shale gas is expected to widen this gap further, making UK gas users less competitive.

Graph 8: Day ahead gas (p/therm) and electricity (£/MWh) prices



Source: CIA analysis of Inspired PLC data

Labour market

Recent economic and political developments, including tight monetary policy and announcements from the Autumn Budget, have impacted the labour market. Estimated payroll employees decreased by 0.1% between February and March 2025. More importantly, unemployment has increased from 4.2% in September to 4.4% in December, and it is currently 0.5 percentage points higher than pre-pandemic levels. Inactivity due to long-term sickness has also increased since the COVID-19 pandemic, as a result of longer wait times within the NHS.

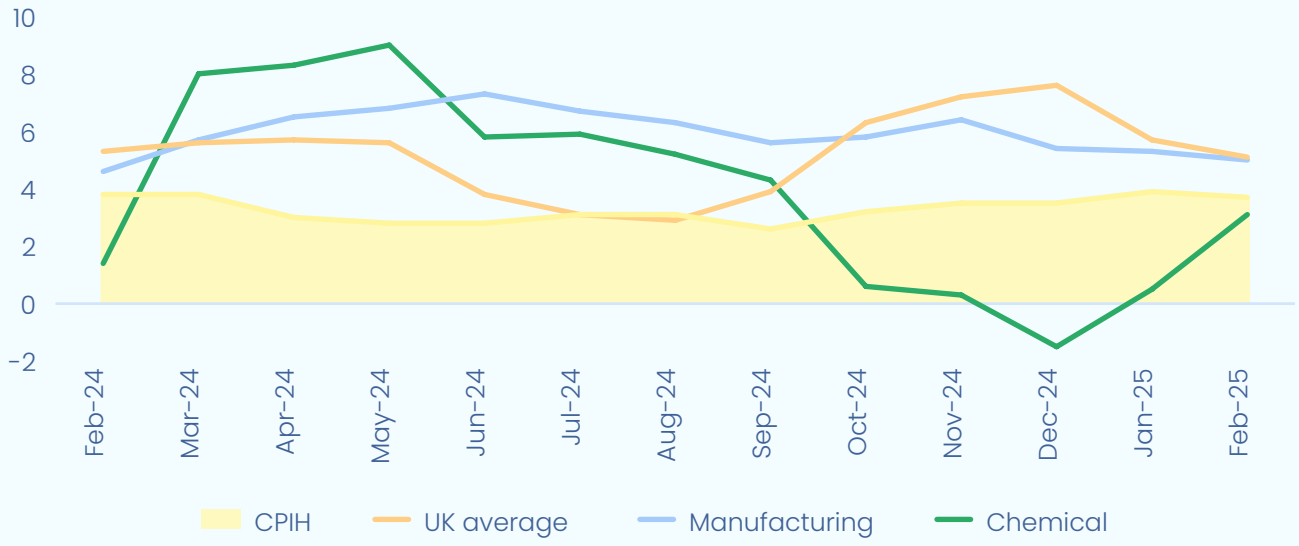
Moving on to pay, since the second half of 2023, pay growth has been quicker than inflation, resulting in real-terms pay increases and causing concerns amongst members of the MPC regarding expectations for medium-term inflationary trends. Recently, the UK average pay growth rate has eased, but it continues to grow above inflation.

Graph 9 shows the pay growth rate for UK average, manufacturing, and chemical employees compared to CPIH inflation. CPIH inflation is considered to be a more accurate measure of the cost of living, as it includes owner-occupiers' housing costs.

The yellow area indicates the level of CPIH inflation. Any point within this area is below inflation and results in real-terms pay cuts, while points above the area result in effective real-terms pay increases.

The blue line represents pay rises for the average UK employee. In the three months to February 2025, compared to the same three months in 2024, total pay (including bonuses) increased by 5.1% and regular pay by 5.4%. With CPIH inflation at 3.7%, this resulted in real-terms pay increases of 1.4% and 1.7%, respectively.

