



CFA Institute Research Challenge

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Ticker	TOST US
Recommendation	Hold
Stock Exchange	NYSE
Current Price (01/04/2024)	17.52
Target Price (3-7% decrease)	17.02
Sector	Technology
Industry	Software
Earnings Date	Feb 15, 2024
Market Cap	9.46B
52-Week Low (11/22/2023)	13.765
52-Week High (7/18/2023)	27
Enterprise Value	8.46B
Price/Sales	2.53
Price/Book	8.11
Beta (5Y Monthly)	1.56
Return on Assets (ttm)	-11.43%
EBITDA Margin	-4.74
Total Asset Turnover	2.012
Current Ratio	2.57
Quick Ratio	1.88
Total Debt/Equity	2.79%
Total Liabilities/Total Assets	6.05
Altman Z Score	9.10
Diluted EPS, GAAP	-0.51
Return on Equity (ttm)	-27.34%
Interest Coverage	22.93
Return on Capital (ROIC)	-27.94%
Net Income (TTM)	-310.00M
50-Day Moving Average	16.05
200-Day Moving Average	19.21



Investment Summary

The investment outlook for Toast, a prominent player in the fintech sector, is neutrally rated with a target price of \$17.02. Despite its disruptive potential and growth, caution is advised due to competitive challenges, macro uncertainties, and unproven scalability of profitability. The company's underperformance since its IPO, trading 57% below IPO levels, and challenges associated with rising restaurant menu prices contribute to a conservative stance. Moreover, setbacks related to fee structures and recent CEO stock transactions raise investor concerns. On a positive note, leadership continuity under Aman Narang, strategic partnerships such as the multi-year agreement with Marriott International, and potential market expansion opportunities present optimistic elements. The diversified revenue streams and innovative approach to tap into the Total Addressable Market provide a balanced perspective. The \$17.02 price target reflects a nuanced evaluation, aligning with a neutral rating and providing investors with a comprehensive and cautious investment outlook.

Valuations Summary

Toast Inc (TOST) valuation indicates a fair DCF-based assessment slightly below the current trading price, with growth, profitability, and exit multiples as critical factors. Relative valuations show a moderated but still elevated P/E ratio, a forecasted deceleration in revenue growth through P/S, and a notable undervaluation in EV/EBITDA compared to industry peers. Toast's robust growth outlook in the restaurant tech sector positions it as a mid-cap player with potential upside, contingent on consistently executing growth strategies.

AvgRelative Strength vs. S&P 500(50-Day Moving Avg, 200-Day Moving)

Figure 1: Source: Nasdaq

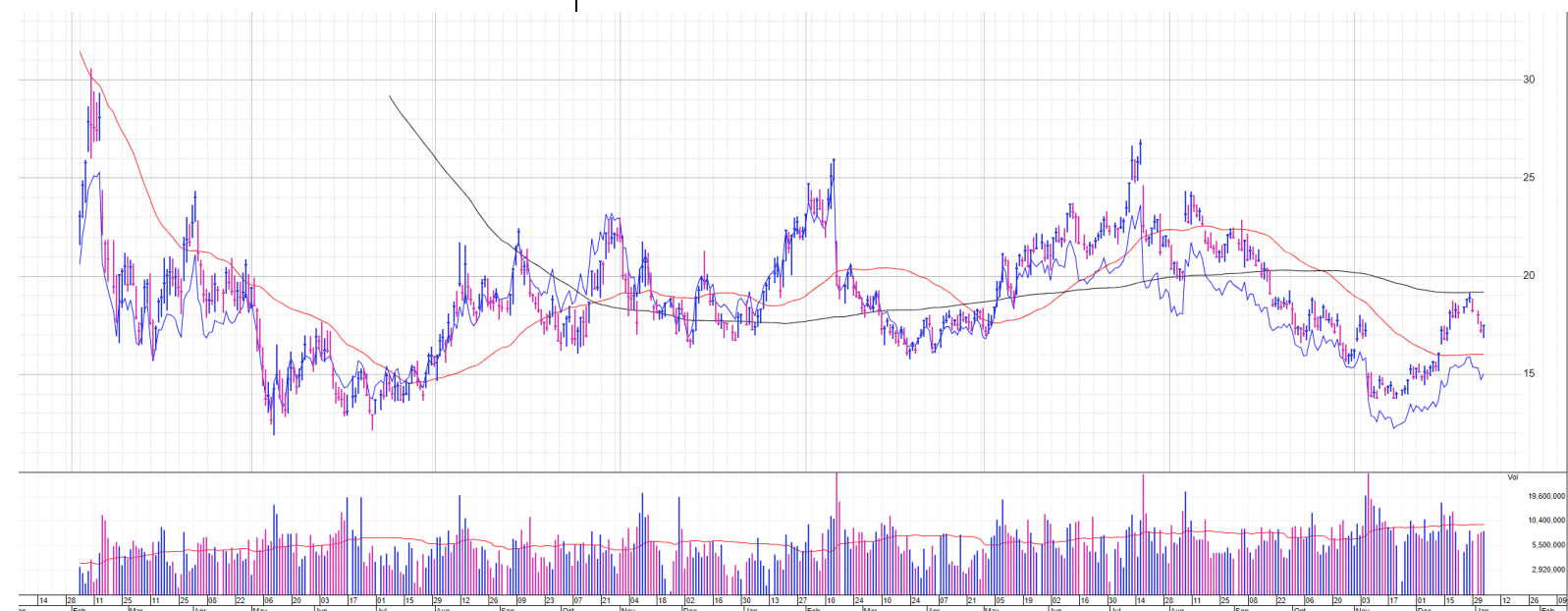
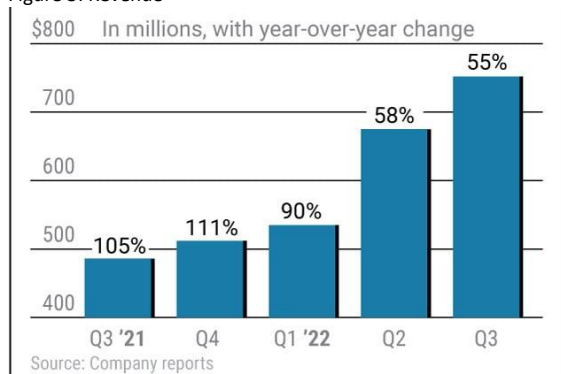


Figure 2: Locations of Toast are shown in blue



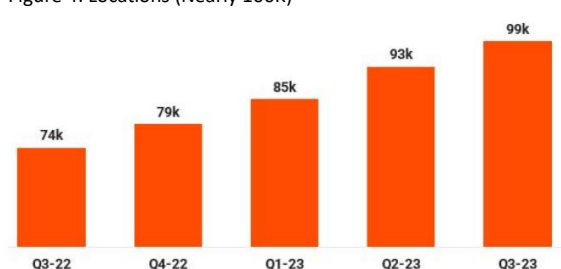
Source: <https://valueinvestorsclub.com/>

Figure 3: Revenue



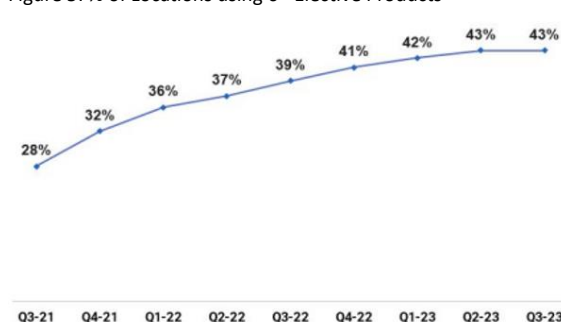
Source: <https://valueinvestorsclub.com/>

Figure 4: Locations (Nearly 100K)



Source: Toast company presentation

Figure 5: % of Locations using 6+ Elective Products



Source: Toast company presentation

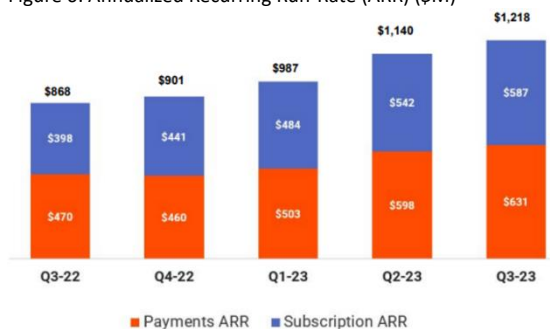
1. Business Description:

1.1. Company Overview: Toast is a cloud-based restaurant software company established in 2011 and headquartered in Boston, Massachusetts. Founded by Steve Fredette, Aman Narang, and Jonathan Grimm, originally named Opti Systems, Inc., the company rebranded as Toast, Inc. in 2012. As of the most recent data, the company employs 4500 full-time employees, serving over 29,000 customers with more than 79000 of the 860,000 restaurant locations domestically, and expects restaurant technology spending in the US to grow to more than \$55 billion by 2024. Toast went public on September 22, 2021 (NYSE: TOST). With 575 million fully diluted shares outstanding, including 503 million total basic shares post-greenhouse, the company raised approximately \$950 million in net proceeds from its IPO. Toast provides an all-in-one digital technology platform for restaurants, offering software-as-a-service (SaaS) products and financial technology solutions. In 2022, the company expanded its global presence with 15 offices in six countries, and in 2023, it opened new international locations in Taipei, Taiwan, and Toronto, Canada. Toast, Inc. has subsidiaries, including Toasttab Ireland Limited, Toast Capital LLC, Toast Processing Services LLC, Toast MSC, Inc., Stratex HoldCo, LLC, and OAE Software, LLC.

