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A CASE STUDY ON WHETHER GOOGLE OVERPAID FOR FITBIT

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Abstract

This case study analyzes the acquisition of fitness tracker and smartwatch manufacturer Fitbit by Google in 2019. The case allows students to look at the transaction from the perspective of an investment banker advising Google. The discussion focuses on the question of whether Google paid too much for Fitbit, which at first glance appears to be the case, as Google paid a premium of more than 100% compared to the unaffected share price. The analysis therefore requires a valuation and then examines possible motives for the overpayment and potential explanations of how the price could be justified.

Keywords

Fitbit, Google, Mergers and acquisitions, Overpayment, Synergies

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1 Introduction

It is a Saturday in the late summer of 2019 in San Francisco, and you are sitting in the office of Lazard's investment banking division. You joined the technology, media, and telecom (TMT) team more than 7 years ago and are now a Director. Since July this year, you have been working on your largest deal so far and it has been a demanding and challenging time for you with a lot of working hours and nearly no free time. However, you feel that it is worth it, because your team advises one of the largest technology companies in the world, Alphabet (hereinafter referred to simply as "Google"), to which your boss, Paul Haigney, has a long-standing relationship. Google intends to acquire Fitbit, a leader in the fitness tracker and smartwatch market. Yesterday you submitted a revised offer to Fitbit and its financial advisor, Qatalyst Partners. However, they have just informed you that there is a competing bid that is significantly higher than what you offered the day before. With Qatalyst interested in signing soon, everything finally came down to a single question for your team that weekend of October 12: How high can we go with the offer for Fitbit? It was you and your team, in conjunction with your client Google, who had to deliver that answer.

2 History of involved companies

2.1 Development of Google's wearable and broader hardware segment

Google started its wearables business in 2014 with the launch of Google Glasses, a glass-like product with an in-built display that overlayed information such as navigation, notifications, or any other information that could facilitate the daily life of the user (see Exhibit 1). It has been developed by the company "X", a division of Google focused on innovating new products. However, according to an S&P Global article, the Glasses were not widely accepted due to not having a clearly defined use case, privacy concerns, and being promoted as a fashion accessory

rather than a device that could be used for medical and health purposes, for example.[1] Therefore, Google discontinued the project in 2015.

More promising, on the other hand, was the launch of Google Android Wear (later "Wear OS"), a version of its Android operating system designed specifically for smartwatches and other wearables, in 2014. The platform was launched alongside licensing partnerships with several major tech companies, including Samsung, LG, HTC, and Asus, but also with designer and watch brands offering smartwatches like Fossil, Michael Kors, Emporio Armani, Skagen, and Diesel. Compared to the Glasses, a key difference here that led to success was that the use case was more clearly defined. This made it easier for users to understand the products and subsequently integrate them into their everyday lives, e.g. as fitness trackers. Ultimately, this made it possible to reach a much broader target group than with the glasses. According to Google, until 2018 more than 50 watches with Wear OS have been launched.[2] However, in comparison to competitors, such as Apple, Wear OS fell behind in terms of smartwatch market share as Exhibit 2 shows.

Consequently, to strengthen their presence in the smartwatch market, Google later acquired e.g. intellectual property from Fossil Group in 2019 for $40 million. In this context, the Financial Times[3] and other tech enthusiasts already reported rumors that Google was working on developing its own smartwatches at the time. Those rumors were supported by the quote from the Vice President of Wear OS product management Stacey Burr, who said that the deal "demonstrates [Google's] commitment to the wearables industry".[4] Moreover, being active in developing proprietary wearables made sense for Google's broader hardware strategy. With the launch of the Google Pixel smartphone in 2016, the company reinforced its presence in the hardware market, alongside the smart home devices it developed following its $3.2bn acquisition of Nest in 2014. However, smartwatches were a missing piece of the puzzle in

Google's own hardware ecosystem, leaving out the potential for an equally seamless and comprehensive integration as Apple successfully demonstrated at the time.

2.2 Fitbit's evolution

In the mid-2000s, James Park, the founder of Fitbit, realized during his office job that he had been neglecting sports and general physical activity too much. At the same time, Nintendo launched Wii Fit, with the concept of getting people moving together, which Park was really excited about, as he said in an NPR podcast.[5] Inspired by the gamification of being active and his own sports shortcomings, he co-founded Fitbit with the later CTO Eric Friedman. In 2009, they launched their first product, simply called "Fitbit Tracker" (see Exhibit 3), which looked like a clothespin and could measure steps and distance walked, estimate calories burned, and display active versus sedentary hours. The idea of measuring steps was based on the trend of taking 10,000 steps per day, which was particularly popular in Asian countries at the time, where simple pedometers were used. In the USA and other Western countries, however, the trend was not yet widespread at that time.[6]

In the following years, Fitbit quickly released new products with additional features, including the first wristband device in 2013. All products were clearly focused on monitoring users' physical activities, sleep patterns, and heart rates while offering high usability, handy design, and affordability. All those characteristics fitted perfectly into the market at a time when awareness for physical health was on the rise.[7] Consequently, Fitbit capitalized on its first-mover advantage and became a significant market leader with market shares of more than one-third in the first years according to IDC data.[8] On June 18, 2015, the company went public, for $20 per share, valuing its total equity at c. $4.1bn. Assuming $461m of net cash and an LTM revenue of $1.2bn, this valuation equates to an EV/Revenue multiple of c. 3.0x. On the first day of trading, the stock price surged nearly 50%, reaching an all-time high of $51.64 per share by

early August 2015. However, after announcing its second-quarter 2015 earnings, the stock experienced its first significant decline, followed by a further drop when the company revealed a secondary offering just five months after the IPO. This move, aimed at strengthening its working capital, caused concerns among shareholders. Additionally, as shown in Exhibit 4, the stock's performance weakened considerably in the following years due to disappointing new product launches, like the fitness-focused Blaze smartwatch and increased competition, which caused Fitbit to no longer be "alone" in the fitness tracker market. Indeed, the competition became very intense, especially through cheaper and more comprehensive alternatives. On the one hand, there was, for example, Xiaomi, which entered the Asian market in July 2014 with its fitness tracking wristband for the equivalent of only $14. On the other hand, one year later in April 2015, Apple launched its first Apple Watch, offering a complex and fully-fledged smartwatch instead of a pure fitness tracker. Consequently, Fitbit realized the trend towards full-fledged smartwatches which is why it bought assets from Coin, Pebble, and Vector Watch in 2016 to strengthen its development of smartwatches.[9] However, the first smartwatch was only released in September 2017, shortly after the third generation of the Apple Watch was successfully placed on the market. Eventually, price competitiveness and the late smartwatch offering diminished Fitbit's initial first-mover advantage. Consequently, Fitbit lost a significant share of the wrist-worn wearables market, as illustrated in Exhibit 5. Even more severe was the situation in the pure smartwatch segment, where Fitbit made less than 10% of shipment volumes in 2018 according to the European Commission.[10] Apple, on the other hand, had a market share of c. 30-40%.

Moreover, its pivot toward health-related services, including partnerships with healthcare providers, showed promise but was insufficient to sustain its earlier growth. Thus, same as the market share, also revenues and profits declined, as can be seen in Exhibit 6. While the company consistently more than doubled its turnover until 2015, revenue only increased by 17% in 2016

and declined every year thereafter. Even more significantly, both EBITDA and the net result were negative from 2016 onwards. As a result, Fitbit was not well perceived by analysts and investors until the takeover in 2019, which permanently dampened the share price.

3 Deal motivation

3.1 Google's strategic rationale behind the acquisition

3.1.1 Hardware expertise in wearables

As mentioned previously Google did not yet offer its own wearables and its licensed software was comparatively unsuccessful in terms of market share. Therefore, the tech company has left out large potential, as the wrist-worn wearables market has grown significantly over the past years and was expected to continue to do so. According to Exhibit 7, the global smartwatch market was expected to grow by c. 16% annually until 2022. On the other hand, Fitbits' original product of fitness trackers (approximated by Wristband and Sports watch) was forecasted to grow at an annual rate of c. 8% until 2022. Consequently, entering this market with its own wearables and quickly gaining market share would allow Google to build up a further revenue stream. In addition, entering the market would allow Google to offer a broader ecosystem of hardware devices, which is a crucial step in its long-term strategy to compete more directly with Apple. Apple, with its tightly integrated ecosystem of iPhones, Apple Watches, Macs, and HomePods, delivered substantial user value through this cohesion, something Google was striving to emulate.

The acquisition of Fitbit as part of Google's entry into the market with proprietary wearables offered several advantages that could lead to potential synergies. Fitbit had excellent hardware technology with several patents at the time, which enabled Fitbit to offer market-leading tracking results. This would give Google an immediate advantage in terms of hardware expertise, potentially enabling faster development of its own devices. As a merged company, it

would also be easier to integrate Fitbit products into Google's existing hardware ecosystem of Pixel and Nest products, which could increase the appeal of the products. Furthermore, as Google was already active in smartwatch software and broader hardware development, it was foreseeable that the merged company could benefit from potential cost synergies in sourcing and manufacturing.

