

# Fever-Tree Drinks

## Value Investing Analysis

June 2020

By Lars Christian Haugen & Roshni Patel

# Table of Contents

<b>Executive Summary</b>	<b>2</b>
<b>Key Figures (as at 12th June 2020)</b>	<b>3</b>
<b>Key Financials</b>	<b>3</b>
<b>Five Year Share Price</b>	<b>4</b>
<b>Introduction</b>	<b>5</b>
<b>1) Business Tenets</b>	<b>6</b>
1.1. Is the Business Simple and Understandable?	6
1.2. Consistency	7
1.3. Does The Company Have Favorable Long-Term Prospects?	7
1.3.1. Competitive Advantages	7
1.3.2. Industry Prospects	8
<b>2) Management Tenets</b>	<b>12</b>
2.1. Rationality - Is Capital Invested Rationally?	12
2.2. Candor	13
2.3. The Institutional Imperative - Do They Blindly Follow The Industry And Peers?	14
<b>3) Financial Tenets</b>	<b>15</b>
3.1. Focus On Return On Equity, Not Earnings Per Share	15
3.2. Calculate Owner's Earnings (Free Cash Flow)	17
3.3. Look For Companies With High Profit Margins	18
3.4. For Each Dollar Retained, Have they Created A Dollar Of Market Value?	19
<b>4) Value Tenets</b>	<b>21</b>
4.1. Determine The Value Of The Business	21
4.2. Buy At A Discount To Fair Value	22
<b>5) Risks</b>	<b>23</b>
Revenue Growth Slowing Down	23
Coronavirus	23
Competition	23
<b>6) Conclusion</b>	<b>24</b>
<b>7) About the Authors</b>	<b>25</b>
<b>8) Appendix</b>	<b>26</b>
8.1. Fair Value Methods	26
8.1.1. Discounted Cash Flow (DCF)	26
8.1.2. Free Cash Flow (FCF) Multiple	28
8.1.3. EV/EBIT Multiple	29

# Executive Summary

In this report we employ Warren Buffett's four tenets to evaluate Fever-Tree drinks, a UK based producer of premium mixers (non-alcoholic beverages).

The company has several competitive advantages, and is operating in a growing industry where they are the market leader (estimated 40% market share in the UK). As a result, the company's revenue has increased tremendously over the last few years.

The company is still led by its two founders - however, one of them is retiring soon, after 17 years with the company - and they each hold sizable amounts of shares, suggesting their interests are aligned with those of the shareholders.

Their margins and return on equity are very high, and the business requires little capital expenditures, which means that it generates a lot of free cash. They have no debt, and a £128m cash position.

The share price has fallen considerably over the last year and a half, most likely because the company could not live up to the unrealistic growth expectations that investors put on it. In March 2020 we believed the sentiment had become too bearish, and we allocated 3% of our model portfolio (and a sizable amount of our real portfolio) to Fever-Tree at £9.00.

## Key Figures *(as at 12th June 2020)*

P/E:	37.3
P/B:	9.7
Market capitalization:	£2.2bn
Current price	£18.74
Shares Outstanding (Diluted):	116m
Dividend Yield:	0.80%
EV (Market cap plus net debt):	£2.1bn
EBIT/Operating Profit (2019):	£73m

Source: *Yahoofinance.com, hl.co.uk*

## Key Financials

	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
Revenue	£59m	£102m	£170m	£237m	£261m
Operating margin	29.1%	33.6%	33.1%	31.7%	27.7%
Return on equity (ROE)	22.5%	35.6%	41.6%	39.4%	28.6%
Book value per share	£0.56	£0.77	£1.12	£1.58	£1.93
Debt/total assets	7.1%	5.2%	3.5%	2.7%	0.0%
Cash & ST investments/total assets	20.7%	27.9%	33.2%	39.8%	49.3%

Source: *Morningstar.com, Fever-Tree annual reports*

# Five Year Share Price



Source: Google.com

# Introduction

In this report we evaluate Fever-Tree Drinks using the four tenets that Warren Buffett uses when analysing companies.

The tenets are laid out in the book "[The Warren Buffett Way](#)", and they are:

1. Business tenets
2. Management tenets
3. Financial tenets
4. Value tenets

Below we go through each of the four tenets, asking specific questions to determine if the company meets the criteria of each tenet.

# 1) Business Tenets

## 1.1. Is the Business Simple and Understandable?

Yes, Fever-Tree produces premium mixers, e.g. tonic water and ginger beer that consumers can mix with spirits.

### An example of Fever-Tree's products



Source: *Fever-Tree 2018 annual report*

The company was founded in 2003 in the UK, and was listed in 2014. In 2019 they sold over 441 million bottles, and 127 million cans, in over 75 countries worldwide. The company was created because the founders noticed an emerging trend in the gin & tonic market - consumers were buying higher quality spirits, but nobody was selling higher quality mixers to go with it.

Quality is at the core of Fever-Tree's products, and it's what differentiates them from mass market competitors (e.g. Schweppes). Two Indicators of such quality are their use and marketing around specifically sourced ingredients, and their innovative flavour combinations designed to pair with specific spirits. The products are sold in glass bottles, which maintains the quality of the product, and is more environmentally friendly than plastic. In 2020, for the sixth year running, Drinks International crowned Fever-Tree the #1 selling, and #1 trending, tonic water in bars across the globe.

Fever-Tree's business model is largely outsourced. They do not produce the drinks themselves, instead they provide the glass and ingredients to the bottlers, who produce it for them. The

distribution is also outsourced. This business model requires little capital investment, which leads to strong cash flows, operational flexibility and scalability. As an example, in 2018 they signed an exclusive trade deal with Southern Glazer's Wine and Spirits, the largest wine and spirits distribution company in North America, giving Fever-Tree a strong route to market. The agreement covers 29 states, and Fever-Tree is now the preferred mixer partner for Southern Glazer's Wine and Spirits, sitting alongside their spirits portfolio.

