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LIQUID BREAD: AN EXAMINATION OF THE AMERICAN BREWING INDUSTRY, 1865 TO 1940. PART III

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Chapter 5: The return of beer but not the breweries, 1933-1940

In April 1933 Congress amended the Volstead Act to allow for 3.2% beer. Eight months later, in December, Congress and the states ratified the Twenty-first Amendment, officially repealing Prohibition. From repeal until World War II, the brewing industry struggled to regain its pre-Prohibition fortunes.

The orthodox narrative has viewed Prohibition as nothing more than a temporary cessation imposed by the government: once beer was relegalized, the same forces that drove pre-Prohibition industry developments took control once again. Though demand is ostensibly the key factor in the story, it concentrates largely on producers and production. The national shippers, capitalizing on their greater productive and distributive efficiencies, were better positioned to respond to changing consumer demand. Smaller, less efficient firms were less able to meet these new preferences and, over time, were forced to exit the industry.

In this chapter, I continue to challenge the presumption that the restructuring of the brewing industry was a natural reflection of market forces and that it was a simple extrapolation of trends present before Prohibition: I argue instead that it was a consequence of a new regulatory system and new consumer preferences, both of which were shaped by the brewing industry.

The post-repeal brewing industry is noticeably different from the one I depicted in Chapter Three. For example, while forward integration was a key aspect of the pre-Prohibition brewing industry, federal legislation prohibited breweries from owning retail outlets following repeal. This leads us to situate our earlier interest in vertical integration into a systematic exploration of a post-repeal regulatory system that affected many issues, including forward integration.

Similarly, our pre-Prohibition discussions on the role of immigrants and the battle between ale and lager are by the 1930s yesterday's news. Immigrant groups had become more homogenized and so had the beer: pale pilsner lager accounted for over 90% of the market. We shift our attention, then, to the increasing importance of packaged beer, and the implications this had for advertising, marketing, product standardization, and the shaping of consumer tastes. It was only after Prohibition that the shippers realized their goal of creating new preferences that favored their product over the draught beer of local breweries.

We begin this chapter with a review of how the industry structure changed during these years. Section 5.2 examines whether these changes reflected a market-led search for greater efficiency. Section 5.3 begins my counternarrative regarding how, why, and with what implications the brewing industry restructured during these years. Section 5.4 discusses the construction and consequences of the post-repeal regulatory system. Section 5.5 looks at the ascendancy of packaged beer during these years. Section 5.6 looks at the rise of mass advertising. Section 5.7 summarizes why the shippers came to dominate the post-repeal brewing industry.

As we work through these sections, it becomes clear that, ideally, my narrative for these years should incorporate four types of evidence: aggregate data, firm data,

Year	Number of Breweries	Number of barrels withdrawn (millions)	Average Barrelage per Brewery	Largest Firm Production (millions of barrels)	Per Capita Consumption (gallons)
1910	1,568	59.5	37,946	1.5	20.1
1915	1,345	59.8	44,461	1.1	18.7
1934	756	37.7	49,867	1.1	7.9
1935	766	45.2	59,008	1.1	10.3
1936	739	51.8	70,095	1.3	11.8
1937	754	58.7	77,851	1.8	13.3
1938	700	56.3	80,429	2.1	12.9
1939	672	53.8	80,059	2.3	12.3
1940	684	54.9	80,263	2.5	12.5

Table 5.1. U.S. brewing industry data: 1910-1940.

Source. Cochran, T. (1948) Pabst Brewing Company: The History of an American Business. *New York: New York University Press; Krebs, R. and Orthwein, P. (1953)* Making Friends is Our Business: 100 Years of Anheuser-Busch. *St. Louis, MO: self published book, Anheuser-Busch; and United States Brewers Foundation (1956)* Brewers Almanac.

** A barrel consists of 31 gallons of beer.*

comparative data, and statistical data. My post-repeal narrative relies most extensively on aggregate evidence. It focuses on production, distribution, packaging, and cost data. This evidence allows us to make valuable comparisons between the pre- and post-Prohibition years. For a more comprehensive picture, however, these aggregate statistics should be complemented with firm data. While I was able to provide some firm-specific production levels, I was unable to find profit and cost data for the years following repeal. None of the secondary studies of breweries provide post-Prohibition data, and there are no archival data available for these years.[1] Comparative data are also helpful, as they can help contextualize both aggregate and firm-level findings. In discussing the rise of packaged beer, Section 5.5 compares the experiences of the United States to those of Great Britain and Canada. The British brewing industry has generated several studies, and I discuss findings from this work. Unfortunately, the Canadian industry does not appear to have been studied very extensively. Apart from the single study I discuss in Section 5.5, I did not find any other work on the Canadian brewing industry.[2] Finally, the aggregate, firm, and comparative data introduced in my narrative should be used to test specific hypotheses. For example, I would like to compare profit rates and costs per barrel of packaged and draught beer for shipping and local breweries. I would also like to construct a table for the post-repeal years similar to Table 3.3, which calculated profit rates for different sizes of breweries. The difficulty lies in the incompleteness of the data sets. Contrary to my expectations, there are more data for the years before, rather than after, Prohibition. Thus, this chapter focuses on aggregate data, and even at this level, the data do not allow for much direct analysis.

Section 5.1: Industry structure

Prohibition meant the end of many small breweries that had been profitable, and that, taken together, had posed a formidable challenge to the large shipping breweries. The shippers, who had much greater investments, were not as inclined to walk away from brewing.[3] After

Period	Anheuser-Busch	Pabst	Industry
1877-1895	1,106%	685%	248%
1895-1914	58%	-23%	78%
1934-1940	173%	87%	26%

Table 5.2. Percentage change in output shipping breweries: 1877-1940.

Source. Cochran, T. (1948) Pabst Brewing Company: The History of an American Business. *New York: New York University Press; Krebs, R. and Orthwein, P. (1953)* Making Friends is Our Business: 100 Years of Anheuser-Busch. *St. Louis, MO: self published book, Anheuser-Busch; and United States Brewers Foundation (1956)* Brewers Almanac.

repeal, therefore, they reopened for business in a radically new environment, one in which their former rivals were absent or disadvantaged. From this favorable starting point, they continued to consolidate their position. Several hundred locally oriented breweries did reopen, but were unable to regain their pre-Prohibition competitive edge, and they quickly exited the market. From 1935 to 1940, the number of breweries fell by 10%.

Annual industry output, after struggling in 1934 and 1935, began to approach the levels reached in the 1910s. Yet, these total increases are somewhat misleading, as the population of the US had risen from 92 to 98 million in the 1910s to 125 to 130 million in the 1930s.[4] This translates directly into the lower per capita consumption levels reported in column six.

The largest firms grew even larger in the years following repeal, quickly surpassing their pre-Prohibition annual production levels. The post-repeal industry leaders, Anheuser-Busch and Pabst, doubled their annual production levels from 1935 to 1940.

To take for granted the growing importance of the leading shippers during this period is to ignore their momentous reversal of pre-Prohibition trends. While medium-sized breweries dominated the industry output in the years leading up to Prohibition, the shippers regained in the 1930s the dynamism they manifested from the 1870s to the 1890s. Table 5.2 compares the fortunes of the shippers in relation to the industry as a whole. From 1877 to 1895, Anheuser-Busch and Pabst, the two most prominent shippers, grew much faster than the industry, and their successes helped pull the industry along. This picture changed during the years 1895 to 1915. As explained in Chapter Three, the *industry* grew much faster during this period than the shippers. With the repeal of Prohibition, the tides changed again: from 1934 to 1940, the brewing industry grew very slowly, while Anheuser-Busch and Pabst enjoyed tremendous increases in their annual sales.

National and regional shippers increasingly dominated the market. Breweries such as Anheuser-Busch, Pabst and Schlitz came to exemplify the Chandlerian modern business enterprise, which adeptly integrated mass production and mass distribution.

It was during this period that several of the leading shippers began to coordinate production in discrete facilities. McGahan claims that Falstaff's decision to open a branch in Omaha, to complement its base in St. Louis, represented the first effort of a leading brewer to operate two separate plants:

> Falstaff's 1936 move to Omaha was widely regarded as a mistake, and no other premium brewer opened a second facility for brewing its flagship brand until several years later - after Falstaff's strategy had proven successful.[5]

But other shippers had preceded Falstaff in setting up multiple-production facilities. Cochran discusses the steps that Pabst personnel began to take in 1933 to ensure uniformity of product between its Milwaukee and Peoria plants.[6] Bull, Friedrich, and Gottschalk confirm that Duquesne brewed beer in three Pennsylvania cities beginning in 1933.[7] Falstaff, then, was at least the third leading brewery to use multiple plants.

I believe this is the key difference between the pre- and post-Prohibition brewing periods: so many breweries of the 1900s-1910s were gone, and the smaller ones that did open were no longer dominant. Filling this void were larger and larger regional and national shipping breweries.[8]

Brewery	Plant Location	1938 (bls)	1939 (bls)	1940 (bls)
Anheuser-Busch	St. Louis, MO	2,087,000	2,306,000	2,468,000
Pabst Brewing	Milwaukee, WI Peoria Heights, IL	1,640,000	1,650,000	1,730,000
Jos. Schlitz	Milwaukee, WI	1,620,000	1,651,083	1,570,000
F. & M. Schafer	Brooklyn, NY	1,025,000	1,305,000	1,390,200
P. Ballantine	Newark, NJ	1,120,000	1,289,425	1,322,346
Jacob Ruppert	New York, NY	1,417,000	1,325,350	1,228,400
Falstaff Brewing	St. Louis, MO New Orleans, LA Omaha, NB	622,00	622,004	684,537
Duquesne Brewing	Pittsburgh, PA Carnegie, PA McKees Rock, PA	625,000	680,000	690,000
Theo. Hamm Brewing	St. Paul, MN	750,000	780,000	694,200
Liebman Breweries	Brooklyn, NY	625,000	632,558	670,198

Table 5.3. Leading brewery output levels: 1938-1940

Source. Fein, E. (1942) 'The 25 Leading Brewers in the United States Produce 41.5% of the Nation's Total Beer Output', Brewers Digest*, 17 (October) p.35.*

Section 5.2: Economic efficiency and the brewing industry

It is tempting to conclude that the shippers owed their post-repeal successes to greater productive efficiencies, such as economies of scale in production.[9] We know from Chapter Three that the important distinction was not between large and small breweries, but between local and shipping breweries. Table 5.3 shows that even in the late 1930s, three of the ten largest breweries-Schafer, Ruppert, and Liebman were locally oriented. But, it is also true that after repeal most small breweries were local firms, and most larger breweries shipped increasing amounts of beer. In our search for comparative levels of efficiency, we can compare cost structures for small, medium, and large breweries.

In 1940, the United States Brewers' Association published a table detailing brewery costs.[10] These data seem to establish incontrovertibly that larger breweries were more efficient than smaller firms.

If we add each of these lines, we find that the costs per barrel of beer were $9.65 for small breweries, $7.61 for medium breweries, and $7.12 for large breweries. It would appear that there is a simple, direct relationship between larger size and lower average brewing costs per barrel of beer. Such a conclusion would be premature.

McGahan notes that the data ignore the significant transportation costs incurred by the larger shipping breweries.[11] From information in a trade-journal article, she concludes that transportation added 30% to their retail costs, and that 'the average delivered costs for a larger brewer' was $10.87, or about 13% above local brewer costs.[12] Though her calculations contain some minor mistakes, her general point is correct: transportation costs added a significant differential to the

The Cost Item	Small Brewery Under 100,000 bls	Medium Brewery 100,000-300,000 bls	Large Brewery Over 300,000
Brewing costs per barrel	$3.08	$2.48	$2.35
Racking costs per barrel	$0.91	$0.75	$0.55
Bottling costs per case	$0.23	$0.22	$0.19
Canning costs per carton	$0.75	$0.71	$0.63
General Overhead expenses per barrel	$1.99	$0.52	$0.69
Selling Costs per barrel	$1.14	$1.15	$1.04
Advertising Costs per barrel	$0.68	$1.03	$0.98
Administration Costs per barrel	$0.87	$0.75	$0.68

Table 5.4. Brewery costs by size of firm: 1940.

