



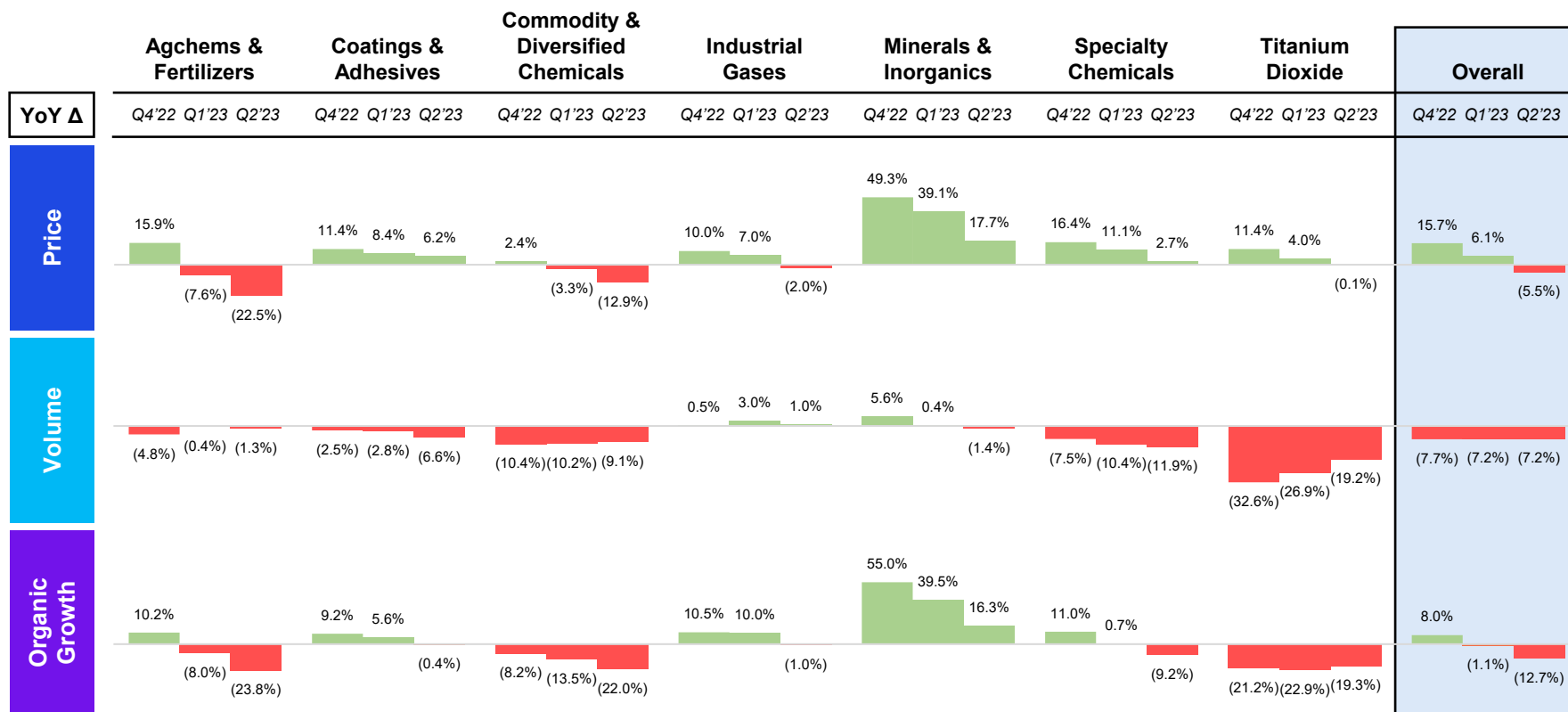
Chemicals & Specialty Materials

Q2 2023 Price & Volume Trends by Sub-sector

Chemicals & Specialty Materials Q2 2023 Earnings Summary

Continued weakness across the board

- Performance continued to deteriorate in Q2 2023 with overall organic growth declining (12.7%) versus Q2 2022
- Favorable pricing increases observed in the previous two quarters faded as a majority of the sub-sectors reported year-over-year decrease in prices (down 5.5% on average). The following sub-sectors bucked the downtrend:
 - Minerals & Inorganics continued to push through price increases given a tight supply market and strong demand from lithium end-market; and
 - Coatings & Adhesives and Specialty Chemicals players experienced a modest increase in prices
- Year-over-year volume continued to decline (down 7.2% on average) across the industry amidst persistent macro-economic challenges



