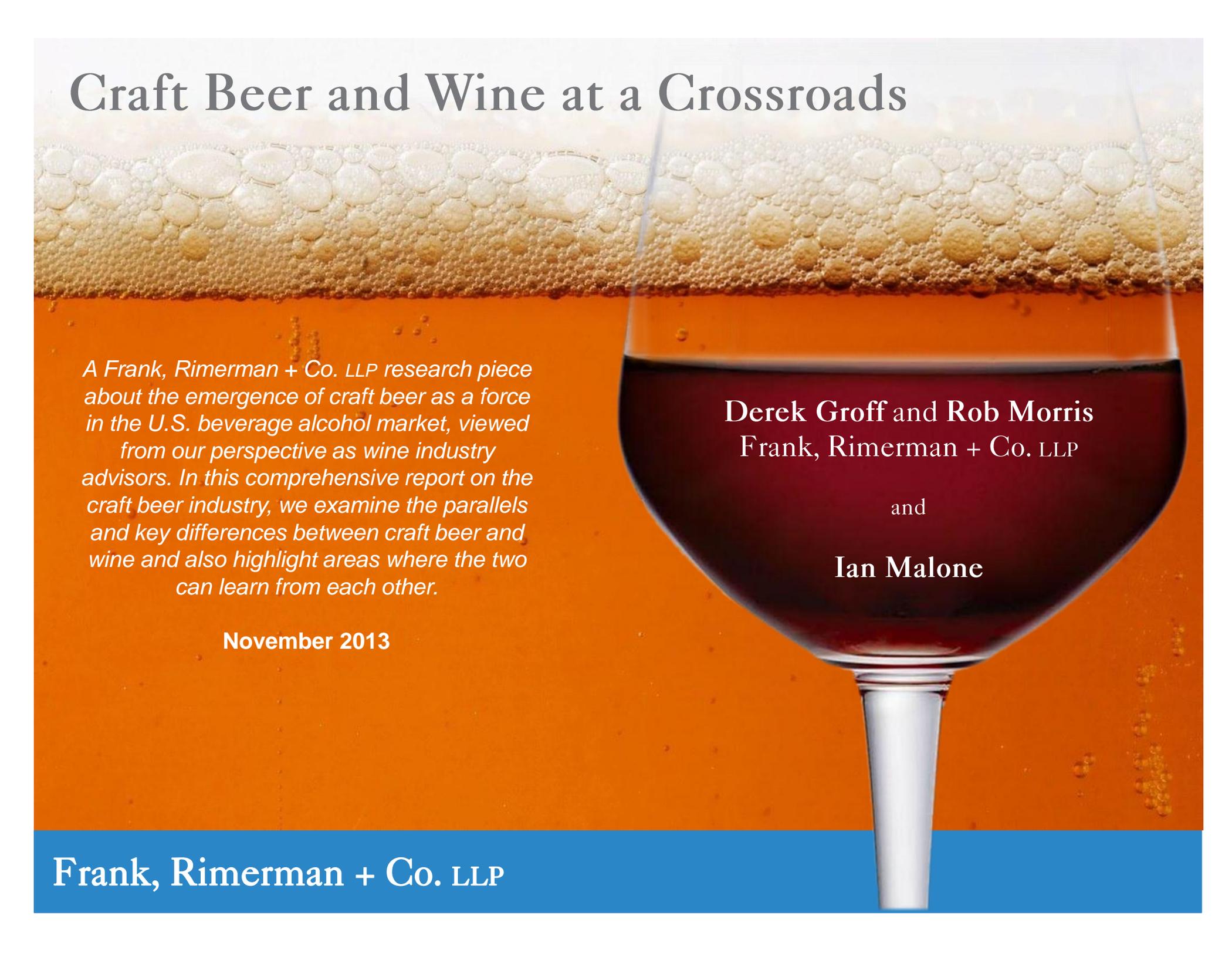


Craft Beer and Wine at a Crossroads



A Frank, Rimerman + Co. LLP research piece about the emergence of craft beer as a force in the U.S. beverage alcohol market, viewed from our perspective as wine industry advisors. In this comprehensive report on the craft beer industry, we examine the parallels and key differences between craft beer and wine and also highlight areas where the two can learn from each other.

November 2013

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HIGHLIGHTS

Craft beer has grown dramatically over the past ten years. Not only has it become a cultural phenomenon and direct category competitor to wine, but at **\$12 billion** in retail sales, it is also now **the same size as the ultra-premium (\$14+/bottle) wine market**. In this report, we survey the craft beer industry, examine the factors driving its growth and discuss the parallels and key differences between craft beer and wine. Highlights from the report include:

- **Key factors contributing to craft beer's growth** include shifting demographics (the rise of the Millennials), consumers' desire for quality, diversity and authenticity as well as unprecedented innovation in brewing, marketing and packaging.
- Traditional domestic lager brands such as Budweiser are experiencing **massive volume declines**, creating opportunities for craft beer (and wine) to increase market share as consumers seek more flavorful alternatives.
- Beer is at least 15 years behind wine in "premiumization." Given the immense size of the total U.S. beer market (\$100 billion retail sales), **there is room for tremendous growth in craft beer and wine if they can continue converting light lager consumers to more flavorful beer and wine.**
- The craft beer market in the U.S. should at least double in size from current levels since we believe it is still early days in beer's "premiumization" cycle.
- A number of factors combine to create an **industry dynamic that is quite favorable to craft breweries**, allowing them to effectively compete against the Big Two (Anheuser-Busch InBev and MillerCoors LLC).
- However, we also expect the Big Two to significantly expand the volume and variety of their "crafty" beer offerings.
- If the wine industry is any indication, we believe there is substantial room for growth in the number of craft breweries and SKUs.
- Craft brewers have many more packaging options than wine producers, giving them greater flexibility in how they position and price their products.

We also offer some food for thought with questions such as:

- Given growing retail shelf space, **will craft beer be merchandised more like wine** in the future? Will there be opportunities for craft brewers to sell direct to consumers, beyond the brewpub?
- Will hops become "**de-commodified**" like grapes have for the wine industry? Will contract brewing become more accepted and prevalent in the craft beer community as custom crush is in the wine industry?

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INTRODUCTION

The scene: January 30th, 2013 in a massive ballroom at the Unified Wine & Grape Symposium in Sacramento. The speaker, David Gill from *Wine Metrics*, says:

“We have to partner with the restaurants to help them sell more wine, because if we don’t help them sell more wine, we’ll help them sell more of *this...*”

He points to a four foot tall image of a bottle of ‘*Bourbon County*’ Stout by Goose Island.

Twenty minutes later in his keynote address, Jon Fredrikson from *Gomberg Fredrikson & Associates* notes that:

“There’s a group of people who cross over from one beverage type to another, and don’t really think about it. It presents a real competitive area to think about in terms of wine... Now the latest is beer hybrids - beer and wine... Something called Noble Rot from Dogfish Head. Beer with Viognier and Pinot Gris infected with botrytis!”

Laughter rises from the audience of winery owners and grape growers, but for some, the laughter has a nervous ring.



It’s not hard to see why. Clocking in at \$25 for a four-pack, 15% ABV and demand far outstripping supply, *Bourbon County Stout* is competing squarely in what has traditionally been wine’s turf. But it’s not just the *Bourbon County*’s and *Noble Rot*s that are competing with wine. The craft beer segment has experienced double digit annual growth for the past seven years.

By our estimates, craft beer is now a \$12 billion retail market in the U.S., roughly the same size as the U.S. ultra-premium (\$14+/bottle) wine market.¹ The \$35 billion overall U.S. wine market is bigger, but competition between the two is increasing, particularly for highly-coveted Millennial consumers. Gill continues:

“Everyone’s saying the Millennials are in the bag for the wine business, but they’re not. And the reason they’re not is because they have things like *Bourbon County* and they have mixologists... We’re competing very heavily with the craft beer and spirits business... I can tell you they’re

aggressive marketers and they’re not going to let us eat their lunch. In fact I think craft beer is eating some of ours.”

Despite growing competition, it is our belief that craft beer and wine will both thrive in the coming decade and both will take market share from the large domestic lager brands. Although they are fundamentally different in important ways, we also believe craft brewers can learn from the experience of the wine industry, and in turn, wineries can learn from the dynamic changes taking place in the beer industry, craft beer in particular.

This report provides an overview of the craft beer market and examines parallels and key differences between craft beer and wine. The report examines craft beer and wine across the following six dimensions:

1. Industry Growth Phases
2. Market Structure and Dynamics
3. Product, Merchandising and Marketing
4. Packaging
5. Distribution
6. Production and Raw Ingredients

At the end of the day, craft beer and wine are both in the flavor business, and that business is growing. The more craft breweries and wineries can learn from each other’s experiences, the better they both will be.

As experienced advisors to the wine industry with an emerging practice in craft beer, we hope to bring new perspectives to both craft breweries and wineries with this report.

It is our belief that craft beer and wine will both thrive in the coming decade... At the end of the day, craft beer and wine are both in the flavor business, and that business is growing.



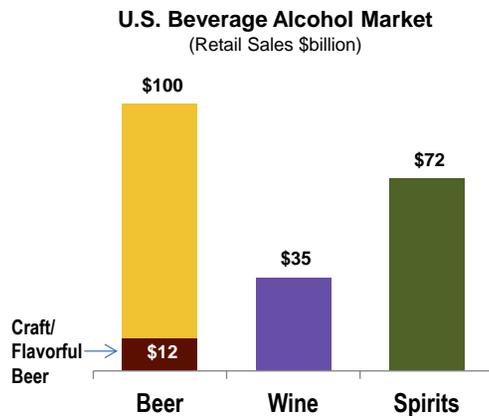
CRAFT BEER MARKET OVERVIEW

Many wine industry participants forget how massive the overall beer market is. At nearly \$100 billion in retail sales, the U.S. beer market is almost as large as wine and spirits combined. For every single glass of ultra-premium wine (\$14+/bottle) consumed, *twenty-eight* 12oz beers are downed, giving truth to the old saying, “It takes a lot of beer to make great wine.”

Overall beer production has remained flat over the past decade, but dynamic changes have been taking place below the surface. Craft beer, as defined by the Brewers Association (BA) (see side bar on page five), makes up a relatively small portion of the overall U.S. beer market at \$10.2 billion, but is the fastest growing segment of the beer industry, after more than doubling in the past five years.

Adding other flavorful “crafty” beers (see side bar discussion on page seven) such as Blue Moon and Shock-Top that don’t meet the Brewers Association’s definition but are craft-like in their flavor profiles, the total market for craft beer is even larger, estimated at \$12 billion at retail. **The market for “flavorful” beer is significant and is experiencing tremendous growth.** At about a third of the size of the overall wine market, it is a major force in the premium alcohol industry.

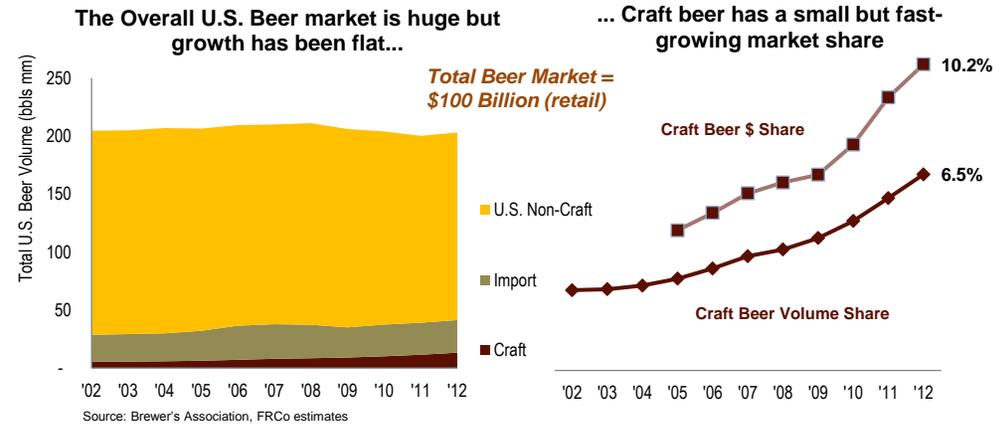
What is driving this growth? We believe the emergence of craft beer is consistent with a broader theme we see in the ‘premiumization’ of almost every nondurable consumer product category.



Sources: US Beverage Alcohol Trends (WSWA), FRCo estimates

From high-end coffee (Starbucks, Stumptown) to better fast food (Chipotle, Five Guys), consumers are demonstrating a willingness to pay more for higher quality products. Craft beer fits solidly within this larger trend, as does ultra-premium wine.

In fact, wine was one of the earliest categories to experience prolonged “premiumization” and



we believe craft beer can take lessons from wine’s experience of climbing up the quality and pricing ladder as well as the opportunities and challenges that arose.

Bain & Company identified this “Everything the same, but nicer” theme as one of their eight “Trillion Dollar Growth Trends to 2020.”² Several other trends are also helping to drive craft beer growth:

- **Demographics** – The 80 million members of the Millennial generation (teens and adults aged 33 and younger), the largest generation after the Baby Boomers, are increasingly attracted to craft beer for its exciting flavor profiles and approachable price points. Craft beer consumers tend to skew higher-income, young, white and male, although women, Asians and Hispanics have a growing affinity for craft beer.
- **Authentic & Local** – Consumers are increasingly attracted to authentic products with a true sense of place. Locally produced beers are increasingly popular in communities across the country and fit into the “Locavore” movement. “Local” is to craft beer as “terroir” is to wine and both industries effectively market products with a sense of “place.”

Consumers are demonstrating a willingness to pay more for higher quality products. Craft beer fits solidly within this larger trend, as does ultra-premium wine.

