

# Orr & Boss Newsletter

## Summary

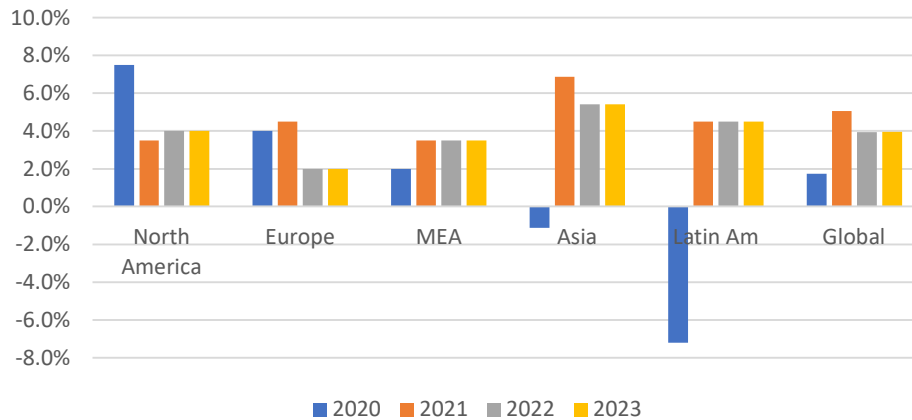
- Our year-end estimates are that the global coatings market in 2020 declined by 2.6% in value terms. Decorative coatings were estimated to have grown nearly 2% globally and non-decorative coatings were estimated to have declined by nearly 6.5%.
- Our expectation for 2021 remain for a relatively strong recovery with the global coatings market expected to grow nearly 6% in 2021. Decorative coatings are expected to grow by 6.5%. Asia will be the strongest growing market forecasted to register a growth rate of 7% in 2021.
- Economic activity and the coatings market have returned to pre-pandemic levels in China and are now growing. Industrial production was up 7% in Q4 and Construction Activity was up an estimated 5.8% from Q4 2019 levels. This level of growth is expected going forward.
- For 2022 and 2023, we expect the global coatings market to grow by 4%. The market forecast for 2022 and 2023 are given at the end of the newsletter.
- The housing markets in North America remain strong. Fourth Quarter existing home sales were up 26% versus Q4 2019. For the year existing home sales were up 4.5%. The mortgage data suggests that the surge in home buying in the US has leveled off with mortgage for new purchases declining by about 3% in December versus November, but they are still up over 20% from December 2019 levels. Thus, we expect homebuilding and sales of existing home sales to remain strong.
- Within Europe, construction activity is gradually recovering but is still below pre-pandemic levels.
- DIY sales remain strong in Q4. We expect them to be up in Q4 by about 20% in North American and 10-15% in Europe. Going into 2021, we expect DIY sales to be up 10-15% in North American and 5-10% in Europe in Q1 before leveling off to more normalized year over year growth of 1-3% in both regions.
- Commercial construction activity has declined below last year's level for the first time in November and we expect the decline to continue. As mentioned in last month's newsletter, US loans for commercial mortgages were down nearly 50% in Q2 and Q3 last year. Similar trend is playing out in Europe and elsewhere in the world.
- Industrial production is gradually returning in both North America and Europe but is still remain about 3-4% below pre-pandemic levels.
- Automotive sales are expected to be up about 12% this year but they still end the year below 2019 levels.

