

# Consumer Observer

October 2018

## The Restaurant Industry Is Evolving — Your Key Performance Benchmarks Need to, Too



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## Restaurant Industry Contributors

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## Developing a New Playbook for Restaurant Investors as the Industry Evolves

In our view, "evolve or die" is the theme that best captures the restaurant industry in 2018. By now, it's clear that the restaurant space isn't immune to the digital disruption that we've seen across the retail industry the past two decades, and with 2018 continuing to be a transformational year for online grocery, restaurant operators will encounter several challenges in the years to come. In fact, we believe restaurant operators must take the time to reinvent themselves with respect to menu innovations, restaurant designs, operational technologies, and channel diversification strategies to accommodate consumers' evolving preferences and survive over a longer horizon.

With the restaurant industry rapidly changing, investors' approach to looking at the industry must also evolve. Certain metrics like average unit volumes, same-restaurant sales, and return on invested capital are still relevant, but with changes in consumer eating habits, the advent of new front- and back-of-house technologies, the blurring of lines between on-premises and off-premises sales, and supply chain innovations, investors must also update the metrics they use to benchmark both public and private restaurant operators.

Building off our 2015 and 2016 Observer pieces, we spent time with several public and private restaurant operators and restaurant technology leaders the past 12 months to develop a broader set of key performance indicators that investors should be using to benchmark restaurant companies. Although we see potentially turbulent times ahead for much of the restaurant industry, we believe these metrics can help investors to better identify potential economic moats in the industry while separating longer-term winners and losers. With our counterparts from PitchBook, we've also taken a closer look at how restaurant and restaurant technology transactions are changing and how that may continue to evolve in the years to come.

## Public Companies Mentioned

Name/Ticker	Economic Moat	Moat Trend	Fair Value Estimate	Current Price	Uncertainty Rating	Morningstar Rating	Year 2 P/E	Year 2 EV/EBITDA	Market Cap (Bil)
Amazon AMZN	Wide	Stable	2,200	2,013	High	★★★★	NM	29.5	981.8
Alibaba BABA	Wide	Stable	240	166	High	★★★★★	29.9	22.6	427.8
Chipotle Mexican Grill CMG	Narrow	Negative	400	465	High	★★	39.5	19.4	12.9
Darden Restaurants DRI	None	Stable	105	111	Medium	★★★★	18.2	11.4	13.8
Dunkin Brands DNKN	Narrow	Stable	68	74	High	★★★★	23.8	16.2	6.2
GrubHub GRUB	None	Stable	81	139	Very High	★	NM	18.3	12.5
McDonald's MCD	Wide	Negative	190	167	Medium	★★★★★	20.2	15.0	129.2
Restaurant Brands Int'l QSR	Narrow	Negative	66	59	High	★★★★★	20.2	10.2	14.8
Starbucks SBUX	Wide	Positive	64	57	Medium	★★★★★	22.0	12.9	77.4
Yum Brands YUM	Wide	Negative	86	90	Medium	★★★★	23.5	17.1	28.7
Yum China YUMC	Wide	Negative	44	35	High	★★★★★	19.3	9.0	13.4

## Restaurant Industry Average

21.1 13.9

*This is an abbreviated version of the Morningstar/PitchBook report "The Restaurant Industry Is Evolving—Your Key Performance Benchmarks Need to, Too". For a full copy, please contact [equitysupport@morningstar.com](mailto:equitysupport@morningstar.com) or [sales@pitchbook.com](mailto:sales@pitchbook.com).*

### Full Report Contents

- ▶ Developing A New Playbook for Restaurant Investors as the Industry Evolves
- ▶ 10 Predictions for the Restaurant Industry
- ▶ Top Public-Company Restaurant Investment Ideas
- ▶ State of the Restaurant Industry: Reinvention or Recession? Or Both?
- ▶ Next Generation Benchmarks for Those Chains Best Positioned to Withstand the Evolving Restaurant Industry
- ▶ The 10 Most Important Discussion Topics for Restaurant Operators and Investors
- ▶ Like the Industry Itself, Transactions Involving Restaurants are Rapidly Evolving
- ▶ Restaurant Tech Overview & Definitions
- ▶ RestaurantTech Market Map
- ▶ Appendix: PitchBook Profiles for Noteworthy Private Restaurant and Restaurant Technology Companies
- ▶ Appendix: Coverage List

