# Givaudan SA GIVN (XSWX) | ★★★★

| Last Price | Fair Value | Uncertainty | Economic Moat™ | Moat Trend™ | Stewardship | Industry Group |
|---|---|---|---|---|---|---|
| 1,822.00 CHF | 1,980.00 CHF | Low | Narrow | Stable | Standard | Chemicals |

## Update on Ingredients Sector Following Earnings Reports

See Page 2 for the full Analyst Note from 22 Nov 2016

Adam Kindreich, CFA
Equity Analyst
adam.kindreich@morningstar.com
+31 20 560 2938

**Important Disclosure**

The conduct of Morningstar's analysts is governed by Morningstar's Code of Ethics, Securities Trading and Disclosure Policy, and Investment Research Integrity Policy. For information regarding conflicts of interest, please click http://corporate1.morningstar.com/US/Equity-Disclosures/

The primary analyst covering this company does not own its stock.

Research as of 22 Nov 2016
Estimates as of 23 Sep 2016
Pricing data through 21 Dec 2016
Rating updated as of 21 Dec 2016

Currency amounts expressed with "$" are in U.S. dollars (USD) unless otherwise denoted.

**Contents**

Investment Thesis
Morningstar Analysis
Analyst Note 2
Valuation, Growth and Profitability 3
Scenario Analysis 4
Economic Moat 4
Moat Trend 5
Bulls Say/Bears Say 6
Financial Health 7
Enterprise Risk 7
Management & Ownership 9
Analyst Note Archive 10
Additional Information -
Morningstar Analyst Forecasts 12
Comparable Company Analysis 16
Methodology for Valuing Companies 18

### Investment Thesis 17 Jul 2016

Givaudan is the world's largest flavours and fragrances manufacturer with global market share of 25%. Branding is irrelevant in ingredients, as Givaudan has a business-to-business structure where nearly all sales stem from customised client orders. Product quality, efficiency, cost, reliability, and the complex nature of the ingredients business (with its multitude of mostly customised formulations) are the factors that cause the customer base to be relatively sticky. It is cumbersome and inconvenient for a client to switch ingredients supplier, given that the formulations provided by Givaudan are in theory unique and can be replicated elsewhere only with difficulty.

Givaudan believes it occupies a lucrative niche in the ingredients space--fragrances and flavours--which owes its profitability to the crucial role the company plays in underpinning the consumer appeal of its clients' products, while the cost to the client is minimal. Flavours typically account for 0.5% of a client's cost of goods sold, while fragrances account for 1%-2%. Clients won't switch provider based on price alone, and they are unwilling to endanger their products' appeal by sourcing ingredients from a new, untested supplier. There is negligible pricing power in ingredients, as pricing is limited contractually to enabling Givaudan to recover increases in raw material costs. Givaudan estimates that price/mix is structurally negligible, certainly below consumer price inflation. The company relies on increasing volumes to generate sales growth.

Givaudan has a high exposure to developing markets, at 46% of sales. With Givaudan more recently reporting some recovery in sales, we think developing markets will further recover by 2017, when Givaudan will again be within its target. Nevertheless, the bespoke nature of sales, together with their complexity, limits operational leverage to increasing volumes, reducing the business' scalability. Givaudan is still more profitable than ingredients peers, based on ROIC and operating margins.

### Vital Statistics

| | |
|---|---|
| Market Cap (CHF Mil) | 16,824 |
| 52-Week High (CHF) | 2,116.00 |
| 52-Week Low (CHF) | 1,707.00 |
| 52-Week Total Return % | 6.6 |
| YTD Total Return % | 2.9 |
| Last Fiscal Year End | 31 Dec 2015 |
| 5-Yr Forward Revenue CAGR % | 5.0 |
| 5-Yr Forward EPS CAGR % | 8.6 |
| Price/Fair Value | 0.92 |

### Valuation Summary and Forecasts

| Fiscal Year: | 2014 | 2015 | *2016(E)* | *2017(E)* |
|---|---|---|---|---|
| Price/Earnings | 31.1 | 26.9 | *27.4* | *23.4* |
| EV/EBITDA | 17.3 | 16.9 | *15.9* | *15.0* |
| EV/EBIT | 24.3 | 22.7 | *21.2* | *18.5* |
| Free Cash Flow Yield % | 4.1 | 5.0 | *3.7* | *4.5* |
| Dividend Yield % | 2.6 | 2.8 | *2.9* | *3.4* |

### Financial Summary and Forecasts (CHF Mil)

| Fiscal Year: | 2014 | 2015 | *2016(E)* | *2017(E)* |
|---|---|---|---|---|
| Revenue | 4,404 | 4,396 | *4,669* | *4,891* |
| Revenue YoY % | 0.8 | -0.2 | *6.2* | *4.8* |
| EBIT | 721 | 781 | *838* | *962* |
| EBIT YoY % | 3.2 | 8.3 | *7.3* | *14.7* |
| Net Income, Adjusted | 531 | 623 | *611* | *724* |
| Net Income YoY % | 7.2 | 17.5 | *-2.0* | *18.6* |
| Diluted EPS | 57.65 | 67.73 | *66.39* | *77.97* |
| Diluted EPS YoY % | 6.8 | 17.5 | *-2.0* | *17.4* |
| Free Cash Flow | 623 | 787 | *685* | *797* |
| Free Cash Flow YoY % | -22.6 | 26.4 | *-13.0* | *16.4* |

Historical/forecast data sources are Morningstar Estimates and may reflect adjustments.

### Profile

Spun off from Roche in 2000, Givaudan is the world's leading flavours and fragrances manufacturer, with 25% global market share and a presence in more than 80 countries. It sources more than 10,000 different ingredients from 100 countries. The company serves end consumer markets with fragrances for personal-, home-, and laundry-care brands, including prestige perfumes. In flavours, customers are in beverages, savoury, snacks, sweet goods, and dairy. Givaudan has nearly 10,000 employees, and its perfumery team is the largest in the industry.

# Givaudan SA GIVN (XSWX) | ★★★★

| Last Price | Fair Value | Uncertainty | Economic Moat™ | Moat Trend™ | Stewardship | Industry Group |
|---|---|---|---|---|---|---|
| 1,822.00 CHF | 1,980.00 CHF | Low | Narrow | Stable | Standard | Chemicals |

## Morningstar Analysis

**Update on Ingredients Sector Following Earnings Reports** 22 Nov 2016
All nine ingredients companies we follow have now reported earnings results. These mostly ranged from in line to disappointing, with only Ingredion's results being (once again) above expectations. In terms of our fair value estimates, four stocks saw no revision (Kerry, Givaudan, International Flavors & Fragrances, Glanbia); only one saw a downgrade (Symrise, by 3%); and four saw significant upgrades (Ingredion by 12%, Christian Hansen by 13%, Tate & Lyle by 15%, and Barry Callebaut by 17%). We have made no changes to moat ratings in the ingredients sector.

The results convey some clear trends. End-user demand remains weak, as food and beverage companies are challenged in terms of a weak consumer spending environment, despite their best efforts to innovate, which generally boosts demand for ingredients. Health and wellness, demand for clean labelling, and natural ingredients remain key growth drivers. Channels are changing, however, with traditional retailers suffering at the hands of hard discounters and from increased food consumption on the go. Demand has also increased for snacking and convenience foods, supporting ingredients growth.

Currencies again came to the fore in some companies' results, notably Kerry's and Tate & Lyle's. In both cases, the British pound has a largely translational impact on earnings, negative in Kerry's case and strongly positive in Tate & Lyle's. The euro has been relatively stable against both the U.S. dollar and Swiss franc. Some emerging-market currencies have been appreciating after earlier depreciation, notably the Brazilian real and the Russian ruble.

Given the correction in share prices over the summer, more stocks are showing attractive upside potential, including our favourite, Symrise, with 34% upside to our EUR 74 fair value estimate. Flavours and fragrance stocks have become appealing, with all three showing upside, but we recommend International Flavors and Fragrances as being the most out-of-favour at these levels.

At this stage, we are not calling into question any of our moat ratings. The weakness in flavours and fragrance results is not due to any weakening of the strength of economic moats. We still see this segment of ingredients as being the most lucrative in terms of its ability to generate the best margins and returns on capital, a consequence of its having the best mix and most sophisticated formulations, often protected by proprietary technology, which garners significant switching costs.

Most of the ingredients companies expect the steep decline in input costs witnessed over the past two years to come to an end, and some are calling for higher input prices in 2017. This might affect the calculated profit margins, but, as we argued in our Ingredients Observer in July, pricing is broadly neutral for ingredients companies, as they pass on changes in raw material prices and attempt to stabilise gross profit in absolute terms. In an environment of rising prices, profit margins will fall in percentage terms.

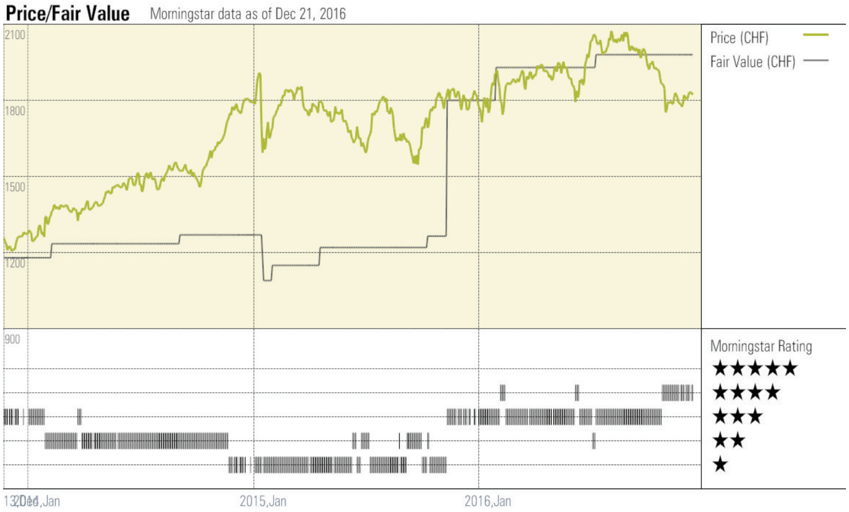
Flavours and Fragrances
Results were uniformly disappointing in flavours and fragrances, owing to company-specific factors. International Flavors & Fragrances is losing share to others with very weak top-line growth, with negative mix partly contributing, while Givaudan's third-quarter sales were only slightly disappointing. Symrise, which remains our Best Idea, continued to gain market share but suffered margin pressure, owing primarily to the dilutive impact of the Pinova acquisition, which has far lower margins than Symrise alone. International Flavors & Fragrances is now also looking attractive, given its negative reaction to results.