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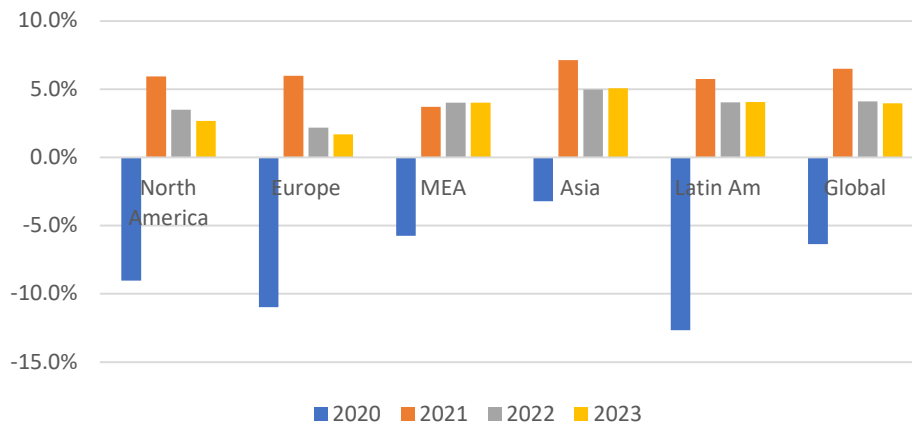
## Forecasted Values:

The two graphs below give our 2020 estimates and forecasted values for 2021-2023 for the decorative coatings and non-decorative industrial coatings segments. The Appendix to this newsletter provides the segment by segment growth rates.

**Estimated Decorative Coatings Value Growth Rates**



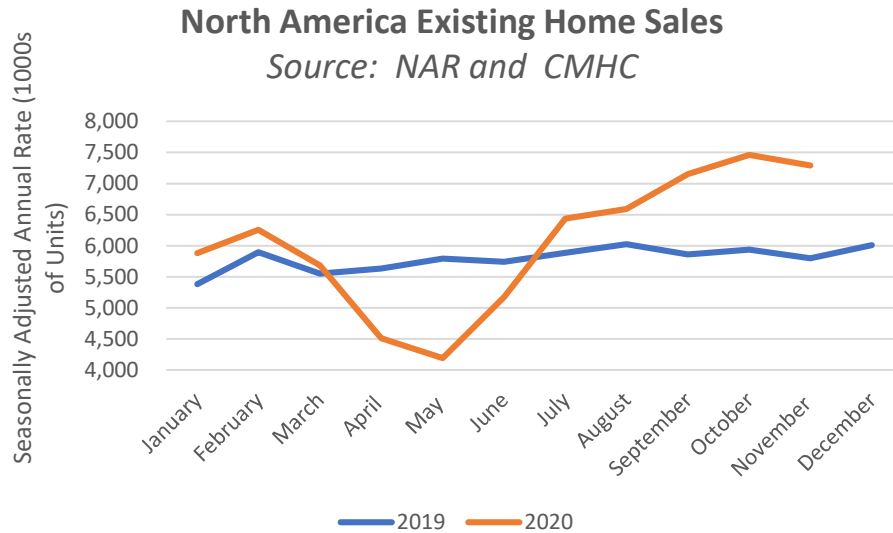
**Estimated Non-Decorative Industrial Coatings Value Growth Rates**



## Decorative Coatings

Decorative coatings along with packaging coatings were the bright spots of the 2020 coatings market. Strong DIY sales along with a strong North American housing market led to the decorative coatings market being up in 2021.

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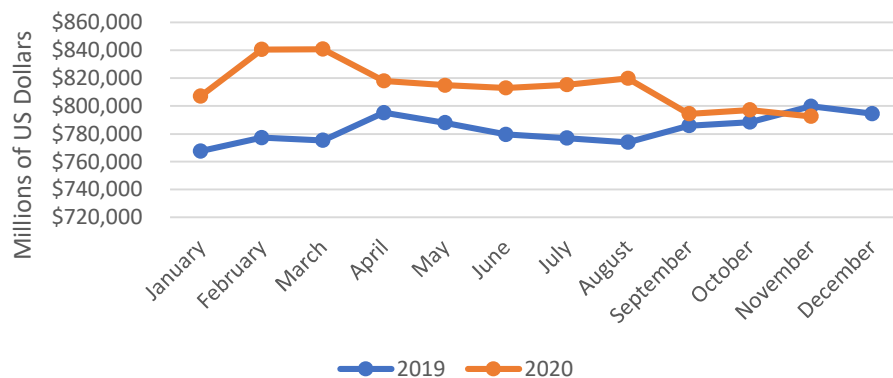


We expect sales of existing home sales to remain strong in Q1 which should maintain healthy level of DIY and residential contractor sales.