1.2. Business Model: Toast employs a revenue model based on monthly software subscriptions, payment transaction fees, hardware sales, and professional services. The firm's \$1.2 billion revenue as of September 30, 2023, is primarily derived from SaaS subscription fees, which vary based on software modules, hardware configuration, and location specifics, typically billed over 12-36 months. Most financial technology revenue comes from transaction-based fees, calculated as a percentage of transaction amount plus a fixed fee. Payments-derived revenue is recognized on a gross basis, inclusive of fees paid to issuers, card networks, third-party processors, and fraud protection vendors. Toast's standard card processing rate is 2.49% + \$0.15 per swipe. Additionally, financial technology revenue includes fees from marketing and servicing working capital loans via Toast Capital, where revenue is recognized net of expected defaults. Hardware revenue is generated through the sale of terminals, tablets, and devices, while professional services revenue is tied to implementation services such as business process mapping and training. Decreasing tech costs drive the demand for tablet-based POS solutions, the need for more payment options, and the integration of specialized industry-specific software into comprehensive systems for efficient business management. Toast follows a customer-focused growth strategy and serves the entire restaurant community. The success of Toast depends highly on the growth of the restaurant industry as it will lead to more usage of the Toast platform to serve customers' needs. Toast believes in offering differentiated services to customers by providing a range of products and services. With its strong product portfolio, Toast plans to expand internationally and started investing in research and development towards this long-term opportunity.

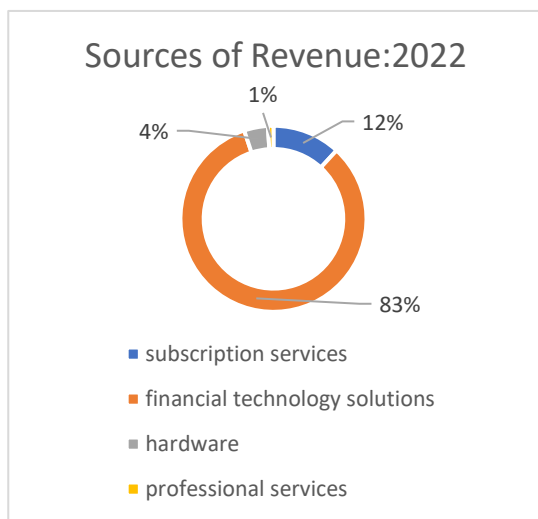
1.3. Product Offerings: Toast offers a comprehensive suite of SaaS products and financial technology solutions designed to streamline restaurant operations across various channels. Key offerings include Toast Point of Sale (POS), Toast Order & Pay, Toast Flex, Toast Go, Toast Tap, and kitchen display system software. Additional services cover online ordering, delivery management, loyalty programs, payroll, team management, business insurance, payment processing, loans, and reporting/analytics. As the restaurant operating system, Toast connects front-of-house and back-of-house operations, facilitating seamless dine-in, takeout, and delivery experiences. The platform integrates software, hardware, and financial solutions, serving approximately 79,000 restaurant locations.

Figure 6: Annualized Recurring Run-Rate (ARR) (\$M)



Source: Toast company presentation

Figure 7:



Source: Team Analysis

Figure 8:track record of Innovation



Source: Company data

2. Industry Overview and Competitive Positioning

2.1. Industry overview: The history of restaurants traces back to approximately 1100 AD in China, and the modern restaurant concept flourished in 18th century France, marking a culinary revolution that shaped their role in our culture. In the U.S., the restaurant industry, constituting 3% of the GDP with \$700 billion in sales in 2020, faces challenges such as low-profit margins, high failure rates, and significant employee turnover. Despite the National Restaurant Association's projection of industry sales reaching \$1.1 trillion by 2024, many establishments struggle with outdated technology, with 39% feeling constrained by legacy hardware and software. With its vast network of approximately 860,000 establishments in the U.S. and 22 million worldwide, the restaurant industry holds substantial economic significance, contributing \$800 billion in U.S. sales and employing over 11 million people. TOST, positioned to serve establishments of all sizes, anticipates substantial growth in restaurant technology spending from \$25 billion in 2021 to a projected \$55 billion by 2024, with an additional international market opportunity estimated at \$110 billion. TOST's overarching goal is to create a virtuous cycle where improved restaurant operations increase guest satisfaction, loyalty, repeat sales, referrals, and higher order values. In the ever-evolving restaurant industry landscape, TOST emphasizes key priorities for restaurants to succeed, including improving operational efficiencies, delivering omnichannel experiences, personalization, talent management, and leveraging customer data. Additionally, TOST sees the normalization of restaurant card spending post-COVID, with the industry experiencing a return to more typical levels of transaction growth. Despite this, the company remains mindful of macroeconomic uncertainties and the need for flexibility in response to potential economic downturns. Projections indicate a promising future for the market, with an anticipated 9% compound annual growth rate (CAGR) over the next five years. This growth is propelled by a widespread trend of restaurants embracing digital transformation to streamline operations and enhance guest experiences.

2.2. Competitive Positioning: Toast has established itself as a leading player in the restaurant point-of-sale (POS) software market, serving over 70,000 restaurant locations. Its competitive advantage lies in its purpose-built software tailored for the restaurant industry, integrated solutions, streamlined hardware, and a commitment to enhancing the guest experience. Unlike traditional POS software, Toast is a comprehensive restaurant technology platform offering features such as online ordering, payroll management, and loyalty programs. The company excels in digital ordering capabilities and 24/7 customer service availability on all plans and focuses exclusively on the restaurant sector. According to G2, Toast ranks as the #1 software in the restaurant POS industry, outperforming competitors like Square, Clover, and Upserve. Toast's success is attributed to its industry-specific design, customer-centric approach, and continuous innovation, although it faces challenges such as high customer acquisition costs.

2.2.1. Micros (owned by Oracle): Micros operates globally with 300,000 locations and 80+ integrations but has higher maintenance costs and limited flexibility. Toast surpasses Micros in customer support, offering 24/7 specialist availability and cloud-backed real-time reports for convenient data access. Micros lacks comparable support features and imposes additional costs for updates, support, and hosting, making Toast a more cost-effective and user-friendly restaurant management solution.

2.2.2. Square (SQ): Square, a versatile commerce platform, captures 29% of Gross Payment Volume from the food and drink sector. Its Square for Restaurants serves Quick Service and full-service establishments with diverse POS terminals. Strengths include geographic expansion and hardware options, but weaknesses include a lack of restaurant-specific tailoring, durability, and 24/7 customer service compared to

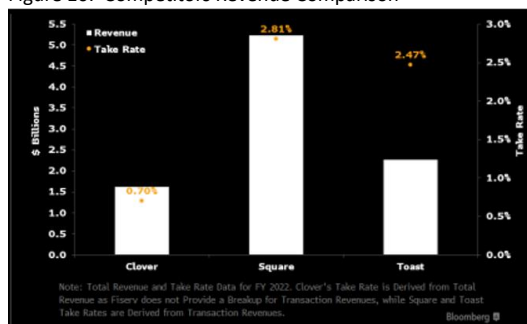
Figure 9: Competitors



G2 Grid® Scoring

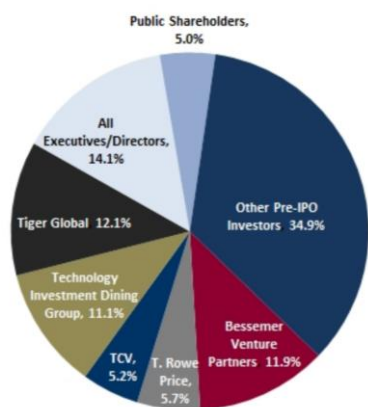
Source: Company data

Figure 10: Competitors Revenue Comparison



Source: Bloomberg BI

Figure 11: Toast ownership Structure



Source: Company filing

Figure 12: quarterly Forecast

Gross Profit (\$ mn)	2022A	2023E	2024E
Q1	89	174A	227
Q2	113	208A	262
Q3	151	226A	290
Q4	158	212	284
FY	511	820	1,063

Source: JPM

Toast. Square's online retail tool falls short in restaurant functionalities. Toast excels in restaurant-centric POS and durable hardware for growing businesses with specific restaurant needs. Square may suit small enterprises initially, but transitioning to Toast as operations expand is advisable for enhanced features and support.

2.2.3. Fiserv's Clover is a cloud-based POS and business management platform for small businesses, excelling in hardware and software solutions, omnichannel capabilities, and touchless commerce. Strengths include cloud-based efficiency, but weaknesses include potential durability issues and extra fees for online ordering tools. Integration may be less seamless due to the need for third-party apps. Prioritizes operating efficiencies and payment processing but faces hardware durability and integration convenience challenges compared to competitors like Toast.

2.2.4. Lightspeed (LSPD): Lightspeed (LSPD) is a cloud-based commerce platform for retail, leisure, and restaurants, offering a unified POS system with integrated payments, advanced inventory, and analytics. Strengths include omnichannel support, online presence enhancement, and menu intelligence. However, it lacks accounting integration, charges add-on fees for online ordering tools, and may not match Toast's hardware durability.

2.2.5. Shift4: Shift4 is a partner-centric company with 7,000 collaborators in ISVs and VARs, specializing in payments and revenue processing. It owns POS brands and integrates strategically with significant names like Oracle (Micros). With a market focus on retail, restaurant, and hospitality, Shift4 is known for tailored strengths, market expertise, and diverse offerings, establishing a competitive presence in the POS and payments sector.

Toast excels in the competitive landscape with its tailored solutions, 24/7 customer service, and ongoing innovation, making it the preferred choice for the restaurant industry. While competitors like Square, Clover, and Lightspeed have strengths in various areas, Toast stands out for its robust features, industry-specific focus, and continuous improvements without additional costs.

