TAXING THE KEG: AN ANALYSIS ON THE POTENTIAL EFFECTS OF CHANGING THE FEDERAL EXCISE TAX ON BEER

BRYCE PFALZGRAF*

Beer and the federal taxation of alcohol have brewed an interdependency in American history since the eighteenth century. In the last forty years, however, the advent of the craft beer industry has profoundly shaped the brewing landscape in the United States. In response to this change, Congress has proposed alternative pieces of legislation that would amend the Internal Revenue Code and the federal taxation of beer: the Brewers Excise and Economic Relief Act ("BEER Act") and the Small Brewer Reinvestment and Expanding Workforce Act ("Small BREW Act"). The BEER Act would make broad cuts to the existing excise tax, favoring large and small breweries alike. The Small BREW Act, by contrast, would reform the excise tax modestly, benefitting small breweries only.

This Note explores the future of the federal excise tax on beer and its potential impact on the brewing industry and society at large. It begins by detailing the history of brewing in the United States, as well as specific changes the BEER Act and the Small BREW Act would have on the existing excise tax. This Note will then perform economic analyses on the two acts using theoretical and comparative approaches. In doing so, it will detail the foreseeable impacts of the BEER Act and Small BREW Act and consider the health implications of each proposed law.

This Note urges that Congress adopt the Small BREW Act. The Small BREW Act's targeted tax cuts for small breweries will enhance market competition and foster sustained success of craft beer businesses. Given its limited scope, the Small BREW Act will also minimize losses of federal excise tax revenues and curtail the health and societal concerns associated with this proposed tax reform.

^{*} J.D. 2015, University of Illinois College of Law; B.A. 2012, Economics, History, and Philosophy, University of Nebraska-Lincoln. To my friends and family, thank you all for your love and support. I would not be who I am today without you. To my professors at both Illinois and Nebraska, thank you for your dedication, expertise, and inspiration. It is because of you I have such a deep appreciation for research, analysis, and writing. A special thank you to the editors and members of the University of Illinois Law Review who selected this Note for publication and for all of the effort it took to prepare it for print. Finally, a thank you to brewers for doing what you do and for making this Note possible.

2142 UNIVERSITY OF ILLINOIS LAW REVIEW [Vol. 2015

TABLE OF CONTENTS

	TABLE OF CONTENTS					
I.	Introduction	2143				
II.	BACKGROUND					
	A. The History of Brewing in the United States					
	1. The German Invasion: The Revolution of American					
	Beer	2145				
	2. Last Call: The Era of Prohibition	2147				
	3. Survival of the Biggest: Consolidation of the Brewing	7				
	Industry					
	4. A New Hop: Craft Brewing Arrives and Thrives	2149				
	5. What's on Tap?: A Look at the Current Brewing					
	Market					
	B. The BEER Act and the Small BREW Act					
III.	Analysis					
	A. Methods of Analysis					
	B. The Theoretical Approach					
	1. Defining an Excise Tax and Effects on a Market	2158				
	2. Applying Market Specific Facts to the Theoretical					
	Analysis	2162				
	a. Considerations for the Brewing Market as a					
		2162				
	b. Considerations for the Large Brewing Market					
	c. Considerations for the Small Brewing Market	2163				
	3. Incorporating the Market Specific Facts and the	2161				
	Proposed Changes to the Federal Excise Tax					
	a. Anticipated Impact of the BEER Act					
	b. Anticipated Impact of the Small BREW Act					
	C. The Comparative Analysis					
	1. Comparing Beer and Tobacco					
	2. Excise Taxes Among the States					
	D. The Externalities Analysis					
IV.	RECOMMENDATION					
	A. Should There Be a Change in the Federal Excise Tax?	2175				
	B. Choosing Between the Small BREW Act and the BEER	61				
* *	Act					
V.	CONCLUSION	2178				

I. INTRODUCTION

The story of beer is one with a long and winding history that traces its roots back to the first civilizations of humankind.1 Evidence of beer being brewed can be found from nearly nine thousand years ago in artifacts from the Sumerians of Mesopotamia.² The act of fermenting grains, fruits, and sugars would continue from these early beginnings and be found throughout history and across the globe.3 Whether in the abbeys of Belgian monks⁴ or the closet of a twenty-something college student,⁵ the act of brewing has been engrained upon humankind.

Given the inextricable connection beer has had with people and society, there is no surprise that the old saying of "[i]n this world nothing can be said to be certain, except death and taxes" could be altered to say "in this world nothing can be certain, except beer and taxes." In the United States, the taxation of beer, and to a broader extent alcohol generally, has had important implications and has gone through numerous changes.⁷ At one point in U.S. history, the taxation of alcohol accounted for a dominant source of revenue for the federal government.8 With the changing of times and circumstances, however, the taxation of alcohol has changed in kind. In the last thirty to forty years, the brewing landscape of the United States has gone through an incredible evolution with the advent of the craft brewing industry.9 In response to this change, Congress has proposed a change to the Internal Revenue Code, which dictates the federal taxation of beer through the BEER Act¹⁰ and the Small BREW Act.11 The purported purposes of these acts are to foster the industry as a whole, encourage the craft brewing revolution, and create economic activity.¹² While the benefits of these acts are touted by their supporters, there still remains an opposition to a change in the federal excise tax rate.13

- 1. How Beer Saved the World (produced for the Discovery Channel by Beyond Productions 2011).
 - 2.
 - 3. *Id*.
 - 4. Id.
 - 5. A nod at my own brewing experiments while attending law school.
- This quote is attributed to Benjamin Franklin who wrote this line in a letter to Jean-Baptiste Leroy in 1789. Nothing is Certain but Death and Taxes, THE PHRASE FINDER, http://www.phrases. org.uk/meanings/death-and-taxes.html (last visited Mar. 30, 2015).
- 7. PROHIBITION: A FILM BY KEN BURNS & LYNN NOVICK (Florentine Films 2011) [hereinafter PROHIBITION].
 - 8. *Id*.
- 9. History of Craft Brewing, BREWERS ASS'N, http://www.brewersassociation.org/brewersassociation/purpose/ (last visited Mar. 30, 2015) [hereinafter History of Craft Brewing].
 - 10. S. 958, 113th Cong. (2013); H.R. 1918, 113th Cong. (2013).
 - 11. S. 917, 113th Cong. (2013); H.R. 494, 113th Cong. (2013).
- 12. See Keith Gribbins, The BEER Act vs. the Small BREW Act: What's the Difference?, CRAFT BREWING BUS. (May 16, 2013), http://www.craftbrewingbusiness.com/news/the-beer-act-vs-the-smallbrew-act-whats-the-difference/.
- 13. See A Brewing Fight, ECONOMIST (May 8, 2013, 8:01 PM), http://www.economist.com/ blogs/democracyinamerica/2013/05/taxes [hereinafter A Brewing Fight]; BEER INST., BEER TAX FACTS: THE ECONOMIC AND SOCIETAL IMPACTS OF STATE AND FEDERAL TAXES ON BEER 5 (2013),

This Note explores the potential impacts the BEER Act and the Small BREW Act would have on the brewing industry and society at large. Part II of this Note will detail the history of brewing in the United States, from colonial times to the present, and the methods of taxation present during various periods of this history. In addition to this historical background, Part II will detail the specific changes the BEER Act and the Small BREW Act will have on the existing excise tax found in the Internal Revenue Code, as well as give a general overview of support and opposition to both Bills. Part III of this Note will implement a number of methods of analysis and detail the various foreseeable impacts that could be expected if the BEER Act or Small BREW Act were passed. This analysis will mainly focus on the economic implications of the Small BREW Act and the BEER Act. Additionally, this Part will consider the health implications of the acts. Part IV will incorporate the findings made in Part III and discuss whether either act should even be passed and whether the BEER Act or the Small BREW Act is the superior proposed legislation. Ultimately, the analysis and considerations in this Note recommend that Congress pass the Small BREW Act. Part V will finally summarize the findings of this Note and briefly conclude the discussion of this topic.

II. BACKGROUND

The history of brewing in the United States, like many historical topics, consists of innumerable influences which weave a unique tapestry. While there has been a great deal of research and analysis done in compiling the history of brewing, 14 space and topic constraints forbid a complete documentation of this history. For the purposes of this Note, the history of brewing in the United States will begin briefly with the story of how an influx of German immigrants in the mid-1800s brought with them a strong brewing tradition and changed the existing brewing landscape, ultimately leading to the formation of some of the most recognized breweries today. 15 This history will then be followed up to the present with a focus on the makeup of the current brewing market and the present tax structures. Following the presentation of this condensed history of U.S. brewing and current market dynamics, the details of the Small BREW Act and the BEER Act will be discussed along with arguments for and against the bills' implementations.

available at http://www.beerinstitute.org/assets/uploads/Beer_Tax_Facts1.pdf [hereinafter BEER TAX FACTS].

.

^{14.} See, e.g., Tom Acitelli, The Audacity of Hops: The History of America's Craft Beer Revolution (2013); Amy Mittelman, Brewing Battles: A History of American Beer (2008); Victor J. Tremblay & Carol Horton Tremblay, The U.S. Brewing Industry: Data and Economic Analysis (2005).

^{15.} See Prohibition, supra note 7.

No. 5] TAXING THE KEG

A. The History of Brewing in the United States

In approximately the last 150 years of the United States, American brewing has gone through significant events which have changed the industry in a number of ways.¹⁶ Starting in the mid-1800s, the United States saw a vast expansion in the number of breweries as a result of a massive influx of German immigrants who introduced the lager style of beer that replaced the more common English ale styles.¹⁷ This flourishing of brewing, however, was cut short by the introduction of the Volstead Act, which led to the enforcement of the Eighteenth Amendment¹⁸ and ushered in the era of Prohibition.¹⁹ Following the repeal of Prohibition under the Twenty-First Amendment,20 brewing in the United States saw a consolidation of brewing into the hands of a few major players including Coors, Miller, and Anheuser-Busch.²¹ It would not be until the late 1970's that the large breweries would begin to be challenged by the introduction of craft brewing in a handful of locations.22 Starting with only a small number of craft breweries in the 1970s and 1980s, the craft brewing industry would continue to grow until today where over 2,500 craft breweries are in operation.23

1. The German Invasion: The Revolution of American Beer

Before the 1850s, the dominant form of beer brewed in the United States was the traditional English ale,²⁴ given that many early American settlers came to the New World from England.²⁵ Bringing with them the traditions of their homeland, the new settlers brewed beer from their homes and set up breweries, which were some of the earliest businesses in the New World in cities such as New York, Philadelphia, and Boston.²⁶ In these early stages of U.S. history, the taverns where these ales were served acted as focal points of communities²⁷ and even played a signifi-

- 20. U.S. CONST. amend XXI.
- 21. Concise History, supra note 16.
- 22. History of Craft Brewing, supra note 9.
- 23. Number of Breweries, BREWERS ASS'N, http://www.brewersassociation.org/statistics/number-of-breweries/ (last visited Mar. 31, 2015) [hereinafter Number of Breweries].
- 24. Concise History, supra note 16 ("Traditionally, beer in America meant British-style ale. Ales are brewed with top fermenting yeasts, and this category ranges from light pale ales to chocolate-colored stouts and porters.").
- 25. See Gregg Smith, Brewing in Colonial America, N. AMER. BREWERS ASS'N, http://www.northamericanbrewers.org/brewingcolonial.htm (last visited Mar. 31, 2015).
- 26. MARTY NACHEL & STEVE ETTLINGER, BEER FOR DUMMIES (2nd ed. 2012), available at http://www.dummies.com/how-to/content/american-beer-history-through-the-19th-century.html ("Breweries in the New World were among the first businesses established.").
- 27. Id. ("[T]he alehouse was second only to the church in importance . . . the tavern . . . served as the unofficial town hall and the social and political focal point of every town.").

^{16.} A Concise History of America's Brewing Industry, EH.NET (Oct. 18, 2013), http://eh.net/encyclopedia/a-concise-history-of-americas-brewing-industry/[hereinafter Concise History].

^{17.} *See* Prohibition, *supra* note 7.

^{18.} U.S. CONST. amend XVIII (repealed in 1933); *Historical Highlights: The Volstead Act*, HIST. ART & ARCHIVES, http://history.house.gov/HistoricalHighlight/Detail/36108 (last visited Mar. 4, 2015).