Commercial construction declined in November for the first time below 2019 levels. We expect this decline to continue going forward. Commercial construction accounts for about 20% of the decorative market so the decline that we expect in this market will weight down the decorative coatings market in 2021; although, the strong DIY and residential sales will still result in a relatively strong decorative coatings market for 2021.

### United States Commercial Construction Value Put in Place

*Source: US Census Bureau*

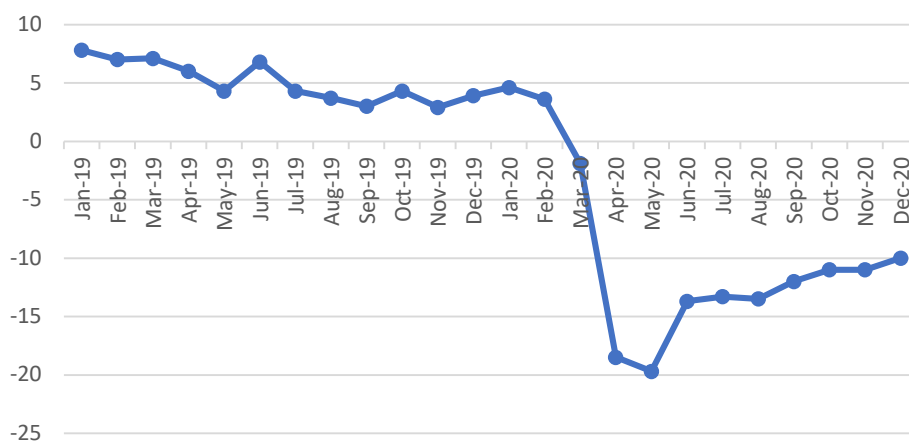


Within Europe, construction activity is gradually returning but is still well below pre-pandemic levels. At the current rate, it will likely not return to 2019 levels until 2022. Despite this the decorative coatings market in Europe is not so dependent on new construction and the repaint market (especially the DIY portion) remains strong.

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### Euro Business Climate Construction Index

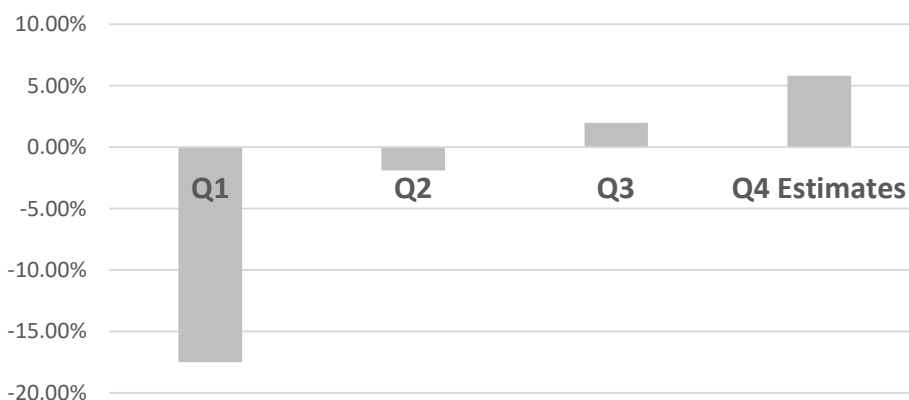
Source: The European Commission



Within China, the construction coatings markets is returning and is above 2019 levels. GDP growth from construction was up 5.8% in Q4. Going forward, we expect it to register this level of growth.