Source. Beach, A. (1942) 'The Small Brewer ... How He Fits Into The War Effort', Brewers Digest*, 17 (April). p.27.*

shippers' average barrel prices.[13] Her delivered-cost average for larger breweries should be $9.89, compared to her small brewery average of $9.65.

This calculation of $9.65 per barrel for smaller breweries is a little high. It includes $0.23 for bottling and $0.75 for canning. In 1941, canned beer accounted for only 14% of the total packaged beer market, or about 7% of total beer production.[14] Very few, if any, small breweries canned beer during these years. This was a technology introduced and dominated by the large shipping breweries. Many local breweries, large and small alike, refrained from canning or bottling much, if any, of their beer.[15] Thus, a truer calculation of small brewer production costs would exclude a percentage of canning and bottling costs. If we assume that 50% of the smaller breweries packaged their beer, this yields an average delivered cost of $9.16 for the smallest firms. With these revisions to McGahan's original estimates, the differential between small and large brewery costs is 8%.

While shippers did enjoy a cost advantage in the production of beer, two factors drove up the average delivered cost - transportation and advertising. I agree with McGahan that local breweries focused on their immediate market, thereby avoiding the magnitude of transportation costs incurred by shippers. In addition, shippers had much greater advertising expenditures. As Table 5.4 shows, the largest breweries spent 50% more than small breweries on advertising, but it was an expense that increased company sales and supported higher retail prices. A 1942 trade journal article attributes the demise of small breweries not to their productive inefficiencies but to their substantially lower advertising expenditures.[16] The shippers could produce beer more cheaply than the locals, but they could only deliver branded beer at higher costs. However, these extra expenditures allowed them to reach more markets and to convince consumers that theirs was a better product. What is needed is an actual comparison of the total costs of a shipping and a local brewery for this time period. While no firm specific data sets for these years have been located, we have two sets of data that compare packaged and draught beer costs.

Effinger was a small, local brewery in Wisconsin. Its total production in 1947 was 17,201 barrels, and its 1948 output was 19,603 barrels.[17] These data clearly show that for this brewery, keg beer was significantly

	Keg Beer*		Bottled Beer	
	1947	1948	1947	1948
Beer Cost	$4.27	$5.16	$5.01	$5.09
Labor	$0.33	$0.47	$3.64	$3.13
Expense	$0.32	$0.53	$2.37	$3.66
Total Per Barrel	$4.92	$6.16	$11.00	$11.88

Table 5.5. Effinger brewery price per barrel comparisons: 1947-1948

Source. Effinger Brewery Archives *(1948) State Historical Society of Wisconsin. Annual Financial Report.*

** The comparison here is between racking costs, which comprise transferring beer to kegs, and bottling costs.*

cheaper than bottled beer. Table 5.6 reveals a similar pattern for national data.

Though these data points fall outside of the years of this study, they show that canned and packaged beer has consistently cost more than keg beer.

If the shippers put out a more expensive product - and McGahan acknowledges as much - then the standard story must maintain that they offered better quality for the money. This is essentially what McGahan claims. I argue that we can attribute the success of the shippers to factors other than quality.

Section 5.3: The beginnings of a post-repeal counter narrative

While I agree with McGahan and Elzinga that the national shippers played the key role in the restructuring of the post-repeal industry, I differ from them on two important points. First, I do not see this process as a simple continuation of forces that were already underway before Prohibition and were simply put on hold. As argued in Chapter Three, local breweries successfully challenged the shippers from the late 1890s to about 1915. Thus, if the shippers did help reconfigure the brewing industry in the 1930s, we must determine what new factors facilitated this restructuring.

Second, I do not believe that consumers automatically benefited from the growing oligopolization of the industry. Elzinga and McGahan, consistent with Row One arguments, view the increasingly concentrated brewing industry as a positive development. Industry concentration resulted from a search for greater efficiency, and consumers benefited from higher quality and perhaps lower-cost beer.[18] We need to examine how and why beer was changing during these years. Were these prod-

	Total	Cans	Bottles	Kegs & Barrels
1947	$14.81	$21.00	$16.51	$10.08
1954	$21.73	$29.02	$22.22	$12.87
1958	$22.87	$30.12	$22.20	$13.54
1963	$23.77	$30.13	$23.45	$14.46
1967	$26.38	$30.60	$25.85	$17.94
1972	$28.56	$30.61	$29.81	$15.99

Table 5.6. Average price per barrel by type of container: 1947- 1972.

Source. Morton Research Company (1978) The American Beer Industry: An Economic-Marketing-Financial Investigation. *Self published Morton Research Company. p.55.*

uct changes driven by rational consumers, or did national shippers stand to gain from the development and inculcation of specific styles of beer?

I believe that the re-emergence of the shippers reflected developments in: 1) the regulatory environment, 2) packaging, 3) advertising and marketing campaigns, and 4) consumer preferences. The force behind these changes was the national shippers's active role in advancing their position and shaping broader forces. As we shall see, the shippers helped shape and enforce the new regulatory environment, and they promoted and encouraged consumer demand for highly branded, packaged beer made with - or, as the case may be, *without* - traditional beer characteristics. Together, these factors helped pave the way for the shippers' domination of the American brewing industry, which they consolidated in greater measure in the years following the end of World War II.

5.4: The construction of a post-repeal regulatory system

Even before the euphoria of Roosevelt's 1932 presidential victory wore off, brewers understood that they might have the opportunity to participate in the creation of a new regulatory framework. Regulation, of course, is not a neutral force. It can help or hinder industry, depending on the specifics of the legislation. While the repeal of Prohibition might seem to have benefited all brewers equally, the particular shape of the post-Prohibition regulatory environment favored the shipper over the local brewer, packaged beer over draught beer, and new retail outlets (such as grocery stores) over the traditional outlets such as bars. These three developments were intricately interrelated. This section details the evolving legal structure, and how it came into effect.

The standard presentation of this process is not very convincing. Most writers ignore it, and McGahan offers only a cursory description of the key developments in the regulatory framework and the changed legal structure: 'Legislation at repeal forbade brewers from owning retail outlets … Brewers were discouraged from advertising'.[19] In her view, then, brewers passively reacted to legislation. While she is aware that this new system favored shippers over local breweries, she portrays this as a natural development. She does not consider the role leading shippers played in shaping this legislation, nor does she explore in detail the types of regulation that developed. Williamson, in his transaction-cost discussion of the brewing industry, completely ignores the revamped post-repeal regulatory system. He dismisses the ownership of saloons prior Prohibition as a 'short-run expedient', which was rendered 'nonviable because of the post-repeal move to packaged beer'.[20] However, the key question goes unasked: why packaged beer trumped keg beer after repeal. By ignoring this process, he exhibits his Row One belief that consumers are the driving force behind economic change: consumers came naturally to prefer packaged beer, and keg beer became nonviable. As we shall see, shipping breweries were far from the passive responders depicted by Williamson.

In preparing for repeal, Congress, the Executive branch, and numerous interested parties debated how the liquor and beer industries were to be regulated. Out of these debates came the regulatory system for the production, distribution, and retailing of beer, wine, and spirits.

Many former advocates of temperance, including such notable figures as John Rockefeller Jr., became disenchanted with the workings of Prohibition during its final years, and sought to influence post-repeal regulations. Rockefeller, better positioned than most to convey his views to the public, commissioned a book, *Toward Liquor Control*, written by Raymond Fosdick and Albert Scott.[21] In the forward, Rockefeller made clear his goals for the post-repeal liquor industry. He makes the amazing assertion that 'only as the profit motive is eliminated is there any hope of controlling the liquor traffic in the interest of a decent society'.[22] Rockefeller, the authors of his commissioned book, and many others believed that the only way to avoid the excesses of the pre-Prohibition period was to have a government monopoly of the liquor industry.

Fosdick's and Scott's work can be distilled down to four conclusions: 1) light wines and beers 'do not constitute a serious problem';[23] 2) allowing private businesses licensees to retail alcohol 'contains a fundamental flaw in that it retains the private profit motive which makes inevitable the stimulation of sales';[24] 3) 'the primary objective of taxation should be social control, not revenue';[25] 4) 'the best approach to the problem of heavier alcoholic beverages is through state control'.[26]

While overall this system would favor the brewing industry, it also firmly distinguished between light and heavy beer - that is, beer under and over 3.2% in alcohol. This policy was quite generous to 'non-intoxicating' light beer, but beer stronger than 3.2% was grouped with hard spirits.[27] Brewers, while appreciative of the division between hard and light alcohol, were themselves divided on the regulation of higher-alcohol beer.[28]

Rockefeller supported the proposal, not out of a change of heart regarding alcohol (he was always a teetotaler), but from a recognition that Prohibition was a failure. Some of his views are echoed in statements by Pierre DuPont, who had worked with the Association Against the Prohibition Amendment and had abandoned the Republican Party over the issue.[29] His underlying rationale for repeal differed sharply from Rockefeller. Whereas Rockefeller wanted above all to avoid a repeat of the problems associated with Prohibition, DuPont saw in repeal an opportunity to rescind the federal income tax, which was begun in 1914, just five years before the federal government, through Prohibition, eliminated an important source of revenue.[30]

Pierre DuPont ended up articulating a regulatory system that resembled Rockefeller's in some respects. According to Burk's study of the DuPonts during this period, in July 1932 he

> proposed to brewer August Busch a plan for supervision and control of liquor production and distribution by a single large corporation, placed under contract to state regulatory commissions. The contracts would spell out hours of sale, prices, and tax levels on the industry … In order to maintain public confidence in the integrity of the new system, he advocated that the monopoly company draw a broader number of nonbrewers from the ranks into its board of directors. Only a week before the election, Pierre reiterated his urgings to the major brewers and distillers to abandon decentralized competition and 'make a combination of some kind and agree to accept the responsibility of the trade' acknowledging that such a change would result in the elimination of the small dealer and small saloonkeeper'.[31]

DuPont, like Rockefeller, advocated a monopoly system, which would be closely regulated by the federal and state governments. Truer to his entrepreneurial roots, DuPont envisioned a monopoly that would be privately held, not run by the government. In these passages, he did not differentiate between beer and spirits, and so did not endear himself to August Busch and other leading brewers, though there were parts of this proposal that they could appreciate. Contracts specifying or mandating prices could be useful in these years of great uncertainty. Furthermore, the system was based on centralized alcohol production and distribution, and so favored the dominant companies over small breweries and saloonkeepers. Several of these ideas found their expression, in modified form, in the *Code of Fair Competition for the Brewing Industry*, which was developed by members of the brewing industry in concert with the Agricultural Adjustment Administration (A.A.A.).

Something remarkable about the post-repeal regulatory environment is the degree to which unlikely bedfellows shared many of the same goals. Temperance advocates such as Rockefeller joined the brewers, as well as such vocal opponents of Prohibition as DuPont, in calling for a new regulatory environment. These disparate voices called for a framework that would: 1) prevent the return of the excesses of the pre-Prohibition period, 2) establish greater control over on-site drinking establishments, 3) encourage new retail outlets such as grocery stores, 4) favor packaged over draught beer, 5) prevent brewers from owning retail establishment, and 6) favor beer over spirits.[32]

Given the power of the groups promoting these six issues, it is not surprising that they got their way.[33] Brewers, Fogarty claims, did not passively react to the legislation, but actively

> worked with legislators and state alcohol administrators to influence the meaning of control policies and how they were implemented. In practice, they converted what were nominally policies to control access to alcohol and favor temperance into a system that maintained beer prices, eliminated politically embarrassing forms of competition for on-premise outlets, and encouraged the sale of beer through respectable grocery store outlets.[34]

The next step is to explain why the brewers were so successful.

On 7 April 1933 Congress amended the Volstead Act with the Cullen Act, which allowed for beer up to 3.2%

alcohol.[35] Overshadowing this significant step were the contentious debates on the specifics of the yet-to-be-defined post-regulatory framework for alcoholic beverages. DuPont outlined his proposal in the summer of 1932, and the Rockefeller sponsored book came out in 1933. All prominent parties agreed that there must be changes to avoid the excesses of the pre-Prohibition period, but this was the only issue they agreed upon. Brewers suggested that, as beer was nonintoxicating, it should be more freely available; wines and hard spirits, they agreed, would continue to require governmental regulation. Some temperance advocates wanted government monopolies to regulate retail sales of all alcohol, including beer, while others, such as Rockefeller, differentiated between 'heavy' and 'light' beer.

