“The Merger”:
Boston Beer Co. & New Belgium Brewing Co.

Executive Summary

The acquisition of New Belgium Brewing Co. (“The Target”) by Boston Beer Co. (“The Acquirer”) is within rights of company discretion, is expected to result in reasonable competitive benefit, and would not result in anticompetition with respect to market share and power.

The fair value of the target should be USD1.06bn

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Disclaimer: The expectations, findings and analysis of this report are based on reasonable inference from market research as of 20th May, 2018. Market risk and unpredictable events may cause deviations from expectation, and this report does not claim to report the absolute truth.

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Market Overview

Beer in domestic US

- **Shrinking** industry growth: (1.2%)
- Forecasted industry growth likely in line with GDP/inflation: 1-3%
- Increasing trend of incumbents acquiring craft breweries to diversify revenue source & products
- Market makeup: Craft is 12.7% of beer market

Craft beer in domestic US

- **Booming** industry growth: 5%
- Expected continued industry **growth**: 17.6% Global CAGR (2017-25)
- Growth driven by entrant volume**:
  - Regional craft players: 15% increase
  - Low barrier to entry with high turnover: 997 new, 165 closed
- Domestic growth experiencing slowdown from double-digit growth in 2010s, back on single digit dollar sales growth: 8%

The Acquirer

- **Beer** brewery established 1984, **2nd Largest** craft brewery in U.S.
- **North-East** Customer Base*: Massachusetts (12.01%), New York (11.39%), Florida (9.40%)
- As of late 2017, has been under fire from investors and analysts on dipping performance. There are rumours on the street of potential acquisition offers made to the acquirer

The Target

- **Craft** brewery established 1991, **4th largest** craft brewery in U.S.
- **West** Customer Base*: Colorado (21.60%), California (13.33%)
- Has been suffering recently from industry slowdown, laid off 28 employees and sales have dipped

Statistics reflect 2017 data unless otherwise specified
*% of 2017 sales
**% increase of firms year on year from 2013-2017

Expected Synergies from the Merger

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Customer

- **Geographic Synergy:** The Acquirer's main customer base is in the Northeast, benefiting from established clout of target in South-west
- **Demographic Synergy:** While craft beer is the target of this investigation, the synergy that is gained from SAM offering a wider range of popular products (Angry Orchard, Twisted Tea), means that the new company will increase it's demographic consumer base

Product

- **Demographic Synergy**: The Acquirer's main distribution and manufacturing technologies, assets are in the Northeast, while the Target's are in the West. Both Target and Acquirer will benefit from shared resources and centralized distribution processes.
- **Pricing Synergy**: The Acquirer and the Target can benefit from customer behaviour and data from their distinguished customer bases, allowing products to be better tailored to segmented customers, with respect to both price and quality.

Cost

- **Manufacturing Synergy:** The Acquirer's main operations and distribution chains are in the Northeast, inorganic expansion can
- **Technological Synergy:** The Target's operating and gross margins are higher than that of the Acquirer, implying potentially transferable business model elements that may reduce the merged company's costs

Market Definition:
Regional Craft Brewery in Domestic US

1. Geographical constraint to **Domestic US**

Both the acquirer and the target's main operations and sales revenue sources are from the domestic US. The data provided shows us that craft imports to the U.S. market are negligible from large players.

2. Industry constraint to **Craft Brewery**

The Market is considered an **unconcentrated market** due to HHI index trending below 1000 from 2000 onwards. As both the acquirer and the target have market shares below 3%, merger will not increase industry HHI by any significant amount.

3. Optional Industry Constraint to **Large Firms**

While we believe that the market should be defined as any regional craft brewery in the Domestic US, we found that large firms control only a small percentage of the over all craft beer market and wanted to additionally examine the market from the perspective of large firms to see if the merged firm would be able to wield monopolistic power over the market share belonging to larger companies.

Market Share Analysis

Entire U.S. Craft Brewery Market

Player	Miller Coors	The Acquirer	The Target
Pre-Merger	3.12%	2.5%	1.3%
Revenue	813m	648m	338m
Post-Merger	3.12%	**3.8%**	
Revenue	813m	986m	

18 Largest U.S. Craft Brewery Market

Player	Miller Coors	The Acquirer	The Target
Pre-Merger	25.5%	20.3%	10.7%
Revenue	813m	648m	338m
Post-Merger	25.5%	**31%**	
Revenue	813m	986m	

While the merger would mean that the combined companies are larger than the current largest player in the industry (Miller Coors), it's still smaller than the 50% of the market that is a prerequisite of defining a monopoly according to the Supreme Court.

Market Power Analysis

Pricing of merged company's products are **not expected to change** from the status quo, given differentiated nature of products and their customer base.

Threat from **competitors**	Competitive pressure to lower prices	Overwhelming majority of market share is from small independent breweries, not big players – competition is consistently kept high
Threat from **potential entrants**	Ease of entry	The industry experiences high turnover, indicating high copycat risk of pricey products – 2017 saw 997 new operators and 165 closures.
Threat from **customers**	Highly monopolistic market creates low customer loyalty	Products are typically highly specialized: new smaller players enter easily and have a distinct value proposition
Threat from **customers**	Diversified customer base	Merging companies have distinct products and geographical customer bases. The merged company must maintain stable prices for stable demand.