## **1.2. Consistency**

We prefer to see 10+ years of financial history for a company to see how consistent their results are. However, the earliest numbers we have for Fever-Tree are from 2013. The company was listed in 2014, and the earliest annual report available on their website is from 2014 (which includes 2014 and 2013 numbers). During the years we have available, Fever-Tree has had positive, and quite consistent results. However, in 2013 they made a net loss, and in 2014 they made a decent, but not great profit. We are not concerned about these results because they were in large part due to exceptional items and finance costs related to the listing of the company in 2014. Therefore, the underlying operational business has produced consistent results over the years.

We will cover the financials in more detail below.

## **1.3. Does The Company Have Favorable Long-Term Prospects?**

In this section we determine if the company has any competitive advantages, and if the long-term industry trends are favorable.

### **1.3.1. Competitive Advantages**

Fever-Tree pioneered the concept of the premium mixer, giving them a first-mover advantage, which they have been able to sustain. Their margins and return on equity (covered in more detail in section 3 below) are very strong, which suggests the presence of a moat. They are the #1 mixer brand by value in the UK off-trade channel, with an estimated 40% market share (according to IRI, a big-data provider). "Off-trade" refers to sales in grocery stores, supermarkets etc., while "on-trade" refers to sales in restaurants, pubs, bars etc. According to the [Drinks International annual brands report 2020](#) (page 46) Fever-Tree dominates the premium mixer category. It's the top brand, with nearly half of the participating bars saying it is the number one tonic brand in sales. It's a "must-have for bars around the world".

Marketing plays a big part of Fever-Tree's competitive advantage; it includes strategies such as creating G&T gardens, advent calendars for Christmas, and even launching a Fever-Tree tennis championship (see picture below). All these activities help create a strong brand image.



Source: Fever-Tree 2018 Annual Report

Given that Fever-Tree successfully pioneered the premium mixer category, is ranked the #1 mixer brand, and also generates very high margins and ROE, we believe that Fever-Tree has a moat. And we believe this moat will ensure that the business continues to earn above average rates of return in the years to come.

### 1.3.2. Industry Prospects

Fever-Tree's future growth outlook has come into question recently. There are fears that the UK market, which is Fever-Tree's biggest, is saturated, and that the popularity of the gin & tonic

drink has reached its peak. The company's revenue in 2019 "only" grew around 10%, vs. around 39% in 2018. Let's examine some of the numbers to get a sense of the future of Fever-Tree, and the industry:

In 2019 the revenue in the UK (~51% of total 2019 revenue), declined 1%. The company's [2019 preliminary results](#) say that the results are due to a challenging market (e.g. consumer confidence in the UK was weak towards the end of 2019), and difficult comparators. "Difficult comparators" refers to the fact that the summer of 2018 was a very strong period, driven by the combination of a summer heatwave, major sporting events, and royal weddings. Therefore, 2019 results would not look as impressive in comparison. On the other hand, U.S. revenue (~18% of total 2019 revenue) grew 33%, Europe revenue (~25% of total 2019 revenue) grew 16% and Rest of the World revenue (~6% of total 2019 revenue) grew 31.7%:

Revenue by Region	Revenue	Revenue	% change
	FY2019	FY2018	
	£m	£m	
United Kingdom	132.7	134.1	-1.1%
United States of America	47.6	35.8	+33.0%
Europe	64.4	55.5	+16.0%
Rest of the World	15.8	12.0	+31.7%
Total	260.5	237.4	+9.7%

Source: Fever-Tree preliminary results 2019

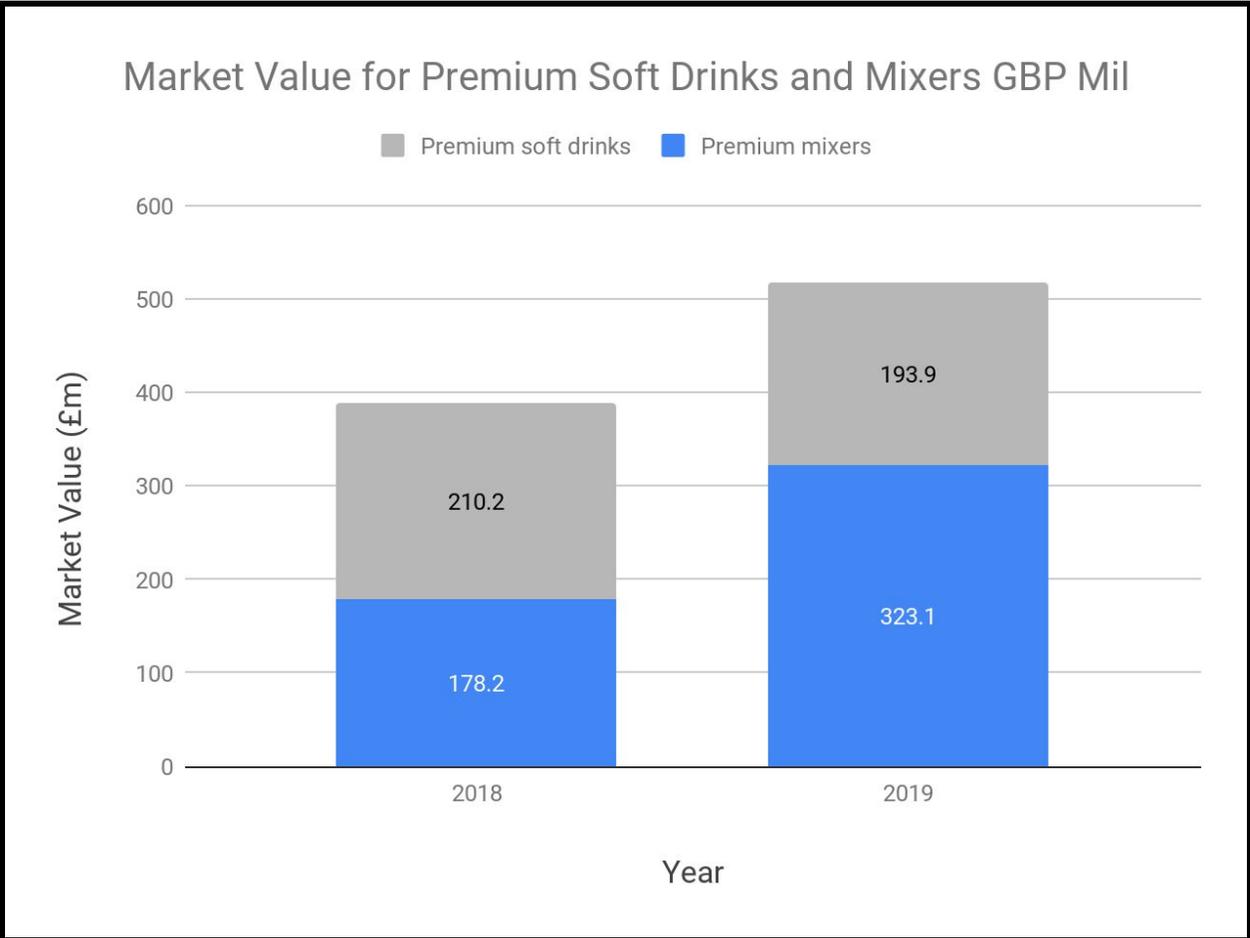
The company addresses the worries around the UK market by highlighting that the gin category is now worth £2.5bn, and is firmly established as the second biggest spirits category in the UK. It remains a key focus for spirits companies and continues to be invested in and supported by both the on-trade (bars, pubs, restaurants etc.) and off-trade (shops, supermarkets etc.) segments. Furthermore, Fever-Tree is also focusing on other categories, such as whisky, rum, vodka and tequila. These spirits are seeing good growth at the premium end, and Fever-Tree's mixers and sodas are placed to take advantage of these trends.

