

CHEMICAL INSIGHTS



Flavors & Fragrances: Capturing Value in a Consolidating and White-Hot Specialty Chemical Market

For years, Grace Matthews has tracked the performance of nearly 100 publicly traded chemical and material companies across a wide variety of sub-sectors in the *GM Chemical Index*. While the paints and coatings, adhesives, agriculture, surfactants, water treatment and building products sub-sectors have often traded at very healthy valuations, one sector has consistently outperformed our broader *GM Chemical Index*: Flavors & Fragrances (“F&F”).

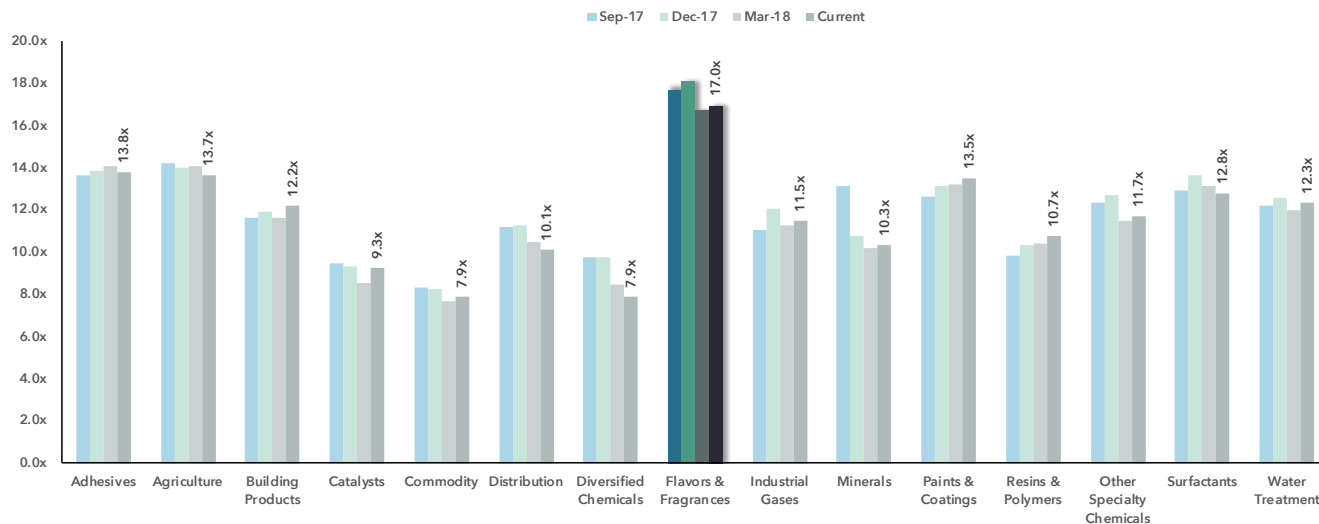
Within the specialty chemical markets, the Flavors & Fragrances segment has numerous desirable characteristics that are contributing to strong growth and an ongoing M&A feeding frenzy. Specifically: strong margins (average EBITDA margins for Givaudan, International Flavors & Fragrances (“IFF”) and Symrise were over 22% in 2017), changing consumer preferences and rising disposable incomes in emerging markets. Further, due to local tastes and preferences, it is more difficult to commoditize globally - local / regional supply still matters. It is no surprise then that Flavors & Fragrances are an investor’s dream: a still-fragmented, high margin industry with high switching costs and regulatory barriers to entry. Take, for example, the eye-popping 24x EBITDA multiple paid by IFF for its pending \$7.1 billion acquisition of Frutarom.

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In such a hot M&A market in an already attractive industry, how can smaller and mid-sized F&F players position themselves to generate attractive exit alternatives and capture maximum value in a sale process? In this edition of the Grace Matthews newsletter, we offer several possible answers to these questions.