As with the pre-Prohibition period, there emerged a variety of policies at the state and federal levels. The federal regulatory framework was more significant, not only because it set conditions for the industry overall, but because many states simply adopted part or all of it. Interested parties debated aspects of the federal regulatory system in the summer and fall of 1933, and President Roosevelt signed it on 4 December 1933. The system that Roosevelt put his name to was the *Brewing Industry's Code of Fair Competition*. As Fogarty explains:

> The formal history of the Code of Fair Competition for the Brewing Industry resembles that of hundreds of other industry codes adopted during the early corporatist or 'industrial self-government' phase of the New Deal. Following passage of the National Industrial Recovery Act and the Agricultural Adjustment Act in the summer of 1933, representatives of trade associations met to draft a 'code of fair competition' for each industry.[36]

There are two important sources of information on the federal regulatory system for beer immediately after repeal.[37] The better known of the two is the *Code of Fair Competition for the Brewing Industry*, published by the Department of Agriculture in December 1933. Far less known, but also of great interest, is *The Hearings, Marketing Agreements, Codes, Licenses and Processing Tax Matters of the Agricultural Adjustment Administration*.[38] The appropriate governmental agency held detailed hearings for many industries in order to develop *Codes of Fair Competition*, and these hearings provided part of the political context in which the codes were debated and massaged.[39]

The hearings generally followed steps taken by industry officials to develop a draft code. Employees of the nation's leading breweries and representatives from the three dominant trade associations (the United States Brewers Association, the American Brewers Association, and the Brewers Emergency Committee) penned a draft *Code of Fair Competition* during the summer and fall of 1933. They distributed it throughout the industry, and eventually 360 breweries approved it.[40] Representatives from the Department of Agriculture, the trade associations, leading breweries, and trade unions met under the authority of the A.A.A. to review and discuss the provisions of these hearings. Out of the hearings emerged the final *Code of Fair Competition*, which Roosevelt approved on 4 December.[41]

Both the *Code* and the hearings show that the brewing industry, and the shippers in particular, actively participated in the creation of their regulatory environment. The hearings, dominated by representatives of the shipping breweries, culminated in a code biased toward the shippers.

Before examining the specifics of the final code, it is important to realize that two proposed codes were discussed during the hearings. The brewers presented a code they had worked on for several months. Unbeknown to them, members of the A.A.A. developed a substitute code, which was quite different. In all but a few instances, the final code adopted the provisions proposed by the industry. One cannot read these hearings without thinking the phrase 'regulatory capture' a woeful understatement.

The transcriptions of the hearings are a treasure trove of unedited discussion between industry, labor, and government representatives, and I quote liberally from key passages later in the chapter. Of direct interest here are the points that relate to the construction of the post-repeal legal environment in which breweries operated. The regulatory system that emerged out of the Hearings on the Brewing Industry's *Code of Fair Competition* remained formally in effect only until 1935, but it served as the basis for the subsequent federal and state legislative frameworks. This legislation contributed both directly and indirectly to a reconfigured industry, one increasingly dominated by smaller numbers of larger and larger breweries selling more and more packaged beer.

In 1935, the Supreme Court ruled all of the *Codes of Fair Competition* unconstitutional. Despite this, the Brewing Industry's code helped guide subsequent regulatory initiatives. Breweries were well aware that prohibition forces would not accept an unregulated industry, so they set out to adopt several of the key measures introduced in the Brewing Code. The result was that five key aspects of the Brewing Code obtained for years after the Supreme Court ruled the codes unconstitutional: 1) the elimination of 'unfair methods of competition', 2) the relaxation of licensing for retail outlets, 3) the implementation of a three tier industry structure, 4) the introduction of self-regulation by the brewing industry, and 5) the differentiation between spirits and beer.[42] There were also two closely related industry developments that arose in consequence to these five regulatory issues: the rise of off-premise sales and the rise of packaged sales.

5.4.A: Unfair trade practices

Article IV of the *Code of Fair Competition* outlines a series of practices which were felt to have plagued the pre-Prohibition industry, and which would now be forbidden: false advertising, misbranding, and commercial bribery. The two most important sections, however, addressed the control of retail outlets (Section 6) and the legality of exclusive outlets (Section 8).

As discussed in Chapter Three, one of the great problems facing the shippers before Prohibition was access. Many local and regional breweries owned or controlled nearby saloons, and they used this power to exclude beer from the shippers.

Access to retail outlets was imperative when 80 to 85% of all beer was sold from kegs. One of the prominent features of a market dominated by kegged beer was that most small taverns and saloons carried only one brand of beer, or one line of beers from a brewery. The size and bulk of the wooden casks meant that retailers could not afford to carry a variety of beers. One of the shipper's overriding goals, then, was to prevent the return of this vertical integration. Changes in the wholesaling and distributing of beer were guided not by market-led searches for greater efficiency but by the goals of several powerful parties who sought, for varying reasons, to divorce breweries from saloons.

These groups combined to form a rather bizarre coalition. Temperance advocates such as Rockefeller, who had attributed the excesses of the pre-Prohibition period to the ownership and control of retail outlets by producers, firmly supported this change. Pierre DuPont also believed that a sustainable repeal required systemic changes in retailing, moves which would eliminate the 'small saloonkeeper'. Proving that the politics of alcohol makes for strange bedfellows, the national shippers joined in.

But the incongruity of this coalition begins to dissipate upon closer examination. The shippers had been aware since the 1890s that local breweries used their control over saloons to restrict shippers from many retail outlets. Shippers clearly stood to profit from regulations which prohibited breweries from owning saloons, especially if saloons were the dominant retail outlet. R.A. Huber, vice president of Anheuser-Busch, testified before the 28 November 1933 A.A.A. Hearings: 'We, of course, are decidedly opposed to any ownership of retail licenses by the manufacturer, by the brewer'.[43] This was but a continuation of statements made by Anheuser-Busch officials throughout Prohibition regarding its willingness to divest itself of saloons in order to promote the greater good. Cochran captured the prevailing opinion at Pabst when he wrote that with the end of the tied house 'no longer could brewers of inferior beer, through lawful control of all outlets, keep the fine shipping beers out of their local market'.[44] Cochran presents another angle in the case against tied-houses: the consumers suffered, because the local monopolies generally produced low-quality beer. The end of brewery-owned saloons would help quality-minded shippers better respond to and reach these consumers. By aligning themselves with temperance advocates who had decried the evils of the saloon, the shippers were able to legislate away one of the biggest obstacles to their expansion.

5.4.B: Licensing

The post-repeal regulatory environment allowed for an easing of requirements needed to secure retail licenses. In order to show the impact that this legislation had on the retail structure of the brewing industry, the following table details the explosive growth of retailers in the post-Prohibition period.

Year	Breweries	Beer Production	Beer Wholesalers	Beer Retailers	Avg Bls/ Wholesaler	Avg Bls/ Retailer
1890	2,156	27,561,000	3,697	7,798	7,455	3,534
1900	1,816	39,471,000	7,730	12,716	5,106	3,104
1910	1,568	59,552,000	11,645	19,655	5,114	3,030
1915	1,345	59,808,000	11,247	13,740	5,318	4,353
1933	331	11,059,000	14,135	262,639	782	42
1934	756	37,678,000	17,630	230,322	2,137	164
1935	766	45,228,000	15,300	181,770	2,956	249
1936	739	51,812,000	14,640	186,282	3,539	278
1937	754	58,748,000	13,813	177,834	4,253	330
1938	700	56,340,000	12,727	166,615	4,427	338
1939	762	53,870,000	11,472	157,985	4,696	341
1940	684	54,891,000	13,068	150,952	4,200	364

Table 5.7. The changing distribution of beer: 1890-1940.

Source. United States Brewers Foundation (1956) Brewers Almanac*. pp.88-90.*

The table above documents two notable trends. First, the number of wholesalers was slightly higher in the post-repeal years. As production in the 1930s trailed the levels reached in the 1910s, the average number of barrels handled by wholesalers did not reach pre-Prohibition levels.

Second, the number of retail dealers exploded. In the years leading up to Prohibition, there was never a total of more than 20,000 retailers; in the years from 1934 to 1940 never were there fewer than 150,000. As a consequence, average barrels of beer per retailer fell from pre-Prohibition levels of over 3,000 barrels per retailer, to post-repeal levels of under 400 barrels per retailer. This reflects a new regulatory environment that encouraged sales in new outlets such as grocery stores.[45]

Indeed, the rise of packaged beer sales through new retail outlets was one of the elemental changes of the period. Draught beer served in saloons was gradually replaced by packaged beer sold in less traditional venues for both on- and off-premise consumption, which was remarkably similar to what happened with soft drinks. Since its commercial introduction in the late nineteenth century, soda had been sold primarily from a dispenser in soda shops. As discussed in Chapter Four, soda makers, led by Coca-Cola, began to decrease their reliance on soda shops in the 1910s by bottling their product. It was during Prohibition that Coca-Cola saw its bottled sales overtake its fountain sales. Packaging offered the same advantages to soda makers and brewers: a significantly greater flexibility in distribution that enabled the manufacturers to reach many more consumers.[46]

R.A. Huber, the vice president of Anheuser-Busch who testified before the A.A.A. Hearings, argued that relaxing license requirements for retail outlets would lessen the likelihood of a reappearance of tied houses.[47] Table 5.7 manifests how successful the federal and state governments were in their efforts to promote new retail outlets as a means of forestalling the return of the excesses of pre-Prohibition saloons.

5.4.C: Three-tier structure

Whereas the pre-Prohibition industry had seen widespread forward integration into distributing and retailing, post-1933 laws established clear divisions between manufacturer, wholesaler, and retailer. No longer could brewers own retail outlets. Under the N.R.A., there was even a *Code of Fair Competition for the Alcoholic Beverage Wholesale Industry*.[48] This helped formalize the specialization of the industry.

The question that must be addressed is whether this legislation helped the alcohol industry develop a more efficient mode of distribution. Wholesalers can lubricate a market dominated by large national producers who do not have the time to distribute their product to individual retailers. The ability of producers to take full advantage of wholesalers depends not only the size of the market, but also on the type of good. At the end of the nineteenth century, perishable goods were usually distributed directly from producer to retailer.

Porter and Livesay, in their study of late nineteenth manufacturing industries, argue that meat packing firms such as Swift and fruit companies such as United Fruit often had to create their own distribution and marketing networks.[49] Another industry they cite in this context is brewing. Prior to refrigerated railroad cars and pasteurization, beer could quickly spoil, and manufacturers often preferred to distribute their beer to retailers. Cochran details the efforts Pabst took to distribute its own beer, a measure it adopted out of frustration with jobbers who did not always deliver the product in a timely fashion.[50]

But beer is not a neutral product, as we have seen throughout this study. Many of the scientific and technical innovations pioneered by shippers to increase beer's shelf life also affected many traditional attributes of beer.

Prior to Prohibition, there was not a great need for wholesalers, because the vast majority of beer was both produced and consumed in the same geographic area.

Table 5.7 shows that prior to repeal, the average retailer handled over 3,000 barrels of beer a year. A local brewery producing under 150,000 barrels might only have to keep track of 50 good retail accounts, and these accounts would generally be the saloons they either owned or controlled.

After repeal, the average retailer sold under 370 barrels per year. In this setting, a local brewery producing 150,000 barrels could see the number of its accounts increase tenfold. By legally changing how beer was retailed, the federal government brought about an increased role for wholesalers. There were other developments that also contributed to a growing reliance on wholesalers. During the 1920s and 1930s, Coca-Cola greatly expanded its reliance on independent bottlers in distributing its soda; these bottlers effectively acted as wholesalers, linking the primary producer with the many, local retailers. Shipping breweries were well aware of how Coca-Cola had benefited from these relationships, and they saw that wholesalers in brewing could work in a similar way. Thus, the rise in wholesalers was not an automatic response by the market in its search for more efficient distribution, but was fueled by several developments, including the increasing number of retailers, the changed regulatory system, and the positive example provided by the soft drink industry.

