# Applied Value
# Building Products Report

Industry Report Q4 2020

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# Applied Value Building Products Report

**Executive Summary & Introduction**

Financial Benchmarking

Industry Trends

Applied Value Presentation

# Introduction

## Applied Value's building products practice

Building products is a core practice area for Applied Value. We have supported a wide range of clients across the building products and construction value chain, and we own and operate two building products companies.

We generate client value and provide tangible results by applying an unbiased perspective, having a hands-on approach, and recognizing the importance of delivering value fast.

## About this report

This report tracks the financial performance of major players in the US building materials and products industry and covers sub-sectors across the full building products sphere, from raw materials companies to manufacturers of doors and pipes.

We hope you find this report insightful and we welcome feedback and opportunities for further discussion.

## Disclaimer

This report is based on the benchmarked companies' Q4 2020 earnings reports, performance beyond Q4 2020 is not considered. However, due to the current situation in several underlying raw materials price markets, in particular lumber and steel, we are making callouts throughout the report addressing notable price considerations going into Q1 2021.

# This report analyzes the financial performance of 36 building materials and products companies operating in the US, and covers 434 BUSD in revenue

**Building materials companies**

| Segment | Company | Revenue (LTM BUSD) | Country |
|---|---|---|---|
| Cement, aggregates and ready-mix concrete | CRH | 27.6 | |
| | Lafarge Holcim | 26.2 | |
| | Heidelberg Cement | 22.0 | |
| | CEMEX | 13.0 | |
| | Taiheiyo Cement | 8.5 | |
| | Vulcan | 4.9 | |
| | Martin Marietta | 4.4 | |
| Glass | Saint Gobain | 46.6 | |
| | AGC | 13.7 | |
| | Owens Corning | 7.1 | |
| Lumber and wood | Weyerhaeuser | 7.5 | |
| | UFP | 5.2 | |
| | West Fraser | 4.6 | |
| | Canfor | 4.3 | |
| | Resolute | 2.8 | |
| Steel | Arcelor Mittal | 53.3 | |
| | Nucor | 20.1 | |
| Bricks and masonry | Boral | 4.2 | |
| | Wienerberger | 4.1 | |

106.1 BUSD 67.4 BUSD 24.4 BUSD 73.4 BUSD 8.3 BUSD

***The report covers 279.5 BUSD of building materials revenue***

**Building products companies**

| Segment | Company | Revenue (LTM BUSD) | Country |
|---|---|---|---|
| Building envelope, roofing, siding flooring and insulation | Builders FirstSource | 8.6 | |
| | Beacon | 7.1 | |
| | Kingspan | 5.6 | |
| | Cornerstone | 4.6 | |
| Doors and windows | LIXIL | 12.9 | |
| | ASSA ABLOY | 10.7 | |
| | Sanwa | 4.2 | |
| | JELD-WEN | 4.2 | |
| | Masonite | 2.3 | |
| Piping | Forterra | 1.6 | |
| Kitchen and bath | Masco | 7.2 | |
| | Fortune Brands | 6.1 | |
| | Geberit | 3.4 | |
| HVAC-R, fire and security | Daikin | 23.6 | |
| | Johnson Controls | 22.1 | |
| | Carrier | 17.5 | |
| | Trane | 12.5 | |

25.9 BUSD 34.3 BUSD 1.6 BUSD 16.7 BUSD 75.6 BUSD

***The report covers 154.1 BUSD of building products revenue***

Source: Capital IQ

# The benchmarked companies operate across a wide array of building materials and products sub-sectors

**Building materials companies**

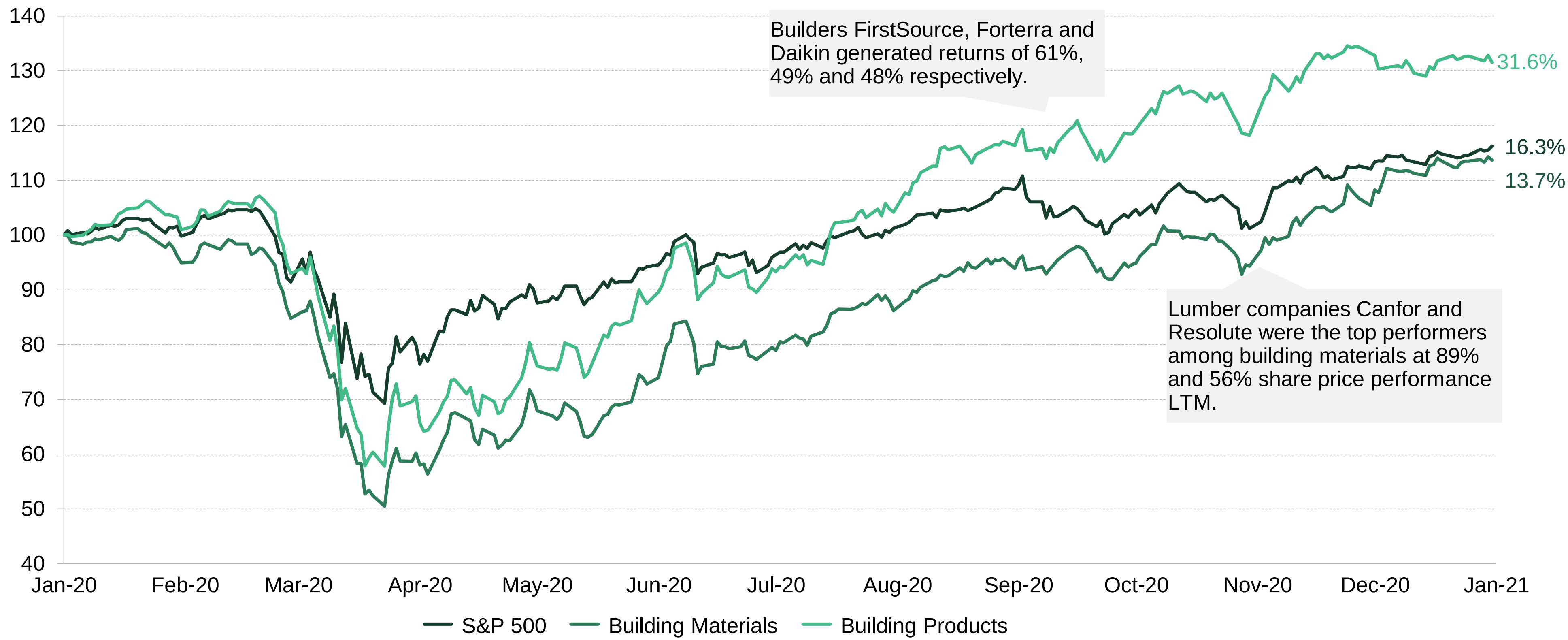
| Company | Description |
|---|---|
| CRH | Cement, aggregates, concrete and asphalt manufacturer |
| Lafarge Holcim | Manufacturer of cement, aggregates and ready-mix |
| Heidelberg Cement | Producer of cement, aggregates and asphalt |
| CEMEX | Produces cement, aggregates, ready-mix and clinker |
| Taiheiyo Cement | Global provider of cement |
| Vulcan | Producer of construction aggregates |
| Martin Marietta | Supplier of cement, aggregates and concrete |
| Saint Gobain | Manufacturer of glass and other construction materials |
| AGC | Global glass manufacturer |
| Owens Corning | The largest manufacturer of fiberglass composites |
| Weyerhaueser | Manufacturer of wood products |
| UFP | Manufacturer of wood and wood-alternative products |
| West Fraser | Producer of lumber, plywood and other wood products |
| Canfor | Producer of sustainable wood-building solutions |
| Resolute | Provider of wood and other forest products |
| Arcelor Mittal | Operates steel manufacturing and mining facilities |
| Nucor | Manufactures steel and steel products |
| Boral | Supplier of bricks and other construction materials |
| Wienerberger | The world's largest brick producer |

**Building products companies**

| Company | Description |
|---|---|
| Builders FirstSource | Manufacturer & supplier of various building products |
| Beacon | Supplier of roofing and other building products |
| Kingspan | Flooring, panels and insulation manufacturer |
| Cornerstone | Provides roofing, siding, insulation and more products |
| LIXIL | Window, door, external and interior products producer |
| ASSA ABLOY | Door and security solutions provider |
| Sanwa | Manufacturer of doors, windows and shutters |
| JELD-WEN | Producer of windows and doors |
| Masonite | Designs and manufactures interior and exterior doors |
| Forterra | Manufacturer of water and drainage pipes |
| Masco | Kitchen and bath products conglomerate |
| Fortune Brands | Portfolio of various kitchen and bath companies |
| Geberit | Manufacturer of various bath products |
| Daikin | Provider of air-conditioning solutions |
| Johnson Controls | Producer of HVAC, security and fire equipment |
| Carrier | HVAC-R solutions provider |
| Trane | Manufacturer of HVAC-R systems |

# Building products have outperformed the S&P500 LTM, Carrier was the best performing individual stock with a return of 214% following an April IPO

**Indexed share price performance**
1 Jan 2020=100




Source: Capital IQ
Notes:
1. Building products index includes all building products companies included in report
2. Building materials index includes all building materials companies included in report

# Executive summary

## Key takeaways

**Lumber has outperformed**

- Lumber companies have seen strong performance in Q4 2020 with an average revenue growth rate of 37% and significant increase in profitability.

**Surge in raw materials prices**

- Raw materials prices have been trending up since summer 2020, with lumber and steel seeing the largest price increases.
- The surging prices have had positive impact on revenue growth and profitability of the analyzed companies.

**Strong demand**

- Demand for building materials and products has been strong as the pandemic sparked a boom in new house construction and home renovations projects.
- The housing market has also seen strong demand and house prices have been rising across the US.

**Mixed revenue performance**

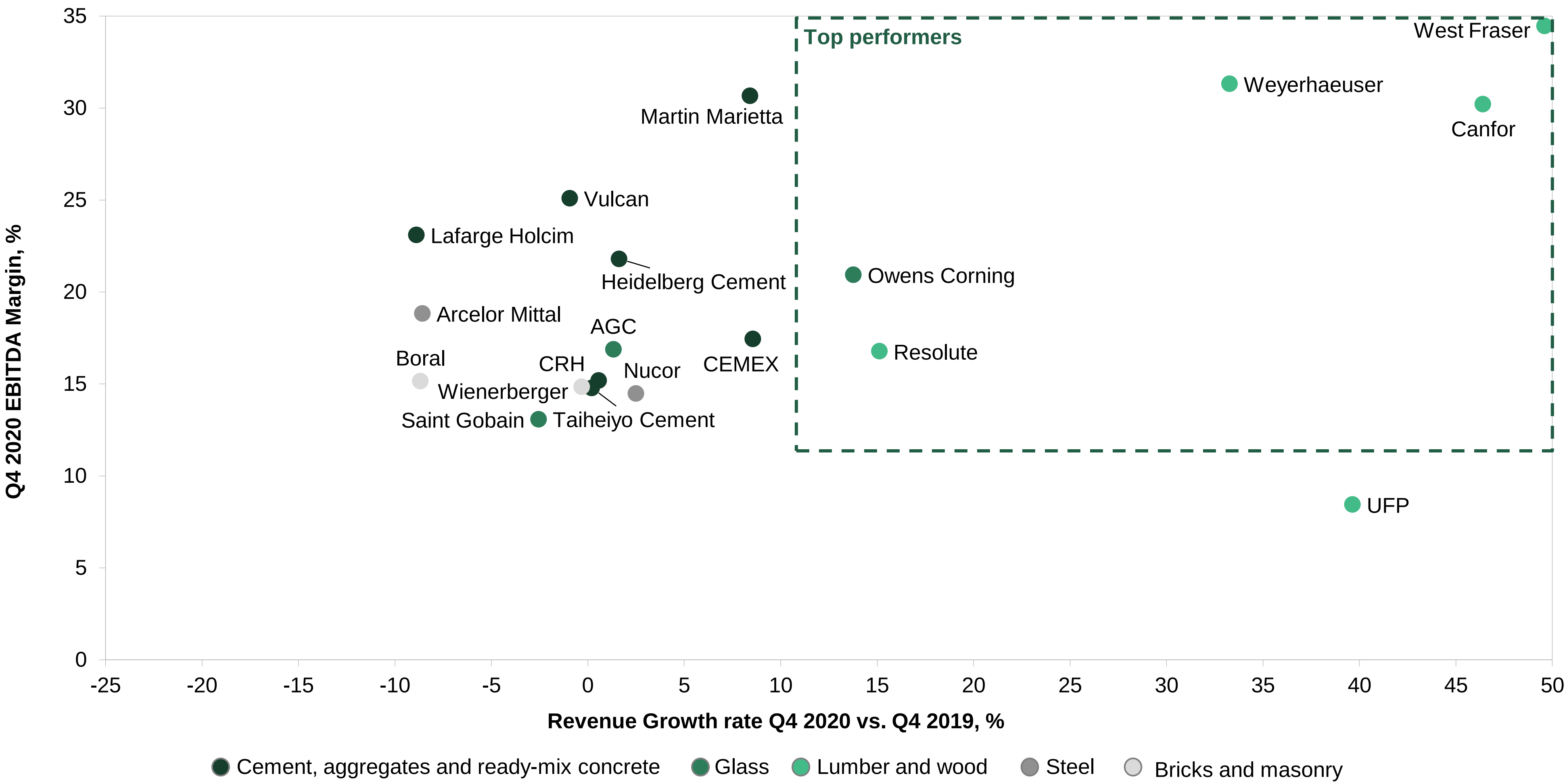
- The benchmarked players have seen mixed revenue growth with growth rates spanning from +50% to -20%.
- Segments that have seen direct effect of the rising raw materials prices have seen the strongest revenue performance.

**Improved profitability**

- The industry has seen improved profitability YoY, with lumber and steel companies seeing the largest improvements in EBITDA margin.

# Lumber companies have outperformed other building materials sub-sectors YoY. The highest profitability is found in lumber and cement companies

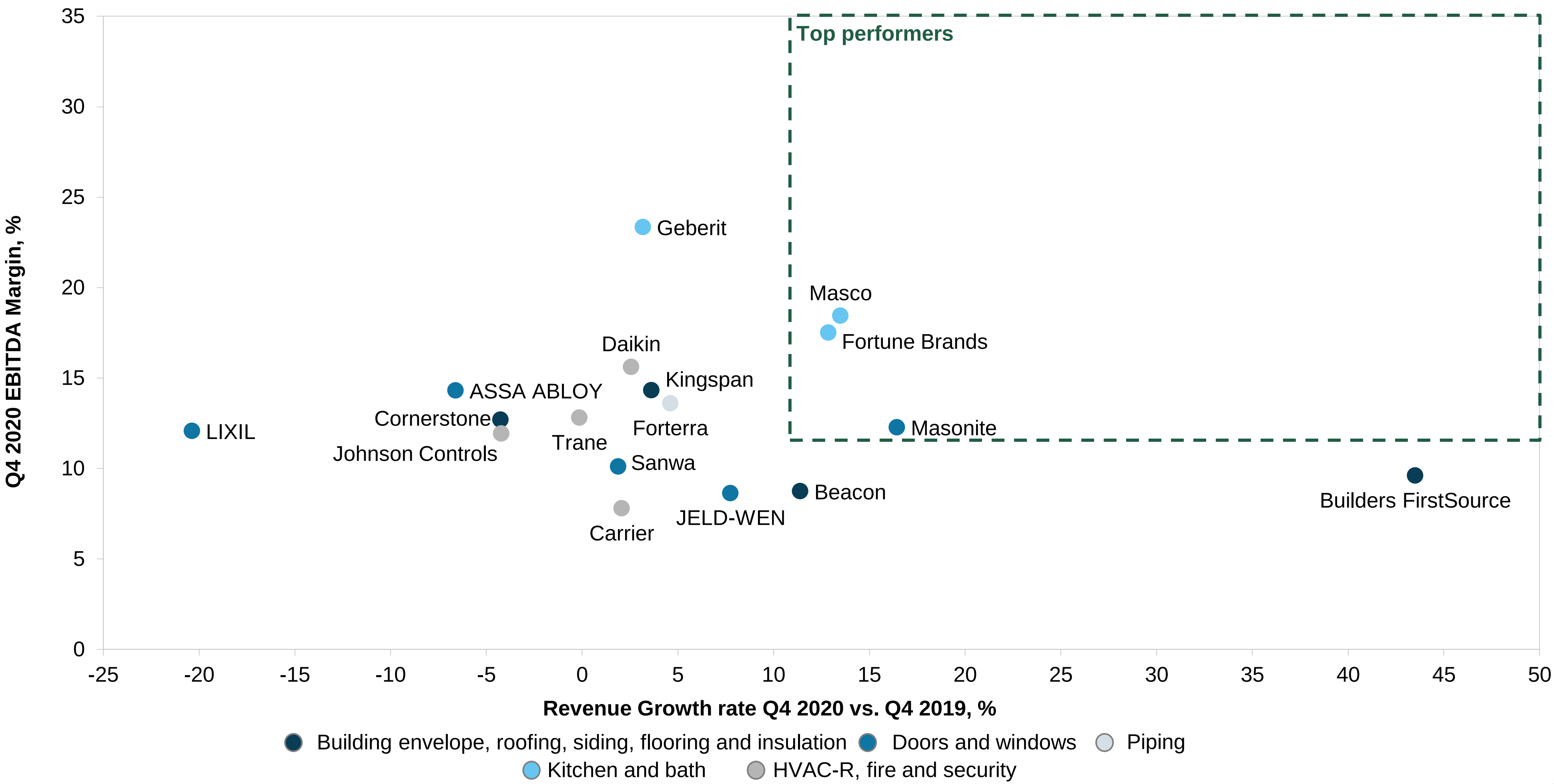
**Building materials revenue growth rate and EBITDA margin**




