

A large industrial crane is shown in the process of lifting a heavy concrete beam. The crane's structure is made of orange metal, and the beam is a light grey color. The scene is set against a clear blue sky. In the foreground, there is a red metal structure, possibly a bridge or a large building under construction, with several vertical poles. The overall image conveys a sense of heavy industrial work and construction.

Materials

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Overview

- Makes up about 2.5-3% of the entire S&P 500
- **The various industries within the sector**
 - Chemicals (specialty, commodity, agricultural)
 - Metals & Mining (steel, aluminum, gold, copper)
 - Containers & Packaging
 - Construction Materials
 - Paper & Forest Products
- **Largest companies within these different industries**
 - Linde plc (LIN)
 - Sherwin-Williams (SHW)
 - Freeport-McMoRan (FCX)
 - Air Products and Chemicals (APD)
 - Newmont Corporation (NEM)
 - DuPont de Nemour (DD)

Year-to-date (2025): The Materials sector is up about **6.3%**, this is mainly due to interest rates going down.

Quarter-to-date (Q2 2025): Small pullback of **-1.1%**, mainly due to Chinese demand and overall commodity price volatility.



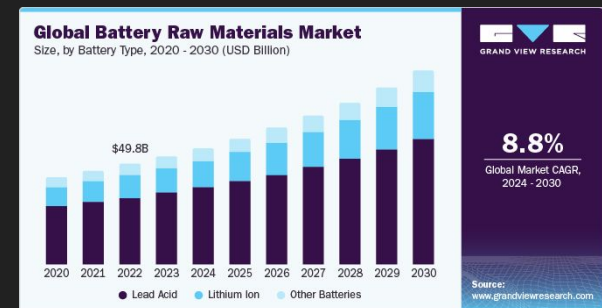
Business Analysis

● Demand Analyzation

- Life Cycle: The sector is ultimately in a mature phase and shows a decent amount of growth in the future
- Business Cycle: Currently in a cyclical cycle. Due to trade and other trends in the market, the materials sector seems to be volatile.
- External Factors: Interest rates, commodity prices, ESG policies, and trade wars.
- Users and Geography: The users are typically big time industrial manufactures, construction, automotive, and even agricultural sectors.
- Input and Outputs: a lot of the inputs are based around raw materials, chemicals, and energy. The outputs are processed materials used to finalize goods.

● Supply Analyzation

- New capacity additions
 - Several companies have stated that they are focusing a lot more on battery materials because there is a surge in EV sales.
 - Supply chains are seeing a lot more improvement since COVID, but still face a lot of environmental regulations which is limiting the overall production for some of these main producers.



Business Analysis

- Profitability and Pricing

- Interaction of supply and demand: Since the business cycle is cyclical, prices for supply and demand are commodity driven. For instance if supply starts to tighten and the overall demand grows, then the margins will ultimately expand.
- Sector Concentration: The sector is somewhat concentrated. You have the extremely large companies such as Sherwin-Williams (paints), Linde (gases), and BASF(chemicals), that take up a good chunk of the sector.
- Ease of entry is very low due to it being a capital intensive sector and also having to manage all the regulations can be very tough.
- Customer and supplier strength is strong. Everybody needs materials to build finished goods.
- Local competition is very intense. The customers will go to the supplier with the lowest costs, so companies are constantly battling with each other on pricing. Global competition on the other hand is extremely intense. Other countries are finding new ways every day, to lower costs and over all emissions.
- There are some materials that also face substitution. Ex: paper straws



Economic Analysis

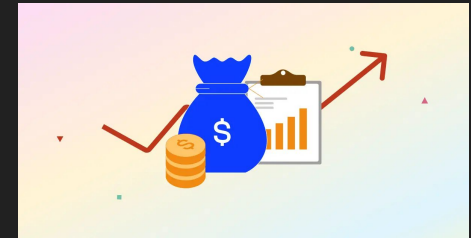
The materials sector as a whole is extremely sensitive to macroeconomic cycles. The sector has also shown very strong historical patterns in correlation with several economic indicators. Some of those indicators are:

- **Commodity Prices**: Prices for lithium, base metals, energy, etc, are closely tied with the earnings for producers (ex. FCX)
- **Interest Rates**: Higher rates slow the over construction, putting most of the demand on materials. This is an inverse correlation.
- **Industrial Production**: When there is a very high industrial output this tends to mean that there is an increase in overall demand for metals and chemicals. There is a very strong correlation here.
- **Housing Startups**: These startups drive the overall demand for construction materials (paint, wood, metals). This is one of the leading indicators for the power house, Sherwin-Williams.