### GDP Value Added From Construction

Source: China National Bureau of Statistics and Orr & Boss Estimates

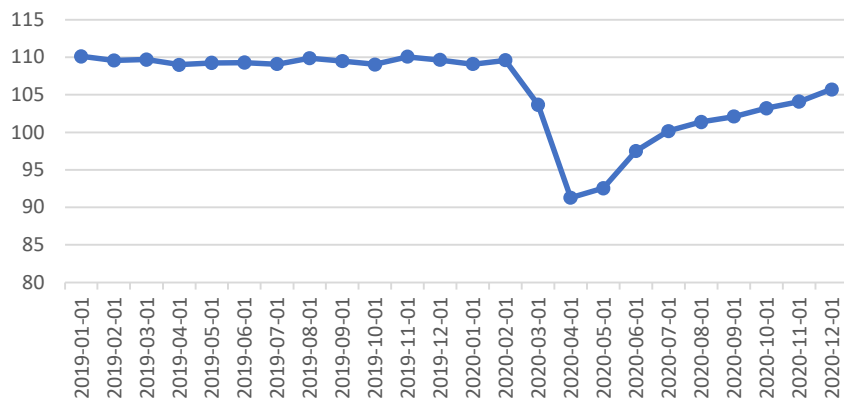


### Industrial Coatings Markets:

Industrial coatings activity has seen growth on a monthly basis in both the US and Europe but is still below pre-pandemic levels. The expectation is that will continue to grow slowly throughout 2021 and will return to pre-pandemic levels in 2022.

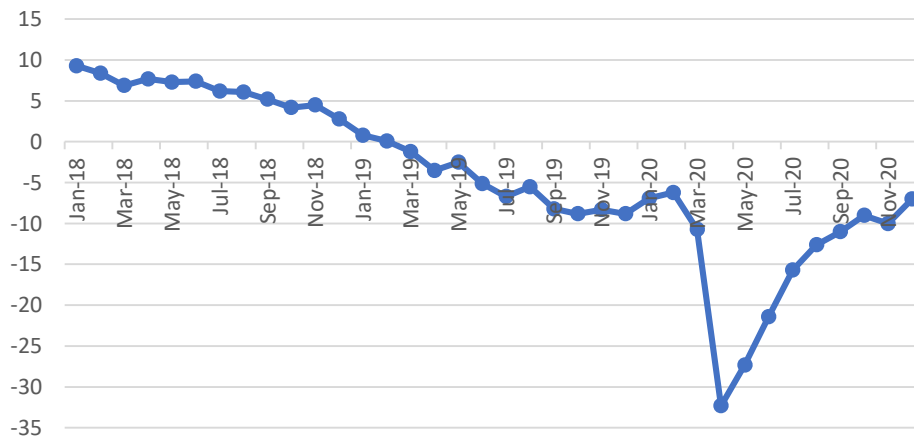
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**United States Industrial Production Index**  
*Source: St Louis Federal Reserve*



The situation is similar in Europe where industrial production is slowly returning to 2019 levels.

**EU Business Climate Industrial Index**  
*Source: European Commission*



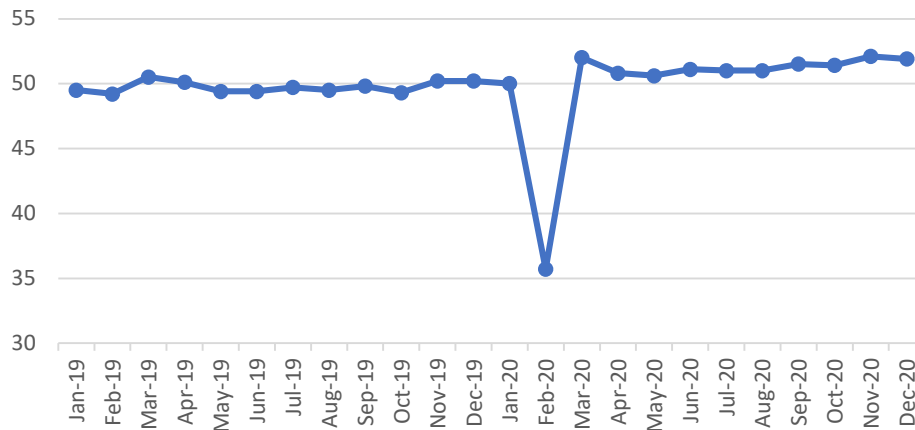
Within China, manufacturing activity has returned strongly. Industrial Production is actually above pre-pandemic levels by about 7% and the expectation is that 2021 will continue to be strong.