^{19.} See PROHIBITION, supra note 7.

cant role in the American Revolution.²⁸ In fact, a number of the Founding Fathers were brewers themselves.²⁹ While the English ale was a popular drink for the American people, the size and scope of these early breweries were still rather small and were a local affair.³⁰ Brewing would not become a national business until the mid-1800s, when an influx of immigrants in addition to technological and social change triggered the shift.³¹

In the early to mid-nineteenth century, social upheaval in what is now Germany and a number of European states caused a mass exodus of immigrants to travel to and settle in the United States.³² These new immigrants, of whom included "Busch, Pabst, Schlitz, Ruppert, Ehret and many others [who would become] synonymous with beer,"³³ brought with them a culture which was, in part, centered on beer.³⁴ The beer that the new immigrants brought with them, however, was different than the traditional English ale.³⁵ This beer was a lager, which would grow to become the dominant type of beer found in America in just a few decades.³⁶

Aside from the influx of immigrants bringing a new beer to the American shores, a number of other changes caused the brewing industry to change forever.³⁷ First, society in general was going through rapid alterations involving mass urbanization and industrialization: workers saw their wages increasing, which, in turn, caused the demand for beer to rise.³⁸ Second, the temperance movement, which discouraged drinks with high alcohol content but did not target beer, caused a demand for beer to move up even further.³⁹ Finally, technological innovations such as artificial refrigeration and pasteurization allowed for beer to be transported further and stay on shelves longer.⁴⁰

With the stage set, the brewing industry began to move through a period of accelerated growth. Where breweries were traditionally operated regionally and served a local population, the new immigrants, many of whom hailed from Germany, began to establish breweries that could reach a national market.⁴¹ Breweries such as Pabst in Milwaukee, found-

^{28.} See Gregg Smith, supra note 25.

^{29.} See Concise History, supra note 16; George Washington's Recipe for Beer, BEER HIST., http://www.beerhistory.com/library/holdings/washingtonrecipe.shtml (last visited Mar. 31, 2015).

^{30.} Concise History, supra note 16.

^{31.} *Id*

^{32.} Our Heritage, ANHEUSER BUSCH, http://anheuser-busch.com/index.php/our-heritage/ (last visited Mar. 4, 2015) [hereinafter ANHEUSER BUSCH].

^{33.} Carl H. Miller, *The Rise of the Beer Barons*, BEER HIST., http://www.beerhistory.com/library/holdings/beerbarons.shtml (last visited Mar. 31, 2015).

^{34.} Concise History, supra note 16.

^{35.} *Id*.

^{36.} *Id*.

^{37.} Id.

^{38.} Id.

^{39.} Id.

^{40.} Id.

^{41.} *Id*.

ed in 1844,⁴² and what would become Anheuser-Busch in St. Louis, founded in 1852,⁴³ began to produce lager beer on a large scale.⁴⁴ While these breweries did not immediately dominate the market,⁴⁵ the sale and distribution of lager beer began to significantly outpace the English ales by the turn of the century.⁴⁶ From a broader perspective, the sale of beer in general began to skyrocket during this time period.⁴⁷ Between the years of 1865 and 1915, the production of beer increased sixteen-fold and consumption per capita increased six-fold.⁴⁸

Just as the brewing industry was gaining momentum and becoming a national industry, a death knell rang across the country which would threaten the thriving business: Prohibition.⁴⁹

2. Last Call: The Era of Prohibition

On January 16th, 1920, the Eighteenth Amendment became law in the United States and forbade the sale, production, and transportation of alcohol throughout the country.⁵⁰

The Eighteenth Amendment was the creature of three sets of circumstances. The first was the temperance movement.⁵¹ Beginning in the early 1800s, the temperance movement grew from simple puritanical notions seeking moderation of drinking to a full-blown progressive political agenda which called for the absolute abolition of alcohol in the United States.⁵² The growth of the temperance movement can be attributed to the urbanization and industrialization of America, with alcohol seen as a blight on the average worker and his family.⁵³

The second factor leading to the enactment of the Eighteenth Amendment was anti-German sentiment.⁵⁴ During the years leading up to January 16th, 1920,⁵⁵ the United States had become embroiled in World War I, which pitted the United States against Germany (the country that became the sole focus of American animosity during the war).⁵⁶ While beer had initially escaped the lashings of the temperance movement,⁵⁷ hostility toward German immigrants who had brought about the

^{42.} The Whole Story, PABST BLUE RIBBON, http://pabstblueribbon.com/pbr-history/ (last visited Mar. 31, 2015).

^{43.} ANHEUSER BUSCH, supra note 32.

^{44.} Concise History, supra note 16.

^{45.} Id.

^{46.} *Id*.

^{47.} *Id*.

^{48.} Id.

^{49.} PROHIBITION, *supra* note 7.

^{50.} U.S. CONST. amend XVIII (repealed in 1933).

^{51.} PROHIBITION, *supra* note 7.

^{52.} Id.

^{53.} Id.

^{54.} *Id*.

^{55.} See U.S. CONST. amend XVIII (repealed in 1933).

^{56.} PROHIBITION, *supra* note 7.

^{57.} See Concise History, supra note 16.

[Vol. 2015

expansion of the larger breweries were now subjects of derision, and beer fell into disfavor accordingly.⁵⁸

Third, and finally, the introduction of the Income Tax in 1913 under the Sixteenth Amendment.⁵⁹ assisted the passage of the Eighteenth Amendment.⁶⁰ Prior to the Income Tax, the taxation of alcohol attributed to as much as thirty to forty percent of government revenues through excise taxes.⁶¹ Without a replacement for this revenue, the Eighteenth Amendment would have been an extremely difficult sale to make to Congress.⁶² Yet, given that the other two factors discussed above were in play, the Sixteenth Amendment helped pave the way for Prohibition by making up for the revenue that would be lost by outlawing the sale of alcohol.⁶³

With the Eighteenth Amendment in place, breweries across the country either faced a tough road ahead or, as many did, shut down completely.⁶⁴ To survive the times, many of the larger breweries turned to producing near-beer,⁶⁵ soft drinks, malt syrup,⁶⁶ or alcohol used for medicine.⁶⁷ During this era, some breweries were still able to expand their capital stock, which included shipping and bottling equipment.⁶⁸ This investment would be invaluable to the future success of these companies once the Eighteenth Amendment was repealed.⁶⁹ Another advance made by the breweries during this lull was that breweries were able to experiment with new packaging and shipping strategies; where kegging had been the tradition,⁷⁰ brewers now embraced bottling and, to some extent, canning.⁷¹

3. Survival of the Biggest: Consolidation of the Brewing Industry

For thirteen years, the Eighteenth Amendment placed a freeze on the legal⁷² production of alcohol in the United States. With the repeal of the Eighteenth Amendment by the Twenty-First Amendment in 1933, breweries were once again free to produce beer.⁷³

^{58.} Joseph Henchman, *How Taxes Enabled Alcohol Prohibition and Also Led to Its Repeal*, TAX FOUND. (Oct. 5, 2011), http://taxfoundation.org/blog/how-taxes-enabled-alcohol-prohibition-and-also-led-its-repeal.

^{59.} U.S. CONST. amend XVI.

^{60.} Henchman, supra note 58.

^{61.} *Id*.

^{62.} *Id*.

^{63.} *Id*.

^{64.} See Concise History, supra note 16.

^{65.} Id.

^{66.} Interestingly enough, this malt syrup was used by individuals to brew beer at home. Id.

^{67.} *Id.* 68. *Id.*

^{69.} Id.

^{70.} Id.

^{71.} The canning was used primarily for the shipping of malt syrup, but these early business connections would be used to can beer in the future. *Id.*

^{72.} Let us not forget about those wonderful speakeasies and bootleggers.

^{73.} U.S. CONST. amend XXI § 1.

No. 5] TAXING THE KEG

Entering the post-Prohibition era, brewers found themselves in an altered industry landscape, which led to the large breweries seizing control of the market.⁷⁴ Where large breweries had faced competition from small local breweries before Prohibition, the years between the Eighteenth and Twenty-First Amendments had severely curtailed the ability of small breweries to compete.⁷⁵ Along with the removal of small brewery competition, innovations such as home refrigeration, the canning and bottling of beer, and the post-World War II economic boom all contributed to the success of the larger breweries' ability to gain market share.⁷⁶

With the barriers to markets removed, as well as technological and social changes, larger breweries began to make substantial gains and were able to consolidate their hold on the country's beer market.⁷⁷ For instance, in 1915 there were 1,345 breweries in operation.⁷⁸ By 1940, only 684 breweries were in operation, and by 1980, there were only 101. Furthermore, in 1947 the five largest breweries accounted for nineteen percent of total output of beer, and the ten largest breweries accounted for nearly a quarter of total output.⁷⁹ Fast forward to 1980: the five largest breweries accounted for nearly seventy-six percent of output, and the ten largest breweries accounted for nearly ninety-four percent of output.⁸⁰

4. A New Hop: Craft Brewing Arrives and Thrives

Between the enactment of the Twenty-First Amendment and 1980, the brewing industry had become consolidated and rather homogenous.⁸¹ It would be near the end of this period, however, where the market would once again experience a small but growing shift with the introduction of the craft brewing revolution.⁸²

By 1980, "the popular image of beer in America was simply that of a mass-produced commodity with little or no character, tradition, or culture worth mentioning." Responding to this criticism, a number of small breweries began to surface and offer beer with unique tastes, as well as variations on classics. The Growth of this industry was sluggish at first, but over time the craft brewing industry began to expand by leaps and bounds. For example, in 1980 there were only eight craft breweries, but by 1994 that number had increased to 537, and by 2013 there were over 2,800 craft breweries in operation. The success of the craft brewing in-

```
74. Concise History, supra note 16.
```

^{75.} *Id*.

^{76.} *Id*.

^{77.} Id.

^{78.} *Id*.

^{79.} Id.

^{80.} *Id*.

^{81.} Id.

^{82.} History of Craft Brewing, supra note 9.

^{83.} Id.

^{84.} Id.

^{85.} Id.

^{86.} *Id*.

dustry has been attributed to the quality of the product and the regional identification with the breweries themselves.⁸⁷

Even though craft brewing has grown a tremendous amount in the last thirty years, the overall impact the industry has had on the market in general is still rather small.⁸⁸ In 2008, craft brewing only accounted for four percent of output,⁸⁹ whereas the three largest breweries in the United States accounted for nearly eighty-one percent of output in 2000.⁹⁰

5. What's on Tap?: A Look at the Current Brewing Market

The brewing industry in the United States has indeed gone through a great deal of change and is still changing.⁹¹ Small breweries continue to crop up, and the existing craft breweries keep on expanding production.⁹² In addition to the craft brewing industry changing, large breweries have continued to consolidate⁹³ while at the same time have started to adapt to changing market preferences and incorporated specialty beers into their product lines.⁹⁴

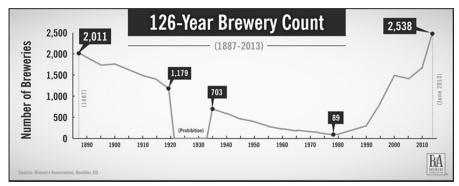
With the changing market, it is important to classify the different types of breweries and entities in existence. For the purposes of this Note, the definitions given by the Brewers Association will be used. 55 First is the "microbrewery," which is defined as an entity that produces less than fifteen thousand barrels of beer, and seventy-five percent of the sales of beer from this type of brewery are from offsite sales. 56 Second is the "brewpub," which accounts for twenty-five percent or more of its sales from onsite sales. 77 Third, there is the "contract brewery," which brews beer for other entities. 58 Fourth is the "regional brewery," which produces anywhere between fifteen thousand and six-million barrels of beer per year. 59 A more specific type of regional brewery is the "regional craft brewery," which produces more than half of its product as malt beer

- 87. Id
- 88. Concise History, supra note 16.
- 89. History of Craft Brewing, supra note 9.
- 90. Concise History, supra note 16.
- 91. See supra Part II.A.1-4.
- 92. DAN WANDEL, SYMPHONY IRI GRP., STATE OF THE "HOPUNION" 2012 MID-YEAR BEER CATEGORY & CRAFT REVIEW 3 (2012), available at http://www.hopunion.com/library/State% 200f%20the%20Beer%20Industry%20-%20Dan%20Wandel.pdf.
- 93. Steve Hindy, *Don't Let Big Brewers Win the Beer Wars*, CNN (Dec. 12, 2012) http://www.cnn.com/2012/12/12/opinion/hindy-beer-wars/.
 - 94. See Wandel, supra note 92.
- 95. Craft Beer Industry Market Segments, BREWERS ASS'N, http://www.brewersassociation.org/statistics/market-segments/ (last visited Mar. 4, 2015) (These definitions were used given that many of the statistics used came from this source, and the thresholds found in the definitions track well with the proposed legislations' thresholds.) [hereinafter Market Segments].
 - 96. Id.
 - 97. Id.
 - 98. Id.
 - 99. Id.