Source: Capital IQ, Applied Value analysis

# Kitchen and bath companies have outperformed other sub-sectors on profitability in Q4, Builders FirstSource saw the strongest revenue growth

**Building products revenue growth rate and EBITDA margin**




Source: Capital IQ, Applied Value analysis

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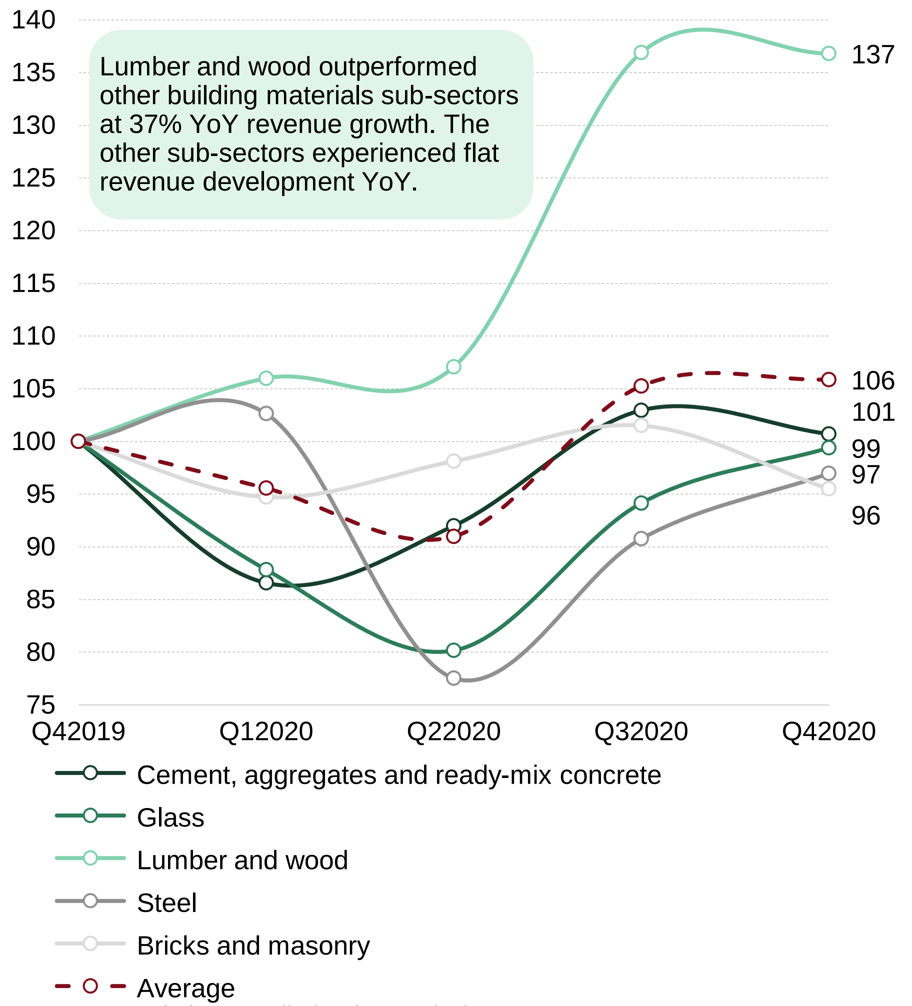
# Key takeaways

## Key financial takeaways from the building materials and building products sectors

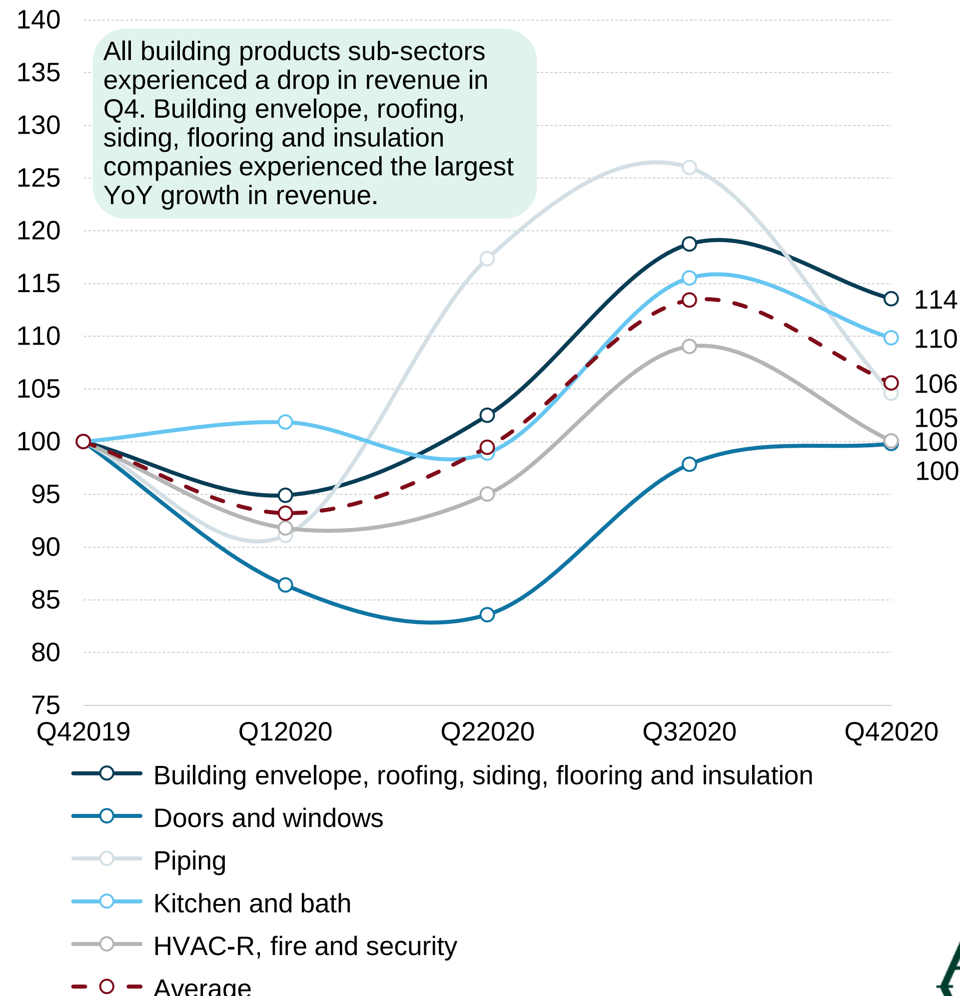
| | |
|---|---|
| **Revenue Growth** | › The industry has seen overall strong revenue growth Q4'20 vs. Q4'19, with building materials and building products growth rates at 10% and 5% respectively.<br>› Top performers in the building materials sector were lumber companies West Fraser, Canfor and UFP with YoY growth rates at 49.6%, 46.4% and 39.6%. The growth in revenue was driven by surging lumber prices during H2 2020.<br>› The high price of lumber also had positive effect on Builders FirstSource which outperformed other building products companies at 43.5% revenue growth. |
| **Profitability & Costs** | › The rising prices of lumber and steel have had positive impact on lumber and steel companies' EBITDA margins and both sub-sectors saw significant improvement in profitability during Q4. The rising raw materials prices led to strong revenue growth while costs remained stable.<br>› The benchmarked companies have managed to control costs, and the industry has seen a slight decrease in COGS over sales and SG&A over sales YoY. |
| **Return on Invested Capital** | › Building materials ROIC has been highly volatile L5Y and is highly affected by price movements in the underlying raw materials markets.<br>› Building products companies have achieved on average higher ROIC than building materials companies LTM at 8.4% vs. 6.1%<br>› Masco, Geberit and West Fraser are the top performers with ROIC of 25.6%, 21.7% and 18.3% respectively |