3.1.2 Strengthening Healthcare presence

Another key incentive for acquiring Fitbit was Google's ambition to further get into the healthcare market. At that time, most big tech companies, such as Facebook, Apple, Microsoft, and Amazon have made efforts to enter the health market simply because "the market is too big, too important and much too personal to their users for them to ignore", as John Prendergass, an associate director of healthcare investment at Ben Franklin Technology Partners said in a The New York Times article.[11] Google, specifically, has been active in the sector since 2008 with Google Health, a platform to record and consolidate health data. However, in 2011, Google seized the platform due to lacking widespread use.[12] Nevertheless, they have continued to invest in healthcare and life science. According to a Bloomberg interview with Bill Maris, who was the CEO of Google Ventures (GV), 36% of GV's investments in 2014 were dedicated to healthcare and life science.[13] In addition, Google, as part of its "other bets", "established two independent subsidiaries in these fields. Verily and Calico, established in 2015 and 2013, respectively, focus on life science research and health, welfare, and longevity", as Matsushima & Nakagawa stated.[14] Another endeavor of Google has been the exploration of artificial intelligence in the health sector with its subsidiary DeepMind, which works on predictive health analytics, diagnostic tools, and digital health solutions.

Building on those healthcare experiences by Google, James Park was convinced that with Google's resources in software and artificial intelligence, "Fitbit will be able to accelerate *innovation* in the wearables category, *scale faster*, and *make health even more accessible* to

everyone".[15] This quote, although generic, summarizes key advantages of Google acquiring Fitbit. First, Fitbit, with its 100 million devices sold and more than 28 million active users, would offer Google immediate access to a large and engaged user base. Combining this vast amount of data with Google's expertise in data analytics and artificial intelligence promised to *innovate* the sector with more personalized, accurate, and insightful health reporting. Secondly, Google at the time of the acquisition had more than $100 billion net cash on its balance sheet which would offer Fitbit greater financial flexibility, e.g. to develop more advanced products. Google, on the other hand, does not need to build up everything by itself, which in the end would allow the combined firm to *scale faster* than both companies on their own. Consequently, combining Google's financial resources and data analytics expertise with Fitbits raw data and its sophisticated hardware would offer consumers advanced health monitoring and personalized recommendations, potentially leading to innovations in preventive healthcare and chronic disease management. Achieving this could ultimately allow Google to offer better products in terms of healthcare than competitors do, which would then fuel their goal of *making health even more accessible* and compete effectively with competitors in the healthcare business.

Another important point besides the access to health data was Fitbit's partnerships with major healthcare providers and insurers that subsidized fitness trackers. It has collaborated with companies like UnitedHealthcare[16] and Blue Cross Blue Shield[17], or governments such as Singapore[18] to offer health incentives and wellness programs tied to its wearables. Through these partnerships, Fitbit had begun to position itself not just as a fitness brand, but as a key player in healthcare. This provided an immediate pathway for Google to tap into the broader healthcare market globally.

3.2 Fitbit's strategic rationale of selling itself rather than continuing stand-alone

The fact that the takeover was friendly and desired by both parties, suggests that Fitbit intended to be acquired or merged with another strategic player. In advance of the merger, the Fitbit board has widely discussed the option of continuing as a stand-alone company. However, as analysts did, Fitbit saw several concerns in continuing as a stand-alone company, which consequently formed the motive for M&A.

First, Fitbit saw the risk of being outpaced by bigger competitors that have "significant advantages". Foremost among the advantages cited were a larger and broader customer base, higher brand recognition, and the ability to integrate wearables into a product ecosystem of mobile phones and smart home devices, which could ultimately create barriers against Fitbit devices, that all run on the proprietary Fitbit OS. Citi Research analyst Jim Suva added to those concerns that "Fitbit may not have the capital, personnel and time, to materially see traction" in the healthcare industry", lowering the target share price to only $2.0 in 2019. Additionally, to remain attractive in terms of retail prices, Fitbit had to tackle the strong competition of "lower-cost devices and a wide range of stand-alone health and fitness-related mobile apps".[19]

Second, Fitbit was aware of the risk of smartwatches replacing fitness trackers. In this context, Fitbit added that competitors had more experience with these devices, indirectly addressing the shortcomings of the Fitbit Versa, their current smartwatch at that time.

In summary, Fitbit was aware that its market share, which already had been declining significantly, was threatened in the future due to new competitors, low-cost competitors, and "whole ecosystem competitors". In addition, Fitbit was behind the competition in terms of expertise on new smartwatch trends. Hypothetically, those hurdles could only be overcome with heavy investments, which probably seemed unrealistic given the risk of its success and the power of large tech competitors.

4 Challenges and risks of the proposed offer

In preparing the potential takeover bid for Fitbit, your team evaluated and weighed certain risks associated with the deal to ultimately arrive at an informed share price. However, because there were competing bidders, you were forced to bid both strategically and attractively while at the same time avoiding overpayment. In addition, you had to determine a merger structure that was attractive to Fitbit so that it would agree to the deal. The latter was heavily influenced by the risk that regulators would reject the takeover.

4.1 The risk of losing the bid to competitors versus overpaying

Your team at Lazard tried to understand whether Google might face a bidding war with other potential acquirers as this can bring up the required bid. Your team was aware that remaining a stand-alone company was not really an option for Fitbit as outlined earlier in the section of Fitbit's strategic rationale. For the same reasons "no financial sponsors would likely be interested in entering into a strategic transaction with Fitbit at that time", as also concluded by Fitbit's financial advisor Qatalyst Partners.[20] However, your team was prepared for the scenario that other tech companies with similar strategic motivations would be engaged in buy-side discussions, due to the favorable smartwatch market outlook and the broader motivation of tech companies entering the healthcare sector. Consequently, you were aware that bidding less than affordable could lead to losing the deal completely to a competitor. Thus, this assessment made it necessary for you to sensitively assess the maximum profitable price Google could offer for Fitbit, including all synergies and other long-term strategic rationales. You put in all this effort, even if it was not announced officially to you whether there is a competitor until the day before you made the final offer (see Exhibit 8).

Google's initial offer was $4.59 per share in cash, representing a premium of c. 25% over the unaffected share price on September 19, 2019, as shown in Exhibit 9 & Exhibit 10. This

premium was in line with the average takeover premium paid in the tech sector during 2018 according to a BCG study.[21] However, following intense negotiations and the announcement of a competitive offer, Qatalyst, together with Fitbit, prompted Google to increase its offer to $7.35 per share in cash. The latter represents an exceptional premium of approximately 100% over the unaffected share price and still a c. 19% premium over the share price the day before the official announcement when there was already speculation in the press about a Fitbit sale. Considering the proposed share price and all share options, the proposed transaction value amounts to $2,132 million.

While the higher bid secured exclusivity and eliminated the risk of losing to a rival, it also raised concerns about potential overvaluation, particularly considering Fitbit's declining financial performance and market position, where it struggled to successfully transition from fitness trackers to smartwatches. Even though Google's decision to bid aggressively reflected its strategic rationale and long-term objectives, it could expose Google to criticism if the expected synergies and growth opportunities fail to materialize. Ultimately, the decision to pay a high premium underscores the delicate trade-off between securing a strategic acquisition and risking overpayment which could consequently destroy shareholder value.

4.2 The risk of regulators denying the acquisition

Each transaction requires the approval of the respective regulatory authorities, which represents a risk for the parties involved, as all costs invested in the transaction could be in vain if regulators block the deal. Furthermore, for Fitbit, it would mean losing the chance to be acquired soon and therefore being forced to continue as a stand-alone company. Consequently, both parties had to thoroughly examine the risk of blocking by the regulatory authorities. The risk mainly arose from privacy concerns and antitrust considerations.

4.2.1 Privacy concerns about health data

Undoubtedly, all parties involved in the deal could anticipate that one of the most significant challenges facing Google's acquisition of Fitbit was the issue of privacy. Fitbit's devices collected sensitive health data from millions of users, and thus widespread concerns that Google, which already held vast amounts of personal data through its search, advertising, and other services, could exploit Fitbit's data for advertising purposes were foreseeable. Indeed, when the acquisition was announced, critics argued that the takeover could give Google unprecedented access to users' personal health data, raising serious privacy and data security concerns.

In expectation of these concerns, Google along with Fitbit publicly announced that "strong privacy and security guidelines have been part of Fitbit's DNA since day one, and this will not change".[22] Therefore, the companies committed to not use Fitbit's health data for Google's targeted advertising. Moreover, they ensured that they never sell data and users will continue to have control over their data and transparency about how it would be used. In this way, Google mitigated the risk of the deal being blocked by regulators.

4.2.2 Antitrust and competition approval

The acquisition would enable Google to expand its presence in both the wearables and healthcare markets. As a result, it was essential to assess potential antitrust risks in these sectors prior to the official announcement. Generally, mergers and acquisitions can be blocked by antitrust authorities if such deals significantly reduce competition or harm consumers through reduced quality or higher prices.[23]

In this case, it seemed unlikely that the merger would be blocked due to concerns over reduced competition, given the highly competitive nature of both markets. However, a key consideration evolved around Google's licensed software Wear OS. Since Google has its own devices after

the acquisition, all other watches currently using their operating system would become a kind of competitor to Google's proprietary devices. As a consequence, this might create incentives for the merged company "to restrict interoperability between rival watches and its Android ecosystem in order to increase Fitbit's own sales and gather more health data" as Regibeau, Chief Competition Economist from the European Commission, stated later.[24] Recognizing this, Google was undoubtedly faced with the need to continue to offer an open system to gain antitrust approvals.

4.2.3 Termination

Since the risk of not getting regulatory approval was material for Fitbit, the two legal advisors Fenwick & West (for Fitbit) and Cleary Gottlieb Steen & Hamilton (for Google) outlined a termination structure that incentivizes both parties to complete the takeover. Thus, Fitbit must pay Google a termination fee of $80 million under several scenarios, such as entering a superior proposal with another party or failing to secure stockholder approval. More importantly, as a requirement of Fitbit, Google must pay Fitbit a reverse termination fee of $250 million if the merger fails due to antitrust regulations.