Graph 9: Growth rate of UK average, manufacturing, and chemical pay over the past 13 months compared to CPIH inflation



Source: CIA analysis of ONS

The orange line indicates the growth rate of pay for the average manufacturing employee. In the three months to February, total pay grew by 5.1%, whilst regular pay grew by 5.0%, resulting in real-terms pay increases of 1.4% and 1.3%, respectively.

Focusing on the average chemical salary — which is represented by the green line — after pay grew faster than inflation from March 2024 to September 2024, it is currently below inflation. In the three months to February 2025, total pay increased by 3.1%, whilst regular pay increased by 2.8%; this resulted in real-terms pay cuts of 0.6% and 0.9%, respectively. Whilst pay rises in our sector have been lower than for the average manufacturing employee, we continue to pay salaries 21% higher than the manufacturing average and 27% higher than the overall UK average. It is also important to note that this monthly data is not highly accurate for the chemical sector, as fewer chemical employees report their salaries and pay rises each month.

Rounding up the official data

The global economic outlook has weakened due to rising geopolitical tensions and new US tariffs announced by President Trump, negatively impacting 2025/26 global growth. UK GDP showed modest growth, with services outperforming a struggling industrial sector. Industrial output, especially in chemicals, remains weak due to high energy costs, falling demand, and increased global competition. Key manufacturing sectors like automotive and pharmaceuticals have shown resilience, while chemicals face long-term structural challenges.

Headline inflation in March 2025 was 2.6%, and forecasters agree that in 2025 we will see inflation around 3.2%. The main upward pressure on prices comes from the changes to Employer NICs, price pressures from US tariffs, and generally higher prices within the economy. The Monetary Policy Committee has cut interest rates to 4.25% in their May meeting but keep a close eye on international developments.

Chemical prices have deflated for roughly 20 consecutive months due to weak demand, with input prices falling quicker than output prices. Despite this trend, input prices have been higher than output prices for over three years, but the gap is narrowing. Energy prices remain globally uncompetitive and continue to pressure manufacturers.

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 3.1% in the three months to February 2025 compared to the same period a year prior.

CHEMICAL INDUSTRIES ASSOCIATION

Survey results

About the survey

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

The CIA's Q1 2025 Business Survey was live between 31st March and 11th April 2025. 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 and opportunities questions. In the third section, we asked respondents some questions focusing on: regulators and contractors' performance, energy as a share of total costs from 2018 to 2024, and apprentices.

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 2025 compared to the fourth quarter of 2024, and their expectations for these variables in the second quarter of 2025 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, and 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 of 2025

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 2025 when respondents were asked in the CIA's Q4 2024 Business Survey; the third column contains the diffusion index for the performance in the fourth quarter of 2024; and the final two columns contain the percentage of respondents that experienced a decrease in that variable in the current quarter and the previous one. This allows comparisons between the performance in the first quarter of 2025 and both expectations and the prior quarter.

Table 1: Q1 performance compared to Q4's and expectations made in Q4

	Q1 Actual	Q4 Actual	Q1 Expected	Percentage that experienced a decrease in Q1 2025	Percentage that experienced a decrease in Q4 2024
Total sales	55	32	73	24%	59%
Domestic sales	49	37	66	22%	44%
Exports	52	29	70	22%	54%
EU exports	51	28	68	20%	54%
Rest of the world exports	50	33	66	15%	46%
New orders	46	37	71	32%	44%
Production levels	49	32	70	27%	54%
Capacity utilisation	52	33	70	22%	49%
Employee numbers	34	49	41	29%	20%
R&D spend	45	44	50	7%	20%
Business investment	51	41	41	10%	27%
Your level of business optimism	37	29	52	41%	54%
Time to deliver	45	50	49	7%	5%
Raw material (input) prices	63	54	55	7%	20%
Cost of importing	62	54	54	0%	5%
Cost of exporting	57	52	54	2%	5%
Your energy costs	57	67	70	12%	10%
Finished goods (output) prices	60	51	52	10%	15%
Your company/site profit margins	50	30	54	24%	56%

Source: CIA Q1 2025 and Q4 2024 Business Survey

Key take away

In the first quarter of 2025, we saw a marginal improvement in sales, but not significant enough to impact production levels or margins. Employment fell at the quickest rate in the past two years, and input prices continued to grow. The geopolitical situation indicates that this increase in demand is likely to be temporary.