After repeal, most beer was distributed by wholesalers, rather than directly from breweries to retailers, and the percent of beer handled by wholesalers increased from 1935 to 1939. By 1939, over two-thirds of all beer was sold through wholesalers. The percentage of beer sold directly by breweries to retail outlets in 1939 was under one-third, a trend that continued over the following decades. A new layer in distribution had been created, and created very quickly. While similar pre-Prohibition data are not available, it is probable that under the pre-Prohibition legal system, the vast majority of beer was sold directly by local breweries to local retailers.

Shippers and wholesalers joined forces in advocating an end to tied houses and a clear demarcation between manufacturing, distributing, and retailing. By changing how beer was retailed, and by requiring breweries to use wholesalers, this legislation eroded one of the cost advantages local breweries held over shippers.[51] The introduction of an additional layer of machinery in the workings of the brewing industry cannot be presumed to have been the result of market efficiency; rather, it was the consequence of intense lobbying by wholesalers and shippers during the transitional period in which the country was preparing for the repeal of Prohibition.[52]

Channel of Distribution	1935	1939
Sales to household consumers	1.1%	0.5%
Sales to hotels, clubs, etc.	1.5%	0.5%
Sales to retailers for resale	38.7%	31.8%
Sales to or through own wholesale branches	11.0%	16.7%
Sales to wholesalers and jobbers	47.7%	50.5%

Table 5.8. The growing importance of wholesalers in the distribution of beer: 1935 and 1939.

Source. Research Company of America (1941) A National Survey of the Brewing Industry. *Self published. p.15.*

5.4.D: Self-regulation

The two versions of the codes contained radically different conceptions of who the regulators would be. The version prepared by the brewers stated, 'The Code Administration Board shall be composed of nine (9) members, each of whom shall be engaged in the industry'.[53] The substitute code prepared by the A.A.A. did not specify that any industry officials should be part of the overview board. In addition, it placed brewing under the same regulatory agency that was set up to review the spirits industry. Brewers objected to both of these proposals. As was the case in so many instances where the two codes differed, the official code adopted the wording and intent of the brewers's version.

In the testimony on the hearings for this code, industry officials went to great lengths to explain why the brewing industry should not be closely regulated by government. George McCabe, an official with American Brewers Association, stated:

> We believe that the code authority as the governing body should consist of brewers representative of the industry, and the form suggested by the committee substitute code for control by the Federal Alcoholic Control Committee is especially objectionable and repugnant to the brewers, for the reasons that it has been the consistent aim and effort of the brewing industry to achieve and maintain a complete separation of that industry, both in fact and in appearance, from the distilled spirits industry.[54]

Brewing, he argued, must be given a greater deal of autonomy, and it must not be tainted by any grouping with spirits.

Similar remarks came from Emanuel Celler, a representative from New York, during his testimony. He noted that he was a participant in the drafting of the brewers code, and this drafting 'was done under the impression that the industry itself could govern itself'.[55] He firmly believed that brewers should oversee the development and regulation of their industry: 'There must be self regulation in business; there must be the utmost freedom from Government interference'.[56] It was not the purpose of the N.R.A., he argued, 'to interfere with … industry or with … business, and I do hope that as far as the brewing industry is concerned, that you will leave these matters in the hands of the industry to be controlled by it'.[57] In choosing between the two codes - one proposed by the brewing industry, the other by officials of the A.A.A. - he asserted that the government should 'adopt the self governing code proposed by the brewers, not the one which centralizes authority for regulation with the federal government'.[58]

H.B. Dorau, an economist who appeared on behalf of the industry, argued strongly for self-regulation:[59]

> The industry does not want and does not need to be treated as a public utility. Given the necessary sanction to make competition reasonable within the industry, it is believed the evil effects of cut-throat competition can be eliminated and avoided. There appears to be no need for making this industry, in these matters regulated from above. It might first, at least, be given a chance to regulate itself.[60]

The officials from the A.A.A. were not convinced of the industry's right or need to be self-regulated. They heard testimony from J.M. Doran, the commissioner of Industrial Alcohol, Treasury Department, on the first day of the hearings.[61] Eduard G. Lowry, special assistant to the Secretary of Agriculture, asked Doran if he believed that 'some coordinative control of all industries, producers or dealers of alcoholic beverages, is

desirable for the efficient administration of each'.[62] Doran replied that coordination would be helpful:

> Inasmuch as they are all subject to Federal taxation and internal revenue administrative control, and while the degree of supervision or close attention would very naturally vary with the industries, it is my view that some general coordinative plan, dealing with all of these industries on which excise taxes are levied, by reason of any alcoholic content, is desirable.[63]

Several pages later, Doran states that

> all of these industries making or producing a commodity of alcoholic content are subject to Federal regulation and do come within the same general category that they are subject to excise and license taxes, and so on, and therefore I believe a tie-up with some central group dealing with other industries will be helpful to the brewing industry.[64]

Doran makes clear his preference for a single federal agency to oversee beer and all other alcoholic beverages. Members of the brewing industry repeatedly reminded him of the great differences between spirits and beer, especially 3.2% beer. He held firm in maintaining that he was not concerned about alcohol level. Breweries did not like this line of approach, and they succeeded in winning a much greater degree of self-regulation than many in government alcohol review agencies proposed. In contrast, distillers were subject to much stricter regulation by both federal and state authorities.

After the Supreme Court declared the codes unconstitutional in 1935, the brewing industry continued to advocate self-regulation, and was very successful. It received substantial assistance from political allies during these efforts. One notable example concerns the support of John Cochran, a U.S. Representative from St. Louis, Missouri. Cochran submitted to the appendix of the Congressional Record a speech he gave before the sixty-sixth annual convention of the United State Brewers Association in 1937. He added to this speech the Code of Practice, which the Brewers Association had passed unanimously:

> Code of Practice
>
> The brewing industry of the United States, custodian of an art and science practiced since the beginnings of recorded history, supplies a mild beverage to the major part of our population. Beer is the bulwark of moderation and sobriety. The industry recognizes its direct responsibility to itself and to the Nation to conduct its operations in accord with the desires and conscience of the American public. Members of the United Brewers' Industrial Foundation in convention assembled, representing nearly half the production of beer and ale in the United States, mutually and individually pledge themselves to the following code of practice:
>
> We pledge ourselves, as citizens and as businessmen, to conduct our business in conformity with established laws in cooperation with the authorities.
>
> We pledge ourselves as scientific brewers to maintain exacting high standards in the brewing and packaging of beer and ale.
>
> We pledge ourselves, with all thoughtful citizens, to the promotion of practical moderation and sobriety.
>
> We pledge our support to the duly constituted authorities for the elimination of antisocial conditions wherever they may surround the sale of beer to the consumer.
>
> We pledge ourselves morally to support and encourage the great body of retailers who sell beer as law-abiding citizens and who operate legal, respectable premises.
>
> We pledge ourselves to cooperate with the duly constituted authorities to prevent beer sales to minor or to persons who have drunk to excess.
>
> We pledge ourselves to truth in the advertising of beer.
>
> We pledge ourselves faithfully to observe the provisions of this code of practice, convinced that beer is the Nation's bulwark of moderation and sobriety.

The brewing industry clearly valued its self-regulation, which was provided for in the original *Code of Fair Competition*. It understood that after these codes had been declared unconstitutional, they should act quickly to advance and promote their own internally imposed code of practice, and they did so in 1937.[65] This code touches on several key themes in addition to self-regulation. It addresses product quality, the importance of moderation, the need for truthful advertising, and the distinction between beer 'the bulwark of moderation and sobriety', and spirits, which it impugns without mentioning it by name.

In a 1940 article titled 'Self-Regulation in the Brewing Industry', Carl Badenhausen, the president of Ballantine Brewery, reviewed the recent steps the industry had taken in policing itself. Self-regulation, he claimed, 'has come to be the basic and permanent policy of the brewing industry'. As an example, he cited the Nebraska Plan, an effort in self-regulation begun in Nebraska in 1938, and extended to other states in 1939.[66]

Having shown the brewing industry's adamancy on the question of self-regulation, I will argue that the Federal government conceded many points, and granted the industry a great deal of latitude. It refrained from defining production criteria, and did not propose any committee analogous to Wiley's pre-Prohibition Joint Committee on Food Standards to investigate beer as a product. It allowed breweries to regulate and define their product; in turn, breweries pledged in their Code of Practice to be 'scientific' and to 'maintain exacting and high standards'.

The federal government readily allowed breweries to advertise in the new and powerful medium of radio (and, later, television) as long as they held themselves to their pledge of 'truth in the advertising of beer'. Finally, it declined to initiate any antitrust investigations prior to World War II, despite the industry's increasing concentration, and it allowed a great amount of latitude in handling internal matters.[67] On this last point, as we shall see, it took a very different approach with liquor.

The relationship between breweries and states was a bit more complicated, and the degree of autonomy breweries enjoyed varied immensely. Many states introduced local option laws that allowed communities to prohibit the production and/or the sale of alcohol. States that had supported strong prohibition movements prior to national Prohibition (generally in the South and lower Midwest) imposed higher taxes and more rigid labeling and distribution requirements on breweries.[68] Yet, compared to spirits, beer continued to receive preferential treatment.

5.4.E: Separation of beer and spirits

Members of the brewing industry had been trying, with varying levels of success, to distinguish beer from spirits since the mid-nineteenth century. While this strategy was not successful in the years leading up to Prohibition (beer, like spirits, was deemed to be intoxicating) it was kept current during the Prohibition period, and began to pay dividends in the post-repeal years. By continuing to emphasize that nonintoxicating beer was qualitatively distinct from inebriating spirits, brewers succeeded in having regulators devise separate rules for beer and spirits.

In the *Codes of Fair Competition*, there are several immediate differences between the regulations for brewing and distilling - indeed, there are entirely separate codes. Why would the government go to the trouble and expense of setting up and maintaining these two discrete regulatory systems? The answer would seem to be that the brewing industry and their legislative allies wanted them. George McCabe, representing the American Brewers Association, asserted that the brewing industry preferred its own proposal of administration: 'They do not want to be governed by the same body that governs the distillers'.[69] He reiterated the preference for distinct regulatory bodies:

> The control of the brewing industry by an Alcoholic Control Commission would involve control by men whose habits of mind, induced by association with the control of ardent spirits, would necessarily produce an unduly restrictive attitude … In our opinion, we doubt if a board having for its function the jurisdiction over distilled spirits can view a milder alcoholic beverage in anything but the same light in which they view the more potent liquors.[70]

William Piel, President of Piel Brothers Brewery, offered very similar testimony.[71] He spoke of the need to keep regulatory control of beer 'separate and distinct from the same control body of distilled spirits'.[72]

Piel emphasized that the 'legal and natural fact of the non-intoxicating standard of 3.2% beer be given due weight and careful regard as the probable cornerstone of a general national policy in the control of alcoholic beverages'.[73] He concluded his testimony with two summary statements: a 'protest against the precedent which the substitute code would establish whereby beer, the promoter of temperance, is bracketed with the agencies of possible intoxication',[74] and a claim that the 'character of beer would justify its being treated rather as a food than as an intoxicant'.[75] This last claim represented the ultimate goal of some in the brewing

Date	Tax Rate Per Barrel of Beer
January 11, 1934 to June 30, 1940	$5.00
July 1, 1940 to October 31, 1942	$6.00
November 1, 1942 to March 31, 1944	$7.00
April 1, 1944 to October 31, 1951	$8.00
November 1, 1951 to 1980	$9.00

Table 5.9. Post-prohibition federal excise tax on beer: 1934-1980.

Source. United States Brewers Foundation (1956) Brewers Almanac*; United States Brewers Foundation (1985)* Brewers Almanac.

Date	Tax Rate Per Gallon of Liquor
January 12, 1934 to June 30, 1938	$2.00
July 1, 1938 to June 30, 1940	$2.25
July 1, 1940 to September 30, 1941	$3.00
October 1, 194 to October 31, 1942	$4.00
November 1, 1942 to March 31, 1944	$6.00
April 1, 1944 to October 31, 1951	$9.00
November 1, 1951 to 1980	$10.50

Table 5.10. Post-prohibition federal excise tax on liquor: 1934-1980.