### Important Disclosure

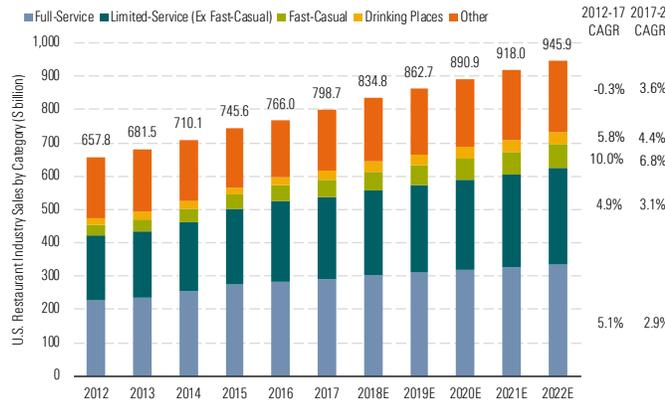
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## 10 Predictions for the Restaurant Industry

- ▶ **The ripple effect from online grocery will become more pronounced for restaurants.** Amazon grabbed a lot of headlines when it announced that it was acquiring Whole Foods in June 2017. To this point, we really haven't seen a meaningful impact on restaurants due to online grocery, as industry traffic was already weak before the announcement (and has only modestly improved since then). However, with Amazon finding ways to bring Prime memberships into its physical stores through discounts at Whole Foods locations (including Prime Day promotions) and other tactics that grocery stores and mass merchants will likely deploy as countermeasures, we expect restaurants guest traffic across all tiers will remain uneven over the back half of 2018 and into 2019.
- ▶ **Expect additional restaurant closures and decelerating industry growth...**With restaurant operators already dealing with stagnant guest traffic trends and likely to face labor, rent, and food cost inflation in the years to come, Starbucks and Chipotle won't likely be the last operators to announce restaurant closure plans in 2018. We expect restaurant unit counts to decrease by 0.6% the next five years in the U.S. with casual dining and smaller quick-service restaurant (QSR) chains being the hardest hit. This will result in average industry sales growth slowing from 4.0% from 2012-17 to 3.4% from 2017-22.
- ▶ **...but there is room to grow for concepts that have adapted to evolving consumer preferences.** While we expect slowing industry growth trends the next five years, we don't see an outright restaurant recession and see growth opportunities for those chains that continue to adjust to evolving consumer preferences. The blueprint to remaining relevant will differ for each restaurant operator, but we believe the most successful restaurant concepts will be those that identify what consumer need they are satisfying—often boiling down to convenience versus experience—and then structuring their menu, operations, and technologies to best address these demands. With the rise digital technologies, increasing demand for off-premises restaurant substitutes, and changing consumer attitudes regarding health/wellness and food sourcing, we believe restaurant layouts will look very different five years from now, with transactions per square foot being one of the best benchmarks operators and investors can use to monitor a concept's ability to make necessary changes.
- ▶ **The recent pullback in restaurant industry valuations has created buying opportunities.** After peaking in 2017, restaurant industry valuations have contracted the past two years as franchising activity has subsided and restaurants reinvent themselves amid rapidly changing consumer preferences. While the industry strikes us as fairly valued at current levels, we believe there are a handful of restaurant concepts that screen well using our new benchmarks that haven't received enough credit from public or private market investors.
- ▶ **Starbucks' recovery will be volatile, but there is still a long-term investment case to be made.** Of any restaurant name on our coverage list, we believe Starbucks will likely garner the most investor scrutiny over the near future with still-sluggish U.S. sales trends, new sources of competition in China, its recent consumer packaged goods (CPG) partnership with Nestle, questions about the current executive team, and the potential headline risks associated with Howard Schultz's political aspirations. While each of these risks brings its own set of executional challenges and there is the possibility of management changes in the near future, we believe the company is positioned for a comeback through restaurant layout changes (emphasizing convenience at some stores, experience at others) and new menu innovations focusing on health/wellness and authenticity.