The height of the reverse termination fee represented c. 12% of the agreed transaction value of $2.1bn. This was more than three times higher than the median reverse termination fee of 3.8% paid in 2019 by strategic buyers.[25] Thus, the height in combination with the foreseeable risk showed Google's commitment to buy Fitbit, which was likely an incentive for Fitbit to quickly enter exclusivity.

5 Recommendation

Now after you have analyzed both companies, the market, the competition, possible strategies, and potential risks of the bidding process, it came down to the question of what Google should bid for Fitbit. It was Saturday evening when Park and Qatalyst informed Google that they had

received a competitive bid of $7.30 per share from Facebook. Thus, on Sunday morning (October 13, 2019), you met with the senior management of Google to discuss your response to that. Eventually, with your input, Google decided to overbid Facebook by paying $7.35 for each share. Shortly after, Fitbit accepted the proposal and entered exclusivity with Google. When you got home later to finally rest, you wondered again if it was the right decision to go this far with the offer, or if you had advised your client to pay too much...

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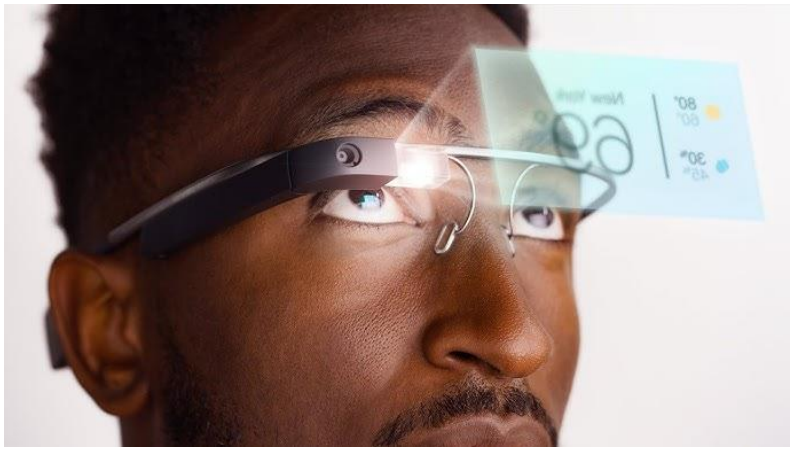
7 Exhibits

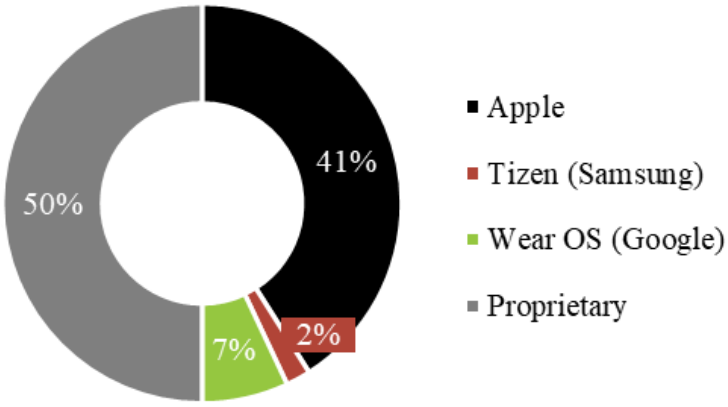
7.1 Exhibits Case Study

Exhibit 1: Google Glasses.



Source: Marques Brownlee. (2022, June 11). This Was Ahead of its Time! Accessed December 06, 2024. https://www.youtube.com/watch?app=desktop&v=xcjZvAFBH_Y

Exhibit 2: Global Smartwatch shipment share - by Platform in Q2 2018.

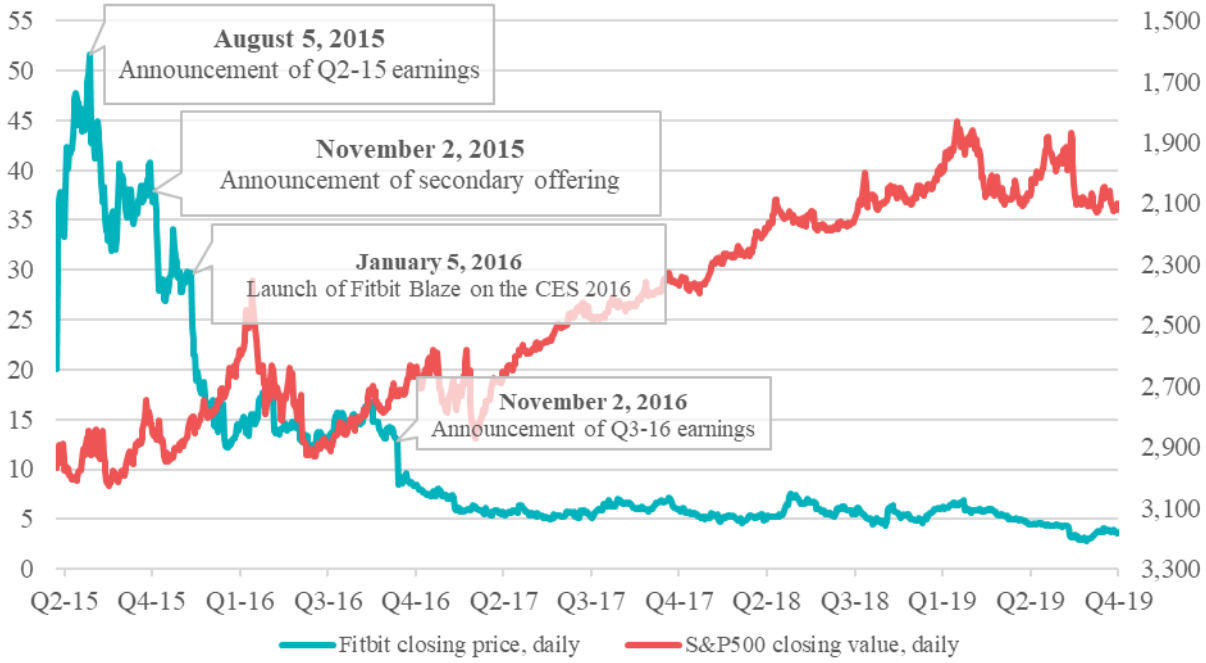


Source: Counterpoint Technology Market Research. (2018, August 31). Global Smartwatch Shipments Grew 37%YoY in Q2 2018. Counterpoint research notes & blogs. Accessed December 06, 2024. https://www.counterpointresearch.com/insights/global-smartwatch-shipments-grew-37yoy-q2-2018/

Exhibit 3: First Fitbit product, the Fitbit Tracker.

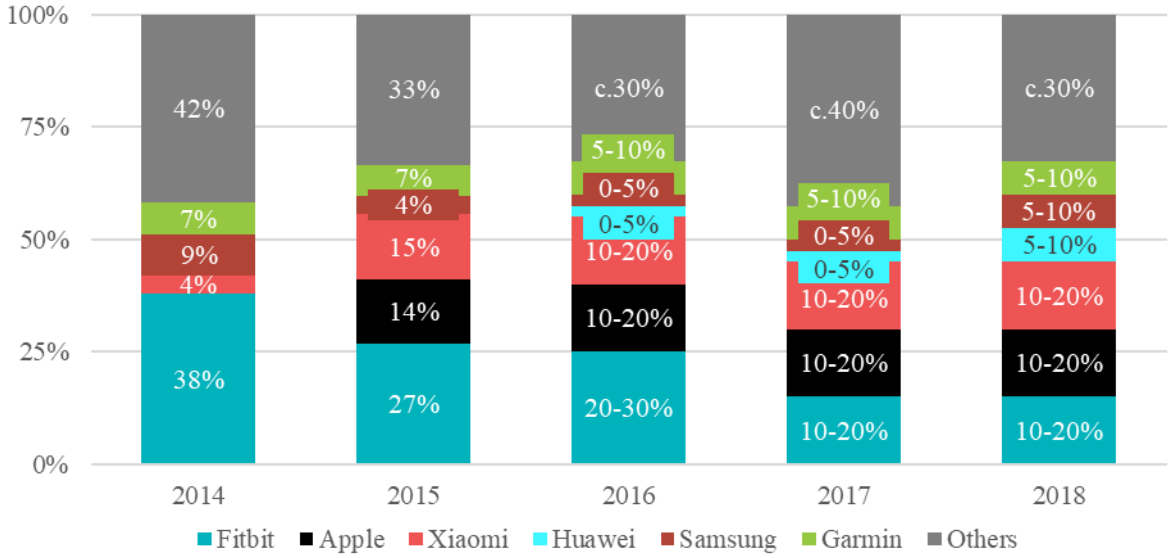
Source: Fitbit.

Exhibit 4: Fitbit stock development from IPO until Google deal announcement.



Source: Bloomberg, Case writer.

Exhibit 5: Market share in wrist-worn wearable devices worldwide.



Source: 2016-2018: European Commission (Endnote 10); 2014-2015: IDC (Endnote 8).

Exhibit 6: Historical financials Fitbit.