Source. Downard, W. (1980) Dictionary of the History of the American Brewing and Distilling Industries*. Westport, CT: Greenward Press. pp.237-238.*

industry, to reclassify their product from an intoxicating beverage to a wholesome food. This common feeling was captured in a trade journal article arguing that 'Beer is liquid bread! Beer is a food beverage! Beer - it is safe to assert - is not an intoxicating drink!'[76] The message was that beer, unlike spirits, could and should be available in grocery stores. Thus, the program to differentiate beer for political reasons and the need for the shippers to advertise were mutually reinforcing strategies, which were used to drive out the local breweries.

Breweries had several reasons for seeking to differentiate beer from spirits. First, beer was much more acceptable, even in former Prohibition strongholds. In 1938-1939, approximately 18% of the national population lived in 'dry' areas that prohibited liquor, but still allowed the sale of beer.[77] Second, the federal government accorded beer a much greater degree of self-regulation than was ever considered for distillers. Breweries, emboldened by this preferential treatment did not feel nearly as confined as distillers: they advertised in traditional venues such as newspapers and magazines, and in the new media of radio.[78] In contrast, distilleries 'voluntarily' refrained from advertising on radio and then television, for they were fully aware that their respectability was tenuous at best. The liquor industry understood that this was going to be one of a series of double-standards in which beer would be given preference.

Third, the brewing industry was also much more successful in tempering federal excise tax increases.

From 1934 to 1940, the excise rate did not increase at all. The federal government raised the rate several times during World War Two, and again in 1951 during the Korean War, but it then kept the nominal rate constant for over three decades. In contrast, the tax rate on spirits was raised more often, and much more aggressively.

Clearly, breweries were more successful than distilleries in limiting excise tax increases. It was estimated in 1941 that on average the combined state and federal excise tax on liquor was $3.98 per gallon, while for beer it was $0.24 per gallon.[79] Tax increases force producers to either pass along the cost to consumers (and risk driving some of them away) or absorb part of the increase through lower profits. The liquor industry has borne higher taxes from the Civil War to the present, another indication of how the federal government has consistently favored breweries over distilleries.[80].

Fourth, states imposed much stricter regulations on the selling and purchasing of spirits. Many states until quite

recently set different age requirements for buying beer and spirits. Most states still have fewer restrictions on retailers who sell only beer and wine. In 1936, California passed a referendum specifying that beer could be sold in public saloons, but liquor could not.[81] Washington did not allow for on-premise sales of liquor until 1948.[82] Oregon voted in 1948 not to allow on-premise sales of liquor.[83] Florida passed alcohol-control legislation which excluded beer under 3.2%.[84] There are many more examples of how, after repeal, states have exempted beer from restrictive legislation designed for liquor.

Section 5.4.F: Summary

The Brewing Industry's 1933 *Code of Fair Competition* remained in effect until the summer of 1935, when the Supreme Court overturned the whole code system. But even after it was ruled unconstitutional, many of the Brewing Code's key points were reinstated through subsequent federal or state legislation. Indeed, the five key themes we have just examined came to form the foundation of brewing's regulatory framework, and they continue to guide policy for the brewing industry. When the market for microbreweries and brewpubs blossomed in the early 1980s, the new entrepreneurs had to overcome legislative hurdles inherited from the 1930s that forbade tied houses and exclusive outlets. The three-tier industry structure is also firmly rooted, and has effectively separated manufacturing, wholesaling, and retailing. And, of course, brewers continue to be treated more favorably than distillers in areas such as taxation and advertising.[85]

Out of the post-repeal regulatory system came rapid increases in packaged beer sales and off-premise sales, but this was a result not only of the five factors discussed above, but of other, more direct legislation. As early as January 1933, a bill for the District of Columbia proposed a $100 license fee for establishments in which there would be on-premise consumption, but only $20 if all sales were in bottles and all consumption off-premise.[86]

In the next section, then, we will see that these developments were not simply manifestations of the free market finding its way towards pareto optimal solutions. Interest groups promoted specific features of the regulatory framework from which they stood to benefit; one aspect of this system was a preference by shipping breweries for packaged over draught beer.

Section 5.5: The triumph of packaged beer

The first step is to establish that there were indeed changes during this period in the market shares of draught and packaged beer. McGahan seems to imply that the shares were fairly constant during these years. She states:

> The statistical tests assume that markets in each state and year cleared independently (that is, shocks to demand and to marginal costs are uncorrelated). There is substantial evidence that this assumption is reasonable for this period. Brewers did not often ship across state lines because transportation costs were high … the tests assumes that the shapes of the demand function and the supply relation are the same across states and years. There is evidence that the aggregate demand function did not vary between states or change over the periods … Methods of distribution and purchases were similar across states and years.[87]

Of particular interest here is her assertion that 'methods of distribution and purchases were similar across states and years'. This suggests that there were no changes in the overall proportion of packaged beer sales across the country over time, or in the ratio of packaged to draught sales within specific states. A detailed examination of the data show both of these claims to be incorrect.

Breweries sold beer either in kegs, bottles or (after 1935) cans. These data for the top nine beer-producing and beer-consuming states show[88] there was enormous diversity in production, distribution, and consumption patterns between states and over time.[89] For example, in 1936 two nearby states had widely different production experiences: Minnesota breweries sold 82.5% of their beer in kegs, and Michigan only 42%.

Packaged-beer sales rose in all states, but at different rates. New York, with a rich tradition of local breweries concentrating on draught beer, still sold over two-thirds of its beer on tap in 1941 - delaying, but not circumventing, the general trend. As these data show, there were marked differences between states, and differences over time, in the production and consumption of draught and packaged beer.

	1936	1937	1938	1939	1940	1941
California	50.5%	62.4%	71.8%	79.4%	85.6%	89.5%
Illinois	24.0%	35.8%	43.3%	50.3%	54.6%	57.4%
Michigan	58.1%	62.0%	59.3%	59.9%	62.5%	60.5%
Minnesota	17.5%	26.1%	33.8%	41.6%	45.4%	46.4%
Missouri	31.8%	47.4%	53.5%	57.0%	60.1%	59.9%
New Jersey	30.1%	31.8%	37.2%	39.6%	41.6%	42.8%
New York	22.2%	26.1%	26.7%	27.6%	29.9%	32.5%
Pennsylvania	33.6%	37.2%	38.8%	39.9%	43.7%	46.2%
Wisconsin	23.9%	30.1%	34.7%	37.9%	41.1%	42.1%
Sub-total	30.4%	36.9%	40.4%	43.7%	47.0%	48.8%
United States	33.5%	41.4%	45.0%	47.7%	50.9%	52.7%

*Table 5.11. The growth of packaged beer.**

Source. United States Brewers Foundation (1956) Brewers Almanac*. pp.13-14.*

** These data represent tax paid withdrawals. The numerator is the total number of tax paid packaged barrels of beer; the denominator is the total number of tax paid barrels (packaged and draught).*

California embraced packaged beer more quickly than any other state, and it was the largest breweries that lead the state down this path.

In 1938 and 1939, the five largest Californian breweries packaged between 80 to 90% of their beer, double the national average.[90] Similar rates of packaged beer were reported by Falstaff, St. Louis' other large post-Prohibition shipping brewery. Its St. Louis branch packaged 85% of its beer in 1938, while its Omaha facility packaged 89%.[91]

Yet, there were many breweries that refrained from bottling or canning much of their beer. In 1938 and 1939, the fourth and sixth largest breweries in the nation were the New York City-based Schafer and Ruppert breweries:[92] draught beer accounted for three-fourths of their output. Two other New York firms, George Ehert Brewery and Kips Bay Brewing did not package *any* of their beer in 1938.[93] For Ehert, one of the largest pre-Prohibition breweries, this reflected its long-standing emphasis on quality standards which the founder clearly laid out in his 1891 history of the firm.[94] Clearly, there were significant differences in draught-and packaged-beer production between states and breweries.

McGahan's assertions regarding packaging in her 1995 work are particularly noteworthy because they contradict her 1991 interpretation, in which she attributes the rise of packaged beer in the 1930s to such technological innovations as the beer can, and to changing consumer preferences for beer.[95] Breweries, McGahan argues in her 1991 article, responded to exogenous consumer demand, and took advantage of serendipitous advances in packaging technology.

I agree with McGahan's 1991 argument that packaged beer did grow in importance during these years; however, I do not attribute the rise in packaged beer solely to new technology which allowed shippers to respond more effectively to consumer preferences. My alternative interpretation focuses on the deliberate action taken by shippers to expand packaged beer. Far from merely accepting the dictates of the market, shippers worked to

		1938 Output			1939 Output		
Brewery	City	Barrels	Draught	Packaged	Barrels	Draught	Packaged
Ranier Brewery	San Francisco	346,000	10%	90%	396,000	8%	92%
Los Angeles Brewing	Los Angeles	283,000	15%	85%	303,000	12%	88%
Acme	San Francisco	286,000	19%	81%	290,000	13%	87%
General Brewing	San Francisco	232,000	16%	84%	216,000	11%	89%
Acme	Los Angeles	214,000	12%	88%	243,000	9%	91%

Table 5.12. California draught and packaged beer output: 1938-1939.

Source. Research Company of America (1941) A National Survey of the Brewing Industry. *Self published. pp.80, 82.*

shape legislation that favored packaged over draught beer, and they promoted packaged beer extensively with advertising and marketing campaigns. This raises the question of motive.

Before delving into this complex issue, a point of clarification is needed. After 1935, packaged beer came to mean both canned and bottled beer. The introduction of the beer can in 1935 was one of the key technological developments in the 1930s, but it is not correct to argue that this development fulfilled a pent-up consumer desire for canned beer. The same technological advances were available to British brewers in 1939, but only 20% of the beer in England was packaged, all of it in bottles.[96] Indeed, British brewers refrained from canning their beer until the 1970s.[97] As late as 1968, over 90% of Britain's packaged beer was sold in bottles.[98]

The Canadian experience differed from both the US and the UK. As early as 1917, packaged beer outsold draught beer in Canada by a margin of 58% to 42%. Yet, over the next two years, draught beer outsold packaged beer. Since 1920, packaged beer has accounted for more than 50% of the market, but, in contrast to the United States, packaged sales did not garner an increasing share of the market. After reaching 71% of the market in 1929, packaged beer fell to 55% in 1939. From the 1910s through the 1940s, there was a great deal of annual fluctuation in the Canadian beer market, and draught beer increased its market share several times. In the US, packaged beer steadily increased its share of the market every year; it did not exhibit the ups and downs characteristic of the Canadian industry. One possible explanation for Canada's experience is the size of its industry. Until the early 1940s, annual production was under three million barrels a year, barely larger than the top producing brewery in the UK and the US.[99] A limited national market might have been subject to greater vicissitudes than were the much larger industries in England and the US.[100]

Clearly, there must have been reasons why the American and Canadian beer markets became dominated by packaged beer, and why the British market did not. The next step is to examine why packaged beer replaced draught beer in America.[101]

Section 5.5.A: Motives behind the rise in packaged beer

We need to better understand why packaged beer rose to prominence, and what the implications were. Section 3.4 of Chapter Three discussed five reasons shippers promoted bottled beer in the pre-Prohibition period: 1) it offered higher profit rates; 2) it facilitated efforts to build brand loyalty; 3) it provided the opportunity to target the middle-class consumer who could afford the

higher prices of bottled beer, and were often reluctant to drink in saloons; 4) it allowed for a decrease in the reliance on saloons; 5) it was easier to sell in dry areas. There were two additional factors that drove breweries, especially the shippers, to promote packaged beer sales in the post-repeal years: 6) packaging offered greater flexibility in how and where beer was consumed; and 7) it provided for greater consistency of products.