Flavors & Fragrances: The Basics

Flavors are broadly defined as the ingredients used to alter or enhance the taste of edible foods and drinks. Fragrances are aromatic mixtures used to augment smells for personal care products and various industrial applications. F&F manufacturers blend a variety of natural and synthetic ingredients into proprietary formulations, which are then sold in powder and liquid forms to customers manufacturing food and beverages, consumer goods and personal care products. While flavors and fragrances constitute only a small portion of a typical finished product (IFF estimates it at 1 to 5%), they play a “mission-critical” role as taste and smell are key in influencing consumers when selecting a brand. As a result, manufacturers in the \$25+ billion F&F industry command higher margins relative to almost all other specialty chemical sectors.

GM Chemical Index: Public Trading EBITDA Multiples by Sub-Sector¹

The industry also possesses defensive characteristics that make it less sensitive to economic cycles. Many end products incorporating flavors and fragrances are consumer staples such as food, beverages, personal care products and other everyday consumer goods. Strong customer relationships also provide stability for F&F manufacturers. High switching costs associated with re-testing products for regulatory approval, conducting consumer testing and modifying manufacturing processes leave many customers reluctant to change.

Recently, changing consumer preferences and increasing disposable incomes, particularly in emerging economies, are providing tailwinds for industry growth. Leffingwell & Associates estimated that the global F&F market grew more than 7% in 2017, and most industry experts predict the market will grow more than 4% annually through 2022. These growth rates are even higher in emerging markets, where disposable incomes for the middle class are on the rise.

Global secular trends, including a focus on health and wellness, heightened consumer awareness, sustainability and aging populations are all driving changes in consumer behavior, to the benefit of F&F manufacturers. Consumers increasingly want fresh and natural products, simpler ingredient lists and options with fewer calories, fat and sodium. At the same time, they are not willing to sacrifice taste. They are demanding more options and bold, new and ethnic flavors. In response, F&F manufacturers need to stay at the leading edge of consumer trends, with the reward being strong growth and healthy valuations.

A Wave of Global M&A Activity

From a competitive standpoint, the F&F industry can best be described as consolidating, global and yet still fragmented with plentiful opportunities for mid-sized and smaller players. In 2005, the top 4 manufacturers controlled about 45% of the global market. Today, the "Big 4" F&F manufacturers, consisting of Givaudan/Naturex, IFF/Frutarom, Firmenich and Symrise, collectively have an estimated 63% market share.² The trend is reminiscent of the paints and coatings industry in the 1990s and early 2000s in which a rapid pace of consolidation led to the top 5 coatings companies controlling over half of the market today. In F&F, the wave of M&A activity has persisted for several years, culminating in two recent blockbuster transactions. In May, IFF announced the planned acquisition of Frutarom for \$7.1 billion. Earlier this year, Givaudan picked up a 40.5% stake in Naturex at an implied enterprise value of \$1.6 billion, with plans to acquire the remaining shares. The rationale for these acquisitions is typical of major mergers in other chemical segments: greater purchasing power, manufacturing and corporate synergies, broader global footprint, deeper penetration of the small and mid-sized customer base and a broader product portfolio to offer to large multinational customers. That last point is key. The Big 4 can extract significant leverage from bolt-ons due to cross-selling opportunities to large consumer packaged goods ("CPG") and food companies that prefer fewer suppliers.

A final observation about M&A activity in the F&F sub-sector is that it's increasingly global in nature. One look at the list of recent F&F transactions on page 5 and this becomes obvious. 80% of the transactions listed are cross-border. A big driver

¹ Source: CapIQ. Current data as of July 19, 2018.

² Source: Leffingwell and Associates and Grace Matthews estimates.

of acquirers' international focus, as mentioned earlier, is to gain immediate access to local markets and products that already have the necessary regulatory approvals.

Advantages of “Buy” vs. “Build”

In this ongoing march towards consolidation within the F&F industry, it is important for the estimated 800+ smaller and medium-sized companies to understand the objectives of potential acquirers if they want to capture the most value in a sale process. Larger, publicly traded strategic players are under constant pressure to achieve above-market growth to satisfy investors. Similarly, private equity buyers are aggressively seeking to deploy capital and grow substantially to generate high returns for shareholders.