Sources: Capital IQ, Company filings



Agchems & Fertilizers

- In Q2 2023, the Agchems & Fertilizers sub-sector experienced an average organic revenue decline of **(23.8%)** year-over-year
- Prices decreased by **(22.5%)** while volumes declined by **(1.3%)** over prior year's comparable period
- Similar to Q1 2023, fertilizers continued to see a steep year-over-year decrease in nitrogen prices:
 - Decrease in natural gas prices due to a fall in demand as wholesale shifts were made to utilize other energy sources
 - Surplus of natural gas inventory given a notably mild winter across the northern hemisphere also deflated prices in Q2
 - Contraction of China's manufacturing activity has translated into greater supply and a weaker global price environment
- Agchem companies implemented price increases as farmers continued to invest in products to enhance and protect crop yields given elevated crop prices
 - Q2 volumes were impacted as cold and wet weather in the early U.S. spring season affected timing of seasonal demand as farmers delayed purchases

Considering the abrupt and intense destocking by growers and the distribution channel in the second quarter, we now expect the global crop protection market to contract by high single digits to low double digits, even as on-the-ground consumption by growers remains at levels similar to last year and planted acres continue to grow in key geographies.

...We are assuming growers will continue to order products closer to the planting season. Business fundamentals remain solid as grower consumption and product applications are expected to remain steady and planted acreage is projected to increase.

- Mark A. Douglas, President & CEO, FMC Corporation

Where fundamentals remain constructive, global demand for crops is very strong and supply is struggling to keep up. Geopolitical events are having a major impact. The war in Ukraine continues to restrict supply from one of the world's most important agricultural regions.

But conflict is only 1 part of the supply problem. Around the world, weather extremes are having a profound effect on crop production. North American yields this year could be negatively impacted by dry conditions and El Nino is hurting production across Southeast Asia and Australia.

- James C. O'Rourke, President & CEO, The Mosaic Company

Sources: Capital IQ, Company filings



Agchems & Fertilizers (cont'd)

| Company Name | Q4 2022 (YoY) | | | Q1 2023 (YoY) | | | Q2 2023 (YoY) | | |
|---|-----------------|-----------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | Price | Volume | Total | Price | Volume | Total | Price | Volume | Total |
| CF Industries Holdings | 13.0% | (10.3%) | 2.7% | (28.5%) | (1.9%) | (30.4%) | (48.6%) | 2.0% | (46.6%) |
| Ammonia | 36.2% | (24.2%) | 12.0% | (26.1%) | (10.3%) | (36.4%) | (53.7%) | 1.7% | (52.0%) |
| Granular Urea | (9.8%) | 1.5% | (8.3%) | (33.8%) | 20.7% | (13.1%) | (43.1%) | (2.9%) | (46.0%) |
| Urea Ammonium Nitrate (UAN) | 25.6% | (8.1%) | 17.5% | (27.7%) | (9.1%) | (36.8%) | (49.5%) | 11.3% | (38.2%) |
| Ammonium Nitrate (AN) | 27.5% | (1.9%) | 25.6% | (18.4%) | (12.6%) | (31.0%) | (51.4%) | (15.4%) | (66.8%) |
| Diesel Exhaust Fluid, Urea Liquor and Nitric Acid | (9.7%) | (15.8%) | (25.5%) | (30.3%) | (3.9%) | (34.2%) | (35.4%) | 0.5% | (34.9%) |
| Corteva | 12.0% | (1.0%) | 11.0% | 14.3% | (4.3%) | 10.0% | 8.7% | (12.6%) | (3.9%) |
| Seed | 19.0% | (1.0%) | 18.0% | 17.0% | (7.0%) | 10.0% | 12.0% | (3.0%) | 9.0% |
| Crop Protection | 7.0% | 0.0% | 7.0% | 11.0% | (1.0%) | 10.0% | 3.0% | (29.0%) | (26.0%) |
| CVR Partners | | | 12.3% | (8.6%) | 9.2% | 0.6% | (38.2%) | 22.5% | (15.7%) |
| Ammonia | 30.0% | (26.7%) | 3.3% | (15.8%) | 5.0% | (10.8%) | (40.2%) | 51.9% | 11.7% |
| Urea Ammonium Nitrate (UAN) | 31.0% | (1.5%) | 29.5% | (7.9%) | 11.5% | 3.6% | (43.1%) | 14.6% | (28.5%) |
| FMC Corporation | 8.0% | 9.0% | 17.0% | 7.0% | (3.0%) | 4.0% | 3.0% | (31.0%) | (28.0%) |
| LSB Industries | 32.9% | (6.7%) | 26.2% | (18.7%) | 6.3% | (12.4%) | (43.9%) | 10.1% | (33.8%) |
| Ammonium Nitrate (AN) & Nitric Acid | 31.1% | (13.4%) | 17.6% | (4.8%) | (15.1%) | (19.9%) | (27.4%) | (0.0%) | (27.4%) |
| Urea Ammonium Nitrate (UAN) | 36.6% | (18.6%) | 18.0% | (31.5%) | 12.9% | (18.6%) | (48.5%) | (3.5%) | (52.0%) |
| Ammonia | 39.5% | 12.4% | 51.9% | (26.8%) | 46.6% | 19.8% | (68.5%) | 35.1% | (33.4%) |
| Nutrien | Increase | Decrease | 3.1% | (12.9%) | (3.8%) | (16.7%) | (18.3%) | (0.1%) | (18.4%) |
| Potash | 13.0% | (14.0%) | (1.0%) | (37.5%) | (13.4%) | (50.9%) | (58.6%) | (8.8%) | (67.4%) |
| Retail | Increase | Decrease | 5.4% | Increase | Decrease | (11.4%) | Decrease | Increase | (3.1%) |
| Phosphate | 7.7% | (25.3%) | (17.6%) | (5.9%) | (15.8%) | (21.7%) | (20.9%) | 5.4% | (15.5%) |
| Nitrogen | 18.0% | (11.0%) | 7.0% | (23.2%) | 1.4% | (21.8%) | (48.1%) | 9.9% | (38.2%) |
| The Mosaic Company | 19.3% | (3.0%) | 16.3% | (21.5%) | 11.2% | (10.3%) | (43.8%) | 4.3% | (39.5%) |
| Phosphates | 6.8% | (11.1%) | (4.3%) | (15.9%) | 10.5% | (5.4%) | (36.4%) | 14.7% | (21.7%) |
| Mosaic Fertilizantes | 18.2% | 8.7% | 26.9% | (20.9%) | 14.2% | (6.7%) | (38.9%) | 2.8% | (36.1%) |
| Potash | 40.3% | (9.5%) | 30.8% | (27.7%) | 6.6% | (21.1%) | (51.9%) | (6.1%) | (58.0%) |
| The Scotts Miracle-Gro Company | 10.0% | (17.0%) | (7.0%) | 8.0% | (17.0%) | (9.0%) | 1.0% | (6.0%) | (5.0%) |
| U.S. Consumer | 13.0% | (5.0%) | 8.0% | 9.0% | (11.0%) | (2.0%) | 0.0% | 1.0% | 1.0% |
| Hawthorne | 5.0% | (36.0%) | (31.0%) | 6.0% | (60.0%) | (54.0%) | (1.0%) | (39.0%) | (40.0%) |
| Agchems & Fertilizers Average | 15.9% | (4.8%) | 10.2% | (7.6%) | (0.4%) | (8.0%) | (22.5%) | (1.3%) | (23.8%) |