In fact, premium mixer sales for the UK on-trade channel are growing rapidly. Fentimans (a Fever-Tree competitor) published a [2019 market report](#) on the premium soft drinks and mixers channel, stating that the UK market for all soft drinks and mixers is worth £4.5 billion ("soft drinks and mixers" means mixers, juice, flavoured carbonates, water, lemonade, cola and squash). The value of the market grew 5.4% in 2019. The **premium** soft drinks and mixers category is worth £517 million (which makes up 11.5% of the total market value of £4.5 billion).

This category grew 33.1% in 2019. The **premium mixer** subcategory (the category Fever-Tree operates in) grew by 81.3% in 2019, and is valued at £323.1m. So, the market is still seeing some healthy growth.

Breakdown of UK market:

- All soft drinks and mixers: £4.5bn - 5.4% growth in 2019
- Premium soft drinks and mixers: £517m - 33.1% growth in 2019
- Premium mixers: £323.1m - 81.3% growth in 2019



Source: Fentimans 2019 market report

While we do share in the worry that the future growth of the industry might taper off, these worries seem a bit overblown. The challenge of weak consumer confidence in the UK will be temporary, and the premium mixer category is still growing at a strong rate. Moreover, the growth rates in the other geographies are still high, and there is room to grow within other spirits categories (whisky, rum, vodka and tequila). And even if the gin market in the UK is maturing, it's not a big concern in our eyes. All markets eventually mature, and Fever-Tree has established a top position in a popular market (the G&T is not going anywhere). The company

will still be able to earn high returns on equity and generate strong free cash flows, even if growth is slowing. And to mitigate the risk, we have included slower growth scenarios in our valuation models. These are detailed in the [Appendix](#) .

## 2) Management Tenets

### 2.1. Rationality - Is Capital Invested Rationally?

Investing in companies where the management team are rational capital allocators is important because as an investor you entrust your capital with them, and you want to ensure that they invest it in projects that generate a solid return. In the case of Fever-Tree, the management team has generated very high returns on equity, without historically taking on much debt (and currently holding no debt), which suggests to us that they are rational and very good at allocating capital.

It's worth mentioning that the two co-founders, Charles Rolls and Tim Warrillow (CEO), are the second and third largest shareholders in the company, holding 7.06% and 4.7% of total shares, respectively. This suggests that their incentives are aligned with those of the shareholders, which is long term growth.

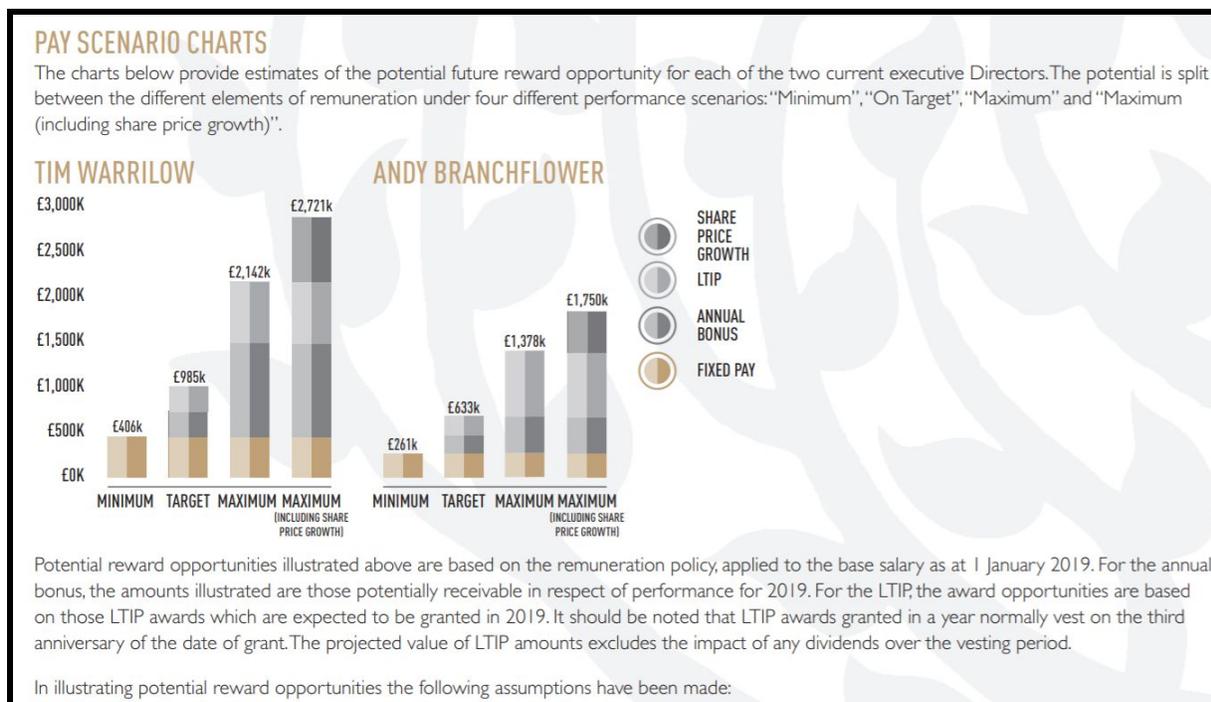
This information was last updated on 22 April 2020.