- **Innovation** – Unprecedented innovation in brewing is pushing the envelope in terms of both quality and variety. Innovation in marketing and packaging is also driving growth.
- **Experimentation** – More consumers are experimenting with new beer styles and brands. Traditional brand loyalty has given way to more ‘brand promiscuity’ especially among enthusiasts, to whom the craft segment has catered very well.

Craft beer’s market penetration is not uniform around the country. As

Top Ten Craft Markets in the U.S.

Market	Dollar Market Share of All Beer		
	CRAFT Beer	Specialty Beer*	CRAFT + SPECIALTY
1 Portland, OR	33.2	2.4	35.6
2 Seattle/Tacoma	29.2	3.3	32.5
3 San Francisco/Oakland	24.1	4.6	28.7
4 Sacramento, CA	18.3	5.1	23.4
5 Spokane, WA	17.6	3.6	21.2
6 Baltimore/Washington	16.5	4.3	20.8
7 San Diego, CA	16.7	4.1	20.8
8 Grand Rapids, MI	12.5	5.4	17.9
9 Columbus, OH	12.4	4.5	16.9
10 St. Louis, MO	11.4	3.2	14.6

Source: Symphony IRI Group, data 52 Weeks Ending Jan 1, 2012.
 Craft and Specialty beer %market share of all beer sold in each metro market.
 * 29 Domestic Specialty Brands include A-B Seasonal, Landshark Lager, Redbridge, Shock Top Brands, Wild Blue, Yuengling Lord, Chestertfield Ale, Yuengling Porter, Blue Moon Brands, Colorado Native Lager, Leinenkugel Brands and McSorleys Brands

noted in the table to the left from the *SymphonyIRI Group*, markets in the Pacific Northwest and California as well as certain markets in the Midwest over-index to craft beer while the South and some East Coast markets under-index to craft beer (including big beer markets such as Texas and Florida). Even in markets such as Portland where “flavorful” beer has over a 35% market share, there are no signs of saturation as demand continues to steadily grow.

Far and away the most popular beer style in America (and the world) is light lager. Bud Light is the largest single brand, with nearly 20% market share (volume), *over 3x the entire craft beer category*. But all is not well with the mega lager brands. **Budweiser and 9 other major brands such as Miller Genuine Draft, Milwaukee’s Best and Michelob have collectively seen sales decline by over 14 million barrels from 2006-2012, nearly as much as the entire craft beer category.**³ New products such as Bud Light Platinum and Bud Light Lime have helped stem some of these losses, but craft beer offers a more flavorful counterpoint to light lager’s market dominance, which is a key reason why it is gaining market share.

Craft beer comes in a number of different styles. It is telling that the most popular craft beer category is the catch-all “seasonal” category which includes a variety of styles that brewers release at different

WHAT IS CRAFT BEER?

According to the official Brewer’s Association definition, an American craft brewer is:

Small: Annual production of 6 million barrels of beer or less. Beer production is attributed to a brewer according to the rules of alternating proprietorships. Flavored malt beverages are not considered beer for purposes of this definition.

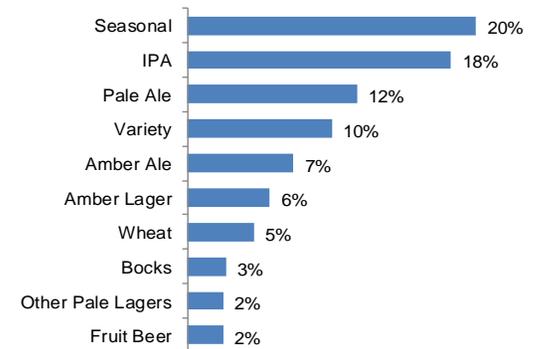
Independent: Less than 25% of the craft brewery is owned or controlled (or equivalent economic interest) by an alcoholic beverage industry member who is not themselves a craft brewer.

Traditional: A brewer who has either an all malt flagship (the beer which represents the greatest volume among that brewers brands) or has at least 50% of its volume in either all malt beers or in beers which use adjuncts to enhance rather than lighten flavor.

In addition to beers that meet the official BA definition, there are an increasing number of beers made by large beer companies with “craft-like” flavor profiles (“crafty”) beers.

times of the year. The largest single category is India Pale Ale (IPA), a hoppy style that west coast brewers such as Lagunitas and Stone helped popularize and turn into a juggernaut. Indeed, the “West Coast” IPA style is increasingly emulated by brewers across the world. IPAs were once thought to be too hoppy for the mainstream American palate, but they overtook less intense styles in recent years. Wheat beers such as Blue Moon and Shock Top are considered by some to be “gateway” beers - light-bodied beers that offer more flavor than light lagers and act as stepping stones to more intense styles.

Top Craft Beer Styles



Source: Symphony IRI 52 weeks ending 12/31/12

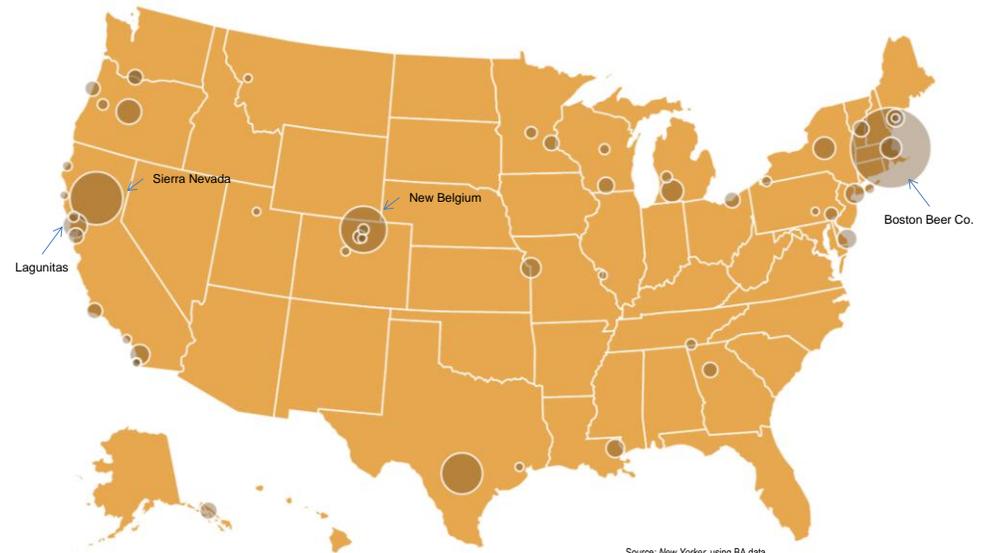
CRAFT BEER AND WINE AT A CROSSROADS

In contrast to the U.S. wine industry where over 90% of production takes place in California, craft brewers are geographically spread out, as illustrated in the map on the right and the table below.

Further, although there are now over 2,400 craft brewers (and more than 1,000 more currently in planning or development), which is up from less than 300 in 1990, most of the volume growth in craft beer came from fewer than 100 larger “Regional” craft brewers (defined by BA as craft brewers producing over 15,000 barrels annually), as illustrated by the graphs below. We will delve further into this market fragmentation in the ‘Market Structure and Dynamics’ section of this report. Large brewers took notice to the growth in the craft category and entered the marketplace in a big way. The “Big Two” U.S. brewers, Anheuser-Busch InBev and MillerCoors (the U.S. joint venture between SAB Miller and MolsonCoors) have introduced their own flavorful, “crafty” beers such as Shock Top and Blue Moon. They also demonstrated an interest in acquiring craft brewers, as evidenced by A-B InBev’s 2011 acquisition of Goose

Fifty Largest Craft Brewers by Location

(Bubble size corresponds to barrels produced in 2012)



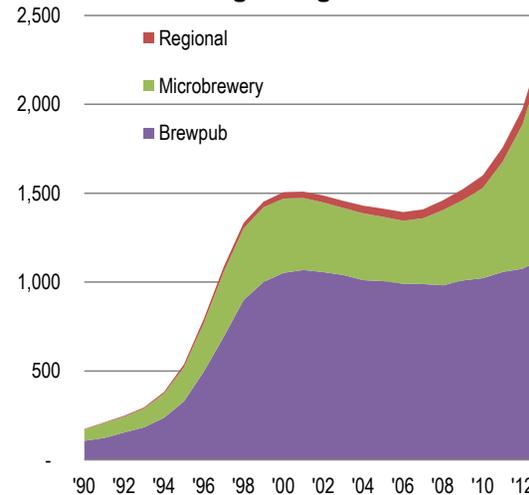
Source: New Yorker, using BA data
For full interactive map visit <http://www.newyorker.com/sandbox/business/beer.html>

Top 20 Craft Breweries

Brewery	'12 Volume (bbbls)
1 Boston Beer Co.	2,125,000
2 Sierra Nevada Brew ing Co.	966,007
3 New Belgium Brew ing Co.	764,741
4 Gambrinus	605,896
5 Deschutes Brew ery	255,093
6 Lagunitas Brew ing Co.	244,420
7 Bell's Brew ery, Inc.	216,316
8 Matt Brew ing Co.	207,900
9 Harpoon Brew ery	193,000
10 Stone Brew ing Co.	177,199
11 Brooklyn Brew ery	176,000
12 Boulevard Brew ing Co.	173,793
13 Dogfish Head Craft Brew ery	172,504
14 Abita Brew ing Co.	151,000
15 Shipyard Brew ing Co.	140,000
16 Alaskan Brew ing Co.	139,930
17 New Glarus Brew ing Co.	126,727
18 Long Trail Brew ing Co.	120,000
19 Great Lakes Brew ing Co.	119,624
20 Firestone Walker Brew ing Co.	118,564

Source: Brewer's Association

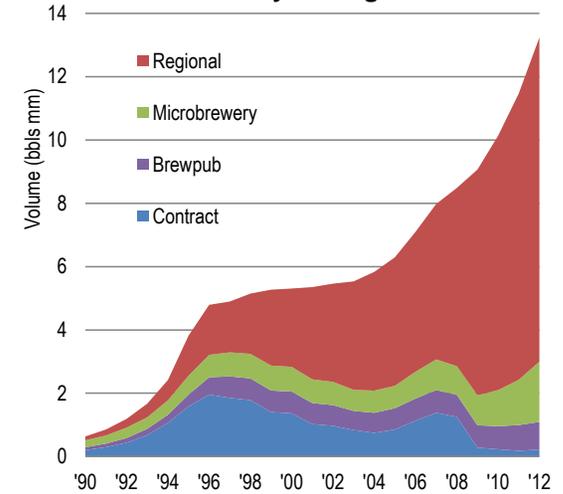
The number of craft breweries is growing...



Source: Brewer's Association

* 'Regional' craft brewery defined as all malt-brewers with production between 15k and 6mm bbl/year

... but craft volume and growth is dominated by the regionals



Island, the maker of *Bourbon County Stout*. MillerCoors set up a separate division called “Tenth and Blake” to house its craft and import brands including Blue Moon, Leinenkugel’s and Crispin Cider.

In the following sections, we examine the craft beer industry in greater detail, through the lens of our experience in the wine industry.



CRAFT vs “CRAFTY”

Much has been written about the “craft” vs. “crafty” debate. Some craft brewers take umbrage to the fact that the “Big Two” beer companies MillerCoors (Blue Moon, Leinenkugel’s) and A-B InBev (Shock Top, Land Shark and brands owned through Craft Brew Alliance, of which ABI owns 32%) are marketing flavorful beers but not indicating who owns or makes them on the labels.

It is understandable that craft brewers want to differentiate themselves from the mega brewers, but in some ways the Brewers Association’s definition of “craft brewer” is an artificial construct. Note that BA changed the threshold of “small” brewer from 2 million to 6 million barrels in 2010, partially to accommodate Boston Beer Co.’s tremendous growth.

Do consumers care whether Blue Moon is made by MillerCoors or Shock Top is made by A-B InBev? Some consumers and craft enthusiasts definitely do, but there are likely many more consumers who do not. Some craft brewers welcome the attention the Big Two put into the category and view their “crafty” products as “gateway” beers that opens consumers’ eyes to the great variety of flavorful craft beers that will ultimately benefit their higher-end niche products.

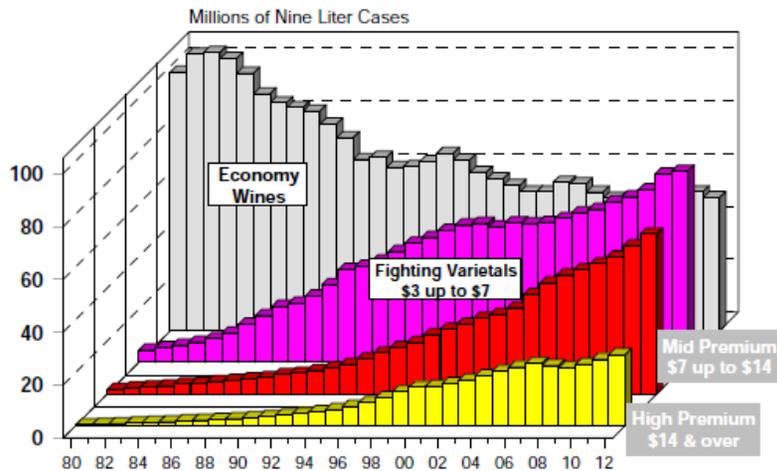
There are many ultra-premium wineries that are owned by large corporations, and many have proven capable of making excellent high-end wines. If the wine industry is any indication of where the beer industry is headed, the large brewers will make much more “crafty” (but good) beer in the future.