Note: Total organic revenue growth may reflect KPMG estimates based on availability of data.

Sources: Capital IQ, Company filings



Coatings & Adhesives

- In Q2 2023, the Coatings & Adhesives sub-sector experienced average organic decline of **(0.4%)** year-over-year
 - The sub-sector saw an average increase of **6.2%** in prices, offset by volume decline of **(6.6%)** year-over-year
- Overall, the sub-sector continued to see a decline in volume across most end-markets driven by lower levels of demand in Europe stemming from geopolitical issues, slower economic recovery in China and softening global manufacturing activity
 - In line with previous quarters, demand for coatings from new housing construction remained soft as new housing starts declined by ~8% year-over-year in June 2023
- Automotive refinish coatings maintained strong demand against the backdrop of improved production activity in the end-market

| Company Name | Q4 2022 (YoY) | | | Q1 2023 (YoY) | | | Q2 2023 (YoY) | | |
|---|---------------|----------|----------|---------------|------------|--------|---------------|---------|----------|
| | Price | Volume | Total | Price | Volume | Total | Price | Volume | Total |
| Axalta Coating Systems | 11.7% | 2.4% | 14.1% | 9.4% | 2.7% | 12.1% | 6.8% | (3.7%) | 3.1% |
| Performance Coatings | 11.8% | (4.3%) | 7.5% | 10.3% | (3.4%) | 6.9% | 8.5% | (11.1%) | (2.6%) |
| Mobility Coatings | 11.5% | 18.7% | 30.2% | 7.2% | 16.5% | 23.7% | 2.7% | 12.8% | 15.5% |
| H.B. Fuller Company | 11.4% | (5.0%) | 6.4% | 8.3% | (10.8%) | (2.5%) | 5.9% | (14.2%) | (8.3%) |
| PPG Industries | 11.0% | (5.0%) | 6.0% | 8.0% | (3.0%) | 5.0% | 6.0% | (2.0%) | 4.0% |
| Performance Coatings | 9.0% | (4.0%) | 5.0% | 9.0% | (3.0%) | 6.0% | 6.0% | (3.0%) | 3.0% |
| Industrial Coatings | 13.0% | (5.0%) | 8.0% | 7.0% | (3.0%) | 4.0% | 5.0% | (1.0%) | 4.0% |
| The Sherwin-Williams Company | +Low DD% | Flat | 10.3% | 8.1% | 0.0% | 8.1% | +MSD% | Flat | +MSD% |
| Paint Stores | +HSD% | +MSD% | Increase | Increase | +HSD% | 14.8% | +MSD% | +MSD% | +HSD% |
| Consumer Brands | +HSD% | -HSD% | | Increase | -MSD% | 4.1% | +MSD% | Flat | +MSD% |
| Performance Coatings | +Mid-Teen% | -Low DD% | | +Low-Teen% | -Low-Teen% | 3.4% | +MSD% | -HSD% | Decrease |
| Coatings & Adhesives Average | 11.4% | (2.5%) | 9.2% | 8.4% | (2.8%) | 5.6% | 6.2% | (6.6%) | (0.4%) |