The first quarter of the year tends to be the best for chemical businesses, and this year was no different, as we saw a slight improvement in demand. Almost 40% of respondents reported higher total sales than in Q4 2024, and the 'Q1 actual' index was 55, which indicates a weak expansion. The marginal improvement in sales was the result of slightly stronger exports, driven by EU exports. Higher sales were reflected in higher capacity utilisation for almost a third of respondents, whilst production levels remained stable, suggesting that the uptick in sales was small. Moreover, when considering the current state of the global economy and the fact that almost 20% of respondents continue to report weaker demand across the board, it seems unlikely that this quarter's "recovery" will be sustained in Q2 and throughout 2025.

Among the slower-moving variables, R&D spending and business investment remained fairly stable between Q4 and Q1, but employee numbers fell sharply. Lower employee numbers were reported by 29% of respondents, marking one of the strongest contractions on CIA records. The fall in employee numbers is likely driven both by restructuring trends within the sector and the low availability of skilled workers.

Moving on to costs, raw material prices increased for 39% of respondents, and energy costs rose for almost a third of respondents. This quarter saw the quickest rise in raw material prices since the energy crisis. CIA believes that the price increase is linked to US tariffs and companies increasing prices in anticipation of higher raw material costs. This pattern shows the knock-on effect of tariffs on global supply chains and global inflation. A third of respondents were able to pass on some of these additional costs to consumers, as the Finished Goods (output) Prices Index increased to 60, from Q4's 51. While the percentage of chemical companies that had enough demand to raise output prices was significant, this did not have a meaningful impact on margins, which have remained at the same level as Q4 (index of 50, which indicates no change).

As mentioned earlier, there is little to no sign of recovery within the sector, due to US tariffs further decreasing global demand, the EU industrial sector remaining exceptionally weak, and general uncertainty regarding future regulation. All this resulted in over 40% of respondents reporting falling business optimism.

Expectations for the second Quarter of 2025

Table 2 displays the diffusion indexes for what is expected for each of the 19 variables in the second quarter of 2025 and the percentage of respondents who expects to see an increase.

Table 2: Expectations for Q2 2025

	Q2 Expectation	Percentage that expects an increase in Q2 2025
Total sales	54	34%
Domestic sales	51	22%
Exports	52	29%
EU exports	54	29%
Rest of the world exports	50	22%
New orders	56	32%
Production levels	55	34%
Capacity utilisation	54	32%
Employee numbers	39	7%
R&D spend	45	2%
Business investment	46	10%
Your level of business optimism	41	15%
Time to deliver	45	2%
Raw material (input) prices	54	22%
Cost of importing	60	24%
Cost of exporting	57	24%
Your energy costs	48	22%
Finished goods (output) prices	57	29%
Your company/site profit margins	50	22%

Source: CIA Q1 2025 Business Survey

Slightly more than a third of respondents are optimistic that the increased demand they experienced in Q1 will carry into Q2, reflected in a total sales index of 54. They anticipate a small improvement in global industries, particularly in the EU, boosting demand for UK chemicals (EU exports index of 54). Around a third of respondents expect higher production levels and capacity utilisation to meet this demand. While these expectations are encouraging, an index of 54 remains relatively low and points to only a marginal improvement in conditions, rather than the meaningful recovery we have been hoping for over the past two and a half years.

Key take away

Over a third of respondents expect Q1's improvements in demand to continue into Q2. Although, concerns remain over declining employee numbers and potential restructuring within the industry. US tariffs are expected to increase trading costs, strain supply chains, and raise raw material prices, but margins should remain unchanged.