When contemplating avenues for growth, many strategic players are faced with a “buy vs. build” decision. Organically investing in growth initiatives, however, is fraught with challenges in the flavors and fragrances industry. For one, customer relationships tend to be exceptionally “sticky.” Few F&F customers are willing to go down the path of swapping out a flavoring ingredient from the incumbent supplier to a new entrant since it would require time-consuming consumer testing and regulatory hurdles (e.g., FDA approvals). Switching costs are simply too high. As such, many F&F participants are showing a preference to buy an existing business with tested and approved formulations and established customer relationships. Frutarom is a prime example. In 2017 alone, the company completed 10 acquisitions in 9 different countries. Also, the high public market multiples and strong cash flow of the Big 4 are ideally suited for a “buy” strategy.

F&F Mid-sized and Smaller Players: How to Create (and Capture) Value

In an environment strongly favoring “buy” over “build”, potential acquisition targets need to proactively deploy strategies to maximize value in a sale process. In short: know what you have, and how to position it. We highlight three specific strategies below.

First, embed yourself in your core customers' operations by providing more value-added services. Make yourself critical to their business. Givaudan echoes this sentiment: “...with customers at the heart of our business, we leverage our knowledge of markets and consumer preferences and with our unique capabilities help them grow their market-leading brands.” As Grace Matthews discussed in our [Spring 2017 Newsletter on Chemical Distribution](#), offering more services to your customers allows them to outsource non-core activities and focus on their competitive strengths. This approach will drive higher margins and generate more attractive valuations for F&F manufacturers in a transaction.

A second but related strategy to maximize value is to focus on core technology competencies. Having a strong product and IP portfolio that is out in front of current F&F industry trends (e.g., health and wellness, natural ingredients, sustainability) is highly attractive to potential acquirers seeking portfolio diversification and cross-selling opportunities. Grace Matthews observed this dynamic recently when it advised CiDRA, a leading process optimization and technology provider for diversified industrial end markets, on the sale of its Chemical Management business. CiDRA Chemical Management, Inc. (“CCMI”) possessed a portfolio of proprietary entrained air measurement technology to optimize delivery of water treatment chemicals in food / agro processing and pulp & paper end markets. The acquirer, Buckman Laboratories, a global specialty chemicals company, saw significant opportunities to deploy this technology globally across its customer base, making CCMI a highly attractive and synergistic acquisition.