Let us examine these factors one at a time:

1) *Bottled beer yielded considerably higher profit rates for the shippers in the pre-Prohibition period, a trend which continued in the 1930s*. Packaged beer cost more to produce, commanded a higher retail price, and generated greater profits. In 1935, the costs of 12 ounces of beer was five cents on tap, 10 to 15 cents in a bottle, and 15 cents in a can.[102] In 1933, Anheuser-Busch's draught beer was $16/bl, compared to almost $31/bl for its bottled beer.[103] A 1934 trade journal article estimated that keg beer returned a profit rate of $1.08/barrel, while packaged beer had a profit rate of $2.70/barrel - a positive differential of 150%.[104] The higher cost (and presumably the higher profit margin) of packaged beer has been a fixture for the brewing industry for the decades following repeal.

Despite its higher production costs and retail price, packaged beer has grown steadily since the 1930s.

2) *Packaged beer contributed to the efforts of breweries - especially the shippers - to establish brand loyalty*. In 1933, Anheuser-Busch took out a series of advertisements which proclaimed that 'BUDWEISER IS BACK, King of Bottled Beers'.[105] Such advertisements indicate the importance Anheuser-Busch placed on its packaged beer. It was not just the King of Beer, but the King of Bottled Beer. Fogarty discusses the importance of packaged beer to the ascendancy of large brewers:

> The rise of packaged beer was also the way that large brewers achieved dominance in the beer industry because, far more than draught, the packaged form is susceptible to mechanized production and brand-name advertising.[106]

A 1935 trade journal article makes a similar point:

> The advantages of increased bottle beer consumption and of an increased number of bottle beer users is at once apparent. For the individual brewery, it means putting a trade-marked, packaged item in the home - a procedure that over a period of time give stability, builds good will value into the brewery trade name, and creates a steady, year around volume such as draught beer sales never can attain. For the brewery industry as a whole, it means the definite association of beer with respectability and a more widespread appreciation of its virtues among people who wield tremendous political power.[107]

Year	Total	Cans	Bottles	Kegs & Barrels
1947	$14.81	$21.00	$16.51	$10.08
1954	$21.73	$29.02	$22.22	$12.87
1958	$22.87	$30.12	$22.20	$13.54
1963	$23.77	$30.13	$23.45	$14.46
1967	$26.38	$30.60	$25.85	$17.94
1972	$28.56	$30.61	$29.81	$15.99

Table 5.13. Average price per barrel of beer: 1947-1972.

Source. Morton Research Company (1978) The American Beer Industry: An Economic-Marketing-Financial Investigation. *Self published Morton Research Company. p.55.*

This passage succinctly summaries the benefits accruing from packaging and branding. The relationship between packaging, brand name construction, and advertising is, I feel, one of the integral developments in the history of the American brewing industry. Section 5.6 examines this connection in more detail.

3) *Increased packaged sales afforded brewers the opportunity to target middle-class consumers who could afford the higher prices of bottled beer, and who were often reluctant to drink in bars*. In the midst of the great depression of the 1930s, per capita consumption of beer was far below its pre-Prohibition levels. Yet, the largest shipping brewers saw their overall sales, and especially their sales of packaged beer, continue to increase. By 1939, packaged beer accounted for over half of Anheuser-Busch's sales.[108] For Falstaff, the other great St. Louis shipping brewery, packaged beer contributed over 80% of its output in 1939 and 1940.[109]

In addition, the brewing industry reopened to a new social culture, one far less tolerant of the excesses believed to have been characteristic of on-premise drinking. This view, promoted by temperance groups and shrewdly supported by shipping brewers, put traditional retail outlets like saloons at a disadvantage, and gave an additional boost to new outlets and to packaged beer.[110]

4) *Packaged beer allowed brewers, especially the shippers, to decrease their reliance on on-premise retail outlets such as bars and saloons, the dominant pre-Prohibition retail outlet*. This, in turn, depended equally on the changed regulatory environment, which eased the obtaining of retail licenses. The relaxation in licensing meant that with the enormous growth in retail outlets handling beer, the amount of beer per outlet was much lower (see Table 5.5). Packaged beer was better positioned for this new environment: grocery stores, hotels, and restaurants were equipped to handle small amounts of packaged beer, rather than large, bulky kegs of draught beer.

5) *Packaged beer was easier to distribute and sell in dry areas*. Though all states eventually allowed the sale of alcohol, local officials were given the option to declare their counties 'dry' or 'wet' after repeal. In dry counties, it was the *production and selling* of beer, not its possession or consumption, that was illegal. Consequently, many retail outlets specializing in packaged beer set up on the borders of dry counties. Draught beer, available only in bars, lacked the flexibility of packaged beer.

6) *Packaging offered greater flexibility in how and where beer was consumed*. For many years, beer bottles required a deposit, an inconvenience that offset some of the advantages packaging offered. With the introduction of the disposable beer can, consumers were given greater flexibility.[111] In response to the popularity of the one-way (nonreturnable) beer can, bottle manufacturers began to investigate one-way bottles. Shortly after the can's introduction in 1935, Owens-Illinois, a leading producer of beer bottles, introduced the 'Stubby', a lightweight non-returnable beer bottle.[112] By the mid 1930s, there were three containers for beer: one-way beer cans, one-way beer bottles, and returnable beer bottles.[113]

7) *Packaged beer gave brewers the security of greater consistency*. Product consistency is quite distinct from product quality, a topic discussed in more detail below. Consistency means that both brewer and consumer are confident that beer will taste, look, and smell the same. Packaged beer, pasteurized and filtered, is subject to much less variation than draught beer, which is somewhat fragile and requires more attention by the retailer in order to reach its potential. Packaging gave shippers an important advantage in their efforts to expand sales on the basis of brand names.

Section 5.5.B: Non-industry factors supporting the rise of packaged beer

In addition to industry motivations, there were the efforts taken by the packaging manufacturers themselves. There had been little demand for kegs during Prohibition, and this industry went into a general hibernation. In contrast, the packagers had banner years during Prohibition. The burgeoning demand for soft drinks provided bottlers an enormous market, and they looked forward to the relegalization of beer. As noted in Chapter Four, the leading shipping brewers sold nonalcoholic bottled and canned products during Prohibition, so the partnerships were well established.[114]

The potential market for beer bottlers and canners was immense. Per capita consumption of beer greatly

exceeded that of soft drinks during the 1930s, though the gap narrowed considerably during the period from repeal to World War II.[115] Both bottlers and canners sought to win the beer market. Bottlers had the initial advantage: many of the technical problems of bottling beer had been worked on for several decades leading up to Prohibition. Nevertheless, the leading can manufacturers, building on relationships established during Prohibition, set about to make reliable canned beer. Their product reached the market in 1935; by 1941, it accounted for 14% of the rapidly growing packaged beer market.[116]

While there was much competition between bottlers and canners, both stood to gain from market changes that favored packaged over draught sales.[117] Consistent with one of the major themes of this work is the degree to which these two industries actively worked to promote a demand for their wares. A 1938 *Brewers Digest* article captures the tenor of the efforts:

> Tremendous advertising and sales promotion campaigns conducted by the American Can Company and the Continental Can Company are certain to result in a large increase in canned beer sales for breweries which have adopted the can as a standard beer container … Certainly there will be more and more pressure applied to the brewery refusing to consider the use of cans.[118]

The leading can manufacturers were not content to passively wait for consumers to change their exogenous preferences for packaged beer; they undertook widespread advertising and marketing campaigns to heighten the demand for cans by both the consumer and producer

This was not a one-step campaign. A self-published history of canned beer by the American Can Company asserts, 'During the period 1935 through 1940 the beer can trademarked "Keglined" was supported by the largest advertising and sales promotion support ever put behind any kind of container'.[119] These passages indicate that the large packagers advertised their products heavily, both to the public and to brewers. There were numerous brewing trade-journal articles by the publicity departments of these packaging firms that extolled the virtues of their product, while denigrating the offerings of their competitors.[120] The net effect of these efforts was to heighten consumer awareness of, and desire for, packaged beer. These steps reinforced the actions taken by the shipping brewers to expand the market for packaged beer.

Year	U.S. homes	U.K. homes
1925	1.0%	<1%
1930	12.8%	<1%
1933	24.7%	<1%
1934	29.3%	<1%
1935	34.2%	<1%
1936	41.1%	<1%
1937	49.4%	<1%
1938	51.7%	<1%
1939	56.0%	<1%
1940	63.0%	<1%
1941	72.0%	<1%

*Table 5.14. Percentage of U.S. and U.K. homes with refridgerators: 1925-1941**

Source. Bowden, S. and Offer, A. (1994) 'Household appliances and the use of time: the United States and Britain since the 1920s', Economic History Review. *48. p.745.*

** These data are only for households wired for electricity.*

While I depart from the standard story by emphasizing supply forces that helped construct demand for packaged beer, I do not deny that consumer preferences were evolving during this period. The question is whether these preferences changed organically, or were substantially influenced by economic interests that stood to gain from these developments. One important change in American tastes was a growing preference for drinks served very cold, a development facilitated by the rapid rise in home refrigeration.

England, much later to embrace refrigerators, has never evinced a preference for very cold beer or for packaged drinks.[121]

America's mass-produced packaged beer arose in a general environment of mass-produced, packaged, branded goods. The shipping breweries reestablished their dominance in the industry in part because of their

ability to shape the regulatory system in favor of branded, packaged beer sold in nontraditional outlets. Aggressive and expensive advertising and marketing campaigns were central to this process.

5.6: The development of mass advertising in the brewing industry

McGahan argues that 'the advertising strategies of the shipping brewers between 1935 and 1939 are most notable for their thinness'.[122] She offers three reasons for this paucity: 1) 'regulators discouraged it', 2) 'the shipping brewers did not have the retail network to satisfy any potential surge in demand for packaged beer that might result from a broad advertising campaign', and 3) 'advertising would probably have had little impact on sales in the short term because of the Depression'.[123] Because of these inhibiting factors, she claims, industry advertising expenditures between 1935-1941 were less than 1% of sales.[124]

We must first evaluate her assertion regarding the 'thinness of advertising'. O'Neil states that the entire alcohol industry 'ranked third among all industries in the total amount spent on newspaper advertising in 1939, and sixth in expenditures for advertising in the four media of newspapers, magazines, farm journals, and chain radio'.[125] From 1933-1939, the brewing industry spent $130,000,000 on advertising.[126] Using the figure of $130 million, advertising expenditures as a percentage of sales is between 4 to 6%, not the fraction of 1% in McGahan's calculations. From 1933-1939, the brewing industry sold 314,735,000 barrels of beer. If advertising expenditures were $130 million, then the ratio of advertising to total sales depends on the average price of beer. McGahan suggests using $0.30 per gallon, or $9.30 per barrel. At this rate, advertising accounted for 4.4% of the sales revenue - more than four times what McGahan calculated. If we use a lower average price per barrel, then the importance of advertising rises; for example, if the price is $8.00 per barrel, then advertising rises to 5.2% of the total sales.[127] Contrary to McGahan's assertions, advertising was, one might say, rather plump during these years.

This is not to suggest, however, that all breweries advertised at the same rate. There were notable variances in the degree to which different types of breweries advertised. A 1940 article in *Brewers Digest* argues:

> Advertising's value to the brewer is perhaps sufficiently indicated by the fact that the three shipping brewers, who have the longest records as advertisers, also have the largest sales, with Anheuser-Busch in the lead. Following these three come another three who have done some attractive advertising since repeal-Ruppert, Ballantine and Schaefer.[128]

In a self-published company report, an Anheuser-Busch official wrote:

> When Prohibition ended, Anheuser-Busch experienced an unforeseen problem: people had become used to the sweet taste of the soft drinks and homemade brews that were available during Prohibition, and were not willing to return to the bitter taste of beer. In response, many brewers changed their formulas to achieve a sweeter taste. However, since one of the philosophies of the Anheuser-Busch company is that it must maintain successful traditions. Busch refused to alter the formula for best-selling Budweiser. Dr. Robert Gall, the company's post-Prohibition brewmaster, agreed with this decision. The company initiated a major advertising campaign. Busch challenged consumers to a 'five day test.' He predicted that after five days of drinking Budweiser the consumer would not drink a sweet beer again. The advertising campaign was successful and established a trend for future consumer appeals.
>
> The advertising policy of August Busch, Jr. did not significantly differ from the high-pressure ads used by his brother and father. Adolphus had advertised his beer through the distribution of pocket knives and gold pieces. Patriotic art such as 'Custer's Last Stand' was employed in advertisements. In 1933 the famous Clydesdale horses were introduced and still remain an advertising legend.[129]

These passages support one of the themes of this work: that the shipping breweries came to compete less on the quality of their product than on constructed images of their branded product.