Expectations for slower-moving variables remain relatively unchanged. The indexes of 45 and 46 for R&D spending and business investment, respectively, suggest that investment levels are expected to stay stable for the majority of members, with a few companies anticipating cuts – likely linked to ongoing general uncertainty. A more concerning trend is the expected decline in employee numbers, with a quarter of respondents forecasting reductions. After a third of respondents reported falling employee numbers in Q1 2025, the expectation of additional cuts in Q2 2025 is particularly troubling, as it signals deeper restructuring trends within the industry.

According to over two-thirds of respondents, US tariffs are expected to increase trading costs. The worsening of supply chains is anticipated to drive up raw material (input) prices, according to 22% of respondents, while milder weather should decrease energy prices for another 22%. Nearly a third of respondents believe they will be able to increase finished goods (output) prices in the second

quarter of the year. Although some inflationary trends may emerge in Q2, they are unlikely to have a significant impact on margins, which are expected to remain unchanged (index of 50).

Expectations for 12 months ahead

Expectations for 2025 are slightly subdued compared to other surveys. Usually more than 60% of respondents believes that they will experience an improvement of operating conditions in 12 months' time, whilst this quarter the overall expectations indicate improvements, the percentage of respondents that expects these improvements is lower.

Table 3: Medium-term expectations

	12 months Expectation	Percentage that expects an increase in 12 months time
Total sales	66	49%
Domestic sales	61	37%
Exports	62	46%
EU exports	59	39%
Rest of the world exports	59	37%
New orders	68	51%
Production levels	70	54%
Capacity utilisation	70	54%
Employee numbers	37	7%
R&D spend	48	10%
Business investment	56	27%
Your level of business optimism	55	32%
Time to deliver	48	7%
Raw material (input) prices	66	39%
Cost of importing	62	29%
Cost of exporting	60	29%
Your energy costs	54	27%
Finished goods (output) prices	60	39%
Your company/site profit margins	52	29%

Source: CIA Q1 2025 Business Survey

Key take away

Expectations for 12 months' time are slightly lower than usual, with fewer respondents anticipating improvements in operating conditions. While there is some optimism regarding sales, production, and capacity utilisation, these expectations remain subdued given the current low output levels. Employee numbers are expected to continue declining and raw material prices are likely to rise due to geopolitical tensions.

Expectations for 2025 are slightly subdued compared to other surveys. Usually, more than 60% of respondents believe that they will experience an improvement in operating conditions in 12 months' time, whilst this quarter the overall expectations indicate improvements, the percentage of respondents that expect these improvements is lower.

Slightly less than 50% of respondents expect higher sales in 12 months' time, with just 37% expecting higher domestic sales and 46% improvements in exports. Whilst these percentages are positive, when we consider that current output is at its lowest level in 13 years, they appear much lower. Almost 55% of respondents expect improvements in production levels and capacity utilisation; once again, despite it being the majority of respondents, it is still a low percentage considering current output levels. These medium-term expectations clearly show that while there is some optimism for the year ahead, business leaders are conscious that the current global trends are not positive for business and do not lay the groundwork for a recovery to pre-pandemic levels.