The Chinese Purchasing Managers Index remains above 50, signaling expansion. Industrial production

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## China Purchasing Managers Index

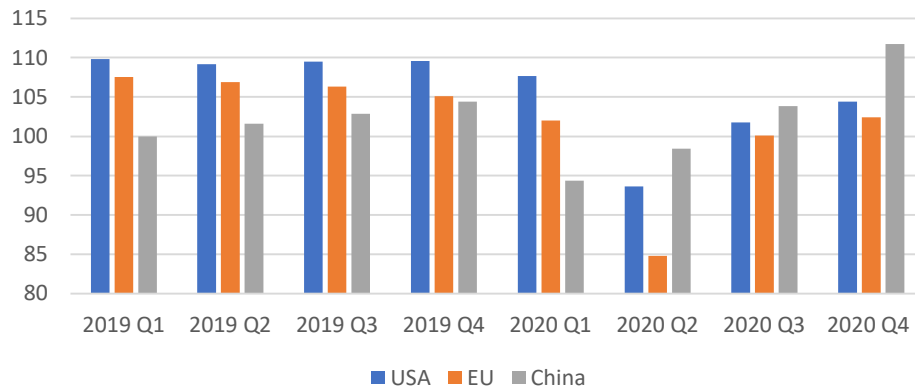
Source: China National Bureau of Statistics



The graph below provides overall industrial production for the US, EU, and China (the three major global coatings markets). Of these three, China is the only one where industrial production is exceeding pre-pandemic levels in 2020 Q4.

## US, EU, and China Industrial Production

Source: St Louis Federal Reserve, OECD, and China National Bureau of Statistics



The industrial production values are good indicator of General Industrial and Powder coatings markets.

### Automotive Markets:

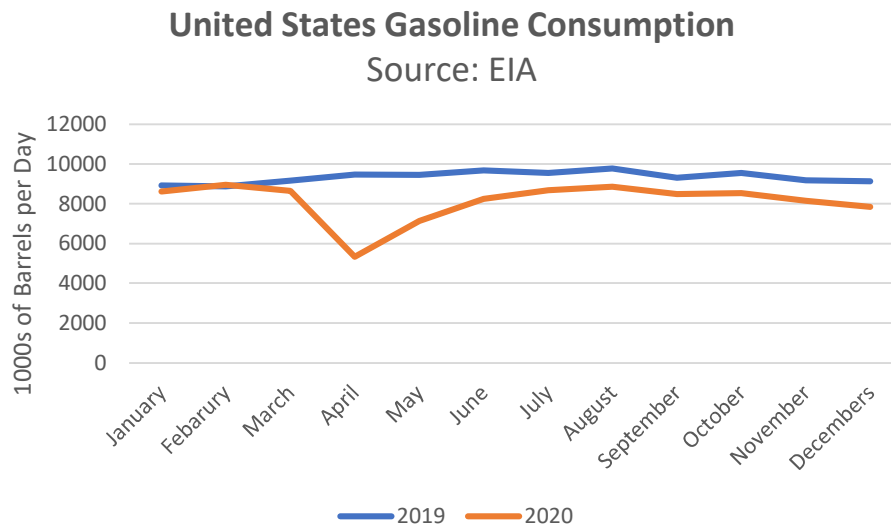
Global automotive sales have rebounded and returned to pre-pandemic levels in Q4 on a global basis. Production and sales are still expected to be down 15% globally for the entire year of 2020 before rebounding by 12% in 2021. For the year, sales were down about 15% in North America. In 2021, we expect the North American automotive market to recover most of its losses from 2020 but still not reach its 2019 sales until 2022.