We expect global industrial production to remain at lower levels in the third quarter, including similar demand activity in Europe, some further slowing in the U.S. and modest sequential improvement in China. We do expect certain pockets of industry activity to remain more resilient, including aerospace and automotive industries

- Timothy M. Knavish, President & CEO, PPG Industries

Note: Total organic revenue growth may reflect KPMG estimates based on availability of data.

Sources: Capital IQ, Company filings



Commodity & Diversified Chemicals

- In Q2 2023, the Commodity & Diversified Chemicals sub-sector experienced average organic revenue decline of (22.0%) year-over-year
 - The sub-sector reported an average decrease of (12.9%) in prices and an average decline of (9.1%) in volumes year-over-year
- This (9.1%) volume decline was primarily driven by general overall weakness across major end markets and slower recovery in China
- Prices were generally down across the space due to feedstock deflation associated with a lack of economic momentum
 - This was further substantiated by deteriorating export market prices for caustic soda, epoxies, thermoplastics, acetyls & derivatives and isocyanates
 - The Fibers segment for Eastman continued to outperform the overall market with price increases driven by an increase in industry capacity utilization, higher raw material prices and distribution costs

In our North American markets, particularly around MDI and construction demand, I believe that we're seeing the end of prolonged inventory destocking. While this is not the case for all products and applications, we are seeing demand follow more seasonal trends. There are currently fewer homes and commercial real estate projects being built than we saw 12 or 18 months ago. However, order patterns would tell us that much of this destocking has ended, and we are in the early recovery of building starts as we move into the next year. Commercial construction may take a bit longer to recover.

..We continue to look very aggressively in some of these downstream applications, particularly in our performance products and even more particularly in our Advanced Materials as I think about lightweighting, I think about adhesion, I think about a lot of the green polymers and chemistry, I think about fire retardancy and construction, energy conservation and so forth. These are all going to be areas of the future that we want to be looking into.

- Peter R. Huntsman, President & CEO, Huntsman Corporation

Commodity & Diversified Chemicals (cont'd)