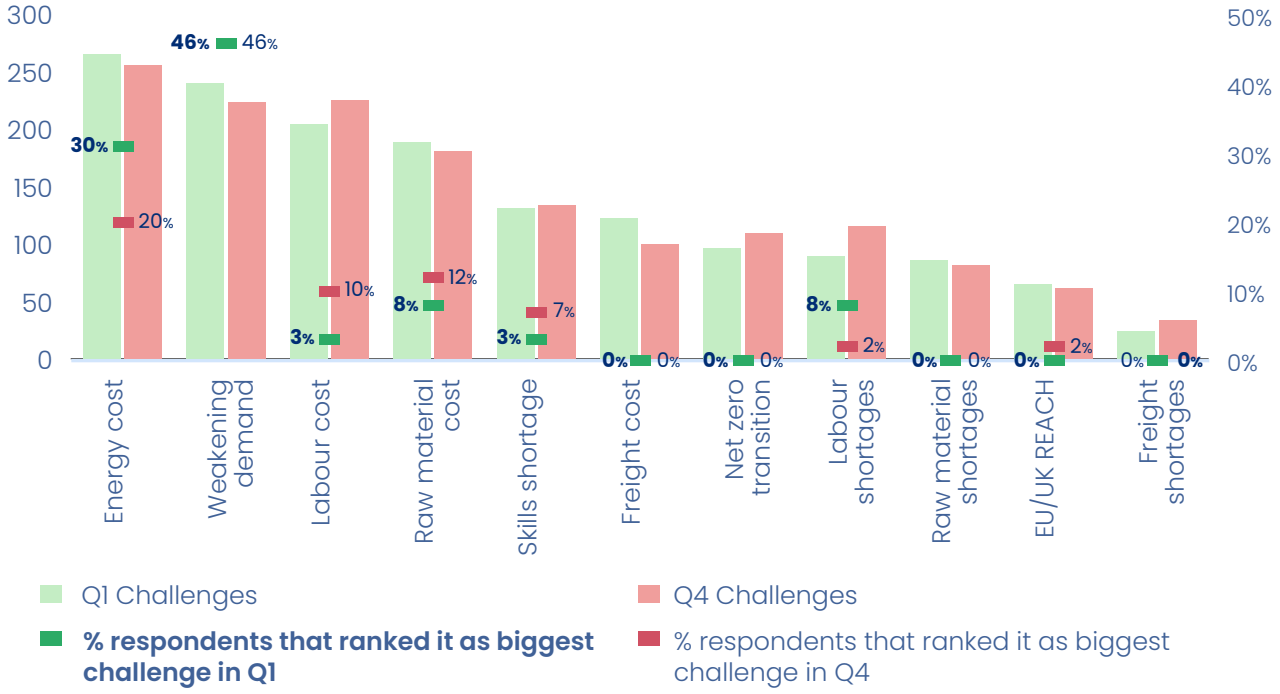
Forecasts for slower-moving variables are in line with the expectations made for Q2. These variables are less volatile than the previously mentioned ones and are influenced by long-term shifts in production levels and productivity. Employee numbers, which have been declining for the past three business surveys, are expected to continue falling throughout 2025, with only 7% of respondents planning to increase employment. As net zero goals and a circular economy gain traction, chemical companies are anticipating increased R&D spending and business investment in the coming year. Business investment is expected to rise due to maintenance costs and upgrades to existing equipment.

Raw material (input) prices are expected to rise in the medium term due to inflationary trends stemming from worsening geopolitical relations. The US tariffs will continue to increase the cost of trading. Overall energy costs are not expected to change, as 27% of respondents expect an increase and another 15% a decrease. When asked about margins, almost 50% of respondents reported that they do not expect their company's margins to change.

Challenges and Opportunities

The second section of the CIA's Q1 Business Survey focused more in detail on the challenges members faced and the opportunities they identified. The first question asked respondents to rank 11 challenges faced by the industry from most significant to smallest, with '1' signalling the greatest issue and '11' the smallest.

Graph 10: Industry ranking of business challenges in Q1 2025 and Q4 2024



Source: CIA Q1 2025 and Q4 2024 Business Survey

Key take away

1. Energy cost

2. Weakening demand

3. Labour cost

This quarter's survey recognised: 'Energy Cost', 'Weakening Demand', and 'Labour Cost' as the three main challenges. Last quarter, the three main challenges were: 'Energy Cost', 'Labour Cost', and 'Weakening Demand'. These three challenges have been in the top three for the past four business surveys.