# Lumber has seen the strongest revenue development during 2020 following tight supply and strong demand in the market

**Building materials quarterly revenue development**
Index Q4 2019 = 100



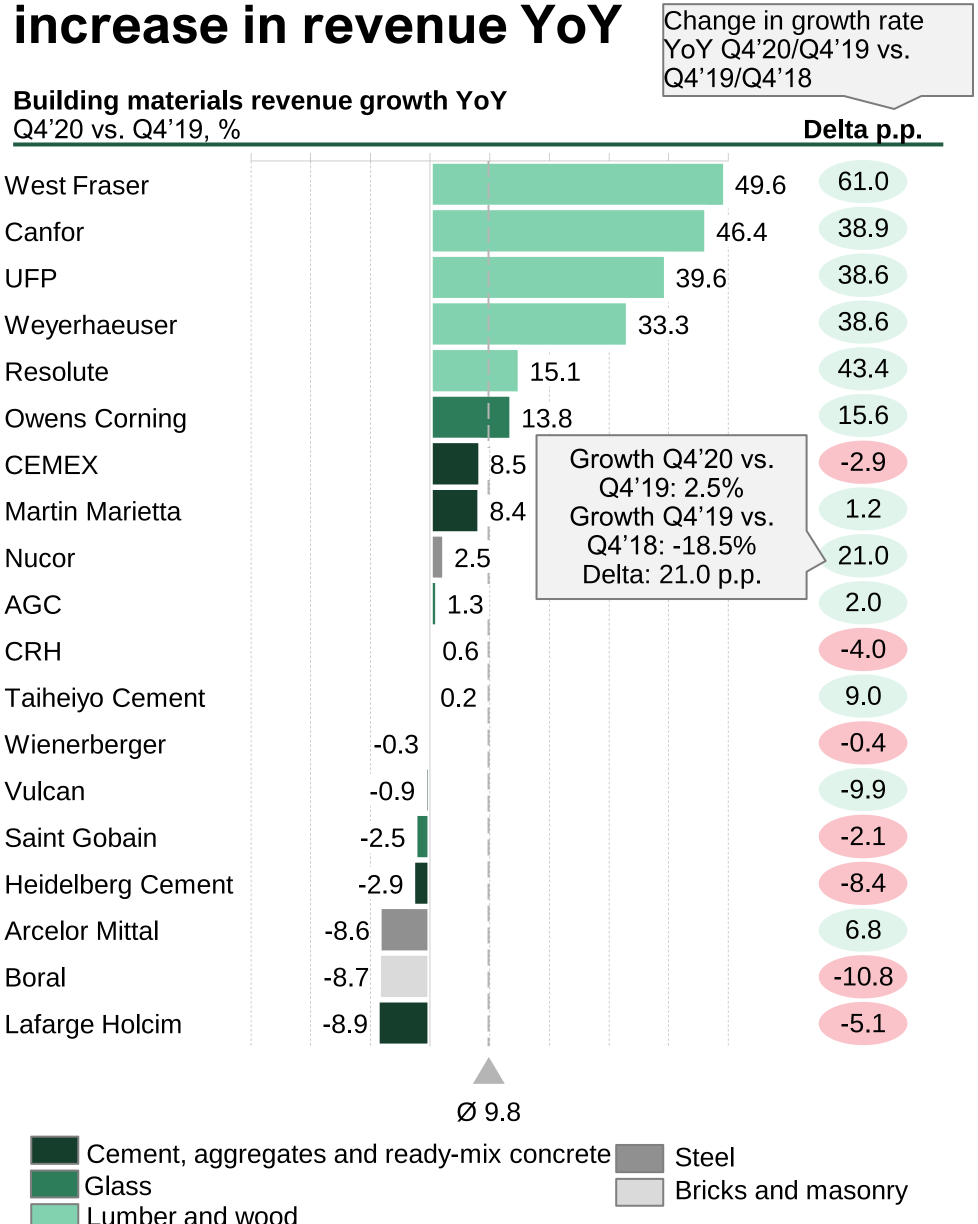

**Building products quarterly revenue development**
Index Q4 2019 = 100



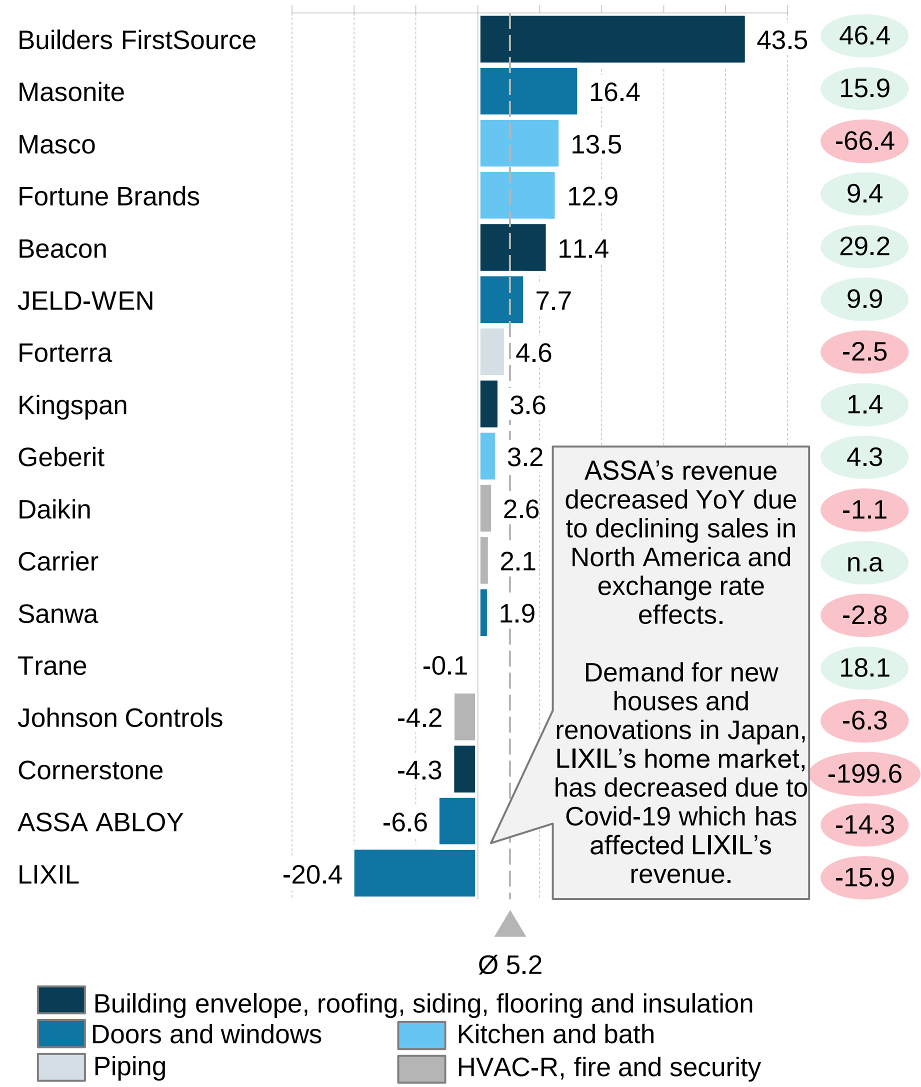

Source: Capital IQ, Applied Value analysis

# Lumber companies and Builders FirstSource have experienced significant increase in revenue YoY

**Building materials revenue growth YoY**
Q4'20 vs. Q4'19, %



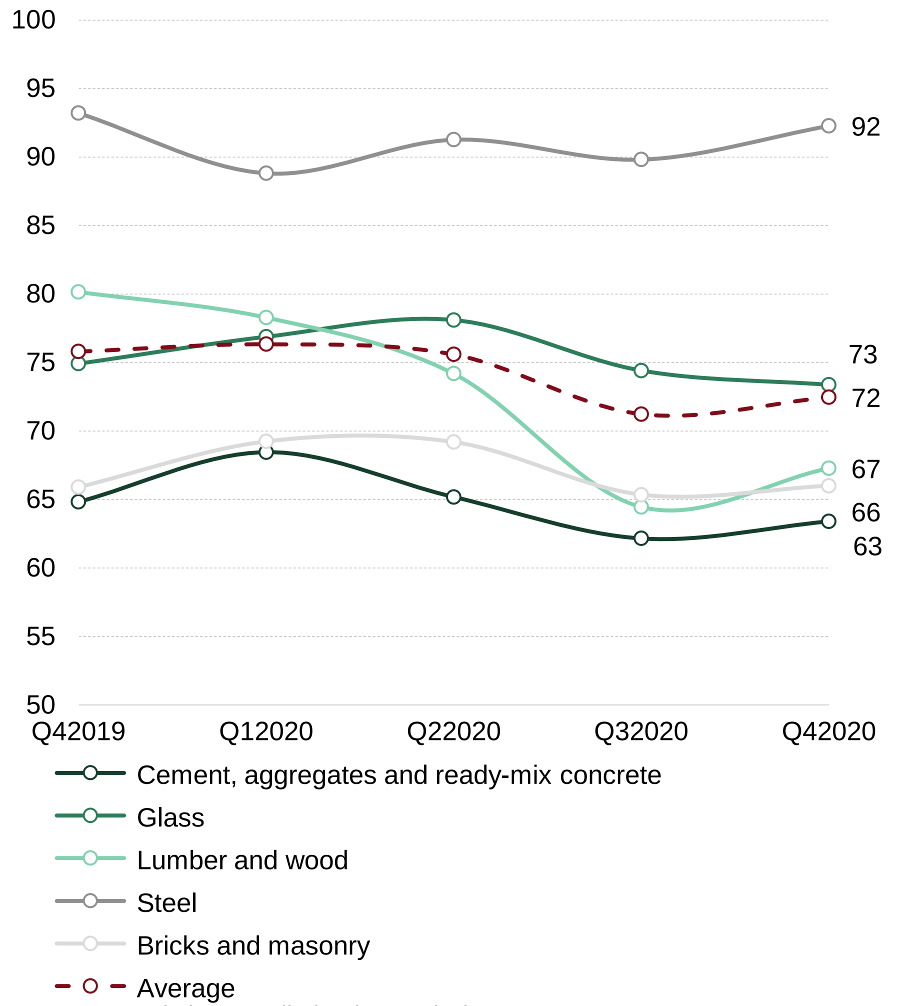

**Building products revenue growth YoY**
Q4'20 vs. Q4'19, %



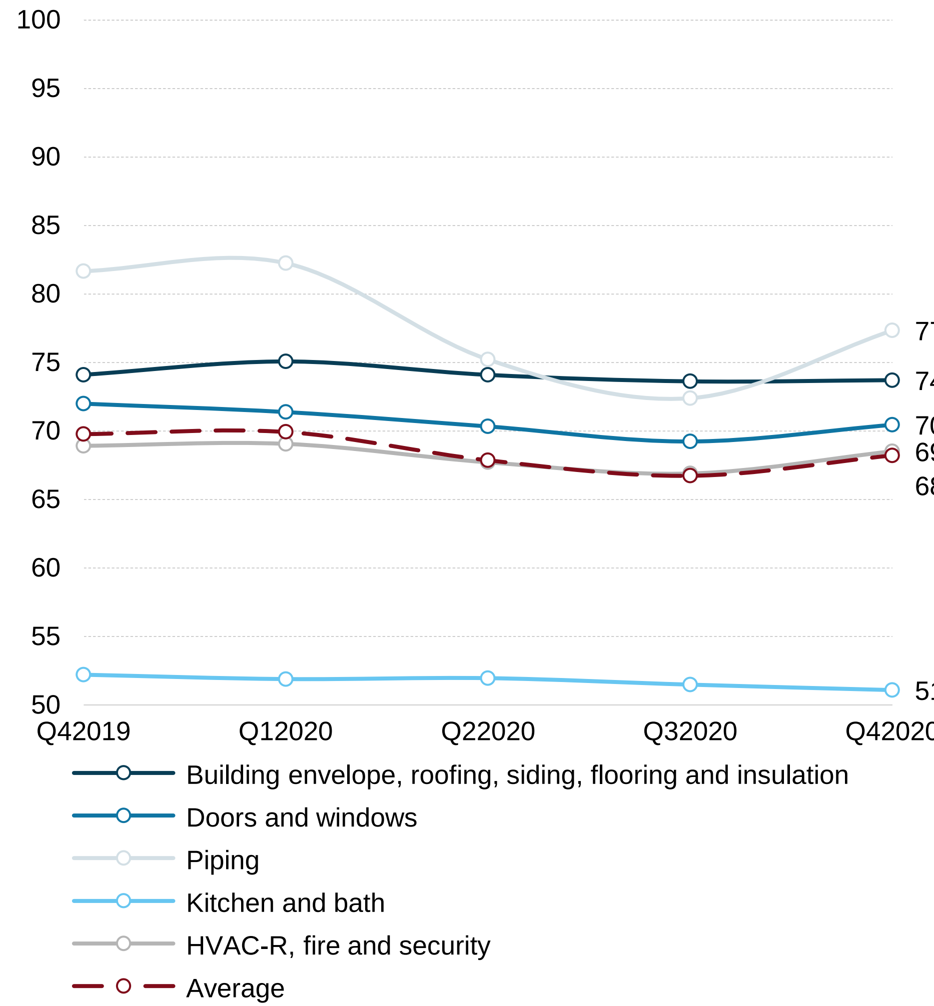

Source: Capital IQ, Applied Value analysis
Note: Heidelberg Cement data is based on half-year reporting

# COGS/sales have remained rather stable YoY, kitchen and bath has the lowest while steel companies face the highest COGS/sales

**Building materials quarterly COGS/sales development**
%



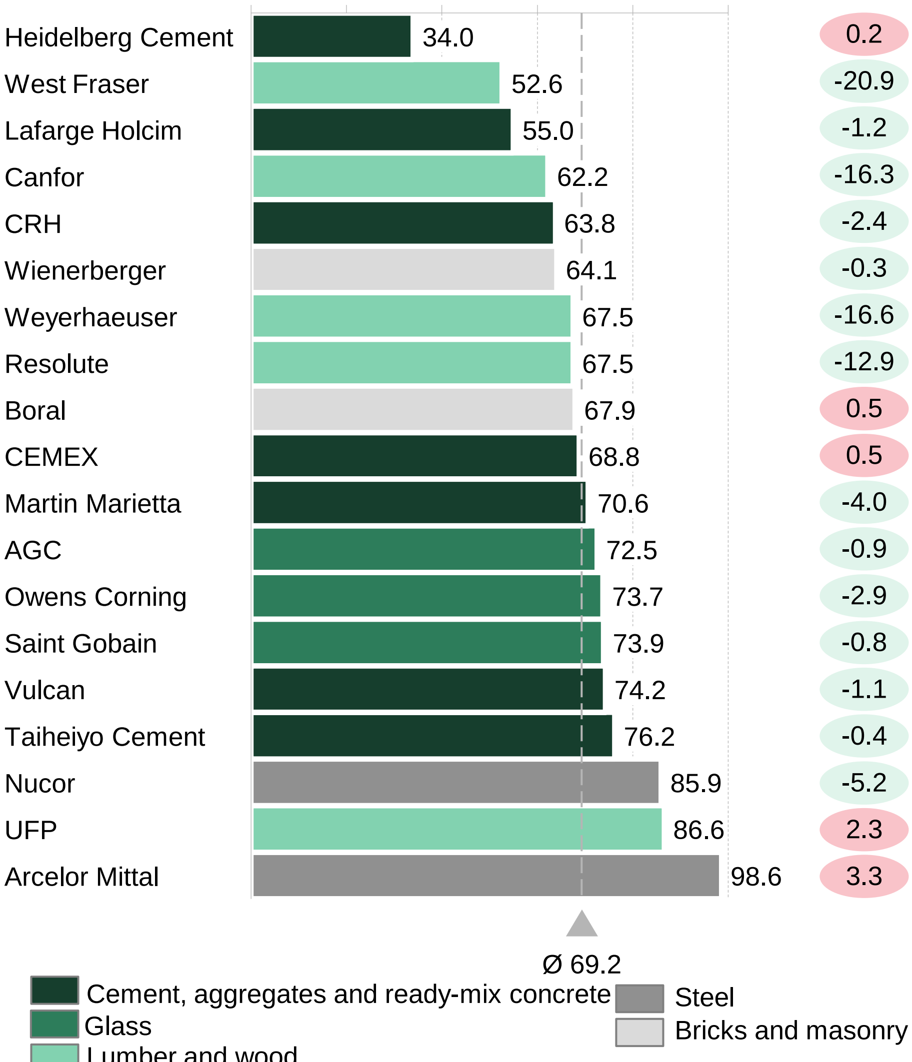

**Building products quarterly COGS/sales development**
%



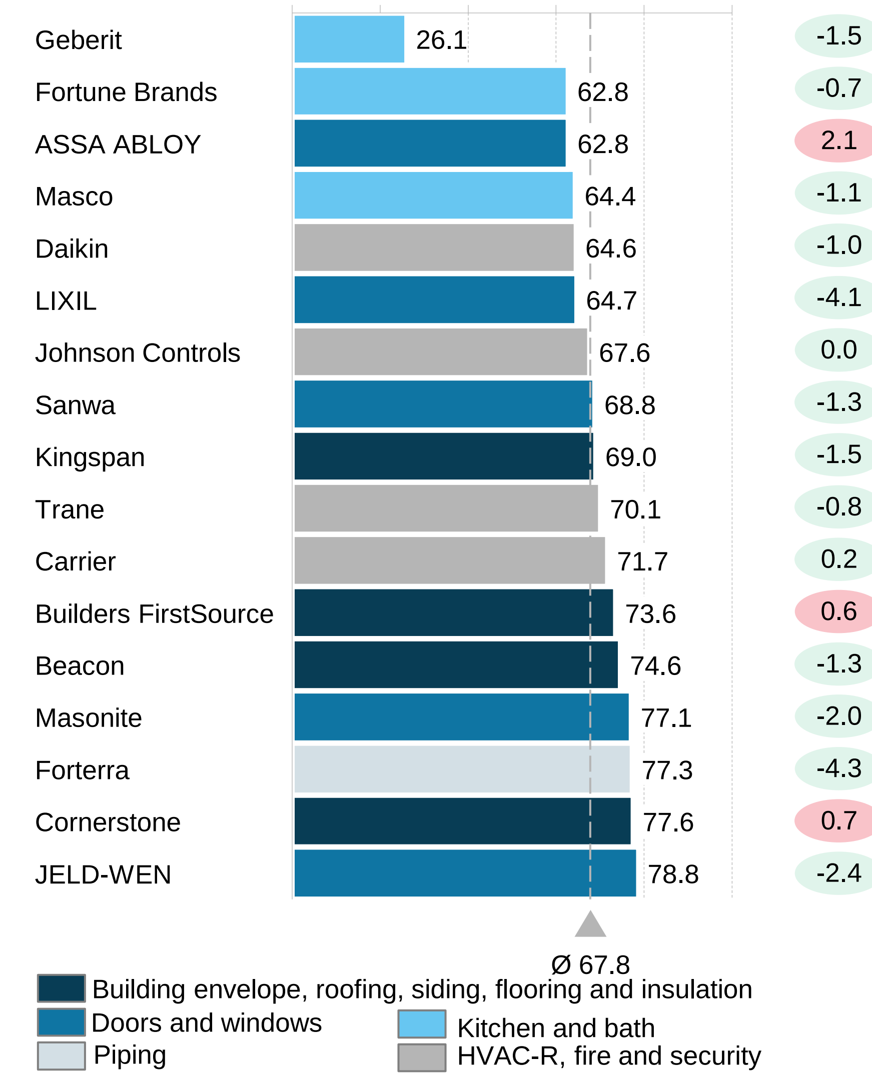

Source: Capital IQ, Applied Value analysis

# The benchmarked companies have seen overall positive development in COGS/sales, steel companies and UFP have the highest COGS/sales ratios

**Building materials COGS/sales Q4 2020, %** **Delta p.p.**



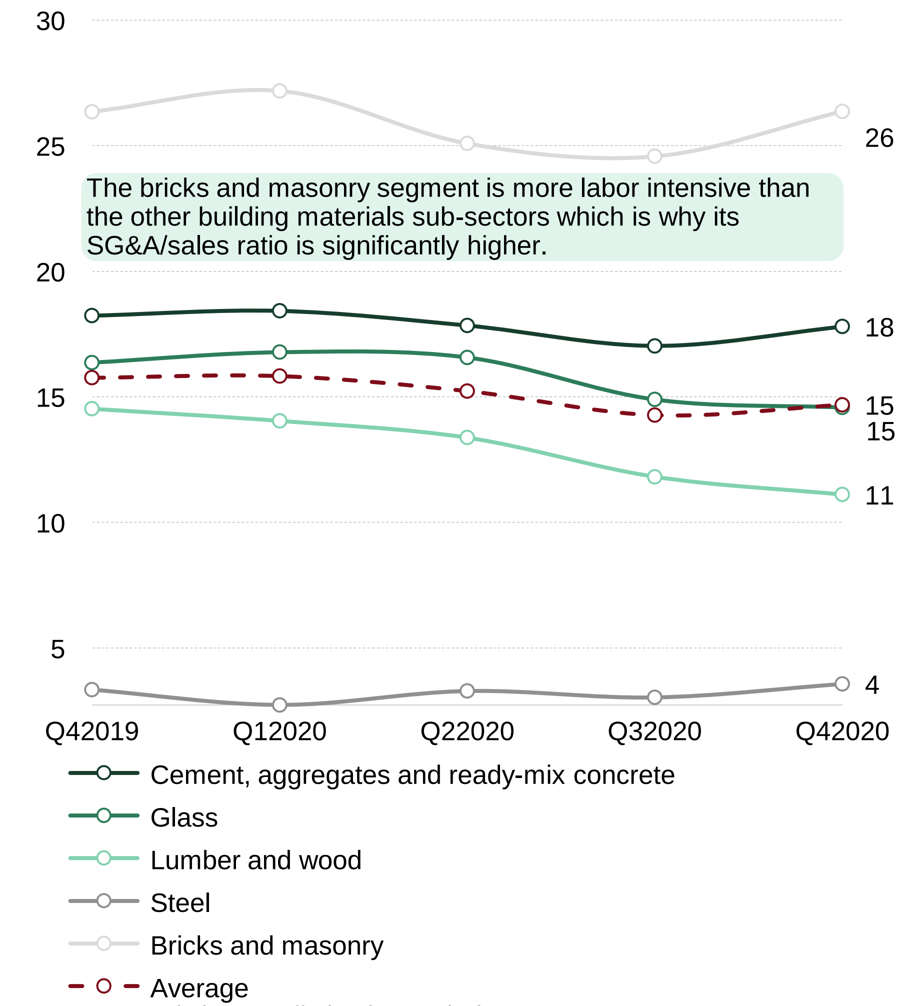

**Building products COGS/sales Q4 2020, %** **Delta p.p.**



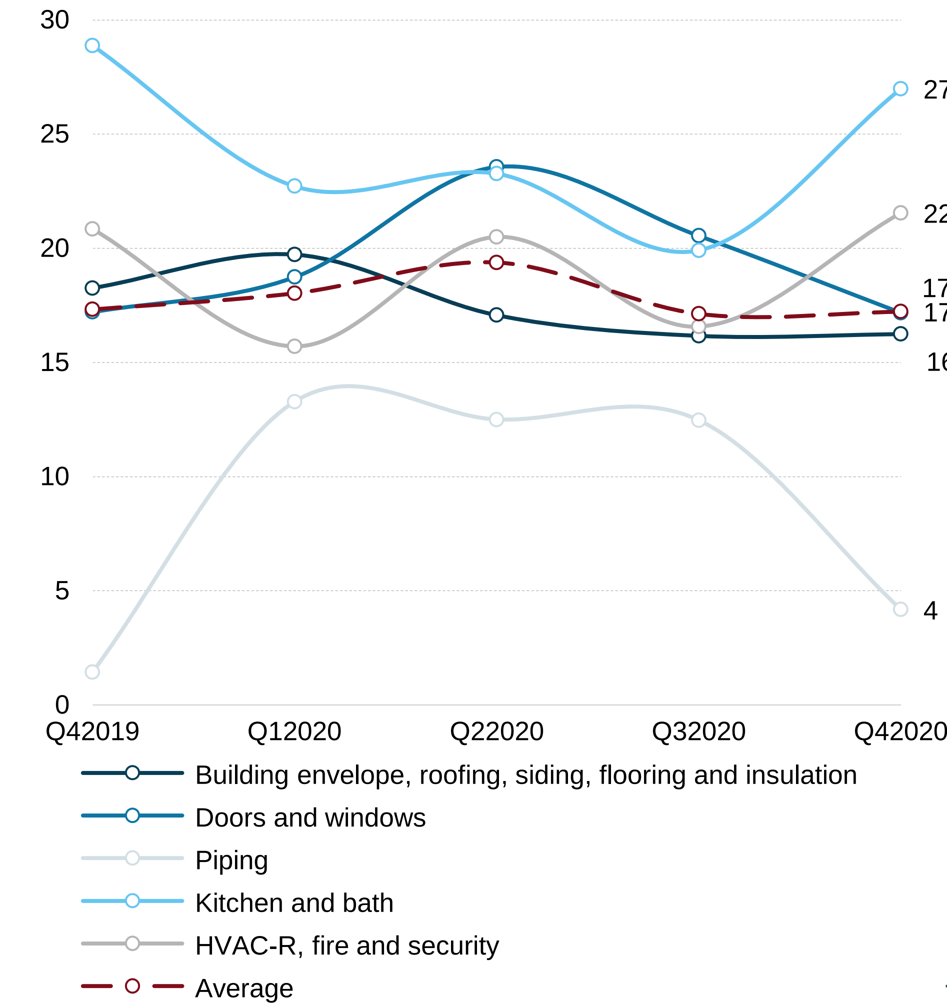

Source: Capital IQ, Applied Value analysis
Note: Arcelor Mittal and Heidelberg Cement data is based on half-year reporting