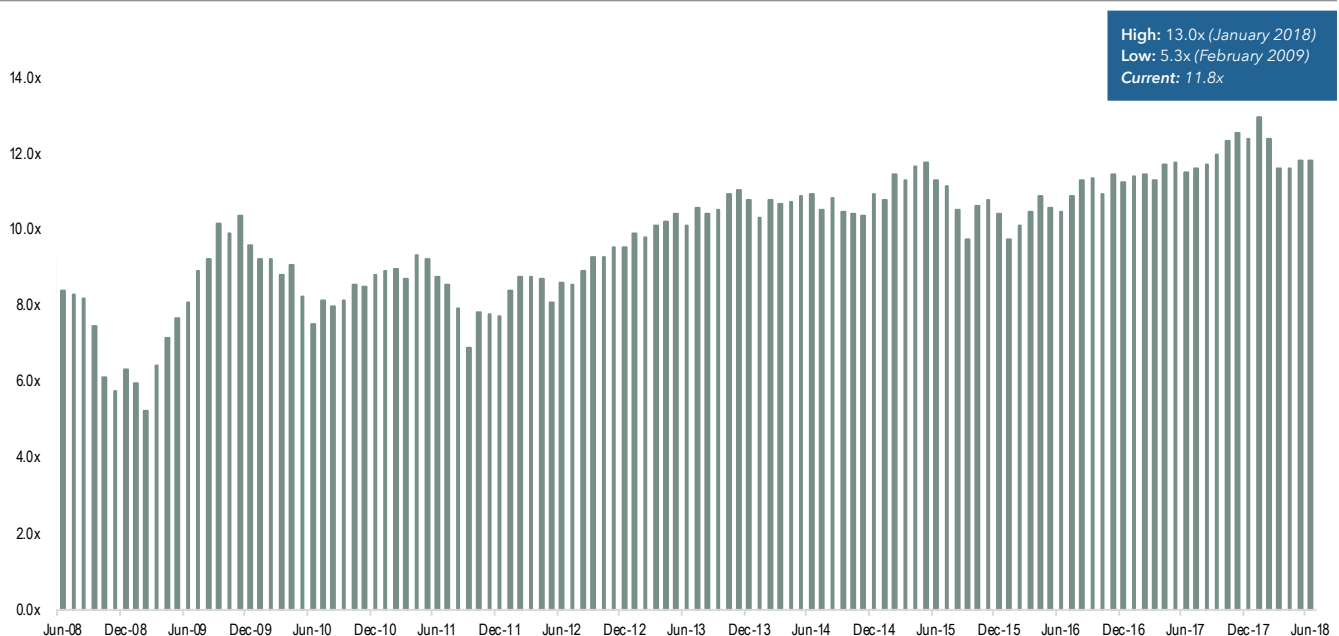
Finally, be nimble. A distinct advantage that smaller flavors and fragrances manufacturers have over the Big 4 is the ability to react quickly. As Givaudan notes, “...by the time our customers bring a product to market, consumers are often already seeking something newer – not only new products, but also new engaging experiences.” Being able to accelerate the time to market is more feasible for a company that can ‘rapid prototype’ and make decisions quickly without the hindrance of corporate bureaucracy. Best-in-class speed to market was a key driver behind Firmenich's acquisition of New Jersey-based Agilex Fragrances in 2017. This also ties into the first point above – embedding yourself in the customer's organization. Co-innovation partnerships and joint consumer research with customers are just a few examples of how F&F manufacturers can quickly adapt to changing consumer demands and make themselves critical to their customers' success. The ongoing consolidation in the industry will inevitably create disruption that presents opportunities for private and more nimble organizations to capitalize.

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Concluding Thoughts

For flavors, fragrances, specialty ingredients and other chemical manufacturers, evaluating whether and when to explore a sale or divestiture of a business is often a once in a lifetime decision. At today's historically high valuations, we are asked more and more frequently by sellers whether now is the right time. It certainly isn't a bad time from a dollars and cents perspective – low tax rates on sale proceeds, robust growth across the economy, and aggressive, well capitalized buyers make this a true seller's market. So what can a potential seller do to maximize its chances for success? Staying ahead of fast-changing market dynamics and focusing on quality of customer relationships and products enables manufacturers to generate healthy profitability and growth. This, in turn, will drive strong interest in a sale process at compelling valuations. Most importantly, know what you are selling, how different strategic and private equity buyers will view your business, and how you would fit into their organization. Often, the most obvious direct competitor is not the best buyer for a business. Strategics may bring synergies and market expertise, but private equity can offer a "second bite at the apple" and greater autonomy. Bottom line, paying attention to the intangibles will go a long way to achieving an optimal economic outcome and "fit" for shareholders, employees and customers.

Grace Matthews Chemical Index: Enterprise Value / EBITDA (Last 10 Years)



Source: Grace Matthews and Capital IQ.

The *Grace Matthews Chemical Index* tracks the Enterprise Value / EBITDA ratios ("EV/EBITDA multiples" or "EBITDA multiples") of 98 publicly traded chemical companies that span multiple sub-sectors and geographies. The Index aggregates the latest reported financial data and stock prices, and tracks valuation trends and operating metrics across different industry sectors. Index averages are equally weighted, as opposed to weighting by market capitalization.