3. Investment Thesis:

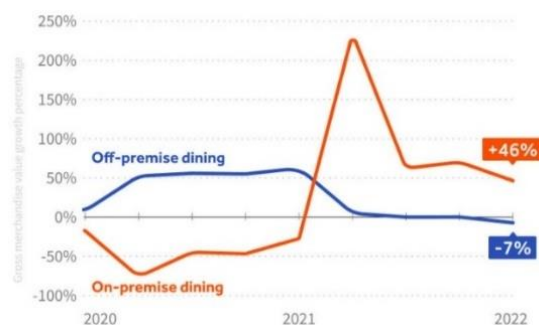
The report maintains a Neutral rating for Toast, acknowledging its disruptive potential and growth but being cautious about competitive challenges, macro uncertainties, and the unproven profitability scaling. The price target of \$17.02 reflects a balanced valuation considering these factors:

3.1. Negative Factors:

3.1.1. Thesis 1: Thesis 1: Toast, noted as one of the largest loss-making companies in its group, underperformed most US-based fintechs since its IPO in September 2021 and through the end of November. The company went public on September 21 at \$40 per share, with a price-to-sales multiple of 7.8x. However, it trades at 1.7x its 12-month forward estimated revenue, lower than larger competitors like Fiserv and Global Payments. Despite essentially meeting expectations and preparing to turn profitable on an adjusted EBITDA basis for the year, Toast has yet to recover from losses incurred during the Covid pandemic euphoria fully, experiencing a 7% decline in its stock value through mid-December. The stock still trades approximately 57% below its IPO levels.

3.1.2. Despite a general decrease in inflation, Restaurant menu prices are rising, increasing by 5-7% for food away from home, while food at home has seen a 1% decrease. The upward trend is attributed to escalating labor and real estate costs for restaurants, coupled with reduced consumer spending. This may impact dining-out habits, leading to challenges for both restaurants and tech providers as elevated prices discourage frequent visits, affecting sales growth and profitability.

Figure 13: Off/ On premise Dining



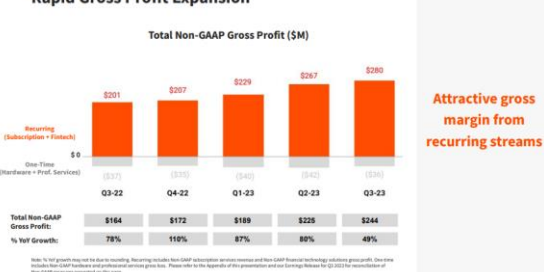
Source: Company filing

Figure 14: Total GPV



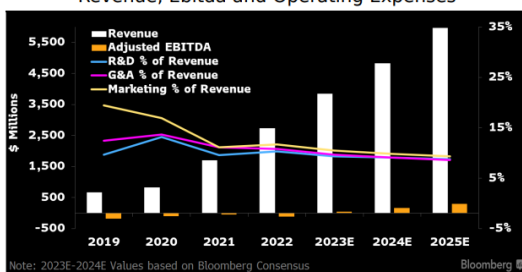
Source: Company filing

Figure 15: Gross Profit Expansion
Rapid Gross Profit Expansion



Source: Company filing

Figure 16: Revenue, Ebitda and Operating Expenses



Source: Company Filings, Bloomberg Intelligence

Source: Bloomberg BI

3.1.3. Toast faced challenges with its 99-cent fee for online orders over \$10, which was implemented on July 10. Due to resistance from restaurants, the fee was revoked on July 19. Management reported that the reversal had no adverse effects on customer churn or new location additions. Despite this setback, TOST confirmed the loss of a significant client, Jamba Juice, which will gradually transition off the TOST platform in the coming years.

3.1.4. Thesis 4: Thesis 4: Toast Inc.'s CEO, Christopher P. Comparato, recently reported an insider stock transaction to the US Securities and Exchange Commission. On December 15, he sold 58,000 shares, totaling \$981,360, constituting a 55% reduction in his previous holdings. The sale, executed under a Rule 10b5-1 trading plan adopted on February 24, 2023, coincided with a 26% increase in the company's shares over the past month. Investors often scrutinize such transactions, primarily involving key executives, for potential insights into the leadership's views on the company's future.

3.2. Positive Factors:

3.2.1. Thesis 1: Chris Comparato, former CEO, has resigned, and Aman Narang, Co-President/COO, and company co-founder, is now the CEO as of January 1st. With a long history in Sales, Marketing, Business Development, and Customer Success, Narang's transition emphasizes continuity in leadership, suggesting no imminent changes in the company's strategy.

3.2.2. Thesis 2: Toast has entered a multi-year agreement with Marriott International for Subscription and Hardware-only services across 4,590 properties in the US and Canada, including brands like Courtyard, Residence Inn, Fairfield, SpringHill Suites, Four Points, TownePlace Suites, Aloft Hotels, AC Hotels, Element Hotels, and Moxy Hotels. Integrated with FreedomPay as a payment gateway, this strategic move showcases Toast's expansion into the enterprise restaurant space and lays the groundwork for future collaborations with Marriott's Luxury and Premium tiers.

3.2.3. Thesis 3: Toast is in the early stages of tapping into its Total Addressable Market (TAM), currently in 7% of US restaurants. With 4% of the \$41 billion IT market, an additional \$100 billion opportunity exists through international expansion in Canada, Ireland, and the UK. Originally a payments model, Toast offers a comprehensive software solution for small to mid-market restaurants. The "land and expand" strategy focuses on growing locations and cross-selling software modules, ensuring sustained growth and market leadership. Four key revenue streams include software subscriptions, payment transaction revenue, potential interest on loans, and new product services within restaurant IT budgets. This strategic framework aims to deepen market penetration and enhance customer engagement with tailored solutions.

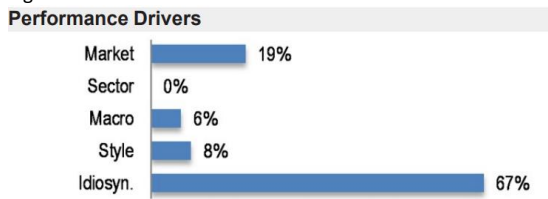
3.2.4. Thesis 4: The company is expanding its lending operations through Toast Capital, which is currently in the early stages with approximately 70 basis points of lending volume. It aims to facilitate profitable underwriting in an underbanked sector by leveraging micro-level sales, payments, and supply-chain data.

4. Environmental, Social and Governance

Toast maintains an enterprise risk program that identifies, measures, and mitigates risks, collaborating with business units to address ESG and climate-related concerns. Updates are reported to senior leaders through the enterprise risk committee and overseen by the audit committee.

4.1. Environmental: According to SASB, With a total energy consumption of 18,099 GJ across its workplaces, Toast ensures that 100% of this energy is sourced from renewable means, utilizing utility green power purchase programs and Energy Attribute Certificates.

Figure 17: Performance Drivers



Source: Company filing

Figure 18: price performance



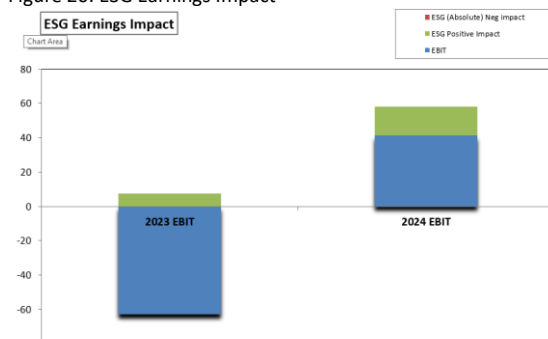
Source: Company filing

Figure 19: Toast's Total Addressable Market



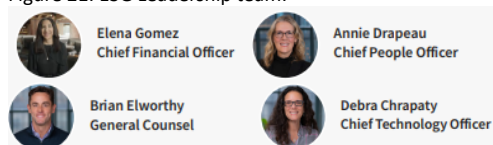
Source: US Bureau of Labor Statistics

Figure 20: ESG Earnings Impact



Source: Company filing

Figure 21: ESG Leadership team:



Sources: FY2022 ESG Overview

Regarding water management, excluding workplaces associated with the 2022 acquisition of Sling, Toast withdraws 14.5 TCM of water and consumes nearly zero TCM, emphasizing responsible water practices. Notably, Toast does not own or operate data centers, relying on a third-party cloud provider with a variable capacity utilization model. The cloud provider showcases progress toward a net-zero goal by 2040, aligning with Toast's commitment to integrating environmental considerations into strategic planning. This approach reflects Toast's dedication to minimizing its environmental footprint and fostering sustainable practices. Toast has made significant strides in its commitment to environmental sustainability by achieving 100% net-zero electricity emissions for workplaces through green power purchases and Energy Attribute Certificates (EACs). The company published a comprehensive greenhouse gas emissions inventory covering all relevant categories and procured Energy Attribute Certificates (EACs) from the Bonneville Environmental Foundation to support renewable energy production, offsetting the environmental impact of fossil fuels.