Sweeteners and Starches

# Givaudan SA GIVN (XSWX) | ★★★★

| Last Price | Fair Value | Uncertainty | Economic Moat™ | Moat Trend™ | Stewardship | Industry Group |
|---|---|---|---|---|---|---|
| 1,822.00 CHF | 1,980.00 CHF | Low | Narrow | Stable | Standard | Chemicals |

**Price/Fair Value** Morningstar data as of Dec 21, 2016




In sweeteners and starches, performance was highly contrasted. Ingredion continued to positively surprise, with a big improvement in mix being once again the main reason for very strong margin expansion. Synergies, network optimisation, and good pricing in North and South America also contributed. Ingredion's strong performance could not contrast more starkly with Tate & Lyle's relatively limp performance; the weakness of the British pound caused us to revise up our estimates, but volumes in its high-margin speciality business were again stagnant for the third consecutive year, this time due to soft U.S. demand. We still have a strong preference for Ingredion over Tate & Lyle from both a quality and a valuation perspective.

Dairy-Exposed Companies

The companies with a dairy exposure--Kerry, Glanbia, and Christian Hansen--generally reported in-line results. The general trend was one of lower pricing offset by sustained volume growth, though companies noted that the decline in dairy prices had ended and they expected higher raw material costs in 2017. Both Kerry and Glanbia are overvalued, but Christian Hansen now has attractive upside of 11%, given our upward revision of the fair value estimate.

Chocolate and Cocoa

Last but not least, Barry Callebaut reported slightly disappointing results, but we are more optimistic on margins going forward, owing to the steep recovery in the combined ratio from 20-year lows, which measures the ratio of output prices to input costs in chocolate and cocoa. The positive trend in the combined ratio augurs well for margins in the second half of the August 2017 year, but we feel much of this is already currently discounted in Barry Callebaut's share price.

**Valuation, Growth and Profitability** 18 Jul 2016

Based on our below-average systematic risk rating and 7.3% weighted average cost of capital, we are revising our fair value estimate by 3% to CHF 1980, following better-than-expected first-half 2016 results, which were characterised by accelerating revenue growth, particularly in fragrances, but stagnant underlying margins. Both accelerating sales growth and good cost control helped support margins.

After 5.8% organic sales growth expected in 2016, boosted by exceptionally strong growth in fragrances, we expect organic sales growth to average 4.7% from 2017 onward. Recent performance in developing markets has been strong, as price increases to offset local currency depreciation have tended to stick. We are no longer forecasting a significant foreign currency impact on 2016 sales, so reported sales growth should be close to organic sales growth, even including the small acquisition of Induchem.

We expect moderate margin expansion, by around 30 basis points annually at the EBITDA level, taking the EBITDA margin to 25.2% in 2020. This is consistent with a moderate degree of operating leverage. The operating margin should expand far faster than the EBITDA improvement, for technical reasons that are linked to the expected sharp drop in intangible asset amortisation. The annual improvement in the underlying EBIT margin between 2015 and 2020 is close to 80 basis points.

Excluding this technical factor, the average annual EBIT margin improvement between 2016 and 2020 is close to 40 basis points. We forecast the EBIT margin should reach 21.7% by 2020, up from 17.6% in 2015. As a result, ROIC (including goodwill) should jump from 14.8% in 2015 to 20.7% in 2020.

Capital spending is stable over the forecast period, at 3.0% of sales. We also expect a relatively stable profile for working capital, with the cash-conversion cycle broadly unchanged.

**Scenario Analysis**

Our bull-case scenario reflects faster recovery in developing markets, less competitive pressure, a more benign pricing environment, and lower capital intensity. In this case, our fair value estimate comes out at CHF 2,200, some 11% above our base-case fair value estimate. We assume longer-term organic sales growth of 5.5%, nearly a full percentage point better than our base case of 4.7%, combined with EBITDA margin expansion averaging 45 basis points, only slightly faster than the base-case scenario. In 2020, the operating margin reaches 23.3%, and ROIC (including goodwill) reaches 23.3%. We have capital spending dropping to 2.6% of sales by 2020, and an improvement in the cash conversion cycle.

Our bear-case scenario reflects an environment of more-competitive pricing, higher capital intensity, and slower volume growth brought about by a more lethargic recovery in developing markets and continued weakness in developed markets. In this case, our fair value estimate comes out at CHF 1780, some 10% below our base-case fair value estimate. Longer-term organic sales growth is 4.0% in this case, and the EBITDA margin improves only moderately, reaching 24.2% in 2020 from 23.9% in 2015. Likewise, the EBIT margin reaches 20.3% in 2020, and ROIC (including goodwill) reaches 18.3%. Capital spending in this scenario increases to reach 3.6% of sales by 2020, accompanied by a deterioration in the cash-conversion cycle.

**Economic Moat**

We assign a narrow economic moat rating to Givaudan, based on customer switching costs and high research and development, or R&D, spend (9% of sales), which acts as a barrier to entry. The customer base is relatively sticky, given that clients don't want to risk compromising the quality and customer appeal of their products by switching ingredients provider.

The value-added of ingredients companies is that their formulations used in clients' final products represent only a tiny fraction of cost of goods sold, or COGS--this is usually well below 5%, and sometimes less than 1% of COGS--in return for taste and smell characteristics that are crucial to, and even define, the product's success. In addition, companies in this sector can handle the complexity of ingredients with their multitude of different formulations, often running into the thousands, and can successfully innovate. Brands are irrelevant, and patents are few, being applicable only to technologies, such as flavour encapsulation, and not to particular tastes or smells.

That is not to say there is no churn. Product churn, as distinct from customer churn, is 10%-15% of sales annually at Givaudan, reflecting the normal life cycle of clients' products (which may or may not be renewed at the end of their lives) and changing formulations. Customer churn, however, is extremely low.

Scale is one of the strongest arguments against consumer product manufacturers ensuring their ingredients requirements themselves through in-house provision, and

**Givaudan SA** GIVN (XSWX) | ★★★★

| Last Price | Fair Value | Uncertainty | Economic Moat™ | Moat Trend™ | Stewardship | Industry Group |
|---|---|---|---|---|---|---|
| 1,822.00 CHF | 1,980.00 CHF | Low | Narrow | Stable | Standard | Chemicals |

# Morningstar Analysis

explains why both Nestle and Unilever have in the past sold their ingredients or flavours businesses to ingredients companies. Therefore, we think that Givaudan is at a low risk of losing its customers to in-sourcing of ingredients requirements.

R&D spend, at 8% of sales, is high and operates as a barrier to entry. Listed peers usually spend significantly less as a percentage of sales (Kerry spends 3.4%, while Symrise spends 6.6%). This means that Givaudan has more research and innovation capability than peers, which is crucial to generating sales and profits and maintaining its superior profitability within the ingredients industry. Among peers, only Firmenich, a private company, spends a comparable percentage of sales (10%).

These factors have enabled Givaudan to generate healthy ROIC (14.8% in 2015 including goodwill) for a consistent period of time, well ahead of its 7.3% WACC. Givaudan doesn't merit a wide moat rating because it has negligible pricing power and competition is strong. Switching costs alone do not appear sufficient for a wide moat rating, given the degree of competition in the industry. The company regularly has to bid in competitive tenders, where the client has established a fixed budget for their ingredients formulations. Moreover, price/mix is usually negligible, obliging Givaudan and peers to rely on volume growth to generate sales growth. Pricing is contractually limited to Givaudan recovering increases in input costs.

**Moat Trend**

We attribute a stable moat trend to Givaudan, as the ingredients industry is relatively stable and we don't anticipate major changes in current trends. Switching costs will remain a key factor in maintaining a relatively sticky customer base, while pricing will be negligible, with brands being irrelevant. Since the industry is fragmented, we expect further industry consolidation and for the larger players to expand through acquisitions. This might cause some redistribution of negotiating power with customers and relative scale, both potentially changing profitability.

# Givaudan SA GIVN (XSWX) | ★★★★

| Last Price | Fair Value | Uncertainty | Economic Moat™ | Moat Trend™ | Stewardship | Industry Group |
|---|---|---|---|---|---|---|
| 1,822.00 CHF | 1,980.00 CHF | Low | Narrow | Stable | Standard | Chemicals |

## Bulls Say/Bears Say

**Bulls Say**

- Givaudan has among some of the best operating metrics in the ingredients industry--among the highest operating margins, ROICs, and free cash flow generation/sales--combined with a low tax rate.

- The high R&D spend (8% of sales) underpins Givaudan's research and innovation capabilities and is a key distinguishing factor between it and peers, creating a barrier to entry.

- Givaudan is the industry leader in flavours and fragrances, which brings scale benefits in terms of improved fixed-cost absorption and better negotiating power with customers.

**Bears Say**

- Like peers, Givaudan has limited pricing power, and price doesn't much contribute to earnings growth or operating margin performance.

- Givaudan is currently suffering from its high developing-market exposure (46% of sales) where economic growth is weak, coupled with currency depreciation, which is depressing organic sales growth.

- Givaudan is not particularly acquisitive. Competitors such as Symrise are closing the gap in terms of relative size by engaging in external growth.