No. 5] TAXING THE KEG

or beer with adjuncts added to enhance the flavor of the beer.¹⁰⁰ Finally, there is the "large brewery" whose sales exceed six million barrels of beer per year.¹⁰¹

With the various breweries currently in existence, it is also important to note what market proportions these different entities make up and how they have changed over time. At the end of 2013, there were 1,464 microbreweries, 1,280 brewpubs, and 119 regional craft breweries for a total of 2,863 craft breweries.¹⁰² Also for 2013, there were 23 large breweries and 31 non-craft breweries.¹⁰³ In 2012, there were 1,149 microbreweries, 1,155 brewpubs, and 97 regional craft breweries, making up 2,401 craft breweries.¹⁰⁴ Aside from craft breweries, there were 23 large breweries and 32 non-craft breweries, making a grand total of breweries in existence in 2012 to 2,456.105 By contrast, in 2011 there were only 829 microbreweries, 1,078 brewpubs, 88 regional craft breweries, 23 large non-craft breweries, and 34 other non-craft breweries. 106 Thus, between 2011 and 2013, the number of craft breweries increased by 868 breweries or, as percent change of the total market for craft brewing, 43.5 percent. For a more longitudinal look at this trend, please see the graph below.107



In 2012, the U.S. brewing industry accounted for just over 200 million barrels of beer produced per year and was worth approximately 99 billion dollars. ¹⁰⁸ Breaking this number down, microbreweries accounted for nearly 2 million barrels, brewpubs accounted for approximately eight hundred and fifty thousand barrels, contract breweries accounted for approximately two hundred and twenty-three thousand barrels, and re-

^{100.} Id.

^{101.} Id.

^{102.} Number of Breweries, supra note 23.

^{103.} Id.

^{104.} Id.

^{105.} Id.

^{106.} Id.

^{107.} Id.

^{108.} *Id*.

gional breweries produced 10.2 million barrels.¹⁰⁹ Thus, small breweries in the industry accounted for 13,246,390 barrels of the 200 million total.¹¹⁰ In other words, in 2012 all non-large breweries made up 6.62 percent of brewery production.¹¹¹

On the side of large brewers, beer production in the United States is held in the hands of two massive players: Anheuser-Busch InBev and MillerCoors. In December 2012, these two companies alone controlled seventy-seven percent of beer production in the United States, with Anheuser-Busch InBev being the dominant player and making up approximately forty-seven percent of production. Yet, Anheuser-Busch InBev in June 2012 attempted to acquire Grupo Modelo, the brewery behind Corona and Modelo beers, which further increased Anheuser-Busch InBev's control over the beer market. In this deal ultimately was consummated in 2013, giving Anheuser-Busch Inbev and MillerCoors nearly a ninety-percent control of the market.

In regards to small brewery production, the most dominant of the craft breweries do not even skim the surface of Anheuser-Busch InBev and MillerCoors production numbers. The three largest of the small brewing operations (in order of sales per year) include the Boston Beer Company, the Sierra Nevada Brewing Company, and the New Belgium Brewing Company. These companies respectively fall at position five, seven, and eight in terms of total beer sales. The first place for the craft breweries is the Boston Beer Company, most known for the Samuel Adams brand, which sold approximately 2.7 million barrels of beer in 2012. As of 2012, the brewery holding the second place spot, the Sierra Nevada Brewing Company, is approaching the one million barrel per year threshold. Pounding out the top three small breweries, the New Belgium Brewing Company which produced 764,424 barrels in 2012.

^{109.} Id.

^{110.} *Id*.

^{111.} This number was arrived at by dividing the production of the craft breweries by the total output of all breweries. (i.e., $(13,235,917/200,000,000) \times 100 = 6.62$).

^{112.} Hindy, supra note 93.

^{113.} *Id*.

^{114.} For Your Love of Beer: Samuel Adams, 2012 Annual Report, BOSTON BEER, INC. 6 (2012) [hereinafter Love of Beer].

^{115.} Bill Chappell, Court Approves Anheuser-Busch InBev Deal to Buy Grupo Modelo, NPR (Apr. 23, 2013, 1:01 PM), http://www.npr.org/blogs/thetwo-way/2013/04/23/178614285/court-approves-anheuser-busch-inbev-deal-to-buy-grupo-modelo; Elizabeth Flock, Hopslam: How Big Beer Is Trying to Stop a Craft Beer Revolution, U.S. NEWS (Feb. 8, 2013, 2:49 PM), http://www.usnews.com/news/articles/2013/02/08/hopslam-how-big-beer-is-trying-to-stop-a-craft-beer-revolution.

^{116.} Brewers Association Releases Top 50 Breweries of 2012, BREWERS ASS'N (Apr. 10, 2013), http://www.brewersassociation.org/pages/media/press-releases/show?title=brewers-association-releases-top-50-breweries-of-2012.

^{117.} *Id*.

^{118.} Love of Beer, supra note 114, at 1.

^{119.} Adam Nason, *I Million Barrels: How Capacity Affects Sierra Nevada Brewing Reaching a Major Milestone*, BEER PULSE (Apr. 11, 2012, 5:33 PM), http://beerpulse.com/2012/04/1-million-barrels-how-capacity-affects-sierra-nevada-brewing-reaching-a-major-milestone/.

^{120.} Craft Beer Rankings and Financials, NEW BELGIUM BREWING Co., http://www.newbelgium.com/brewery/company/craft-beer-rankings-and-financials.aspx (last visited Mar. 31, 2015).

No. 5] TAXING THE KEG

With the large breweries in command of the brewing industry, it is no surprise that the most popular beers in America include the likes of Bud Light, Coors Light, and other lager style beers. ¹²¹ While these findings are not astonishing, the large breweries have taken heed to a growing desire for craft beers. ¹²² In response to these demands, larger breweries have introduced brands such as Blue Moon and Shock Top, which have been greeted with great success. ¹²³ An interesting marketing strategy the larger breweries use in selling these beers is the act of leaving off distinguishing symbols or signage that would indicate that these "craft beers" are part of the larger breweries' product lines. ¹²⁴ Aside from creating their own "craft beer" lines, the larger breweries have also begun purchasing and incorporating craft brewers to be included in their product lines. ¹²⁵

Regardless of how big or small a brewery is, the undeniable fact is that the brewing industry accounts for a large number of jobs in the U.S. economy.¹²⁶ From the brewers to the sellers of the beer, it has been estimated that the brewing industry accounts for nearly two million jobs.¹²⁷ With these two million jobs, it has been further concluded that nearly 79 billion dollars have been paid in wages to various members in the production and sale process and almost 247 billion dollars have been contributed toward the national economy as a result.¹²⁸ In addition to these benefits, the brewing industry has generated approximately 39 billion dollars in income tax and 10 billion dollars in various consumption taxes to governmental entities as a result of its activity.¹²⁹

The brewing market today is subject to regulation by federal, state, and local regulations.¹³⁰ These regulations can come in the form of taxes, licensing, and permits on production, distribution, and advertising.¹³¹ For the purposes of this Note, only certain taxes will be considered, predominately the federal excise tax and, to some degree, individual state excise

^{121.} Wandel, supra note 92, at 13.

^{122.} William Alden, Anheuser-Busch InBev Buys Blue Point Brewing Company, N.Y. TIMES DEALBOOK (Feb. 5, 2014, 11:17 AM), http://dealbook.nytimes.com/2014/02/05/anheuser-busch-inbev-buys-blue-point-brewer/ ("Anheuser-Busch InBev, the country's largest brewer, has agreed to buy the Blue Point Brewing Company in a move that could help it capitalize on the popularity of craft beer.").

^{123.} Duane Sanford, *Blue Moon vs. Craft Beer Rivals: MillerCoors Strikes Back*, BLOOMBERG BUS. (Aug. 8, 2013), http://www.bloomberg.com/bw/articles/2013-08-08/blue-moon-vs-dot-craft-beer-rivals-millercoors-strikes-back; *see* Wandel, *supra* note 92, at 14.

^{124.} Sanford, *supra* note 123 ("MillerCoors has resisted putting its name on Blue Moon bottles and has no plans to do so 'The downside is the beer-snob factor. If there is no upside from doing it, then why take the risk?"").

^{125.} Flock, supra note 115.

^{126.} Beer Institute: 2012/2013 Annual Report, BEER INSTITUTE 16 [hereinafter Annual Report], available at http://www.beerinstitute.org/assets/uploads/BeerInstitute_AnnualReport2012-2013_Final Web1.pdf.

^{127.} *Id*.

^{128.} Id.

^{129.} Id

^{130.} Love of Beer, supra note 114, at 6.

^{131.} *Ia*

[Vol. 2015

taxes.¹³² The current federal tax on the production of beer is found in Section 5051 of the Internal Revenue Code. Under this regime, the production of beer is taxed at eighteen dollars per barrel unless an exception applies.¹³³ The most important exception for the purposes of this Note is that for any brewery which produces less than two million barrels of beer per year, the brewery is only taxed seven dollars per barrel on the first sixty thousand barrels produced.¹³⁴ On the state side of the beer tax, taxes on beer differ wildly across jurisdictions, as seen by the graph below.¹³⁵



^{132.} The state excise taxes will be used to analyze how differing tax rates can potentially lead to competition among the states for breweries. *See infra* Part III.B.2.

^{133.} I.R.C. § 5051(a)(1) (2012).

^{134.} Id. at § 5051(a)(2)(A).

^{135.} Nick Kasprak, Weekly Map: State Beer Excise Tax Rates, 2013, TAX FOUND. (May 9, 2013), http://taxfoundation.org/blog/weekly-map-state-beer-excise-tax-rates-2013.

B. The BEER Act and the Small BREW Act

With craft brewing becoming an ever-thriving industry, members of the U. S. Congress have recently made attempts at modifying the Internal Revenue Code¹³⁶ to lower the federal excise tax on beer production.¹³⁷ As of 2013, there are two bills presented to Congress with versions in both the Senate and House.¹³⁸ The first is the Brewers Excise and Economic Relief Act, also known as the "BEER Act."¹³⁹ The second proposed reform to the Internal Revenue Code is the Small Brewer Reinvestment and Expanding Workforce Act, or the "Small BREW Act."¹⁴⁰ Both Acts seek to reduce the federal excise tax, but the methods used in each Act differ substantially.

The BEER Act, which is supported by the Beer Institute, ¹⁴¹ makes wider cuts to the Internal Revenue Code than its counterpart. ¹⁴² The bill was introduced in the Senate by Senator Mark Udall of Colorado on May 15th, 2013, ¹⁴³ and in the House of Representatives by Representative Tom Latham of Iowa on May 9th, 2013. ¹⁴⁴ The bill would alter the Internal Revenue Code as follows: reduce the eighteen dollar per barrel excise tax to nine dollars on all barrels of beer produced, ¹⁴⁵ reduce the excise tax on the first fifteen thousand barrels to zero dollars, ¹⁴⁶ and reduce the excise tax on the next forty-five thousand barrels to three dollars and fifty cents per barrel ¹⁴⁷ for brewers who produce two million or fewer barrels of beer. ¹⁴⁸ The overall effect of this Act would be to make cuts to the existing excise tax rate that would favor both large and small breweries, ¹⁴⁹ as well as provide an added benefit to small breweries. ¹⁵⁰

The Small BREW Act, which is supported by the Brewers Association,¹⁵¹ makes more modest cuts to the Internal Revenue Code.¹⁵² The Small BREW Act was introduced to the Senate on May 9th, 2013, by Senator Ben Cardin of Maryland,¹⁵³ and to the House on February 5th,

```
136. I.R.C. § 5051.
```

^{137.} See A Brewing Fight, supra note 13.

^{138.} S. 958, 113th Cong. (2013); H.R. 1918, 113th Cong. (2013); S. 917, 113th Cong. (2013); H.R. 494, 113th Cong. (2013).

^{139.} S. 958 § 1; H.R. 1918 § 1.

^{140.} S. 917 § 1; H.R. 494 § 1.

^{141.} Annual Report, supra note 126, at 10; A Brewing Fight, supra note 13.