Income statement ($m)	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Q1 2019**	**Q2 2019**	**Q3 2019**
Revenue	745.4	1,858.0	2,169.5	1,615.5	1,512.0	271.9	313.6	347.2
- COGS	-380.6	-935.8	-1,285.4	-878.9	-851.6	-161.2	-184.8	-218.8
Gross profit	**364.8**	**922.2**	**884.0**	**736.6**	**660.4**	**110.7**	**128.8**	**128.4**
- Total operating expenses	-199.2	-559.1	-932.7	-882.4	-778.4	-170.1	-178.7	-159.9
- Sales & marketing	-112.0	-332.7	-491.3	-413.0	-344.1	-68.0	-83.1	-71.3
- General & administrative	-33.1	-76.3	-121.3	-129.1	-102.1	-26.6	-24.7	-22.9
- Research & development	-54.2	-150.0	-320.2	-340.3	-332.2	-75.5	-70.9	-65.7
EBITDA	**165.6**	**363.1**	**-48.7**	**-145.8**	**-118.0**	**-59.4**	**-49.9**	**-31.5**
- D&A	-6.1	-21.1	-38.1	-45.7	-56.8	-21.0	-20.5	-20.5
EBIT	**159.4**	**342.0**	**-86.8**	**-191.5**	**-174.8**	**-80.4**	**-70.5**	**-52.0**
- Net interest expenses	-2.2	-1.0	6.3	7.3	7.8	3.5	2.6	2.4
- Other non-operating expenses	-17.4	-53.0	-28.8	-10.4	-17.1	-1.2	0.3	-0.7
EBT	**139.8**	**287.9**	**-109.3**	**-194.6**	**-184.1**	**-78.2**	**-67.5**	**-50.2**
- Taxes	-8.0	-112.3	6.5	-82.5	-1.7	-1.3	-1.0	-1.7
Net income	**131.8**	**175.7**	**-102.8**	**-277.2**	**-185.8**	**-79.5**	**-68.5**	**-51.9**

Balance sheet ($m)	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Q1 2019**	**Q2 2019**	**Q3 2019**
Cash & cash equivalents	195.6	664.5	706.0	679.3	723.4	644.2	564.9	502.2
Accounts receivable	238.9	469.3	477.8	406.0	414.2	250.6	258.6	345.6
Inventories	115.1	178.1	230.4	123.9	124.9	174.5	161.9	245.1
Other short-term assets	47.2	43.5	66.3	175.2	49.3	33.4	31.5	34.3
Total current assets	**596.7**	**1,355.4**	**1,480.6**	**1,384.4**	**1,311.8**	**1,102.7**	**1,017.0**	**1,127.2**
Property, plant & equipment	26.4	44.5	76.6	104.9	106.3	194.4	167.2	159.8
Intangible assets	-	34.4	78.6	73.4	84.6	82.5	80.5	78.5
Deferred tax assets	-	83.0	175.8	4.0	4.5	4.4	4.2	3.9
Miscellaneous assets	9.9	1.8	10.4	15.4	8.4	10.4	9.3	7.2
Total non-current assets	**36.3**	**163.7**	**341.4**	**197.7**	**203.7**	**291.8**	**261.2**	**249.4**
Total assets	**633.1**	**1,519.1**	**1,821.9**	**1,582.1**	**1,515.5**	**1,394.5**	**1,278.2**	**1,376.6**
Payables & accruals	297.1	456.0	709.9	663.7	689.4	528.5	487.9	629.5
Short-term leases	-	-	-	-	-	32.3	25.7	23.8
Current portion of LT debt	132.6	-	-	-	-	-	-	-
Deferred revenue	9.0	44.4	42.6	35.5	29.4	28.7	28.1	28.1
Other short-term liabilities	22.6	7.8	3.8	2.1	0.5	0.0	0.9	0.0
Total current liabilities	**461.3**	**508.3**	**756.3**	**701.3**	**719.4**	**589.5**	**542.6**	**681.4**
Long-term leases	-	-	-	-	-	98.2	75.3	70.2
Other long-term liabilities	28.7	29.4	67.1	56.8	60.2	34.9	34.7	36.1
Total non-current liabilities	**28.7**	**29.4**	**67.1**	**56.8**	**60.2**	**133.1**	**110.0**	**106.3**
Total liabilities	**490.0**	**537.6**	**823.4**	**758.1**	**779.6**	**722.7**	**652.6**	**787.6**
Preferred stock	66.6	66.6	-	-	-	-	-	-
Common stock	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Additional paid-in capital	9.2	671.2	859.3	956.1	1,055.0	1,070.2	1,092.3	1,107.7
Retained earnings	67.2	242.9	140.1	132.1	319.1	398.5	467.1	518.9
Other equity	0.0	0.7	1.0	0.0	0.1	0.1	0.3	0.2
Total equity	**143.1**	**981.5**	**998.5**	**824.0**	**735.9**	**671.8**	**625.5**	**589.0**
Total liabilities & equity	**633.1**	**1,519.1**	**1,821.9**	**1,582.1**	**1,515.5**	**1,394.5**	**1,278.2**	**1,376.6**

Cash flow statement ($m)	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Q1 2019	Q2 2019	Q3 2019
+ Net income	131.8	175.7	-102.8	-277.2	-185.8	-79.5	-68.5	-51.9
+ D&A	6.1	21.1	38.1	45.7	56.8	21.0	20.5	20.5
- Change in working capital	-102.8	-111.0	199.2	1.1	122.8	-28.3	-45.7	-22.6
+ Non-cash items	-16.3	23.4	4.2	294.6	119.5	24.7	19.0	18.3
Cash from operating actitivties	**18.8**	**109.2**	**138.7**	**64.2**	**113.2**	**-62.0**	**-74.7**	**-35.7**
+ Change in assets	-26.5	-30.6	-78.6	-89.2	-52.9	-6.1	-4.7	-15.5
+ Cash from acq. & div.	0.0	-11.0	-38.3	-0.6	-19.3	0.0	0.0	-2.6
+ Other investing activities	2.3	-128.4	-275.8	61.0	89.6	16.7	4.3	15.2
Cash from investing actitivties	**-24.2**	**-170.0**	**-392.7**	**-28.7**	**17.5**	**10.6**	**-0.5**	**-2.8**
+ Cash from debt	121.7	-294.5	-	-	-0.7	-0.6	-0.3	-1.3
+ Cash from equity	0.2	540.6	26.0	19.0	21.5	0.9	5.9	0.2
+ Other financing activities	-2.6	154.9	-6.2	-14.4	-19.4	-6.4	-4.2	-2.8
Cash from financing actitivties	**119.3**	**401.1**	**19.8**	**4.6**	**1.3**	**-6.1**	**1.3**	**-3.9**
Effect of foreign ex. rates	0.0	-	0.4	0.5	-	-	-	-
Net change in cash	**113.9**	**340.2**	**-234.5**	**40.6**	**132.0**	**-57.5**	**-73.8**	**-42.4**

Source: Bloomberg, Case writer.

Exhibit 7: Forecast for shipments of wearable devices worldwide 2017-2019 and 2022 (millions of units).

Device	2017	2018	2019	2022	CAGR 17-19	CAGR 19-22
Smartwatch	41.5	53.0	74.1	115.2	33.6%	15.9%
Wristband	36.0	39.0	41.9	51.7	7.8%	7.3%
Sports watch	18.6	19.5	21.3	27.7	6.9%	9.2%
Total	**96.1**	**111.4**	**137.2**	**194.7**	**19.5%**	**12.4%**

Source: Gartner. (2018, November 29). Gartner Says Worldwide Wearable Device Sales to Grow 26 Percent in 2019. Gartner press releases. Accessed December 06, 2024. https://www.gartner.com/en/newsroom/press-releases/2018-11-29-gartner-says-worldwide-wearable-device-sales-to-grow-

Exhibit 8: Negotiation timeline.

Please note: Fitbit only refers to the bidder as "Party A" in the official merger filing. However, CNBC[29] and other newspapers reported after the transaction that Party A was Facebook. Thus, in the following the timeline refers to Facebook instead of Party A.

2018

January 29: Collaboration where Fitbit uses Google's Cloud Healthcare API

2019

June 6: Confidential Agreement with Qatalyst Partners to assess strategic landscape for Fitbit

June 8: Mark Zuckerberg mailed James Park (CEO Fitbit) to have dinner to discuss the wearables technology landscape in general.

July 5: Fitbit approved engagement letter to have Qatalyst Partners as their financial advisor for a potential sale.

July 22 to July 25: Qatalyst Partners and Fitbit management contacted nine potential strategic partners, including Google. In the following weeks the advisors contacted additional four parties.

During August: Fitbit entered into confidentiality agreements with Google and three other parties to evaluate an acquisition. All of them were granted access to the electronic data room and management meetings were held.

August 16: Fitbit entered into a confidential agreement with Facebook.

September 18-19: All three parties (besides Google and Facebook) informed Fitbit that they are not interested in an acquisition

September 20: Reuters reported that Fitbit is considering a sale, which lead to a share price increase from $3.67 ("unaffected price") to $4.10. Additionally, eight other parties contacted Fitbit and its advisor to discuss a potential acquisition in the weeks after the article. However, none of those contacts moved further in the process.

September 24: Facebook stated their potential interest and required access to further due diligence information.

***October 2**:* Google submitted a non-binding offer of $4.59 per share.

October 3: Qatalyst informed Google that they would need to "substantially increase" the offer. In addition, Qatalyst asked Facebook to accelerate their due diligence process.

October 11: Google increased the offer to $5.05 per share, which is still below the price expectation of $6.0 that Qatalyst asked for earlier.

***October 12**:* In the morning, Facebook offered a non-binding offer of $5.90 per share. Thereafter, Qatalyst informed Google about the competitive bid. Thus, Google increased its bid to $6.50 per share on the same day. However, this proposal is only valid

in combination with an exclusive negotiation agreement (until November 2) and would expire at 6:30 pm the same day, if not accepted by Fitbit and its advisors.