| Company Name | Q4 2022 (YoY) | | | Q1 2023 (YoY) | | | Q2 2023 (YoY) | | |
|--|---------------|---------|---------|---------------|----------|----------|---------------|----------|----------|
| | Price | Volume | Total | Price | Volume | Total | Price | Volume | Total |
| AdvanSix | 6.0% | (15.0%) | (9.0%) | (10.0%) | (9.0%) | (19.0%) | (25.0%) | (2.0%) | (27.0%) |
| Cabot Corporation | 18.3% | (4.3%) | 13.9% | 4.7% | (5.9%) | (1.2%) | (4.9%) | (8.0%) | (12.9%) |
| Performance Chemicals | 5.2% | (4.2%) | 1.0% | 0.0% | (6.3%) | (6.3%) | (7.2%) | (8.5%) | (15.7%) |
| Reinforcement Materials | 28.6% | (5.0%) | 23.6% | 14.2% | (6.3%) | 7.9% | (4.0%) | (8.1%) | (12.1%) |
| Celanese Corporation | (4.5%) | (6.5%) | (11.0%) | (8.0%) | (8.6%) | (16.6%) | (15.0%) | (6.7%) | (21.7%) |
| Engineered Materials | 17.0% | 6.1% | 23.1% | 2.0% | (7.7%) | (5.7%) | (8.0%) | (14.0%) | (22.0%) |
| Acetyl Chain | (14.0%) | (12.0%) | (26.0%) | (13.0%) | (9.0%) | (22.0%) | (19.0%) | (2.0%) | (21.0%) |
| Dow | (5.0%) | (8.0%) | (13.0%) | (10.0%) | (11.0%) | (21.0%) | (18.0%) | (8.0%) | (26.0%) |
| Performance Materials & Coatings | (2.0%) | (13.0%) | (15.0%) | (12.0%) | (11.0%) | (23.0%) | (16.0%) | (10.0%) | (26.0%) |
| Packaging & Specialty Plastics | (9.0%) | (4.0%) | (13.0%) | (11.0%) | (8.0%) | (19.0%) | (21.0%) | (7.0%) | (28.0%) |
| Industrial Intermediates & Infrastructure | (1.0%) | (14.0%) | (15.0%) | (6.0%) | (17.0%) | (23.0%) | (15.0%) | (11.0%) | (26.0%) |
| Eastman Chemical Company | 10.0% | (12.0%) | (2.0%) | 5.8% | (9.5%) | (3.7%) | (1.0%) | (15.0%) | (16.0%) |
| Advanced Materials | 11.0% | (12.0%) | (1.0%) | 10.0% | (6.0%) | 4.0% | 3.0% | (15.0%) | (12.0%) |
| Additives & Functional Products | 12.0% | (9.0%) | 3.0% | 4.0% | (15.0%) | (11.0%) | (5.0%) | (14.0%) | (19.0%) |
| Chemical Intermediates | 5.0% | (25.0%) | (20.0%) | (5.0%) | (12.0%) | (17.0%) | (11.0%) | (22.0%) | (33.0%) |
| Fibers | 26.0% | 8.0% | 34.0% | 40.0% | 3.0% | 43.0% | 32.0% | 1.0% | 33.0% |
| Huntsman Corporation | 7.2% | (24.9%) | (17.7%) | (0.3%) | (23.3%) | (23.6%) | (7.9%) | (16.2%) | (24.1%) |
| Polyurethanes | 5.0% | (22.0%) | (17.0%) | (2.0%) | (21.0%) | (23.0%) | (10.0%) | (10.0%) | (20.0%) |
| Performance Products | 10.0% | (32.0%) | (22.0%) | 0.0% | (31.0%) | (31.0%) | (8.0%) | (31.0%) | (39.0%) |
| Advanced Materials | 13.0% | (28.0%) | (15.0%) | 6.0% | (21.0%) | (15.0%) | 1.0% | (19.0%) | (18.0%) |
| Methanex Corporation | (16.2%) | (5.6%) | (21.8%) | (12.7%) | 1.7% | (11.0%) | (19.9%) | 3.3% | (16.6%) |
| Olin Corporation | 13.0% | | (18.7%) | | Decrease | | Decrease | Decrease | Decrease |
| Chlor Alkali Products and Vinyls | 23.3% | (29.0%) | (5.7%) | Increase | (12.0%) | Decrease | Increase | Decrease | Decrease |
| Epoxy | (3.1%) | (36.0%) | (39.1%) | Decrease | Decrease | Decrease | (14.3%) | (15.4%) | (29.7%) |
| Winchester | Increase | | (18.1%) | | Decrease | (14.1%) | Decrease | (27.6%) | Decrease |
| Orion Engineered Carbons | Increase | (3.6%) | 17.7% | 12.8% | (7.8%) | 5.0% | (5.6%) | (9.6%) | (15.2%) |
| Rubber Carbon Black | Increase | 3.1% | 28.8% | 14.1% | (3.8%) | 10.3% | (4.5%) | (9.4%) | (13.9%) |
| Specialty | Increase | (21.9%) | (0.9%) | 10.4% | (19.2%) | (8.8%) | (7.6%) | (10.2%) | (17.8%) |
| Trinseo | (2.0%) | (21.0%) | (23.0%) | (7.0%) | (20.0%) | (27.0%) | (17.0%) | (16.0%) | (33.0%) |
| Westlake Corporation | (2.7%) | (3.3%) | (6.0%) | (8.2%) | (9.1%) | (17.3%) | (14.9%) | (12.6%) | (27.5%) |
| Performance and Essential Materials | (8.7%) | 4.7% | (4.0%) | (12.9%) | (4.2%) | (17.1%) | (20.9%) | (10.3%) | (31.2%) |
| Housing and Infrastructure Products | 11.6% | (21.9%) | (10.3%) | 2.8% | (20.6%) | (17.8%) | (1.4%) | (17.7%) | (19.1%) |
| Commodity & Diversified Chemicals Average | 2.4% | (10.4%) | (8.2%) | (3.3%) | (10.2%) | (13.5%) | (12.9%) | (9.1%) | (22.0%) |

Note: Total organic revenue growth may reflect KPMG estimates based on availability of data.