^{142.} S. 958 § 2; H.R. 1918 § 2. See S. 917 § 2; H.R. 494 § 2.

^{143.} S. 958.

^{144.} H.R. 1918.

^{145.} S. 958 § 2(a); H.R. 1918 § 2(a).

^{146.} S. 958 § 3(a)(A)(i) (2013); H.R. 1918 § 3(a)(i).

^{147.} S. 958 § 3(a)(A)(ii); H.R. 1918 § 3(a)(ii).

^{148.} S. 958 § 3(a)(A).

^{149.} S. 958 § 2(a) (2013); H.R. 1918 § 2(a).

^{150.} S. 958 § 3(a); H.R. 1918 § 3(a).

^{151.} Federal Excise Taxes: Small Brew Act vs. Beer Act, BREWERS ASS'N, http://www.brewers association.org/government-affairs/excise-taxes/small-brew-act-vs-beer-act/ (last visited Mar. 31, 2015); A Brewing Fight, supra note 13.

^{152.} S. 917, 113th Cong. (2013); H.R. 494, 113th Cong. (2013).

^{153.} S. 917.

[Vol. 2015

2013, by then-Representative Jim Gerlach of Pennsylvania.¹⁵⁴ The Small BREW Act would alter the Internal Revenue Code as follows: reduce the tax on the first sixty thousand barrels of beer to three dollars and fifty cents,¹⁵⁵ and the next 1.94 million barrels produced to sixteen dollars per barrel¹⁵⁶ on brewers who produce no more than six million barrels of beer during the calendar year.¹⁵⁷ The Small BREW Act is an act that would favor exclusively small breweries given that the threshold placed on this Act is six million barrels,¹⁵⁸ and, in comparison to the BEER Act,¹⁵⁹ does not offer a tax cut on all barrels of beer produced.¹⁶⁰

Regardless of the specifics of each bill, the main thrust of both proposals is to make the cost of brewing go down for breweries. He decreasing costs for the breweries, proponents of the bills hope that a number of economic benefits will flow from the reduction in tax rates. First, proponents of the bills hope that a decrease in the excise tax will help stimulate job growth. Second, given the nature of an excise tax, the possibility of lessening the tax's regressiveness is also present. Finally, the decrease in an excise tax could increase competition in a marketplace that has been dominated by large, consolidated breweries.

While proponents of the bills stress the upside of a decrease in the federal excise tax on beer, there remain a number of opponents who still believe that a reduced tax rate would do more harm than good. Those who oppose the tax decrease note that inflation has already reduced the effective tax rate of the current regime, which Congress instituted in 1991. ¹⁶⁶ In addition, opponents claim that the reduction in revenue that would result from the decrease in tax would outweigh any benefits the lower tax would have. ¹⁶⁷ Lastly, some opponents of the bills believe that the health consequences that could stem from the potential increase in alcohol consumption favor the tax rate remaining the same. ¹⁶⁸

III. ANALYSIS

The purpose of this Part is to address the claims made by the proponents and opponents to both the BEER Act and Small BREW Act.

```
154. H.R. 494.
```

- 155. S. 917 § 2(a)(2)(A)(i); H.R. 494 § 2(a)(2)(A)(i).
- 156. S. 917 § 2(a)(2)(A)(ii); H.R. 494 § 2(a)(2)(A)(ii).
- 157. S. 917 § 2(a)(2)(A); H.R. 494 § 2(a)(2)(A).
- 158. S. 917 § 2(a)(2)(A); H.R. 494 § 2(a)(2)(A).
- 159. See S. 958, 113th Cong. (2013); H.R. 1918, 113th Cong. (2013).
- 160. See S. 958 § 3(a); H.R. 1918 § 3(a).
- 161. See A Brewing Fight, supra note 13 ("[T]axes have become the most expensive ingredient of beer.").
 - 162. See BEER TAX FACTS, supra note 13.
 - 163. See id.
 - 164. See id. at 3.
 - 165. See Hindy, supra note 93; A Brewing Fight, supra note 13.
 - 166. A Brewing Fight, supra note 13.
 - 167. See id.
 - 168. See BEER TAX FACTS, supra note 13, at 6.

The BEER Act has been shown to be a more radical change to the current tax regime given that its implementation would affect more than one market segment. ¹⁶⁹ In contrast, the Small BREW Act only affects a single segment of the market, namely, the smaller breweries. ¹⁷⁰ These differing implications will be important in Part IV of this Note when a recommendation will be given regarding whether the BEER Act, the Small BREW Act, or neither act should be adopted.

A. Methods of Analysis

Both bills seek to lower the federal excise tax, and the bills have arguments which favor their passage and arguments which oppose their passage. In order to address both sides of the argument, a number of approaches will be used to determine which side has a better grasp of the situation.

First, a purely theoretical approach to the problem will be taken. More specifically, an analysis will be conducted which will gauge what could be expected from a change in an excise tax generally. This approach will first isolate the product in question, namely beer, and merely focus on how excise taxes function and how they impact different markets. Next, this theoretical approach will be applied to the beer market, taking into consideration the peculiarities of the specific market. Given this type of analysis, the outcome will be indicative of the potential job growth, market shifts that would occur, and revenues generated and lost that could be expected if Congress adopted either the BEER Act or the Small BREW Act.

After a theoretical approach is taken, a comparative approach will be implemented to gauge how changes in excise taxes have affected different markets in the past, as well as how differing tax rates among the states have affected activity in the brewing industry. In regards to analyzing different markets in the past and how they were affected by a change in the federal excise tax, the market for tobacco products will be analyzed. This market is used given the wide degree of scholarship on the topic and the similarities in the markets.¹⁷¹ Second, the differing excise tax rates among the states can be indicative if higher or lower tax rates have an impact on a brewer's choice in operating in a state with a lower tax rate over a state with a higher tax rate. The conclusion reached from this approach will demonstrate whether brewers are sensitive to different tax regimes.

Following the theoretical and comparative analyses, the most glaring externalities that can be attributed to a lowering of the federal excise tax on beer will be analyzed. These externalities are the health and safety

^{169.} See supra Part II.B.

^{170.} See supra Part II.B.

^{171.} Regard these markets as analogous given the widespread use of both products and the general notion that both products are unhealthy.

consequences that could result from an increase in alcohol production and consumption. In this Section, it will be determined whether there will actually be an increase in these externalities and the best method to address these externalities.

B. The Theoretical Approach

The first approach takes in this Note takes is a theoretical approach. This approach is taken first given the speculative nature of predicting the impact a change in the federal excise tax on beer will have on the current economy as a whole. Thus, a theoretical approach helps to predict what could be expected without getting bogged down in a number of unforeseen circumstances. Given this context, a basic introduction to what an excise tax is and how it functions must be considered. Then, some general facts about the brewing industry will be added to test how a model of the brewing industry would respond to a change in an excise tax.

1. Defining an Excise Tax and Effects on a Market

An excise tax is a tax that is levied on a particular good or service and is applied at a flat rate to each unit of production that is purchased.¹⁷² The imposition of this tax is generally included in the sale price of the product.¹⁷³ In the case of the federal beer tax, the brewers pay the excise tax when the product is "removed for consumption of sale."¹⁷⁴ The overall effect of the tax, however, is not changed by whether the buyer or the seller of the product is responsible for paying the tax.¹⁷⁵ To understand this effect, a quick introduction to basic market structure is necessary.

In a given market, the price of a product and the amount of the product produced or consumed is dictated by supply and demand.¹⁷⁶ The demand function is determined by consumers' desire for a product and the amount they are willing to pay for a particular product.¹⁷⁷ Demonstrated mathematically, the demand curve is depicted as a downward sloping line, because as the price of a product decreases, it is assumed that a consumer would then be more willing to purchase additional units of that particular good.¹⁷⁸ The supply function is dictated by the amount

^{172.} Excise Tax, IRS, http://www.irs.gov/Businesses/Small-Businesses-&-Self-Employed/Excise-Tax (last updated Jan. 22, 2015) [hereinafter Excise Tax].

^{173.} *Id*.

^{174.} I.R.C. § 5054(a)(1) (2012).

^{175.} Steven Tomlinson, *Understanding How an Excise Tax Affects Equilibrium*, CENGAGE LEARNING, http://custom.cengage.com/static_content/OLC/0324833326/data/lecture/8373.pdf (last visited Mar. 31, 2015).

^{176.} *Id*.

^{177.} Reem Heakal, *Economics Basics: Supply and Demand*, INVESTOPEDIA, http://www.investopedia.com/university/economics/economics3.asp (last visited Mar. 31, 2015) [hereinafter Heakal, *Supply and Demand*].

^{178.} *Id.* For a simple demand function the mathematical expression can be given as Quantity Demanded = Amount demanded when price is zero – Price of good X the effect of price has on desire for the good or change in price/change in demand. (Qd = a - PXd).

of product producers are able to make and the amount they are willing to charge for each good.¹⁷⁹ Shown mathematically, the supply function is depicted as an upward sloping line; if a producer can charge more for a product, they would be more willing to supply more of that product.¹⁸⁰ The slope of either the supply or demand curve is established by the tradeoff between the price of the good and quantity of the good produced or consumed.¹⁸¹ The point where these functions intersect establishes the equilibrium point for the market, which sets the amount of product produced/consumed and the price for the product.¹⁸²

For demonstrative purposes, consider a market for shoes. In this market, consumers are willing to purchase four pairs of shoes if the price were zero. Further, consumers would not buy any shoes if the price per pair were \$100. Here, the demand curve would be reflected as Qd = 4 - .04P. Also, producers would be willing to produce five pairs of shoes if they could charge 100 dollars and would not produce any shoes if they were unable to charge consumers for them. Here the supply curve would be Qs = 0 + .05P. Setting the equations equal to one another, it is determined that equilibrium price is \$44.44 and equilibrium quantity equals 2.2 shoes. Set

Recall that an excise tax is a flat tax imposed on the consumption of a particular good.¹⁸⁷ Thus, an excise tax has the effect of altering the equilibrium price established by the market initially.¹⁸⁸ In the example above, the market price was established at \$44.44. If there were an excise tax of \$5.56 placed on shoes, the tax would be paid by either the buyers paying more for the shoes or by sellers to incur an additional cost in the production of the shoes.¹⁸⁹ In this case, assume that the tax is levied onto the seller of the shoes, just as the federal excise tax on beer is imposed on the brewers.¹⁹⁰ The excise tax will have the effect of shifting the supply curve upward to reflect an increase in cost to produce the good.¹⁹¹ After shifting the supply curve upward by the \$5.56 tax, the new supply curve and original demand curve are set equal to each other to determine the new equilibrium price and quantity.¹⁹² After setting the two equations equal to

```
179. Id.
```

^{180.} Id.

^{181.} Id.

^{182.} *Id.*; Tomlinson, *supra* note 175. In terms of mathematics, the values are derived by setting the supply function and demand function equal to each other and solving for the variables, Price and Quantity.

^{183.} Assuming that a person only really needs four pairs of shoes.

^{184.} Slope is determined by (O2-O1)/(P2/P1).

^{185.} Slope is determined by (Q2-Q1)/(P2/P1).

^{186.} 0 + .05p = 4 - .04p; .09p = 4; 4/.09 = p; p = 44.44; 0 + .05(44.44) = Qs; Qs = 2.22: 4 - .04(44.44) = Qd; Qd = 2.22.

^{187.} Excise Tax, supra note 172.

^{188.} See Tomlinson, supra note 175.

^{189.} Id.

^{190.} I.R.C. § 5054(a)(1) (2012).

^{191.} See Tomlinson, supra note 175.

^{192.} Here the supply curve is altered to demonstrate the effect of the tax. Ps = 20Qs + 5.56., and the demand function is altered so the two can be set equal to one another. Pd = 100 - Qd.

[Vol. 2015

each other, it is found that the new equilibrium price is \$47.50 and the equilibrium quantity is 2.097 shoes.¹⁹³ The next step is to determine what the producer is actually receiving for the goods it sells.¹⁹⁴ This is done by imputing the new quantity found into the original supply curve, which is found to be \$41.90.¹⁹⁵ Notice that the difference between the price charged and the price received is equivalent to the value of the excise tax.¹⁹⁶ Thus, as a result of the excise tax, shoes have become more expensive and fewer are consumed. The final step in determining the impact of the excise tax is to demonstrate the revenue generated by the tax. This is done by multiplying the amount of goods sold by the value of the tax.¹⁹⁷ Here, the revenue generated by the tax is \$11.66.