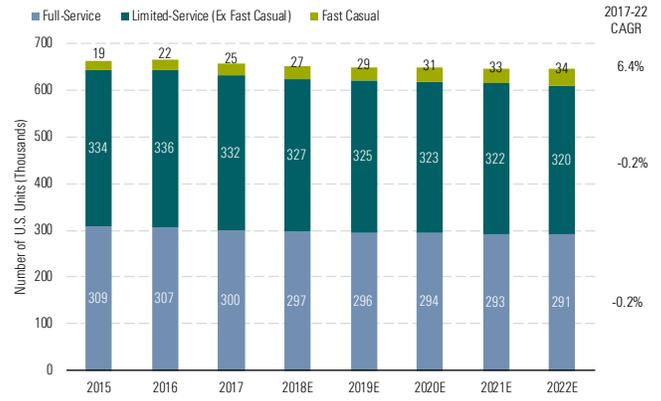
**Exhibit 1 Investing in Public and Private Restaurants Requires a New Set of Benchmarks**

**Our Projections Assume Several Industry Changes the Next Several Years**



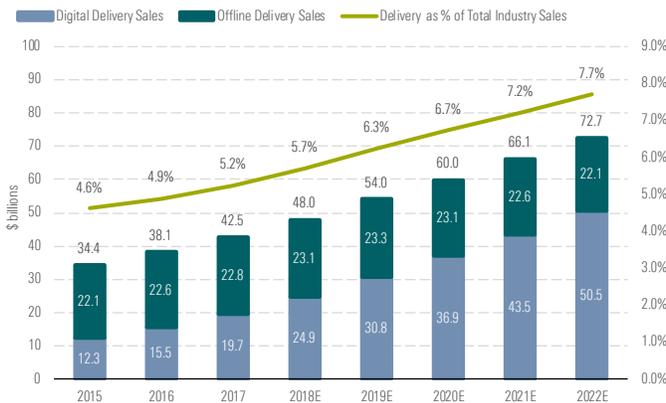
Source: National Restaurant Association, U.S. Census Bureau, Technomic, Morningstar estimates

**We Forecast Declining Industry Unit Counts the Next Five Years**



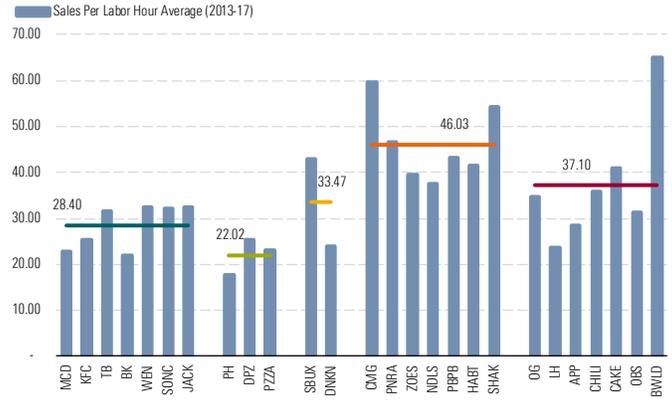
Source: NPQ Group ReCount, National Restaurant Association, NRN, Technomic, Morningstar

**Increased Demand for Off-Premises Solutions Reshaping Restaurants...**



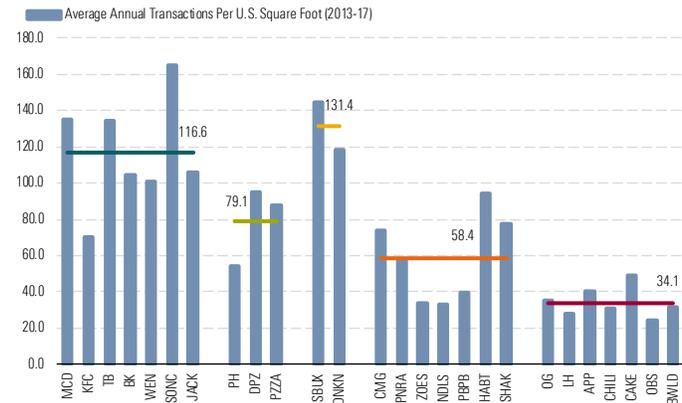
Source: NPQ Group, eMarketer, National Restaurant Association, Morningstar estimates

**...And Balancing Sales With Labor Costs Is Critical**



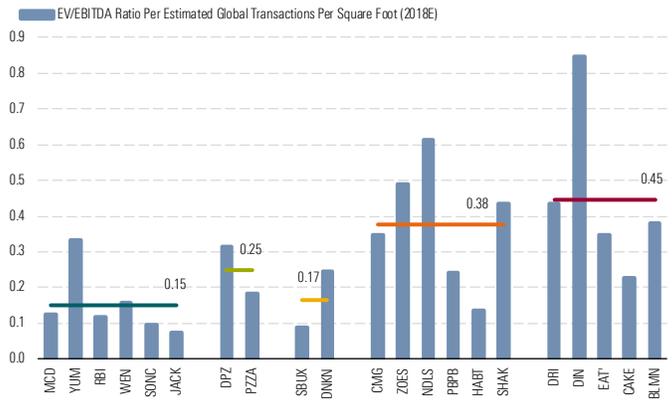
Source: Morningstar estimates, company filings