Sources: Capital IQ, Company filings



Industrial Gases

- In Q2 2023, the Industrial Gases sub-sector experienced average organic revenue decline of **(1.0%)** year-over-year
 - The sub-sector saw an average decrease of **(2.0%)** in prices and increase of **1.0%** in volumes
- Reduced energy cost pass-through driven by declining natural gas costs led to year-over-year decrease in prices
- The sub-sector experienced a marginal increase of **1.0%** in sales volumes year-over-year
 - This was supported by strong on-site performance including healthy demand for hydrogen
 - Volumes faced headwinds with soft demand from the EMEA region

| Company Name | Q4 2022 (YoY) | | | Q1 2023 (YoY) | | | Q2 2023 (YoY) | | |
|----------------------------|---------------|--------|-------|---------------|--------|-------|---------------|--------|--------|
| | Price | Volume | Total | Price | Volume | Total | Price | Volume | Total |
| Air Products and Chemicals | 10.0% | 2.0% | 12.0% | 7.0% | 6.0% | 13.0% | (7.0%) | 3.0% | (4.0%) |
| Linde | 10.0% | (1.0%) | 9.0% | 7.0% | 0.0% | 7.0% | 3.0% | (1.0%) | 2.0% |
| Industrial Gases Average | 10.0% | 0.5% | 10.5% | 7.0% | 3.0% | 10.0% | (2.0%) | 1.0% | (1.0%) |

... we are seeing some economies stagnate or start to soften, as evidenced by recent data..

..we are managing inflation by contractually passing through energy cost variances while securing price increases which are aligned with local market trends. This is a key part of our contractual structure and operating discipline that we've consistently demonstrated for decades.

I expect the U.S. to improve for the second half since a number of customers are already back up, but it's difficult to project how European demand will develop.

- Sanjiv Lamba, CEO & Director, Linde

Note: Total organic revenue growth may reflect KPMG estimates based on availability of data.

Sources: Capital IQ, Company filings



Minerals & Inorganics

- In Q2 2023, the Minerals & Inorganics sub-sector experienced average organic growth of **16.3%** year-over-year
 - The sub-sector saw an average increase of **17.7%** in prices, while volumes declined by **(1.4%)**
- The lithium market maintained positive momentum as EV demand continued to rise amidst tight supply
- Players such as Minerals Technologies experienced a strong demand from pet and animal health and purification segments, offset by headwinds from customer destocking in personal care segment
- Salt volumes declined primarily due to the lower year-over-year demand from highway deicing market given the milder winter weather

| Company Name | Q4 2022 (YoY) | | | Q1 2023 (YoY) | | | Q2 2023 (YoY) | | |
|--|---------------|----------------|---------------|---------------|----------------|---------------|---|---------------|---------------|
| | Price | Volume | Total | Price | Volume | Total | Price | Volume | Total |
| Albemarle Corporation⁽¹⁾ | 153.6% | 39.2% | 193.1% | 129.6% | (0.9%) | 128.7% | 47.3% | 15.2% | 62.5% |
| Energy Storage | 328.0% | 82.0% | 410.0% | 301.0% | 18.0% | 319.0% | 87.3% | 36.2% | 123.5% |
| Specialties | 9.0% | 1.0% | 10.0% | 9.0% | (15.0%) | (6.0%) | (5.1%) | (14.6%) | (19.7%) |
| Ketjen | 10.0% | 8.0% | 18.0% | 12.0% | (12.0%) | 0.0% | 11.4% | 0.8% | 12.2% |
| Compass Minerals International | 15.1% | (5.9%) | 9.2% | 11.1% | (17.5%) | (6.4%) | 6.4% | (9.6%) | (3.2%) |
| Plant Nutrition | 40.0% | (45.8%) | (5.8%) | 8.2% | (18.9%) | (10.7%) | (9.0%) | (6.0%) | (15.0%) |
| Salt | 9.9% | 2.4% | 12.3% | 11.6% | (17.4%) | (5.8%) | 12.0% | (11.0%) | 1.0% |
| Minerals Technologies | 13.2% | (0.4%) | 12.7% | 9.3% | (1.3%) | 8.0% | 7.7% | (7.2%) | 0.5% |
| Sisecam Resources | 33.1% | (15.0%) | 18.1% | 24.1% | 2.1% | 26.2% | Acquired by Sisecam Chemicals Wyoming in May-23 | | |
| U.S. Silica Holdings | 31.7% | 10.2% | 41.9% | 21.4% | 19.4% | 40.8% | 9.2% | (4.1%) | 5.1% |
| Oil & Gas Proppants | 49.8% | 15.2% | 65.1% | 32.8% | 28.1% | 60.9% | 10.8% | (3.1%) | 7.7% |
| Industrial & Specialty Products | 15.2% | (4.3%) | 10.9% | 17.2% | (5.7%) | 11.5% | 8.2% | (7.5%) | 0.7% |
| Minerals & Inorganics Average | 49.3% | 5.6% | 55.0% | 39.1% | 0.4% | 39.5% | 17.7% | (1.4%) | 16.3% |

In our Oil and Gas segment, we delivered continued strong financial performance despite lower completions activity across the U.S. oilfield market. While our volumes sold were down, pricing held up well during the quarter and with our ability to quickly match cost to market demand.