The green bar on **Graph 10** shows the ranking of the challenges in this quarter's survey, whilst the red bar shows the ranking in the previous quarter (Q4 2024). In the case of 'Labour Cost', the red bar is higher than the green bar, meaning that, as a challenge, it ranked higher in Q4 2024 than in Q1 2025. The dots represent the percentage of respondents that ranked each challenge as number one — the orange dot represents the percentage in Q4 2024 and the green one in Q1 2025.

Focusing on 'Energy Cost', more members have ranked it as the main challenge in Q1 2025 than in Q4 2024, probably because energy prices increased in both January and February. Looking forward, members are also concerned about international competitiveness and how high energy prices put UK sites at a disadvantage compared to sites in other regions.

The second biggest challenge was 'Weakening Demand'. Despite almost 50% of respondents marking this challenge as their biggest business concern, 'Weakening Demand' is not as widespread as 'Energy Cost', which is why it ranked second.

The third biggest challenge is related to the cost of labour. The changes to Employer National Insurance Contributions (NICs), coupled with pressures on the wage front, continue to increase the cost of labour for chemical employers. Higher labour costs, coupled with skills and labour shortages, strongly indicate that the industry is facing a tough labour market and creating further uncertainty over long-term labour supply.

'Raw Material Costs' remain elevated and continue to put pressure on businesses. This quarter we heard anecdotal evidence of higher raw material prices due to the knock-on effect of US tariffs.

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, high costs, and labour frictions. It is therefore important that these challenges, including 'EU / UK REACH' and the 'Net Zero Transition', not be underestimated.

Members also mentioned other challenges that were not in the survey, such as: US tariffs (both in terms of the direct impact on US-UK trade relations and the indirect impact on global economic prospects, potential redirecting of trade from China, and a heightened sense of uncertainty),

EU legislation, inflation control mechanisms from the Bank of England and Government, waste costs and management, and higher regulatory costs. During conversations with members, it is clear that tariffs add to the heightened sense of uncertainty that has been governing business sentiment since COVID. Uncertainty around future trade with the US and which products might be excluded/included within tariffs is pausing investment decisions.

The next question asked respondents if the 11 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 indicating worsening, and 50 indicating no change, as well as the percentage of respondents that expect a worsening in the near future.

Table 4: Expectations over challenges

	Expectations	Percentage that expects this challenge to worsen
Energy cost	41	33%
Weakening demand	29	54%
Labour cost	10	79%
Raw material cost	31	49%
Skills shortage	36	36%
Freight cost	32	44%
Net zero transition	41	26%
Labour shortages	46	26%
Raw material shortages	47	23%
EU/UK REACH	55	5%
Freight shortages	53	10%

Source: CIA Q1 2025 Business Survey

Similarly to the previous survey, in Q1 2025 we saw negative sentiments across the board.

'Energy Cost' is expected to worsen due to the loss of international competitiveness linked to shale gas projects in the US and the lack of improvements on the domestic policy front. Two years after the energy price crisis, the European and British energy markets continue to struggle with volatility and elevated prices, strongly impacting local industries and harming their ability to secure international investment.

'Weakening Demand', which until Q3 2024 was expected to be transitory, continues to weigh on chemical businesses and is not expected to improve through 2025. We have identified a few underlying reasons behind this trend: (i) US tariffs are likely to diminish international demand; (ii) there is no expectation for the EU industrial sector to recover; and (iii) there is the possibility of overflooding of cheaper imports into the EU and UK due to US tariffs.

The challenge with the most negative forecast is 'Labour Cost', as almost 80% of respondents expect worsening. A higher price level in the economy requires companies to increase wages, but coupling this with higher Employer NICs and low margins poses a big challenge for chemical businesses going forward. 'Skills Shortages' and 'Labour Shortages' are also expected to worsen, but less strongly than 'Labour Costs'.

'Raw Material Costs' are expected to worsen by 49%. This percentage has increased from the Q4 2024 Business Survey, further indicating the intensifying of geopolitical tensions. 'Net Zero Transition' is also expected to worsen by 26% of respondents, indicating that the Government and the Industrial Strategy will be crucial in designing the industry's future.