Before moving on to discuss how the change in the federal excise tax on beer would theoretically change production and consumption, a few more points must be discussed. First is the concept of elasticity. Recall in the previous discussion that the slope of a demand or supply function is determined by the tradeoff between price and quantity. Elasticity is the responsiveness or rate of change along a supply or demand curve when there is a price adjustment. In something is considered to be price elastic, this means that a small change in price will have a significant impact on the amount of the good produced or consumed. For instance, goods or services that are not essential will tend to be elastic. On the other hand, the supply or demand of inelastic goods does not react strongly to a change in price. An example of an inelastic good would be gasoline. In general, an item with an elasticity greater than one is considered to be price elastic. A good with a price elasticity less than one is considered to be inelastic.

Related to price elasticity is the concept of tax incidence, which describes the amount a particular tax burdens the buyer or seller of the good.²⁰⁶ When supply is relatively inelastic to demand, the burden of tax will fall on the supplier, and when supply is relatively elastic to demand, then the tax burden will fall primarily on the consumer.²⁰⁷

```
193. 20Q + 5.56 = 100 - 25Q; 94.4 = 45Q; Q = 2.097; 20(2.097) + 5.56 = 47.5.
```

^{194.} See Tomlinson, supra note 175.

^{195.} Ps = 20(2.097); Ps = 41.94.

^{196.} 47.5 - 41.94 = 5.56.

^{197.} See Tomlinson, supra note 175.

^{198.} Heakal, Supply and Demand, supra note 177.

^{199.} Reem Heakal, *Economics Basics: Elasticity*, INVESTOPEDIA, http://www.investopedia.com/university/economics/economics4.asp (last visited Mar. 31, 2015) [hereinafter Heakal, *Elasticity*].

^{200.} *Id*.

^{201.} Id.

^{202.} Id.

^{203.} See id.

^{204.} Id.

^{205.} Id.

^{206.} Tax Incidence, INVESTOPEDIA, http://www.investopedia.com/terms/t/tax_incidence.asp (last visited Mar. 31, 2015).

^{207.} *Id*.

No. 5] TAXING THE KEG

In addition to tax incidence, there are also the concepts of progressive and regressive taxes. A progressive tax is a tax that is positively correlated to the amount of income an individual has.²⁰⁸ The most common example of this is the income tax.²⁰⁹ As an individual earns more money, the average tax rate increases causing a greater amount of tax to be paid by that individual.²¹⁰ A regressive tax, on the other hand, is a tax that is paid regardless of income, and thus those with a lower income are taxed at a higher rate relative to income.²¹¹ Common examples of regressive taxes are the sales tax and an excise tax because, regardless of a person's income, individuals are taxed the same amount.²¹²

Moreover, when considering the brewing market, it can be assumed that the larger beer market reflects that of an oligopoly. An oligopoly is defined as a market that is predominantly controlled by a small number of firms. In the case of the beer market, as stated above, nearly ninety percent of beer sold in the United States is from two firms, Anheuser-Busch InBev and MillerCoors. In Bev and MillerCoors.

Finally, there is the concept of economies of scale. Economies of scale is the theory that as the total output of production increases the cost to supply a particular product decreases. For instance, consider the business that sells shoes. Hypothetically, to produce two pairs of shoes the business needs one employee and one machine where labor and capital costs one unit of production each. In increase production to four pairs of shoes the company would need one employee and two machines. Assuming that costs for inputs of production are constant in this scenario, production increases by one hundred percent with the introduction of a single input of production, meaning that the average cost per

^{208.} Progressive Tax, INVESTOPEDIA, http://www.investopedia.com/terms/p/progressivetax.asp (last visited Mar. 31, 2015).

^{209.} Id.

^{210.} Id.

^{211.} Regressive Tax, INVESTOPEDIA, http://www.investopedia.com/terms/r/regressivetax.asp (last visited Mar. 31, 2015).

^{212.} See id.

^{213.} This assumption is based on the understanding of an oligopolistic market structure. *See Oligopoly*, INVESTOPEDIA, http://www.investopedia.com/terms/o/oligopoly.asp (last visited Mar. 31, 2015) [hereinafter *Oligopoly*]; *see also* Flock, *supra* note 115 (quoting Jim Koch, founder of the Boston Beer Company, who describes the large brewing market as follows: "Their preferred business model is an oligopoly I don't see them as trying to deliberately set out to destroy us. But we are very potentially the collateral damage.").

^{214.} Oligopoly, supra note 213.

^{215.} See supra Part II.A.5; see also Flock, supra note 115 (stating that the two companies now control ninety-percent of the market).

^{216.} Economies of Scale, INVESTOPEDIA, http://www.investopedia.com/terms/e/economiesof scale.asp (last visited Mar. 31, 2015) [hereinafter Economies of Scale].

^{217.} See supra Part III.B.1.

^{218.} Here \hat{i} t is assumed that output is strict function of capital and labor inputs. For demonstrative purposes consider output to equal $[(x)(capital)] \times [(y)(labor)] = output$, where capital and labor efficiencies are equal to (capital) = 2 and (labor) = 1, (x) and (y) refer to number of inputs, and capital and labor inputs are of equal price. Thus, $[(1)(2)] \times [(1)(1)] = 2$ pair of shoes.

^{219.} $[(2)(2)] \times [(1)(1)] = 4$ pairs of shoes.

shoe has decreased from 1 to 0.75 units of production per shoe.²²⁰ Thus, if equilibrium price remains constant, the firm can realize additional profit per good or can reduce the price offered in the market and capture a larger market share.

2. Applying Market Specific Facts to the Theoretical Analysis

Now that general guidelines have been given for the forthcoming analysis, the next step is to establish values shown in the brewing market and characterize how the brewing market operates. To do this, the brewing market will first be analyzed as a whole. Following this analysis, the market will be bifurcated into the markets for large and small breweries. This is done considering the differing impacts the Small BREW Act and the BEER Act could potentially have on the market as a whole and the respective markets for small and large breweries.

Considerations for the Brewing Market as a Whole

First, the brewing market as a whole will be analyzed, given that the BEER Act essentially causes a tax cut across the board for all brewers.²²¹ As a whole, the amount of beer produced in the United States was 195,739,089 barrels per 313,914,000 people, which equates to 19.3 gallons of beer per person in 2012.²²² Also, in 2012 a representative figure for the cost of a twenty-four pack was \$18.98,²²³ and the average cost for a sixpack of domestic beer in 2011 was \$4.95.²²⁴ In 2012, for the market as a whole, the taxation of alcohol resulted in nearly 3.7 billion dollars in revenue from the federal excise tax.²²⁵ The price elasticity of demand for beer in the United States was found to approximately equal -0.2, or, in absolute terms, 0.2.²²⁶ This means that across the board when there is a one-percent increase in price per unit there is an equivalent 0.2 percent

^{220. (}costs of input)/(output) = average cost per output. For the first example this would equal 2/2 = 1. For the second example this would equal 3/4 = .75.

^{221.} See S. 958, 113th Cong. (2013); H.R. 1918, 113th Cong. (2013).

^{222.} Brewer's Almanac, BEER INST., http://www.beerinstitute.org/br/beer-statistics/brewers-almanac (last updated Mar. 1, 2013) [hereinafter Brewer's Almanac]. This point will serve as the basis for establishing equilibrium quantity for further analysis.

^{223.} This number is based on looking at the top five selling beers, DBJ Staff, *Top 20 Selling Beers of 2012*, Dayton Bus. J., http://www.bizjournals.com/dayton/news/2013/01/11/top-20-selling-beers-of-2012.html?s=image_gallery (last updated Jan. 14, 2013), and averaging the cost per six-pack, *Domestic Beer Price List*, Wine Access, http://www.wineaccess.com/file/store/totalwine/beer-corridorwine.pdf (last visited Mar. 9, 2015). This number will also serve as the basis for equilibrium price.

^{224.} Brewer's Almanac, supra note 222 (last updated June 1, 2012). This point will serve as the basis for establishing equilibrium quantity for further analysis. This number will serve as a basis for comparison when discussing the equilibrium price per six-pack for craft beers.

^{225.} This number also includes taxation of imported beer as well as domestic revenue. *Id.* This equates to approximately 6.7 percent of total excise taxes collected in 2012. *SOI Tax Stats – Collections and Refunds, by Type of Tax – IRS Data Book Table 1*, IRS, *available at* http://www.irs.gov/uac/SOI-Tax-Stats-Collections-and-Refunds,-by-Type-of-Tax-IRS-Data-Book-Table-1 (last updated Mar. 21, 2014) (deriving 6.7 percent from the 2012 fiscal year table).

^{226.} Jon P. Nelson, Estimating the Price Elasticity of Beer: Meta-Analysis of Data with Heterogeneity, Dependence, and Publication Bias, 33 J. HEALTH ECON. 180, 186 (2014).

No. 5] TAXING THE KEG

decrease in demand for beer. Further, the taxation of beer is a regressive tax and is considered to be one of the most regressive taxes in the federal tax regime.²²⁷ Finally, the tax incidence is one that falls predominantly on consumers given the inelastic demand for beer.²²⁸

b. Considerations for the Large Brewing Market

Much of what has been said of the beer market as a whole is reflected in the brewing market for large breweries. The reason for this is that large breweries dominate the brewing market as a whole.²²⁹ In terms of quantity consumed, craft brewing accounts for only 6.62 percent of beer production in the United States.²³⁰ The remaining 93.38 percent of production is done through large breweries or imports.²³¹ In fact, it has been estimated that large domestic breweries produced as high as roughly eighty-six percent to ninety percent of beer consumed in the United States.²³² Based on this information, it can be assumed that the average cost per case and six-pack is roughly equivalent to the numbers described in the previous section.²³³ Based on subsequent research, however, it has been determined that the price elasticity of mass produced beers is slightly lower than that of the market as a whole, with a value of -0.12.²³⁴ This means that consumers of mass produced beer are even less responsive to a change in the price of mass produced beer than consumers of beer as a whole.235

c. Considerations for the Small Brewing Market

While much of what could be said about the beer market as a whole could be said about the large brewing market, that is not the case when it comes to the market for small breweries and craft beer. A significant reason for this is that mass produced beer and craft beer have been found to be poor substitutes for one another.²³⁶ This means that if the price were to drop for mass produced beer, there would be little change in the consumption of craft beer.²³⁷ On the whole, however, it seems that the relative demand for craft beer has been increasing, considering the gains in market share the craft brewing industry has seen in the last few dec-

- 227. See BEER TAX FACTS, supra note 13, at 3.
- 228. Id. at 2.
- 229. See supra text accompanying notes 112-15.
- 230. See supra text accompanying notes 110–11.
- 231. See supra text accompanying note 115.
- 232. See Flock, supra note 115; Daniel Toro-Gonzalez et al., Substitution Between Mass-Produced and High-End Beers, WASH. ST. U. 1,5 (Nov. 8, 2011), http://aic.ucdavis.edu/cwe/McCluskey.pdf.
 - 233. See supra Part III.B.2.a.
 - 234. See Toro-Gonzalez et al., supra note 232, at 13.
 - 235. See supra Part III.B.2.a.
 - 236. See Toro-Gonzalez et al., supra note 232, at 15.
- 237. See Cross Price Elasticity, INVESTOPEDIA, http://www.investopedia.com/terms/c/cross-elasticity-demand.asp (last visited Mar. 31, 2015).

C

ades.²³⁸ This point can be seen by the market share of craft brewing currently situated at 6.62 percent of the market.²³⁹

Another point of difference between craft brewing and mass produced beer is the price of the product and their respective elasticity. Based on prices in 1996, an average cost of a craft brewed six-pack was \$6.45 as compared to a mass-produced six-pack, which cost four dollars and one cent.²⁴⁰ This means that a craft beer will cost approximately six-ty-one percent more than a mass produced beer.²⁴¹ This differentiation in price can be attributed, in part, to the relative economies of scale of large brewers as compared to small breweries.²⁴² In addition, it has been found that the price elasticity of demand for a craft beer is equal to -0.32, or in absolute terms 0.32.²⁴³ This means that for a one percent decrease in price, there is an equivalent 0.32 percent increase in demand.²⁴⁴

Finally, it is important to note the relative output numbers associated with craft breweries.²⁴⁵ In 2013, the output from craft breweries that brewed up to sixty thousand barrels was greater than nine million barrels.²⁴⁶ Brewers with an output between sixty thousand and two million barrels produced a total of sixteen million one hundred and forty thousand barrels in the same year. Finally, brewers with outputs between two and six million barrels had a total output of just over two million one hundred thousand barrels of beer.²⁴⁷

3. Incorporating the Market Specific Facts and the Proposed Changes to the Federal Excise Tax

Now that more specific information has been given concerning the various segments of the brewing market and the market as a whole, a proper analysis concerning the proposed change in the federal excise tax can be given. First, the BEER Act will be analyzed given that the changes it makes to the tax regime affect the entire market. Then the Small BREW Act will be analyzed given that this proposed change impacts predominately the small brewing market with subsidiary impacts being felt among the market as a whole.