**Transactions Per Square Foot Accounts for Many Industry Trends...**



Source: Company filings, Nation's Restaurant News, eMarketer, Morningstar estimates

**...and EV/EBITDA to Transactions/Sq. Ft. Offers New Valuation Approach**



Source: Morningstar estimates, company filings

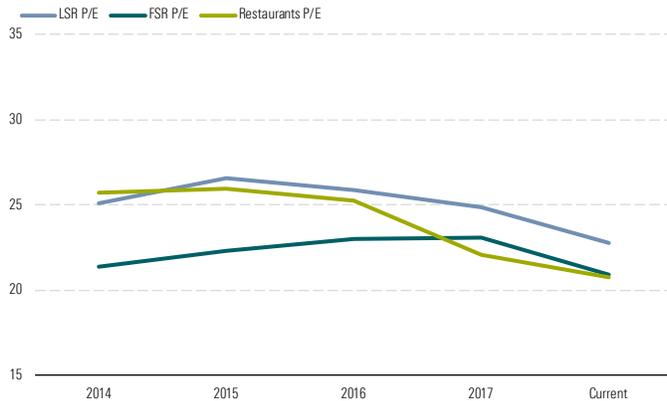
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## 10 Predictions for the Restaurant Industry (Continued)

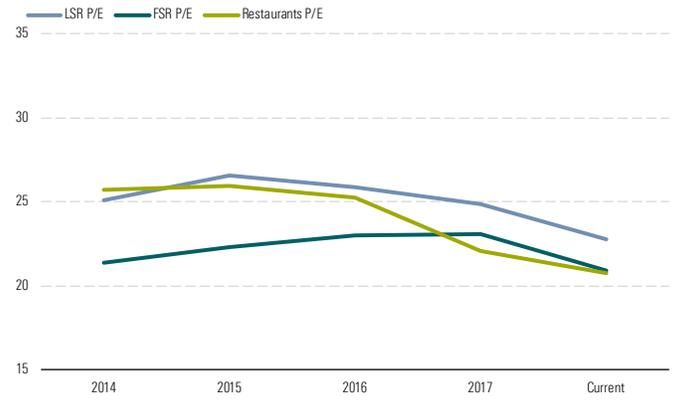
- ▶ **Early technology adopters will start to see sustained guest traffic improvements...in 2019.** There have been several developments on the restaurant technology front the past several years, including new point-of-sale systems, mobile ordering/delivery capabilities, mobile-enhanced loyalty programs, back-of-house solutions (including labor staffing and inventory management), and automation for food preparation processes. Outside of mobile ordering and delivery, these moves haven't had a material impact on sales and profitability thus far, but we anticipate more pronounced contribution in 2019 for those restaurant operators who understand their specific value proposition and have invested in appropriate front- and back-of-house technologies.
- ▶ **Delivery and to-go orders will become even more meaningful to restaurants in the years to come.** When all is said in done, we believe the rise in delivery/off-premises solutions will go down as one of the most meaningful restaurant industry developments over the past two decades. Each restaurant's approach to delivery and to-go orders will depend on cuisine type, geography, and daypart capabilities, but we believe the incremental transaction per square foot and average ticket increase opportunities make this a worthwhile area of investment. Finding the right partner is key—especially with restaurant delivery aggregators likely to consolidate in the years to come—but we believe those restaurants that have integrated off-premises solutions into their operations will outperform in the years to come.
- ▶ **The restaurant tech boom will continue over the next several years.** As restaurant valuations have come in and operators increasingly embrace technology to mitigate costs, it's not surprising that we now find ourselves in the early stages of a restaurant technology boom. We're seeing funding for technology solutions across virtually every restaurant function, including discovery, ordering, guest experience, payments, business management and kitchen operations. We've worked with our counterparts at PitchBook to develop a Restaurant Technology Market Map (which we've presented in Exhibit 4) to give restaurant operators and investors a better idea of the different technologies that are being incubated across the broader landscape.
- ▶ **Restaurant M&A activity will accelerate, and we may still see a large strategic deal done before the year is up.** With interest rates rising, fewer refranchising opportunities, and restaurant balance sheets already highly leveraged, we saw restaurant M&A activity slow in the first half of 2018. However, with valuations coming down across the space, we've seen restaurant transactions start to reaccelerate the past few months, including First Watch, Bravo Brio, Modern Market, Costa, Zoe's Kitchen, and Sonic. Based on expectations of sluggish traffic and increased cost pressures, we wouldn't be surprised to see additional small- to mid-cap restaurant chains escape public scrutiny and explore potential go private transactions. We also believe conditions are favorable for a strategic or financial brand consolidator looking to add a new franchised concept.
- ▶ **Who will be the next restaurant tech IPO?** We're not expecting any significant restaurant industry IPOs to be announced this year or 2019—fast-casual pizza chains Blaze or MOD are likely next in the pipeline, but not until 2020 at best—but with restaurant technology firms starting to gain adoption and consolidate, we're probably not too far from another restaurant technology IPO. Some private companies are likely to sit tight until Uber's (and by extension UberEats) rumored IPO in the second half of 2019, but don't be surprised to see IPO speculation for other restaurant technology firms like [Toast](#) (which completed a \$115 million Series D transaction in July), [Olo](#), or [HotSchedules](#) as we approach 2019.