NAME	HOLDING	%
Majedie Asset Mgt	8,525,944	7.34
Charles Rolls	8,203,325	7.06
Tim Warrillow	5,460,172	4.70
Fundsmith	5,237,167	4.51
Lindsell Train Investment Mgt	5,013,500	4.32
Aberdeen Standard Investments	3,636,185	3.13
Neuberger Berman	3,501,440	3.02

Source: *Fever-Tree website* ([link](#))

## 2.2. Candor

After having read the annual reports we feel that the management team is candid. One example is their openness around their remuneration policy. They provide specific information about base salaries, pensions, other benefits, bonuses and the option scheme (picture below). They give us the specific numbers of how much the CEO and CFO are paid, and they also provide breakdowns of how much the CEO and CFO would be paid under different scenarios.



Source: 2018 annual report, page 38

In illustrating potential reward opportunities the following assumptions have been made:

COMPONENT	"MINIMUM"	"ON-TARGET"	"MAXIMUM"	"MAXIMUM (INCLUDING SHARE PRICE GROWTH)"
Fixed				
Base salary		CEO – £385.9k CFO – £248.1k		
Pension		5% of base salary		
Other benefits		Private healthcare – £0.7k		
Annual bonus	No bonus payable	Target bonus (50% of maximum)	Maximum bonus	
LTIP	No LTIP vesting	Threshold vesting (25% of maximum)	Maximum vesting	Maximum vesting (including 50% share price growth over the performance period)

Source: 2018 annual report, page 38

This is only one datapoint and consequently we can't say with strong conviction that the management team is always candid, but it does give a good indication. And on the flip side, we have not found any information that would suggest otherwise.

### **2.3. The Institutional Imperative - Do They Blindly Follow The Industry And Peers?**

Given that they pioneered the premium mixer category, and are the #1 brand in the industry, we conclude that Fever-Tree do not blindly follow their peers. On the contrary, it's the industry that is following them.

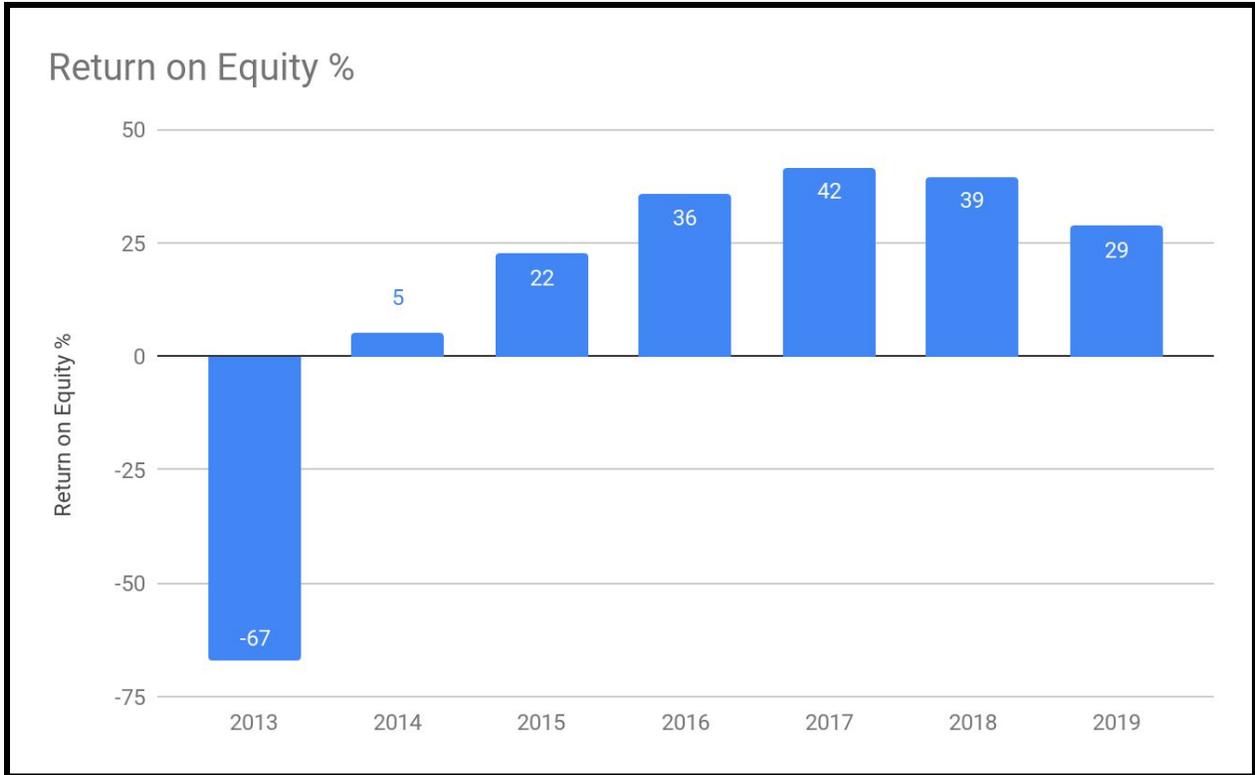
## 3) Financial Tenets

### 3.1. Focus On Return On Equity, Not Earnings Per Share

Fever-Tree has produced a very strong return on equity over the years, apart from 2013 and 2014. In 2013 Fever-Tree Drinks plc was incorporated, and it acquired the trading entity Fevertree Limited; as a result, the company booked “exceptional items” costs of around £3m that year. In 2014 the company had “exceptional items” costs of around £1m, related to the listing of the company. Moreover, the finance expenses in 2013 and 2014 (£4m and £5.5m, respectively) were not on-going; they were incurred because prior to the company listing, existing shareholder loans were converted to equity.