4.2. Social:

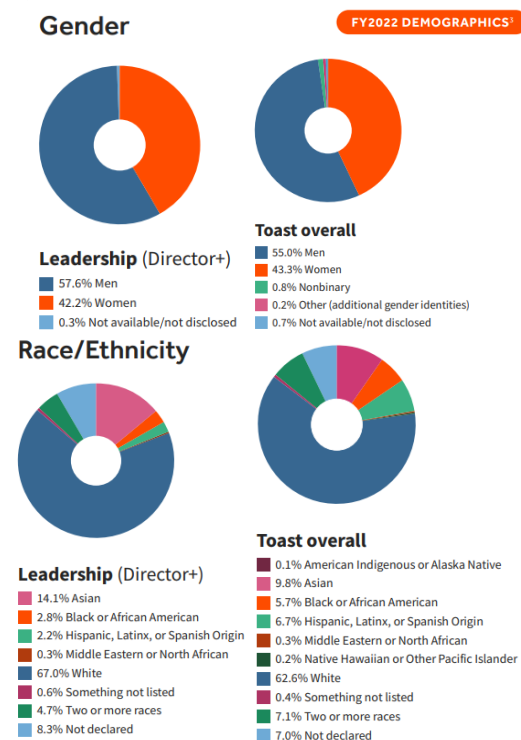
4.2.1. Data Privacy & Security: According to SASB's Software and IT Services Standard, Toast is committed to data privacy and freedom of expression through well-defined policies and practices. The company's transparency is evident in public filings, such as the 2022 10-K, disclosing any material losses resulting from legal proceedings associated with user privacy. Significantly, Toast operates exclusively in markets where its core products or services are not subject to government-required monitoring, blocking, content filtering, or censorship, reinforcing its commitment to safeguarding user data and promoting freedom of expression. Notably, Toast extends its security approach beyond ensuring merchant operations by aiding in regulatory and compliance obligations and adhering to standards such as PCI, SOC 2, SOX, and NIST. To fortify its cybersecurity posture, Toast employs a multifaceted strategy, including a secure software development framework (SSDF) to mitigate software vulnerabilities. Physical security is reinforced through key-card entry systems, firewalled labs, and outsourced CCTV monitoring. The security operations center actively monitors and responds to incidents, employing regular cybersecurity testing, including penetration tests, vulnerability management, and red and purple team security testing. Moreover, Toast prioritizes the security awareness of its team members through annual training covering policies, security measures, and awareness, with specific emphasis on phishing, social engineering, and top threats.

4.2.2. Labor Practices: Toast is committed to maintaining a supportive and respectful workplace, prioritizing career development, and offering comprehensive benefits. Employee well-being is a priority, supported by paid time off, physical and mental health care, caregiver assistance, employee communities, sabbatical options, and a variety of retirement plans, including a 401k match program. A mental health task force led by company leaders actively addresses employee feedback. Toast prioritizes talent planning by collaborating with recruiters and cross-functional teams, fostering diverse talent pipelines aligned with business needs. Regular feedback, biannual goal setting, and an annual review process encourage open discussions on performance and growth. Toast is dedicated to transparent and equitable compensation, as evident in its comprehensive total rewards program. Regular pay equity reviews, inclusive of gender, race, and ethnicity assessments, demonstrate the company's commitment to fairness. The Employee Stock Purchase Plan (ESPP) benefits US and Ireland-based employees, allowing them to acquire discounted shares.

4.2.3. Diversity, Equity & Inclusion (DEI): In 2022, Toast demonstrated substantial progress in its commitment to diversity, equity, and inclusion (DEI). Addressing bias in recruitment practices, Toast adopted structured, competency-based interviewing

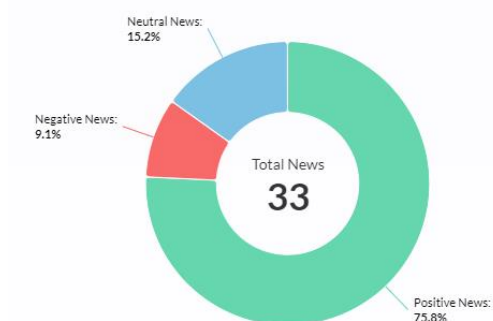
Most Material Topics for Industry (67% of the BBG Score)			
Topic	Weight	Score	Peer Rank
Energy Management	18%	6.8 ↑	Leading
Data Security & Customer Pri...	15%	3.6 ↑	Leading
Water Management	12%	4.9 ↑	Leading
Operational Risk Management	11%	0.0 ↑	Lagging
Board Composition	11%	6.2 ↑	Above Median

Figure 22: Business and value-chain emissions (mtCO2e)



Sources: FY2022 ESG Overview

Figure 23: Sentiment Analysis:



Source: www.alphaspread.com

Figure 24: Quarterly Free Cash Flow

Quarterly Free Cash Flow					
(in million dollars)	Q3 22	Q4 22	Q1 23	Q2 23	Q3 23
Net cash provided by (used in) operating activities	\$(69.00)	\$(19.00)	\$(55.00)	\$50.00	\$ 47.00
Purchases of property and equipment	\$ (6.00)	\$ (3.00)	\$ (2.00)	\$ (2.00)	\$ -
Capitalized software	\$ (5.00)	\$ (7.00)	\$ (8.00)	\$ (9.00)	\$(10.00)
Free cash flow	\$(80.00)	\$(29.00)	\$(65.00)	\$39.00	\$ 37.00

Source: Company Data

and inclusivity best practices at every stage of the process. Leadership roles saw a 1.5% increase in the percentage of women at the director and above level. This commitment extends to employees and customers, providing more equitable opportunities and cultivating a sense of belonging. Toast's seven employee resource groups (ERGs) and eight clubs serve as internal networks where Toasters can connect based on shared experiences or allyship.

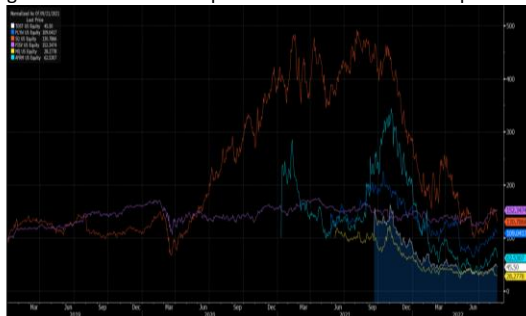
- 4.3. Governance: Toast prioritizes ethical conduct through comprehensive employee training on privacy, security, and business ethics during onboarding and annually. Overseen by the board and monitored by the General Counsel, Toast's Code of Business Conduct & Ethics encompasses vital policies, including public company policies (insider trading, corporate communications) and core policies (anti-corruption, bribery), Prohibiting Harassment and discrimination, Respect in the Workplace, and the publicly posted Community Philosophy and during the contracting process, our customers commit to abide by it. Additionally, Toast has adopted policies to enable responsible and ethical business practices, including the Foreign Corrupt Practices Act and Anti-Corruption Policy, Stock Trading Policy, Corporate Communications Policy & Handbook, Speak Up Policy, Related Persons Transaction Policy, Commitment to Equal Employment Opportunities, Respect in the Workplace Policy. The Code of Conduct ensures the reporting of misconduct with anonymous channels, a no-retaliation policy, and confidential handling of complaints. Employees can report concerns to managers, Employee Relations, the AllVoices platform, or designated People team members, fostering a culture of transparency and accountability. Toast has no political action committee or lobbying memberships. No political donations or lobbying occurred in 2022 or 2021, with select lobbying activities reported in 2020 for federal pandemic assistance to the restaurant industry. The board comprises many independent directors with diverse perspectives and the expertise required to provide guidance and informed oversight of Toast's business and risks. The board has three standing committees with delegated responsibilities:

- 4.3.1. Toast's audit committee oversees auditor selection, reviews outcomes, manages risk reporting, evaluates controls, approves services, and ensures compliance with securities regulations, enhancing financial transparency and regulatory adherence.
- 4.3.2. Toast's Nominating and Corporate Governance Committee recruits board members, evaluates performance, oversees CSR initiatives (sustainability, ESG, DEI, climate), ensuring alignment with governance practices and recommending changes for adherence to guidelines and ethics.
- 4.3.3. The Compensation Committee at Toast manages executive compensation, equity plans, and employee benefit policies while reviewing the company's DEI initiatives.

5. Financial Analysis:

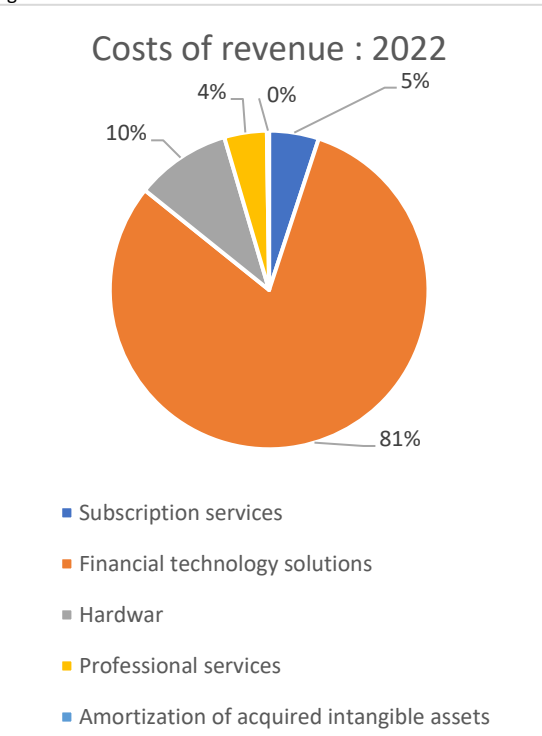
- 5.1. Revenue Growth: Toast has shown 60% total revenue growth in 2022 compared to 2021. However, the growth rate was 107% in 2021. Also, total revenue in Q3 2023 has increased to \$1,032, but in terms of growth, it went down to 37% in Q3 23 from 45% in Q2 23. (Appendix 4) As per the Q3 23 result of Total GPV, an increase in GPV shows the result of higher sales per customer, which ultimately increased financial technology revenue. Also, ARR has shown a growth of 40% in Q3 23 as compared to Q3 22. Financial technology solutions have contributed the most in overall revenue segments, 81%.
- 5.2. Market Position: Toast has launched its platform for hotel industries, starting with Marriot Select Service hotels in the US that offer limited SaaS and hardware solutions services. Toast has established a leadership position in the restaurant industry compared to other strong competitors, Square and Clover.
- 5.3. Number of Customers: Toast has shown sustainable growth in restaurant locations, with an increase of 6,500 locations in Q3 23, contributing to higher revenue. A higher number

Figure 25: Relative stock performance in toast and its peers



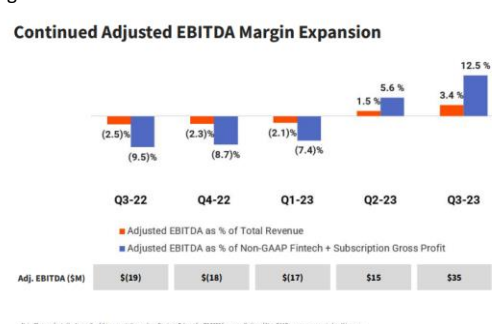
Source: Bloomberg BI

Figure 26: Cost of Revenue



Source: Team Analysis

Figure 27:



Source: Company Data

of locations will increase hardware sales to these locations, which is \$113 million in 2022 from \$14 million in 2020.