# Lockdowns and furloughed employees during the pandemic have caused volatility in building products companies’ SG&A over sales ratios

**Building materials quarterly SG&A/sales development**
%



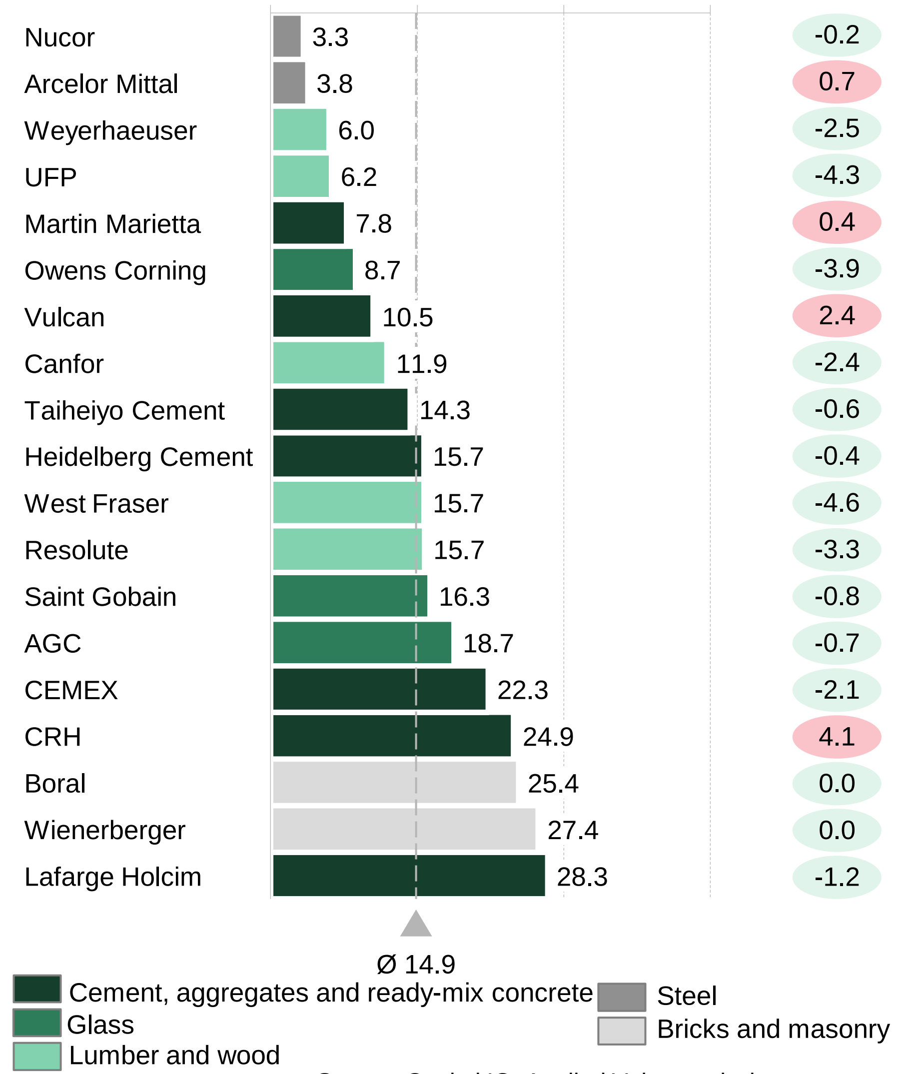

**Building products quarterly SG&A/sales development**
%



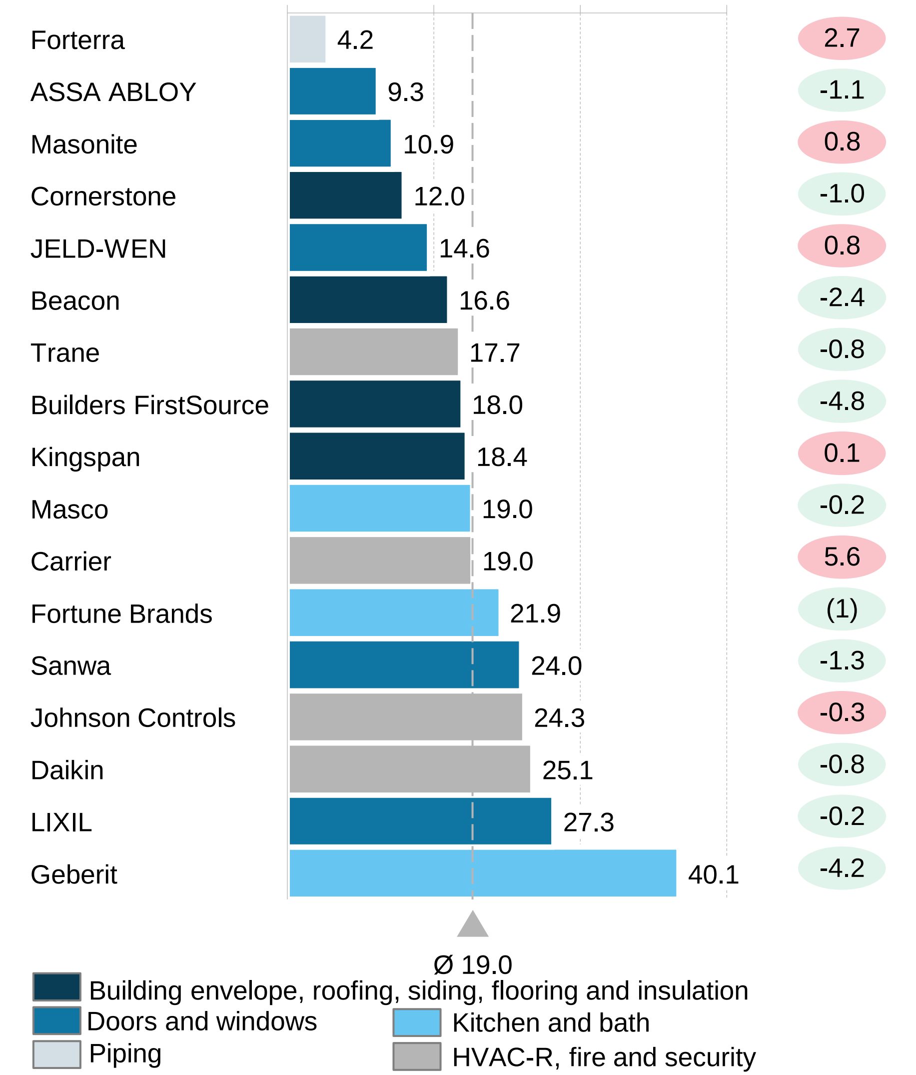

Source: Capital IQ, Applied Value analysis

# A majority of the industry players managed to control SG&A over sales, Geberit stands out with a SG&A to sales ratio of 40%

**Building materials SG&A/sales Q4 2020, %** **Delta p.p.**



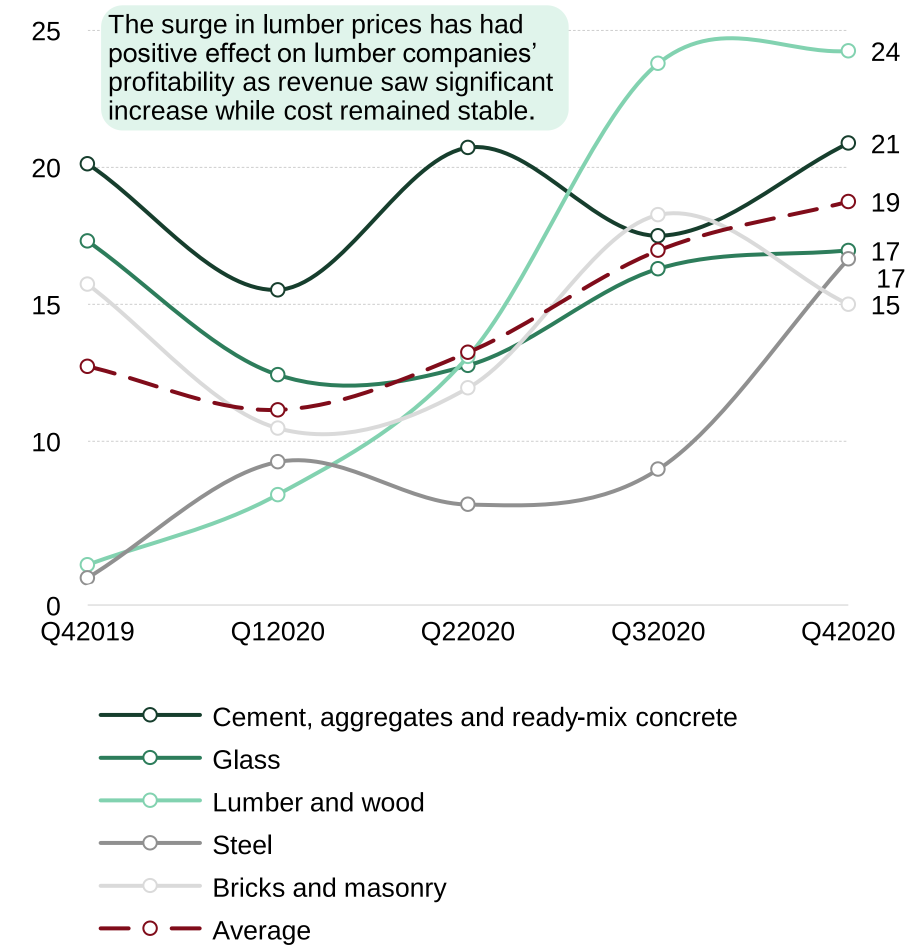

**Building products SG&A/sales Q4 2020, %** **Delta p.p.**



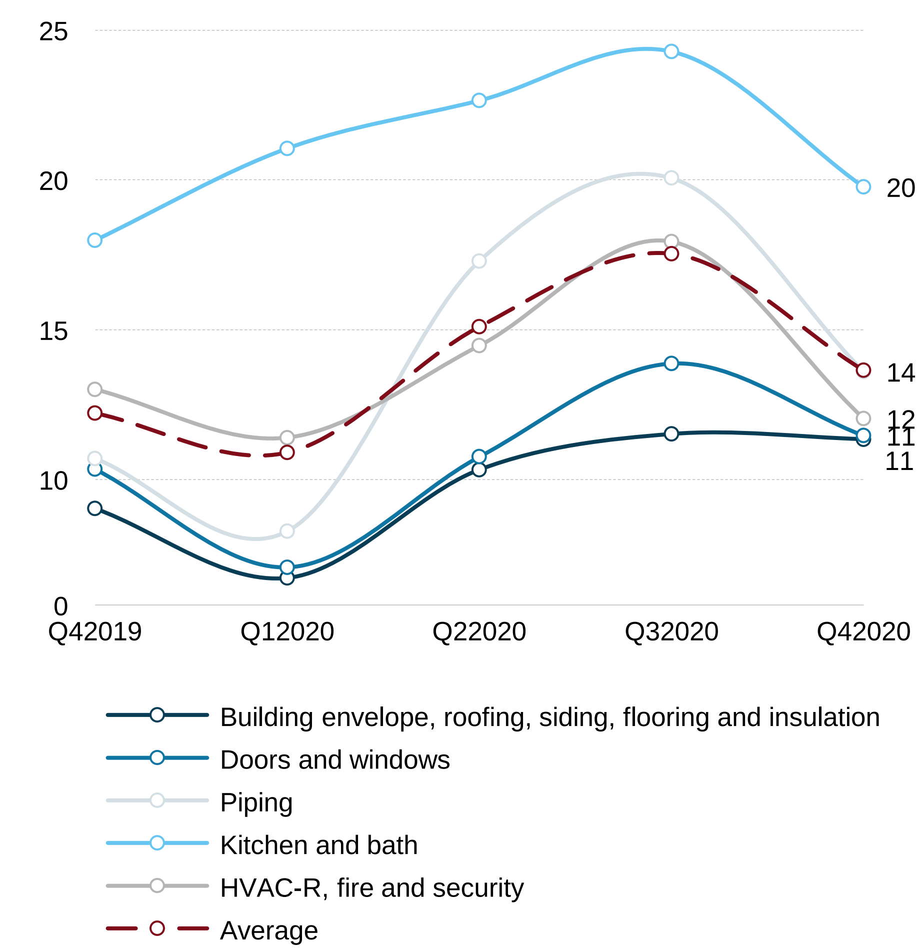

Source: Capital IQ, Applied Value analysis
Note: Arcelor Mittal and Heidelberg Cement data is based on data reported for H2

# Lumber and steel companies have seen the biggest improvement in profitability YoY thanks to surging raw materials prices

**Building materials EBITDA margin quarterly development**
%



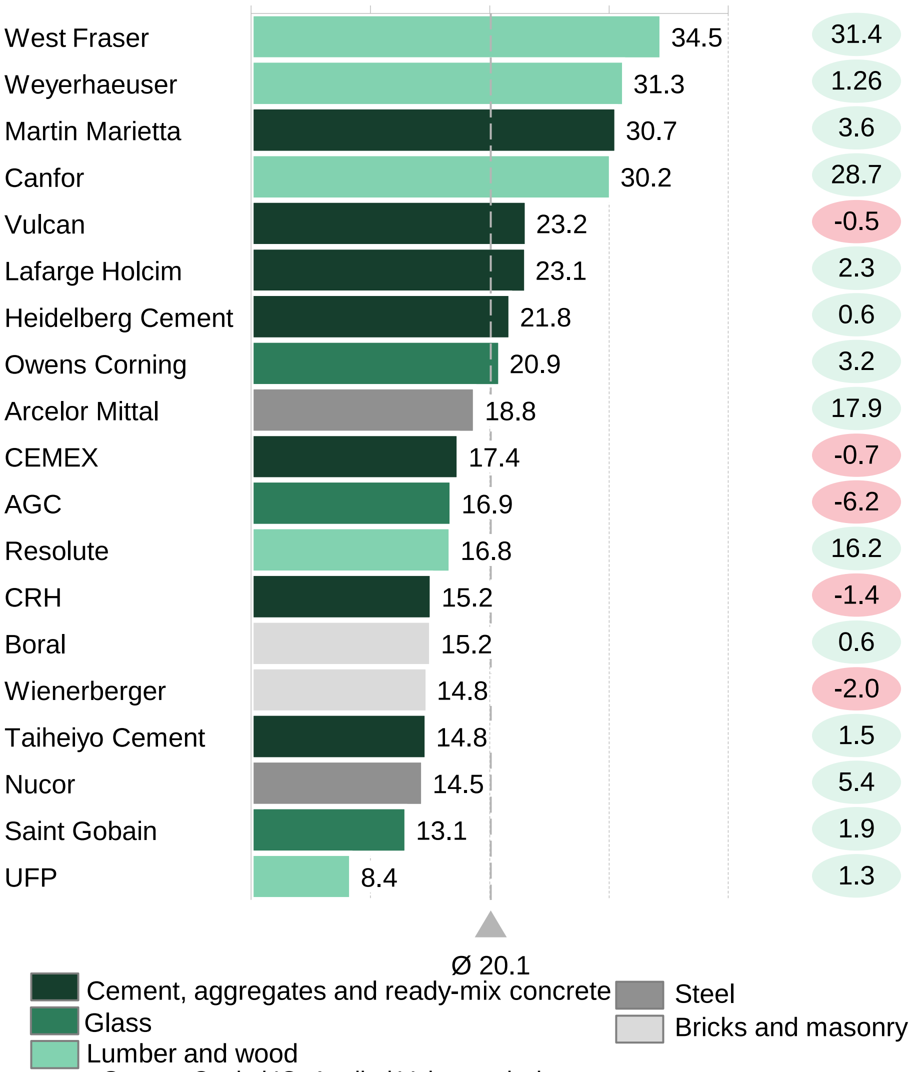

**Building products EBITDA margin quarterly development**
%



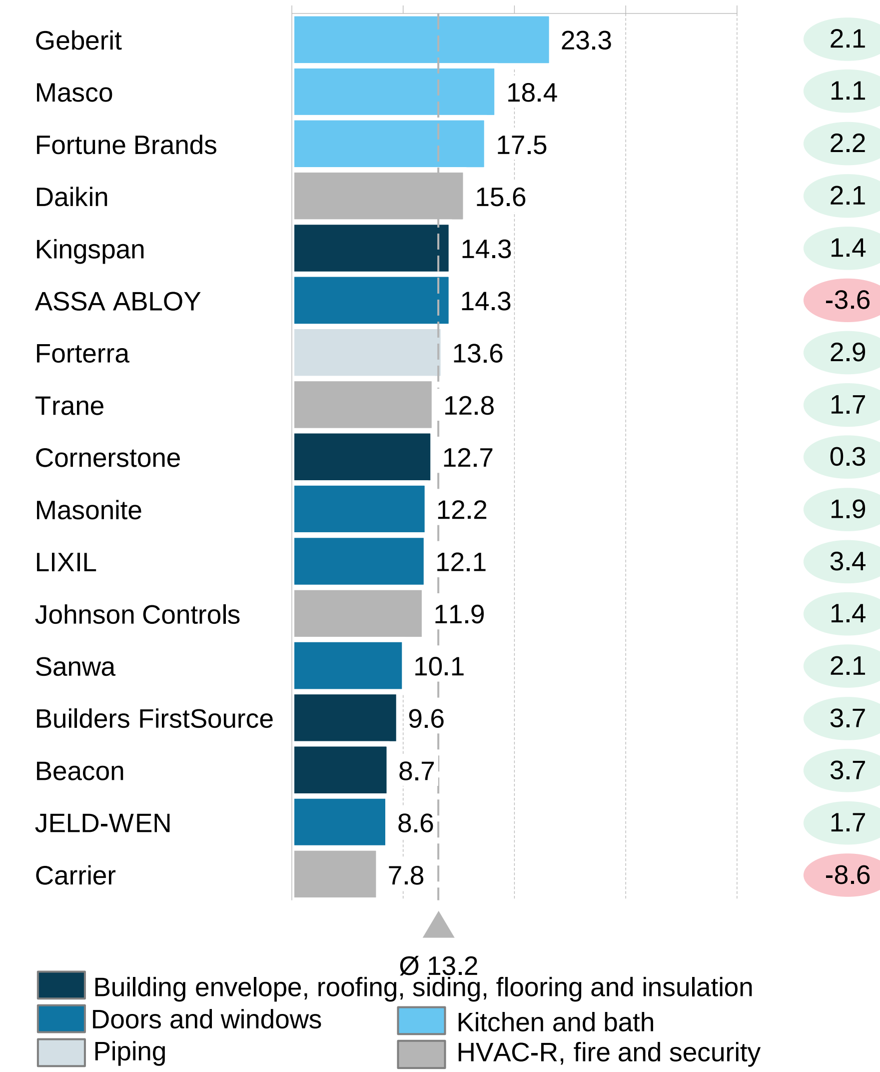

Source: Capital IQ, Applied Value analysis

# Building materials have seen more volatility in profitability than building products due to large movements in the underlying raw materials markets