The ROE figures in 2013 and 2014 are therefore somewhat misleading - they are not the sign of a weak underlying business in those years, they are the sign of exceptional costs being incurred.

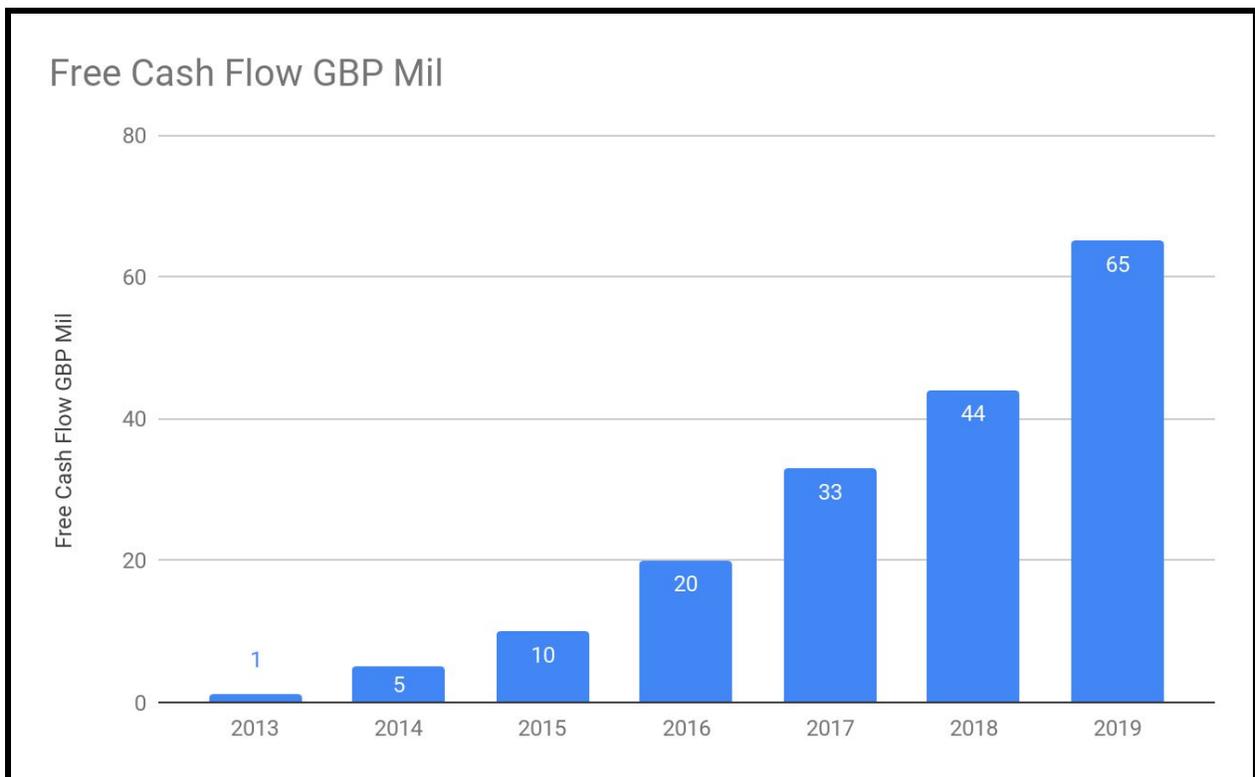
We must also highlight that ROE dropped quite a bit in 2019. This was due to the weaker than expected numbers in the UK, which we have already mentioned, and increased investing for the future (e.g. increasing marketing and salary expenditures). The lower revenue growth coupled with higher costs led to compressed margins and lower ROE. Despite the decline, the ROE is very high at 29%, and we still think Fever-Tree is a solid business.



Source: Morningstar.com

### 3.2. Calculate Owner's Earnings (Free Cash Flow)

Fever-Tree's free cash flow has been consistently positive, and has been growing considerably over the years. This is a great sign because what we ultimately care about is that the company generates cash for its shareholders. A strong track record of free cash generation suggests that the company will keep generating free cash in the future.