Moving onto opportunities, the most recurrent themes were:

1) New products and/or applications
2) US tariffs may create an opportunity as UK tariffs are lower than EU and Chinese, making our products more competitive in the US compared to EU and Chinese
3) Energy saving and investment in renewable energy generation
4) Productivity improvements
5) Investment and R&D in net zero and development of new green products
6) Seasonal increase to demand
7) Lower competition due to competitors' closures

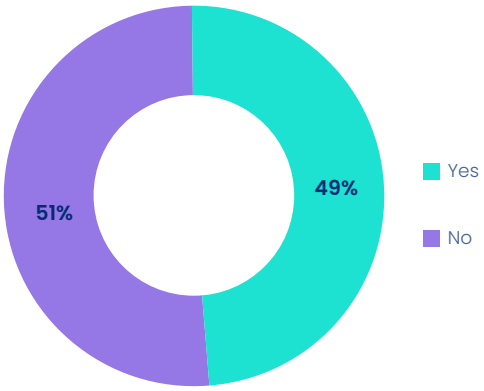
Open-ended questions

The final part of the survey asked members some open-ended question on regulators and contractors' performance, energy costs as share of total costs in 2018 and 2024, and apprenticeships.

Regulators performance

In this version of the survey, we asked members to assess current overall performance of regulators on a scale from 1 to 5, where 1 is Extremely Poor and 5 is Excellent. The overall performance received a ranking of 2.6 indicating a performance between Poor and Neutral.

Graph 11: Is the performance of regulators negatively impacting your business?



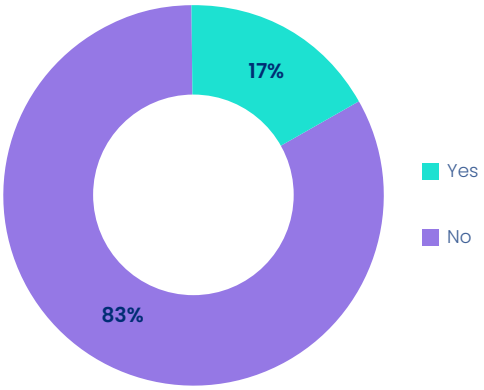
Source: CIA Q1 2025 Business Survey

We then asked respondents if the performance of regulators was negatively impacting their business. Graph 11 shows that 46% of respondents are being negatively impacted by regulators' performance. When asked to elaborate on the topic, respondents highlighted two main themes. First, regulators are under-resourced, which is affecting their timelines, attention to detail, and ability to retain talent. Second, regulators are seen as less proactive than in the past, and members are finding it harder to establish a relationship with civil servants.

Contractors' performance

We asked the same questions to understand the industry sentiment around the current performance of contractors. The overall performance received a ranking of 3.1 indicating that performance was deemed to be Neutral.

Graph 12: Is the performance of contractors negatively impacting your business?



Source: CIA Q1 2025 Business Survey

We then asked respondents if the performance of regulators was negatively impacting their business. Graph 12 shows that less than 20% of respondents are being negatively impacted by contractors' performance. When asked to expand on the topic, the main themes that emerged were that contractors have become significantly more expensive and less reliable compared to a few years ago.

Energy as percentage of total costs

In our Q1 2025 Business Survey, we asked chemical businesses how the share of energy in their total operating costs has changed from 2018 to 2024. While it is well established — through both industry data and energy price benchmarks — that energy costs have roughly doubled since 2018, our goal was to understand whether energy has become a heavier burden relative to other business expenses.