Select Flavors, Fragrances, and Specialty Ingredients Transactions

Transaction values in \$US millions

Date	Acquirer / Target	Target Description	Enterprise Value	EV / Sales*	EV / EBITDA*
Jul-18	Sensient Technologies (United States) / Mazza Innovation (Canada)	Patented systems for the extraction of phytochemical from plants			
May-18	International Flavors & Fragrances (United States) / Frutarom Industries (Israel)	Flavors and fine ingredients in food, beverage, cosmetics and personal care products	\$7,080	4.9x	24.2x
May-18	Iberchem (Spain) / VERSACHEM (South Africa)	Food flavor and color blends			
Apr-18	Zhejiang Jiaao Enprotech Stock (China) / Jiangyin Huachang Food Additive (China)	Taurine and taurine based products	\$76	2.1x	
Mar-18	Givaudan (Switzerland) / Naturex (40.6% stake) (France)	Natural ingredients in food, health and beauty products	\$1,600	3.2x	20.1x
Jan-18	Eurofragrance (Spain) / Fragrance Design (United States)	Body care and household fragrances			
Jan-18	S H Kelkar and Company (India) / Creative Flavours & Fragrances (Italy)	Specialty fragrances and perfumes			
Dec-17	Frutarom Industries (Israel) / Bremil Industria De Produtos Alimentícios (Brazil)	Food ingredients	\$54	1.3x	
Dec-17	Frutarom Industries (Israel) / Fabryka Substancji Zapachowych Pollena-Aroma (Poland)	Flavors, fragrances and specialty ingredients for aromatherapy and natural cosmetics industries	\$9	1.7x	
Dec-17	Givaudan (Switzerland) / Expressions Parfumées (France)	Custom blended fragrances for branded fine consumer products	\$199	3.2x	
Nov-17	Innophos Holdings (United States) / NutraGenesis (United States)	Nutraceutical ingredients for food and beverages	\$28	2.3x	
Nov-17	Aakash Chemicals and Dyestuffs (United States) / Calico Food Ingredients (Canada)	Food colorants and additives			
Oct-17	Frutarom Industries (Israel) / Mighty International Co. (Thailand)	Savory taste ingredients, seasonings, spray-dried specialty products and culinary infused oils	\$20	1.3x	
Oct-17	Freudenberg Chemical Specialties (Capol Business) (Germany) / Colarome (Canada)	Natural food and nutraceutical ingredients			
Sep-17	Givaudan (Switzerland) / Centroflora Group, Nutrition Division (Brazil)	Botanical extracts and dehydrated fruit for food, beverage and consumer goods sectors	\$55	3.2x	
Sep-17	Reward Group (China) / Le Chatelard 1802 (France)	Home-made fragrances			
Aug-17	Frutarom Industries (Israel) / Enzymotec (Israel)	Bio-functional lipid ingredients	\$226	4.8x	
Aug-17	Frutarom Industries (Israel) / Mühlehof-Gewürze (Switzerland)	Savory flavors, seasoning blends, marinades and ingredients	\$7	2.0x	
Aug-17	Frutarom Industries (Israel) / Flavours and Essences (United Kingdom)	Flavors and natural colors	\$20	1.1x	
Aug-17	Corbion (Netherlands) / TerraVia Holdings (United States)	Food, nutrition and specialty ingredients from algae	\$20	2.4x	
Jul-17	Eurazeo (France) / Iberchem (Spain)	Flavors and fragrances for homecare and personal care products	\$474	3.5x	16.2x
Jun-17	Frutarom Industries (Israel) / SDFLC Brasil Indústria E Comércio (Brazil)	Taste solutions for desserts including flavors, coatings and glazings	\$37	1.9x	
Jun-17	Firmenich International (Switzerland) / Agilex Flavors and Fragrances (United States)	Specialty fragrances and fragrance products			
May-17	Mitsui & Co.; Toray Industries (Japan) / Soda Aromatic (remaining 35% stake) (Japan)	Flavors, fragrances and aroma chemicals	\$62	0.3x	6.1x
Apr-17	Chemische Fabrik Budenheim (Germany) / GAT Food Essentials (Austria)	Active ingredients for the functional food and beverage industry			
Apr-17	Ashland (United States) / Pharmachem Laboratories (United States)	Nutritional ingredients for the food and beverage industry	\$660	2.2x	
Apr-17	International Flavors & Fragrances (United States) / Columbia Phyto Technology (United States)	Juice and pulp organic powders			
Apr-17	Frutarom Industries (Israel) / Rene Laurent (France)	Flavorings for beverage, bakery and confectionery markets	\$21	1.6x	
Feb-17	Frutarom Industries (Israel) / PTI Group (remaining 25% stake) (Russia)	Complex supplements and food flavors	\$40		