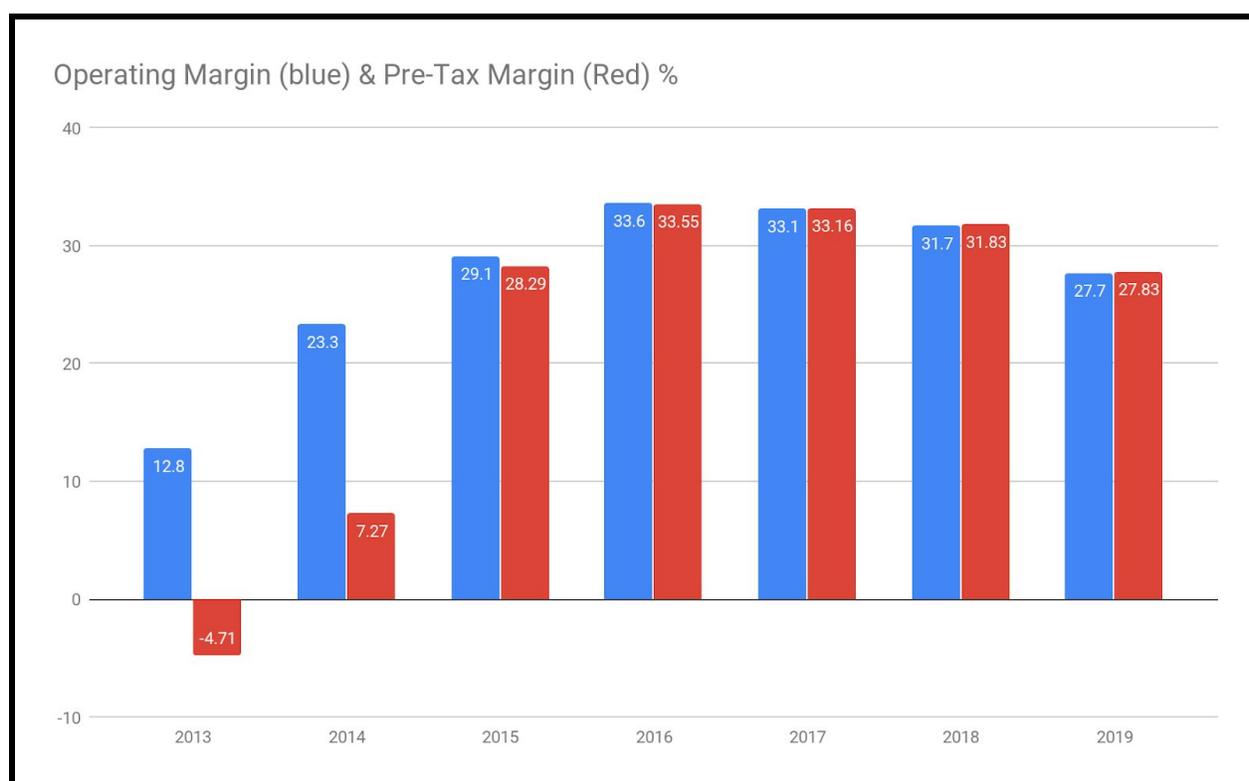
Source: Morningstar.com

### 3.3. Look For Companies With High Profit Margins

Fever-Tree has had very strong operating margins over the years, except for 2013, when the company incurred “exceptional items” costs (see section 3.1 above). “Exceptional items” costs also reduced operating margin in 2014, although this was offset by the growth in revenues from 2013 to 2014 (52% growth).

Pre-tax margins in 2013 and 2014 were negative/low because of the finance expenses (see section 3.1 above).

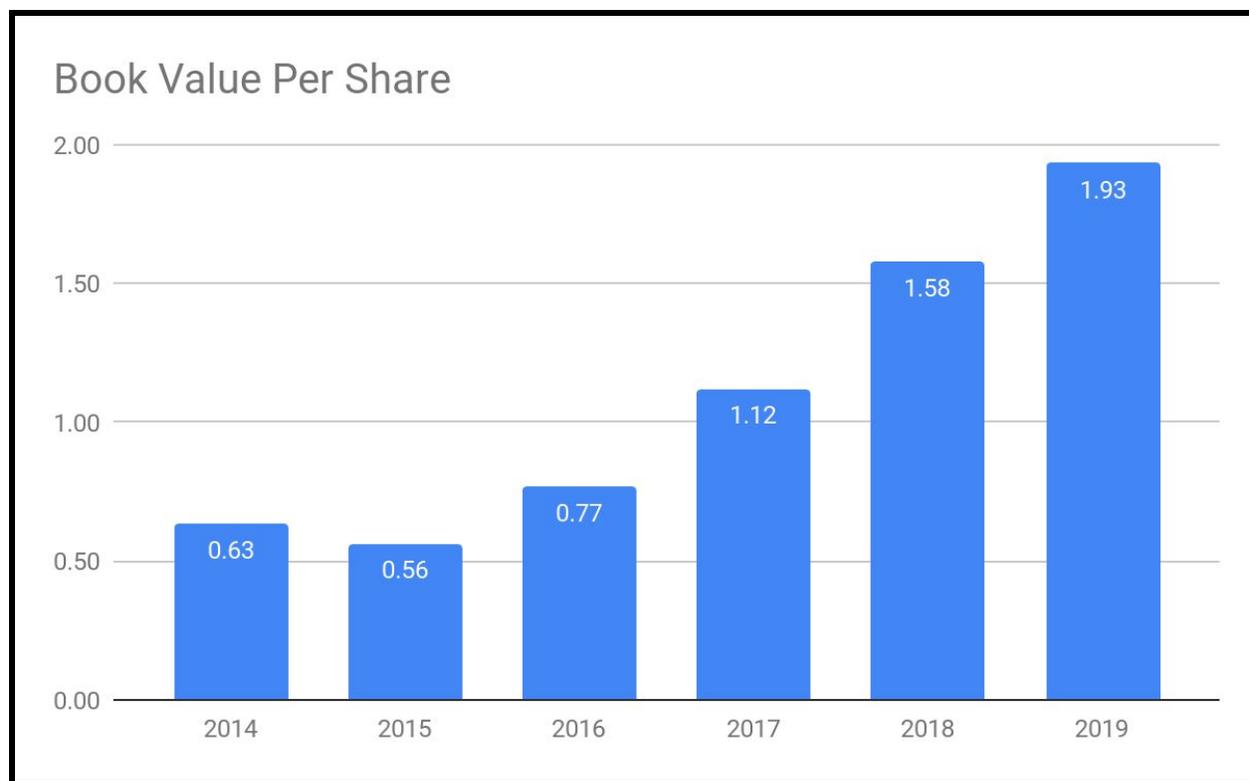
As with ROE, the margins are lower in 2019 due to the weaker than expected results in the UK, and the company’s decision to invest for the future.



Source: Morningstar.com

### 3.4. For Each Dollar Retained, Have they Created A Dollar Of Market Value?

We use book value as a proxy for intrinsic value. We invest in companies where the book value has grown consistently because it means the company has generated value for shareholders. Fever-Tree's book value per share has grown at a strong rate since the company was listed in 2014. The compound annual growth rate from 2014 to 2019 was 25%.



Source: Morningstar.com, Fever-Tree reports

Moreover, we want to invest in companies where the management team has generated at least £1 of market value for each £1 of book value retained in the business. In Fever-Tree's case this condition is comfortably met. In fact, we think the share price actually got ahead of itself and rose too much. For example, In 2017 the price/book ratio was around 25, and the P/E ratio was above 70. It is therefore natural that the price has come down since then. The share price figures below are from the first of January, which we treat as the end of year share price for the previous year (e.g. the 1st of January share price 2020 is used as end of year share price for 2019).