Survey results indicate that in 2018, energy accounted for an average of 12% of total operating costs across the sector, with individual company shares ranging from as low as 3% to as high as

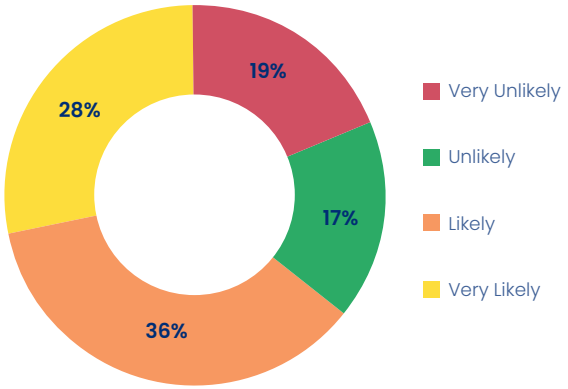
25%, depending on energy intensity. By 2024, that average had risen to 19%.

Although the headline increase may seem modest, the data reveal significant shifts for the most energy-intensive businesses. Companies that previously spent 15%–25% of their costs on energy are now reporting that energy accounts for 40%–55% of their total costs. This sharp rise underscores the disproportionate impact of energy inflation on high-intensity operations and highlights the growing pressure on competitiveness in segments such as basic chemicals and heavy industrial processing.

These findings align with broader industry trends highlighting ongoing volatility in European energy markets and the resulting pressure on manufacturing margins.

Apprenticeships

Graph 13: Given the current pressures on the chemical industry and the well documented skills shortages, how likely are you to take on apprentices in the next 12 months?



Source: CIA Q1 2025 Business Survey

As the final question of the survey, we asked members about their plans to take on apprentices in the next 12 months. Our findings reveal that 64% of businesses are likely to take on apprentices this year, while 36% are not. Among the reasons cited by those not planning to hire apprentices are increased resource demands — both financial and time-related — associated with apprenticeship programmes. Additionally, many highlighted the growing challenges of retaining apprentices after they complete their qualifications. Another key concern raised was the complexity of the Apprenticeship Levy, with many members noting that its convoluted nature discourages businesses from utilising the scheme.

External data from the UK Government's Department for Education show a steady increase in apprenticeship starts, with a 16% rise in the number of apprenticeship starts between 2018 and 2020. However, the same data indicate that the number of apprenticeships in certain sectors, including manufacturing, has not seen the same growth, raising concerns about skills gaps in industries vital to economic recovery.

Despite these challenges, nearly all respondents in our survey recognised apprenticeships as a vital solution to the growing skills gap. They emphasised that, with the right systems in place, chemical companies are eager to invest in the development of future talent, which could help fill the widening skills gap in the sector.

Key takeaways from the survey

In the first quarter of 2025, the chemical sector showed a slight improvement in demand, with nearly 40% of respondents reporting higher sales than in Q4 2024. However, the increase in sales was not enough to impact production levels or margins, which remained stable. Employment fell sharply, marking the fastest decline in two years, and raw material and energy prices continued to rise, primarily due to US tariffs and geopolitical tensions. Despite these challenges, there is some optimism for Q2 2025, with a third of respondents expecting the demand improvements to continue. However, employee numbers are expected to continue declining, and margins are likely to remain unchanged.

Looking ahead to 12 months, expectations for improvements in sales and production are subdued, with fewer respondents anticipating a recovery to pre-pandemic levels. Geopolitical tensions and increasing costs are likely to continue weighing on the industry. The primary challenges identified include rising energy costs, weakening demand, and labour costs. Additionally, members highlighted US tariffs as a significant concern, particularly due to the uncertainty they create.

This uncertainty has led several companies to pause their investment plans, further complicating the industry's outlook.

The under-resourcing of regulators was a key point, with many members expressing dissatisfaction over delays, poor attention to detail, and challenges in retaining talent, which are negatively impacting business operations. Contractors' performance was considered to be neutral, but 20% of respondents reported that poor reliability and lower productivity from contractors are negatively affecting their businesses. Energy costs, which now account for a significantly higher share of total operating costs, continue to pressure the sector, particularly for energy-intensive businesses. In terms of apprenticeships, 64% of respondents are likely to take on apprentices, although challenges related to the Apprenticeship Levy and retention of apprentices remain.

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