**Exhibit 2** An Evolving Restaurant Industry Landscape Has Influenced Industry Valuations and M&A Activity

**P/E and EV/EBITDA Multiples Have Corrected the Past Two Years as Refranchising Wanes and Other Industry Structural Changes Come Into Focus**

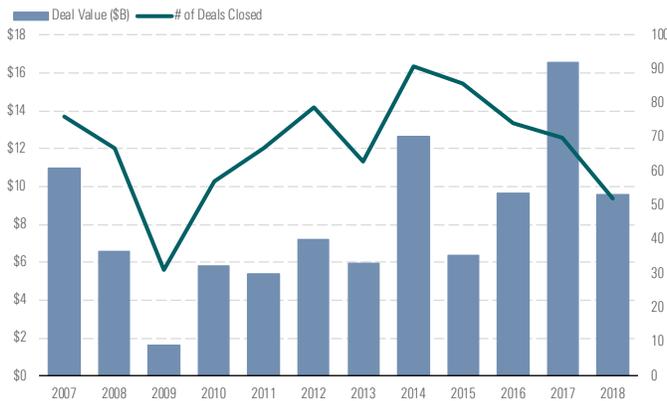


Source: Capital IQ, Morningstar estimates



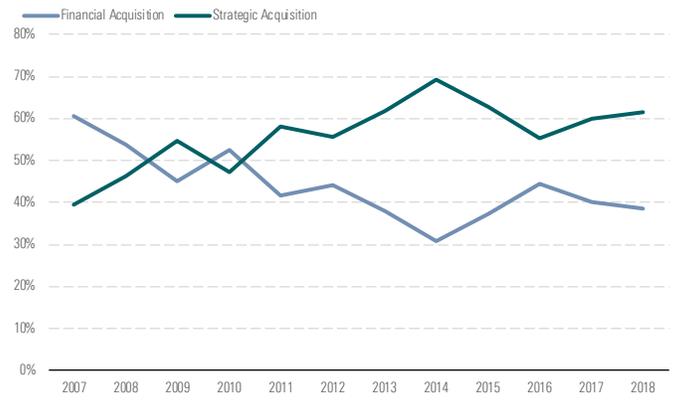
Source: Capital IQ, Morningstar estimates