INDUSTRY GROWTH PHASES

SUMMARY

- Wine began experiencing a dramatic and sustained period of “premiumization” 15 years before beer and to a much greater extent. Wine over \$14/bottle now accounts for approximately one-third of all wine industry revenue.
- Since 1990, wine and craft beer grew substantially, but both have hit bumps in the road along the way.
- The number of wineries and craft breweries grew significantly over time, but wine saw an increase in the number of producers earlier than beer did, consistent with wine’s head-start in “premiumization.”
- Compared to the number of wineries, the number of craft breweries is still relatively modest, suggesting room for growth.

California Table Wine by Price Category



Source: Gomberg, Fredrikson & Associates. Note: expressed in equivalent 9-liter cases.

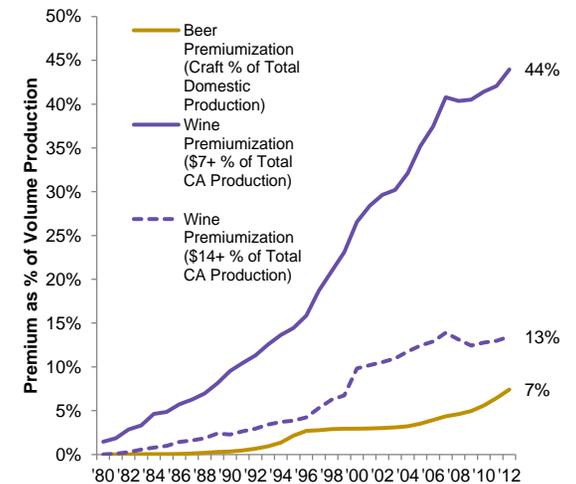
In 1980, over 90% of domestic⁴ wine production was below \$3 per bottle. Today, these “economy” wines account for less than 20% of production and only 7% of sales revenue.

The wine industry began its dramatic shift to premium offerings in the early 1980s with the emergence of the ‘Fighting Varietals’ in the \$3-\$7/bottle range. Higher-end wines over \$7/bottle began their sustained upward march in the early 1990s. Today, premium wines over \$7/bottle account for 44% of volume and **70% of sales revenue** and ultra-premium wines over \$14/bottle account for 13% of volume and **nearly a third of sales revenue**.

The chart on the right illustrates this dramatic sea change towards premium production in the wine industry.

Compared to wine, the beer industry is less geared toward premium offerings when measured as craft beer’s percentage of total domestic beer production,⁵ but keep in mind that the overall beer market is nearly three times the size of the wine market. Nonetheless, one can see that the “premiumization” trend in beer started to take off in the early 1990s then flattened for the better part of a decade before taking off again in the mid-2000s.

“Premiumization” in Wine and Beer (premium production as % of total volume)



Sources: Brewers Association, Gomberg Fredrikson

Since 1990, ultra-premium wine and craft beer grew on similar long-term trajectories, but both hit bumps in the road along the way.

In the early 1990s, craft beer went through tremendous growth but stalled between 1995 and the early 2000s as problems with beer quality damaged consumer perceptions. Hundreds of “me too” brands entered the market looking to cash in on the microbrew craze but didn’t have the quality or marketing chops to survive. This created a hangover that kept overall craft beer production relatively flat for seven

CRAFT BEER AND WINE AT A CROSSROADS

years. However, many of the most prominent regional craft brewers today continued growing strongly during this period.

Ultra-premium (\$14+/bottle) wine revenues grew at a 17% compound annual rate from 1990-2007 but were significantly affected by the financial crisis and recession. Ultra-premium wine revenues (at the producer level)⁶ didn't fully recover until 2011. However, wine priced from \$7-\$14/bottle continued to grow through the recession.

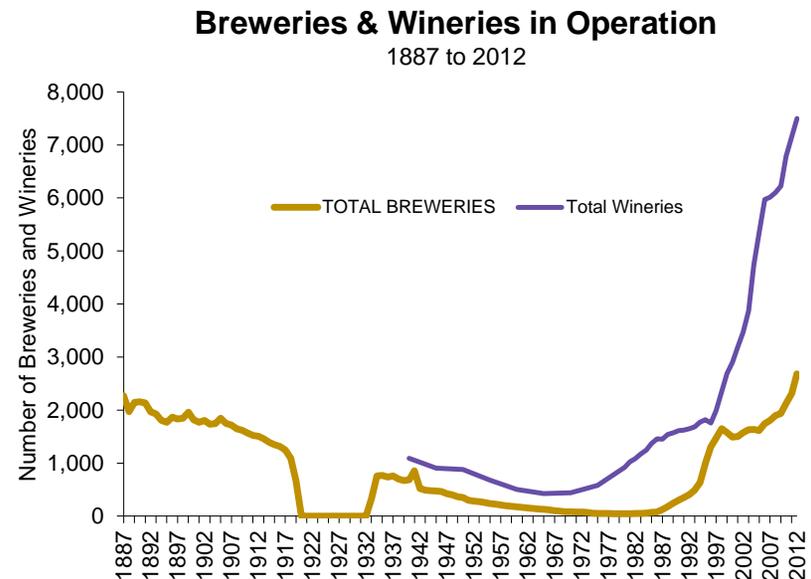
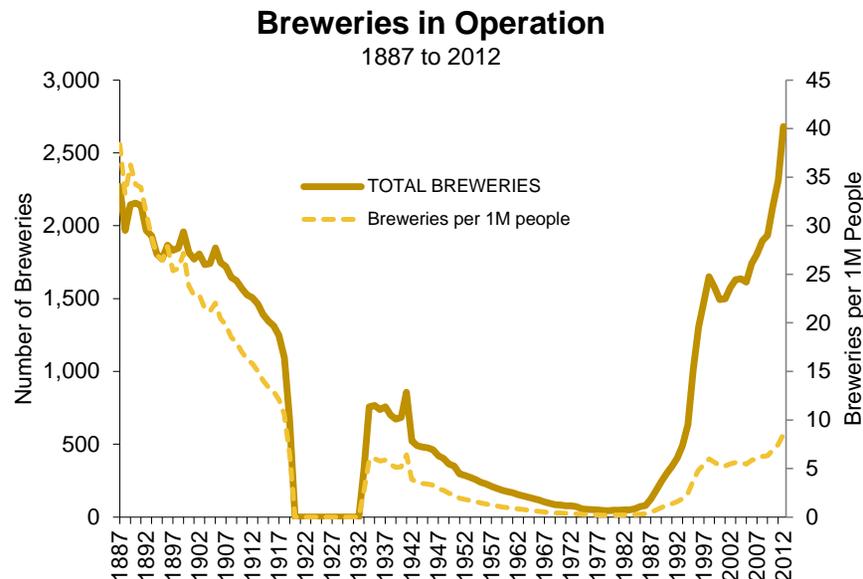
From 2004-2012 craft beer volumes grew at an 11% compound annual rate and barely experienced a hiccup from the 2008-2010 recession. These growth trends can also be seen in the number of wineries and craft breweries over time.

There once were thousands of breweries in the United States. In 2011, the number of breweries in the U.S. finally exceeded the number that were in place in **1887**, but adjusting for the growth of the population, there are far fewer breweries per one million people today (nine) than there were 125 years ago (38).

The brewing landscape shrank dramatically from 1887 to the 1970s. Of course, there was Prohibition from 1920-1933, but there was also a massive wave of consolidation so market share was concentrated among a small number of very large breweries such as Anheuser Busch, Miller, Coors, Schlitz and Falstaff (the last two having since disappeared from the market). It was a bleak period in the history of flavorful beer, with light lager completely dominating the marketplace.

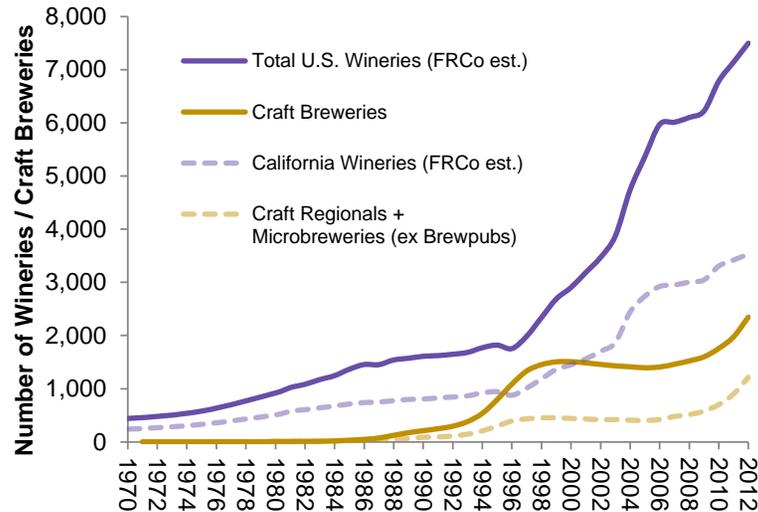
The wine industry (intentionally or not) began taking advantage of this flavor void and by the 1970s there was a steady stream of new entrants seeking to make fine wine in America.

The Paris Wine Tasting of 1976, or the "*Judgment of Paris*", proved to the world that California could make "quality" wine on the same level as France and the rest of the world. Pioneering wineries such as Robert Mondavi, Stags Leap Wine Cellars and Chateau Montelena put Napa Valley and the California fine wine industry on the map and created powerful and enduring brands.

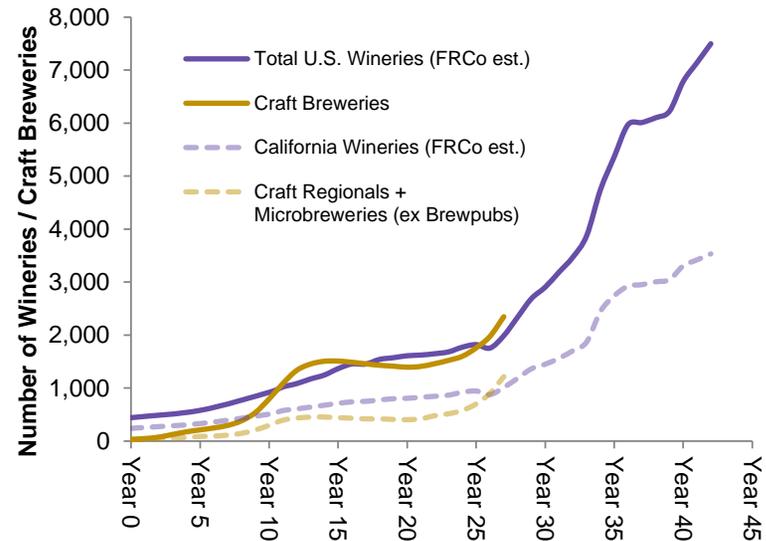


Sources: Brewers Almanac, Wine Institute, Wine Business Monthly, FRCo estimates

Number of Wineries & Craft Breweries in the U.S.



Number of Wineries & Craft Breweries, Time Shifted
 Year 0 = 1970 for Wineries
 Year 0 = 1985 for Craft Breweries



Sources: Brewers Almanac, Wine Institute, Wine Business Monthly, FRCo estimates

Although the number of wineries began growing steadily in the 1970s, the craft beer movement didn't start gaining pace until 1985, and really started increasing in the early to mid-1990s. Craft beer's problems in the late 1990s curtailed the growth in breweries until craft beer's second growth phase starting in 2004 and the number of new breweries began to accelerate.

The number of small wineries began to explode starting in the mid-1990s. The number of California wineries began to level off in the mid-2000s, but wineries in other states continue to increase.

If we shift back the craft beer line by 15 years so that craft beer and wine start growing at the same time, we can see the growth in wineries and craft breweries are quite similar. Given the more than 1,000 new craft breweries being planned, it appears the growth in craft breweries is on the same path that the wine industry has already worn.

California (and to a lesser extent Washington and Oregon), dominate domestic wine production at every price segment. Many of the small wineries outside California, Washington and Oregon cater primarily to local clientele. In a sense, they are akin to Brewpubs. When we strip out Brewpubs from the number of craft breweries (leaving microbreweries and regional craft breweries), this number is very similar to the number of California wineries.

If the evolution of wine is any indicator for where the beer industry is headed, premium "flavorful" beers (including craft and "crafty") could command a much greater share of the beer market than they do today.

Beer has a long way to go before it is as 'premiumized' as wine, but will it ever be to the extent wine is? Maybe not, simply because the beer market is so much larger than wine (beer is 3.6x bigger than wine measured by servings⁷) and there may be a large number of light lager drinkers who never adopt craft beer. **However, given the immense size of the U.S. beer market, there is room for tremendous growth**

It appears the growth in craft breweries is on the same path that the wine industry has already worn.

in craft if it can continue converting the vast number of light lager consumers to more flavorful beer.

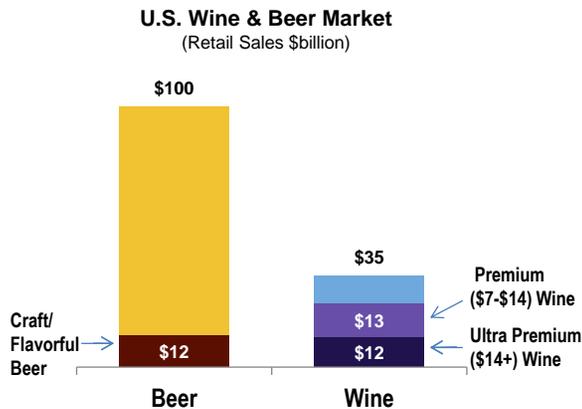
By our estimates, the craft beer market (including “crafty” offerings) is already the same size as the ultra-premium (\$14+/bottle) wine market in the U.S.

Over the long term, there is no reason why craft beer can’t become as big or bigger than the \$25 billion premium wine industry (\$7+/bottle), which will also continue to grow itself. This implies more than a doubling of the craft beer market from today’s levels. We believe this is conservative given the sheer size of the beer market and the potential to convert more beer drinkers to craft. Although craft/flavorful beers will probably not comprise 70% of total beer market revenues (at

least not anytime soon) like premium wine’s respective market share of total wine, there is potential for craft beer to grow larger than the overall wine industry.