- Bryan A. Shinn, CEO & Director, U.S. Silica Holdings

(1) Effective January 1, 2023, Albemarle Corporation realigned its Lithium and Bromine segments into the Energy Storage and Specialties segments

Note: Total organic revenue growth may reflect KPMG estimates based on availability of data.

Sources: Capital IQ, Company filings

Specialty Chemicals

- In Q2 2023, the Specialty Chemicals sub-sector experienced average organic decline of **(9.2%)** year-over-year
 - The sub-sector saw prices increase on average by **2.7%** while volumes decline by **(11.9%)**
- Price increases in the sub-sector were mixed and modest overall on a year-over-year basis
 - Raw material deflation is expected to improve price-cost spread in the coming quarters
- Volumes further declined with softness in majority of the end-markets
 - Players in this space cited de-stocking in multiple end-markets in Q2 2023
 - Demand from electronics, construction and consumer durables markets remained soft
 - Sluggish demand was partially offset by strength shown in water, automotive and aerospace markets

| Company Name | Q4 2022 (YoY) | | | Q1 2023 (YoY) | | | Q2 2023 (YoY) | | |
|------------------------------------|---------------|---------|---------|---------------|---------|---------|---------------|---------|---------|
| | Price | Volume | Total | Price | Volume | Total | Price | Volume | Total |
| Ashland | 12.1% | (4.9%) | 7.2% | 12.3% | (10.1%) | 2.2% | 5.1% | (20.8%) | (15.7%) |
| DuPont de Nemours | 7.0% | (2.0%) | 5.0% | 4.0% | (7.0%) | (3.0%) | 2.0% | (6.0%) | (4.0%) |
| Electronics & Industrial | 3.0% | (5.0%) | (2.0%) | 2.0% | (15.0%) | (13.0%) | 0.0% | (12.0%) | (12.0%) |
| Water & Protection | | 12.0% | 12.0% | 6.0% | (2.0%) | 4.0% | 5.0% | (4.0%) | 1.0% |
| Ecolab | 13.0% | (1.0%) | 12.0% | 13.0% | (1.0%) | 12.0% | 10.0% | (1.0%) | 9.0% |
| Ecovyst | 18.3% | (10.3%) | 8.0% | 6.7% | (16.7%) | (10.0%) | (3.3%) | (15.0%) | (18.3%) |
| Ecoservices | 22.4% | (9.9%) | 12.5% | 6.6% | (17.1%) | (10.5%) | (5.4%) | (12.7%) | (18.1%) |
| Catalyst Technologies | (2.8%) | (12.4%) | (15.2%) | 7.4% | (14.0%) | (6.6%) | 9.6% | (28.9%) | (19.3%) |
| Innospec | | | 23.6% | 11.1% | (12.7%) | (1.6%) | (1.8%) | (11.8%) | (13.6%) |
| Performance Chemicals | 18.0% | (5.0%) | 13.0% | 6.0% | (13.0%) | (7.0%) | (8.0%) | (16.0%) | (24.0%) |
| Fuel Specialties | 25.0% | (14.0%) | 11.0% | 22.0% | (20.0%) | 2.0% | 3.0% | (16.0%) | (13.0%) |
| Quaker Chemical Corporation | 24.0% | (10.0%) | 14.0% | 19.0% | (11.0%) | 8.0% | 11.0% | (10.0%) | 1.0% |
| Stepan Company | 24.0% | (17.0%) | 7.0% | 12.0% | (14.0%) | (2.0%) | (4.0%) | (19.0%) | (23.0%) |
| Polymers | 14.0% | (23.0%) | (9.0%) | 8.0% | (18.0%) | (10.0%) | (3.0%) | (29.0%) | (32.0%) |
| Surfactants | 26.0% | (15.0%) | 11.0% | 14.0% | (13.0%) | 1.0% | (5.0%) | (15.0%) | (20.0%) |
| Specialty Products | | (6.0%) | | 19.8% | (7.0%) | 12.8% | 0.0% | (16.0%) | (16.0%) |
| Specialty Chemicals Average | 16.4% | (7.5%) | 11.0% | 11.1% | (10.4%) | 0.7% | 2.7% | (11.9%) | (9.2%) |

Note: Total organic revenue growth may reflect KPMG estimates based on availability of data.