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Within Europe, car sales declined by 10% in Q4 2020 versus Q4 2019.

Reimplementation of social distancing requirements resulted in significant sales drops in France, Italy, and Spain. For the full year 2020, sales declined by 25%. In 2021, the market is expected to recover about 50% of its decline by growing at a forecasted rate of about 13% in 2021 versus 2020.

Growth in the refinish market is very much tied to traffic volumes and traffic volumes remain down. In the US, gasoline consumption is down 12% versus 2019 levels in December. With the continued surge in virus cases, we would expect this level of traffic volume to continue through Q1.



Within Europe, there are similar trends related to traffic patterns with overall traffic down by 10% or more. At one point in the fall, traffic was returning faster in Europe than in North America but the reimplementation of lockdowns have resulted traffic falling again.

Within Asia, traffic patterns have returned to pre-pandemic levels in China. But in other Asian cities like Tokyo, Mumbai, Jakarta, Kuala Lumpur, traffic patterns remain below pre-pandemic levels and are similar to the traffic patterns in the US and Europe.

## Appendix

## 2020-2023 By Segment Growth Rates:

## 2020 Global Coatings Market Value Growth

	North America	Europe	MEA	Asia	Latin America	Global
Deco	7.5%	4.0%	2.0%	-1.1%	-7.2%	1.7%
Auto OEM	-18.0%	-20.0%	-8.0%	-8.6%	-22.4%	-14.4%
Auto Refinish	-11.0%	-23.0%	-0.5%	-14.7%	-16.0%	-15.7%
Medium & Heavy Duty	-28.0%	-18.0%	-0.5%	5.5%	-19.2%	-9.1%
Motorcycle	-9.0%	-3.0%	-0.5%	-11.4%	-15.0%	-10.4%
Rail	-9.0%	-5.0%	-0.5%	-8.6%	-15.0%	-7.7%
Trailer	-24.0%	-13.0%	-0.5%	-11.8%	-15.0%	-14.8%
Aerospace	-28.0%	-23.0%	-5.0%	-15.2%	-16.0%	-22.9%
Powder	-8.0%	-8.0%	-0.5%	2.6%	-8.0%	-1.0%
Wood	-3.0%	-8.0%	-0.5%	-5.6%	-5.9%	-5.8%
Coil	-3.0%	-4.0%	-0.5%	-1.6%	-9.3%	-2.8%
Rigid Can Packaging	5.0%	5.0%	4.0%	5.8%	4.0%	5.2%
Flexible Packaging	7.0%	7.5%	4.5%	4.7%	4.5%	5.5%
GI	-8.0%	-9.5%	-0.5%	-2.8%	-8.0%	-5.0%
IM and PC	-8.0%	-8.0%	-13.0%	-3.5%	-10.0%	-5.8%
Marine	-1.0%	-1.0%	-4.0%	-2.5%	-10.0%	-2.2%
Total	-0.1%	-2.9%	-2.1%	-2.5%	-9.2%	-2.6%

## 2021 Global Coatings Market Value Growth

	North America	Europe	MEA	Asia	Latin America	Global
Deco	3.5%	4.5%	3.5%	6.9%	4.5%	5.1%
Auto OEM	18.0%	15.0%	9.0%	15.0%	10.0%	14.8%
Auto Refinish	7.0%	12.0%	4.0%	5.8%	7.0%	8.0%
Medium & Heavy Duty	12.0%	9.0%	3.0%	6.0%	5.0%	7.4%
Motorcycle	12.0%	7.0%	3.0%	7.2%	5.0%	7.5%
Rail	6.0%	7.0%	3.0%	6.4%	5.0%	6.1%
Trailer	6.0%	7.0%	3.0%	5.4%	5.0%	5.8%
Aerospace	6.0%	7.0%	3.0%	7.4%	5.0%	6.3%
Powder	5.5%	6.0%	4.5%	6.8%	5.5%	6.4%
Wood	4.5%	5.0%	3.5%	11.7%	4.5%	9.0%
Coil	4.5%	7.0%	4.0%	6.9%	4.0%	6.1%
Rigid Can Packaging	3.0%	3.0%	4.0%	5.2%	4.5%	4.0%
Flexible Packaging	6.0%	4.0%	7.4%	7.9%	4.0%	6.7%
GI	6.0%	5.0%	4.0%	8.6%	4.0%	7.4%
IM and PC	-3.0%	-3.0%	2.0%	2.7%	2.0%	1.3%
Marine	-1.0%	-2.0%	-4.0%	-3.2%	2.0%	-2.6%
Total	4.5%	5.1%	3.6%	7.0%	4.9%	5.8%