The smallest breweries spent much less, both absolutely and as a percentage of their total production costs, than did the mid-sized and large firms. Advertising expenditures by the largest breweries were twice the level of the smallest firms. As an editor for *Brewers Digest* said in a 1940 article:

During the years since repeal there has been a steady improvement in the advertising done in behalf of beer. However, this improvement has largely been among the brewers who could afford expert advertising men. Many a small brewer [does] not have a very good understanding of the importance of advertising to their business.[130]

Not all breweries were equally positioned to take full advantage of the opportunities advertising and branding offered.

Table 5.15 summarizes advertising expenditures for small, medium, and large breweries in 1940. These data clearly show that larger breweries took fuller advantage of advertising than did smaller breweries. The inability (or choice, in some instances) of small breweries to match the shippers was a leading cause of their disappearance from the industry: 'The little brewer must compete in his market with medium-sized and large brewers. His sales effort must at least equal that of his competition - and so must his advertising, if his product is to be chosen in preference to that of other brewers'.[131] Small breweries, it appears, elected to compete on price and product quality, rather than on images of the product constructed through advertising. The shippers, as time has shown, adopted the more successful strategy.

The enormous sums of money the brewing industry spent on advertising were complemented by expenditures underwritten by related companies, such as the bottlers and canners. From 1935 to 1937, American Can Company spent $1 million dollars per year on promotional campaigns.[132] Retailers also ran many advertisements in daily newspapers. Prominent retailers such as grocery stores, pharmacies, and liquor stores had regular ads in newspapers touting their beer selections and prices. These ads contained statements like 'Blatz beer, mild mellow and satisfying' and 'Pabst beer, rich and invigorating'.[133] Retailers, whose principal objective was to increase sales at their specific stores, contributed to greater brand awareness of packaged beer, especially of shippers such as Blatz, Pabst, and Anheuser-Busch.[134] Thus, the true dollar value of beer-related advertising exceeds the official $130 million figure spent directly by the beer industry.

If advertising was plump, then we must account for the three factors McGahan adduces to explain why it was thin.

	Small Breweries (under 100,000 bls)	Medium Breweries (100,000 to 300,000 bls)	Large Breweries (over 300,000 bls)
Advertising Costs Per Barrel	$0.68	$1.03	$0.98
Advertising Costs/Total Barrel Costs	7%	15%	15%

Table 5.15. Brewery advertising cost data: 1940.

Source. Beach, A. (1942) 'The Small Brewer ... How He Fits Into The War Effort', Brewers Digest*, 17 (April). p.27.*

First, regulators may have discouraged excessive beer advertising, but they were far more concerned about spirits than beer. Whereas spirits producers 'voluntarily' refrained from advertising on radio and television, breweries were never precluded from any important media. If some states did prohibit beer advertisements (and McGahan does not list which ones did, or how these prohibitions were put into effect), it does not appear that any of the leading beer-producing or beer-consuming states imposed prohibitions on advertising.[135]

Second, McGahan claims that brewers did not have in place the needed retail networks to meet any potential upswings in the demand for packaged beer that advertising might have engendered. This ignores the changed industry structure of the post-repeal period, in which breweries worked increasingly through wholesalers to distribute their beer. In an environment in which there were now over 150,000 retailers (in contrast to the 10,000-20,000 in the 1910s), breweries had an ample number of retail outlets to handle surges in demand for packaged beer.

If her concern was actually that breweries lacked the productive capacity to make large quantities of packaged beer, then three additional points need to be made. As noted in Chapter Four, in the 1930s several of the leading shipping breweries bought new plants in which they brewed and packaged beer. Moreover, they were increasing their total production, they were also beginning to shift their production from draught to packaged beer. In addition, several breweries, led by the shippers,

Year	Sales (millions)	Net Profit (millions)	Advertising Expenditures (millions)
1930	$41.3	$13.5	$4.6
1931	$40.3	$14.0	$4.9
1932	$33.6	$10.7	$5.0
1933	$32.3	$10.8	$4.4
1934	$39.8	$14.3	$4.9
1935	$45.5	$15.8	$5.4
1936	$58.0	$20.4	$5.7
1937	$70.4	$24.7	$7.0
1938	$78.1	$25.6	$7.1
1939	$90.5	$29.0	$8.0

Table 5.16. Coca-Cola summary data: 1930-1939

Source. Tedlow, R. (1990) New and Improved: The Story of Mass Marketing in America*. New York: Basic Books. pp.85-86.*

invested in bottling and canning technology during Prohibition as they produced bottled soft drinks and canned malt syrup: these investments facilitated their efforts in the 1930s to increase packaged beer production. The leading shippers in particular were well positioned to handle increases in demand for their packaged beer.[136]

Finally, McGahan asserts that in the midst of the Depression advertising would probably have no effect. As the data presented in this section indicate, breweries and their allies were far more confident in the potential of advertising. One reason they aggressively advertised was because of the successes enjoyed by Coca-Cola, their increasingly successful soft-drink competitor. From the 1910s to the 1930s, Coca-Cola transformed itself into a national firm with global aspirations. Integral to its achievements were its intensive advertising and marketing campaigns.[137] These efforts propelled Coca-Cola to steadily rising levels of sales and profits.

Coca-Cola increased its annual spending on advertising by 74% between 1930 and 1939, and it was rewarded with increases in its sales and net profits of 119 and 115% respectively. Breweries were well aware of how Coca-Cola had utilized advertising to fuel its growth in the 1910s and 1920s, and they saw in the 1930s how it was continuing to build upon this effective strategy. Shipping breweries in particular realized that by following Coca-Cola's lead, they could reasonably expect to see similar improvements in their sales and profits figures. All of these companies understood that, at the firm level, these strategies could be successful, even during a depression.

The goal of advertising by a brewery is not to increase revenue or sales for the *industry*, but for itself. Brewers were well aware of the distinction between generic advertising and the marketing of specific brands. As Schenker argued in a 1941 trade journal article, 'Advertising, to be effective for the brewer who foots the bill, must lay aside the altruistic job of selling beer and sell a specific brand of beer'.[138] The goal Schenker set for brewers was to develop 'a true product story which sets that brand of beer apart from other beers'.[139] Anheuser-Busch, Pabst, Schlitz, and other shippers increased their sales at the expense of local breweries. Table 5.2 documented how much faster the leading national shippers grew from 1934-1940 than did the industry as a whole. We see an even steeper increase if we look at their sales of packaged beer alone.

And we find an even more amazing story than the one that simply shows the brewing industry electing to advertise during the Depression. Through these advertising campaigns, they were able to induce many consumers to switch from draught beer to the more expensive branded-and-packaged beer in a time that was, to say the least, lean.

The effectiveness of the shippers's advertising campaigns impugns the standard neoclassical view that the rise of trademarks and branding was a rational response by the marketplace to the changes wrought by industrialization:

> In the late nineteenth and early twentieth centuries, changes in industrial structures altered the role of the trade mark dramatically and made it for the first time in history a particularly valuable intangible asset for the producers and a reducer of transaction costs to the consumer ... The trademark informed the consumer about the product; it differentiated the product from alternatives.[140]

In this neoclassical view, advertising and branding are natural manifestations of a changed industrial structure in which consumers no longer know firsthand the producers of their products. Brands offer them the assurance of getting what they got the last time.

A counter perspective sees these tactics as tools that helped bring about the new industrial structure: they are *contributors* to, not simply *effects* of, the changing environment. Larger firms trying to compete in distant markets utilized advertising and branding to heighten consumer demand for their products. The view of trademark as information does not adequately explain the enormous expenditures made by companies through their marketing and advertising campaigns. Casson rejects the interpretation of the trademark as a natural and good process. Responding to claims that 'Rational consumers cannot be misled by branding' he retorts 'This view of human nature is not, however, shared by those responsible for the actual marketing of products'.[141] Trademarks, while effective, are not necessarily beneficial. Firms invest in branding not out of an altruistic desire to impart unbiased information, but to sway consumers in their purchases.

This story is quite different from that told by McGahan. If advertising and branding are not important, as she argues, then the success or failure of firms must reflect varying levels of efficiency: the market determines winners and losers on the basis of price and quality. Since the largest shippers proved most successful during these years, they must have offered the best combination of price and quality. When we re-introduce advertising and branding as key factors, and combine them with the steps shippers took to promote packaged beer, and more generally, to shape the post-repeal regulatory system, it then becomes clear that we cannot continue to see efficiency as the means by which the industry consolidated during these years.

Section 5.7: The triumph of the shippers

Using the matrix introduced in Chapter One, we can see that the standard story takes a Row One view of economic processes. It makes consumers the underlying agents of change, and it depicts an industry populated with passive breweries competing with each other as they respond to exogenous preferences. Natural market forces reward the most efficient breweries: efficiency trumps inefficiency and good beer replaces inferior beer. While appealing, this interpretation is incomplete. For example, it does not address how and why tastes change, and it fails to consider the active role shippers played in constructing the rules for the post-repeal market for beer.

Building on themes associated with Quadrant IV, I propose a quite different story. Firms do not passively respond to their economic and social environment, but actively interact with it. The triumph of the shippers was not necessarily an efficient, beneficial, or preordained process; rather, it was the result of a combination of factors, some undertaken directly by the shippers, others reflective of broader social trends - trends that the shippers adroitly capitalized on.

In preparing for repeal, shippers were anxious to prevent the re-emergence of the local breweries that had outperformed them in the decades immediately prior to Prohibition. The shippers wished to prevent the return of the tied house, and they set about to encourage a market for beer that extended beyond on-premise consumption of draught beer. This led to the promotion of packaged beer for off-premise consumption, a move that necessitated a new type of product. Shippers needed a beer to withstand the rigors of transportation, a less important attribute when most beer was brewed locally for immediate consumption. They needed to extend the shelf life of packaged beer that might sit, sequentially, on the shelves of the wholesaler, the retailer, and the consumer. In addition, they wanted to standardize their draught and packaged beer, so that it would taste the same batch after batch.

Finally, shippers wanted to de-emphasize traditional beer attributes so they could differentiate their product through advertising and branding campaigns. These aggressive campaigns helped them to compete not on the basis of their beer, but on images they constructed of it. Shippers sought to convince consumers that their standardized, light, pilsner-style beer was the way beer should be.

But, firms cannot always shape the market as they would like. Why, then, were the shippers able to introduce many of these dubious changes, especially when they did not improve product quality or consumer

Year	Canned Fruit	Canned Juices*	Canned Vegetable	Canned Soups	Canned Fish	Canned Meat
1920	9.3	0.58	18.2	1.9	n.a.	0.7
1921	8.1	0.33	16.7	2.0	2.2	0.9
1922	7.4	0.16	16.9	3.1	3.2	1.0
1923	8.9	0.29	21.2	4.0	2.9	1.1
1924	8.8	0.12	22.7	3.2	3.2	1.2
1925	10.9	0.16	25.3	2.5	3.2	1.3
1926	11.8	0.17	25.7	2.7	3.4	1.4
1927	12.4	0.32	22.1	3.0	3.8	1.5
1928	12.4	0.13	22.6	3.4	3.8	1.6
1929	12.1	0.32	25.5	3.9	3.9	1.7
1930	12.7	0.50	27.8	3.1	3.3	1.7
1931	10.7	1.0	24.2	2.3	3.2	1.6
1932	10.1	1.5	20.6	2.2	3.3	1.7
1933	11.6	1.6	20.9	2.0	3.8	1.9
1934	12.3	1.6	21.9	3.2	4.2	2.1
1935	13.2	3.6	24.2	3.6	4.7	2.3
1936	16.5	4.8	24.9	4.2	5.8	2.7
1937	13.3	7.4	26.0	5.0	4.2	2.9
1938	15.2	7.4	27.8	5.4	4.8	2.7
1939	15.7	8.4	28.8	6.3	4.6	3.5
1940	18.7	10.0	31.0	6.7	4.1	4.3

Table 5.17. Per. capita consumption of canned goods (pounds): 1920-1940.