Furthermore, large beer companies will focus more efforts and resources on the craft beer category since that is where the growth is in the beer market.

Wine producers should pay close attention to craft beer since it is targeting similar consumers and commanding a growing share of the premium alcohol market. Wineries should anticipate greater numbers of craft breweries in the future and a stronger effort by large beer companies to grow in the craft/flavorful beer market.



KEY TAKEAWAYS

- The craft beer market is roughly the same size as the ultra-premium (\$14+/bottle) wine market.
- Craft beer and premium wine have both experienced explosive growth in the number of producers and brands. The growth curve of breweries is on a parallel track running approximately 15 years behind wineries, potentially projecting continued significant growth for the next decade or longer.
- If the wine industry is any indication, there is room for continued growth in the number of craft breweries.
- The craft beer market in the U.S. should at least double in size from current levels since we believe it is still early days in beer’s “premiumization” cycle. Over the long term, there is no reason why craft beer can’t become as big as the premium wine industry, implying a doubling of the craft beer market from its size today.
- Wineries should view their competition broadly with a keen eye towards what is happening in craft beer. A similar ‘premiumization’ wave that the wine industry experienced is now taking hold in the beer industry with signs pointing to the trend gaining steam.



MARKET STRUCTURE AND DYNAMICS

SUMMARY

- The “Big Two” beer companies, A-B InBev and MillerCoors, dominate the U.S. beer market with over 80% combined market share, but they are both significantly under-indexed to craft beer.
- The U.S. beer market is changing, with major lager brands experiencing declines. This and other factors create a competitive dynamic that favors craft beer.
- The structure of the wine industry is more complicated and diverse than beer, despite being one-third the size.
- “SKU proliferation” is a hot topic in the beer industry, but beer has a long way to go before it approaches the level of SKU proliferation seen in the wine industry.

In order to understand the dynamics taking place in the beer market, we delve deeper into the structure of the U.S. beer market and then compare it to the structure of the U.S. wine market.

U.S. BEER MARKET

Who are the major players? What is the competitive landscape? In the following pages we present a series of “tree maps” that illustrate the market landscape of beer (and later wine). The charts represent the entire market, and the individual rectangles inside represent individual brands’ and/or breweries’ market share.

It is important to note that our data is limited to volume⁸, not *revenue* or *profit*. Premium brands may have relatively small volumes (and thus show as smaller rectangles), but their revenue (and in many cases, profit) is disproportionately greater. This is especially important to keep in mind when looking at the wine market tree map.

The first tree map on the following page represents the entire U.S. beer market by brand, grouped by corporate ownership (if applicable). We make the following observations:

- A-B InBev and MillerCoors are **huge**. Together they control over 80% of the beer market by volume. A-B InBev’s market share is approximately 49% while MillerCoors’ is 32%.
- The *vast majority* of the Big Two’s production is domestic lager. The biggest four brands - Bud Light, Budweiser, Coors Light and Miller Lite - together comprise over 44% of the overall market by volume.
- The Big Two are also *significantly* under-indexed to craft beer. Although craft (including ‘crafty’) beer accounts for about 8.3% of total beer volume, ‘crafty’ beer is only 2.3% of A-B InBev’s portfolio (including Craft Brew Alliance brands, in which it owns a minority stake) and only 3.3% of MillerCoors’ portfolio.
- Most of the large import brands are also lagers, with the exception of Guinness and Newcastle.
- Crown Imports, the importer of Corona and other Mexican beers, and now controlled by Constellation Brands, is a powerful force in the market and is nearly as large as all craft breweries combined.

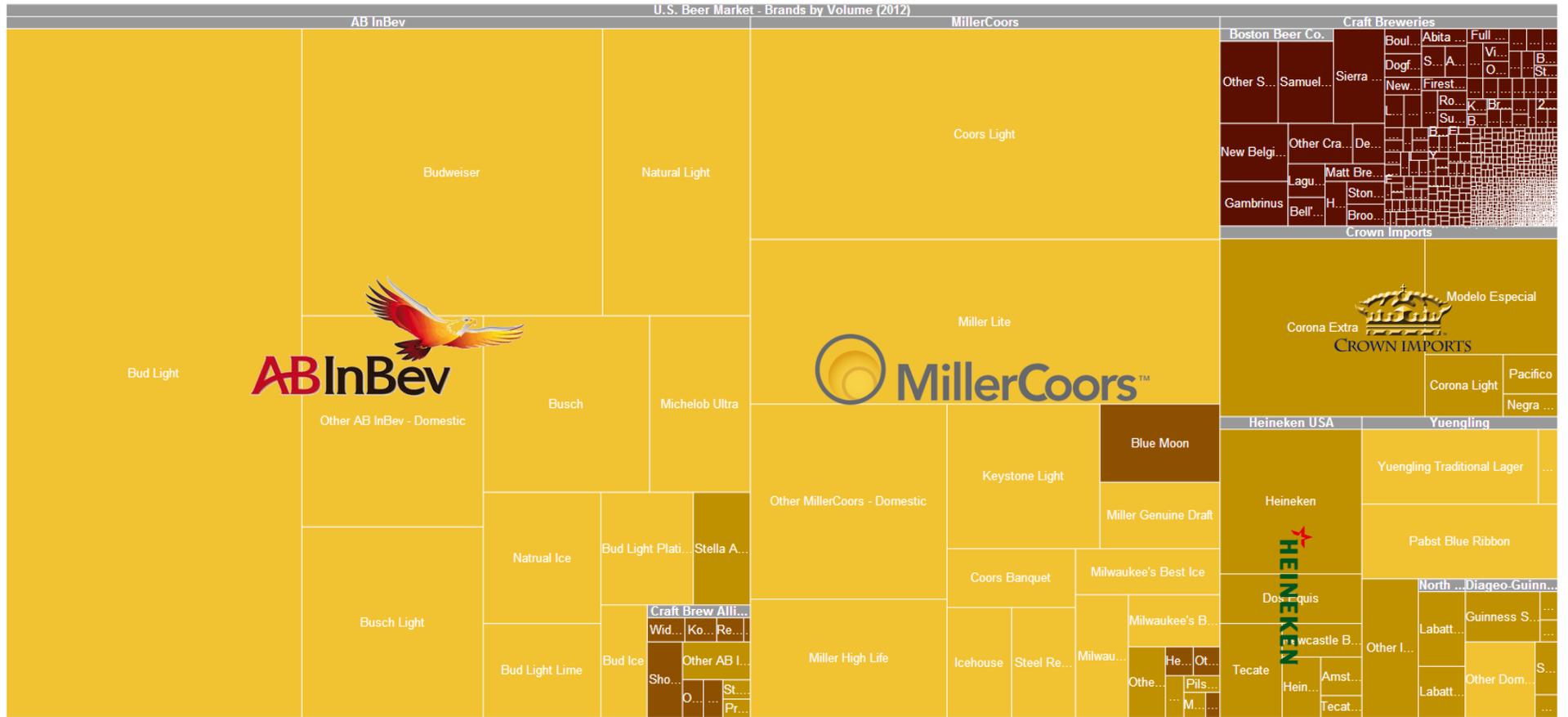
The market is changing. Recall that Budweiser and nine other major brands such as Miller Genuine Draft, Milwaukee’s Best and Michelob saw sales volume decline by over 14 million barrels in 2006-2012. The boxes in the tree map are moving as the market has changed over time. The big yellow boxes are shrinking and the Big Two need to find ways to fill that open space.

A number of factors come together to create an industry dynamic that is quite favorable to craft breweries and allows them to effectively compete against the large beer companies.

Meanwhile, the hundreds of small brown boxes representing craft brewers are multiplying and growing.

A number of factors are coming together to create an industry dynamic that is quite favorable to craft breweries and allows them to effectively compete against the large beer companies.

U.S. Beer Market – Brands by Volume (2012)



Sources: U.S. Beverage Alcohol Trends (WSWA), Brewers Association, Brewer's Almanac, Company reports, FRCO estimates

Domestic Lagers
 Imports
 'Crafty' beers
 Craft beers (BA definition)

1. Marketing paradigm shift – Large domestic lager brands like Bud Light rely on heavy marketing budgets and sponsorships to maintain sales and market share. A significant portion of the price you pay for these beers goes towards advertising, sports sponsorships (e.g. the NFL) and other marketing. Despite inspiring some of the greatest advertising ever (Budweiser Frogs, “Tastes Great Less Filling”, Spuds McKenzie, “Whasssup!”, etc.), the large lager brands are pumping billions of dollars into marketing to prop up sales, and one gets the

sense that if they didn't, these brands might collapse under their own weight.

Craft beer has changed the game. Craft has a fundamentally different

The big yellow boxes are shrinking... Meanwhile, the hundreds of small brown boxes representing craft brewers are multiplying and growing.

Craft beer has changed the game. Craft has a fundamentally different sales proposition than the mega lager brands.

sales proposition than the mega lager brands. The quality/taste, authenticity and variety that craft beers offer allow them to compete with the mega lager brands on a different plane. In a sense, craft beers are successful

because they *don't* market in the same way the large beer companies do. In this way craft beer is also more like wine than the mega lagers. Successful craft breweries have created strong brands with staying power and genuine demand "pull."

2. Craft beer is price competitive with major lager brands – After InBev's acquisition of Anheuser-Busch in 2008, the big brewers began increasing prices of many of their domestic lager offerings. This boosted their bottom lines and helped offset the effects of decreasing volume, but it also brought the price points of "premium" domestic lagers like Budweiser and Bud Light closer to the price points of popular craft beers. For example, the price of a six-pack of Bud Light is \$6.99 vs. \$8.99 for Lagunitas IPA.

For a relatively modest premium, in most cases craft beer delivers a substantially better product. From a "flavor for the dollar" perspective, craft beer is a good value, a major reason why craft beer will remain highly competitive.

3. The "too big to move the needle" dilemma – The Big Two have very large lager brands that are shrinking fast, so they need products that will *quickly scale up* to replace lost sales. Enter line extensions like Bud Light Platinum and Bud Light Lime. However, many of these line extensions have proven to be short-lived brands and tend to fade away after brief periods of popularity (e.g., Budweiser Select, Miller Chill, Bud Light Golden Wheat⁹).

The Big Two are also significantly under-indexed to craft. Since craft is where the U.S. market is growing, we expect to see the Big Two seek to acquire craft brewers (if they can find ones who will sell to them) and/or create new "crafty" brands. But the Big Two have a dilemma.

They are so big, even the largest craft brewers (with a few exceptions) would barely "move the needle" for their sales, at least in the short term. A-B InBev has greater short-term "move the needle" opportunities growing Stella Artois (including Stella Cidre).

A-B InBev and SAB Miller are also focused on growth in emerging markets. The end-game for A-B InBev and SAB Miller may be to eventually merge (though antitrust authorities likely won't allow them to merge their US operations), creating a global brewing colossus.¹⁰ But that would likely do little to change the competitive dynamics that allowed craft breweries to thrive in their profitable and growing niche.

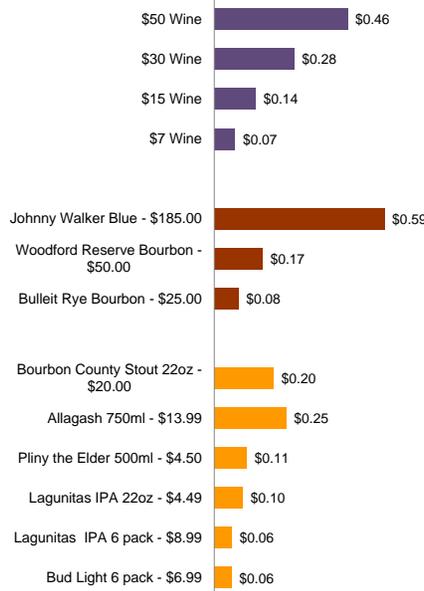
That said, the Big Two will not ignore the craft segment. There will be a significant expansion in volume and variety of "crafty" beers introduced by the Big Two. "Crafty" beers will likely become even more prevalent, much like in the wine industry, which has been "crafty" in its own right for the past several decades with the industry giants developing or acquiring smaller, premium brands without the consumer being the wiser (or caring).

We believe craft breweries will continue to effectively compete with the major beer companies. Although they don't have the production scale, marketing or distribution power, they have authenticity in their DNA, which is very appealing to consumers (especially Millennials).