Sources: Capital IQ, Company filings



Titanium Dioxide

- The TiO2 sector continued to experience tough market conditions in the second quarter with an average organic sales decline of **(19.3%)** year-over-year
 - The decline in organic sales was primarily due to the impact of year-over-year sales volumes as prices remained flat
- TiO2 prices faced pressure from Chinese producers, who are producing and exporting despite break-even economics
 - Sluggish demand across all major end-markets continues to impact prices adversely
- While volume declined in comparison to prior year's period, the industry appears to be recovering on a sequential quarterly basis
 - Current macro-economic environment coupled with weak demand from coatings, paints and plastics continue to pose challenges to the recovery of the sub-sector

| Company Name | Q4 2022 (YoY) | | | Q1 2023 (YoY) | | | Q2 2023 (YoY) | | |
|---------------------------------|---------------|---------|---------|---------------|---------|---------|--------------------------------|---------|---------|
| | Price | Volume | Total | Price | Volume | Total | Price | Volume | Total |
| The Chemours Company | 10.0% | (19.0%) | (9.0%) | 5.5% | (17.5%) | (12.0%) | 2.0% | (15.8%) | (13.8%) |
| Titanium Technologies | 7.0% | (35.0%) | (28.0%) | 4.0% | (35.0%) | (31.0%) | 0.0% | (27.0%) | (27.0%) |
| Thermal & Specialized Solutions | 6.0% | 4.0% | 10.0% | 5.0% | 10.0% | 15.0% | 2.0% | (1.0%) | 1.0% |
| Advanced Performance Materials | 17.0% | (1.0%) | 16.0% | 10.0% | (7.0%) | 3.0% | 7.0% | (9.0%) | (2.0%) |
| Kronos Worldwide | 15.0% | (40.0%) | (25.0%) | 4.0% | (29.0%) | (25.0%) | (2.0%) | (26.0%) | (28.0%) |
| Tronox Holdings | 8.0% | (32.7%) | (24.7%) | 3.5% | (28.8%) | (25.3%) | (0.3%) | (15.9%) | (16.2%) |
| TiO2 | 7.0% | (34.0%) | (27.0%) | 3.0% | (30.0%) | (27.0%) | 1.0% | (22.0%) | (21.0%) |
| Zircon | 20.0% | (44.0%) | (24.0%) | 10.0% | (43.0%) | (33.0%) | 7.0% | (21.0%) | (14.0%) |
| Venator Materials | 12.6% | (38.7%) | (26.1%) | 3.2% | (32.2%) | (29.0%) | Filed for bankruptcy in May-23 | | |
| Titanium Dioxide | 8.0% | (44.0%) | (36.0%) | 0.0% | (34.0%) | (34.0%) | Filed for bankruptcy in May-23 | | |
| Performance Additives | 27.0% | (22.0%) | 5.0% | 14.0% | (26.0%) | (12.0%) | Filed for bankruptcy in May-23 | | |
| Titanium Dioxide Average | 11.4% | (32.6%) | (21.2%) | 4.0% | (26.9%) | (22.9%) | (0.1%) | (19.2%) | (19.3%) |

...the industry is in a bad place. So I think there's an element of the loss making of this industry that is going to be governed by the how companies manage their balance sheets.

- John D. Romano, Co-CEO & Director, Tronox Holdings

Note: Total organic revenue growth may reflect KPMG estimates based on availability of data. Quote edited for clarity.

Sources: Capital IQ, Company filings



Summary

- Overall, our analysis shows continued weakness across the Chemicals and Specialty Materials universe in Q2
- Volumes remained soft, however this quarter, companies were not able to offset weakness in volume with price increases
- Key themes included overall lack of economic momentum, softening of natural gas prices and continued softness in major end-markets, all contributing to a decline in the top-line
- An increasingly troubled economic environment in China and continued softness in Europe contributed to the decline in volumes
- While many companies noted that destocking had run its course, some industry participants continue to experience destocking in various pockets (such as electronics, construction and consumer products)
 - Destocking continued to cast uncertainty on true underlying demand from these end-markets
- **While the outlook for volumes and organic growth remains uncertain, we have observed some positive signs including (counter-intuitively) a modest uptick in M&A activity**



Vijay Balasubramanian
Managing Director
Tel: (551) 588-1628
vijaybala@kpmg.com

Ryan Marciniak
Vice President
Tel: (347) 931-0757
rmarcinik@kpmg.com



Important notice

The information contained in this newsletter is of a general nature and is not intended to address the circumstances of any particular individual or entity including their investment objectives or financial needs. In preparing this newsletter, we have relied upon and assumed, without independent verification, the accuracy and completeness of all information available from public sources. Although we endeavor to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. No one should act or rely on the information in this newsletter without appropriate professional advice after a thorough examination of the particular situation. The information contained in this newsletter does not constitute a recommendation, offer, or solicitation to buy, sell or hold any security of any issuer. Past performance does not guarantee future results

©2023 KPMG Corporate Finance LLC, a Delaware limited liability company. Member FINRA/SIPC. KPMG Corporate Finance LLC is a subsidiary of KPMG LLP, a Delaware limited liability partnership and a member firm of the KPMG global organization of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. KPMG Corporate Finance LLC is not engaged in the practice of public accountancy. All rights reserved.