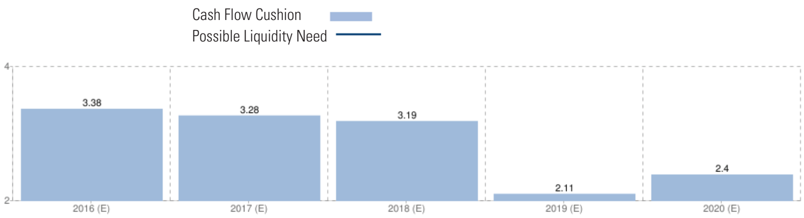
# Givaudan SA GIVN (XSWX) | ★★★★

| Last Price | Fair Value | Uncertainty | Economic Moat™ | Moat Trend™ | Stewardship | Industry Group |
|---|---|---|---|---|---|---|
| 1,822.00 CHF | 1,980.00 CHF | Low | Narrow | Stable | Standard | Chemicals |

### Five Year Adjusted Cash Flow Forecast (CHF Mil)

| | 2016(E) | 2017(E) | 2018(E) | 2019(E) | 2020(E) |
|---|---|---|---|---|---|
| Cash and Equivalents (beginning of period) | 478 | 390 | 353 | 319 | 399 |
| Adjusted Available Cash Flow | 250 | 274 | 273 | 257 | 255 |
| Total Cash Available before Debt Service | 728 | 665 | 626 | 576 | 654 |
| Principal Payments | -69 | -69 | -69 | -150 | -150 |
| Interest Payments | -57 | -41 | -30 | -22 | -17 |
| Other Cash Obligations and Commitments | -90 | -93 | -97 | -102 | -106 |
| Total Cash Obligations and Commitments | -215 | -203 | -196 | -273 | -273 |

### Cumulative Annual Cash Flow Cushion




### Adjusted Cash Flow Summary

| | CHF Millions | % of Commitments |
|---|---|---|
| Beginning Cash Balance | 478 | 41.2 |
| Sum of 5-Year Adjusted Free Cash Flow | 1,309 | 112.9 |
| Sum of Cash and 5-Year Cash Generation | 1,787 | 154.1 |
| Revolver Availability | — | — |
| Asset Adjusted Borrowings (Repayment) | — | — |
| Sum of Cash, 5-Year Cash Generation, Revolver and Adjustments | 1,787 | 154.1 |
| Sum of 5-Year Cash Commitments | -1,160 | — |

### Financial Health

Givaudan is in strong financial health, sporting amongst the highest profitability in the ingredients industry in terms of operating margin (17.6% underlying reached in 2015) or ROIC (14.8% including goodwill) and best free cash flow generation relative to sales (16%). Its liquidity and working capital efficiency ratios are similar to those of Symrise.Management has a number of cash flow and debt targets. It is targeting free cash flow to the firm/sales of 14%-15% of sales, and we estimate Givaudan will comfortably meet this goal. It is also planning to return 60% of free cash flow to shareholders. We think Givaudan will meet this cash return target from its dividend payment alone over 2015-19. It has a medium-term target of keeping leverage (defined as net debt/net debt plus equity) below 25%, which has been achieved since 2013.Net debt/EBITDA has dropped significantly since the Quest acquisition of 2007, from 5.0 times to 0.6 times as of the end of 2015. This is below peers, and Givaudan could be considered to be underleveraged, though this situation provides it with the flexibility to undergo a large acquisition paid for with cash if need be. Givaudan's low leverage is despite consistent dividend increases, including particularly large increases in 2012 and 2013 that more than doubled the dividend, taking the payout ratio to close to 80%, and despite the company ensuring an adequate level of capital spending, averaging 4.3% of sales over the past decade.Givaudan is not a particularly acquisitive company; its last major acquisition was of Quest in 2007. Givaudan is clearly not dependent on external finance, but the company faces the issue of how best to return cash to shareholders. During the past decade, it has tended not to buy back shares in significant numbers.

### Enterprise Risk

Our systematic risk rating for Givaudan is below average, given the predictable nature of the ingredients industry, where sales are volume-driven, accompanied by moderate operating leverage. The business is not inherently cyclical, but depends on product innovation rates at its customers, as well as its own organic sales growth rates. Most customers are in consumer noncyclical companies (food, beverage, personal care, and household care), with only a small share of sales to the more cyclical luxury end of the perfumes business. This is not thought to exceed 10% of Givaudan's overall sales.The ingredients industry benefits in the longer term from demographic trends, including health and wellness, more women working (which brings about more demand for ready-made meals and processed foods), more food and beverage consumed 'on the go', clean labelling, and the significant growth of the middle classes in the developing world, which leads to more processed food consumption (flavours) and use of personal-care products (fragrances). There is underlying secular demand for ingredients, including flavours and fragrances, which will tend to smooth out the swings in demand in particular parts of the industry or geographical regions.Currency fluctuations could potentially have a large impact on sales but are usually mitigated at the operating level because Givaudan has a number of natural hedges, including local production in some cases, and it also prices contracts in dollars in countries with volatile currencies.We would not rule out a major acquisition that could introduce risk during the integration stage, but we have no reason to doubt Givaudan's ability to successfully integrate acquired companies. The company's strong financial health--consisting of low financial leverage, healthy free cash flow generation, and profitability among the highest in the ingredients industry in terms of operating margin or ROIC--is a further source of comfort supporting the low risk rating.

# Givaudan SA GIVN (XSWX) | ★★★★

| Last Price | Fair Value | Uncertainty | Economic Moat™ | Moat Trend™ | Stewardship | Industry Group |
|---|---|---|---|---|---|---|
| 1,822.00 CHF | 1,980.00 CHF | Low | Narrow | Stable | Standard | Chemicals |

## Management & Ownership

### Management Activity

| Name | Position | Shares Held | Report Date* | InsiderActivity |
|---|---|---|---|---|
| NA | NA | NA | NA | NA |

*Represents the date on which the owner's name, position, and common shares held were reported by the holder or issuer.

### Fund Ownership

| Top Owners | % of Shares Held | % of Fund Assets | Change (k) | Portfolio Date |
|---|---|---|---|---|
| MFS International Value Fund | 2.47 | 1.75 | — | 31 Oct 2016 |
| MFS Meridian European Value | 1.08 | 2.92 | — | 31 Oct 2016 |
| Vanguard Total Intl Stock Idx Fund | 1.15 | 0.08 | 2 | 30 Nov 2016 |
| VA CollegeAmerica Cap Income Builder | 0.71 | 0.13 | — | 30 Sep 2016 |
| CSIF (CH) Swtzl Total Market Index Blue | 0.59 | 1.21 | 0 | 30 Nov 2016 |
| **Concentrated Holders** | | | | |
| Columbus Global Trend CHF | 0.02 | 9.02 | — | 31 Oct 2016 |
| Beleggingsfonds Hoofbosch | 0.06 | 6.90 | — | 31 Aug 2016 |
| AS Equities Flexiblilty Switzerland | 0.02 | 6.80 | — | 30 Nov 2016 |
| RVT Wachstum Fund | — | 6.45 | — | 30 Jun 2016 |
| UBS (CH) Equity Fund - Swiss Income CHF | 0.06 | 5.58 | 0 | 31 Aug 2016 |

### Institutional Transactions

| Top 5 Buyers | % of Shares Held | % of Fund Assets | Shares Bought/ Sold (k) | Portfolio Date |
|---|---|---|---|---|
| Government Pension Fund of Norway - Global | 2.06 | 0.03 | 43 | 31 Dec 2013 |
| State Street Global Advisors | 0.16 | 0.15 | 8 | 30 Nov 2016 |
| Exane Asset Management | 0.07 | 1.66 | 6 | 30 Jun 2016 |
| BlackRock Advisors LLC | 0.31 | 0.25 | 6 | 30 Nov 2016 |
| Crux Asset Management Limited | 0.14 | 1.51 | 4 | 30 Sep 2016 |
| **Top 5 Sellers** | | | | |
| Capital Research and Management Company | 0.82 | 0.07 | -25 | 30 Sep 2016 |
| Threadneedle Asset Management Limited | 0.56 | 1.80 | -8 | 30 Sep 2016 |
| Candriam Luxembourg | 0.18 | 0.98 | -6 | 31 Oct 2016 |
| BlackRock Investment Management (UK) Ltd. | 0.83 | 0.72 | -5 | 30 Nov 2016 |
| MEAG Munich Ergo KAG | 0.02 | 0.37 | -3 | 30 Sep 2016 |

### Management 18 Jul 2016

Our stewardship rating for Givaudan is Standard. Management has maintained the company's leadership position in flavours and fragrances and built Givaudan into one of the most profitable, cash-generative ingredients companies in the sector.

Nevertheless, management has been quite conservative in terms of leverage, with net debt/EBITDA of only 0.6 times as at year-end 2015, and has made no major acquisition since 2007. However, Givaudan has taken care to return excess cash to shareholders via a generous dividend, which more than doubled between 2011 and 2013, and now represents a payout ratio of more than 80%.

Givaudan's corporate governance practices are sound. There is only one share class, and each share has one vote and the right to an equal dividend. All eight board members are nonexecutives, of which seven are independent (chairman Jurg Witmer is a former CEO of Givaudan, serving in such a role from 1998 to 2005).

Givaudan recently amended its Articles of Association; all Board members are now elected annually and individually for one year. Gilles Andrier, who has been CEO since 2005, has a long tenure; he joined Givaudan in 1993, and held senior management positions in the fragrance division prior to his current appointment.

Executive Committee bonus awards are equally dependent on two criteria: local-currency sales growth and EBITDA margin targets, which ties compensation to Givaudan's operating performance, thereby aligning management with shareholders' interests. Including an ROIC or cash-generation target in the bonus structure would do so even more. Overall executive pay doesn't look excessive.

# Givaudan SA GIVN (XSWX) | ★★★★

| Last Price | Fair Value | Uncertainty | Economic Moat™ | Moat Trend™ | Stewardship | Industry Group |
|---|---|---|---|---|---|---|
| 1,822.00 CHF | 1,980.00 CHF | Low | Narrow | Stable | Standard | Chemicals |

## Analyst Notes

**Givaudan Reports Weaker Third-Quarter Sales Growth Rate** 10 Oct 2016

Narrow-moat Givaudan reported a weaker sales growth trend in the third quarter of 2016: Like-for-like, or LFL, sales grew only 3.1%, half the pace of the first half of the year. There was no explicit reason given, but we expect it was only a correction following a strong first half. We are making no changes to our earnings forecasts, our fair value estimate of CHF 1980, or our moat rating.

The slowdown was across both business units. The fragrance division continued to grow more quickly than flavours (up 3.4% versus 2.9%) in the third quarter, bringing the growth rate for LFL sales to 7.5% in the first nine months. The acquisition of Induchem and the Swiss franc both boosted reported growth rates slightly in this division. By subdivision, LFL growth rates for fine fragrances and consumer products remained robust, at 9.0% and 8.0%, respectively, while fragrance ingredients and active beauty registered growth of 2.9%.

The flavours division reported 3.0% LFL sales growth in the first nine months, with an acquisition and the Swiss franc adding slightly to reported growth rates. Growth was supported by new-business wins and expansion of the existing business in Latin America and the Asia-Pacific. However, sales were flat in Europe, the Middle East, and Africa, or EMEA, and were down slightly in North America, with both regions reporting lower beverage sales.

Givaudan also announced some management changes, with the current CFO and chairman both retiring and new appointments made. The new CFO will be Tom Hallam, who has been head of group controlling since 2008; Hallam previously worked at Serono. We do not expect these changes to have any material impact that would cause us to revise our earnings forecasts.

**Givaudan Reports Mixed First-Half 2016 Results** 18 Jul 2016

Givaudan reported better-than-expected first-half 2016 results, with strong organic sales growth of 6.2%, well above consensus expectations of 5.0% growth, and with underlying profitability also above expectations. We are making moderate upwards revisions to our 2016 estimates and leaving all future sales growth rates and margin expansion forecasts unchanged. Our fair value estimate rises modestly to CHF 1980 from CHF 1930, and we are maintaining our narrow moat rating and stable moat trend.