Due to their leading market positions and broad brand recognition, the largest "regional" craft brewers (those producing over 15,000 barrels annually) and the Big Two's "crafty" brands will

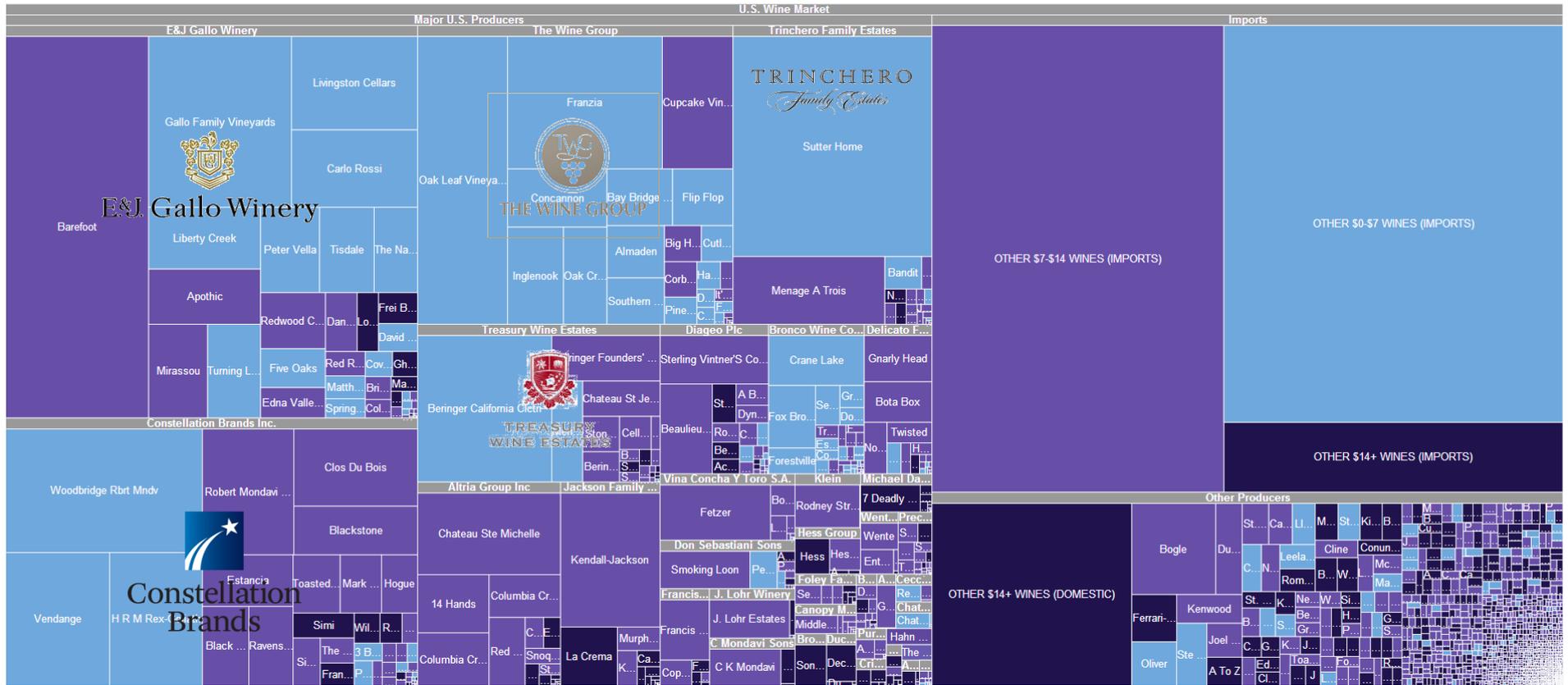
likely generate much of the overall volume growth for the craft segment in the future. However, microbreweries (craft breweries under 15,000 barrels annual production) are also growing significantly and some will graduate to 'regional' status.

Price per mL of Alcohol



The Big Two are so big, even the largest craft brewers (with a few exceptions) would barely "move the needle" for their sales, at least in the short term.

U.S. Wine Market – Brands/Producers by Volume (2012)



Sources: FRCo estimates, IRI, Gomberg-Fredrikson

See the appendix for additional tree maps of the U.S. Beer market, including detail on the Craft + ‘Crafty’ segment and Craft Breweries by Year Founded.

U.S. WINE MARKET

Turning to wine, the second tree map (above) represents the entire U.S. wine market by brand, grouped by corporate ownership (if applicable).

We make the following observations:

- The wine market is much more fragmented than the beer market, especially for individual brands. The largest brand in the wine market today is Barefoot (which is just barely over the \$7/bottle premium threshold), and it has about a 5% share of the market by volume, according to FR+Co. estimates.
- However, there is still a great concentration of volume in the hands of a small number of companies, just not to the extreme

that beer is concentrated in two large producers. E&J Gallo, Constellation Brands, The Wine Group, Trinchero Family Estates, Treasury Wine Estates and other large wine companies hold a significant share of the market.

- Keep in mind that this tree map is by volume. If it were by revenue, the dark color (\$14+ wines) would represent about one-third of the area. Furthermore, when you consider many high-end wineries sell a meaningful portion of their volume directly to consumers, at full retail price and margins, successful high-end wineries have a much greater share of the total profit pool than their volumes would indicate.
- As the pie chart below illustrates, wine is much more diverse than beer in terms of variety. Whereas lager dominates the beer market, the wine market is relatively diversified by variety.
- Wines priced over \$7/bottle are a significant part of the market by volume. As mentioned in the previous section, the wine market is much farther along than beer in “premiumization.”
- The major wine companies are relatively well diversified by brand and price point, with some interesting exceptions. The Wine Group’s portfolio is concentrated on lower-end economy wines while Jackson Family Wines and Altria (Chateau Ste. Michelle) focus squarely above \$7/bottle and also have significant \$14+/bottle offerings.
- Most of the ultra-premium (\$14+/bottle) volume is produced *outside* the major wine companies.

fewer companies? Or will the beer market look more like the wine market, with the larger independent breweries continuing their explosive growth and perhaps acquiring smaller competitors?

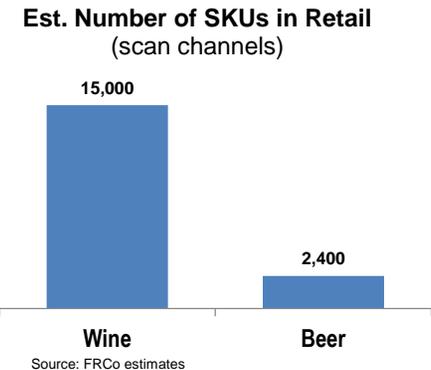
A WORD ON ‘SKU PROLIFERATION’

Conventional wisdom says that consumers become overwhelmed with a large number of choices; however, various third-party research claims this same variety appeals to some consumers’ desire for discovery (especially Millennials).

The proliferation of SKUs in the wine industry has increased along with the increase in wineries over the last decade. During this time of growth in the number of SKUs, overall wine consumption grew 30% in the United States. The continued introduction of new brands has not had a negative impact on consumer demand for wine. We expect the demand for craft beer will continue to grow, supporting the growth in breweries and craft and “crafty” beer SKUs.¹¹

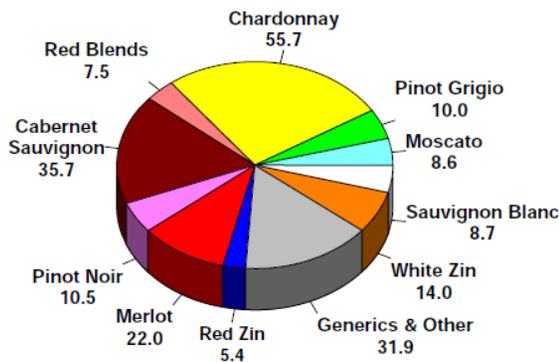
Will the wine market look more like beer in the future, or will the beer market look more like wine?

The number of beer SKUs is small compared to wine SKUs in retail. By FR+Co. estimates, there is six times as many wine SKUs as beer SKUs distributed in retail channels. Although this analysis does not count many beer SKUs in production, it also doesn’t count many thousands of wine SKUs that are only sold directly to consumers.



To date craft breweries have found ample opportunities to distribute their products. Retail shelf space dedicated to craft beer increased and the number of tap handles on premise has grown (along with the greater prevalence of “rotating” tap handles). However, this can’t continue unabated. SKU proliferation creates a strain in the distribution network. Many small wineries addressed this problem by focusing on direct to consumer sales.

Top Table Wine Varieties (California Producers)



See the appendix for an additional tree map of the U.S. wine market.

The wine market is more fragmented and complex than the beer market, but is that the natural order of things? Will the wine market look more like beer in the future, with more consolidation concentrating market share in the hands of

Traditional bottled table wine shipments to the U.S. market. *Includes sweet red, red varietal blends and red Meritage wines. Note: Includes about 35 million cases of imported bulk wines. Source: Estimated by Gombert, Fredrikson & Associates.

As the number of beer SKUs continue to increase, there may be greater pressure (as well as opportunities) for craft breweries to develop their own direct to consumer channels.¹² In many jurisdictions, laws regulating the sale of beer differ from wine and it is difficult to sell beer directly. However, there will likely be increasing pressure to change these regulations in the future, as they changed for the wine industry.

KEY TAKEAWAYS

- Despite having far less scale and limited marketing resources compared to the Big Two beer companies, the competitive dynamics for craft breweries are quite favorable.
- Although the Big Two (A-B InBev and MillerCoors) are more focused on “needle-moving” growth opportunities in the short term, we expect to see them introduce substantially more “crafty” beers, both in volume and variety.
- The beer industry is highly concentrated with the Big Two beer companies. Although the wine industry is also concentrated with a group of large companies, it is not nearly as concentrated as the beer market. Will the growth of craft beer make the beer market become more like wine, or vice-versa?
- Continued SKU proliferation will not necessarily result in the cannibalization of existing craft beer brands if the demand for flavorful beer continues to grow. However, competition for shelf space and tap handles will heat up, and more craft brewers may look to adopt direct to consumer strategies.

PRODUCT, MARKETING AND MERCHANDISING

SUMMARY

- The lines between craft beer and wine products are beginning to blur, with craft beer becoming more “wine like” in pricing, format and alcohol content.
- With short production cycles, craft brewers are able to experiment and provide creative new and “seasonal” products that resonate with consumers.
- Success is not just about making great wine or beer, it is about marketing and distribution as well.
- Today beer is merchandised differently from wine, but they may become more similar over time.

PRODUCT

The powerful wine critic Robert Parker from the *Wine Advocate* said this about beer:



“When I was in high school and college, I never really liked beer because it was so bloating.”¹³

Well, Robert Parker never tried *Pliny the Elder* from Russian River Brewing or *Speedway Stout* from Ale Smith. If he had fallen in love with craft beer as a young person instead of wine (as many Millennials are today), the course of two industries may have been quite different.

Wine has never had a direct category competitor before craft beer. In some cases the products themselves are starting to mirror each other as well. Take The Bruery’s *Bois* for example. Not only does it have

comparable alcohol content to wine at 15% ABV, it is sold in a 750mL bottle for \$32. *Bois* is at the extreme high end of what we see in craft beer pricing, but is evidence that some high-end beers have entered the rarified realm of “aspirational” products like fine wine and other luxury goods (a realm that we believe craft breweries should tread cautiously in).

Most Americans outside of California don’t live near vineyards. But chances are they do live near a brewery.

There are numerous examples of craft beer becoming more “wine-like” – from pricing, alcohol level, vintage dating and even beers designated “estate” grown or naming the specific sources of hops, barley and other ingredients. Hill Farmstead Brewery in Vermont has a single hop series that, much like grapes for single-vineyard wines, uses hops from one specific farm for certain beers. This is an approach that is very familiar to high-end wineries but relatively new to craft beer.

Craft beer has been very successful in encouraging consumers to experiment with different beers. Given beer’s much shorter production cycles, craft brewers are able to produce a range of products that encourage consumers to experiment, such as “seasonal” beers and even collaborative beers made by two or more breweries (something you never see in wine). Wineries have one shot a year at making their product, so there is much less room for error.

Wine production and labeling is also highly regulated by the government, with strict rules determining how wines may be labeled given the variety of grapes used and where they were grown. The rules governing beer labeling aren’t as restrictive¹⁴, which gives craft brewers freedom to be creative. However, rules such as those governing wine labeling also help protect consumers (e.g., by ensuring that a wine labeled “Napa Valley” actually (mostly) came from Napa Valley grapes). Wine consumers are generally conditioned to accept defined “types” of wine as a result, whereas beer has more blurry delineations.¹⁵



Both wine and craft beer make products with a “sense of place,” but with a slightly different meaning. High-end wines that are produced from a specific place refer to where the grapes were grown. This is the

classic (originally French) notion of *terroir*. In craft beer, the sense of place comes from where the product is literally made, absorbing its community and culture. For example, Boulevard Brewing Company is closely identified with Kansas City and has fiercely loyal fans in its hometown and abroad.

Most domestic wine production takes place in California because that's where the grapes are grown! But beer can be made virtually anywhere since the raw materials can be easily transported and are a smaller proportion of the cost of making beer. This contributes to craft beer's "local advantage." Most Americans outside of California don't live near vineyards. But chances are they do live near a brewery.

MARKETING

As the wine industry has evolved, success is no longer just about making good wine. Marketing and distribution are what ultimately determine success and failure. Good wine is just the price of admission. There are certainly many degrees of quality in wine, but as winemaking and grape growing techniques have improved over time,

there are very few "bad" wines in the market.

No other beverage has the potential to confuse or intimidate consumers like wine.

Similarly, we believe as the craft beer segment evolves and competition heats up, good beer will be the *ante*. The market will not tolerate sub-par beer. That said, as long as their flagship products are

consistently high-quality, craft breweries have significant leeway to experiment with new flavors and styles, and the occasional miss will usually be forgiven.

No other beverage has the potential to confuse or intimidate consumers like wine (especially fine wine). At its best, wine offers truly amazing, life-affirming experiences.¹⁶ But at its worst, wine can be infused with formality, snobbery and psycho-social¹⁷ barriers—in a word, "baggage."

There are risks to marketing craft beer too much like wine. As craft beer rises up the pricing and exclusivity ladder, we believe the industry should be careful because there is a point where "premiumization" and complexity can create baggage.

Good wine is just the price of admission.

As the variety of craft beer offerings continues to grow, one of the challenges the industry will face is how to educate consumers (especially new craft "converts"). The beer sections at grocery and retail shops can often resemble that of the wine section with a seemingly endless variety of options to choose from. The *Mintel Group* found that 45% of craft beer drinkers would try more craft beers if they knew more about them.