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## 2022 Global Coatings Market Value Growth

	North America	Europe	MEA	Asia	Latin America	Global
Deco	4.0%	2.0%	3.5%	5.4%	4.5%	3.9%
Auto OEM	6.0%	1.5%	4.0%	3.5%	5.0%	1.9%
Auto Refinish	4.0%	2.0%	4.0%	3.9%	3.0%	3.3%
Medium & Heavy Duty	3.0%	3.0%	3.0%	4.8%	5.0%	4.2%
Motorcycle	3.0%	3.0%	3.0%	5.6%	5.0%	5.1%
Rail	3.0%	3.0%	3.0%	5.8%	5.0%	4.5%
Trailer	3.0%	3.0%	3.0%	1.7%	5.0%	2.5%
Aerospace	3.0%	3.0%	3.0%	7.3%	5.0%	3.5%
Powder	3.5%	4.0%	4.5%	7.0%	5.5%	6.0%
Wood	2.5%	1.5%	3.5%	5.2%	4.5%	4.0%
Coil	2.0%	2.0%	4.0%	4.4%	4.0%	3.3%
Rigid Can Packaging	2.4%	3.0%	4.0%	4.6%	4.5%	3.7%
Flexible Packaging	3.0%	4.0%	7.2%	5.3%	4.0%	4.7%
GI	2.0%	1.5%	4.0%	5.2%	4.0%	4.0%
IM and PC	4.0%	2.5%	4.0%	6.4%	3.0%	5.3%
Marine	3.5%	2.5%	3.0%	2.5%	3.0%	2.7%
Total	3.8%	2.1%	3.8%	5.1%	4.3%	4.0%

## 2023 Global Coatings Market Value Growth

	North America	Europe	MEA	Asia	Latin America	Global
Deco	4.0%	2.0%	3.5%	5.4%	4.5%	4.0%
Auto OEM	4.5%	1.0%	4.0%	3.2%	5.0%	3.2%
Auto Refinish	2.5%	1.5%	4.0%	3.7%	3.0%	2.6%
Medium & Heavy Duty	2.5%	2.5%	3.0%	4.5%	5.0%	3.9%
Motorcycle	2.5%	2.5%	3.0%	5.3%	5.0%	4.8%
Rail	2.5%	2.5%	3.0%	5.6%	5.0%	4.2%
Trailer	2.5%	2.5%	3.0%	1.5%	5.0%	2.2%
Aerospace	2.5%	2.5%	3.0%	7.0%	5.0%	3.1%
Powder	3.0%	3.5%	4.5%	6.8%	5.5%	5.7%
Wood	2.0%	1.0%	3.5%	4.9%	4.5%	3.8%
Coil	1.5%	1.5%	4.0%	4.2%	4.0%	3.0%
Rigid Can Packaging	2.0%	2.5%	4.0%	4.4%	4.5%	3.4%
Flexible Packaging	2.5%	3.5%	7.2%	5.0%	4.0%	4.4%
GI	1.5%	1.0%	4.0%	4.9%	4.0%	3.7%
IM and PC	3.5%	2.0%	4.0%	6.1%	3.0%	5.1%
Marine	3.0%	2.0%	3.0%	2.2%	3.0%	2.4%
Total	3.4%	1.9%	3.8%	5.2%	4.3%	4.0%