Growth was once again driven by a solid performance in developing markets, with organic sales growth of 10.7%. Results were boosted by a one-off noncash gain; adjusting for this, the underlying EBITDA margin was unchanged at 25.0%. Margins were supported by strong organic sales growth and cost control.

There is a growing divergence in performance between the two core divisions of fragrance and flavour: Fragrance is experiencing a booming top line and strong margin expansion, while flavour is seeing modest top-line growth and margin contraction.

Fragrance organic sales increased by a strong 9.7%, driven by good growth of new business, limited erosion of existing business, strong growth in developing markets, and good growth in mature markets. We don't expect such strong growth to continue, and we forecast 5.0% organic sales growth from 2017 onward. The underlying EBITDA margin increased 1.1% to 26.1%, adjusting for a one-time noncash gain.

Flavour organic sales growth was only 3.0%, well below our long-term growth forecast of 4.5%, and showed a deceleration between the first and second quarters.

## Givaudan SA GIVN (XSWX) | ★★★★

| Last Price | Fair Value | Uncertainty | Economic Moat™ | Moat Trend™ | Stewardship | Industry Group |
|---|---|---|---|---|---|---|
| 1,822.00 CHF | 1,980.00 CHF | Low | Narrow | Stable | Standard | Chemicals |

# Analyst Notes

Business stagnated in mature markets but grew in developing markets. The underlying EBITDA margin decreased 1.1% to 23.9%, adjusting for last year's one-off gain.

Givaudan continues to trade close to our fair value estimate and is therefore not an interesting investment opportunity.

# Givaudan SA GIVN (XSWX) | ★★★★

| Last Price | Fair Value | Uncertainty | Economic Moat™ | Moat Trend™ | Stewardship | Industry Group |
|---|---|---|---|---|---|---|
| 1,822.00 CHF | 1,980.00 CHF | Low | Narrow | Stable | Standard | Chemicals |

## Morningstar Analyst Forecasts

### Financial Summary and Forecasts

Fiscal Year Ends in December

| Growth (% YoY) | 3-Year Hist. CAGR | 2013 | 2014 | 2015 | *2016* (Forecast) | *2017* (Forecast) | *5-Year Proj. CAGR* |
|---|---|---|---|---|---|---|---|
| Revenue | *1.1* | 2.6 | 0.8 | -0.2 | *6.2* | *4.8* | *5.0* |
| EBIT | *7.7* | 11.7 | 3.2 | 8.3 | *7.3* | *14.7* | *9.3* |
| EBITDA | *5.7* | 9.1 | 4.2 | 3.9 | *6.9* | *6.1* | *6.2* |
| Net Income | *15.5* | 22.5 | 7.2 | 17.5 | *-2.0* | *18.6* | *8.8* |
| Diluted EPS | *15.1* | 21.6 | 6.8 | 17.5 | *-2.0* | *17.4* | *8.6* |
| Earnings Before Interest, after Tax | *11.4* | 20.2 | 6.8 | 7.7 | *-9.8* | *12.1* | *3.5* |
| Free Cash Flow | *8.4* | 30.0 | -22.6 | 26.4 | *-13.0* | *16.4* | *3.8* |

| Profitability | 3-Year Hist. Avg | 2013 | 2014 | 2015 | *2016* | *2017* | *5-Year Proj. Avg* |
|---|---|---|---|---|---|---|---|
| Operating Margin % | *16.7* | 16.0 | 16.4 | 17.8 | *18.0* | *19.7* | *20.1* |
| EBITDA Margin % | *23.0* | 22.2 | 23.0 | 23.9 | *24.0* | *24.3* | *24.6* |
| Net Margin % | *12.5* | 11.3 | 12.1 | 14.2 | *13.1* | *14.8* | *15.3* |
| Free Cash Flow Margin % | *16.8* | 18.4 | 14.1 | 17.9 | *14.7* | *16.3* | *16.2* |
| ROIC % | *21.3* | 20.1 | 21.3 | 22.4 | *25.2* | *26.8* | *28.5* |
| Adjusted ROIC % | *14.2* | 13.6 | 14.3 | 14.8 | *16.5* | *17.5* | *18.6* |
| Return on Assets % | *8.9* | 7.9 | 8.9 | 10.0 | *10.4* | *11.6* | *12.6* |
| Return on Equity % | *16.6* | 14.7 | 16.5 | 18.6 | *18.6* | *19.8* | *20.7* |

| Leverage | 3-Year Hist. Avg | 2013 | 2014 | 2015 | *2016* | *2017* | *5-Year Proj. Avg* |
|---|---|---|---|---|---|---|---|
| Debt/Capital | *0.26* | 0.28 | 0.26 | 0.25 | *0.21* | *0.16* | *0.13* |
| Total Debt/EBITDA | *1.22* | 1.37 | 1.19 | 1.10 | *0.82* | *0.59* | *0.46* |
| EBITDA/Interest Expense | *14.89* | 11.41 | 16.05 | 17.21 | *19.63* | *29.21* | *46.77* |

### Valuation Summary and Forecasts

| | 2014 | 2015 | *2016(E)* | *2017(E)* |
|---|---|---|---|---|
| Price/Fair Value | — | — | — | — |
| Price/Earnings | 31.1 | 26.9 | *27.4* | *23.4* |
| EV/EBITDA | 17.3 | 16.9 | *15.9* | *15.0* |
| EV/EBIT | 24.3 | 22.7 | *21.2* | *18.5* |
| Free Cash Flow Yield % | 4.1 | 5.0 | *3.7* | *4.5* |
| Dividend Yield % | 2.6 | 2.8 | *2.9* | *3.4* |

### Key Valuation Drivers

| | |
|---|---|
| Cost of Equity % | 7.5 |
| Pre-Tax Cost of Debt % | 4.8 |
| Weighted Average Cost of Capital % | 7.3 |
| Long-Run Tax Rate % | 19.0 |
| Stage II EBI Growth Rate % | 7.0 |
| Stage II Investment Rate % | 20.0 |
| Perpetuity Year | 15 |

Additional estimates and scenarios available for download at http://select.morningstar.com.

### Discounted Cash Flow Valuation

| | CHF Mil | Firm Value (%) | Per Share Value |
|---|---|---|---|
| Present Value Stage I | 3,356 | 17.5 | 361.34 |
| Present Value Stage II | 5,611 | 29.3 | 604.17 |
| Present Value Stage III | 10,168 | 53.1 | 1,094.83 |
| **Total Firm Value** | **19,136** | **100.0** | **2,060.34** |
| Cash and Equivalents | 478 | — | 51.47 |
| Debt | -1,155 | — | -124.36 |
| Preferred Stock | — | — | — |
| Other Adjustments | -510 | — | -54.94 |
| **Equity Value** | **17,949** | **—** | **1,932.51** |
| Projected Diluted Shares | 9 | | |
| **Fair Value per Share** (CHF) | **1,980.00** | | |

The data in the table above represent base-case forecasts in the company's reporting currency as of the beginning of the current year. Our fair value estimate may differ from the equity value per share shown above due to our time value of money adjustment and in cases where probability-weighted scenario analysis is performed.

# Givaudan SA GIVN (XSWX) | ★★★★

| Last Price | Fair Value | Uncertainty | Economic Moat™ | Moat Trend™ | Stewardship | Industry Group |
|---|---|---|---|---|---|---|
| 1,822.00 CHF | 1,980.00 CHF | Low | Narrow | Stable | Standard | Chemicals |

## Morningstar Analyst Forecasts

**Income Statement** (CHF Mil)
Fiscal Year Ends in December

| | | | | *Forecast* | |
|---|---|---|---|---|---|
| | 2013 | 2014 | 2015 | *2016* | *2017* |
| **Revenue** | **4,369** | **4,404** | **4,396** | ***4,669*** | ***4,891*** |
| Cost of Goods Sold | 2,415 | 2,377 | 2,366 | *2,504* | *2,613* |
| **Gross Profit** | **1,954** | **2,027** | **2,030** | ***2,166*** | ***2,278*** |
| Selling, General & Administrative Expenses | 913 | 923 | 867 | *916* | *955* |
| Research & Development | — | — | — | — | — |
| Other Operating Expense (Income) | 71 | 93 | 113 | *177* | *133* |
| Depreciation & Amortization (if reported separately) | 271 | 290 | 269 | *234* | *228* |
| **Operating Income (ex charges)** | **699** | **721** | **781** | ***838*** | ***962*** |
| Restructuring & Other Cash Charges | — | — | — | — | — |
| Impairment Charges (if reported separately) | 6 | 3 | 7 | — | — |
| Other Non-Cash (Income)/Charges | — | -42 | -20 | *-50* | — |
| **Operating Income (incl charges)** | **693** | **760** | **794** | ***888*** | ***962*** |
| Interest Expense | 85 | 63 | 61 | *57* | *41* |
| Interest Income | -28 | -20 | -27 | *-27* | *-27* |
| **Pre-Tax Income** | **580** | **677** | **706** | ***804*** | ***894*** |
| Income Tax Expense | 90 | 114 | 71 | *153* | *170* |
| Other After-Tax Cash Gains (Losses) | — | — | — | — | — |
| Other After-Tax Non-Cash Gains (Losses) | — | — | — | — | — |
| (Minority Interest) | — | — | — | — | — |
| (Preferred Dividends) | — | — | — | — | — |
| **Net Income** | **490** | **563** | **635** | ***651*** | ***724*** |
| Weighted Average Diluted Shares Outstanding | 9 | 9 | 9 | *9* | *9* |
| **Diluted Earnings Per Share** | **53.43** | **61.18** | **69.00** | ***70.79*** | ***77.97*** |
| Adjusted Net Income | 495 | 531 | 623 | *611* | *724* |
| **Diluted Earnings Per Share (Adjusted)** | **53.98** | **57.65** | **67.73** | ***66.39*** | ***77.97*** |
| Dividends Per Common Share | 47.00 | 50.00 | 54.00 | *52.50* | *61.50* |
| **EBITDA** | **964** | **1,050** | **1,063** | ***1,122*** | ***1,190*** |
| **Adjusted EBITDA** | **970** | **1,011** | **1,050** | ***1,122*** | ***1,190*** |

# Givaudan SA GIVN (XSWX) | ★★★★

| Last Price | Fair Value | Uncertainty | Economic Moat™ | Moat Trend™ | Stewardship | Industry Group |
|---|---|---|---|---|---|---|
| 1,822.00 CHF | 1,980.00 CHF | Low | Narrow | Stable | Standard | Chemicals |