**Building materials EBITDA margin Q4 2020, %** **Delta p.p.**



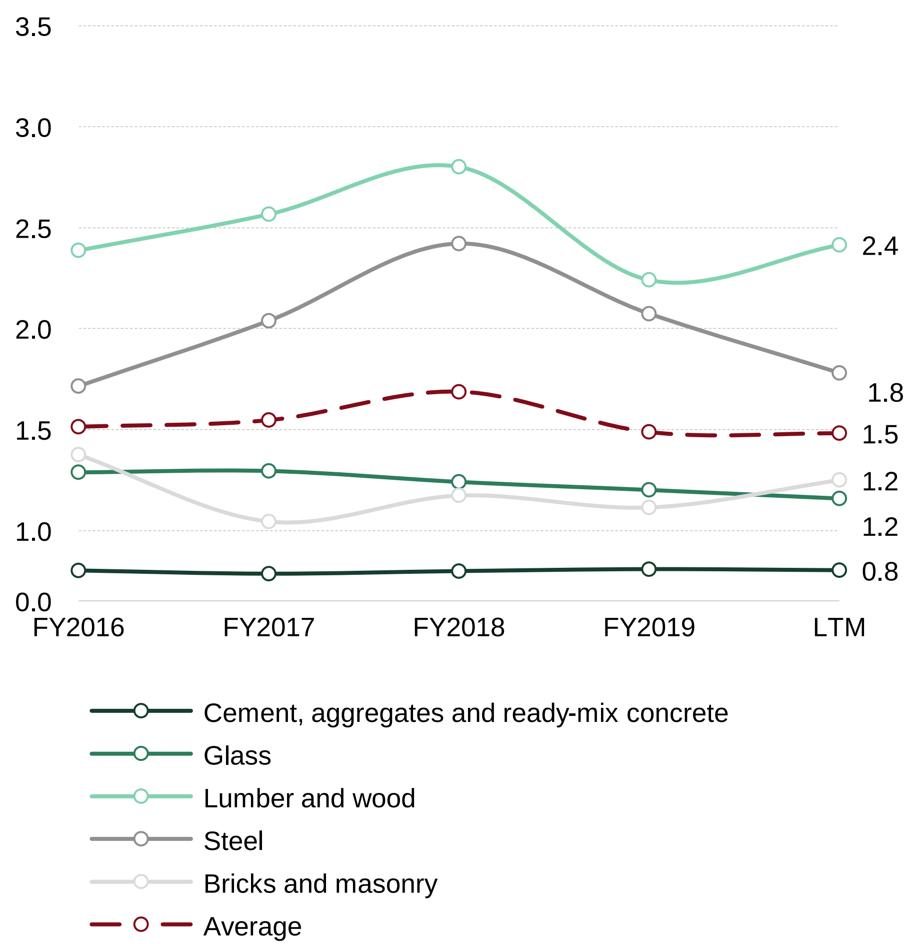

**Building products EBITDA margin Q4 2020** **Delta p.p.**



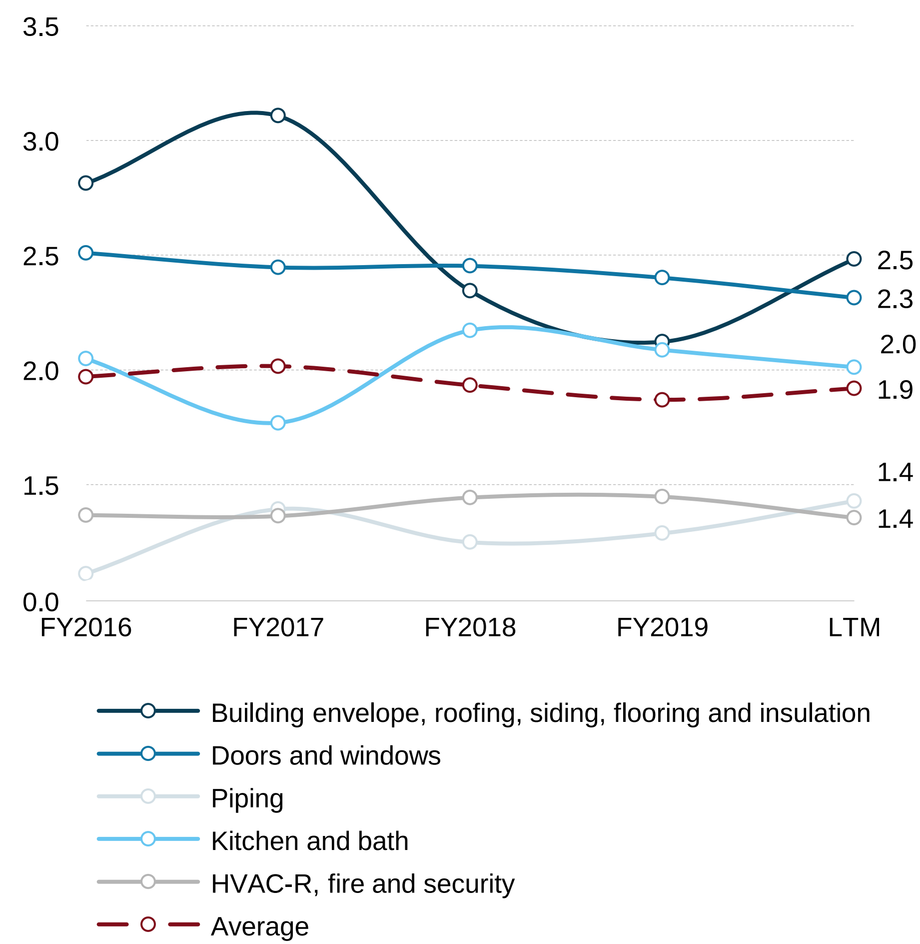

Source: Capital IQ, Applied Value analysis

# Lumber and building envelope companies saw an increase in FAT due to strong revenue development following the surge in lumber prices

**Building materials fixed asset turnover yearly development**



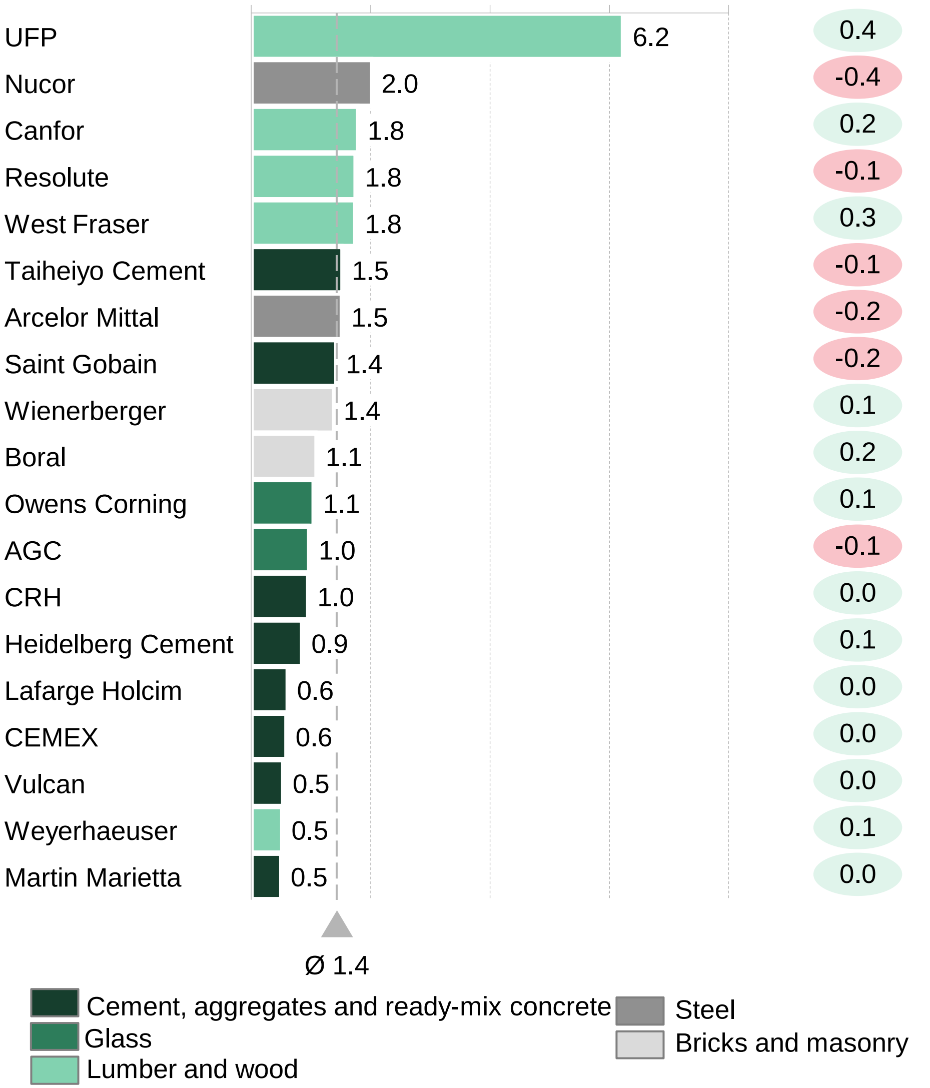

**Building products fixed asset turnover yearly development**



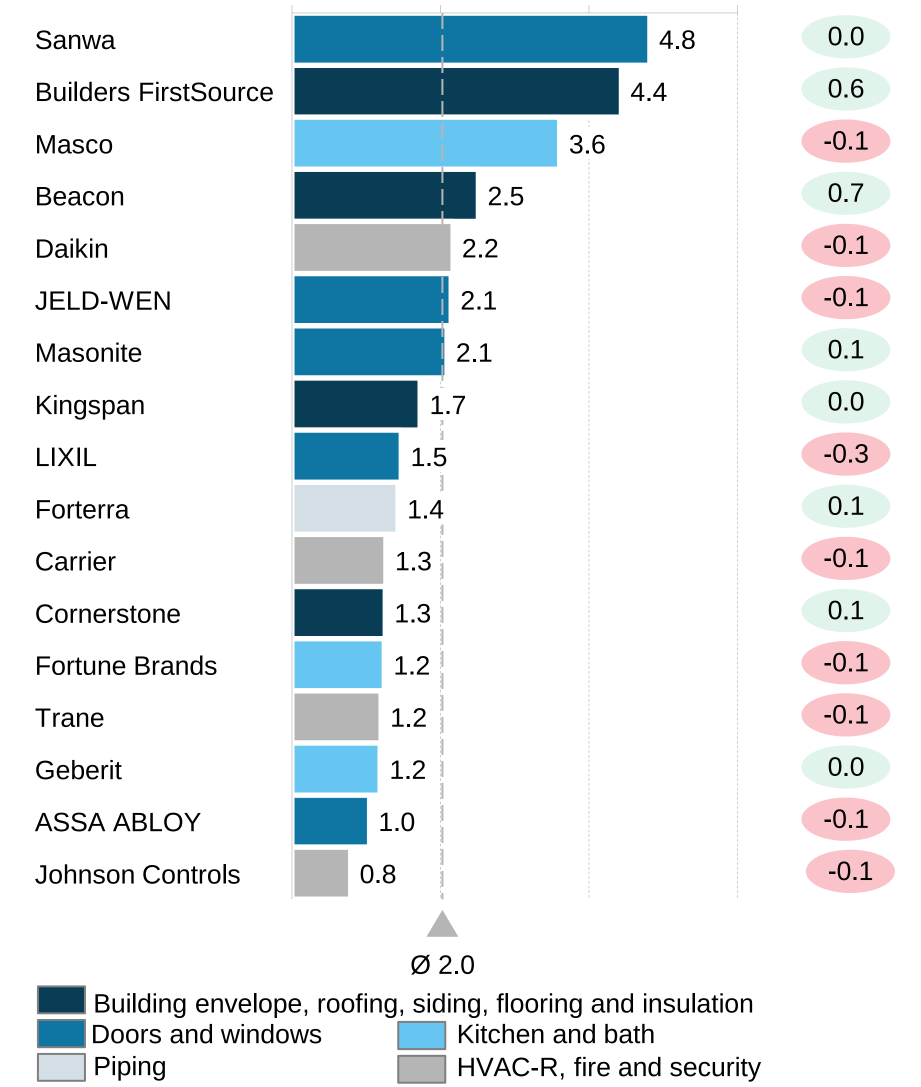

Source: Capital IQ, Applied Value analysis

# Building products have on average higher FAT ratio than building materials companies since the sector is less capital intensive