Our Recommendation

The Department of Justice Should Approve the Merger for three reasons:

1. **The merger would not significantly impact the market:**
   - Currently, the 18 largest brewing companies control ~12.25% of the craft brewing market, and this new firm would control less than half of that
   - Significant competition remains and would not allow firms to act monopolistically
2. **Regardless market definition, the new firm does not have monopoly power over the market:**
   - The Eleventh Circuit Court of the United States said that "market share at or less than 50% is inadequate as a matter of law to constitute monopoly power"
   - The Supreme Court backed a judge that argued "it is doubtful whether sixty or sixty four percent would be enough [market share to constitute a monopoly]; and certainly thirty three percent is not.
   - The new firm controls 31% of the large brewery market, and 3.8% of the total craft market
3. **The DOJ allowed a much larger beer company merger to go through:**
   - Anheuser-Busch InBev (ABI) and SABMiller were allowed to merge – while the details of the merger required MillerCoors and Anheuser-Busch to spin off some of their products, ultimately the ABI and SABMiller merger was much more contentious than this one

Target Valuation

New Belgium
DCF Analysis
(In USDm, except ratios)

Assumptions	Value	Source
Valuation Date	24/5/2018	Acquisition close announcement
Year End	31/12/2018	
Discount Rate	15.0%	New Belgium Cost of Equity
Long-term Growth Rate	3.0%	(Craft) Beer Industry Growth Rate

Recommended target valuation:
1.06bn.

In USD	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Terminal
Third-Party Product Revenue	383	429	475	521	566	609	648	683	713	734	6,302
Revenue Growth		*11.9%*	*10.8%*	*9.7%*	*8.6%*	*7.6%*	*6.5%*	*5.4%*	*4.3%*	*3.0%*	
Gross Profit	184	208	233	259	284	309	333	355	374	389	
Gross Margin	*48.0%*	*48.56%*	*49.11%*	*49.67%*	*50.22%*	*50.78%*	*51.33%*	*51.89%*	*52.44%*	*53.0%*	
Total Operating Expenses	84	102	121	142	165	188	212	235	258	279	
Opex/Revenue	*22.0%*	*23.8%*	*25.6%*	*27.3%*	*29.1%*	*30.9%*	*32.7%*	*34.4%*	*36.2%*	*38.0%*	
Total Operating Profit (EBIT)	100	106	112	116	119	121	121	119	116	110	945
Operating Margin	*26.0%*	*24.78%*	*23.56%*	*22.33%*	*21.11%*	*19.89%*	*18.67%*	*17.44%*	*16.22%*	*15.0%*	*15.0%*
Partial Year	0.605										
Discount Period	0.605	1.605	2.605	3.605	4.605	5.605	6.605	7.605	8.605	9.605	4.605
PV Factor	0.919	0.799	0.695	0.604	0.525	0.457	0.397	0.345	0.300	0.261	0.525
PV of FCFE	**55**	**85**	**78**	**70**	**63**	**55**	**48**	**41**	**35**	**29**	**497**
NPV of FCFE Perpetuity	**1,056**										

Assumptions and Clarifications

Revenue Assumptions

2018 Revenue	383	2017 Target Revenue (from dataset) 339m * (1+13%) (from comp, which has been growing on average 13% from 2013-2017)
	Forecast of Annual Growth	**Rationale**
2019	11.9%	Straight line decrease from this point onwards of 13% to industry growth rate of 3% (i.e. 1.1% reduction per year)
2020	10.8%	
2021	9.7%	
2022	8.6%	
2023	7.6%	
2024	6.5%	
2025	5.4%	
2026	4.3%	
2027	3.0%	Industry growth rate, which should have slowed to roughly GDP growth level of around 3%

	Target	Constellation Brands Inc
2017 Sales Growth	9%	10%
% Revenues from US	Near 100%, only non-US sales in Sweden	97%

Margins Assumptions

	2018	2027	Rationale
Gross Margin	48%	53%	2018 GM OM should reflect similar comps margins (Cons, margins have recently risen to these values from 2013-2017)
Operating Margin	26%	15%	2027 GM OM should reflect incumbent/established player's margins (Boston Brewing Co., margins have not varied much from these values from 2013-2017)

Comparable Company: Constellation Brands Inc (NYSE:STZ)

Grounds starting year's margin estimates:

Constellation Brands Inc. started off as a beer brewery, and is the 3rd largest brewery in the US. It has recently expanded into craft and its beer segment growth is mainly driven by craft sales growth. Aptly mirrors the target's status as an emerging but struggling craft brewer.

Boston Beer Company

Grounds terminal year's margin estimates

The acquirer's incumbent craft brewery status and favourable margins compared to other players provided in the dataset indicates that post-acquisition and acclimation, the target should at the very least yield the same stable margins as the acquirer has enjoyed over the past 5 years (2013-2017).

References

Charles River Associates

- Statistics:
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    - http://www.nielsen.com/us/en/insights/reports/2017/the-state-of-the-us-beer-market.html
- HHI Index:
    - https://www.wine-economics.org/aawe/wp-content/uploads/2015/12/Vol.10-Issue03-Craft-Beer-in-the-United-States-History-Numbers-and-Geography-by-Kenneth-G.-Elzinga.pdf
- Notes – Legal Monopoly requires 50% - https://www.justice.gov/atr/competition-and-monopoly-single-firm-conduct-under-section-2-sherman-act-chapter-2
- Point is we're not a monopoly on total market or large brewer market
- DOJ Monopoly Market Definition slides - https://www.justice.gov/sites/default/files/atr/legacy/2007/03/27/222008.pdf
- https://www.justice.gov/atr/competition-and-monopoly-single-firm-conduct-under-section-2-sherman-act-chapter-2
- U.S. Supreme Court - 33% market share certainly is not monopoly