## Morningstar Analyst Forecasts

**Balance Sheet** (CHF Mil)

| Fiscal Year Ends in December | 2013 | 2014 | 2015 | Forecast 2016 | Forecast 2017 |
|---|---|---|---|---|---|
| Cash and Equivalents | 513 | 412 | 478 | *390* | *353* |
| Investments | — | — | — | — | — |
| Accounts Receivable | 844 | 911 | 901 | *957* | *1,002* |
| Inventory | 692 | 771 | 716 | *758* | *791* |
| Deferred Tax Assets (Current) | — | — | — | — | — |
| Other Short Term Assets | 252 | 263 | 184 | *193* | *202* |
| **Current Assets** | **2,301** | **2,357** | **2,279** | ***2,298*** | ***2,348*** |
| | | | | | |
| Net Property Plant, and Equipment | 1,343 | 1,430 | 1,384 | *1,405* | *1,422* |
| Goodwill | 1,616 | 1,718 | 1,707 | *1,707* | *1,707* |
| Other Intangibles | 668 | 575 | 490 | *375* | *276* |
| Deferred Tax Assets (Long-Term) | 168 | 258 | 260 | *272* | *285* |
| Other Long-Term Operating Assets | 67 | 92 | 112 | *117* | *123* |
| Long-Term Non-Operating Assets | 39 | 42 | 50 | *100* | *100* |
| **Total Assets** | **6,202** | **6,472** | **6,282** | ***6,274*** | ***6,261*** |
| | | | | | |
| Accounts Payable | 419 | 423 | 400 | *423* | *442* |
| Short-Term Debt | 420 | 57 | 208 | *166* | *100* |
| Deferred Tax Liabilities (Current) | 82 | 82 | 70 | *73* | *77* |
| Other Short-Term Liabilities | 369 | 359 | 336 | *352* | *368* |
| **Current Liabilities** | **1,290** | **921** | **1,014** | ***1,015*** | ***987*** |
| | | | | | |
| Long-Term Debt | 909 | 1,150 | 947 | *758* | *606* |
| Deferred Tax Liabilities (Long-Term) | 87 | 88 | 92 | *96* | *101* |
| Other Long-Term Operating Liabilities | 127 | 165 | 177 | *185* | *194* |
| Long-Term Non-Operating Liabilities | 366 | 735 | 637 | *637* | *637* |
| **Total Liabilities** | **2,779** | **3,059** | **2,867** | ***2,691*** | ***2,525*** |
| | | | | | |
| Preferred Stock | — | — | — | — | — |
| Common Stock | 92 | 92 | 92 | *92* | *92* |
| Additional Paid-in Capital | — | — | — | — | — |
| Retained Earnings (Deficit) | 5,057 | 5,187 | 5,361 | *5,529* | *5,682* |
| (Treasury Stock) | — | — | — | — | — |
| Other Equity | -1,726 | -1,866 | -2,038 | *-2,038* | *-2,038* |
| **Shareholder's Equity** | **3,423** | **3,413** | **3,415** | ***3,583*** | ***3,736*** |
| | | | | | |
| Minority Interest | — | — | — | — | — |
| **Total Equity** | **3,423** | **3,413** | **3,415** | ***3,583*** | ***3,736*** |

## Givaudan SA GIVN (XSWX) | ★★★★

| Last Price | Fair Value | Uncertainty | Economic Moat™ | Moat Trend™ | Stewardship | Industry Group |
|---|---|---|---|---|---|---|
| 1,822.00 CHF | 1,980.00 CHF | Low | Narrow | Stable | Standard | Chemicals |

# Morningstar Analyst Forecasts

**Cash Flow** (CHF Mil)
Fiscal Year Ends in December

| | | | | Forecast | |
|---|---|---|---|---|---|
| | 2013 | 2014 | 2015 | *2016* | *2017* |
| Net Income | 490 | 563 | 635 | *651* | *724* |
| Depreciation | 111 | 110 | 112 | *119* | *129* |
| Amortization | 160 | 180 | 157 | *115* | *99* |
| Stock-Based Compensation | — | — | — | — | — |
| Impairment of Goodwill | — | — | — | — | — |
| Impairment of Other Intangibles | 6 | 3 | 7 | — | — |
| Deferred Taxes | — | — | — | *-5* | *-5* |
| Other Non-Cash Adjustments | — | — | — | *-50* | — |
| (Increase) Decrease in Accounts Receivable | -62 | -40 | -76 | *-56* | *-45* |
| (Increase) Decrease in Inventory | -5 | -47 | 4 | *-42* | *-33* |
| Change in Other Short-Term Assets | 143 | 90 | 138 | *-9* | *-9* |
| Increase (Decrease) in Accounts Payable | 72 | -1 | -7 | *23* | *18* |
| Change in Other Short-Term Liabilities | -23 | -15 | -12 | *16* | *17* |
| **Cash From Operations** | **892** | **843** | **958** | ***763*** | ***895*** |
| (Capital Expenditures) | -125 | -168 | -126 | *-140* | *-147* |
| Net (Acquisitions), Asset Sales, and Disposals | -51 | -100 | -140 | — | — |
| Net Sales (Purchases) of Investments | 2 | 58 | 1 | — | — |
| Other Investing Cash Flows | 2 | 1 | 40 | *3* | *3* |
| **Cash From Investing** | **-172** | **-209** | **-225** | ***-137*** | ***-144*** |
| Common Stock Issuance (or Repurchase) | -4 | -37 | -43 | — | — |
| Common Stock (Dividends) | -331 | -433 | -461 | *-483* | *-571* |
| Short-Term Debt Issuance (or Retirement) | -211 | -417 | -58 | *-42* | *-67* |
| Long-Term Debt Issuance (or Retirement) | 30 | 249 | -2 | *-189* | *-152* |
| Other Financing Cash Flows | -57 | -96 | -57 | — | — |
| **Cash From Financing** | **-573** | **-734** | **-621** | ***-714*** | ***-789*** |
| Exchange Rates, Discontinued Ops, etc. (net) | -2 | -1 | -46 | — | — |
| **Net Change in Cash** | **145** | **-101** | **66** | ***-88*** | ***-37*** |

# Givaudan SA GIVN (XSWX) | ★★★★

| Last Price | Fair Value | Uncertainty | Economic Moat™ | Moat Trend™ | Stewardship | Industry Group |
|---|---|---|---|---|---|---|
| 1,822.00 CHF | 1,980.00 CHF | Low | Narrow | Stable | Standard | Chemicals |

## Comparable Company Analysis

These companies are chosen by the analyst and the data are shown by nearest calendar year in descending market capitalization order.

### Valuation Analysis

| | | Price/Earnings | | | EV/EBITDA | | | Price/Free Cash Flow | | | Price/Book | | | Price/Sales | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company/Ticker | Price/Fair Value | 2015 | 2016(E) | 2017(E) | 2015 | 2016(E) | 2017(E) | 2015 | 2016(E) | 2017(E) | 2015 | 2016(E) | 2017(E) | 2015 | 2016(E) | 2017(E) |
| International Flavors & Fragrances Inc | 0.85 | 22.1 | 21.1 | 19.6 | 15.0 | 14.1 | 12.8 | 28.8 | 25.3 | 26.1 | 6.0 | 5.4 | 4.8 | 3.2 | 3.0 | 2.8 |
| Ingredion Inc INGR USA | 0.90 | 16.1 | 17.7 | 16.3 | 9.3 | 9.9 | 9.3 | 16.8 | 32.1 | 19.7 | 3.2 | 3.6 | 3.1 | 1.2 | 1.6 | 1.5 |
| Symrise AG SY1 DEU | 0.78 | 32.3 | 27.7 | 25.4 | 16.0 | 14.8 | 14.0 | 31.0 | 29.7 | 23.7 | 5.1 | 4.4 | 4.0 | 3.1 | 2.6 | 2.5 |
| Tate & Lyle PLC TATE GBR | 1.03 | 15.9 | 13.3 | 15.2 | 10.7 | 10.5 | 8.8 | 116.0 | NM | 30.8 | 3.0 | 2.6 | 3.0 | 1.2 | 1.1 | 1.2 |
| Average | | 21.6 | 20.0 | 19.1 | 12.8 | 12.3 | 11.2 | 48.2 | 29.0 | 25.1 | 4.3 | 4.0 | 3.7 | 2.2 | 2.1 | 2.0 |
| **Givaudan SA GIVN CH** | **0.92** | **26.9** | **27.4** | **23.4** | **16.9** | **15.9** | **15.0** | **20.1** | **27.0** | **22.5** | **4.9** | **4.7** | **4.5** | **3.8** | **3.6** | **3.4** |

### Returns Analysis

| | | ROIC % | | | Adjusted ROIC % | | | Return on Equity % | | | Return on Assets % | | | Dividend Yield % | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company/Ticker | Last Historical Year Total Assets (Mil) | 2015 | 2016(E) | 2017(E) | 2015 | 2016(E) | 2017(E) | 2015 | 2016(E) | 2017(E) | 2015 | 2016(E) | 2017(E) | 2015 | 2016(E) | 2017(E) |
| International Flavors & Fragrances Inc | 3,714 USD | 30.3 | 28.9 | 30.1 | 19.6 | 16.8 | 17.2 | 26.5 | 25.5 | 26.2 | 11.4 | 11.0 | 11.7 | 1.7 | 1.8 | 2.0 |
| Ingredion Inc INGR USA | 5,074 USD | 13.7 | 15.9 | 16.2 | 11.9 | 13.7 | 14.1 | 18.6 | 21.8 | 21.1 | 7.9 | 10.0 | 10.9 | 1.8 | 1.7 | 1.9 |
| Symrise AG SY1 DEU | 4,184 EUR | 15.6 | 16.1 | 16.3 | 10.6 | 11.1 | 11.3 | 16.6 | 15.3 | 16.4 | 6.0 | 5.8 | 6.4 | 1.3 | 1.5 | 1.7 |
| Tate & Lyle PLC TATE GBR | — GBP | 8.7 | 9.0 | 12.9 | 8.0 | 8.3 | 11.9 | 3.0 | 16.6 | 19.1 | 1.2 | 6.6 | 7.8 | 4.7 | 4.8 | 4.0 |
| Average | | 17.1 | 17.5 | 18.9 | 12.5 | 12.5 | 13.6 | 16.2 | 19.8 | 20.7 | 6.6 | 8.3 | 9.2 | 2.4 | 2.5 | 2.4 |
| **Givaudan SA GIVN CH** | **6,282** CHF | **22.4** | **25.2** | **26.8** | **14.8** | **16.5** | **17.5** | **18.6** | **18.6** | **19.8** | **10.0** | **10.4** | **11.6** | **2.8** | **2.9** | **3.4** |