* EV = Enterprise Value (equity value, plus funded debt, minority interests and preferred shares, less cash and cash equivalents)

Grace Matthews: Select Chemicals and Materials Transactions

 <p>has been acquired by</p> 	 <p>has been acquired by The Jordan Company's portfolio company</p> 	 <p>has sold its subsidiary CIDRA Chemical Management Inc. (CCMI) to</p> 	<p>MFG Chemical, Inc.</p>  <p>has been recapitalized by</p> 
 <p>has been acquired by</p> 	 <p>has been recapitalized by</p> 	 <p>has been acquired by</p> 	 <p>has sold its global automotive interior rigid thermoplastics coatings business to</p> 
 <p>has sold its Baytown Operations to</p> 	 <p>has sold its Automated Fueling Stations business</p>  <p>to</p> 	 <p>has been acquired by</p> 	 <p>has sold its Specialty Sweetener Division to</p> 
 <p>has sold its pressurized polyurethane foam adhesives business to</p> 	 <p>has sold its global Polyolefin Catalysts business to</p> 	 <p>has acquired</p> 	<p>DELOSCAPITAL</p> <p>sold its portfolio company</p>  <p>to</p> 
 <p>has sold its Excipients Division to</p> 	 <p>has been acquired by</p> 	 <p>a division of</p>  <p>has been acquired by</p> 	 <p>has sold its aroma chemicals business to</p> <p>Grean Technologies, LLC</p>

Grace Matthews Overview

Grace Matthews is recognized globally as a leader in transaction advisory services for manufacturers and distributors throughout the chemical and material value chain. Grace Matthews' clients include privately held businesses, private equity funds, and large, multinational corporations.

Grace Matthews' practice is global in scope, and focuses on several areas: sell-side transactions and divestitures for private companies, private equity holdings, and multinational corporations; buy-side work for large public companies, major multinationals, and sponsor-backed chemical platforms; leveraged transactions and recapitalizations, strategic advisory analysis, and transaction fairness opinions. Areas of expertise include:

- Adhesives, Sealants, Tapes
- Catalysts, Petrochemicals
- Construction Chemicals, Building Products
- Contract Manufacturing, Custom Synthesis
- Distribution, Equipment, Infrastructure
- Food Ingredients, Flavors, Fragrances
- High Purity, Electronic Chemicals
- Industrial Minerals, Inorganic Chemicals
- Intermediates, Industrial Chemicals
- Lubricants, Lube Additives
- Oilfield & Water Treatment Chemicals
- Paints, Coatings, Inks
- Personal Care, Soaps, Medical Materials
- Plastics, Colorants, Additives
- Tolling, Private Label Products
- Additional Chemical Sectors

Grace Matthews is a privately held investment bank with successful chemical industry transactions dating back to the early 1990s. Grace Matthews principals have completed over 100 transactions involving global corporations such as AkzoNobel, 3M, Lubrizol, BASF, DuPont, Sherwin-Williams, PPG Industries, Ashland, Ceradyne, DSM, ICI, Borregaard, Air Products, Landec Corporation, The Home Depot, Hexion Specialty Chemicals, ITW, PolyOne, Weatherford, and Evonik, to name a few.

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Grace Matthews, Inc. (www.gracematthews.com) is an investment banking group providing merger, acquisition, and corporate finance advisory services for chemical companies both in the U.S. and internationally. Grace Matthews is global in scope and well known for its strong track record of success dating back to the early 1990s.

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