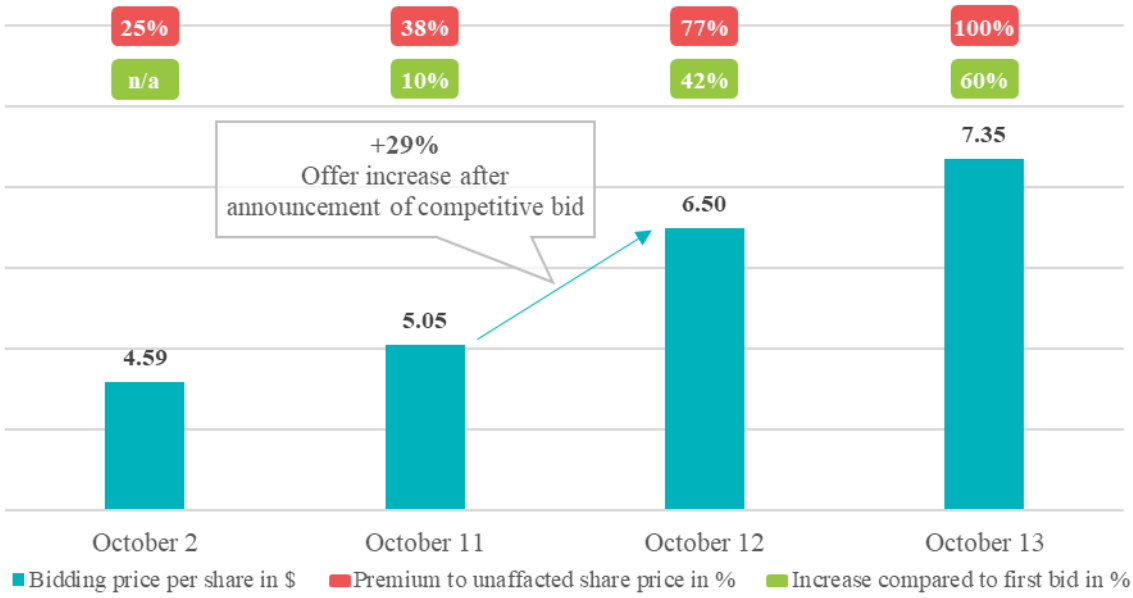
Fitbit and its advisors decided in the afternoon to contact Facebook and Google to ask for their proposal that "should contain the highest price that such party would be willing to pay to acquire Fitbit and should also provide that in the definitive agreement for such acquisition such party would agree to pay Fitbit a $250 million reverse termination fee in the event the transaction failed to close due to a failure to receive any required antitrust approvals."

Thereafter, Google offered $7.05 per share while Facebook offered $7.30 per share, the latter one however without the Reverse Termination Fee.

October 13: After informing Google about the higher competitive bid, Google increased the offer to $7.35 per share, plus the Reverse Termination Fee, conditional on immediate exclusive negotiations. Fitbit and its advisors accepted the proposal and entered into exclusivity until November 2.

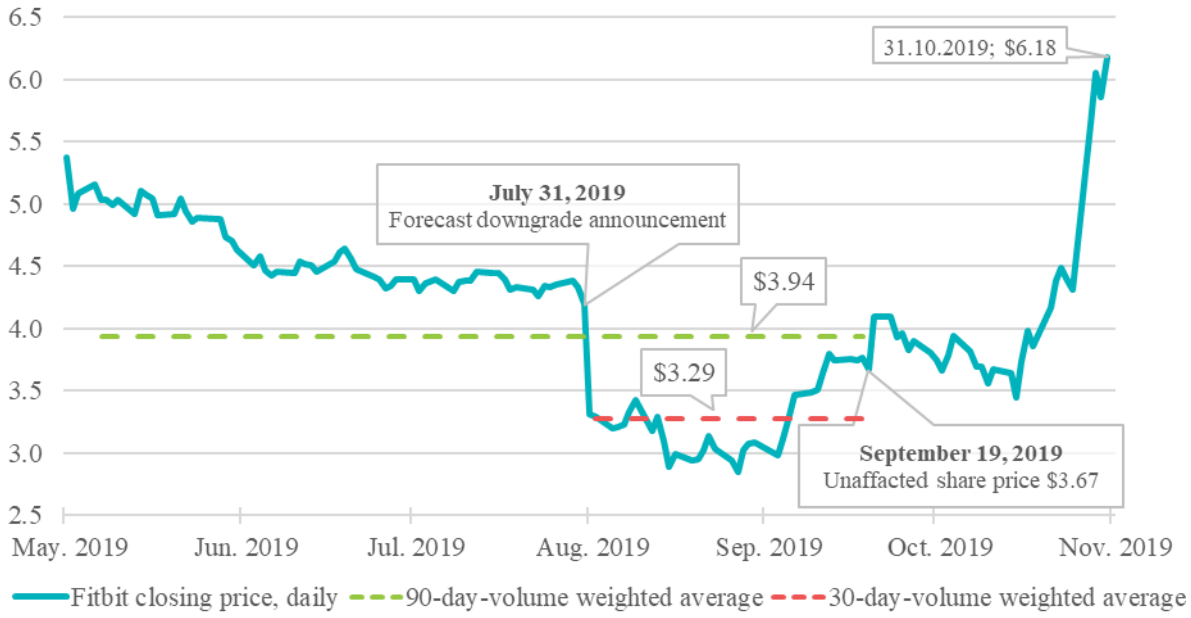
Source: Fitbit. (2019). Schedule 14A. U.S. Securities and Exchange Commission. Accessed December 06, 2024. https://www.sec.gov/Archives/edgar/data/1447599/000162828019014511/fitbitpreliminary proxy.htm

Exhibit 9: Development of Google's bids per Fitbit share.



Source: Bloomberg, Fitbit. (2019). Schedule 14A. U.S. Securities and Exchange Commission. Accessed December 06, 2024. https://www.sec.gov/Archives/edgar/data/1447599/000162828019014511/fitbitpreliminary proxy.htm

Exhibit 10: Fitbit stock price development until deal announcement.



Source: Bloomberg.

Exhibit 11: Financial forecast Fitbit stand-alone.

Income statement ($m)	**Q4 2019**	**FY 2020**	**FY 2021**	**FY 2022**	**FY 2023**	**FY 2024**
Revenue	519.0	1,487.0	1,534.0	1,588.0	1,646.0	1,713.0
- COGS	-338.0	-901.0	-891.0	-904.0	-924.0	-948.0
Gross profit	**181.0**	**586.0**	**642.0**	**684.0**	**722.0**	**765.0**
- Total operating expenses	-176.0	-600.0	-600.0	-624.0	-649.0	-675.0
EBITDA	**5.0**	**-14.0**	**42.0**	**60.0**	**73.0**	**91.0**
- D&A	-13.0	-45.0	-45.0	-45.0	-45.0	-45.0
EBIT	**-8.0**	**-59.0**	**-3.0**	**15.0**	**28.0**	**46.0**
Net income	**-5.0**	**-37.0**	**5.0**	**17.0**	**27.0**	**39.0**

Cash flow ($m)	**Q4 2019**	**FY 2020**	**FY 2021**	**FY 2022**	**FY 2023**	**FY 2024**
NOPAT	-9.0	-60.0	-4.0	13.0	26.0	34.0
Capital expenditures	15.0	40.0	40.0	40.0	41.0	45.0
Depreciation	13.0	45.0	45.0	45.0	45.0	45.0
Change in working capital	-78.0	34.0	25.0	17.0	17.0	8.0

Source: Fitbit. (2019). Schedule 14A. U.S. Securities and Exchange Commission. Accessed December 06, 2024. https://www.sec.gov/Archives/edgar/data/1447599/000162828019014511/fitbitpreliminaryproxy.htm

Exhibit 12: Cost of capital inputs.

Key inputs for CAPM		
As of 30.09.2019		
Risk-free rate (U.S. 10 Year Treasury)	1.7%	*Source: U.S. Department of the Treasury*
Market-risk premium	5.6%	*Source: Aswath Damodaran (NYU Stern)*
Levered beta	1.25	*Source: Bloomberg*
Tax-rate	25.0%	*Source: SEC-14A*

Fitbit shares		
Tranche	# of shares	Exercise price ($)
Basic shares outstanding	260,815,425	n/a
Options	13,903,925	2.5
RSU	18,616,952	n/a
PSU	1,365,418	n/a
Warrant	230,000	n/a