### Growth Analysis

| | | Revenue Growth % | | | EBIT Growth % | | | EPS Growth % | | | Free Cash Flow Growth % | | | Dividend/Share Growth % | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company/Ticker | Last Historical Year Revenue (Mil) | 2015 | 2016(E) | 2017(E) | 2015 | 2016(E) | 2017(E) | 2015 | 2016(E) | 2017(E) | 2015 | 2016(E) | 2017(E) | 2015 | 2016(E) | 2017(E) |
| International Flavors & Fragrances Inc | 3,023 USD | -2.1 | 3.7 | 8.2 | 1.8 | 3.6 | 10.4 | 4.8 | 3.0 | 7.6 | -130.5 | -265.1 | 142.2 | 14.5 | 5.1 | 10.2 |
| Ingredion Inc INGR USA | 5,621 USD | -0.9 | 1.8 | 3.6 | 14.5 | 19.1 | 7.3 | 17.1 | 19.1 | 8.9 | -93.0 | 786.9 | 54.7 | 3.6 | 17.8 | 12.2 |
| Symrise AG SY1 DEU | 2,602 EUR | 22.7 | 11.1 | 2.3 | 17.0 | 8.2 | 8.2 | 15.4 | 9.2 | 9.2 | -433.8 | -80.0 | 545.7 | 6.7 | 6.3 | 17.7 |
| Tate & Lyle PLC TATE GBR | 2,341 GBP | -15.0 | 0.6 | 16.2 | -47.3 | 2.2 | 33.3 | -39.0 | 15.4 | 5.7 | -92.9 | 213.8 | 96.2 | 1.5 | — | — |
| Average | | 1.2 | 4.3 | 7.6 | -3.5 | 8.3 | 14.8 | -0.4 | 11.7 | 7.9 | -187.6 | 163.9 | 209.7 | 6.6 | 9.7 | 13.4 |
| **Givaudan SA GIVN CH** | **4,396** CHF | **-0.2** | **6.2** | **4.8** | **8.3** | **7.3** | **14.7** | **17.5** | **-2.0** | **17.4** | **26.4** | **-13.0** | **16.4** | **8.0** | **-2.8** | **17.1** |

# Givaudan SA GIVN (XSWX) | ★★★★

| Last Price | Fair Value | Uncertainty | Economic Moat™ | Moat Trend™ | Stewardship | Industry Group |
|---|---|---|---|---|---|---|
| 1,822.00 CHF | 1,980.00 CHF | Low | Narrow | Stable | Standard | Chemicals |

## Comparable Company Analysis

These companies are chosen by the analyst and the data are shown by nearest calendar year in descending market capitalization order.

### Profitability Analysis

| Company/Ticker | Last Historical Year Net Income (Mil) | Gross Margin % | | | EBITDA Margin % | | | Operating Margin % | | | Net Margin % | | | Free Cash Flow Margin % | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 2015 | 2016(E) | 2017(E) | 2015 | 2016(E) | 2017(E) | 2015 | 2016(E) | 2017(E) | 2015 | 2016(E) | 2017(E) | 2015 | 2016(E) | 2017(E) |
| International Flavors & Fragrances Inc | 438 USD | 44.7 | 45.2 | 45.4 | 23.2 | 23.2 | 23.6 | 20.3 | 20.2 | 20.6 | 14.5 | 14.2 | 14.2 | 11.0 | 11.8 | 10.6 |
| Ingredion Inc INGR USA | 433 USD | 22.1 | 24.4 | 24.7 | 16.0 | 18.1 | 18.6 | 12.6 | 14.7 | 15.2 | 7.7 | 9.2 | 9.6 | 7.3 | 5.0 | 7.8 |
| Symrise AG SY1 DEU | 247 EUR | 42.7 | 40.7 | 40.9 | 22.0 | 21.1 | 21.7 | 15.2 | 14.8 | 15.6 | 9.5 | 9.3 | 10.0 | 9.9 | 8.7 | 10.7 |
| Tate & Lyle PLC TATE GBR | 176 GBP | 43.7 | 44.0 | 44.2 | 12.5 | 12.9 | 15.0 | 7.9 | 8.0 | 9.2 | 7.5 | 8.6 | 7.8 | 1.0 | -0.4 | 3.9 |
| Average | | 38.3 | 38.6 | 38.8 | 18.4 | 18.8 | 19.7 | 14.0 | 14.4 | 15.2 | 9.8 | 10.3 | 10.4 | 7.3 | 6.3 | 8.3 |
| **Givaudan SA GIVN CH** | **623** CHF | **46.2** | **46.4** | **46.6** | **23.9** | **24.0** | **24.3** | **17.8** | **18.0** | **19.7** | **14.2** | **13.1** | **14.8** | **18.9** | **13.4** | **15.3** |

### Leverage Analysis

| Company/Ticker | Last Historical Year Total Debt (Mil) | Debt/Equity % | | | Debt/Total Cap % | | | EBITDA/Interest Exp. | | | Total Debt/EBITDA | | | Assets/Equity | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 2015 | 2016(E) | 2017(E) | 2015 | 2016(E) | 2017(E) | 2015 | 2016(E) | 2017(E) | 2015 | 2016(E) | 2017(E) | 2015 | 2016(E) | 2017(E) |
| International Flavors & Fragrances Inc | 1,070 USD | 67.5 | 66.0 | 58.1 | 40.3 | 39.8 | 36.7 | 15.2 | 13.1 | 14.0 | 1.5 | 1.6 | 1.4 | 2.3 | 2.3 | 2.2 |
| Ingredion Inc INGR USA | 1,838 USD | 85.6 | 65.4 | 48.1 | 46.1 | 39.6 | 32.5 | 12.2 | 14.0 | 17.1 | 2.0 | 1.6 | 1.3 | 2.4 | 2.0 | 1.8 |
| Symrise AG SY1 DEU | 1,409 EUR | 89.9 | 91.1 | 75.0 | 47.3 | 47.7 | 42.9 | 11.7 | 11.7 | 12.4 | 2.5 | 2.6 | 2.2 | 2.7 | 2.7 | 2.5 |
| Tate & Lyle PLC TATE GBR | 768 GBP | 82.1 | 73.5 | 68.7 | 45.1 | 42.4 | 40.7 | 9.2 | 10.1 | 13.6 | 2.6 | 2.5 | 1.8 | 2.6 | 2.5 | 2.4 |
| Average | | 81.3 | 74.0 | 62.5 | 44.7 | 42.4 | 38.2 | 12.1 | 12.2 | 14.3 | 2.2 | 2.1 | 1.7 | 2.5 | 2.4 | 2.2 |
| **Givaudan SA GIVN CH** | **1,155** CHF | **33.8** | **25.8** | **18.9** | **25.3** | **20.5** | **15.9** | **17.2** | **19.6** | **29.2** | **1.1** | **0.8** | **0.6** | **1.8** | **1.8** | **1.7** |

### Liquidity Analysis

| Company/Ticker | Market Cap (Mil) | Cash per Share | | | Current Ratio | | | Quick Ratio | | | Cash/Short-Term Debt | | | Payout Ratio % | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 2015 | 2016(E) | 2017(E) | 2015 | 2016(E) | 2017(E) | 2015 | 2016(E) | 2017(E) | 2015 | 2016(E) | 2017(E) | 2015 | 2016(E) | 2017(E) |
| International Flavors & Fragrances Inc | 9,355 USD | 2.25 | 1.44 | 2.07 | 1.95 | 1.90 | 2.04 | 1.15 | 1.09 | 1.19 | 1.38 | 0.97 | 1.56 | 38.7 | 39.0 | 38.0 |
| Ingredion Inc INGR USA | 9,077 USD | 5.95 | 4.92 | 5.54 | 2.63 | 2.20 | 2.03 | 1.66 | 1.37 | 1.29 | 22.84 | 1.33 | 1.10 | 31.6 | 29.9 | 29.9 |
| Symrise AG SY1 DEU | 7,490 EUR | 2.14 | 2.58 | 2.84 | 2.75 | 2.86 | 2.88 | 1.69 | 1.75 | 1.78 | 7.73 | 9.30 | 10.24 | 42.1 | 43.9 | 44.1 |
| Tate & Lyle PLC TATE GBR | 3,260 GBP | 0.42 | 0.68 | 0.62 | 1.32 | 1.64 | 1.62 | 0.81 | 1.04 | 0.99 | 0.64 | 1.59 | 1.45 | 436.8 | 80.3 | 64.3 |
| Average | | 2.69 | 2.41 | 2.77 | 2.16 | 2.15 | 2.14 | 1.33 | 1.31 | 1.31 | 8.15 | 3.30 | 3.59 | 137.3 | 48.3 | 44.1 |
| **Givaudan SA GIVN CH** | **16,824** CHF | **51.94** | **42.43** | **38.00** | **2.25** | **2.26** | **2.38** | **1.54** | **1.52** | **1.58** | **2.30** | **2.35** | **3.53** | **78.3** | **74.2** | **78.9** |

# Research Methodology for Valuing Companies

### Overview

At the heart of our valuation system is a detailed projection of a company's future cash flows, resulting from our analysts' research. Analysts create custom industry and company assumptions to feed income statement, balance sheet, and capital investment assumptions into our globally standardized, proprietary discounted cash flow, or DCF, modeling templates. We use scenario analysis, in-depth competitive advantage analysis, and a variety of other analytical tools to augment this process. Moreover, we think analyzing valuation through discounted cash flows presents a better lens for viewing cyclical companies, high-growth firms, businesses with finite lives (e.g., mines), or companies expected to generate negative earnings over the next few years. That said, we don't dismiss multiples altogether but rather use them as supporting cross-checks for our DCF-based fair value estimates. We also acknowledge that DCF models offer their own challenges (including a potential proliferation of estimated inputs and the possibility that the method may miss short-term market-price movements), but we believe these negatives are mitigated by deep analysis and our long-term approach.

Morningstar, Inc. and its affiliates ("Morningstar", "we", "our") believes that a company's intrinsic worth results from the future cash flows it can generate. The Morningstar Rating for stocks identifies stocks trading at a discount or premium to their intrinsic worth—or fair value estimate, in Morningstar terminology. Five-star stocks sell for the biggest risk-adjusted discount to their fair values, whereas 1-star stocks trade at premiums to their intrinsic worth.

Four key components drive the Morningstar rating: (1) our assessment of the firm's economic moat, (2) our estimate of the stock's fair value, (3) our uncertainty around that fair value estimate and (4) the current market price. This process ultimately culminates in our single-point star rating.

### 1. Economic Moat

The concept of an economic moat plays a vital role not only in our qualitative assessment of a firm's long-term investment potential, but also in the actual calculation of our fair value estimates. An economic moat is a structural feature that allows a firm to sustain excess profits over a long period of time. We define economic profits as returns on invested capital (or ROIC) over and above our estimate of a firm's cost of capital, or weighted average cost of capital (or WACC). Without a moat, profits are more susceptible to competition. We have identified five sources of economic moats: intangible assets, switching costs, network effect, cost advantage, and efficient scale.