Many higher-end wines are "hand sold" by a waiter or sommelier¹⁸ in a restaurant or a knowledgeable salesperson in a retail store. They help the consumer choose a wine based on their preferences or the occasion. "Hand selling" will likely become increasingly important in craft beer as well. The wine industry educates the trade by spending time with them in the trenches (for example, winemakers spend a lot of time in the market visiting distributors and accounts). Craft breweries do this too, but the challenge for craft beer will be to educate the trade and consumers while avoiding the stuffiness and intimidation that sometimes accompany wine.



"CRAFT" WINE?

Wine doesn't have an official "craft" designation like beer, but it does have American Viticultural Areas ("AVAs") and regulations governing how wine can be labeled, which help to inform consumers. And of course France takes it to its logical extreme by actually classifying chateaux and vineyards by 'quality' (essentially a government-sanctioned seal of approval).

Anyone can say their wine is "hand crafted" or "artisanal." The "craft beer" definition doesn't have the weight of the law behind it like AVA rules do, but what's really different about wine's AVA regulations and BA's "craft beer" definition is its concern with independence and ownership. The wine AVA rules don't care if a Napa Valley wine is made by small winery or a large corporation, but that is the most important distinction in the official definition of "craft beer."

The “Beer Wall”

 Lagunitas

 AB-InBev brands

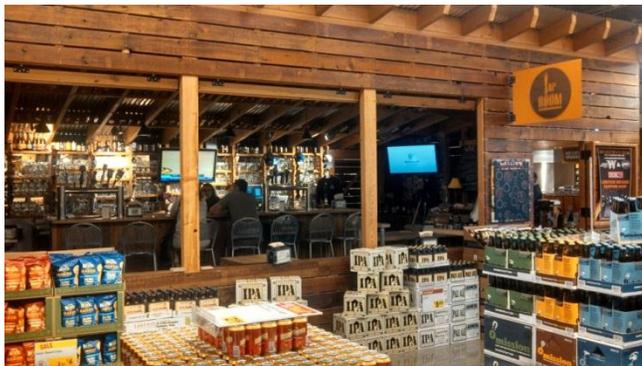


Petaluma Market, September 2013

MERCHANDISING

As it grew, craft beer enjoyed an expansion in its points of distribution. Shelf space dedicated to craft beer grew in many retail settings and many bars and restaurants increased the number of tap handles¹⁹ and bottles they serve. As the variety and selection of craft beers continues to grow, will it become merchandised more like wine? The popularity of craft beer in Sonoma County led Whole Foods to place a “Tap Room” in its Santa Rosa store (shown below left), in direct contrast to a wine bar in its Napa store.

The photo above shows the beer section at a typical independent grocery store in northern California. Impressively, about *two-thirds* of the shelf space is dedicated to craft beer (as well as some high-end imports and cider)! Mainstream domestic and imported lager brands are off to the right side in their own section.



The craft beers are grouped by format and *brand*, not by *region/variety* as you typically see in the wine section. As indicated by the green boxes, all of Lagunitas’ beers are presented together as a group, with one

grouping in the 12oz area and another grouping in the 22oz/750mL area. Also note that brands owned by A-B InBev are primarily on the right in the lager section, but several of their “crafty” offerings (Widmer, Goose Island, Shock Top and Kona) are also present in the left area.

As shelf space dedicated to craft beer expands, will this change? BevMo! has a huge craft beer selection (much bigger than the typical grocery store), and it groups beers by *region* and *style*, much like wine. In some Whole Foods Market stores, we have observed a “hybrid” approach where beers are primarily grouped by brand, but there may be small (typically unlabeled) style groupings such as stouts and saisons. As the prevalence of “hand selling” beer increases, will there be more pressure to group beers by style?

Larger craft breweries (like Lagunitas) will be loath to see their products no longer grouped together on retail shelves, but as competition for shelf space increases for smaller upstarts, the only way onto the retail shelf in the first place may be single facings. This will be an interesting area to watch.

Larger craft breweries will be loath to see their products no longer grouped together on retail shelves.

Furthermore, as the craft beer section expands, we expect to see the Big Two beer companies like A-B InBev infiltrate it to a much greater extent. At most grocery stores, brands owned by large companies such as Gallo and Constellation Brands can be found spread throughout the wine section, and like their “crafty” beer brethren, often provide no indication on the label of who owns it.

Of course, the ultimate sales channel for many smaller wineries is not in stores but direct to the consumer. Some of the most successful and profitable wineries like Kosta Browne and Kistler sell almost exclusively direct. Will some innovative craft brewers adopt this model in the future?

KEY TAKEAWAYS

- Wine has never had a direct category competitor like craft beer before, and the lines between craft beer and wine are increasingly blurring.
- Craft beer has done an excellent job engaging with consumers and encouraging experimentation.
- When emulating wine in product and marketing decisions, craft brewers should be careful to take the good but avoid the “baggage.”
- As retail space dedicated to craft beer grows along with the importance of “hand selling”, will beer be retailed more like wine is today?

PACKAGING

SUMMARY

- Brewers have flexibility with how they position their products through packaging. Wine effectively has only one format, the 750ml glass bottle.
- The evolution of craft beer as a special occasion beverage is also enhanced and assisted through packaging, namely larger single bottle formats.

For better or for worse, wine is wedded to the 750mL cork-closed bottle. This basic package has largely remained unchanged for over 150 years. In recent times, alternative packaging formats have largely failed to find lasting success, especially at higher price points. Even screw-cap closures have had trouble gaining mainstream traction, despite the fact that TCA and other cork-related defects affect as many as 5% or more of cork-closed bottles.²⁰ The hottest new on-premise packaging innovation in wine, the *keg*, is only about 100 years behind beer!

In the U.S. at least, wine consumers have been “trained” to expect “good” wine to come in 750mL bottles and to view wine in any other package with suspicion.

Alternative Packaging,
Premium Pricing



22 oz.
\$4.49



6 x 12 oz.
\$8.99

\$0.20 per oz. ➤ \$0.125 per oz.

The closest thing the beer industry has to wine’s 750mL bottle is the 6-pack. Consumers have been purchasing 6-packs of beer for decades, so they have easy reference points for comparing prices between brands. For a long time, there was a psychological barrier around \$10 for a 6-pack that was difficult for craft breweries to exceed. So how do you sell a 6-pack of beer for more than \$10? Easy, just sell a 4-pack for \$8. Or, even better, sell a 22oz bottle for \$6.

How can they get away with this? Jokes about beer drinkers unable to do math aside, consumers haven’t been trained to expect craft beer to come in a single format. They accept a variety of formats, from 4-packs to 22oz and 750mL bottles to 16oz cans, each suited to different uses and occasions. Unfortunately, wine simply doesn’t have this flexibility. The 750mL provides a cold, hard standard by which consumers easily compare pricing between wines.

How do you sell a 6-pack of beer for more than \$10? Easy, just sell a 4-pack for \$8.

Craft beer packaging continues to innovate with different shapes, materials and sizes. Bottles and cans of varying sizes fill the marketplace, allowing craft brewers to differentiate their brands and creatively position themselves in terms of pricing.

The fact that a craft brewery can sell the *same liquid* for 1.6x more in a 22oz bottle compared to a 6-pack makes the 22oz a very profitable format (especially when you consider that the 6-pack uses more packaging!). Another example of creative price-positioning is Russian River Brewing’s *Pliny the Elder*, which is sold in 500ml bottles, allowing them to price it similarly to slightly larger 22oz bottles while achieving a per-ounce premium.

The 22oz and 750mL formats also lend themselves to consumer experimentation and ‘brand promiscuity’ because they allow a consumer try a number of different beers without committing to the volume of a six pack. The larger formats also contribute to craft beer being consumed at a wider variety of occasions. Stereotypically, beer is considered to be a social beverage where small bottles or cans are consumed in a social environment such as at a bar, at parties or while watching sports.

The 22oz and 750mL formats also lend themselves to consumer experimentation and ‘brand promiscuity’ because they allow a consumer try a number of different beers without committing to the volume of a six pack.

Who is 'The Better Houseguest'?

A houseguest that brings a \$7 craft beer, or...



...a houseguest that brings a \$7 wine!



Much like wine, higher quality craft beers are also consumed frequently at meals and special occasions. Larger format bottles like bombers look “nice” like a wine bottle and are more conducive to these settings. In some circles, a high-end craft beer will be received more positively at a dinner party than an equivalently priced wine.

That said, craft brewers should be careful not to “train” customers to expect that high quality beer only comes in a 22oz/750ml format, as the wine industry has effectively done. Although it would probably serve the wine industry well to add more variety in packaging formats, it will be very difficult for the industry to “un ring” that bell.

KEY TAKEAWAYS

- Craft beer has cultivated a variety of formats that are well accepted by consumers. This gives craft brewers flexibility in how they position and price their products.
- Not only are they profitable formats, single-bottle 22oz and 750mL packages are also helping craft brewers break into more special occasions and encourage consumers to experiment.

DISTRIBUTION

SUMMARY

- Craft brewers encounter some of the same distribution issues faced by ultra-premium wineries, but there are many unique challenges as well.
- With beer generally being more perishable and less expensive than wine, efficient distribution can be challenging.
- The wine industry has a two decade head start on reworking the antiquated alcoholic beverage direct shipping laws.

Both beer and wine must navigate a complex three-tier distribution system to sell their products in retail and on-premise locations.

Generally speaking, beer is a more perishable product than wine, which can have a (very) long shelf life. Fresh beer requires timely product delivery and often involves refrigerated transportation and storage. Additionally, beer is relatively heavy due to its larger serving sizes (i.e., more water, less alcohol), making transportation costs high.

To address the transportation cost issue and to shorten the time from bottling to sale, some larger craft brewers are building additional facilities across the country to produce the beer closer to its consumers. For example, Lagunitas and Sierra Nevada from California are opening new breweries in Chicago and North Carolina, respectively. This will not only save them money on transportation costs, but it will potentially improve product quality for its consumers as well as potentially reach new, now local, markets.

Distributor consolidation has increased in the beer industry in recent years (as it has in wine & spirits), but wine and spirits distribution is much more concentrated than beer, and many small wineries have great

difficulty gaining effective distribution in the three tier system.

Beer distribution still relies on a relatively large number of regional distributors, with many being allied with A-B InBev or MillerCoors. Although A-B InBev in particular has put greater pressure on its distributors in recent years to focus exclusively on its products, the growth and profitability of craft beer has been hard for beer distributors to resist.

Some wine and spirits distributors are getting into craft beer as well. For example, Young’s Market and Wirtz Beverage recently began distributing several craft beer brands. The appeal to craft breweries of using a wine distributor like Young’s Market instead of traditional beer distributors is that they can cover larger regions. For example, Young’s Market can cover the entire state of California by itself, whereas beer distributors tend to focus on smaller areas such as Sacramento or the North Bay. An out of state brewery can work with a single distributor like Young’s instead of multiple beer distributors.²¹ Ironically, the very concentration in wine distribution that is so problematic for small wineries is actually a selling point to craft brewers!

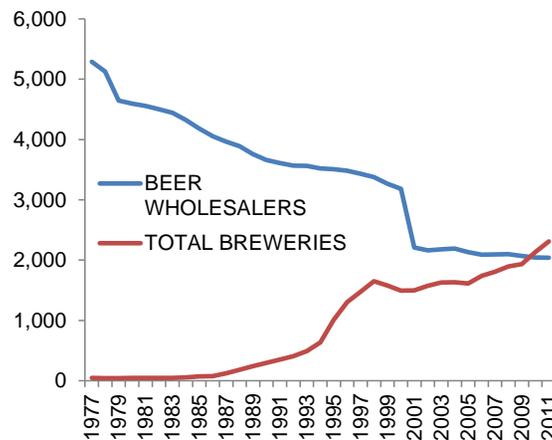
For many small boutique wineries, selling wine direct to consumers (“DTC”) is the lifeblood of their business. They receive full retail margin for their wine, which in most cases more than offsets high sales and marketing costs.

Breweries also often sell directly to consumers, through brewpubs. Although in a sense a brewpub is not “scalable” in the same way a wine club or wine sold online can be, a brewpub can be deeply engaged as a part of its local community.

DTC sales are typically much more profitable to the manufacturer than wholesale sales and are very important to small operations. There is potentially a significant opportunity for craft

Ironically, the very concentration in wine distribution that is so problematic for small wineries is actually a selling point to craft brewers.

Number of Beer Wholesalers & Breweries



Source: Brewers Almanac

The *Original* DTC channel



breweries to expand the reach of their DTC sales beyond the brewpub.

However, it is not without challenges. Shipping costs relative to product costs are very high, especially when compared to ultra-premium wine. Shipping a \$5 bottle of beer is always going to be a difficult proposition,

given the shipping cost versus the price of the product.²²

Further adding to the complexity of craft beer distribution is the dizzying array of state alcoholic beverage laws. Just as the wine industry has faced the challenge of lobbying to change laws in a majority of the states to better enable the direct shipping of wine to its consumers, the beer industry is faced with a similar challenge. In many states, the laws are different for beer and wine. Shipping beer

from a brewery to a consumer is currently illegal in most states. Much of the progress made over the past decades by the wine industry to open distribution of wines direct to consumers has not directly

Much of the progress made over the past decades by the wine industry to open distribution of wines direct to consumers has not directly benefitted the craft beer industry.

benefitted the craft beer industry. Recent changes to beer legislation in states such as Texas and Vermont are a positive sign for a craft beer industry that still has a long way to go in this area however.

There is much to be potentially learned by the craft beer industry from the wine industry, in particular the efforts made by the *Wine Institute* and the *Free the Grapes* organization, about how to open the DTC sales channel for craft beer.

KEY TAKEAWAYS

- Both wine and craft beer are facing a continued consolidation of distributors and need to continue to find ways for the distribution channel to be supportive of small producers.
- Wine and spirits distributors are beginning to distribute craft beer, opening up a wider statewide distribution network compared to small regional beer distributors.
- The craft beer industry has been given a potential road map by the wine industry of how to change the alcohol beverage shipping laws to enhance opportunities for additional commerce.