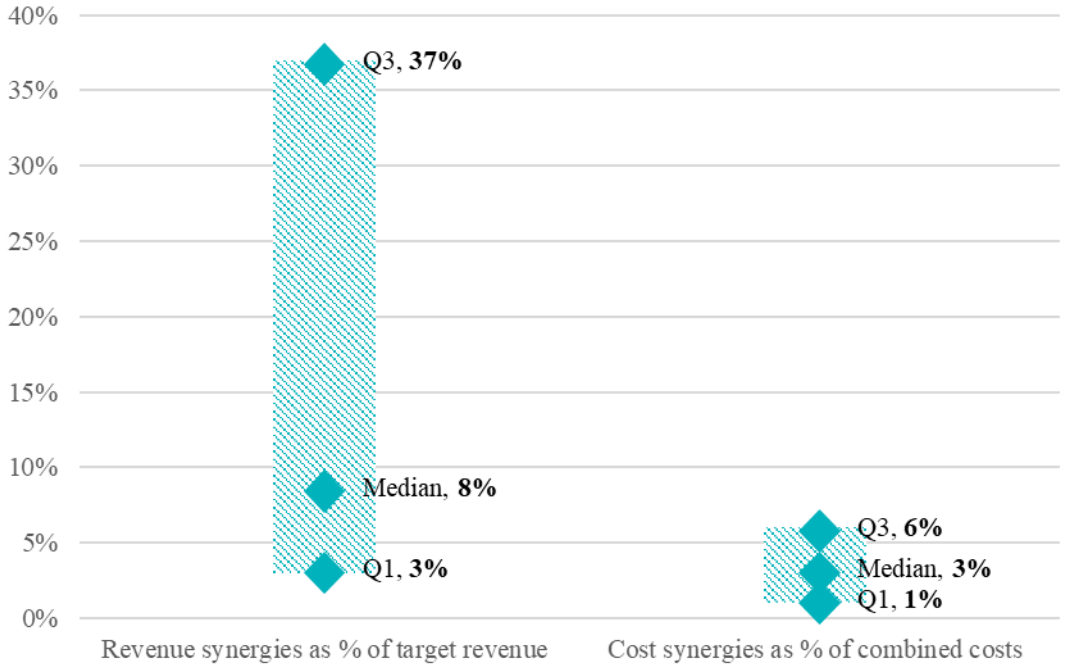
Source: As disclosed in table and Fitbit. (2019). Schedule 14A. U.S. Securities and Exchange Commission. Accessed December 06, 2024. https://www.sec.gov/Archives/edgar/data/1447599/000162828019014511/fitbitpreliminaryproxy.htm

Exhibit 13: Selected comparable companies.

Selected Company		As of September 2019			Trailing twelve months September 2019					CAGR (09/2016 - 09/2019)	
Consumer Electronics/ Wearable Companies	**Description**	**Market cap.**	**Net debt**	**Enterprise value**	**Revenue**	**Gross profit**	**EBITDA**	**Gross profit margin**	**EBITDA margin**	**Revenue**	**EBITDA**
Fitbit, Inc.	Fitbit, headquartered in the USA, is a manufacturer of smartwatches, fitness trackers and similar wearables that allow users to monitor their physical activity and personal vital stats.	1,047	-408	639	1,504	523	-114	35%	-8%	-13%	n/a
Arlo Technologies, Inc.	Arlo is a USA-based developer of various cameras for security and video surveillance solutions. Being WiFi-enabled, the cameras can be integrated into a comprehensive smart home system.	263	-120	144	370	27	-105	7%	-28%	-9% (YoY)	n/a
Fossil Group, Inc.	Fossil is a USA company that develops and sells a wide range of lifestyle products. With its various brands, Fossil offers fashion- and smart watches, jewelry, handbags and various other accessories.	620	474	1,095	2,293	1,208	251	53%	11%	-9%	-3%
Garmin Ltd.	Garmin is a USA-based manufacturer of sport and smartwatches with a leading position in the outdoor market. In addition, the company offers technology solutions for the aviation and marine industries.	16,068	-2,473	13,595	3,587	2,144	1,006	60%	28%	7%	13%
GoPro, Inc.	GoPro, based in the USA, develops and distributes market leading action cameras and accessories for mounting the cameras on various devices.	759	139	897	1,044	361	-19	35%	-2%	-1%	-62%
iRobot Corporation	Headquartered in the USA, iRobot develops consumer robots, such as vacuum cleaners and floor mops. Being WiFi enabled, allows to connect the robots to smartphones and other smart home devices.	1,704	-28	1,675	1,172	561	170	48%	15%	21%	28%
Logitech International S.A.	Logitech is a Swiss-based company that focuses on the development of peripherals. The product portfolio includes among others computer mice, keyboards, speakers, headsets and cameras.	6,723	-539	6,184	2,853	1,068	361	37%	13%	11%	18%
Plantronics, Inc.	Plantronics, headquartered in the USA, is a company that specializes in the production of audio communication devices such as wireless headsets for office use but also for sports.	1,490	1,479	2,968	1,880	852	306	45%	16%	29%	27%
Sonos, Inc.	Based in the USA, Sonos is a manufacturer of audio equipment that specializes in the wireless connection of speakers and home cinema components.	1,467	-305	1,162	1,261	527	42	42%	3%	12%	130%

Note: Fitbit's market capitalization is as of 19.09.2019, the last unaffected share price. All values are in $m. Source: Bloomberg, Fitbit. (2019). Schedule 14A. U.S. Securities and Exchange Commission. Accessed December 06, 2024. https://www.sec.gov/Archives/edgar/data/1447599/000162828019014511/fitbitpreliminaryproxy.htm

Exhibit 14: Range of announced synergies in the TMT sector.



Source: Laamanen, Prof. Dr., T., Guerra, Dr. X., Girisch, A., Boom, M. v., & Faddoul, K. (2018). Unlocking the full potential of M&A | What it takes to be a Value Creation Champion. Deloitte and University of St. Gallen. Accessed December 06, 2024. https://www2.deloitte.com/ch/en/pages/mergers-and-acquisitions/articles/st-gallen-deloitte-mergers-acquisitions-value-creation.html

7.2 Exhibits Teaching Note

Exhibit TN 1: Selected peer group.

Selected peers	EV/Revenue TTM Sep. 2019
Arlo Technologies, Inc.	0.39x
GoPro, Inc.	0.86x
iRobot Corporation	1.43x
Plantronics, Inc.	1.58x
Sonos, Inc.	0.92x
Q1	0.62x
Median	0.92x
Q3	1.50x

Exhibit TN 2: Comparable company analysis (CCA).

Implied value of Fitbit based on CCA	
Revenue TTM	1,504
EV/Revenue multiple (Q1)	0.6x
Implied enterprise value	**939**
- Total debt	-94.0
+ Cash & cash equivalents	502.2
Equity value	**1,347.6**
Implied share price	**4.69**
Undervalued by	*27.8%*

Fully diluted shares outstanding calculation

Tranche	NOSH (m)	Exercise price ($)	In-the-money shares (m)	Proceeds ($m)
Options	13.9	2.5	13.9	35.3
RSU	18.6	n/a	18.6	n/a
PSU	1.4	n/a	1.4	n/a
Warrant	0.2	n/a	0.2	n/a
Total	34.1		34.1	35.3

Basic shares outstanding (m)	260.8
+ Shares from in-the-money options (m)	34.1
- Shares repurchased (m)	-7.5
Net new shares from options (m)	26.6
Fully diluted shares outstanding (m)	**287.4**

Sensitivity

	EV/Revenue	Implied share price ($)
Lower end of comparables	0.39x	3.49
Fitbit market valuation	0.42x	3.67
1st Quartile	0.62x	4.69
2nd Quartile / Median	0.92x	6.20
3rd Quartile	1.50x	9.18

Exhibit TN 3: Cost of capital calculation.

Cost of capital inputs		
As of 30.09.2019		
Risk-free rate (U.S. 10 Year Treasury)	1.7%	*Source: U.S. Department of the Treasury*
Market-risk premium	5.6%	*Source: Aswath Damodaran (NYU Stern)*
Levered beta	1.25	*Source: Bloomberg*

Historical capital structure		**Target capital structure**	
Net debt	-408.3	Net debt	-300.0
Market capitalization	1,047.1	Market capitalization	1,047.1
Debt weight	-0.64	Debt weight	-0.40
Equity weight	1.64	Equity weight	1.40
D/E	-0.39	D/E	-0.29
Unlevered beta	2.05	Levered beta	1.46
		Cost of debt	1.7%
		Cost of equity	9.8%
Risk of assets	**13.1%**	**= WACC**	**13.1%**

Exhibit TN 4: Extrapolation.

Income statement ($m)	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	
Revenue	1,588.0	1,646.0	1,713.0	1,792.3	1,886.6	1,999.5	2,059.5	2,121.2	2,184.9	
- COGS	-904.0	-924.0	-948.0	-969.7	-997.8	-1,033.8	-1,064.8	-1,096.8	-1,129.7	
Gross profit	**684.0**	**722.0**	**765.0**	**822.6**	**888.8**	**965.7**	**994.6**	**1,024.5**	**1,055.2**	
- Total operating expenses	-624.0	-649.0	-675.0	-706.2	-743.4	-787.9	-811.5	-835.9	-860.9	
- Sales & marketing	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
- General & administrative	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
- Research & development	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
EBITDA	**60.0**	**73.0**	**91.0**	**116.4**	**145.4**	**177.8**	**183.1**	**188.6**	**194.3**	
- D&A	-45.0	-45.0	-45.0	-45.0	-45.0	-45.0	-45.0	-45.0	-45.0	4
EBIT	**15.0**	**28.0**	**46.0**	**71.4**	**100.4**	**132.8**	**138.1**	**143.6**	**149.3**	
- Net interest expenses	n/a	n/a	n/a	-	-	-	-	-	-	
- Other non-operating expenses	n/a	n/a	n/a	-	-	-	-	-	-	
EBT	n/a	n/a	n/a	**71.4**	**100.4**	**132.8**	**138.1**	**143.6**	**149.3**	
- Taxes	n/a	n/a	n/a	-17.8	-25.1	-33.2	-34.5	-35.9	-37.3	
Net income	**17.0**	**27.0**	**39.0**	**53.5**	**75.3**	**99.6**	**103.6**	**107.7**	**111.9**	
Revenue growth	3.5%	3.7%	4.1%	4.6%	5.3%	6.0%	3.0%	3.0%	3.0%	1
COGS % of revenue	56.9%	56.1%	55.3%	54.1%	52.9%	51.7%	51.7%	51.7%	51.7%	2
OpEx % of revenue	39.3%	39.4%	39.4%	39.4%	39.4%	39.4%	39.4%	39.4%	39.4%	3
CapEx % of revenue	2.5%	2.5%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.1%	5
Change in working capital % of revenue	1.1%	1.0%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	6
EBITDA % of revenue	3.8%	4.4%	5.3%	6.5%	7.7%	8.9%	8.9%	8.9%	8.9%	
EBIT % of revenue	0.9%	1.7%	2.7%	4.0%	5.3%	6.6%	6.7%	6.8%	6.8%	
NOPAT growth	-425.0%	100.0%	30.8%	57.5%	40.6%	32.3%	4.0%	4.0%	3.9%	

The yellow highlighted boxes indicate where the assumptions were made:

1. Revenue growth was assumed to continue its growth trend for three more years and then stabilize at 3%, aligned with long term GDP growth assumptions.
2. COGS are expected to continue their declining trend for three more years and then stabilize at that level of 51.7% of annual revenue.
3. Operating expenses will already be stable by 2024 and are therefore expected to remain at that level in relation to the revenue.
4. Depreciation will also be stable by 2024 and is thus expected to stay at that level.
5. Capital expenditures are expected to stay at the level of 2024 in relation to sales. However, in the terminal year it is expected to equal the level of D&A, as can be seen in Exhibit TN 5.
6. Change of working capital is expected to stay at the level of 2024 in relation to sales.