Companies with a narrow moat are those we believe are more likely than not to achieve normalized excess returns for at least the next 10 years. Wide-moat companies are those in which we have very high confidence that excess returns will remain for 10 years, with excess returns more likely than not to remain for at least 20 years. The longer a firm generates economic profits, the higher its intrinsic value. We believe low-quality, no-moat companies will see their normalized returns gravitate toward the firm's cost of capital more quickly than companies with moats.

To assess the sustainability of excess profits, analysts perform ongoing assessments of the moat trend. A firm's moat trend is positive in cases where we think its sources of competitive advantage are growing stronger; stable where we don't anticipate changes to competitive advantages over the next several years; or negative when we see signs of deterioration.

### 2. Estimated Fair Value

Combining our analysts' financial forecasts with the firm's economic moat helps us assess how long returns on invested capital are likely to exceed the firm's cost of capital. Returns of firms with a wide economic moat rating are assumed to fade to the perpetuity period over a longer period of time than the returns of narrow-moat firms, and both will fade slower than no-moat firms, increasing our estimate of their intrinsic value.

Our model is divided into three distinct stages:

#### Stage I: Explicit Forecast

In this stage, which can last five to 10 years, analysts make full financial statement forecasts, including items such as revenue, profit margins, tax rates, changes in working-capital accounts, and capital spending. Based on these projections, we calculate earnings before interest, after taxes (EBI) and the net new investment (NNI) to derive our annual free cash flow forecast.

#### Stage II: Fade

The second stage of our model is the period it will take the company's return on new invested capital—the return on capital of the next dollar invested ("RONIC")—to decline (or rise) to its cost of capital. During the Stage II period, we use a formula to approximate cash flows in lieu of explicitly modeling the income statement, balance sheet, and cash flow statement as we do in Stage I. The length of the second stage depends on the strength of the company's economic moat. We forecast this period to last anywhere from one year (for companies with no economic moat) to 10–15 years or more (for wide-moat companies). During this period, cash flows are forecast using four assumptions: an average growth rate for EBI over the period, a normalized investment rate, average return on new invested capital (RONIC), and the number of years until perpetuity, when excess returns cease. The investment rate and return on new invested capital decline until a perpetuity value is calculated. In the case of firms that do not earn their cost of capital, we assume marginal ROICs rise to the firm's cost of capital (usually attributable to less reinvestment), and we may truncate the second stage.

#### Stage III: Perpetuity

Once a company's marginal ROIC hits its cost of capital, we calculate a continuing value, using a standard perpetuity formula. At perpetuity, we assume that any growth or decline or investment in the business neither creates nor destroys value and that any new investment provides a return in line with estimated WACC.

Because a dollar earned today is worth more than a dollar earned tomorrow, we discount our projections of cash flows in stages I, II, and III to arrive at a total pres-

**Morningstar Research Methodology for Valuing Companies**

Economic Moat
Financial Health
Stewardship
Uncertainty
Moat Trend

**Morningstar Fair Value**

Margin of Safety
Market Pricing

**Morningstar Rating™ For Stocks**
★★★★★

ent value of expected future cash flows. Because we are modeling free cash flow to the firm—representing cash available to provide a return to all capital providers—we discount future cash flows using the WACC, which is a weighted average of the costs of equity, debt, and preferred stock (and any other funding sources), using expected future proportionate long-term, market-value weights.

**3. Uncertainty around that fair value estimate**
Morningstar's Uncertainty Rating captures a range of likely potential intrinsic values for a company and uses it to assign the margin of safety required before investing, which in turn explicitly drives our stock star rating system. The Uncertainty Rating represents the analysts' ability to bound the estimated value of the shares in a company around the Fair Value Estimate, based on the characteristics of the business underlying the stock, including operating and financial leverage, sales sensitivity to the overall economy, product concentration, pricing power, and other company-specific factors.

Analysts consider at least two scenarios in addition to their base case: a bull case and a bear case. Assumptions are chosen such that the analyst believes there is a 25% probability that the company will perform better than the bull case, and a 25% probability that the company will perform worse than the bear case. The distance between the bull and bear cases is an important indicator of the uncertainty underlying the fair value estimate.

Our recommended margin of safety widens as our uncertainty of the estimated value of the equity increases. The more uncertain we are about the estimated value of the equity, the greater the discount we require relative to our estimate of the value of the firm before we would recommend the purchase of the shares. In addition, the uncertainty rating provides guidance in portfolio construction based on risk tolerance.

Our uncertainty ratings for our qualitative analysis are low, medium, high, very high, and extreme.

- ►**Low:** margin of safety for 5-star rating is a 20% discount and for 1-star rating is 25% premium.
- ►**Medium:** margin of safety for 5-star rating is a 30% discount and for 1-star rating is 35% premium.
- ►**High:** margin of safety for 5-star rating is a 40% discount and for 1-star rating is 55% premium.
- ►**Very High:** margin of safety for 5-star rating is a 50% discount and for 1-star rating is 75% premium.
- ►**Extreme:** Stock's uncertainty exceeds the parameters we have set for assigning the appropriate margin of safety.

**4. Market Price**
The market prices used in this analysis and noted in the report come from exchange on which the stock is listed which we believe is a reliable source.

For more detail information about our methodology, please go to http://global.morningstar.com/equitydisclosures

**Morningstar Star Rating for Stocks**
Once we determine the fair value estimate of a stock, we compare it with the stock's current market price on a daily basis, and the star rating is automatically re-calculated at the market close on every day the market on which the stock is listed is open. Our analysts keep close tabs on the companies they follow, and, based on thorough and ongoing analysis, raise or lower their fair value estimates as warranted.

Please note, there is no predefined distribution of stars. That is, the percentage of stocks that earn 5 stars can fluctuate daily, so the star ratings, in the aggregate, can serve as a gauge of the broader market's valuation. When there are many 5-star stocks, the stock market as a whole is more undervalued, in our opinion, than when very few companies garner our highest rating.

We expect that if our base-case assumptions are true the market price will converge on our fair value estimate over time, generally within three years (although it is impossible to predict the exact time frame in which market prices may adjust).

Our star ratings are guideposts to a broad audience and individuals must consider their own specific investment goals, risk tolerance, tax situation, time horizon, income needs, and complete investment portfolio, among other factors.

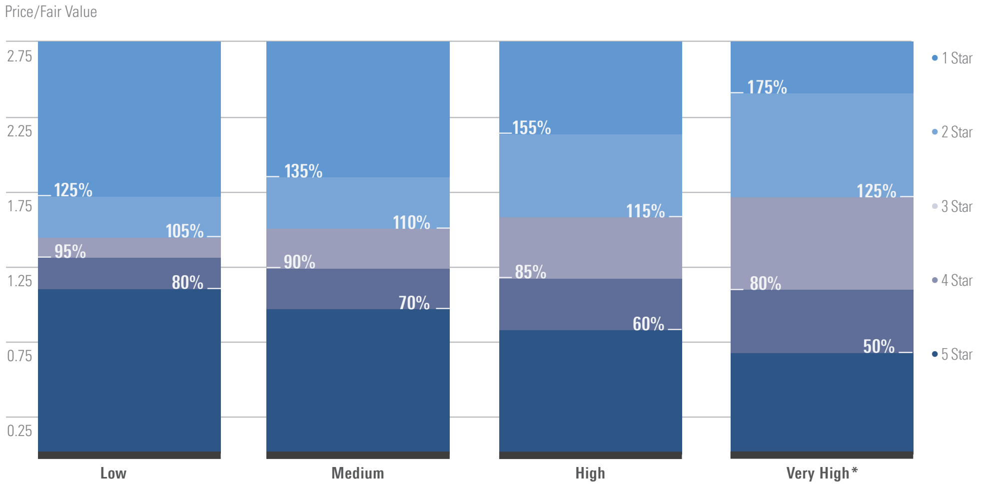
The Morningstar Star Ratings for stocks are defined below:

**Five Stars ★★★★★**
We believe appreciation beyond a fair risk-adjusted return is highly likely over a multiyear time frame. Scenario analysis developed by our analysts indicates that the current market price represents an excessively pessimistic outlook, limiting downside risk and maximizing upside potential.

**Four Stars ★★★★**
We believe appreciation beyond a fair risk-adjusted return is likely.

**Three Stars ★★★**
Indicates our belief that investors are likely to receive a fair risk-adjusted return (approximately cost of equity).

**Morningstar Research Methodology for Valuing Companies**




* Occasionally a stock's uncertainty will be too high for us to estimate, in which case we label it Extreme.

# Research Methodology for Valuing Companies

**Two Stars ★★**
We believe investors are likely to receive a less than fair risk-adjusted return.

**One Star ★**
Indicates a high probability of undesirable risk-adjusted returns from the current market price over a multiyear time frame, based on our analysis. Scenario analysis by our analysts indicates that the market is pricing in an excessively optimistic outlook, limiting upside potential and leaving the investor exposed to Capital loss.

Other Definitions:

**Last Price:** Price of the stock as of the close of the market of the last trading day before date of the report.

**Stewardship Rating:** Represents our assessment of management's stewardship of shareholder capital, with particular emphasis on capital allocation decisions. Analysts consider companies' investment strategy and valuation, financial leverage, dividend and share buyback policies, execution, compensation, related party transactions, and accounting practices. Corporate governance practices are only considered if they've had a demonstrated impact on shareholder value. Analysts assign one of three ratings: "Exemplary," "Standard," and "Poor." Analysts judge stewardship from an equity holder's perspective. Ratings are determined on an absolute basis. Most companies will receive a Standard rating, and this is the default rating in the absence of evidence that managers have made exceptionally strong or poor capital allocation decisions.