^{238.} See supra text accompanying notes 85-87.

^{239.} See supra text accompanying notes 89, 110-11 (noting that in 2008 the relative share was around 4 percent).

^{240.} TREMBLAY & TREMBLAY, supra note 14, at 126 tbl.5.9.

^{241. (}Craft Beer Cost – Mass Produced Beer Cost) / (Mass Produced Beer Cost).

^{242.} See supra text accompanying note 216; TREMBLAY & TREMBLAY, supra note 14, at 126 tbl.5.9 (demonstrating the average costs of production inputs needed to arrive at the cost per six-pack of craft beer versus mass produced beer).

^{243.} Toro-Gonzalez et al., supra note 232, at 13.

^{244.} See supra Part III.B.1.

^{245.} See Économic Benefits, BREWERS ASS'N, http://www.brewersassociation.org/government-affairs/excise-taxes/economic-benefits/ (last visited Apr. 5, 2015) [hereinafter Economic Benefits].

^{246.} Id.

^{247.} Id.

a. Anticipated Impact of the BEER Act

The BEER Act would have the effect of reducing the tax imposed on breweries who produce less than two million barrels; it would do so by allowing the first fifteen thousand barrels to be made tax free, while breweries producing between fifteen thousand barrels and sixty thousand barrels would pay \$3.50 per barrel.²⁴⁸ In addition, all beer produced beyond the first sixty thousand barrels for the small breweries and for all barrels produced by large breweries would be taxed at a 9 dollar excise tax rate. Given this change, the tax rate for all barrels of beer produced would essentially be cut in half under the existing tax code,²⁴⁹ with additional cuts on the first fifteen thousand barrels, which would apply to all microbreweries²⁵⁰ and most craft breweries.²⁵¹

Based on this change and the various principles outlined above, a number of expectations can be made concerning the brewing industry at large. First, given that the tax is levied on the production side of beer, the supply curve for the brewing industry would presumably be affected.²⁵² This is the case because it would now be cheaper for brewers to produce their goods.²⁵³

Even though it would be cheaper to produce beer, a substantial number of brewers could potentially not increase the amount of beer produced or offered in the market. Recall that the price elasticity of demand for beer is considered to be rather inelastic, meaning that a drop in price would not greatly impact the amount of beer actually consumed; thus, little additional production would be needed to meet the higher equilibrium consumption.²⁵⁴ If a majority of breweries did not change their production output but merely produced the same amount or slightly increased production, the result would be an increase in the profit margin for the breweries themselves.²⁵⁵ If this set of circumstances occurred, a number of the benefits proposed by advocates of the BEER Act would not occur, namely the drastic increase in economic activity.²⁵⁶

On the other hand, if brewers as a whole were to increase production of the amount of beer produced, there would an economic gain

^{248.} S. 958, 113th Cong. § 3(a) (2013); H.R. 1918, 113th Cong. § 3(a) (2013).

^{249.} See I.R.C. § 5051(a) (2012).

^{250.} See Market Segments, supra note 95 (defining "microbrewery" as "a brewery that produces less than 15,000 barrels... of beer per year with 75 percent or more of its beer sold off-site").

^{251.} See id. (defining the other three craft beer industry market segments: "brewpubs," "regional craft breweries," and "contract brewing companies"). Also, note that this statement holds essentially true based on a definition of craft breweries producing less than two million barrels because only the Boston Beer Company produces more than two million barrels of beer and is still considered a craft brewery. Love of Beer, supra note 114, at 19.

^{252.} See supra Part III.B.1 (discussing the concept of supply curves).

^{253.} See supra Part III.B.1 (discussing the effect of an excise tax on the equilibrium point or price).

^{254.} See supra text accompanying notes 225-26.

^{255.} Logically speaking, this makes sense. If a firm charged the same amount for a good but the good was now cheaper to produce, the amount of gain realized on the product would increase.

^{256.} See BEER TAX FACTS, supra note 13.

[Vol. 2015

found by reducing the tax rate. This is based on the simple understanding that as the cost of business decreases, firms would be more willing to offer more goods to meet an increase in demand as a result of the price drop. To meet this demand, breweries would theoretically need to expand production by either hiring new staff to operate existing capital or purchase new capital stock which would provide an economic benefit to firms who manufacture the equipment required for brewing. In fact, it has been estimated that the institution of the BEER Act tax cut could result in the employment of nearly fifty thousand additional workers, given that the entire market is affected. Under this set of circumstances, a great deal of economic activity could be expected to occur if there were a decrease in the federal excise tax.

Aside from the production considerations, there are also concerns surrounding the loss of federal tax revenue as a result of a tax cut. Currently, it is estimated that the federal government receives nearly 70 million dollars per week based on the beer tax.²⁶⁰ If the BEER Act were implemented, then presumably the federal revenue would drop by over fifty percent.²⁶¹ While this seems like a drastic drop in revenue, much of this lost revenue could be made up in the form of various other taxes resulting from increases in production and employment.²⁶² This replacement of revenues from other taxes, however, would be in part dependent on what the brewers actually did in response to the cut in the federal excise tax.

Relating to the tax itself, a decrease in the federal excise tax across the board would make the federal excise tax on beer less regressive. The reason for this is that the costs consumers have to pay in the form of increased beer prices as a result of the existing tax regime would be diminished by a reduction in tax.²⁶³ Thus, the tax paid by lower- to middle-income consumers, which is currently estimated to impact them 6.5 times more than high-income consumers, would be reduced and make the federal excise tax less regressive.²⁶⁴

^{257.} See supra Part III.B.1.

^{258.} See Pat Casey, How to Start a Brewery, CASEY'S BEER (Sept. 15, 2010), http://www.caseysbeer.com.au/?page id=423 (discussing the costs and considerations for starting a brewery).

^{259.} BEER TAX FACTS, supra note 13, at 13.

²⁶⁰ Id

^{261.} Nearly all beer produced in the United States would be taxed at fifty percent of the current rate, excluding the beer produced by craft breweries, which would qualify for the special clause associated with breweries producing less than two million barrels for the first fifteen thousand barrels produced and following forty-five thousand barrels. S. 958, 113th Cong. § 3(a) (2013); H.R. 1918, 113th Cong. § 3(a) (2013).

^{262.} See generally Bartholomew C. Watson, Economic Impact of the Small Brewer Reinvestment and Expanding Workforce Act, BREWERS ASS'N (Sept. 9, 2014), available at http://www.brewers association.org/wp-content/uploads/2015/01/Excise-Tax-Impact-Small-BREW-Act.pdf (describing the potential tax offsets relating to the Small BREW Act). Note that while this Section focuses on the BEER Act, the general concept of recovering revenue applies.

^{263.} BEER TAX FACTS, supra note 13.

^{264.} *Id.* at 3.

The previous paragraphs discussing on the potential impact the BEER Act would have on the brewing market has focused on the changes that could occur in the brewing market as a whole. As it has been stated above, the brewing market can be described as being composed of two distinct markets: the small brewing market and large brewing market. Much of what has been said in the previous paragraphs is applicable to the large brewing market given its oligopolistic nature. The small brewing market, however, does not fall under an oligopolistic market structure given the vast number of breweries that are defined as either a brewpub, microbrewery, or a regional craft brewery. Thus, predictions made concerning the BEER Act's impact on the small brewing market will now be considered.

Under the BEER Act, craft breweries would receive an added tax cut by allowing the small breweries to produce the first fifteen thousand barrels of beer tax-free as wells as receive a tax cut on the additional forty-five thousand barrels produced.²⁶⁷ Based on the most recent data, this would equate to a tax savings on nearly 9.2 million barrels currently being taxed for a total of almost sixty-seven million dollars.²⁶⁸ Furthermore, this added benefit greatly decreases the costs associated with microbreweries in particular because this segment would be able to operate without being taxed by the federal government.²⁶⁹ This tax-free advantage would allow for small breweries to expand much more easily under the assumption that they have not yet attained economies of scale in comparison to other, larger breweries.²⁷⁰

By reducing the cost of small brewers through either increased access to economies of scale or by a reduction in cost out right through the tax cut, small breweries may be able to compete more easily with the products of the larger breweries. Recall that on average a craft beer sixpack is roughly sixty percent more expensive than a mass produced beer.²⁷¹ By bringing the costs of both products more in line with each other, consumers may choose to purchase more craft beers.²⁷²

While the tax cut under the BEER Act could presumably favor small breweries to a substantial degree, there are a number of drawbacks which could hinder the expansion of the craft brewing market through this change. First, even though craft breweries gain an added advantage under the BEER Act, the fact still remains that larger breweries are also receiving a tax cut.²⁷³ Overall, the effects of the BEER Act sweep across

^{265.} See supra text accompanying notes 213–15.

^{266.} See supra text accompanying note 102.

^{267.} S. 958, 113th Cong. § 3(a) (2013); H.R. 1918, 113th Cong. § 3(a) (2013).

^{268.} Economic Benefits, supra note 245.

^{269.} See Market Segments, supra note 95 (defining "microbrewery" as "[a] brewery that produces less than 15,000 barrels... of beer per year with 75 percent or more of its beer sold off-site").

^{270.} See supra text accompanying notes 216–20.

^{271.} See supra text accompanying note 241.

^{272.} Once again realizing that craft brewing has increased its market share in the past decades. See supra Part II.A.4–5.

^{273.} See S. 958, 113th Cong. § 2(a) (2013); H.R. 1918, 113th Cong. § 2(a) (2013).

[Vol. 2015

the entire beer industry, which results in the added potential that the current status quo would remain the same after the initial round of changes made by breweries have taken effect. Second, the cross price elasticity of demand between craft beer and mass produced beer has been considered to be inelastic, which means that even though craft beer could become cheaper, consumers may be unwilling to purchase more craft beer based on the price change alone.²⁷⁴ This point, however, could be tempered slightly by the fact that the craft brewing industry has seen a growing market share regardless of the overall higher cost of craft beer over mass produced beer.²⁷⁵ Lastly, the price elasticity of demand for craft beer alone, while slightly greater than mass produced beer, is still considered to be inelastic.²⁷⁶ Thus, even though craft breweries could expand based on decreased operating costs, the expansion could still be held back by anemic response on the demand side for craft beer.277 Once again, this fact may be less important considering the growing demand in general for craft beer.278

b. Anticipated Impact of the Small BREW Act

Where the BEER Act would impact the industry as a whole directly, the Small BREW Act concerns solely the small brewing market.²⁷⁹ Recall that the Small BREW Act would change the existing excise tax by taxing brewers who produce fewer than six million barrels of beer at three dollars and fifty cents on the first sixty thousand barrels produced and sixteen dollars on the subsequent 1.94 million barrels.²⁸⁰ Thus, the only group which is not included in this tax change would be the largest breweries in the United States.²⁸¹ While this proposed tax change directly impacts the small brewing industry, there are still secondary impacts on the large brewing industry that must be considered given that this tax change would affect the market in general. It is important to note that many of the figures cited in regards to the impact of the Small BREW Act are from an analysis performed by Bartholomew C. Watson, Chief Economist of the Brewers Association, who developed a report, based on methodology established by John N. Friedman of Brown University, detailing the impact of the Small BREW Act.²⁸²

In terms of direct economic impact, the Small BREW Act appears to offer a number of benefits for the small brewing industry and the United States economy as a whole. It has been estimated that if the Small

- 274. Toro-Gonzalez et al., supra note 232, at 15.
- 275. See supra text accompanying notes 102–11.
- 276. See supra text accompanying notes 226, 243–44.
- 277. See Heakal, Elasticity, supra note 199; supra text accompanying note 254.
- 278. See supra text accompanying notes 102-11.
- 279. See S. 917, 113th Cong. § (2)(a)(2)(A) (2013); H.R. 494, 113th Cong. § (2)(a)(2)(A) (2013).
- 280. S. 917, 113th Cong. § 2(a); H.R. 494, 113th Cong. § 2(a).
- 281. The largest craft brewery in the United States is the Boston Beer Company, which produced 2.7 million barrels in 2012. *Love of Beer, supra* note 114, at 19.
 - 282. See Watson, supra note 262.