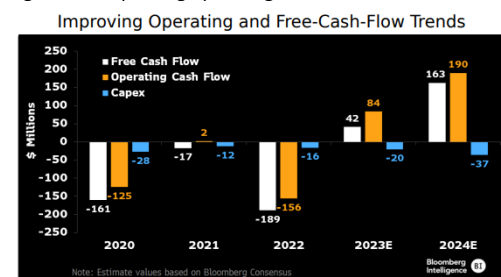
- 5.4. Operating cash flow and Liquidity: As per the Cash Flow Statement of 2022, net cash provided by operating activities was negative (-156 million) with (-19 million) in Q4 22; however, by Q3 23, it had increased to \$ 47 million (Appendix 3). Along with that, Free cash flow has also become positive in Q3 23, about \$37 million.
- 5.5. Cost Allocation: Toast has allocated its cost in 5 parts, of which financial technology solutions give the most at 81%, while professional and other services cover the rest. As shown in Appendix 1, there is an increase in marketing expenses, with \$319 million in 2022 compared to \$190 million in 2021, because of increased labor and overhead costs. There is a notable increase in R&D expenditure in 2022, with an increase of \$119 million compared to the previous year. Higher R&D expenditure shows signs of higher employment opportunities in Toast.
- 5.6. Ratio Analysis: We used ROE based on Dupont to analyze Toast's overall profitability for ratio analysis. As mentioned in Appendix 6, in 2022, the ROE is -24.84% as there is a negative operating margin of -10.14%. Also, the leverage ratio decreased in 2022 from 2021, showing lower debt obligations and reduced financial risk.

6. Valuations:

- 6.1. The discounted cash flow (DCF) analysis forecasts a revenue growth rate ranging from 24% to 19% over the projection period, with an initial acceleration followed by a gradual decline. Gross margin is expected to vary from 9% to 28%, expanding consistently due to scale benefits. Operating margin is projected to range from -32% to 8%, indicating improvement from operating leverage. Minimal taxes are assumed based on net operating losses while working capital ranges from 0% to -2% of revenue. Capital expenditures, depreciation, and amortization range from 1% to 3% of revenue. The weighted average cost of capital (WACC) is estimated at 14.9%, considering equity and debt costs. The terminal growth rate is assumed to be 6.2%, and an exit EBITDA multiple of 11.8x is applied. The DCF analysis results in a fair valuation of \$17.78 per share using the perpetuity growth method and \$17.02 per share using the EBITDA multiple method, representing a 3-7% downside to the current \$18.28 price. Sensitivity analysis widens the valuation range to \$13.67-\$18.29, emphasizing the impact of varying WACC, terminal growth, and EBITDA exit multiples on the overall assessment. Overall, the analysis suggests a fair valuation slightly below the current trading price, with growth, profitability, and exit multiple assumptions playing pivotal roles in determining the range.

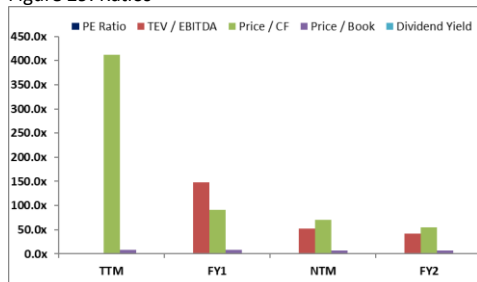
- 6.2. Price Earnings: As of January 4, 2024, Toast's market capitalization stands at \$9,464 million USD, positioning it on the smaller side relative to industry peers such as PayPal (\$63 billion) and Visa (\$535 billion). Despite displaying a noteworthy 1-month return of 15.9%, among the highest in its peer group, Toast experienced a -22.4% 6-month return, falling below the peer average of 9.6%, suggesting a subsequent pullback after initial gains. In 2020, Toast's P/E ratio was 92.3x, significantly surpassing all peers, with Adyen as the next highest at 270.9x. Although Toast's projected P/E is expected to decrease substantially into the low 20s by 2024, it remains above the peer average of 21.4x. This indicates that, while the valuation has moderated, Toast still trades at a premium compared to its peers. The initially high P/E ratio in 2020 suggests investor expectations of substantial growth, and although the valuation has adjusted, it remains elevated, emphasizing the importance of sustained strong growth for justification. Any deviations from this growth outlook could lead to a normalization and potential multiple compression.

Figure 28: improving operating and FCF



Source: Company Filings, Bloomberg Intelligence
Source: Bloomberg BI

Figure 29: Ratios



Source: Team Analysis

Figure 30: enterprise value



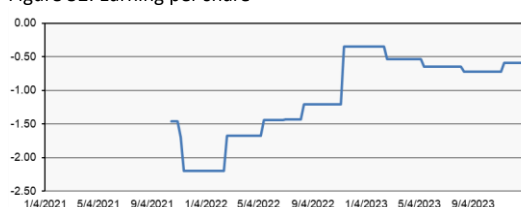
Source: Team Analysis

Figure 31: price to sales



Source: Team Analysis

Figure 32: Earning per share



Source: Team Analysis

6.3. Price to sales: Toast Inc (TOST), operating in the transaction and payment processing industry with a focus on restaurant software provision, is subject to a fluctuating valuation landscape. The forecasted Price to Sales (P/S) ratio presents a downward trajectory, starting at 3.4x in 2022 and steadily decreasing to 1.6x by 2025. This trend suggests anticipation in the market for a deceleration in revenue growth over the specified period, with a lower P/S ratio indicating a relatively more economical stock concerning its revenue. As of January 2024, Toast boasts a market capitalization of \$9.464 billion, placing it within the mid-cap category. Despite this, the stock exhibits volatility, exemplified by a robust 15.9% 1-month return juxtaposed with a negative 6-month return of -22.4%, indicating recent momentum but overall poor performance in the preceding half-year. In essence, Toast emerges as a mid-cap player in the restaurant software sector, poised with a forecasted P/S ratio reflecting potential revenue growth moderation and a recent stock performance characterized by short-term gains but longer-term setbacks.

6.4. As of January 2024, Toast (TOST) commands a market capitalization of \$9.46 billion, designating it as a significant player in the large-cap segment. In comparison to its payment processing counterparts, Toast occupies a middle ground, surpassing the market value of companies such as Shift4 Payments (\$5.8B), StoneCo (\$5.2B), and Marqeta (\$3.4B), yet trailing behind industry giants like Visa (\$535B), Mastercard (\$394B), and PayPal (\$63B). This positioning categorizes Toast as an established mid-cap fintech entity within the payments sector. Analyzing the Price-to-book (P/B) ratio, Toast demonstrates a P/B of 8.4x in 2020, gradually declining to 5.7x in 2024. This P/B ratio aligns closely with the median of its peer group, which spans from 0.9x (Cielo) to 67.9x (Adyen). While Toast's valuation stands at a premium relative to stalwart incumbents like American Express (4.2x), Visa (12.5x), and Mastercard (61x), it remains competitive against slower-growing peers such as Global Payments (2.3x), Fiserv (2.3x), and Fidelity National (1.8x). Importantly, Toast's premium P/B is justified by its robust growth outlook, anticipating a 29% revenue increase in 2022 and a subsequent 28% in 2023, according to Bloomberg consensus. In conclusion, Toast appears adequately valued, aligning with mid-cap fintech payment peers while concurrently offering substantial growth potential, supported by its leadership in the restaurant tech sector and rapid expansion. This valuation seems justified, but the prospect of further upside remains contingent on the company's continued execution of its growth strategies.