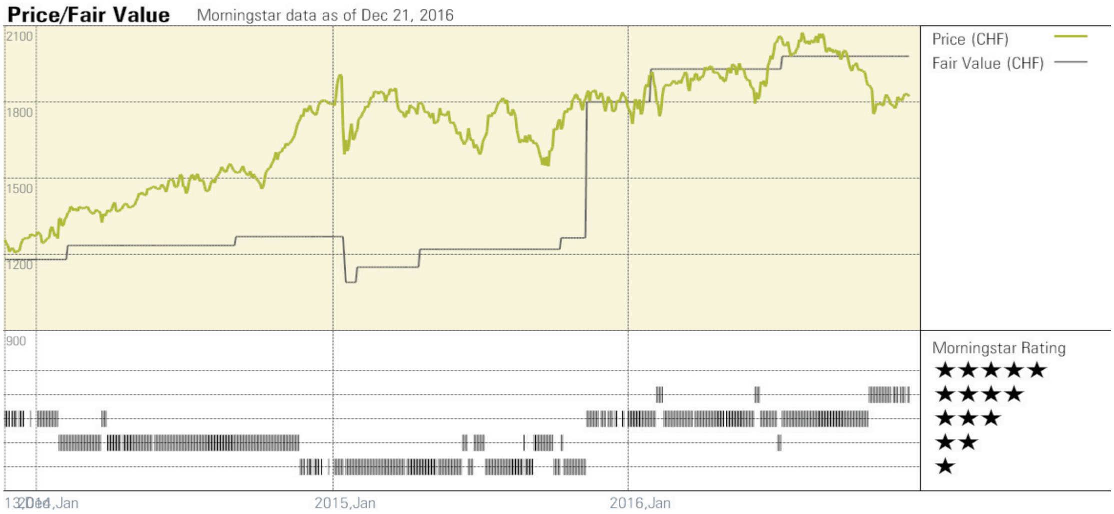
**Quantitative Valuation:** Using the below terms, intended to denote the relationship between the security's Last Price and Morningstar's quantitative fair value estimate for that security.

- **Undervalued:** Last Price is below Morningstar's quantitative fair value estimate.
- **Farily Valued:** Last Price is in line with Morningstar's quantitative fair value estimate.
- **Overvalued:** Last Price is above Morningstar's quantitative fair value estimate.

**Risk Warning**
Please note that investments in securities are subject to market and other risks and there is no assurance or guarantee that the intended investment objectives will be achieved. Past performance of a security may or may not be sustained in future and is no indication of future performance. A security investment return and an investor's principal value will fluctuate so that, when redeemed, an investor's shares may be worth more or less than their original cost. A security's current investment performance may be lower or higher than the investment performance noted within the report. Morningstar's Uncertainty Rating serves as a useful data point with respect to sensitivity analysis of the assumptions used in our determining a fair value price.

# Givaudan SA GIVN (XSWX) | ★★★★

| Last Price | Fair Value | Uncertainty | Economic Moat™ | Moat Trend™ | Stewardship | Industry Group |
|---|---|---|---|---|---|---|
| 1,822.00 CHF | 1,980.00 CHF | Low | Narrow | Stable | Standard | Chemicals |




<b>General Disclosure</b>
The analysis within this report is prepared by the person(s) noted in their capacity as an analyst for Morningstar. The opinions expressed within the report are given in good faith, are as of the date of the report and are subject to change without notice. Neither the analyst nor Morningstar commits themselves in advance to whether and in which intervals updates to the report are expected to be made. The written analysis and Morningstar Star Rating for stocks are statements of opinions; they are not statements of fact.

Morningstar believes its analysts make a reasonable effort to carefully research information contained in the analysis. The information on which the analysis is based has been obtained from sources which we believe to be reliable such as, for example, the company’s financial statements filed with a regulator, company website, Bloomberg and any other the relevant press sources. Only the information obtained from such sources is made available to the issuer who is the subject of the analysis, which is necessary to properly reconcile with the facts. Should this sharing of information result in considerable changes, a statement of that fact will be noted within the report. While Morningstar has obtained data, statistics and information from sources it believes to be reliable, Morningstar does not perform an audit or seek independent verification of any of the data, statistics, and information it receives.

Unless otherwise provided in a separate agreement, recipients accessing this report may only use it in the country in which the Morningstar distributor is based. Unless stated otherwise, the original distributor of the report is Morningstar Inc., a U.S.A. domiciled financial institution.

This report is for informational purposes only and has no regard to the specific investment objectives, financial situation or particular needs of any specific recipient. This publication is intended to provide information to assist institutional investors in making their own investment decisions, not to provide investment advice to any specific investor. Therefore, investments discussed and recommendations made herein may not be suitable for all investors: recipients must exercise their own independent judgment as to the suitability of such investments and recommendations in the light of their own investment objectives, experience, taxation status and financial position.

The information, data, analyses and opinions presented herein are not warranted to be accurate, correct, complete or timely. Unless otherwise provided in a separate agreement, Morningstar makes no representation that the report contents meet all of the presentation and/or disclosure standards applicable in the jurisdiction the recipient is located.

Except as otherwise required by law or provided for in a separate agreement, the analyst, Morningstar and its officers, directors and employees shall not be responsible or liable for any trading decisions, damages or other losses resulting from, or related to, the information, data, analyses or opinions within the report. Morningstar encourages recipients of this report to read all relevant issue documents (e.g., prospectus) pertaining to the security concerned, including without limitation, information relevant to its investment objectives, risks, and costs before making an investment decision and when deemed necessary, to seek the advice of a legal, tax, and/or accounting professional.

The Report and its contents are not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation or which would subject Morningstar or its affiliates to any registration or licensing requirements in such jurisdiction.

Where this report is made available in a language other than English and in the case of inconsistencies between the English and translated versions of the report, the English version will control and supersede any ambiguities associated with any part or section of a report that has been issued in a foreign language. Neither the analyst, Morningstar, or Morningstar affiliates guarantee the accuracy of the translations.

This report may be distributed in certain localities, countries and/or jurisdictions ("Territories") by independent third parties or independent intermediaries and/or distributors ("Distributors"). Such Distributors are not acting as agents or representatives of the analyst or Morningstar. In Territories where a Distributor distributes our report, the Distributor, and not the analyst or Morningstar, is solely responsible for complying with all applicable regulations, laws, rules, circulars, codes and guidelines established by local and/or regional regulatory bodies, including laws in connection with the distribution third-party research reports.

Conflicts of Interest:

• No interests are held by the analyst with respect to the security subject of this investment research report.
– Morningstar, Inc. may hold a long position in the security subject of this investment research report that exceeds 0.5% of the total issued share capital of the security. To determine if such is the case, please click http://msi.morningstar.com and http://mdi.morningstar.com.

• Analysts' compensation is derived from Morningstar's overall earnings and consists of salary, bonus and in some cases restricted stock.

• Morningstar does not receive commissions for providing research and does not charge companies to be rated.

• Morningstar is not a market maker or a liquidity provider of the security noted within this report.

• Morningstar has not been a lead manager or co-lead manager over the previous 12-months of any publicly disclosed offer of financial instruments of the issuer.

• Morningstar affiliates (i.e., its investment management group) have arrangements with financial institutions to provide portfolio management/investment advice some of which an analyst may issue investment research reports on. However, analysts do not have authority over Morningstar's investment management group's business arrangements nor allow employees from the investment management group to participate or influence the analysis or opinion

# Givaudan SA GIVN (XSWX) | ★★★★

| Last Price | Fair Value | Uncertainty | Economic Moat™ | Moat Trend™ | Stewardship | Industry Group |
|---|---|---|---|---|---|---|
| 1,822.00 CHF | 1,980.00 CHF | Low | Narrow | Stable | Standard | Chemicals |

prepared by them.

• Morningstar, Inc. is a publically traded company (Ticker Symbol: MORN) and thus a financial institution the security of which is the subject of this report may own more than 5% of Morningstar, Inc.'s total outstanding shares. Please access Morningstar, Inc.'s proxy statement, "Security Ownership of Certain Beneficial Owners and Management" section http://investorrelations.morningstar.com/sec.cfm?doctype=Proxy&year=&x=12

• Morningstar may provide the product issuer or its related entities with services or products for a fee and on an arms' length basis including software products and licenses, research and consulting services, data services, licenses to republish our ratings and research in their promotional material, event sponsorship and website advertising.

Further information on Morningstar's conflict of interest policies is available from http://global.morningstar.com/equitydisclosures. Also, please note analysts are subject to the CFA Institute's Code of Ethics and Standards of Professional Conduct.

For a list of securities which Morningstar currently covers and provides written analysis on please contact your local Morningstar office. In addition, for historical analysis of securities we have covered, including their fair value estimate, please contact your local office.

<b>For Recipients in Australia: </b>This Report has been issued and distributed in Australia by Morningstar Australasia Pty Ltd (ABN: 95 090 665 544; ASFL: 240892). Morningstar Australasia Pty Ltd is the provider of the general advice ('the Service') and takes responsibility for the production of this report. The Service is provided through the research of investment products. To the extent the Report contains general advice it has been prepared without reference to an investor's objectives, financial situation or needs. Investors should consider the advice in light of these matters and, if applicable, the relevant Product Disclosure Statement before making any decision to invest. Refer to our Financial Services Guide (FSG) for more information at http://www.morningstar.com.au/fsg.pdf .

<b>For Recipients in Hong Kong: </b>The Report is distributed by Morningstar Investment Management Asia Limited, which is regulated by the Hong Kong Securities and Futures Commission to provide services to professional investors only. Neither Morningstar Investment Management Asia Limited, nor its representatives, are acting or will be deemed to be acting as an investment advisor to any recipients of this information unless expressly agreed to by Morningstar Investment Management Asia Limited. For enquiries regarding this research, please contact a Morningstar Investment Management Asia Limited Licensed Representative at http://global.morningstar.com/equitydisclosures .

<b>For Recipients in India: </b>This Investment Research is issued by Morningstar Investment Adviser India Private Limited. Morningstar Investment Adviser India Private Limited is registered with the Securities and Exchange Board of India (Registration number INA000001357) and provides investment advice and research. Morningstar Investment Adviser India Private Limited has not been the subject of any disciplinary action by SEBI or any other legal/regulatory body. Morningstar Investment Adviser India Private Limited is a wholly owned subsidiary of Morningstar Investment Management LLC. In India, Morningstar Investment Adviser India Private Limited has one associate, Morningstar India Private Limited, which provides data related services, financial data analysis and software development.

The Research Analyst has not served as an officer, director or employee of the fund company within the last 12 months, nor has it or its associates engaged in market making activity for the fund company.

*The Conflicts of Interest disclosure above also applies to relatives and associates of Manager Research Analysts in India # The Conflicts of Interest disclosure above also applies to associates of Manager Research Analysts in India. The terms and conditions on which Morningstar Investment Adviser India Private Limited offers Investment Research to clients, varies from client to client, and are detailed in the respective client agreement.

<b>For recipients in Japan: </b>The Report is distributed by Ibbotson Associates Japan, Inc., which is regulated by Financial Services Agency. Neither Ibbotson Associates Japan, Inc., nor its representatives, are acting or will be deemed to be acting as an investment advisor to any recipients of this information.

<b>For recipients in Singapore: </b>For Institutional Investor audiences only. Recipients of this report should contact their financial adviser in Singapore in relation to this report. Morningstar, Inc., and its affiliates, relies on certain exemptions (Financial Advisers Regulations, Section 32B and 32C) to provide its investment research to recipients in Singapore.