**Industry M&A Has Slowed, but Market Remains Conducive to Deals**



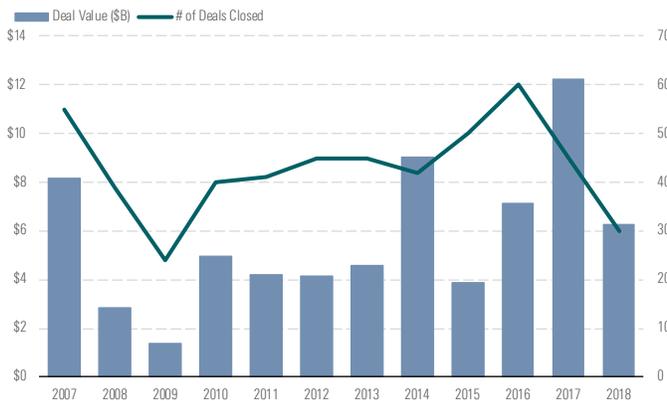
Source: PitchBook

**Strategic Deals Have Outpaced Financial Deals, but Lines Are Blurring**



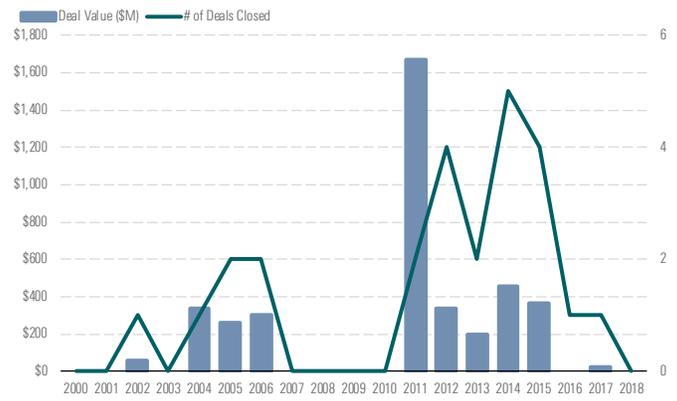
Source: PitchBook

**Restaurants Continue To Be an Active Industry for PE Transactions**



Source: PitchBook

**No Appetite for Restaurant IPOs but We Expect Adjacent Tech Offerings**



Source: PitchBook

### Previewing Next Generation Benchmarks for the Restaurant Industry

With restaurants looking at many of the same structural industry trends that retailers faced the past decade in wake of digital commerce, the purpose of this report was to develop a new playbook for restaurant operators and investors to use to analyze the industry. Our research started with conversations with executives behind some of the most innovative and disruptive restaurant concepts today to identify the most important trends reshaping the industry. Based on these discussions, we developed a checklist of the 10 most important topics investors should be discussing with the management teams they work with to better understand what changes they plan to make to better address evolving consumer views regarding menus, convenience, and restaurant experience:

- ▶ [Does the Restaurant Offer Consumers a Value Proposition That Spans More Than Just Price?](#)
- ▶ [How Does the Restaurant Deal With Consumer Fatigue?](#)
- ▶ [How Has the Restaurant Adapted to Evolving Views on Authentic and Healthy Eating?](#)
- ▶ [Is the Restaurant's Digital Ordering Platform Seamless and Intuitive?](#)
- ▶ [How Does the Restaurant Connect With Consumers Beyond Its Four Walls?](#)
- ▶ [How Does the Restaurant Embrace the Convergence of On-Premises and Off-Premises Food Sales?](#)
- ▶ [Does the Operator Manage Labor Costs With Automation and Other Emergent Restaurant Technologies?](#)
- ▶ [How Does the Restaurant Address Market Expansion?](#)
- ▶ [How Do Buildout Costs and Lease Expenses Compare With Other Industry Players?](#)
- ▶ [Has the Restaurant Scaled Its Supply Chain Appropriately?](#)

From here, we used publicly available data to develop new benchmarks that operators and investors can use for their analysis the over next several years. We've provided category averages for several of these metrics in Exhibit 3 with more detailed commentary on why these metrics are important from an economic moat standpoint and which restaurant chains are best positioned later in this report.

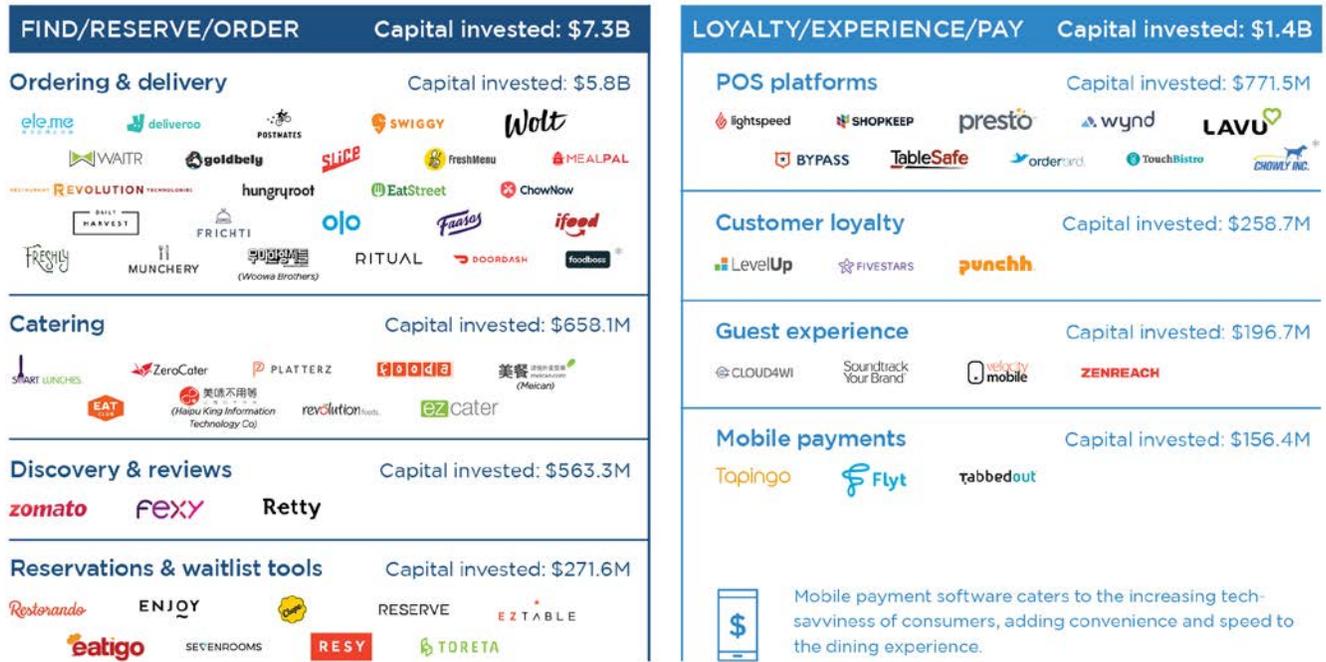
#### Exhibit 3 The Next Generation Benchmarks That Investors Need to Evaluate as the Restaurant Industry Evolves