6.5. EV/EBITDA: Toast Inc (TOST), a prominent player in the US restaurant technology sector, offering integrated solutions encompassing point-of-sale software, payment processing hardware, and restaurant management software, has been subject to a comprehensive peer group valuation analysis within the transaction and payment processing industry. As of January 4, 2024, with a market capitalization of \$9,464 million, Toast's peer group, consisting of 18 companies including Wex, Shift4 Payments, and PayPal, exhibits a broad range of EV/EBITDA multiples, spanning from a minimum of 8.9x for Cielo SA to a maximum of 911.6x for Block Inc, with a mean of 95.2x. Applying this mean multiple to Toast's market cap suggests an implied enterprise value of \$901,328 million, showcasing a substantial disconnect between Toast's current market cap and its implied enterprise value based on peer multiples. This misalignment indicates a potential undervaluation of Toast relative to its industry peers on an EV/EBITDA basis, hinting at untapped upside potential in its valuation. Nevertheless, the considerable variance in peer multiples underscores the challenges associated with accurately valuing high-growth companies like Toast, emphasizing the critical role of appropriate comparables and assumptions in the valuation process. In essence, while the analysis points towards Toast being

-330M
OPERATING INCOME

+7%



Source: www.alphaspread.com

24M
OPERATING CASH FLOW



Source: www.alphaspread.com

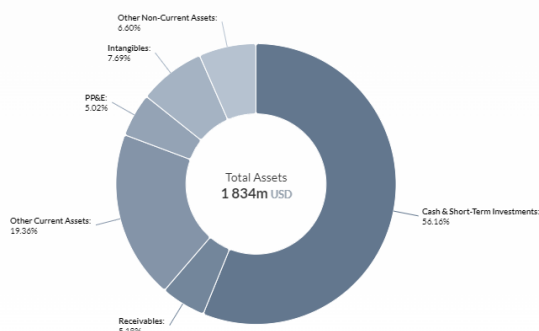
-41M
CAPITAL EXPENDITURES

-2%



Source: www.alphaspread.com

Total Assets



Source: www.alphaspread.com

Total Liabilities



Source: www.alphaspread.com

significantly undervalued compared to payment processing peers, the inherent uncertainty in valuing high-growth entities necessitates careful consideration of the broader valuation landscape.

The relative valuation complements our DCF valuation and reinforces our Hold recommendation for Toast. Our DCF valuation is a free cash flow to-firm model with a blend of terminal exit value methods. With an explicit forecast period from 2023 to 2028, our DCF model allows us to better incorporate financial impacts from our investment summary, such as strong growth, margin expansion, and improved capital efficiency.

7. Investment Risks:

- 7.1. **Cyclical Risks:** Toast's performance is vulnerable to economic cycles, with downturns risking reduced payment volumes and increased attrition, while upturns may drive heightened demand. Operating exclusively in the restaurant sector exposes Toast to cyclical fluctuations, impacting financial outcomes positively or negatively. Additionally, the discretionary nature of dining out makes Toast sensitive to economic downturns, potentially resulting in lower volumes as consumers prefer grocery spending over restaurants. In down-cycles, acquiring new customers, particularly among small and medium-sized businesses (SMBs), may face challenges due to reluctance to adopt new technology processes
- 7.2. **Payments Pricing Dynamics:** Toast is exposed to the risk of lower pricing/spreads in payment facilitation due to competition from scale providers emphasizing cost-effectiveness. The mix of card-present versus card-not-present transactions significantly influences net yield, and Toast has limited control over these dynamics. The company faces challenges in maintaining pricing levels and managing the transaction mix, factors that can impact its results in the payment facilitation domain.
- 7.3. **Execution Missteps:** The company's execution is susceptible to errors in partnerships or strategic decisions, potentially leading to negative consequences and impacting investor confidence. The company's past acquisitions introduce risks associated with future endeavors. Successful integrations are critical for potential upside, while mismanagement could result in excess costs, outweighing benefits, and potential earnings dilutions or headwinds.
- 7.4. **Supply Chain/Chip Shortages:** Ongoing supply chain and chip shortages pose a risk for hardware bottlenecks, potentially delaying the implementation and onboarding processes for TOST and impeding growth.
- 7.5. **Inflation Risk:** Ongoing inflation in the US mainly affects small businesses, with increased food prices and wage hikes. Forecasts indicate a sustained high inflation environment without clear signs of an impending recession, as outlined in the 2023 State of the Restaurant Industry presentation. Despite growth projections, the industry remains susceptible to persistent high failure rates during the initial years of restaurant establishment, with vulnerability to macroeconomic shifts that could amplify challenges in the event of a recession.
- 7.6. **Pricing & Market Expansion:** Toast, offering high-cost SAAS solutions for SMBs in the cloud POS market, faces challenges in retaining accounts due to competition and technological advancements. Sustaining growth at 45-60% is crucial. To counter this, expansion into enterprise-level hospitality and partnerships with major chains is vital. The uncertainty in customer renewal rates and the impact of new business formations on growth poses challenges to the company's future success.

Appendix 1

Income Statement:

In Millions of USD except Per Share	FY 2021 A	FY 2022 A	Last 12M A	FY 2023 E	FY 2024 E	FY 2025 E
12 Months Ending	12/31/2021	12/31/2022	09/30/2023	12/31/2023	12/31/2024	12/31/2025
Revenue	1,705.0	2,731.0	3,598.0	3,847.3	4,828.6	6,128
+ Sales & Services Revenue	1,705.0	2,731.0	3,598.0			
- Cost of Revenue	1,391.0	2,220.0	2,832.0			
+ Cost of Goods & Services	1,387.0	2,215.0	2,828.0			
+ Depreciation & Amortization	4.0	5.0	4.0			
Gross Profit	314.0	511.0	766.0	886.9	1,177.6	1,550
+ Other Operating Income	0.0	0.0	0.0			
- Operating Expenses	542.0	895.0	1,096.0			
+ Selling, General & Admin	379.0	613.0	753.0			
+ <i>Selling & Marketing</i>	190.0	319.0	386.0			
+ <i>General & Administrative</i>	189.0	294.0	367.0			
+ Research & Development	163.0	282.0	343.0			
+ Other Operating Expense	0.0	0.0	0.0			
Operating Income (Loss)	-228.0	-384.0	-330.0	-62.7	41.3	60.5
- Non-Operating (Income) Loss	262.0	-107.0	-24.0			
+ Interest Expense, Net	12.0	-11.0	-33.0			
+ <i>Interest Expense</i>	12.0	0.0				
- <i>Interest Income</i>	0.0	11.0				
+ Foreign Exch (Gain) Loss	0.0	0.0				
+ Other Non-Op (Income) Loss	250.0	-96.0	9.0			
Pretax Income	-490.0	-277.0	-306.0	-267.2	-50.5	120.80
- Income Tax Expense (Benefit)	-3.0	-2.0	3.0			
+ Current Income Tax	—	—				
+ Deferred Income Tax	—	—				
Income (Loss) from Cont Ops	-487.0	-275.0	-309.0	-267.8	-191.8	-160.58
- Net Extraordinary Losses (Gains)	0.0	0.0	0.0			
+ Discontinued Operations	0.0	0.0	0.0			
+ XO & Accounting Changes	0.0	0.0	0.0			
Income (Loss) Incl. MI	-487.0	-275.0	-309.0			
- Minority Interest	0.0	0.0	0.0			
Net Income, GAAP	-487.0	-275.0	-309.0	-267.8	-191.8	-160.58

*Source: Bloomberg & Team Analysis

Appendix 2

Balance Sheet:

In Millions of USD except Per Share	FY 2021 A	FY 2022 A	FY 2023 E	FY 2024 E	FY 2025 E
12 Months Ending	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025
Total Assets					
+ Cash, Cash Equivalents & STI	1,266.0	1,021.0	1,040.0	1,552.0	2,041.0
+ Cash & Cash Equivalents	809.0	547.0			
+ ST Investments	457.0	474.0			
+ Accounts & Notes Receiv	16.0	33.0			
+ Accounts Receivable, Net	16.0	33.0	121.0	135.0	151.0
+ Notes Receivable, Net	—	0.0			
+ Unbilled Revenues	39.0	44.0			
+ Inventories	42.0	110.0	140.0	167.0	145.0
+ Raw Materials	0.0	—			
+ Work In Process	0.0	—			
+ Finished Goods	42.0	—			
+ Other Inventory	0.0	—			
+ Other ST Assets	122.0	199.0			
+ Prepaid Expenses	92.0	155.0			
+ Derivative & Hedging Assets	—	0.0			
+ Misc ST Assets	30.0	44.0			
Total Current Assets	1,485.0	1,407.0	1,301.0	1,854.0	2,337.0
+ Property, Plant & Equip, Net	120.0	138.0			
+ Property, Plant & Equip	151.0	186.0			
- Accumulated Depreciation	31.0	48.0			
+ LT Investments & Receivables	0.0	0.0			
+ Other LT Assets	130.0	216.0			
+ Total Intangible Assets	90.0	136.0			
+ Goodwill	74.0	107.0			
+ Other Intangible Assets	16.0	29.0			
+ Derivative & Hedging Assets	0.0	0.0			
+ Misc LT Assets	40.0	80.0			
Total Noncurrent Assets	250.0	354.0			
Total Assets	1,735.0	1,761.0	1,991.0	2,489.0	3,123.0
Liabilities & Shareholders' Equity					
+ Payables & Accruals	40.0	30.0			
+ Accounts Payable	40.0	30.0	125.0	175.0	250.0
+ Other Payables & Accruals	0.0	0.0			
+ ST Debt	22.0	14.0			
+ ST Borrowings	0.0	0.0			
+ ST Lease Liabilities	22.0	14.0			
+ ST Finance Leases	0.0	0.0			
+ ST Operating Leases	22.0	14.0			
+ Other ST Liabilities	290.0	452.0			
+ Deferred Revenue	44.0	39.0			
+ Derivatives & Hedging	0.0	0.0			
+ Misc ST Liabilities	246.0	413.0	578.0	680.0	748.0
Total Current Liabilities	352.0	496.0			
+ LT Debt	77.0	80.0			
+ LT Borrowings	0.0	0.0			
+ LT Lease Liabilities	77.0	80.0			
+ LT Finance Leases	0.0	0.0			
+ LT Operating Leases	77.0	80.0			
+ Other LT Liabilities	215.0	87.0			
+ Accrued Liabilities	0.0	0.0			
+ Deferred Revenue	12.0	7.0			
+ Derivatives & Hedging	181.0	68.0			
+ Misc LT Liabilities	22.0	12.0			
Total Noncurrent Liabilities	292.0	167.0	148.0	157.0	149.0
Total Liabilities	644.0	663.0			
+ Preferred Equity and Hybrid Capital	0.0	0.0			
+ Share Capital & APIC	2,194.0	2,477.0			
+ Common Stock	0.0	0.0			
+ Additional Paid in Capital	2,194.0	2,477.0			