PRODUCTION AND RAW INGREDIENTS

SUMMARY

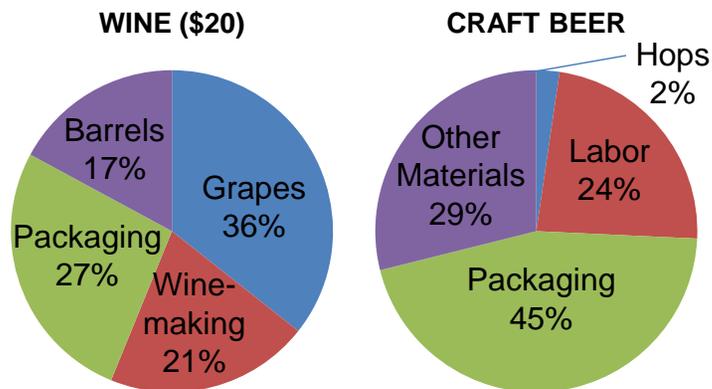
- Wine is fundamentally an agricultural product, and although it uses agricultural inputs, beer is fundamentally a manufactured product.
- Grapes and vineyards drive the economics of wine production and are the single largest cost component for many wines.
- Access to high-quality grape sources is crucially important to wineries, but many wine brands utilize “custom crush” arrangements to actually vinify their wines.

Wine is fundamentally an *agricultural* product. For wine, grape sourcing is of paramount importance, not just in the composition and quality of the end product, but in its supply, pricing, marketing and fundamental economics as well.

On the other hand, although it uses agricultural inputs, beer is fundamentally a *manufactured* product.

Grapes and vineyards drive the economics of wine production. Not only are they typically the single largest component of wine’s

Cost of Goods Breakdown



production cost, but they also are responsible for long production cycles that lead wineries to tie up large amounts of capital in inventory. Grapes are readily fermentable after harvest due to their high sugar content, allowing winemaking to skip several steps involved in the grain-based beermaking process. However, grapes are harvested only once a year and wine is usually aged, so typical production cycles last anywhere from 18-36 months. Contrast this to beer which can be produced in a matter of weeks.

Grapes and vineyards drive the economics of wine production...On a business level, access to high-quality grape sources is an important strategic advantage for wine producers and vineyard real estate serves as a strong store of value.

Grapes and vineyards also influence fundamental issues such as long-term production cycles, which are determined by how many vineyard acres are planted, where and when they are planted (new vineyards take four to five years to reach mature yields).

Although subject to the vagaries of agricultural risk, crop size and vintage variation, wine’s dependence on its singular ingredient is also what makes it special, especially at its highest expressions. High quality grapes can’t just grow *anywhere*. Part of the reason why the best wines can command very high prices (that beer can’t, at least yet) is because they come from specific *places* that consistently produce high quality.

Grapes are the *opposite* of a uniform commodity. A ton of Cabernet Sauvignon from Napa Valley may cost \$6,000 while a ton of Cabernet from the Central Valley may be \$600.

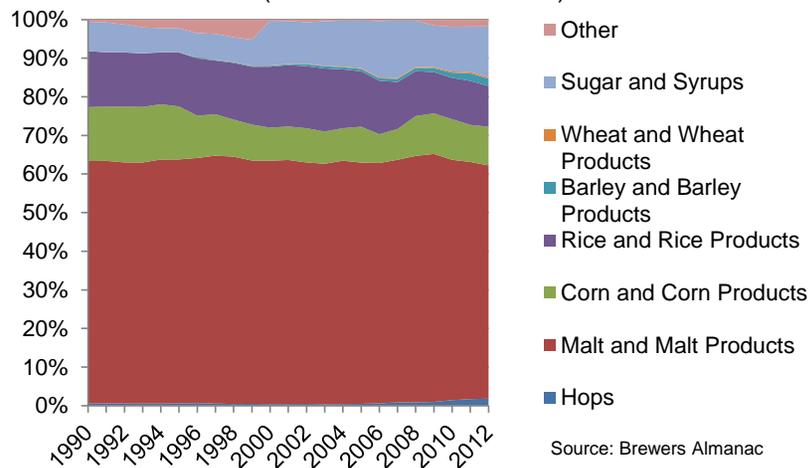
In some cases these *places* become brands in their own right. For example, official growing regions such as Napa Valley and Russian River Valley consistently produce top quality wines and garner premium prices, and top vineyards such as *ToKalon* in Napa Valley or *Gap’s Crown* in the Sonoma Coast have strong brand recognition. Supply from these unique places is finite, so when demand increases, so do prices.

On a business level, access to high-quality grape sources is an important strategic advantage for wine producers and vineyard real estate serves as a strong store of value.

From a wine industry perspective, it is therefore somewhat surprising that ingredients in beer such as hops, which is so important to the flavor and quality of the product, is a relatively small portion of its cost. Hops, barley and malt are still largely commodities, but there are small signs of “de-commodification” as some brewers are beginning to buy hops and grain directly from growers (in some cases at above-market prices) instead of through brokers and middle-men. Other breweries are even making “estate” beers from farm-designated hops. For example, recent newcomer Carneros Brewing Company will utilize estate-grown hops for roughly 30% of its total production in 2013.

The *Brewers Almanac* confirms the increased use of hops (and barley) over the past few years, likely in part due to growth of the craft beer segment and the increasing prevalence of hoppy beers.

Materials Used in Malt Beverage Production (by weight)
(Overall U.S. Production)



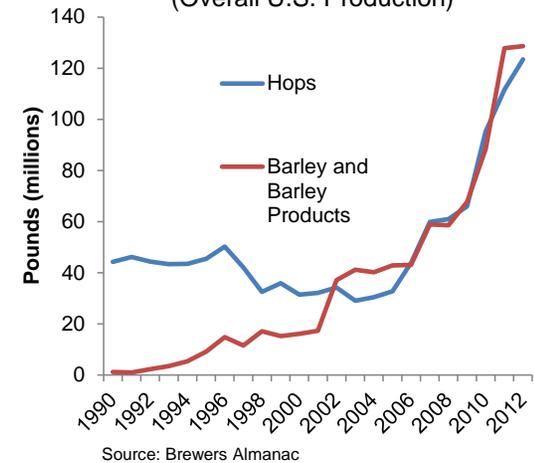
Wineries have contracted directly with grape growers for decades. We believe there is the potential for brewers to learn from wineries’ experiences sourcing and contracting for grapes (and we would be

happy to facilitate the discussion). The intricacies of grape supply contracts, which deal not only with quantity, price and price movements over time, but also measurable quality parameters, may become more relevant to craft breweries seeking the same type of control over raw materials sourcing.

High quality grape availability is a key resource constraint faced by the ultra-premium wine industry, and the cost of grapes is a significant percentage of total wine cost. If prices for grapes doubled, this would have significant effects on the pricing and profitability of ultra-premium wine. As craft beer production grows, demand for hops should in turn grow substantially. However, if prices for hops double, the cost structure of beer will remain largely unchanged, so hop heads need not fear price inflation for their favorite hoppy beers.

While wineries focus primarily on controlling access to high-quality grapes, it is quite common for wine brands to utilize third-party production facilities (“custom crush”) to actually make the wine. Even very high-end wines are made this way. It allows wine brands to avoid large capital investments in winemaking plant and equipment. There

Hops and Barley Usage in Beer Production
(Overall U.S. Production)



HOPS IN WINE COUNTRY?

Long ago, hops were grown all over Sonoma County and the state of California. Until 1922, California was the largest hops producing state, representing over 50% of U.S. production in some years. Prohibition was not kind to hops growers however and after some major harvest setbacks in the 1940s and 50s, coupled with replanting to orchards and grapes, hops production in Sonoma County dwindled down to next to nothing. (Source: *Tinged with Gold: Hop Culture in the United States*, by Michael A. Tomlan)

are many custom crush operations in California, some of whom cater to small high-end producers.

The beer industry corollary to custom crush is contract brewing. Although contract brewing is somewhat common in the beer industry (Boston Beer Co. got started by contract brewing with third-party facilities), many craft brewers prefer to control their production directly. Perhaps they have shell shock from Anheuser Busch's ads in the late 1990s attacking Boston Beer Co. for using contract brewing, which, though deeply unfair, did damage to the Samuel Adams brand for a time.²³

Given the large capital costs of building (and expanding) a brewery, we believe contract brewing could make good economic sense for some craft beer producers, if they can get past their stigma.

Given the large capital costs of building (and expanding) a brewery, we believe contract brewing could make good economic sense for some craft beer producers, if they can get past their stigma. A new company called Brew Hub was established to do just that. Backed by private-equity, Brew Hub is building a network of breweries around the country to provide contract brewing services to craft beer brands.

KEY TAKEAWAYS

- Grapes are anything but a commodity, with huge variations in cost between regions and varieties. Brewing inputs are still largely commodities, but there are some small signs that hops, barley and malt are beginning to “de-commodify.”
- Craft breweries seeking greater control over their raw material sourcing can learn from wineries' experience sourcing grapes.
- Custom crush is very common in the wine industry, and craft breweries should take a fresh look at contract brewing as a way to grow while keeping capital costs in check.

CONCLUSIONS

Americans drink a **lot of beer**, about 69 billion 12oz servings last year to be exact. Today the vast majority of that beer is domestic lager—well-made but often lacking in flavor and interest. Will there come a day when Americans turn to IPAs, Ambers and the myriad other styles as their first beers of choice? Craft brewers are certainly trying hard to get us there, and they are doing a fantastic job.

Wine, too, offers a flavorful alternative to “big lager.” Although craft beer and wine are direct category competitors and share some of the same customers, they are both part of the growing movement in America of premium, authentic and flavorful food and beverages.

Tastes Great,
Less Filling



The emergence of food culture in America benefits both wine and craft beer. Flavor isn't about dressing up in new packaging or adding artificial flavors (witness the new “Bud Light Straw-Ber-Rita”). Today's sophisticated consumers look for genuine quality and authenticity—a sense of where a product came from and who made it. Craft beer and wine deliver on both of these fronts.

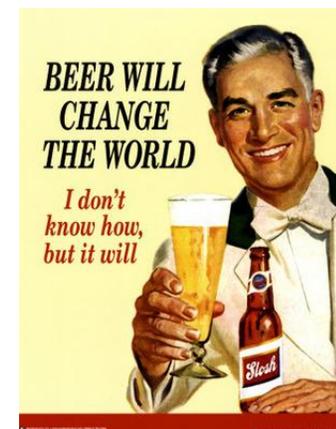
We believe the future is bright for craft beer and wine alike. Given the vast potential of the U.S. market alone, it is no wonder investors have shown an interest in the craft beer space. But the opportunity is also *global*. American craft brewers are recognized around the world for producing some of the best beers on the planet, and markets in Europe and elsewhere are increasingly seeking them out.

Can the wine industry learn from the success of craft beer and vice-versa? We think they both can. Our report brings up many questions:

- Beer has a long way to go before it is as ‘premiumized’ as wine, but will it ever be to the extent wine is?
- How will craft breweries respond to the increasing volume and variety of “crafty” beers offered by the Big Two?

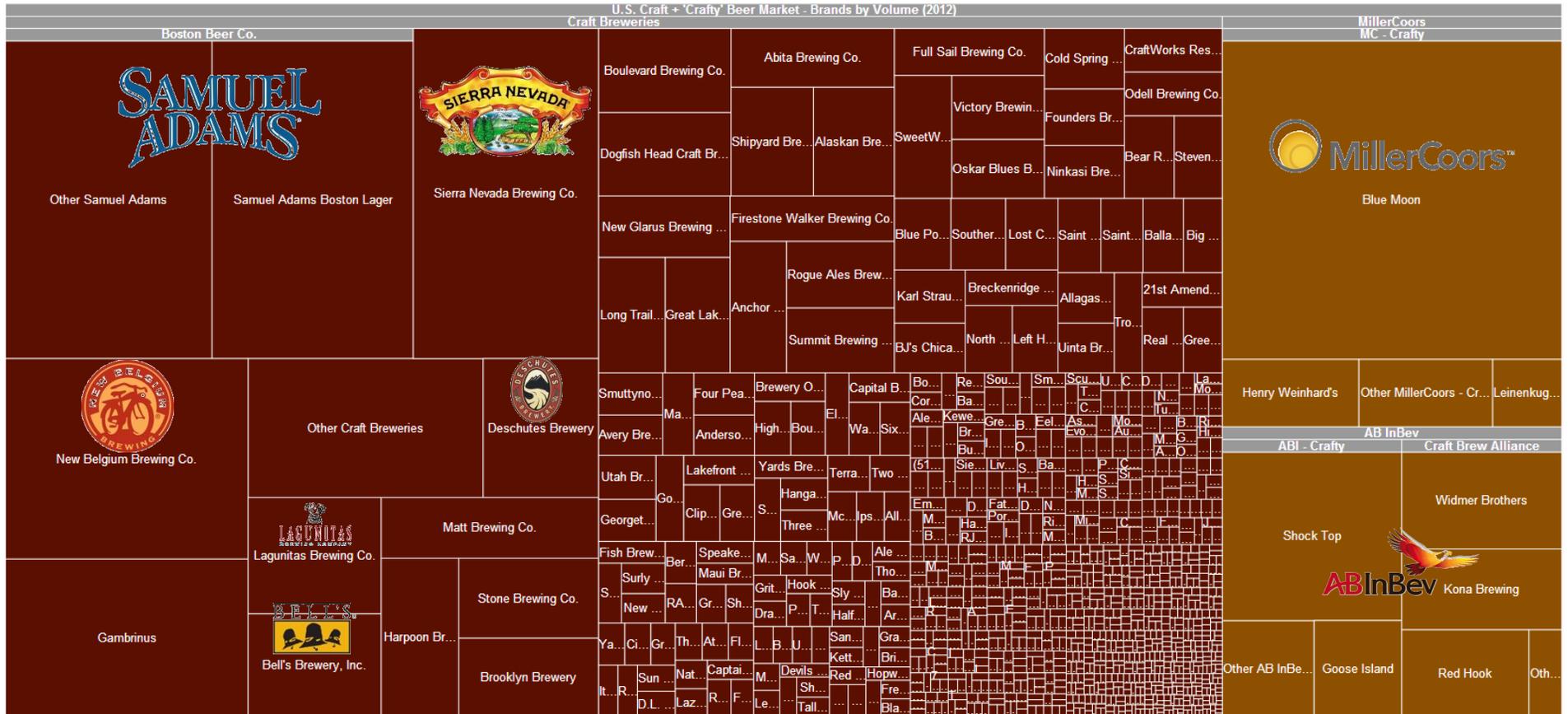
- Will the wine market look more like beer in the future, with more consolidation concentrating market share in the hands of fewer companies?
- Or will the beer market look more like the wine market, with the larger independent breweries continuing their explosive growth and perhaps acquiring smaller competitors?
- Given growing retail shelf space, will craft beer be merchandised more like wine in the future?
- Will there be opportunities for craft brewers to sell direct to consumers, beyond the brewpub?
- Will hops become “de-commodified” like grapes have for the wine industry?
- Will contract brewing become more accepted and prevalent in the craft beer community as custom crush is in the wine industry?