Data Represents 2013-17 Averages Unless Otherwise Noted	Sales Per Square Foot	Transaction Per Square Foot	Transaction Per Square Foot Growth	Advertising Cost Per Transaction	Calorie Per Item (2017)	Delivery as % of Global Sales (2017)	Sales Per Labor Hour	Annual Transactions Per Hourly Employee	Average Buildout Cost Per Square Foot	U.S. Rent Per Square Foot	Rent Per Transaction	Restaurant- Level Profit Per Square Foot
QSR	\$596	117	1.1%	\$0.21	375	2.0%	\$28.40	8,143	\$392	\$33.32	\$0.33	\$109
Pizza	\$588	79	11.3%	\$0.30	279	61.7%	\$22.02	4,392	\$337	\$45.26	\$0.49	\$108
Snack & Beverage	\$656	131	9.3%	\$0.14	270	NA	\$33.47	9,894	\$540	\$48.64	\$0.37	\$137
Fast Casual	\$644	58	-2.7%	\$0.11	466	2.3%	\$46.03	6,223	\$330	\$48.48	\$0.89	\$139
Casual Dining	\$582	34	-5.0%	\$0.51	520	12.1%	\$37.10	3,288	\$396	\$29.66	\$0.86	\$104

Source: Morningstar estimates

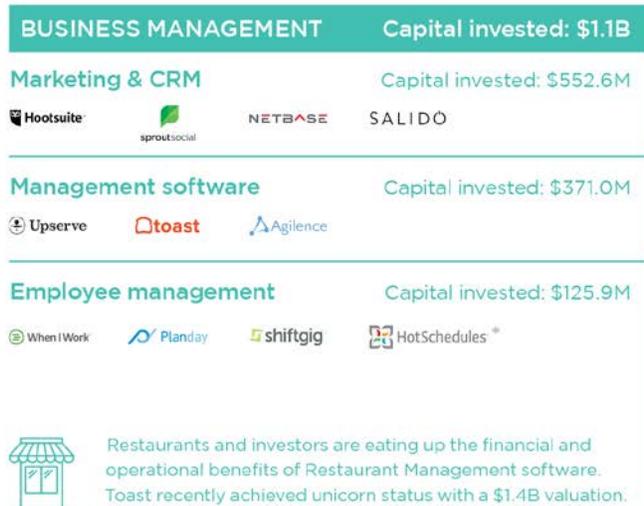
Of course, many industry changes are the result of emergent restaurant technologies. Our colleagues at PitchBook developed a market map to orient investors with privately held restaurant tech companies reshaping the industry, segmented into four categories: outside restaurant, inside restaurant, kitchen operations, and business management. We've presented PitchBook's RestaurantTech market map in Exhibit 4 and provided greater details about the different technologies and category funding trends starting on page 127.

Exhibit 4 PitchBook RestaurantTech Market Map



# RestaurantTech Market Map

Note: Companies on this market map have raised over \$15M total invested capital or were featured in this report.