BREW Act were enacted, small breweries would increase sales by 1.9 million cases resulting in 65 million dollars of revenue for small breweries. Overall, the Small BREW Act would create 205 million dollars in economic activity and in five years create a total of just over 1.2 billion dollars in economic activity. The change in tax found in the Small BREW Act would also create about six thousand jobs in its first year and add over five hundred and seventy jobs per year following its passage. 285

The Small BREW Act would also have an impact on government revenues. Overall, the federal government would receive a 76 million dollar loss in revenue as a result of the reduction in the excise tax under the Small BREW Act in the first year. These losses, however, are expected to be offset by alternative tax revenue totaling to approximately 55 million dollars as a result of increased production. Thus, the initial adjusted revenue loss would be over 19 million dollars, and over five years would be just under 130 million dollars. From a different perspective, it would essentially cost the government 3.362 dollars for every job predicted to be created through the Small BREW Act. Programment 289

Consequently, the Small BREW Act would have a significant impact on the craft brewing industry while minimally impacting government revenues. The question of how the Small BREW Act affects the brewing market at large still remains. As stated above, the cross price elasticity for craft and non-craft beer is relatively inelastic; thus, the change in price for craft beer would have little impact on the amount of craft beer consumed as a result of a price drop.²⁹⁰ Moreover, it is predicted that the price drop of craft beers would be less than the drop in the excise tax,²⁹¹ further lessening the increase in demand for craft beer based on a reduction in price.²⁹²

Even though a change in price seemingly would have little effect on the demand for craft beer, the mere fact that it is cheaper for small breweries to produce beer under the Small BREW Act could allow for small breweries to access markets more easily. This assumption is based on the concept of economies of scale.²⁹³ Given the increased savings small brewers could receive from the Small BREW Act, the brewers could reinvest into their production facilities by allocating more capital or labor, and thus increasing production and lowering the cost of each unit produced.²⁹⁴ This, in turn, would allow brewers to expand beyond their current mar-

```
283. See id. at 3.
```

^{284.} See id. at 4.

^{285.} See id.

^{286.} *Id*.

^{287.} Id. at 5.

^{288.} Id.

^{289.} Id.

^{290.} Toro-Gonzalez et al., supra note 232, at 15.

^{291.} Watson, *supra* note 262, at 3.

^{292.} Toro-Gonzalez et al., *supra* note 232, at 15.

^{293.} See Economies of Scale, supra note 216.

^{294.} *Id*.

kets and attempt to gain more market share.²⁹⁵ The expansion could have the effect of further increasing craft breweries share of the market in general, just as they have done in the preceding decades.²⁹⁶ This potential conclusion is further compounded by the fact that the larger breweries do not receive a benefit of the change in excise tax under the Small BREW Act; thus, a greater competitive edge is given to craft breweries.²⁹⁷

C. The Comparative Analysis

Moving beyond the theoretical impacts of the two potential changes in the excise tax, a comparative analysis will be used to predict how either the BEER Act or the Small BREW Act would affect the supply and demand of beer. In this Section, the market for tobacco products will first be used as a comparative product to beer given their like characteristics and similar regulatory burdens. For this analysis, the beer market will not be bifurcated, given that there is not a like split in the tobacco market.²⁹⁸

Following the comparison between the beer and tobacco markets, an analysis will be done regarding the differing excise taxes among the states; it will determine if brewers are sensitive to the relative excise taxes among the states when deciding where to open a brewery. This is what the craft beer market will be focused on in particular, but not exclusively, given that craft brewers are the ones more readily opening up new breweries. This focus thus lends itself to the concept of sensitivity to the relative taxes among the states.

1. Comparing Beer and Tobacco

The market for tobacco products is used as a comparison for two reasons. First, both beer and tobacco are subjects of what has been termed as a "sin tax," and thus are treated similarly under different taxing regimes.²⁹⁹ Related to this point, tobacco has been the subject of many changes in terms of how it is taxed³⁰⁰ which serves as a point of comparison in determining how a change in tax would affect the beer

^{295.} See Brenna Hawley, Boulevard Brewing's Craft Brethren Increase Share of Beer Sales, KAN. CITY BUS. J. (Mar. 27, 2012, 2:27 PM), http://www.bizjournals.com/kansascity/news/2012/03/27/boulevard-brewing-craft-beer-sales-rise.html (noting that Boulevard Brewing saw increases in markets even though it is less than five years old at the time of the article).

^{296.} *Id.*; see supra Part II.A.4–5 (noting the expansion of craft beer during the current tax regime).

^{297.} See S. 917, 113th Cong. § 2(a) (2013); H.R. 494, 113th Cong. § 2(a) (2013).

^{298.} In other words, there are no equivalent "craft" producers of tobacco products equal to those in the beer market.

^{299.} Sin Tax, INVESTOPEDIA, http://www.investopedia.com/terms/s/sin_tax.asp (last visited Apr. 5, 2015) [hereinafter Sin Tax].

^{300.} See generally Ctrs. for Disease Control & Prevention, Federal and State Cigarette Excise Taxes-United States, 1995–2009, 58(19) MORBIDITY & MORTALITY WKLY. REP. 524 (2009), available at http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5819a2.htm (summarizing changes in the federal and state cigarette excise taxes from 1995 to 2009).

market by looking at how the changes in tax have affected the tobacco market.

A "sin tax" is a tax that is imposed on non-luxury goods which target products or services generally associated with a vice.³⁰¹ These taxes are incredibly popular among governments because they target a particular portion of society, they do not affect production, and they are able to generate large amounts of revenue.³⁰² "Sin taxes" are able to generate such large amounts of revenue given the elasticity's associated with the products taxed.³⁰³ Cigarettes in particular are estimated to traditionally have had a price elasticity in absolute terms of 0.3,³⁰⁴ which is similar to the price elasticity of beer at 0.2.³⁰⁵ Therefore, when there is a change in price through an increase in tax, people tend to consume almost the same amount of either product, thus allowing for large tax revenues to be generated.³⁰⁶

This understanding of elasticity has been reflected in the tobacco market as taxes have changed. It has been determined that an increase in the taxation of tobacco has little effect on the consumption of tobacco.³⁰⁷ In 1970 it was estimated that there were five hundred and thirty-six billion cigarettes consumed and by 2007 there were three hundred and sixty billion cigarettes consumed.³⁰⁸ This equates to a 32.8 percent decline in gross cigarette consumption.³⁰⁹ While this is a significant change, the change in tobacco consumption is attributable predominately to antismoking efforts and regulations, not the increase in price associated with tax.³¹⁰ Change in price associated with the tax increases over time, as predicted, had little effect on consumption.³¹¹

Based on this short analysis, a number of assumptions can be made. First, estimated elasticity is indicative of how a market will react to a change in price. Thus, if the excise tax on beer were to change, then it can be assumed that the consumption of beer would not be greatly affected by a change in tax (based on the like characteristics of beer and tobacco and how tobacco has reacted in the past to tax changes). Second, given that "sin taxes" have little impact on the actual consumption of the

^{301.} Sin Tax, supra note 299.

^{302.} Id.

^{303.} See supra Part III.B.1.

^{304.} Big Tobacco Takes Its Last Drag as Economic Change Loom, FORBES THE ST. (Sept. 6, 2013, 12:19 PM), http://www.forbes.com/sites/thestreet/2013/09/06/big-tobacco-takes-its-last-drag-aseconomic-change-looms/ (noting the historical elasticity of cigarettes, but remarking on the changing industry as a result of the influences of e-cigarettes and smokeless tobacco).

^{305.} See supra text accompanying note 226.

^{306.} See Sin Tax, supra note 299.

^{307.} Jeffrey Wasserman et al., *The Effects of Excise Taxes and Regulations on Cigarette Smoking*, 10 J. HEALTH ECON. 43, 58 (1991).

^{308.} Am. LUNG ASS'N, TRENDS IN TOBACCO USE 17 tbl.2 (2011), available at http://www.lung.org/finding-cures/our-research/trend-reports/Tobacco-Trend-Report.pdf.

^{309. (360-536)/536.}

^{310.} Wasserman et al., supra note 307.

^{311.} *Id*.

2172 UNIVERSITY OF ILLINOIS LAW REVIEW

[Vol. 2015

products, addressing the health concerns associated with the products they are imposed on is not best accomplished through taxation.³¹²

2. Excise Taxes Among the States

While the federal excise tax is levied on all beer, each state sets its own excise tax on beer. By analyzing both the concentration of breweries in a state and the state's tax rates, and then comparing these facts to other states, it can be determined to a degree whether brewers are sensitive to differing tax rates. It must be noted at the outset of this analysis that there may be much more than just tax differences which impacts the decision of brewers to open a brewery in a particular state.³¹³ This analysis is merely done to provide at least one avenue in which to test brewer's sensitivity to a market based on tax.

The range of excise taxes among the states varies considerably. The highest excise tax placed on the production of beer is in Tennessee, with a tax of \$1.17 per gallon.³¹⁴ This equates to a \$36.27 tax per barrel, just over twice as much as the highest federal rate.³¹⁵ The lowest tax on beer is found in Wyoming with a tax of \$0.02 per gallon.³¹⁶ In other words, the lowest per barrel tax is merely \$0.62.³¹⁷ Outlined below are tables that show the ten highest tax states, the ten lowest tax states, the ten greatest breweries per capita in a state.³¹⁸

^{312.} See infra Part III.D.

^{313.} This includes soft variables, such as culture, which are unable to be addressed within the confines of this Note.

^{314.} State Beer Excise Tax Rates, 2009–2013, TAX FOUND. (Apr. 8, 2013), http://taxfoundation.org/article/state-beer-excise-tax-rates-2009-2013 [hereinafter State Beer Excise Tax Rates].

^{315.} A barrel of beer under the federal excise tax is 31 gallons. I.R.C. § 5051(a) (2012).

^{316.} State Beer Excise Tax Rates, supra note 314.

^{317.} See I.R.C. § 5051(a) ($$0.2 \times 31 = 0.62).

^{318.} Capita Per Brewery 2012, BREWERS ASS'N, http://www.brewersassociation.org/attachments/0000/6291/Capita_perbrewery.pdf (last visited Apr. 5, 2015); State Beer Excise Tax Rates, supra note 314. Note that I did not include the District of Columbia as a State.

The Ten Highest Tax Rates Among the			The Ten Lowest Tax Rates Among		
States			the States		
Rank	State	Tax per	Rank	State	Tax Per
		Gallon			Gallon
1	Tennessee	\$1.17	50	Wyoming	\$0.02
2	Alaska	\$1.07	49	Missouri	\$0.06
3	Alabama	\$1.05	48	Wisconsin	\$0.06
4	Georgia	\$1.01	47	Colorado	\$0.08
5	Hawaii	\$0.93	46	Pennsylvania	\$0.08
6	South Carolina	\$0.77	45	Oregon	\$0.08
7	Kentucky	\$0.76	44	Massachusetts	\$0.11
8	Washington	\$0.76	43	Rhode Island	\$0.11
9	North Carolina	\$0.62	42	Indiana	\$0.12
10	Minnesota	\$0.48	41	New Jersey	\$0.12

The Ten Greatest Craft Breweries per			The Ten Fewest Craft Breweries per		
Capita Among the States			Capita Among the States		
Rank	State	Total Craft Brew-	Rank	State	Total
		eries			Craft
					Breweries
1	Vermont	25	50	Mississippi	3
2	Oregon	140	49	Louisiana	8
3	Montana	36	48	Alabama	10
4	Alaska	22	47	Georgia	24
5	Colorado	151	46	Oklahoma	10
6	Maine	37	45	West Virginia	5
7	Wyoming	15	44	New Jersey	27
8	Washington	158	43	Florida	59
9	Idaho	29	42	Kentucky	14
10	Wisconsin	83	41	Texas	86

Based on these facts, a number of observations can be made. First, it appears that states in the South both have the highest tax rates as well as the fewest number of breweries per capita.³¹⁹ Furthermore, four of the states with the lowest tax rates also were included in the top ten of the largest number of breweries per capita,³²⁰ whereas only two states are cross listed between highest tax and largest number of breweries per capita.³²¹ It is also interesting to note that the home to the largest breweries include the lowest tax rates among the states.³²² From these observations, it seems that tax rates may play an important role in determining whether brewers decide to run a brewery in a particular state.