## Book Value Per Share vs. Share Price



Source: Morningstar.com, Fever-Tree reports, Yahoofinance.com

## 4) Value Tenets

### 4.1. Determine The Value Of The Business

Our method for determining the value of the business involves three different approaches:

- Discounted cash flow analysis
- Free cash flow multiple
- EV/EBIT multiple

Under each approach we calculate a minimum, an average, and a maximum value. We use three approaches because it gives us a more well-rounded view of the potential fair value of the company.

In the interest of keeping this section short, we only present the findings of our valuation methods below. For a detailed description of how we conducted the valuations please see the [Appendix](#).

It is important to note that we did the valuations in March 2020, before the 2019 financials had been published. Our valuations are therefore based on 2018 figures. Below are the conclusions of our valuation methods:

#### 1. DCF Fair Value Table

Max intrinsic value per share	£17.3
<b>Average intrinsic value per share</b>	<b>£11.1</b>
Min intrinsic value per share	£5.9

#### 2. FCF Multiple Valuation Table

Max intrinsic value per share	£14.7
<b>Average intrinsic value per share</b>	<b>£9.3</b>
Min intrinsic value per share	£5.0

#### 3. EV/EBIT Multiple Valuation Table

Max intrinsic value per share	£25.3
<b>Average intrinsic value per share</b>	<b>£16.4</b>
Min intrinsic value per share	£9.3

## 4.2. Buy At A Discount To Fair Value

We want to invest in a company when the share price trades at 75% or below our estimate of intrinsic (aka fair) value. Since we use more than one intrinsic value estimate, we choose to invest in a business when the share price is trading at 75% or below the **average** fair value estimate in at least **two** of the three valuation methods.

Below are the average intrinsic value estimates under our three valuation methods:

- DCF: £11.1
- FCF multiple: £9.3
- EV/EBIT multiple: £16.4

As mentioned above, we did this analysis in March 2020, when Fever-Tree's share price was trading at £9.00 at one point. £9.00 was equivalent to ~81% of the DCF fair value estimate, ~97% of the FCF multiple estimate, and ~55% of the EV/EBIT multiple estimate.

While our criteria were not fully met, we still decided to invest in Fever-Tree; we believe it's a very good business and we did not feel it was necessary to wait for the price to drop another few percentage points before we invested. We decided to allocate 3% of our model portfolio to the company, and we also invested a sizable amount of our real portfolio.

## 5) Risks

### **Revenue Growth Slowing Down**

We already mentioned the risk that Fever-Tree's revenue growth might be slowing down, and have accounted for this in our valuation. We believe that these fears are somewhat exaggerated because the weak UK market conditions seem to be temporary. Moreover, the U.S., Europe, and Rest of the World segments are still strong. Nonetheless, we factored in somewhat lower growth rates in our valuation to mitigate the risk, and we still believe Fever-Tree is a good investment. However, we will keep an eye on future revenues and if Fever-Tree is indeed entering a phase of single digit growth rates, we might have to reconsider our investment.

### **Coronavirus**

We would be remiss if we did not mention the Coronavirus crisis in this report, however in truth we don't have much to say about it. It's such an unprecedented situation that it's impossible to guess what the outcome will be. The on-trade (bars, pubs, restaurants etc.) segment has taken a big hit, but on the other hand the off-trade (shops, supermarkets etc.) segment has been strong with people drinking more at home during the lockdown. We would also keep an eye on any changes to Fever-Tree's strategy (e.g. timing of any geographical expansion) from travel restrictions, as this could slow the momentum building overseas. Luckily, Fever-Tree is in a strong financial position as they have no debt, £128m in cash, and low capital expenditures.

### **Competition**

Fever-Tree operates in a competitive industry. Although they are the pioneers of the premium mixer category, and are the dominant player, they are facing competition from established players, such as Schweppes. We believe that Fever-Tree will be able to maintain a strong competitive position because they have a good track record of doing it so far. Nonetheless, we will keep an eye on how the competitive landscape develops because it's a profitable and growing market, and established players will want to take a piece of it.

## 6) Conclusion

Fever-Tree has a strong product, a good management team, and excellent financials.

They pioneered the premium mixer category, which is a high growth market. They have several competitive advantages, and an estimated 40% market share in the UK.

Their financials are very strong, with high margins and high return on equity. The company also generates healthy levels of free cash flow.

The share price has fallen considerably over the last year and a half, most likely because the company could not live up to the unrealistic expectations that investors put on it. However, we believe sentiment has become too bearish, and allocate 3% of our model portfolio (and a sizable amount of our real portfolio) to Fever-Tree, at £9.00.

## 7) About the Authors

We believe that value investing is the best method for achieving market-beating returns over the long term. We are working towards setting up a value investing fund by analyzing and investing in businesses that we find attractive. We can also analyze companies for third parties, on a consultant basis.



*- Lars Christian Haugen and Roshni Patel*

Email: [lhaugen88@gmail.com](mailto:lhaugen88@gmail.com)

Email: [roshnipatel88@gmail.com](mailto:roshnipatel88@gmail.com)

LinkedIn: [linkedin.com/in/larschristianhaugen](https://www.linkedin.com/in/larschristianhaugen)

LinkedIn: [linkedin.com/in/roshnipatel88](https://www.linkedin.com/in/roshnipatel88)

## 8) Appendix

### 8.1. Fair Value Methods

#### 8.1.1. Discounted Cash Flow (DCF)

*Note: we would like to remind the reader that we did this analysis in March 2020, before the full 2019 results were available. Our analysis therefore makes assumptions about 2019 figures.*

The starting point for our DCF analysis is the company's historical free cash flows. We calculate free cash flow as operating cash flow less capital expenditures (purchases of property, plant, and equipment).