Exhibit TN 5: Stand-alone discounted cash flow valuation.

	Fitbit management forecast						Extrapolation case writer					
Cash flow statement ($m)	**Q4 2019**	**FY 2020**	**FY 2021**	**FY 2022**	**FY 2023**	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**FY 2030**
EBIT	**-8.0**	**-59.0**	**-3.0**	**15.0**	**28.0**	**46.0**	**71.4**	**100.4**	**132.8**	**138.1**	**143.6**	**149.3**
% growth	*n/a*	*n/a*	*n/a*	*n/a*	*87%*	*64%*	*55%*	*41%*	*32%*	*4%*	*4%*	*4%*
- Taxes	-1.0	-1.0	-1.0	-2.0	-2.0	-12.0	-17.8	-25.1	-33.2	-34.5	-35.9	-37.3
NOPAT	**-9.0**	**-60.0**	**-4.0**	**13.0**	**26.0**	**34.0**	53.5	75.3	99.6	103.6	107.7	111.9
% growth	*n/a*	*n/a*	*n/a*	*n/a*	*100%*	*31%*	*57%*	*41%*	*32%*	*4%*	*4%*	*4%*
+ D&A	13.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0
- Capital expenditures	-15.0	-40.0	-40.0	-40.0	-41.0	-45.0	-47.1	-49.6	-52.5	-54.1	-55.7	-45.0
- Change in working capital	78.0	-34.0	-25.0	-17.0	-17.0	-8.0	-8.4	-8.8	-9.3	-9.6	-9.9	-10.2
Unlevered free cash flow (UFCF)	**67.0**	**-89.0**	**-24.0**	**1.0**	**14.0**	**26.3**	**43.7**	**62.3**	**83.0**	**84.9**	**87.1**	**101.8**
% growth	*n/a*	*n/a*	*n/a*	*n/a*	*1300%*	*88%*	*66%*	*43%*	*33%*	*2.2%*	*2.6%*	*16.8%*
Discount period	0.25	1.25	2.25	3.25	4.25	5.25	6.25	7.25	8.25	9.25	10.25	11.25
Discount factor	0.97	0.86	0.76	0.67	0.59	0.52	0.46	0.41	0.36	0.32	0.28	0.25
Present value of UFCF	**65.0**	**-76.3**	**-18.2**	**0.7**	**8.3**	**13.8**	**20.3**	**25.6**	**30.1**	**27.3**	**24.7**	**25.6**

Cummulative PV of UFCF	**146.7**

Terminal value @PGM	
Terminal year free cash flow	101.8
Perpetuity growth rate	3.0%
Terminal value	1,041.1
Discount factor	0.25
Present value of terminal value	261.4
% of Enterprise value	*64%*
Enterprise value	**408.2**
- Total debt	-94.0
+ Cash & cash equivalents	502.2
Equity value	**816.4**
Implied share price	**2.89**
Overvalued by	*21.2%*

Terminal value @Exit multiple	
Terminal year revenue	2,184.9
Exit multiple	0.42x
Terminal value	928.1
Discount factor	0.25
Present value of terminal value	233.1
% of Enterprise value	*61%*
Enterprise value	**379.8**
- Total debt	-94.0
+ Cash & cash equivalents	502.2
Equity value	**788.1**
Implied share price	**2.79**
Overvalued by	*23.9%*

Implied exit multiple	
Terminal value	1,041.1
Terminal year revenue	2,184.9
Implied exit multiple	**0.48x**

Implied perpetuity growth rate	
Terminal value	928.1
Terminal year free cash flow	101.8
Implied perpetuity growth rate	**1.9%**

Fully diluted shares outstanding calculation

Tranche	**NOSH (m)**	**Exercise price ($)**	**In-the-money shares (m)**	**Proceeds ($m)**
Options	13.9	2.5	13.9	35.3
RSU	18.6	n/a	18.6	n/a
PSU	1.4	n/a	1.4	n/a
Warrant	0.2	n/a	0.2	n/a
Total	34.1		34.1	35.3

Basic shares outstanding (m)	260.8
+ Shares from in-the-money options (m)	34.1
- Shares repurchased (m)	-12.2
Net new shares from options (m)	21.9
Fully diluted shares outstanding (m)	**282.7**

Tranche	**NOSH (m)**	**Exercise price ($)**	**In-the-money shares (m)**	**Proceeds ($m)**
Options	13.9	2.5	13.9	35.3
RSU	18.6	n/a	18.6	n/a
PSU	1.4	n/a	1.4	n/a
Warrant	0.2	n/a	0.2	n/a
Total	34.1		34.1	35.3

Basic shares outstanding (m)	260.8
+ Shares from in-the-money options (m)	34.1
- Shares repurchased (m)	-12.6
Net new shares from options (m)	21.5
Fully diluted shares outstanding (m)	**282.3**

Exhibit TN 6: Implied share price (in $) sensitivity analysis.

		WACC						
		10.1%	11.1%	12.1%	13.1%	14.1%	15.1%	16.1%
Perpetuity growth rate	2.0%	3.64	3.29	3.02	2.80	2.62	2.48	2.36
	2.3%	3.71	3.34	3.06	2.83	2.65	2.50	2.37
	2.7%	3.79	3.40	3.10	2.86	2.67	2.51	2.38
	3.0%	3.87	3.46	3.14	2.89	2.69	2.53	2.40
	3.3%	3.97	3.52	3.19	2.93	2.72	2.55	2.41
	3.7%	4.07	3.59	3.24	2.96	2.75	2.57	2.43
	4.0%	4.19	3.67	3.29	3.00	2.78	2.60	2.45

		WACC						
		10.1%	11.1%	12.1%	13.1%	14.1%	15.1%	16.1%
Exit multiple	0.1x	2.45	2.37	2.29	2.22	2.16	2.10	2.05
	0.2x	2.71	2.60	2.50	2.41	2.33	2.26	2.19
	0.3x	2.96	2.83	2.71	2.61	2.51	2.42	2.34
	0.4x	3.21	3.06	2.92	2.79	2.68	2.58	2.48
	0.5x	3.46	3.28	3.12	2.98	2.85	2.73	2.62
	0.6x	3.71	3.51	3.33	3.16	3.02	2.88	2.76
	0.7x	3.97	3.74	3.53	3.35	3.18	3.03	2.90

Exhibit TN 7: Football field chart of valuation range.

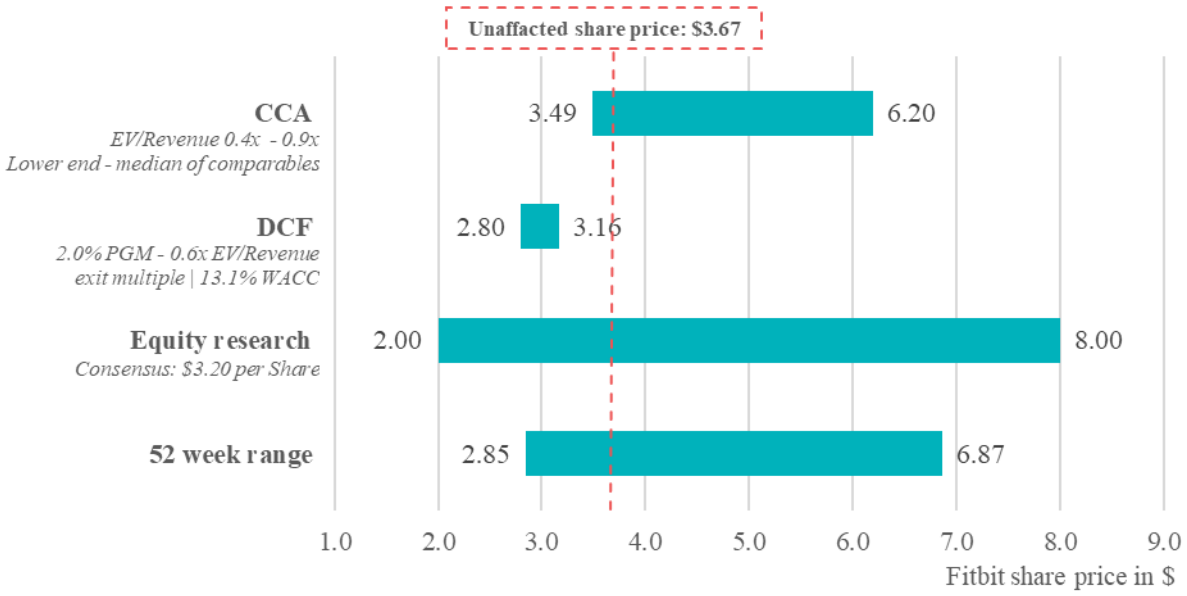


Exhibit TN 8: Enterprise value calculation based on assumed share price of $3.67.