**Building materials fixed asset turnover FY2020, x** **Delta x**



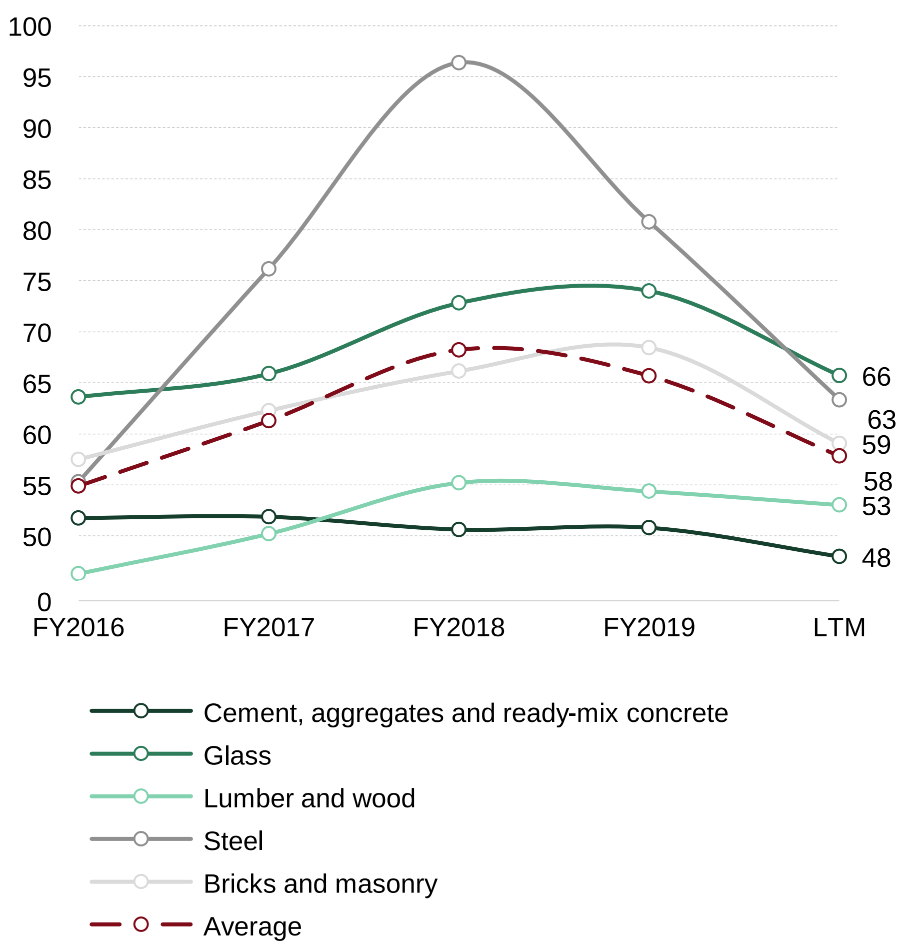

**Building products fixed asset turnover FY2020, x** **Delta x**



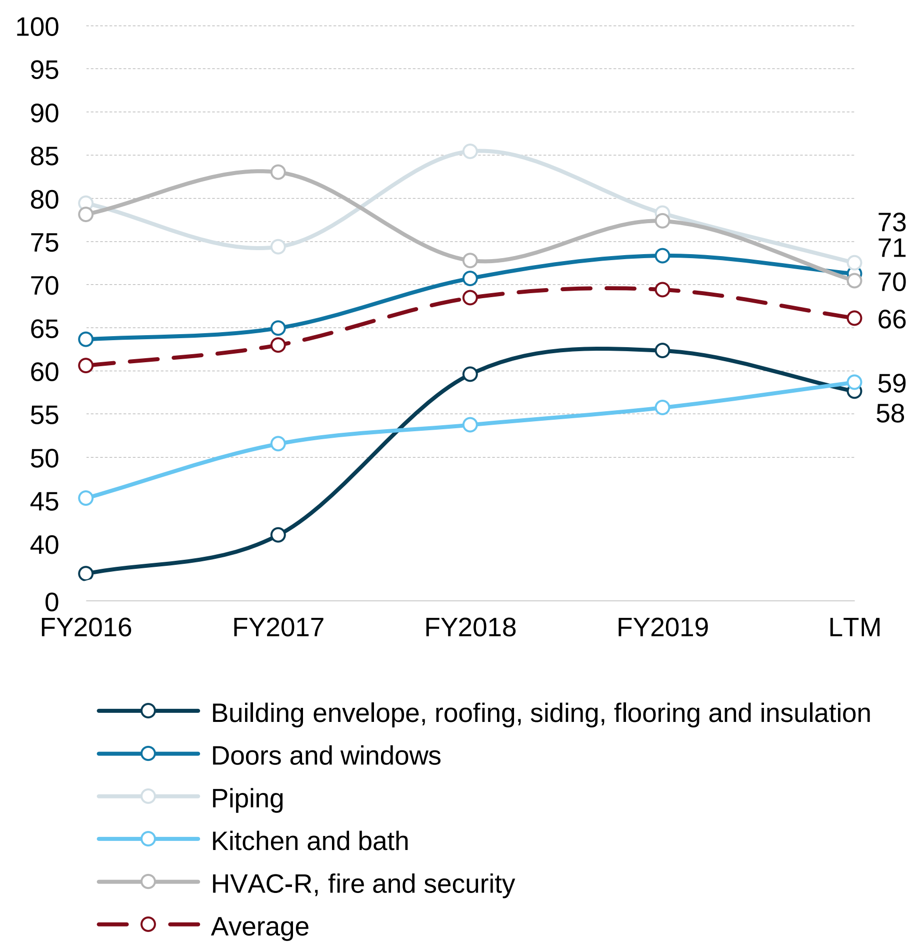

Source: Capital IQ, Applied Value analysis

# The high demand for building materials and products LTM has led to improved working capital cycles for all analyzed sub-sectors

**Building materials working capital cycle yearly development**
Days



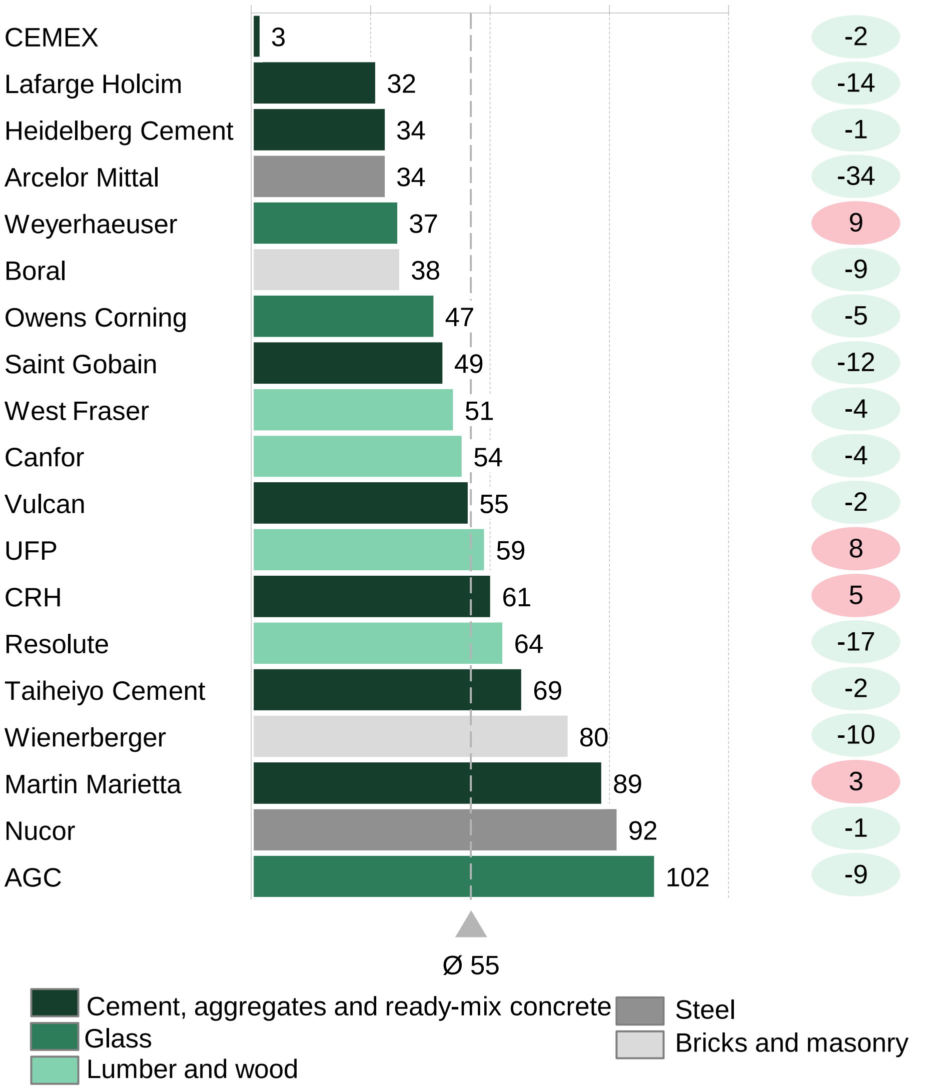

**Building products working capital cycle yearly development**
Days



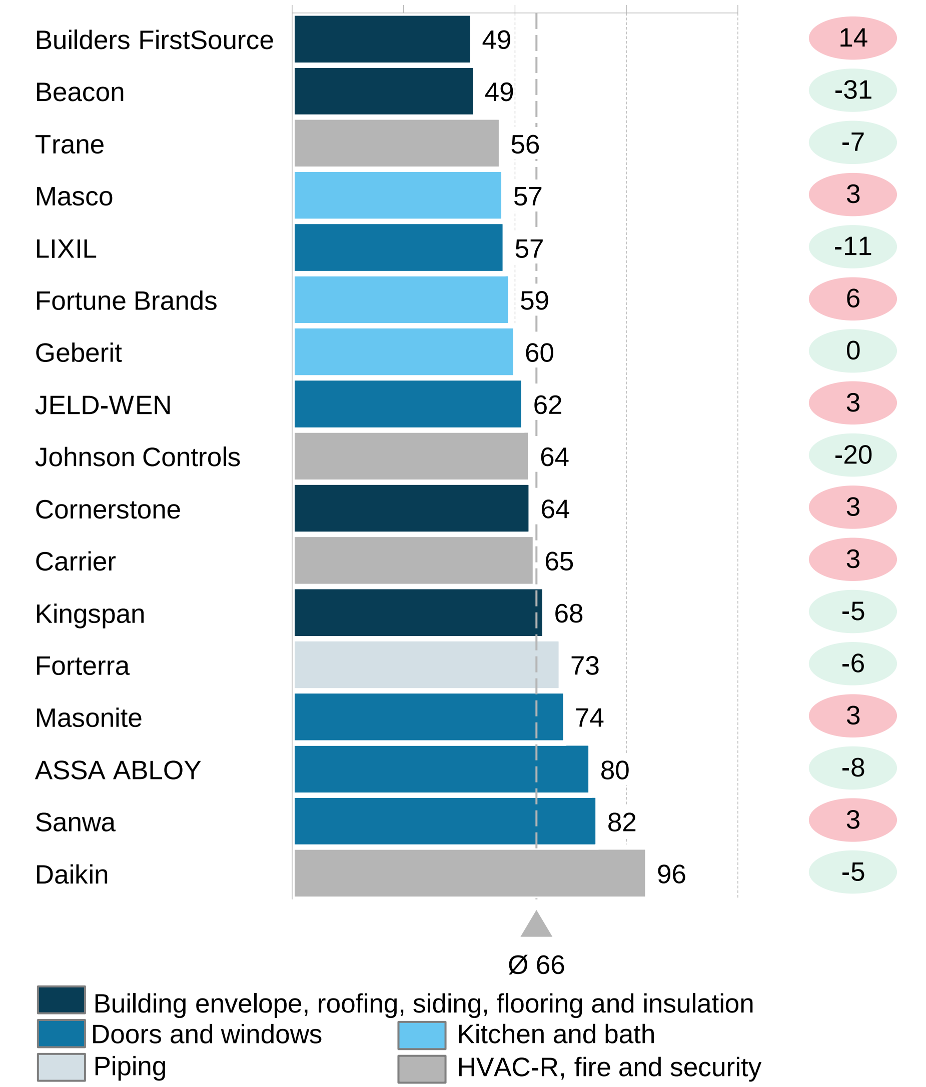

Source: Capital IQ, Applied Value analysis

# The benchmarked companies have seen significant improvement in working capital cycle, with Arcelor Mittal and Beacon seeing the largest effect

**Building materials working capital cycle FY2020, days** | **Delta days**



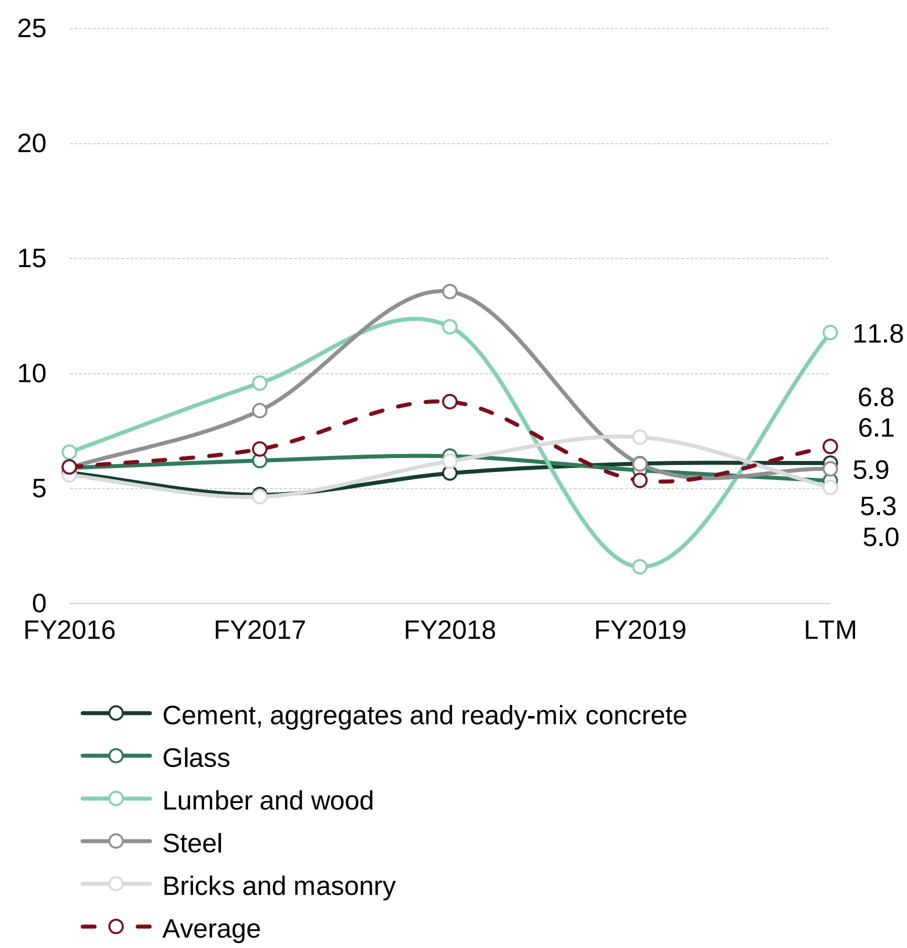

**Building products working capital cycle FY2020, days** | **Delta days**



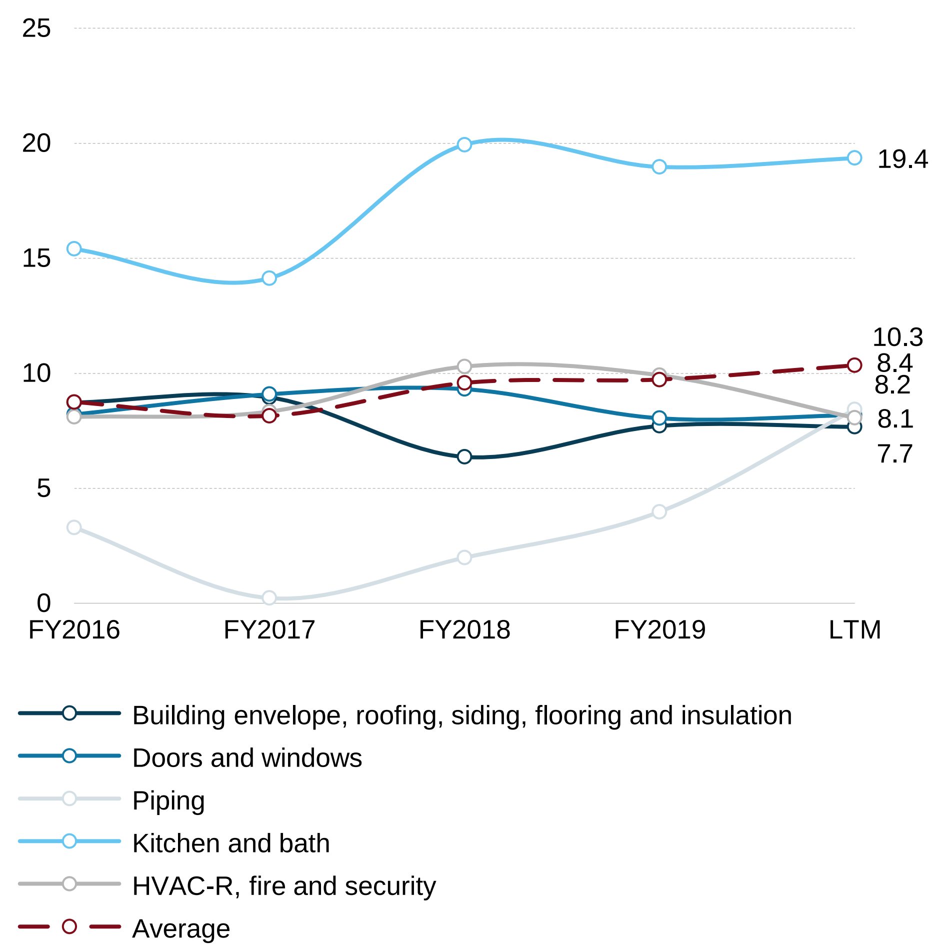

Source: Capital IQ, Applied Value analysis

# Kitchen and bath have outperformed other sub-sectors on ROIC L5Y, Lumber ROIC LTM has been driven by surging lumber prices during H2 2020