In our analysis we look at three cash flow numbers:

1. The free cash flow in the most recent year
2. The average free cash flow over the last three years, and
3. The average free cash flow over the last five years

We then create three different scenarios where we make assumptions about the free cash flow growth over the next 10 years. For Fever-Tree those scenarios are:

1. Low growth scenario: 10% annual growth
2. Medium growth scenario: 15% annual growth
3. High growth scenario: 20% annual growth

Although somewhat arbitrary, we are comfortable with these growth rate assumptions; they are neither too high nor too low, given the historical growth. For comparison, the free cash flow compound annual growth rate (CAGR) from 2014 to 2018 was 73.2%. We therefore believe our growth numbers are reasonable.

Given that we apply three different growth rate assumptions to three different cash flow numbers, we get nine different outcomes.

At the end of the 10-year forecast period, we apply a terminal value growth rate of 2% to each of these nine outcomes. We then apply a discount rate of 10% to calculate the present value. We always use a 2% terminal value growth rate, and a 10% discount rate in our analyses because it allows us to compare all our investments on the same basis. We do not use a WACC because we believe it adds further assumptions and potential complications to our valuation.

The first table below shows the three different free cash flow numbers that we used in our analysis. It's important to note that the most recent free cash flow number (for 2019) has been adjusted down by 5%. This is because Fever-Tree published a trading update in January 2020, providing guidance on the full year 2019 results. They did not provide a lot of information, but they did say that profits would likely decline by 5% from 2018 to 2019. We therefore decided to apply this 5% downward adjustment to the free cash flow as well.

Most recent FCF (2019 estimated, adjusted down by 5%)	£43m
Average of last three years' FCF	£40m
Average of last five years' FCF	£30m

The table below shows the estimated fair value **per share**, under the different scenarios, having applied a 2% terminal value growth rate, and a 10% discount rate.

For example, we start with the most recent FCF (adjusted down by 5%) of £43m, and:

1. apply a growth rate of 10% per year over the next 10 years, (Scenario 1 in the matrix)
2. apply a terminal value growth rate of 2% after that, and
3. discount it all by 10%

As a result we get a fair value per share of £8.37 per share.

Lastly, we calculated the average of these nine fair value estimates - £11.11 - which is the main number we look at. We also take into account the minimum (£5.91) and maximum (£17.33) estimates to get a range of values. We believe this approach gives us a balanced view of the fair value estimates.

Scenario 1		Scenario 2		Scenario 3	
1st 5-year period growth rate:	2nd 5-year period growth rate:	1st 5-year period growth rate:	2nd 5-year period growth rate:	1st 5-year period growth rate:	2nd 5-year period growth rate:
10%	10%	15.0%	15.0%	20%	20%
8.37		12.06		17.33	
7.89		11.36		16.33	
5.91		8.51		12.23	

### 8.1.2. Free Cash Flow (FCF) Multiple

The DCF valuation is our main valuation method, however we use the FCF multiple and EV/EBIT multiple methods to sense check our DCF analysis. The reason why we chose these two multiples is firstly because we are proponents of using real cash flow numbers, and secondly because we like using EV/EBIT as it takes into account the enterprise value of the business.

The starting point for the FCF multiple analysis is the same as the DCF analysis; we start with the latest free cash flow, the average of the last three years, and the average of the last five years.

Most recent FCF (2019 estimated, adjusted down by 5%)	£43m
Average of last three years' FCF	£40m
Average of last five years' FCF	£30m

We then use the same growth scenarios as before: 10%, 15%, and 20%. But in this instance we only project for the next five years. And then at the end of the five years we apply a multiple. We applied three different multiples under each scenario: 12, 14, and 16. These are somewhat arbitrary, however they are based on what we believe are fair multiples for a quality business; they are not too high and not too low.

We do not discount the numbers to present day because that is not common practice when using multiples.

In the picture below you can see the different fair value estimates. The numbers are in £GBP per share. At the end we calculate the average of all the 27 estimates, and we also look at the maximum and minimum values.

		Assumed annual growth in FCF per share over next five years				
		Scenario 1	Scenario 2	Scenario 3		
		10%	15.0%	20%		
Most recent FCF to equity holders	43	FCF Multiple	12	7.11	8.88	10.99
			14	8.30	10.37	12.82
			16	9.49	11.85	14.66
		Assumed annual growth in FCF per share over next five years				
		10%	15.0%	20%		
Average of last three years' FCF to equity holders	40	FCF Multiple	12	6.70	8.37	10.36
			14	7.82	9.77	12.08
			16	8.94	11.16	13.81
		Assumed annual growth in FCF per share over next five years				
		10%	15.0%	20%		
Average of last five years' FCF to equity holders	30	FCF Multiple	12	5.02	6.27	7.76
			14	5.86	7.32	9.05
			16	6.70	8.36	10.34
		Max intrinsic value per share			14.66	
		Average intrinsic value per share			9.26	
		Min intrinsic value per share			5.02	

### 8.1.3. EV/EBIT Multiple

This approach is very similar to the FCF multiple approach. However, instead of using free cash flow numbers, we use EBIT (operating profit) numbers. Moreover, the multiples we use are 8, 10, and 12. Again, these are somewhat arbitrary, however they are based on what we believe are fair multiples for a quality business; they are not too high and not too low.

In the picture below you can see the different fair value estimates. The numbers are in £GBP per share. At the end we calculate the average of all the 27 estimates, and we also look at the maximum and minimum values.

		Assumed annual growth in EBIT over next five years		
		Scenario 1	Scenario 2	Scenario 3
Most recent EBIT	71.25			
EBIT Multiple	8	12.75	15.71	19.22
	10	14.73	18.18	22.28
	12	16.71	20.65	25.33
		Assumed annual growth in EBIT over next five years		
		10.0%	15.0%	20.0%
Average of last three years' EBIT	67			
	8	12.11	14.91	18.23
	10	13.98	17.25	21.13
	12	15.86	19.58	24.02
		Assumed annual growth in EBIT over next five years		
		10%	15%	20%
Average of last five years' EBIT	51			
	8	9.32	11.42	13.92
	10	10.72	13.18	16.09
	12	12.13	14.93	18.26
		Max intrinsic value per share		
		25.3		
		Average intrinsic value per share		
		16.4		
		Min intrinsic value per share		
		9.3		