Share price	**3.67**

Equity value	**1,047.1**
+ Total debt	94.0
- Cash & cash equivalents	-502.2
Implied EV based on $3.67 share price	**638.8**

Fully diluted shares outstanding calculation

Tranche	**NOSH (m)**	**Exercise price ($)**	**In-the-money shares (m)**	**Proceeds ($m)**
Options	13.9	2.5	13.9	35.3
RSU	18.6	n/a	18.6	n/a
PSU	1.4	n/a	1.4	n/a
Warrant	0.2	n/a	0.2	n/a
Total	34.1		34.1	35.3

Basic shares outstanding (m)	260.8
+ Shares from in-the-money options (m)	34.1
- Shares repurchased (m)	-9.6
Net new shares from options (m)	24.5
Fully diluted shares outstanding (m)	**285.3**

Exhibit TN 9: Assumptions synergy valuation.

Revenue synergy input							
Revenue synergies	8.0%	*Dummy (median (Exhibit 14))*					
Discount rate revenue synergies	13.1%						1
Phase-in rate revenue synergies (Q4-19E to FY24E+)	20%	60%	80%	100%	100%	100%	2

Cost synergy input							
Cost synergies	3.0%	*Dummy (median (Exhibit 14))*					
Discount rate cost synergies	13.1%						1
Perpetuity growth rate cost synergies	3.0%						
Phase-in rate COGS synergies (Q4-19E to FY24E+)	30%	70%	100%	100%	100%	100%	2

One-time costs			
% Integration costs	*4.5%*	*based on EY study*	3
of actually offered deal value ($m)	*2,132*		
Integration costs ($m)	**-96.0**		
Fee paid ($m)	**-0.3**	*SEC-14A filing*	4
Total one-time costs	**-96.2**		

1. The discount rates of both synergy types are the WACC of Fitbit. The latter assumption is based on the theory that all risks are diversifiable except the systematic risk which is reflected by the beta. However, the beta should be the same for the stand-alone cash flows and the synergies. Consequently, the additional risk should already be reflected in the expected cash flows arising from synergies.
2. The phase-in rate ensures the realistic assumption that the maximum synergy effects will not be fully achieved in the first period.
3. Based on the EY study 4.5% of the actual transaction value ($2.1 billion) is recognized as a one-off cash outflow for integration costs.[30]
4. The fee of $0.3 million disclosed in the SEC-14A filing is priced in as a one-time cash outflow at the time of acquisition

For the sake of simplicity and in view of the fact that the acquisition was financed entirely by Google's surplus cash, possible financing costs were not taken into account.

Exhibit TN 10: Calculation of synergies with dummy variable.

Revenue synergies ($m)	**Q4 2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**
Revenue stand-alone	*519*	*1,487*	*1,534*	*1,588*	*1,646*	*1,713*	*1,792*	*1,887*	*1,999*	*2,059*	*2,121*	*2,185*
Phase-in rate revenue synergies	*20%*	*60%*	*80%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*
Additional revenue from synergies	**8.3**	**71.4**	**98.2**	**127.0**	**131.7**	**137.0**	**143.4**	**150.9**	**160.0**	**164.8**	**169.7**	**174.8**
- Additional COGS	-5.4	-43.2	-57.0	-72.3	-73.9	-75.8	-77.6	-79.8	-82.7	-85.2	-87.7	-90.4
Additonal gross profit	**2.9**	**28.1**	**41.2**	**54.7**	**57.8**	**61.2**	**65.8**	**71.1**	**77.3**	**79.6**	**82.0**	**84.4**
- Additional operating expenses	-2.8	-28.8	-38.4	-49.9	-51.9	-54.0	-56.5	-59.5	-63.0	-64.9	-66.9	-68.9
Additional EBIT	**0.1**	**-0.7**	**2.8**	**4.8**	**5.8**	**7.2**	**9.3**	**11.6**	**14.2**	**14.6**	**15.1**	**15.5**
- Additional taxes	0.0	0.2	-0.7	-1.2	-1.5	-1.8	-2.3	-2.9	-3.6	-3.7	-3.8	-3.9
Additional EBITDA	**0.1**	**-0.5**	**2.1**	**3.6**	**4.4**	**5.4**	**7.0**	**8.7**	**10.7**	**11.0**	**11.3**	**11.7**
Discount period in years	0.25	1.25	2.25	3.25	4.25	5.25	6.25	7.25	8.25	9.25	10.25	11.25
Discount factor	0.97	0.86	0.76	0.67	0.59	0.52	0.46	0.41	0.36	0.32	0.28	0.25
Present value of revenue synergies	**0.1**	**-0.4**	**1.6**	**2.4**	**2.6**	**2.8**	**3.2**	**3.6**	**3.9**	**3.5**	**3.2**	**2.9**

Cummulative PV of revenue synergies	**29.4**

Terminal value	
Terminal year additional revenue	174.8
Exit multiple	0.4x
Terminal value revenue synergies	74.2
Discount factor	0.25
PV of TV revenue synergies	18.6

Additional PV from revenue synergies	**48.0**

Cost Synergies ($m)	**Q4 2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**
COGS stand-alone	*-343*	*-944*	*-948*	*-976*	*-998*	*-1,024*	*-1,047*	*-1,078*	*-1,117*	*-1,150*	*-1,185*	*-1,220*
Phase-in rate COGS synergies	*30%*	*70%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*
COGS savings synergies	3.1	19.8	28.4	29.3	29.9	30.7	31.4	32.3	33.5	34.5	35.5	36.6
- Additional taxes	-0.8	-5.0	-7.1	-7.3	-7.5	-7.7	-7.9	-8.1	-8.4	-8.6	-8.9	-9.2
After-tax cost savings	**2.3**	**14.9**	**21.3**	**22.0**	**22.5**	**23.0**	**23.6**	**24.2**	**25.1**	**25.9**	**26.7**	**27.5**
Discount period in years	0.25	1.25	2.25	3.25	4.25	5.25	6.25	7.25	8.25	9.25	10.25	11.25
Discount factor	0.97	0.86	0.76	0.67	0.59	0.52	0.46	0.41	0.36	0.32	0.28	0.25
Present value of cost synergies	**2.2**	**12.8**	**16.2**	**14.7**	**13.3**	**12.1**	**10.9**	**10.0**	**9.1**	**8.3**	**7.6**	**6.9**

Cummulative PV of cost synergies	**124.1**

Terminal value	
Terminal value cost synergies	**280.8**
Discount factor	0.25
PV of TV cost synergies	**70.5**

Additional PV from cost synergies	**194.6**

Exhibit TN 11: Implied share price calculation with dummy synergy levels.

Values in $m, share price in $	
Implied stand-alone enterprise value	638.8
Additional PV from revenue synergies	48.0
Additional PV from cost synergies	194.6
Total one-time costs	-96.2
Enterprise value	**785.2**
- Total debt	-94.0
+ Cash & cash equivalents	502.2
Equity value	**1,193.5**
Implied share price	**4.17**

Tranche	**NOSH (m)**	**Exercise price ($)**	**In-the-money shares (m)**	**Proceeds ($m)**
Options	13.9	2.5	13.9	35.3
RSU	18.6	n/a	18.6	n/a
PSU	1.4	n/a	1.4	n/a
Warrant	0.2	n/a	0.2	n/a
Total	34.1		34.1	35.3

Basic shares outstanding (m)	260.8
+ Shares from in-the-money options (m)	34.1
- Shares repurchased (m)	-8.5
Net new shares from options (m)	25.6
Fully diluted shares outstanding (m)	**286.5**

Exhibit TN 12: Sensitivity analysis of required synergy levels, Share price in $.

Target / Break-even share price of $4.59

		Revenue synergies as % of target revenue						
	4.17	0.0%	3.0%	8.0%	15.2%	24.2%	37.0%	46.7%
Cost synergies as % of target COGS	1.0%	3.55	3.62	3.73	3.89	4.09	4.37	4.59
	1.8%	3.71	3.78	3.90	4.07	4.28	4.59	4.82
	3.0%	3.96	4.04	4.17	4.36	4.59	4.93	5.18
	4.0%	4.16	4.25	4.39	4.59	4.84	5.20	5.47
	4.9%	4.35	4.44	4.59	4.81	5.07	5.46	5.75
	5.6%	4.50	4.59	4.75	4.97	5.25	5.65	5.96
	6.1%	4.59	4.69	4.85	5.08	5.37	5.78	6.09

Target / Break-even share price of $7.35

		Revenue synergies as % of target revenue				
	4.17	3.0%	8.0%	37.0%	86.9%	129.7%
Cost synergies as % of target COGS	3.0%	4.04	4.17	4.93	6.23	7.35
	6.0%	4.67	4.83	5.75	7.35	8.72
	11.8%	5.88	6.10	7.35	9.51	11.35
	17.5%	7.08	7.35	8.92	11.63	13.94
	18.8%	7.35	7.63	9.28	12.11	14.53

8 Endnotes

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