**Building materials ROIC**
%

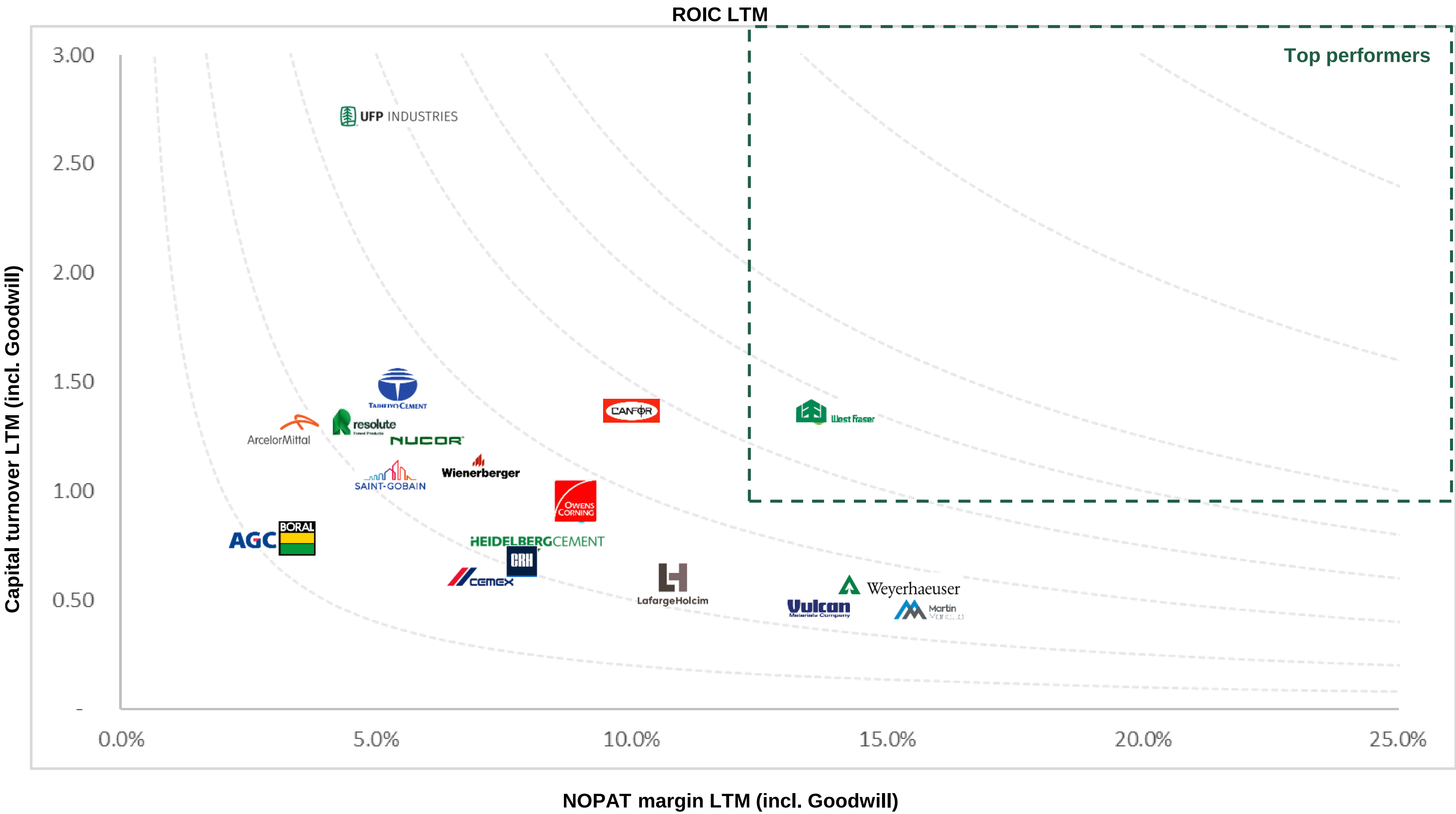



**Building products ROIC**
%



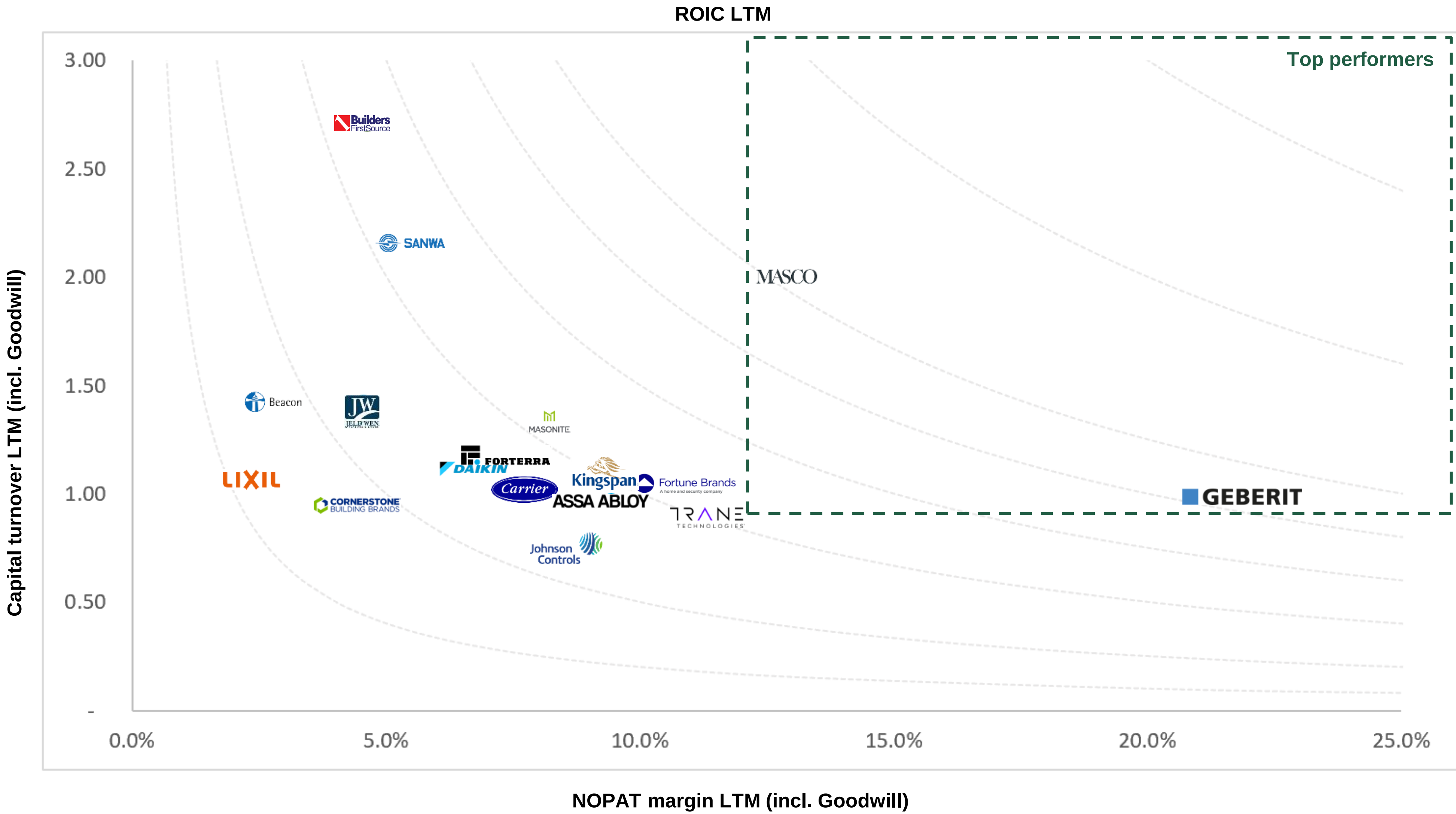

Source: Capital IQ, Applied Value analysis

# Building materials ROIC performance varied between ~2% and ~18% LTM, with lumber company West Fraser as the top performer




Source: Capital IQ, Applied Value analysis

# A majority of the benchmarked building products companies generated ~10% ROIC LTM, Masco and Geberit outperformed at 25.6% and 21.7%




Source: Capital IQ, Applied Value analysis

# Applied Value Building Products Report



# Industry demand has primarily been driven by a pandemic induced boom in residential construction and renovation, and favorable interest rates

## Tailwinds

### Interest rate environment

- Mortgage rates have been falling during the last year and are at a record low

### Housing market

- The outlook for the US housing market is strong, and is better than prior to the pandemic
- US residential real estate prices have been rising since June. The S&P CoreLogic Case-Shiller US National Home Price NSA Index was up 10.4% at year-end 2020

### Renovation boom

- Home renovations and DIY home projects have been booming during the pandemic, leading to high demand for building products and materials

### Raw materials price development

- Tight supply and strong demand for raw materials has led to significant price increase in the prices of lumber and steel, which has had positive effect on revenue development and profitability

Sources: S&P Dow Jones, National Association of Home Builders

## Headwinds

### Supply chain issues and delays

- The construction industry was hit hard at the beginning of the pandemic and the industry has been facing supply chain issues and materials shortages as a consequence
- A significant amount of construction projects have been delayed or stopped during Covid-19, which has negative effect on demand for building products and materials

### Diminishing construction backlogs

- Construction backlogs have been decreasing throughout 2020, and were well below pre-pandemic levels at the end of Q4

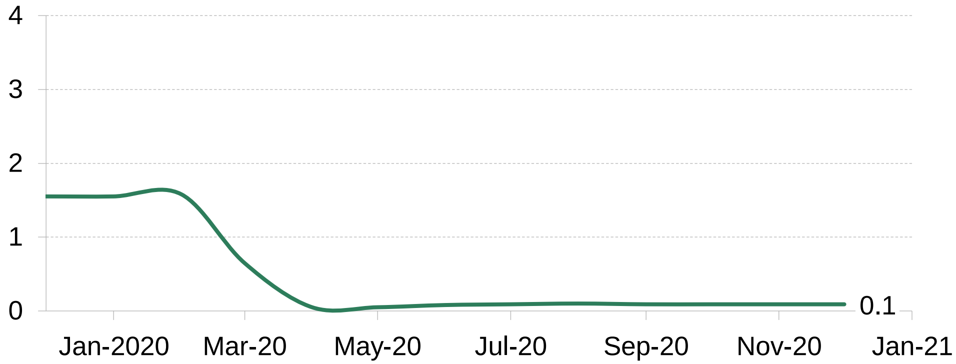
Sources: Associated Builders and Contractors, US Chamber of Commerce

# The low interest rate environment is a key driver behind housing demand and home renovation projects

**Interest Rates**

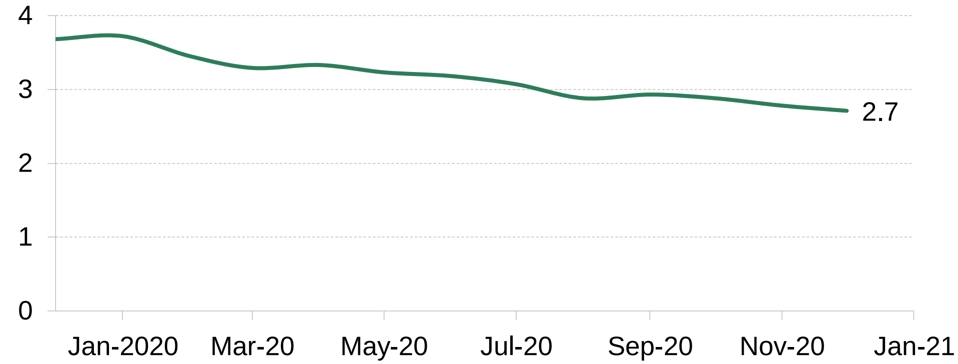
The FED rate has remained low throughout 2020 and US mortgage rates are at a record low, which has made owning a house more affordable

**FED Rate**
%




Source: FRED

**30-Year Fixed Mortgage Rate**
%

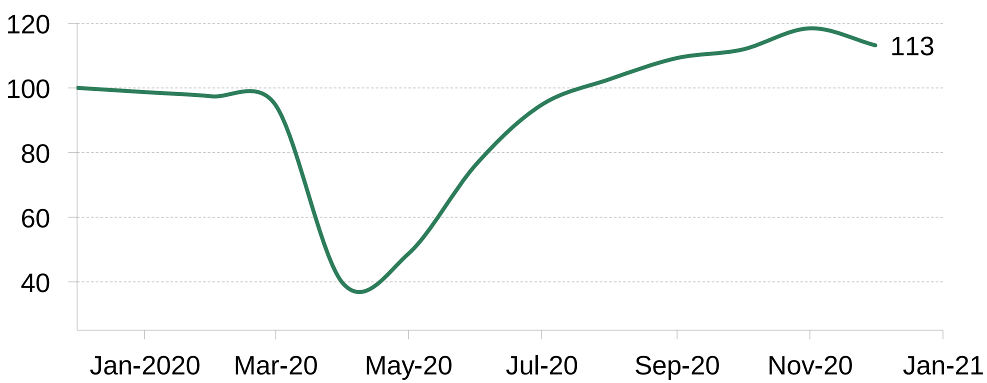



Source: Federal Home Loan Mortgage Corporation

**Returning Confidence**

The outlook for the housing market took a hit at the beginning of the pandemic. Housing market confidence has since seen strong recovery and the outlook for current and future home sales is now above pre-pandemic levels

**Housing Market Index**
Dec'19=100



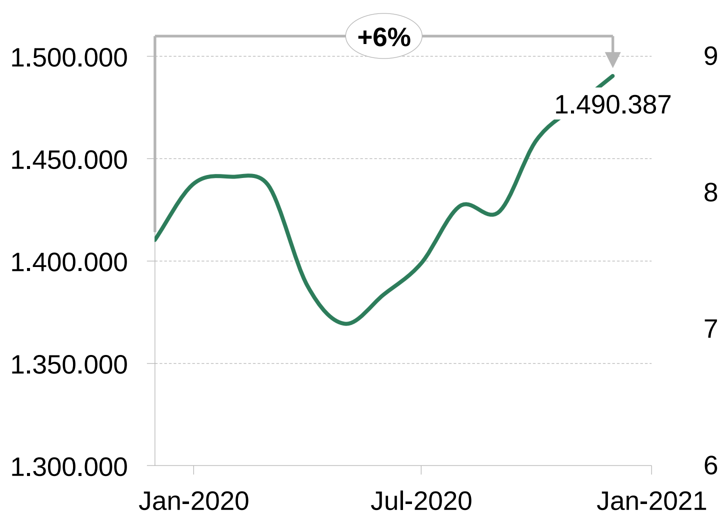

The National Association of Home Builders' Housing Market Index reflects builders' outlook for current home sales, home sales for the next six months and traffic of prospective buyers

Source: National Association of Home Builders

# Confidence has returned to the market, construction industry spending reached its highest level of 2020 in Q4, and materials prices trended up

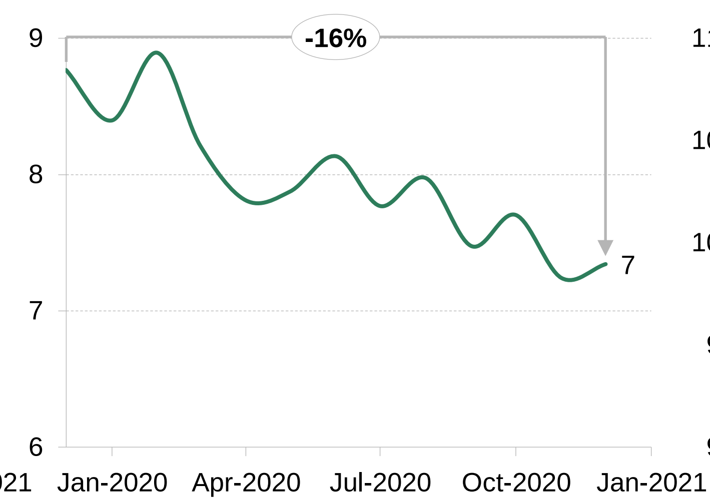
| Construction spending | Diminishing backlog | Rising raw materials prices |
| --- | --- | --- |
| The construction industry has seen increased spending during H2 2020, which has positive effect for building materials and products companies. | Backlogs have been decreasing since the start of the pandemic. Diminishing backlogs might have negative impact on future demand. | Prices have seen an upward spike during Q4. Sawmills and other production facilities shut down during lockdown, and supply has not been able to keep up with the rapidly rising demand. |

**Construction industry spending**
$ MM



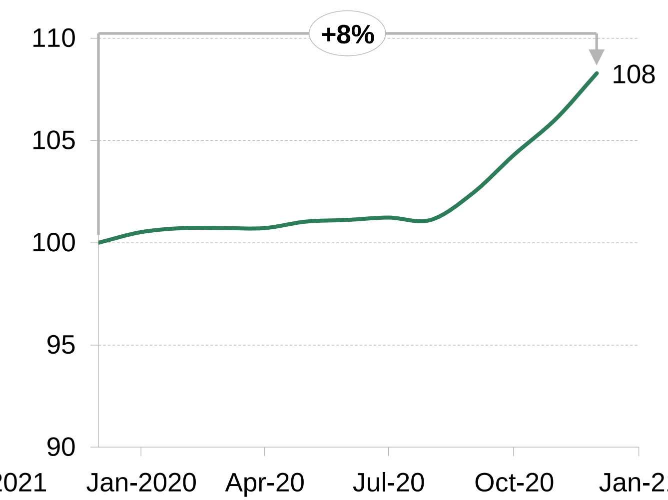

Source: Associated Builders and Contractors

**Construction backlog indicator**
Months




Source: Associated Builders and Contractors
Notes: Total months of forward-looking work under contract

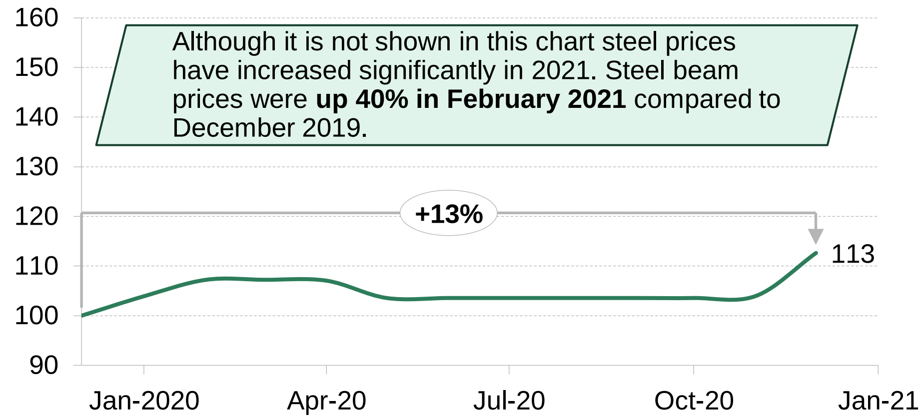
**Materials price index**
Dec'19=100




Source: ENR
Notes: Calculated as weighted price movement of structural steel, Portland cement, and 2x4 lumber.