Financial Analysis

- **Earnings Growth:** 3-5 year EPS growth rate of sector (8.9%) roughly same as S&P 500 (9.19%)
 - Sherwin Williams expects 11.6% earnings growth in 2026
- **Sales Growth:** Recent sales growth rate (3%) lower than S&P 500's 4%
- Sector underperformed S&P 500 significantly over last 5-10 years
- **Margins:** slight contraction from operating margin 5-year average (11%) to 8-9% recently
 - Select companies improving margins from increased operational efficiency (Sherwin-Williams)
 - High margin sub-industry: metals/mining
 - Generally lower than S&P margin averages
 - Margin spread between Materials and S&P 500 is widening, favoring broader market
- Sector is cyclical in terms of Free Cash Flow
 - FCF generation during periods of economic growth, net user of cash during economic downturns



Financial Analysis

Sector	◆	Today* ◆	1-month ◆	3-month ◆	YTD ▲	1-year ◆	5-year ◆	10-year ◆
S&P 500 Industrials Sector		+0.71%	+0.85%	+9.53%	+8.72%	+18.64%	+107.38%	+154.43%
S&P 500 Communication Services Sector		+1.53%	+6.13%	+11.05%	+7.24%	+20.53%	+101.52%	+139.95%
S&P 500 Utilities Sector		-0.50%	-0.42%	+2.67%	+6.22%	+15.90%	+37.28%	+91.15%
S&P 500 Consumer Staples Sector		+0.02%	-0.24%	+3.06%	+4.59%	+9.14%	+49.22%	+83.08%
S&P 500 Materials Sector		+0.78%	+2.18%	+2.71%	+4.58%	-0.81%	+59.09%	+77.63%
S&P 500 Financials Sector		+1.13%	-1.55%	+4.12%	+4.24%	+24.36%	+109.86%	+150.34%
S&P 500		+0.94%	+1.96%	+6.99%	+2.58%	+11.07%	+96.74%	+189.44%

Valuation Analysis

- Current P/E of 23.6 above 5-year average of 19.6
 - Cyclical sector
 - Commodity prices and industrial demand have weakened recently → lower earnings
 - Stock prices have stayed relatively flat
 - Investors optimistic about macroeconomy in 2025
 - Expected future earnings growth

Sector Valuation

Absolute Basis	High	Low	Average	Current
P/E	32.2853	11.8996	19.6648	23.6325
P/B	4.0876	1.6798	3.0117	2.8006
P/S	2.8617	1.2742	1.8738	2.1681
P/EBITDA	16.0964	6.9227	10.5649	11.4697

Valuation Analysis

Relative to SP500	High	Low	Average	Current
P/E	1.2079	0.702	0.9324	0.976
P/B	1.3097	0.5229	0.8673	0.5758
P/S	0.9778	0.6801	0.8308	0.7517
P/EBITDA	1.1336	0.6401	0.8896	0.8312

- Relative to the S&P 500, current valuations are only significantly lower in P/B
 - Materials sector could be undervalued
- Valuations lower than market historically
- Valuations likely stable or expand modestly if macro conditions improve
 - Positive signs:
 - Interest rates falling
 - China unveiling economic stimulus plans

Recommendation

- Slight underweight of Materials in portfolio relative to S&P 500
- **Positives**
 - Inflation hedge: materials benefit from rising input prices (copper, lithium, steel) and can protect portfolio in inflationary periods
 - Global clean energy demand: increases demand for industrial metals and specialty chemicals
 - Commodity supply tightness: more pricing power for materials producers and higher margins as demand increases
- **Risks**
 - Cyclical exposure: macroeconomic future is unpredictable, and the sector is volatile
 - Interest rate sensitivity: materials are capital-intensive; if interest rates don't continue to fall, it may compress free cash flow and valuations
 - Environmental and regulatory pressures: permitting issues and emissions restrictions can hinder operations or increase costs (mining and chemicals)

Underweight

- Paper & Packaging: long-term declines in demand as e-commerce grows
- Construction Materials: decline in building permits suggests slowdown in future construction



Overweight

- Industry Metals & Mining: specifically copper/lithium as demand and margins increase
- Specialty and Commodity chemicals: could rebound if interest rates continue to fall