- Treasury Stock	0.0	0.0			
+ Retained Earnings	-1,102.0	-1,377.0			
+ Other Equity	-1.0	-2.0			
Equity Before Minority Interest	1,091.0	1,098.0	1,140.0	1,477.0	1,976.0
+ Minority/Non Controlling Interest	0.0	0.0			
Total Equity	1,091.0	1,098.0			
Total Liabilities & Equity	1,735.0	1,761.0	1,991.0	2,489.0	3,123.0

*Source: Bloomberg and team analysis

Appendix 3

Cash Flow Statement:

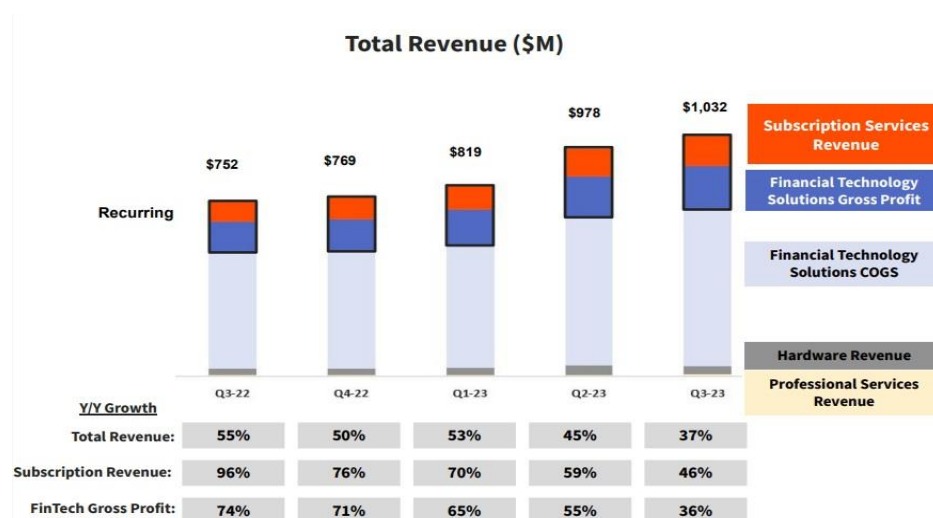
In Millions of USD except Per Share	FY 2021 A	FY 2022 A	Last 12M A	FY 2023 E	FY 2024 E	FY 2025 E
12 Months Ending	12/31/2021	12/31/2022	09/30/2023	12/31/2023	12/31/2024	12/31/2025
Cash from Operating Activities						
+ Net Income	-487.0	-275.0	-309.0			
+ Depreciation & Amortization	21.0	24.0	28.0			
+ Non-Cash Items	400.0	140.0	318.0			
+ Stock-Based Compensation	140.0	228.0	268.0			
+ Deferred Income Taxes	-3.0	-5.0				
+ Other Non-Cash Adj	263.0	-83.0	51.0			
+ Chg in Non-Cash Work Cap	68.0	-45.0	-13.0			
+ (Inc) Dec in Accts Receiv	-23.0	-35.0	-29.0			
+ (Inc) Dec in Inventories	-23.0	-68.0	-2.0			
+ Inc (Dec) in Accts Payable	15.0	-11.0	-2.0			
+ Inc (Dec) in Other	99.0	69.0	20.0			
+ Net Cash From Disc Ops	0.0	0.0	0.0			
Cash from Operating Activities	2.0	-156.0	24.0	121.0	156.0	245.0
Cash from Investing Activities						
+ Change in Fixed & Intang	-19.0	-33.0	-41.0			
+ Disp in Fixed & Intang	0.0	0.0	0.0			
+ Disp of Fixed Prod Assets	0.0	0.0	0.0			
+ Disp of Intangible Assets	0.0	0.0	0.0			
+ Acq of Fixed & Intang	-19.0	-33.0	-41.0			
+ Acq of Fixed Prod Assets	-12.0	-16.0	-7.0			
+ Acq of Intangible Assets	-7.0	-17.0	-34.0			
+ Net Change in LT Investment	0.0	0.0	0.0			
+ Dec in LT Investment	0.0	0.0	0.0			
+ Inc in LT Investment	0.0	0.0	0.0			
+ Net Cash From Acq & Div	-26.0	-46.0	-9.0			
+ Cash from Divestitures	0.0	0.0	0.0			
+ Cash for Acq of Subs	-26.0	-46.0	-9.0			
+ Cash for JVs	0.0	0.0	0.0			
+ Other Investing Activities	-458.0	-19.0	-108.0			
+ Net Cash From Disc Ops	0.0	0.0	0.0			
Cash from Investing Activities	-503.0	-98.0	-158.0	130.0	-50.0	-68.0
Cash from Financing Activities						
+ Dividends Paid	0.0	0.0	0.0			
+ Cash From (Repayment) Debt	-245.0	0.0	0.0			
+ Cash From (Repay) ST Debt	0.0	0.0	0.0			
+ Cash From LT Debt	0.0	0.0	0.0			
+ Repayments of LT Debt	-245.0	0.0	0.0			
+ Cash (Repurchase) of Equity	974.0	15.0	34.0			

+ Increase in Capital Stock	974.0	15.0	34.0			
+ Decrease in Capital Stock	0.0	0.0	0.0			
+ Other Financing Activities	30.0	23.0	26.0			
+ Net Cash From Disc Ops	0.0	0.0	0.0			
Cash from Financing Activities	759.0	38.0	60.0	-125.0	335.0	340.0
Effect of Foreign Exchange Rates	-1.0	0.0	0.0			
Net Changes in Cash	257.0	-216.0	-74.0	126.0	441.0	517.0

*Source: Bloomberg and team analysis

Appendix 4

Revenue: (Quarterly)



*Source: company data

Revenue: (Yearly)

	Year Ended December 31		
(dollars in millions)	2022	2021	2020
subscription services	324	169	101
financial technology solutions	2268	1406	644
hardware	113	112	64
professional services	26	18	14
Total revenue	2731	1705	823

*Source: company data and team analysis

Appendix 5

Key Business Matrices:

	Year Ended December 31			2022 to 2021	2021 to 2020
	2022	2021	2020	% Growth	% Growth
(dollars in billions)					
Gross Payment Volume (GPV)	\$91.70	\$57.00	\$25.40	61%	124%
(dollars in billions)					
Annualized Recurring Run-Rate (ARR)	\$901	\$568	\$326	59%	74%
Net Retention Rate (NRR)	118%	135%	114%	-17%	21%

*Gross Payment Volume represents the sum of total dollars processed through the Toast payments platform across all restaurant locations in a given period.

*ARR is determined by taking the sum of (i) twelve times the subscription component of MRR and (ii) four times the trailing-three-month cumulative payments component of MRR. Monthly Recurring Run-Rate, or MRR, is measured on the final day of each month for all restaurant locations live on Toast platform as the sum of (i) monthly billings of subscription services fees, which Toast refer to as the subscription component of MRR, and (ii) in-month adjusted payments services fees, exclusive of estimated transaction-based costs, which Toast refer to as the payments component of MRR. MRR does not include fees derived from Toast Capital or related costs. MRR is also not burdened by the impact of SaaS credits offered.

*To calculate Toast's Net Retention Rate, or NRR, first identify a cohort of customers, or the Base Customers, in a particular month, or the Base Month.

*Source: company data and team analysis

Appendix 6:

DuPont Ratio Analysis:

In Millions of USD except Per Share	FY 2019	FY 2020	FY 2021	FY 2022
12 Months Ending	12/31/2019	12/31/2020	12/31/2021	12/31/2022
Tax Burden				
Net Inc to Comn/Pre-Tax Profit %	98.47	100.43	99.39	99.28
Adjustment Factor				
Interest Burden				
Pre-Tax Profit/EBIT %	100.00	105.38	102.51	100.00
Operating Margin				
EBIT/Revenue %	-31.98	-28.58	-28.04	-10.14
Asset Turnover				
Revenue/Avg Assets	—	1.52	1.36	1.56
Leverage Ratio				
Avg Assets/Avg Equity	—	—	4.06	1.60

Adjusted Return on Equity	—	—	—	-24.84

*Source: Bloomberg and team analysis

Appendix 7:

Product Offerings:

- **Toast POS:** TOST's restaurant-centric software streamlines operations, reduces wait times, and manages payments seamlessly with integrated hardware. It features color-coded tables, kitchen tickets, mobile alerts, and guest text messaging for efficient order management and connectivity across restaurant operations.
- **Toast Order & Pay:** Enables guests to order and pay directly from mobile devices, reducing physical contact, optimizing staffing, capturing guest insights, and minimizing table turn times. Guests can conveniently scan a QR code to browse the menu, order, and pay, with Apple Pay ensuring a quick and seamless payment process in less than 10 seconds.
- **Toast Go by TOST:** Weighing just over a pound, this handheld POS keeps you light on your feet. With a 6.4-inch touchscreen for easy viewing indoors and out, it enhances the guest experience and speeds up table turn times through features like tableside ordering, real-time menu updates, and contactless payments.
- **Toast Hardware:** Custom-built, restaurant-grade hardware designed for the demanding restaurant environment. Includes Toast Flex for on-counter order and pay, serving as a versatile solution for server stations, guest kiosks, kitchen display systems (KDS), or order fulfillment stations.
- **Toast Catering & Events:** Streamline from planning to payment. Turn event orders into online or POS invoices, manage orders, and track sales and revenue – all in one system. Secure online invoicing ensures timely payments, seamlessly integrated with your POS.
- **Toast Flex:** TOST's versatile hardware for on-counter orders and pay also serves as a server station, guest kiosk, kitchen display system, or order fulfillment station: larger format, mountable, and heat/water-resistant for kitchen use.
- **Restaurant Retail:** A unique, unified POS system that seamlessly manages both food service and retail businesses.
- **Toast Kiosks:** Empower guests, reduce wait times, and free up staff for essential tasks. Customizable orders with add-ons and modifiers enhance the dining experience. Minimal back-and-forth between cashier and guest drastically reduces wait times.
- **Toast Tap** is a versatile card reader by TOST that accepts Europay, Mastercard, Visa, NFC, EMV contactless transactions, and magnetic stripe reader payments (MSR).
- **xtraCHEF by Toast:** Transforming invoices into actionable insights for time savings and increased returns. It offers restaurant-specific invoice management, back-office tools, payment processing, capital funding, and real-time insights on sales, menu, and labor data. The platform includes Toast Partner Connect for seamless restaurant partnerships and a bi-directional API.
- **Toast Online Ordering & Toast TakeOut:** Software seamlessly connecting online channels, POS, menu management, and kitchen operations in real time. First-Party Delivery offers restaurant-controlled fleets, customizable delivery parameters, and a commission-free online ordering platform. It Simplifies the digital ordering experience, reduces reliance on third parties, and integrates with POS to eliminate the need for extra tablets.

- **Multi-Location Management:** Toast's software empowers operators to standardize operations and configure menus seamlessly across multiple locations and channels. It enables setting location-specific items, pricing, discounts, and centralizing data capture for streamlined management.
- **Toast Kitchen Display System (KDS):** Seamlessly connecting front-of-house and kitchen staff, this software automates order processing, notifies servers when orders are ready, and aggregates orders from various channels.
- **Toast Payment Processing:** Secure, fully integrated platform for reliable credit card payments, supporting EMV and NFC. Customer Care is available 24/7. Real-time fraud detection and PCI DSS compliance ensure data security from transaction to encryption.
- **Toast Delivery:** Own fleet management with customizable details and fees. Flat fees, passable to guests, optimize delivery margins. Toast Delivery Partners integrate POS with third-party services, eliminating extra tablets for streamlined order intake.
- **Toast Payroll & Team Management:** Centralized hub for hiring, employee management, and payroll. It is integrated with POS for time-saving hours entry and tip allocation. Enhance performance with tools like Sling for Toast for streamlined scheduling and team communication.
- **Toast Partner-Enabled Products:** Toast provides diverse insurance offerings, including workers' compensation, business owner policies, and restaurant-specific coverage like liquor liability. Additionally, automated 401k options are available for restaurants and their employees.
- **Toast Partner Connect** 150+ integrations for a tailored tech stack. POS supports offline capabilities, adheres to PCI security, and simplifies payments with multiple channels. Seamless integration with third-party delivery services eliminates the need for extra tablets—an All-in-one SaaS cloud-based solution for streamlined restaurant management.
- **Toast Marketing & Loyalty:** Credit card-linked loyalty, customizable offers, and targeted email campaigns using POS data drive increased visits and spending. Branded gift cards add to the customer engagement toolkit.
- **Toast Capital:** Providing eligible Toast customers with fast access to loans ranging from \$5,000 to \$300,000. Utilizing a daily holdback system, funds are swiftly delivered via loans issued by a partner bank, uniquely tailored to the customer's business volume. Next-business day delivery available.

Appendix 8

Porter's Five Forces Analysis:

1. Threat of New Entrants:

Moderate to High: The threat of new entrants into the restaurant technology sector exists due to the attractiveness of the market and the potential for disruptive innovation. However, barriers to entry, such as high initial investment, established brand loyalty, and complex technology requirements, can limit new players.

2. Bargaining Power of Buyers:

Moderate: Buyers (restaurants) hold moderate power due to a variety of available options in the market. However, Toast's established brand reputation and comprehensive suite of solutions may

give it an edge in negotiating power, especially with smaller businesses that rely on its specialized services.

3. Bargaining Power of Suppliers:

Moderate: Suppliers in the tech industry might hold moderate power, but Toast's diverse supplier base and partnerships allow for some negotiation leverage. However, reliance on key technology providers or the availability of specialized components could impact this.

4. Threat of Substitutes:

Moderate: The threat of substitutes exists as various other POS and restaurant management systems are available in the market. However, Toast's focus on tailoring solutions for the restaurant industry, its integrative approach, and loyal customer base mitigate this threat to some extent.

5. Competitive Rivalry:

High: The restaurant technology sector is competitive, with several established players and emerging startups vying for market share. Toast faces competition from established providers and newer entrants offering similar SAAS solutions, intensifying competitive rivalry.

Overall Assessment:

Toast operates in a competitive landscape with moderate to high forces across Porter's Five Forces. While barriers to entry and a loyal customer base provide some protection, competitive rivalry, the potential for substitutes, and the need to continuously innovate and differentiate its offerings remain critical challenges for maintaining its market position and profitability.

*Source: team analysis

Appendix 9:

SWOT Analysis:

1. Strengths:

- Established Brand Loyalty and Customer Focused
- Provides Innovative SAAS Solutions
- Strategic Partnerships with major hotel industry players
- Sustainable Growth capabilities

2. Weaknesses:

- Financial risks related to profits and negative operating cashflows
- Reputational Risk
- Dependence on SMBs

3. Opportunities:

- Expanding Market positions
- Investing in R&D and Innovation
- Offering services Globally

4. Threats:

- Highly competitive market
- Macro-Economic changes
- Regulatory Challenges related to tech and the restaurant industry.

Appendix 10:

SUBSIDIARIES	
Subsidiary	Jurisdiction of Organization
Toasttab Ireland Limited	Ireland
Toast Capital LLC	Delaware
Toast Processing Services LLC	Delaware
Toast MSC, Inc.	Massachusetts
Stratex HoldCo, LLC	Delaware
OAE Software, LLC	Illinois
Strategy Execution Partners LLC	Delaware
xtra CHEF, LLC	Delaware
Toast Tab Private Limited	India
Toast International, Inc.	Delaware
Toasttab UK Limited	United Kingdom
Toast Canada, Inc.	Canada
Toast Employee Cloud, Inc.	Delaware
Toast Insurance Services, Inc.	Delaware
Sling Inc.	Delaware
Sling ehf.	Iceland
Delphi Display Systems, Inc.	Delaware

Appendix 11:

Management Team

Appendix 11:

Management Team

- Christopher Comparato, CEO and Board Member since 2015, has played a pivotal role in Toast's growth, including its 2021 IPO. Before joining Toast, he led customer success at Acquia, Inc. and Endeca Technologies (acquired by Oracle) and held management roles at Keane, Inc. and Cambridge Technology Partners consulting firms. Recognized with the E&Y Entrepreneur of the Year Award in 2020, Mr. Comparato earned a B.S. in Mechanical Engineering from Union College.
- Brian Elworthy has been the General Counsel since 2016, having previously held the position of Assistant General Counsel at inVentive Health, Inc. (now Syneos Health, Inc.) and worked as an Associate at Ropes & Gray LLP. He earned his J.D. from Georgetown University and holds a B.A. from Middlebury College.
- Stephen Fredette, a Co-Founder of TOST, has been Co-President since 2015 and has played a vital role in the company's leadership. He previously served as Toast's CEO from December 2011 to February 2015. With intermittent positions on the Board of Directors, Mr. Fredette has actively guided the company's strategic direction. Before founding Toast, he held diverse roles at Oracle. Mr. Fredette holds a B.S. in Chemistry from the Massachusetts Institute of Technology.
- Elena Gomez assumed the Chief Financial Officer (CFO) role at Toast in May 2021, contributing to the company's successful IPO later that year. Before joining Toast, Ms. Gomez was the CFO of Zendesk, Inc., a global customer service software company, from 2016 to 2021. With extensive finance leadership experience, she held senior roles at Salesforce, including Sr. VP of Finance and Strategy and SVP of Go-to-Market Distribution. Ms. Gomez has also been a board member for SaaS companies Smartsheet, Inc. since 2017 and PagerDuty, Inc. since 2018. She holds a B.S. in Business Administration from the University of California, Berkeley Haas School of Business.
- Aman Narang, a Co-Founder of TOST, has served as Co-President since 2012 and assumed the Chief Operating Officer (COO) role in June 2021. He has played a continuous role on the Board of Directors since December 2011, with intermittent terms. As COO, Aman oversees Sales, Marketing, Customer Success, Business Development, and Fintech initiatives. Before establishing TOST, he held Product Management positions at Oracle. Aman has a B.S. and M.S. in Computer Science from the Massachusetts Institute of Technology.
- Jonathan Grimm, a Co-Founder of Toast, holds the position of Chief Technology Officer (CTO), where he spearheads TOST's software and technology initiatives. Before co-founding TOST, Mr. Grimm played critical roles in solution engineering and application development leadership at Endeca, which Oracle later acquired. He holds a B.S. in Computer Science from MIT.
- Annie Drapeau holds the role of Chief People Officer at Toast, overseeing the People and Culture initiatives for the company. She has extensive experience as Chief People Officer at organizations such as Digitas, VistaPrint, and Moderna. Additionally, Annie has contributed her expertise as an Operating Partner at Bain Capital. She earned a bachelor's Degree in Chemical Engineering from Bucknell University and holds an MBA from the Tuck School at Dartmouth College.