We don't pretend to have answers to these and other questions about the future of wine and craft beer, but we hope our report leads to interesting discussions between members of the wine and craft beer community.



APPENDIX: ADDITIONAL MARKET TREE MAPS

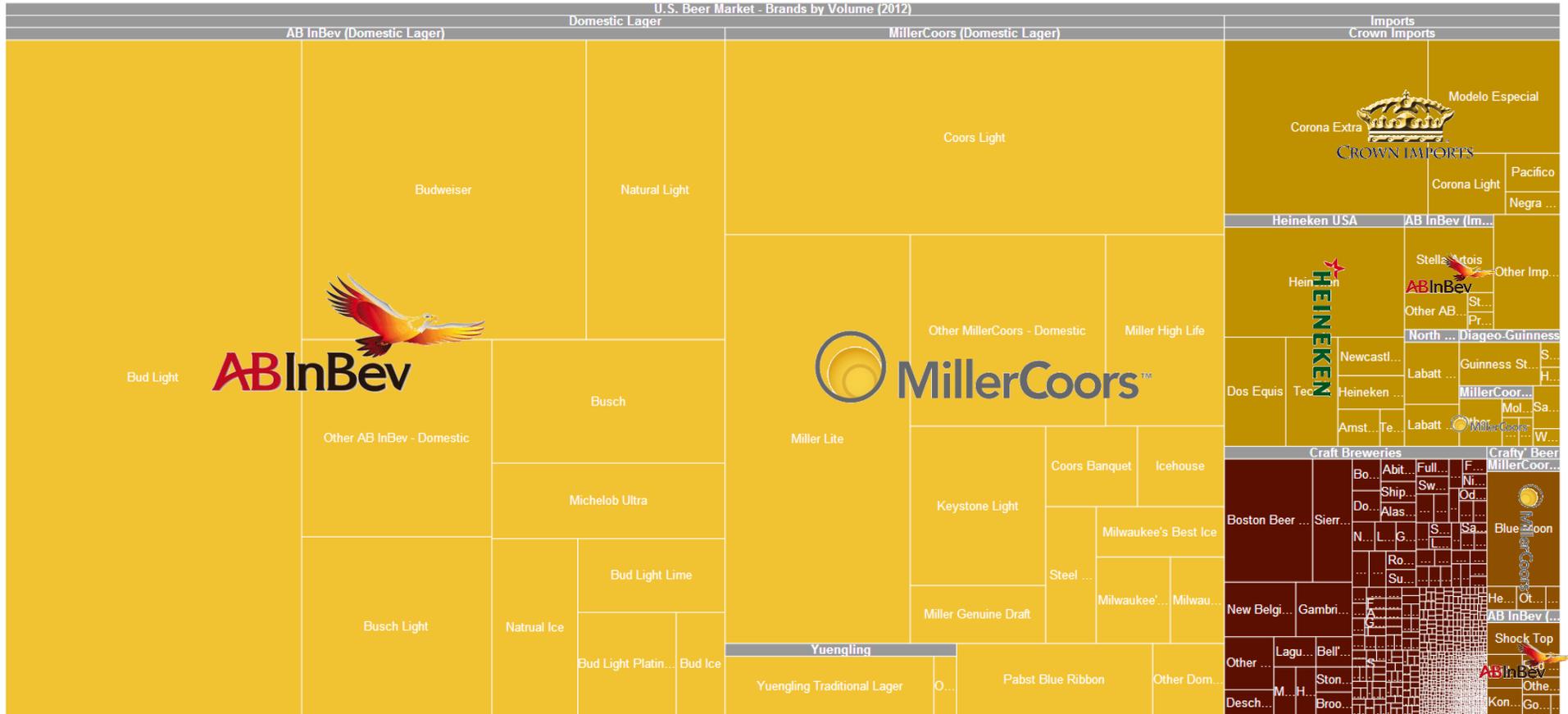
U.S. Craft + 'Crafty' Beer Market – Brands by Volume (2012)



Sources: U.S. Beverage Alcohol Trends (WSWA), Brewers Association, Brewer's Almanac, Company reports, FRCo estimates

'Crafty' beers Craft beers (BA definition)

U.S. Beer Market – Brands by Volume, Grouped by Beer Type (2012)



Sources: U.S. Beverage Alcohol Trends (WSWA), Brewers Association, Brewer's Almanac, Company reports, FRCO estimates

Domestic Lagers
 Imports
 'Crafty' beers
 Craft beers (BA definition)

U.S. Wine Market – Brands/Producers by Volume, Grouped by Pricing (2012)



Sources: FRCo estimates, IRI, Gomberg-Fredrikson

Economy \$0-\$7/bottle
 Premium \$7-\$14/bottle
 Ultra-Premium \$14+/bottle

ABOUT FRANK, RIMERMAN + CO. LLP

Frank, Rimerman + Co. LLP, founded in 1949, is the largest, locally-owned provider of accounting and consulting services in California. With offices in San Jose, Palo Alto, San Francisco and St. Helena, California, New York, New York and over 200 professionals, Frank, Rimerman + Co. LLP offers strategic business and information consulting services, tax consulting and planning, audit and financial reporting, accounting services, litigation and valuation services.

Frank, Rimerman + Co. LLP is the leading research source on the U.S. wine industry. We continue to strive to raise the bar on the quality of information and analysis available to the wine industry. Frank, Rimerman + Co. LLP produces original research on the business of wine and wine market trends, publishes a number of industry studies and provides business advisory services and conducts custom business research for individual companies and investors.

Frank, Rimerman + Co. LLP has a dedicated Wine Business Services practice which lists many wineries, vineyards, industry suppliers and industry trade organizations as clients. Services provided include:

- Economic impact studies
- Custom industry research
- Financial benchmarking
- Financial audits, reviews and compilations
- Income tax consulting and compliance
- Business valuation
- Financial modeling and business plan development
- Accounting services
- Enterprise sustainability
- Transaction readiness
- Business planning and general winery consulting

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Derek graduated with Honors from the University of California at Santa Cruz and is currently pursuing graduate studies at the University of California at Berkeley. Derek is an Accredited Senior Appraiser with the American Society of Appraisers and serves as the Vice President of the Board of Directors at Pets Unlimited as well as on the Strategic Planning Committee of the National Kidney Foundation, both in San Francisco. Derek can be contacted at (707) 967-5322 or dgroff@frankrimerman.com.

Ian Malone – Ian Malone specializes in advising companies in the wine and craft beer industries on mergers and acquisitions, corporate finance and other strategic matters.

Most recently, Ian was a Senior Vice President at Global Wine Partners (GWP), where he advised numerous wine companies on mergers and acquisitions, private placements, exit planning, valuations and other strategic matters. Ian was a key member of the team at GWP that advised Boulevard Brewing Company of Kansas City, MO on its pending acquisition by Duvel Moortgat, one of the largest M&A transactions in the craft beer sector to date.

Ian began his investment banking career at UBS Investment Bank. Ian graduated with a BA in Economics from Kenyon College. Ian can be contacted at (415) 215-5350 or ian@maloneweb.com.

Endnotes

ⁱ The retail market for craft beer including “crafty” beers made by large beer companies that don’t meet the Brewers Association definition of craft beer is approximately \$12 billion, according to Mintel. We estimate the size of the retail market for high-end (\$14+/bottle) wine by taking the total wine retail market size of \$35 billion, multiplied by 33%, the share of total California wine producer revenue comprised by \$14+/bottle wines.

² <http://www.bain.com/publications/articles/everything-the-same-but-nicer.aspx>

³ Sources: FR+Co. estimates, U.S. Beverage Alcohol Trends (WSWA) and <http://247wallst.com/special-report/2012/12/03/nine-beers-americans-no-longer-drink/>. Craft beer produced by craft brewers as defined by the Brewers Association was 13.2 million barrels in 2012. Adding FR+Co.’s estimate of “crafty” beers the total for all craft beer comes to 16.9 million barrels.

⁴ California comprises over 90% of domestic wine production, so this data point and many others in this report are based on California producers.

⁵ Adding “crafty” flavorful beers made by non-craft brewers would add several percentage points (long-term data set not available). We recognize this is not a perfect apples-to-apples comparison between wine and beer, but we believe it is still indicative.

⁶ California winery sales at the producer level are not directly comparable to beer market figures at the retail level presented elsewhere in this report.

⁷ Assuming the following serving sizes: beer = 12oz, wine = 5oz, spirits = 1.5oz

⁸ Barrels of beer and 9L equivalent cases of wine.

⁹ Remember that one? Neither did we.

¹⁰ <http://business.financialpost.com/2013/10/28/massive-merger-expected-between-anheuser-busch-and-sabmiller/>

¹¹ Large beer producers have expressed some anxiety about the flood of new craft brew beer brands in the marketplace. They are concerned that craft beer is becoming more like wine with less emphasis placed on big brands and have become somewhat defensive when discussing the subject. At the National Beer Wholesalers Association 2013 annual meeting, Heineken USA CEO Dolf van den Brink said the pace of new brand introductions “is not sustainable.”

¹² In addition to brew pubs, which are the quintessential direct distribution channel, but also typically include restaurant operations which are not necessarily core to the beer business.

¹³

http://www.naplesnews.com/news/2007/jan/25/wine_festival_lone_wolf/?print=1

¹⁴ To be clear, beer is subject to TTB rules, but they generally aren’t as restrictive as the rules for wine. Germany had the “*Reinheitsgebot*” or “Beer Purity Law” that originated in 1516 and was used for hundreds of years and limited the ingredients that could be used in beer to just water, barley and hops. Historically this was important in regulating beer quality, but also became a valuable marketing tool in its own right.

¹⁵ The exception, of course, is wine blends, which recently became en vogue again, coming full circle from their original popularity in the 19th and 20th century after several decades of focus on premium varietal wines. Part of that is due to Millennials’ penchant for experimentation and desire to try new wines. Blends give the winemaker greater flexibility and younger consumers in particular seem to enjoy them as they are less concerned with what’s in the bottle than how it tastes. Wines like Trinchero’s *Menage a Trois* in the value category to Orin Swift’s *The Prisoner* in the ultra-premium category are examples of blends that continue to grow in production in order to meet increased consumer demand for unique wines. It may not be a coincidence then that craft beer and wine blends, both without the strict rules of varietal wines, are gaining popularity at the same time.

¹⁶ The best wines in the world are in classes by themselves that even the greatest craft beers don’t (yet) approach. Then again, this report is written by wine people...

¹⁷ E.g., “Will I look dumb to my date if I order this wine? I can’t order the cheapest wine on the list. I’m getting steak, but she’s getting fish. What should I say to the waiter to sound like I know what I’m talking about? Oh hell, I’ll just order a beer...”

¹⁸ The craft beer industry’s equivalent to wine’s Sommelier is the ‘Cicerone,’ an expert in selecting, serving and pairing beers with food (after passing a series of certification exams, just like their Sommelier counterparts).

¹⁹ And some have even introduced “rotating” tap handles.

²⁰ Source: *Wine Business Monthly* 9/09

²¹ Although a wine distributor may not reach as deeply into local accounts as a traditional beer distributor can, many of the accounts that sell wine also appeal to customers who buy craft beer.

²² Perhaps as the popularity of larger format bottles such as 22’s and alternative containers such as aluminum cans increases, the financial proposition of shipping craft beer direct to consumers will become more attractive and viable. On average, a 12oz bottle of beer is 44% heavier than a 12oz aluminum can of beer. The variety of beer packaging, considered a marketing advantage by many breweries, adds to the difficulty of shipping without the equivalent of standardized wine bottle shipping containers such as one to twelve 750mL bottle Styrofoam shippers. It is possible though that the advantages provided by aluminum cans in terms of freshness, preservation from light and lighter cargo weight will assist in making beer shipping more economical as well as more environmentally friendly. The bottom line is that if craft beer truly wants to expand DTC sales, the industry needs to figure out better alternatives to shipping its product in a more economical fashion.

²³ <http://www.usnews.com/news/articles/2013/02/08/hopslam-how-big-beer-is-trying-to-stop-a-craft-beer-revolution?page=2>