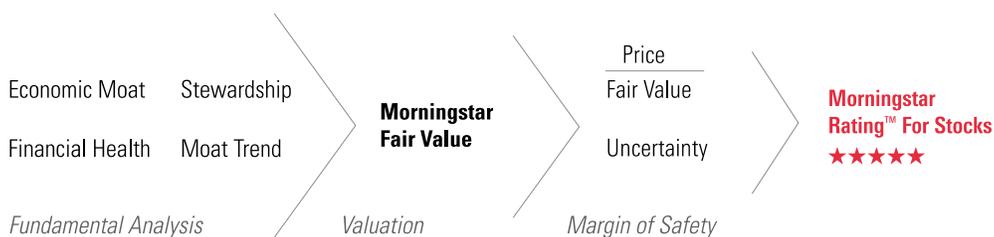
## Research Methodology for Valuing Companies

### 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's equity research group ("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.

### Morningstar Research Methodology



Source: Morningstar.

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.

### 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 (ROIC) over and above our estimate of a firm's cost of capital, or weighted average cost of capital (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 their 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 where we see signs of deterioration.

**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 5 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 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 present 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.

**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.

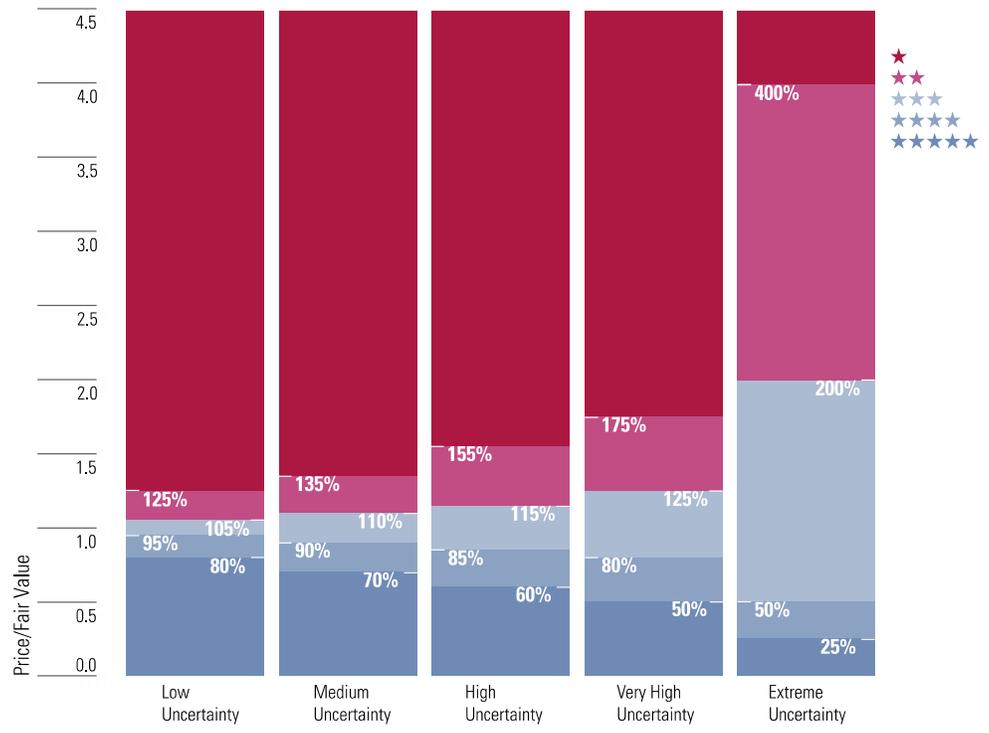
Analysts consider at least two scenarios in addition to their base case: a bull case and a bear case. Assumptions are chosen such that the analyst believes there is a 25% probability that the company will perform better than the bull case and a 25% probability that the company will perform worse than 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 regarding 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 a 25% premium.
- ▶ Medium: Margin of safety for 5-star rating is a 30% discount and for 1-star rating is a 35% premium.
- ▶ High: Margin of safety for 5-star rating is a 40% discount and for 1-star rating is a 55% premium.
- ▶ Very high: Margin of safety for 5-star rating is a 50% discount and for 1-star rating is a 75% premium.
- ▶ Extreme: Margin of safety for 5-star rating is a 75% discount and for 1-star rating is a 300% premium.

Morningstar Equity Research Star Rating Methodology



**Market Price**

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

For more details about our methodology, please go to <https://shareholders.morningstar.com>.

**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 recalculated 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).

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

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

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

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