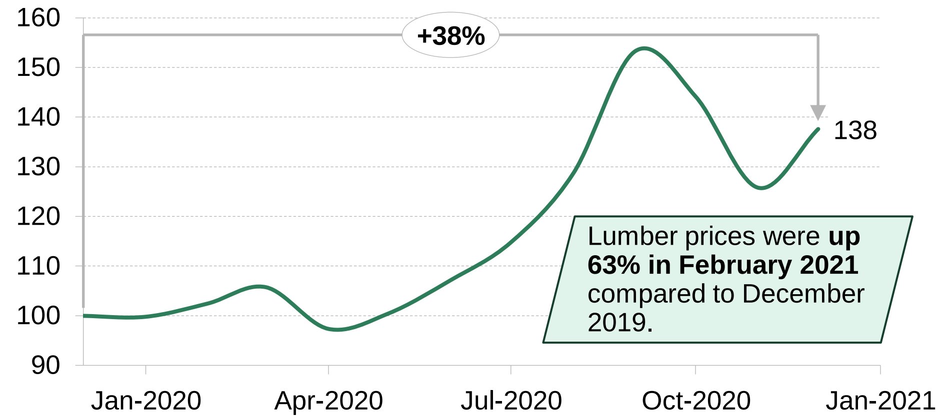
# Lumber has seen a significant price increase during 2020 driven by tight supply and high demand, steel and glass saw an upward turn in Q4

**Steel beam price (8x8 inch.)**
Indexed price, Dec'19=100



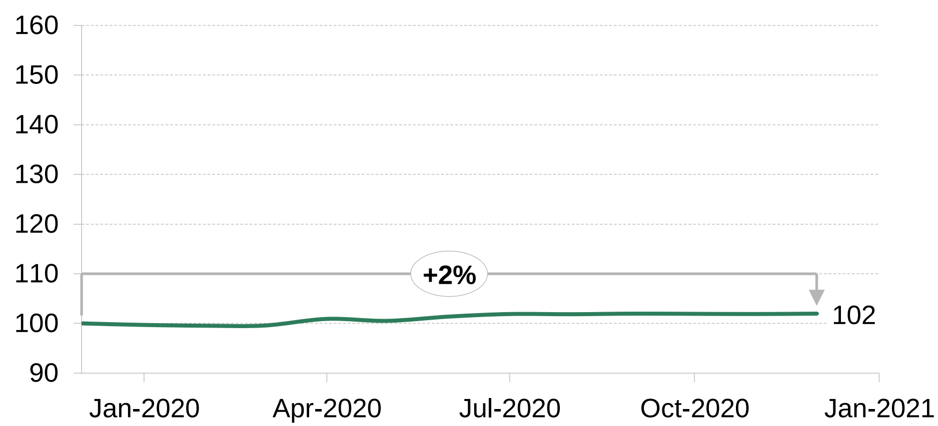

Source: AMM Fastmarket

**Lumber price development**
PPI, Dec'19=100



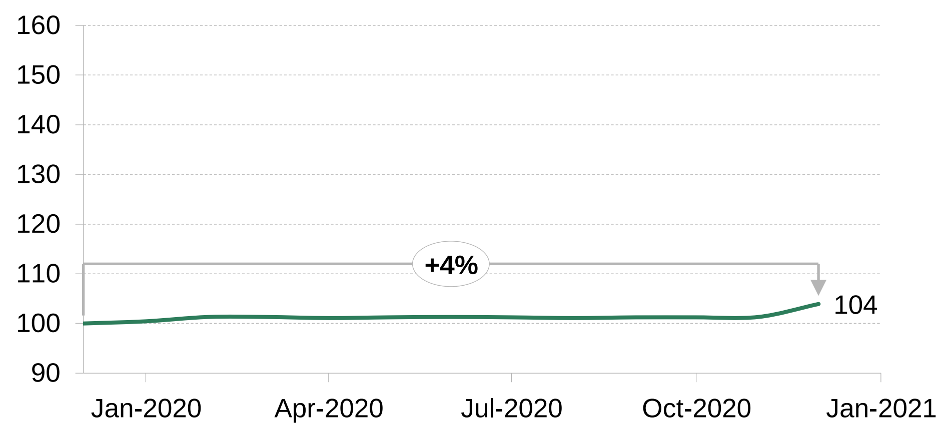

Source: FRED

**Cement price development**
PPI, Dec'19=100




Source: US Bureau of Labor Statistics

**Flat glass price development**
PPI, Dec'19=100




Source: FRED

# M&A activity in the sector has been driven by horizontal integration and PE firms deploying dry powder

## Recent M&A Transactions

| Acquirer | Target | Deal Value | Description |
|---|---|---|---|
| Builders FirstSource | BMC | 3.04 BUSD | The merger between Builders FirstSource and BMC will create a premium building products manufacturer and distributor with $11 BUSD in sales. |
| American Securities | FBM Foundation Building Materials | 1.40 BUSD | Private Equity firm American Securities announced the acquisition of North America's largest specialty building products distributor Foundation Building Materials in late 2020. |
| Fortune Brands (A home and security company) | Larson | 0.74 BUSD | Fortune Brands expands its outdoor living segment with the acquisition of Larson and opens the door for Fortune Brands to new segments within the building products industry. |

## M&A Drivers

### Industry characteristics

The industry is fragmented, and growth is modest. This can be explained by the maturity of the industry as well as by commoditization of many building materials and products.

### Consolidation

Horizontal integration has been a driver of industry transactions, as organic growth is hard to achieve in the fragmented industry. M&A has also been used to expand the acquirer's product portfolio.

### Private equity interest

PE firms' interest in the industry has seen an upswing recently and building products and materials have seen significant inflow of PE capital during H2 2020.

Sources: Capital IQ, MDM, Applied Value Analysis

# Applied Value Building Products Report



# Applied Value is a management consulting & investment firm founded on the principles of Lean Growth and Entrepreneurship.

*1997* Background as an internal consultancy and change agent within the Swedish ***Stenbeck Group…***

…today, a hands-on consultancy supporting clients **across industries** *2021*

## Industries of Expertise

- **Sourcing & Procurement**
- **Supply Chain & Operations**
- **Commercial Excellence & Pricing**
- **Product & Innovation**
- **Strategy & Organization**
- **M&A**

## Applied Value Group

**Investments** | **Management Consulting** | **Social Responsibility**

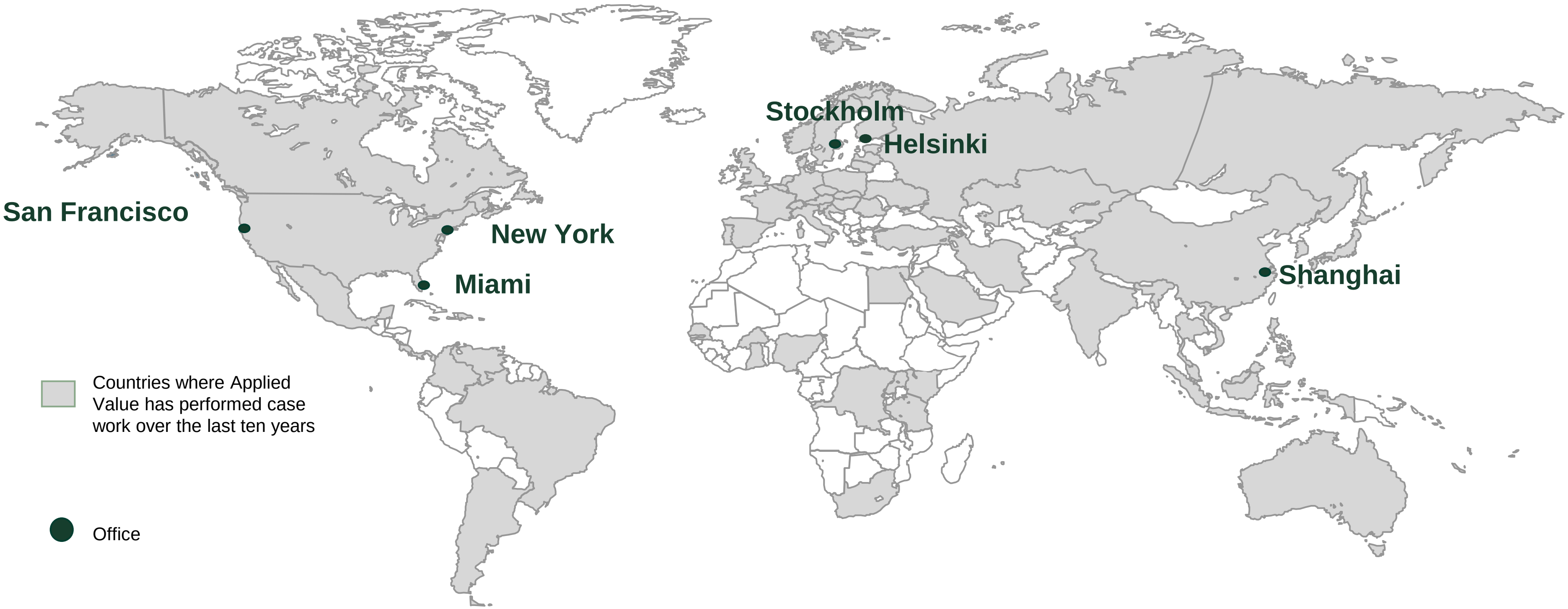
**Selected portfolio companies**

*ROI driven* | *Fact-based* | *Practical over theoretical* | *Hands-On* | *Global perspectives*

**Global Footprint** New York | San Francisco | Miami | Stockholm | Helsinki | Shanghai

# Applied Value challenges and supports repeat global clients across industries from six offices

## Applied Value Offices and Footprint

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# Our Lean Growth framework is based on Focus, Simplicity, Speed – guiding principles to raise client performance

## Lean Growth

| Focus | Simplicity | Speed |
|---|---|---|
| ✓ Define strategic focus<br>✓ Excel in key capabilities<br>✓ Use partners for non-core activities | ✓ Reduce complexity<br>✓ Simplify and standardize processes, organization and supply chain | ✓ Set targets<br>✓ Measure and improve<br>✓ Reduce Market-Customer-Cash Time |

## Example Offerings

**Strategy & Organization**
Go-to-Market Strategy, G&A Productivity, Working Capital and CAPEX Efficiency, Digitalization & IT

**Commercial Excellence & Pricing**
True Profitability, Portfolio Optimization, Sales Efficiency, Pricing Model, Governance

**Sourcing & Procurement**
Sourcing Strategy, Direct & Indirect Materials and Services, Risk Management, SRM, Competence Development

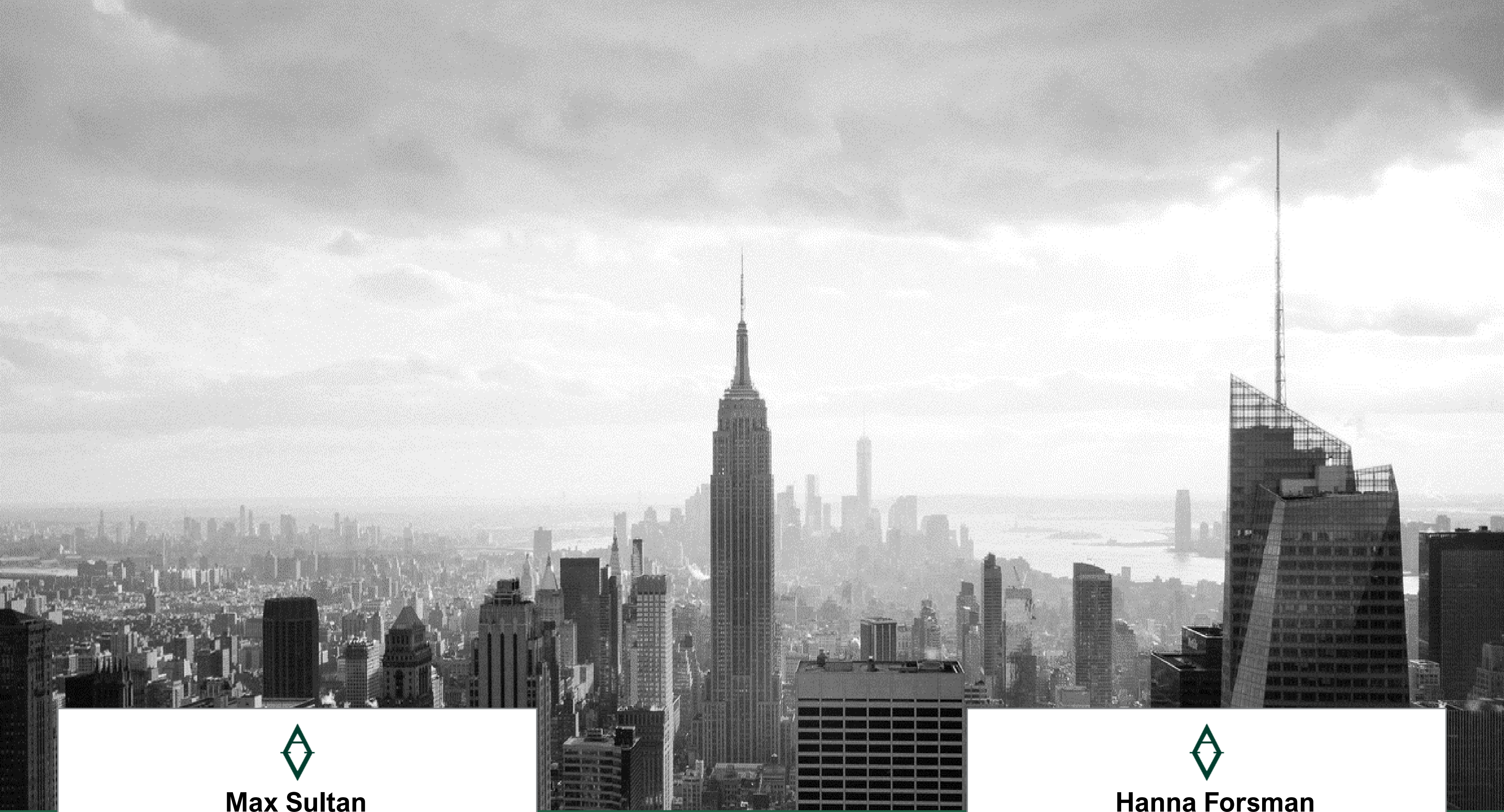
**Supply Chain & Operations**
Supply Chain Strategy, Inventory Management, Mfg. Footprint, S&OP, Logistics & Fulfillment, Order-to-Cash

**Product & Innovation**
Product Line Profitability, VA/VE, R&D Strategy & Efficiency, Product Lifecycle Management

**Mergers & Acquisitions**
Commercial Due Diligence, Operational Due Diligence, Post-Merger Integration

# Applied Value has strong expertise in several areas relevant for driving improvements in the building materials and products industry

| Applied Value Expertise | Improvement levers | Typical results |
|---|---|---|
| **Commercial Excellence** | › True Profitability & Product Portfolio Productivity<br>› Pricing Strategy, Tools, and Governance<br>› Salesforce Incentives and Training | › Portfolio rationalization by 20-60%<br>› Price improvements of 5-10% |
| **Sourcing & Supply Chain** | › Direct & Indirect Commodity Strategy<br>› Value Analysis / Value Engineering<br>› Competence Development Programs | › 4-12% reduction of COGS in long-term Sourcing Programs<br>› 5-25% reduction of spend in selected categories (mainly indirect material) |
| **Manufacturing & Operations** | › Manufacturing Footprint Strategy<br>› Make v. Buy Decisions<br>› Plant Overhead Reductions | › Reduction of 15-25% in mfg. network burden costs<br>› Reductions of 20-30% in plant indirect |
| **Order to Delivery** | › Current State Process Mapping<br>› Elimination of low-value add activities<br>› Streamline Ways-of-Working | › “Order-to-Cash” lead time reductions of 15-45% |
| **SG&A Efficiency** | › Organizational Design<br>› Headcount Drivers and Org. Dimensioning<br>› Process Automation and Outsourcing | › 20-30% reduction of SG&A costs |

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