^{319.} See supra note 318 and Tables 1 and 2.

^{320.} See supra note 318 and Tables 1 and 2 (Wyoming, Montana, Colorado, and Oregon).

^{321.} See supra note 318 and Tables 1 and 2 (Alaska and Washington).

^{322.} Wisconsin, Colorado, and Missouri are the home to Miller, Coors, and Anheuser-Busch, respectively. *See Brewers Association Lists Top 50 Breweries of 2013*, BREWERS ASs'N, http://www.brewersassociation.org/press-releases/brewers-association-lists-top-50-breweries-of-2013/ (last visited Apr. 5, 2015); *State Beer Excise Tax Rates, supra* note 314.

One surprising observation from this simple study is between Oregon and Washington. These two states border one another, and they have a similar number of total breweries and breweries per capita, but they are at opposite ends of the tax spectrum.³²³ This fact seems to indicate that brewers will not base their decision to open a brewery solely on the tax considerations; however, this is not overly surprising given that tax is just one of the inputs associated with running a brewery.

Ultimately, there does seem to be some correlation between a state's tax rate and the choice to open a brewery there. Large breweries are located in states with low tax rates on the production of beer; there are a number of low tax, high craft brewery per capita states, as well as a number of high tax, low brewery per capita states. Tax, however, does not seem to be the sole driving decision for brewers when they are considering opening a brewery based on the anomalies of Washington and Oregon. Aside from these outliers, tax does seem to play some role in the decision making process.

D. The Externalities Analysis

A chief concern related to a decrease in the federal excise tax is the potential increase in negative health and societal consequences associated with an increase in the consumption of alcohol.³²⁴ These negative aspects can collectively be referred to as externalities.³²⁵ An externality is a positive or negative impact experienced by a third party as a result of an economic activity.³²⁶ The negative externalities of alcohol consumption include drunken driving rates, health consequences resulting from consumption of alcohol, and alcoholism and addiction. Based on the potential increase in production and consumption through either the impacts of the BEER Act or Small BREW Act,³²⁷ there will potentially be an increase in the externalities associated with the consumption of beer.

Even though it would be cheaper for brewers to produce beer under either the BEER Act or Small BREW Act, the amount of beer actually consumed would most likely change very little.³²⁸ This is based on the understanding that the price elasticity of demand for either large or craft beer is inelastic.³²⁹ Instead of seeing an overall increase in consumption, what would likely occur is a shifting between drinking one type of beer

^{323.} See supra note 318 and Tables 1 and 2.

^{324.} Andrew Siddons, *Riding Wave of Popularity, Craft Brewers Ask Congress for a Tax Cut*, N.Y. TIMES, Mar. 28, 2013, http://www.nytimes.com/2013/03/29/business/riding-wave-of-popularity-craft-brewers-ask-congress-for-a-tax-cut.html?_r=0 (Phillip J. Cook, a professor of public policy and economics at Duke University, said, "The taxes that are included in the price of the beer do not begin to pay for the social costs of drinking.").

^{325.} Externality, INVESTOPEDIA, http://www.investopedia.com/terms/e/externality.asp (last visited Apr. 5, 2015).

^{326.} Id.

^{327.} See supra Part III.B.3.

^{328.} See supra Part III.B.3.

^{329.} See supra text accompanying notes 274–76.

over the other.³³⁰ Thus, differences in taxation would likely have little effect on the externalities associated with drinking beer because tax has little effect on the consumption of beer.

This conclusion is supported by the analysis done by the Beer Institute.³³¹ The Beer Institute concluded that those most at risk of suffering from health related and addiction problems associated with beer and alcohol are not persuaded by higher or lower prices,³³² drunk driving would most likely go unaffected,³³³ and teen drinking would also be unlikely to change.³³⁴ As noted above, altering the price of a potentially harmful product does little to impact consumption if the elasticity of the product is low.³³⁵

While concerns regarding the externalities associated with drinking beer and alcohol should not be dismissed, the taxing regime is an ill-suited vehicle for addressing these issues. The public in general is relatively insensitive to changes in price when it comes to beer. Furthermore, the amount of beer actually consumed is likely to change very little with a decrease in the excise tax. Thus, many of the opponents who cite externalities as a reason to deny the passage of the Small BREW Act and BEER Act are concerned with an outcome that will potentially increase only very slightly. The same property of the same

IV. RECOMMENDATION

A. Should There Be a Change in the Federal Excise Tax?

This Note has considered the merits of two proposed laws, the Small BREW Act and the BEER Act. Given the possible outcomes associated with each act, the initial question to answer is whether there needs to be a change in the federal excise tax at all. Commentators have noted that, since 1991 when the current excise tax was implemented,³³⁸ inflation has essentially eroded the imposition of the tax to a point that is equivalent to the pre-1991 levels.³³⁹ While this argument is facially true, it ignores the changes that have occurred in the brewing industry in the past two decades.

When the federal excise tax was changed in 1991, the craft brewing revolution was in its infancy.³⁴⁰ The tax at that time would have been pre-

^{330.} See supra Part III.B.2.

^{331.} See BEER TAX FACTS, supra note 13, at 6-7 (discussing the intersection of beer taxes and social cost).

^{332.} See id. at 8.

^{333.} See id. at 9-10.

^{334.} See id. at 11-12.

^{335.} See Wasserman et al., supra note 307.

^{336.} See supra Part III.B.2.

^{337.} See BEER TAX FACTS, supra note 13, at 11-12.

^{338.} See Siddons, supra note 324.

^{339.} See id.

^{340.} See supra Part II.A.4.

dominantly imposed on the largest breweries, and craft breweries would have hardly appeared on Congress' radar. The market as it appears to-day, however, is significantly different than what it was in 1991 and continues to change. With the changing market, there should be a change in the tax structure imposed on the market. This is where the BEER Act and Small BREW Act come into play. Craft beer demand has grown by leaps and bounds, and large breweries have had a consolidated hold on the market for some time. An update in the tax structure would recognize and address the current state of the market and leave behind conceptions of the market as it existed over twenty years ago.

B. Choosing Between the Small BREW Act and the BEER Act

With two competing laws in Congress poised to change the federal excise tax on beer, the choice between which law to endorse will depend on personal beliefs and desires about the beer industry. The BEER Act will provide a tax cut across all market segments of the brewing industry, provide an added benefit for small breweries, and drastically change the federal excise tax on beer.³⁴³ The Small BREW Act, on the other hand, concerns itself predominately with the craft brewing industry by only providing a tax cut to such breweries.³⁴⁴ Based on the analysis above, the Small BREW Act is the superior act to adopt. This recommendation is made based on the existing split in brewing industry and the need for competition, the mitigated impact the Small BREW Act would have on government revenues, and that the concerns of the opposition to changes in the tax rates are better addressed under the Small BREW Act.

The brewing industry can be described as one where a large number of small players are attempting to compete with a handful of giants.³⁴⁵ In this industry, comprised of over twenty-five hundred companies, there are two breweries that control nearly ninety percent of production.³⁴⁶ The odds are against the smaller companies. Moreover, these larger breweries not only compete indirectly with craft breweries, but also are attempting to compete directly with them through creating additional product lines³⁴⁷ or by buying up existing craft breweries.³⁴⁸ Based on this current market makeup, small breweries should be given the predominant benefit.

- 341. See supra Part II.A.4–5.
- 342. See supra Part II.A.4–5.
- 343. See S. 958, 113th Cong. (2013); H.R. 1918, 113th Cong. (2013).
- 344. S. 917, 113th Cong. (2013); H.R. 494, 113th Cong. (2013).
- 345. See supra Part II.A.5.
- 346. See supra Part II.A.5; Flock, supra note 115 (Anheuser-Busch InBev and MillerCoors).
- 347. See Matt Phillips, America's Fastest Growing "Craft" Beer Is Made by the World's Biggest Brewer, QUARTZ (Feb. 28, 2014), http://qz.com/182269/americas-fastest-growing-craft-beer-is-made-by-the-largest-beer-entity-on-earth/.

^{348.} See John-Erik Koslosky, A-B Adds Another Craft Brewer to Its Collection, DAILY FIN. (Feb. 11, 2014, 2:36 PM), http://www.dailyfinance.com/2014/02/11/a-b-adds-another-craft-brewer-to-its-collection/.

To deliver this benefit, the Small BREW Act is better suited than the BEER Act. While the BEER Act provides added benefits only available to the smaller breweries, the BEER Act extends benefits to all breweries. By decreasing costs across all breweries through the tax cuts, the added benefits given to small breweries under the BEER Act are substantially mitigated. The Small BREW Act, however, only provides benefits to small breweries. This limitation of benefits bestowed on small breweries reflects the realities and needs of the market: there are a number of small companies attempting to compete with massive, established companies. By giving the advantage to small breweries, the ability of the craft brewing industry to compete would be enhanced, and thus allow for this particular industry to thrive, just as it has done in the past few decades. The Small BREW Act are substantially mitigated. The Small BREW Act, however, only provides benefits to small breweries, so that the small breweries are a number of small companies attempting to compete with massive, established companies. By giving the advantage to small breweries, the ability of the craft brewing industry to compete would be enhanced, and thus allow for this particular industry to thrive, just as it has done in the past few decades.

Aside from the market considerations, the Small BREW Act would also be a more reasonable alteration to the tax code in terms of affecting government revenues. Given the limited scope of the Small BREW Act, federal government revenues would only be slightly affected through lost excise tax revenues. Moreover, the amount of revenue lost from the excise tax would be predominantly made up from other tax sources as result of increased economic activity. If taxes were cut across all market segments, as proposed under the BEER Act, then the amount of lost government revenue from the excise tax would be far greater than that expected under the Small BREW Act.

Finally, the concerns associated with the externalities of beer consumption are better addressed if the Small BREW Act were adopted as opposed to the BEER Act. The opposition to the change in the Excise Tax notes that the consumption of beer can lead to health and societal issues.³⁵⁵ These problems are less significant under the Small BREW Act as compared to the BEER Act. Once again, because the Small BREW Act only concerns itself with a relatively small fraction of the market, the concerns of the opposition will be impacted substantially less than if there were a tax cut across the entire market. Craft beer is unlikely to cause consumers to drink more beer or increase the number of individuals who drink beer based on a change in price alone,³⁵⁶ but craft breweries may draw additional consumers away from larger breweries based on changes of preference between craft and mass produced beer.³⁵⁷ The overall change in beer consumed would be low, but the relative market

^{349.} See S. 958, 113th Cong. (2013); H.R. 1918, 113th Cong. (2013).

^{350.} See S. 917, 113th Cong. (2013); H.R. 494, 113th Cong. (2013).

^{351.} See supra Part II.A.5.

^{352.} Craft brewing only makes up 6.62 percent of the whole market. See supra text accompanying note 111.

^{353.} See supra Part III.B.3.b.

^{354.} This conclusion is made given the vast cut the BEER Act makes.

^{355.} See supra Part III.D.

^{356.} See supra Part III.B.3.b (discussing cross-price elasticity).

^{357.} See supra Part II.A.4–5 (noting the increase in demand for craft beer).

[Vol. 2015

shares could be affected, thus, the concerns of the opposition are impacted less under the Small BREW Act as compared to the BEER Act.

Based on the considerations presented in this Note, the Small BREW Act is the preferable change in the federal excise tax. Given the radically different market segments, the minimal impacts on government revenues, and the mitigating aspects when considering externalities, the Small BREW Act is the superior act to adopt.

V. CONCLUSION

This Note provides a brief and somewhat cursory look into an industry that dates back to the earliest history of humankind and explores how a tiny sliver of this history could potentially be changed by the enactment of a new law. With the broad and omnipresent existence of beer, it is difficult to predict how the demand or supply of beer will be impacted by a simple change in tax. What can be determined, however, is that there will be changes if the tax regime were altered, and, as a policy matter, it is important to fully weigh these ramifications.

When deciding the best course of action to take when considering the Small BREW Act or BEER Act, the choice will depend on personal values and desires for the brewing market. This Note has recommended that the best course of action would be to assist the segment of the market which is at a disadvantage through the Small BREW Act. Implementing this act would increase competition in a market where there has been a significant lack of it, while best addressing the concerns of the opposition. Not since the decades before Prohibition has there been this many breweries in the United States.³⁵⁸ This significant market transition should be fostered by the U.S. Congress, and thus the Small BREW Act should be adopted to kindle the craft brewing revolution.