Source. National Canners Association (1954) The Canning Industry. *Washington DC: Self published pamphlet. p.9.*

**The per capita data in this table are taken from a report issued by the National Canners Association, while the per capita canned fruit juice data in Chapter Four are taken from the Historical Statistics of the United States. Although the general upward increase is similar, the specific levels in each year differ. I have used these two sources to ensure consistency with the additional data in these two tables that are taken from these two separate sources.*

welfare? Sections 5.4 to 5.6 examined the active steps breweries took in shaping their regulatory environment and in promoting and advertising packaged beer. It may be useful to review some of the factors that have already been discussed, all of which contributed greatly to the shippers' efforts to reshape the post-repeal market.

First, by the end of Prohibition many beer drinkers had forgotten what traditional beer tasted like. Most consumers in 1933 had gone nearly 16 years without access to unregulated beer. For those who lived in dry states or counties prior to national Prohibition, it had been an even longer stretch. In addition, a generation of potential beer drinkers had come of age without access to traditional beer. Given all this, it is difficult to imagine what it meant to be a rational, informed consumer. Shippers, then, had a unique opportunity for trying to construct a taste for specific beer attributes that they were well positioned to deliver.

Second, there was a growing consumer preference for packaged goods, and packaged beer benefited directly

from this trend. Some canned foods had become popular by the early 1900s, and per capita consumption increased steadily over the next several decades.

The demand for canned foods rose steadily from 1920 to 1940. Per capita consumption of canned vegetables rose by 50% between 1920 to 1940, while canned juice consumption rose by over 1,000% from 1931 to 1940. Many technical improvements in canning came during the 1920s, and breweries were able to capitalize on these developments when they began canning beer in 1935.[142]

Third, the rise in packaged goods paralleled the spread of home refrigeration, which allowed consumers to store packaged items after they had been opened. It also contributed to a unique American preference for serving drinks 'ice cold'. In an era when consumers were less informed of what beer had been and could be, the stage was set for breweries to construct a demand for a new style of product, allegiances to which would be won not on the basis of quality but through advertising and marketing campaigns. Dr Robert Wahl, the director of a brewing institute in Chicago, viewed the fashion of serving beer very cold in America as an outgrowth of the poor quality of post-repeal beer and the socially (and technically) constructed 'preference' for cold beverages:

> No matter how scientifically the master brewer operates and selects the finished materials, including the highest grade hops for their flavor giving qualities and delicacy of bitter principle, ice cold beer cannot give off this delicious flavor, because flavors are not volatilized at such low temperatures. It is also dead to the taste.[143]

Drinking beer at cold temperatures, he argues, reflects a lack of understanding by American consumers. This worked to the advantage of the shippers who were not trying to compete on the basis of beer's 'delicious flavors'.

Fourth, advances in packaging, branding, and refrigeration contributed to the growing importance of product standardization. America during these years was becoming the land of mass production, and the home of mass consumption. Shipping breweries had led the way in trying to transform brewing from an art into a science, and they stood to reap great benefits. One manifestation of this process is in the changing position of brewmasters in the company hierarchy. The brewmaster's position in major breweries came to trail both the accountants and the chemists.[144] This process, very little commented on, can be interpreted as the triumph of standardization of brewing over the craft of brewing.

Cochran provides an example of how this process unfolded at Pabst. In discussing Pabsts' pre-Prohibition brewmasters, he highlights the training-often in Germany-these early brewmasters received. These were, Cochran makes clear, amongst the most important brewery employees.[145] Pre-prohibition brewmasters had great latitude in changing the product, in modifying it along lines they felt were necessary. In contrast, the post-repeal Pabst hierarchy had the brewmasters at the several plants reporting the vice-president of production 'who regulated the formulae for the beer. To ensure uniformity, the same grains, malt, hops, and type of water were used at all plants, while the local brewmaster … had to see that instruction were carried out.[146] Brewmasters saw their positions change from employees whose training prepared them for introducing product innovations to employees who simply followed the orders of others higher in the company organization: the goal now was stability, consistency, and uniformity, measures better planned by chemists than traditional brewmasters. This discussion can be related back to Chandler's ideas regarding changing organizational structure. In brewing, new organizational forms effected new power relations within the firm, and this in turn altered the nature of the product. The new position of the brewmaster and the increased emphasis on stability and uniformity were direct consequences of shipping breweries seeking greater 'throughput.'

A new type of consumer was coming of age during these crucial years, one who increasingly valued packaged and standardized goods. This is not to suggest, however, that all standardized, mass produced-mass distributed goods were of high quality. Many were not. For example, Hess and Hess, state in their history of American food that canned 'Cambell's soups have done more to debase the cooking of Americans - and their palates - than any other single factor'.[147] The consumption of canned soups may have increased by over 300% from 1920 to 1940, but this was not the triumph of a superior product, but the result of an effective campaign to persuade consumers to substitute a heavily advertised,

branded (and more expensive) product for a less fashionable home-made version.

Brewing experts of this period frequently decried the quality of packaged beer. The following comments from Emil March, an editor at *Brewers Digest*, were typical.

> The brewmaster's pride in his draught beer does not always extend equally to his bottled and canned beer. This is due mainly to the fact that the draught beer is frequently superior in quality to the packaged beer. Bottled beer has been shown in many instances to undergo certain changes during the process of pasteurization that affect its taste, flavor, and foam.[148]

However, March acknowledged the realization of draught beer's full potential required

> constant care and supervision by the brewer from the time the barrel leaves the brewery until the beer is served to the customer. Not infrequently, a product of high quality, shipped out by the brewery in perfect condition, draws complaints instead of praise simply because through improper handling and careless dispensing its quality was adversely affected or even destroyed.[149]

Packaged beer might be inferior, but it is a more consistent product. In an era when breweries no longer controlled retail outlets - when retail outlets with no prior experience in selling beer were growing in importance - the preference of course was for pasteurized, filtered, packaged beer.[150]

The shipping breweries emerged triumphant in the years following repeal, but this was not the natural consequence of freely interacting market forces. By aligning themselves with powerful forces prior to and immediately after repeal, the shippers were able to reshape the entire brewing industry. They were so effective in these efforts, that in some respects the brewing industry before and after Prohibition was so different as to verge upon being non-comparable.

The shippers helped rewrite the rules governing the brewing industry, and these rules, not surprisingly, supported their efforts. Perhaps the most important difference in the post-repeal market was the strict separation of breweries from retail operations. Local breweries had used their control of saloons to impede the ability of shippers to penetrate distant markets. After repeal, a new layer of wholesalers grew up to separate retailers and producers. As it turned out, it became easier for wholesalers to deal with a smaller number of large national shippers than a larger number of local firms.

As the saloon disappeared from the memory of American beer drinkers, the distribution of beer quickly moved from keg to packaged. The shippers were a leading force behind this movement as well, and their efforts were reinforced by broader social and economic developments. The spread of refrigeration and the growing popularity of a range of packaged goods and drinks contributed to the growing popularity of bottled and canned beer, beer that the shippers were in the best position to provide.

The improving fortunes of the shippers came at the expense of local breweries. Prior to Prohibition, local firms had proven to be quite effective competitors, and the leading national shippers had seen their overall share of the American beer market stagnate during the 1900s and 1910s. After repeal, shippers reasserted themselves as the driving force in the industry. To further cement the gains that had been made possible by the new regulatory system and evolving consumer preferences for packaged beer, the shippers also invested in substantial advertising campaigns. These campaigns signaled to all that the shippers were clearly bent on dominating the post-repeal industry, and were not about to let the local breweries reassert themselves.

As we review these efforts, it is clear that the shipping breweries exhibited true entrepreneurial insight. They were far from the passive economic actor often portrayed in neoclassical economic theory. The shippers deliberately set out to shape the rules under which they operated, and to promote the specific types of beer that they were best positioned to supply. They clearly fall into Column Two of this work's organizational matrix. This chapter also shows that the shippers were not associated with either a better or cheaper product. While shippers may have been able to supply packaged beer more efficiently than local firms, this begs the question of where the demand for packaged beer came from. We showed earlier that keg beer was much cheaper for both shipping and local breweries to produce, so it is not immediately obvious that consumers benefited from packaged beer supplied by shippers rather than keg beer

provided by local breweries. A more difficult question to resolve regards product quality. Building on data introduced in Chapter Three, we argue here that local brewers often produced high quality beer; in contrast, many of the steps taken by the shippers, such as packaging and pasteurization, resulted in a lower quality beer, especially compared to locally produced, locally consumed draught beer. The extensive advertising and marketing campaigns undertaken by the shippers come, in this light, to be viewed as innovative techniques to promote a product that may be more expensive than locally produced beer and of lower quality. To the extent that these campaigns were effective, we must credit the shippers for what they accomplished. However, it should also be clear that the only quadrant from Chapter One's organizational matrix that can accommodate such 'accomplishments' is the bottom right combination of dynamic firms whose activities may not necessarily result in socially optimal results.

Chapter 6: Summary

The rise of the modern corporation at the turn of the century has occasioned much analysis and debate. Until recently, though, most commentators viewed the gradual replacement of local firms by national companies as a natural working of market forces in which larger, more efficient operations steadily replaced smaller, less efficient firms. While these authors had some differences on the degree of firm agency, they shared a common belief that this evolution was a beneficial, inevitable process. In the first chapter, I grouped these economists and economic historians along Row One of my organizational matrix.

Authors such as Oliver Williamson fall into Quadrant One, where a Row One view of efficiency and inevitability meets a Column One view of the firm as a passive responder to its economic environment. I placed authors such as Alfred Chandler and William Lazonick in Quadrant Two, where the Row One view is combined with a Column Two view that highlights the steps dynamic firms take in ordering their economic and social environment. From Chandler's and Lazonick's perspective, there is no need to fear dynamic firms interacting with their environment, as these actions will translate automatically into desirable outcomes, such as improved productive and distributive efficiency.

Against this Row One view stands a rival interpretation. Row Two authors assert that the market does not always pick winners - that the best technologies may not emerge triumphant, the most commercially successful products may not be the best products, and suboptimal results may become 'locked in'. Quadrant Three narratives - Arthur, Arthur and David[1] - combine this Row Two skepticism with a Column One view of passive firms. They do not offer detailed examinations of the steps firms take to bring about these less than desirable consequences.

This brings us to Quadrant IV. Quadrant IV stories marry a Row Two interpretation - that economic processes do not automatically evolve along the most efficient lines - with a Column Two appreciation of the dynamism of firms. While all four quadrants offer distinct interpretations, I see the greatest differences to be between Quadrant I and Quadrant IV. Whereas Quadrant I studies, such as Williamson[2] do not bother with primary research into the specifics of economic history (indeed, they may even be seen to disdain it), the essence of Quadrant IV studies is their detailed analyses of how and why specific industries unfolded over time.

A second distinction concerns the role of the entrepreneur. By de-emphasizing innovative, dynamic steps, Quadrant I studies are not interested in how entrepreneurial leaders help shape a firm's evolution over time, but focus instead on how a firm adapts at a given point in time. In marked contrast, Quadrant IV works frequently focus on the important steps firms and key individuals take in trying to shape their environment. They may not always be successful in these efforts, but a careful reading of specific cases shows that firms do indeed interact constantly with their environment. In Quadrant IV, we see the influence of Schumpeterian Economics, with its examination of firms engaging in 'creative destruction,' and Institutional Economics, with its emphasis on the actual operations of the economy and its appreciation of economic, social, political, and cultural interconnections. Unlike neoclassical theory, these currents of economic thought are broad enough to take in cases of dynamic firms that promote their own (though not necessarily society's) interest.

Having examined how different schools of thought approach historical case studies, let us briefly review the

major differences between the standard, Row One story and my Quadrant IV counternarrative of the American brewing industry.

The received narrative is appealing and relatively straightforward. It begins by arguing that out of several thousand small breweries in the late nineteenth century, a few positioned themselves to become national mass-producing, mass-distributing firms. By adopting new technologies and brewing processes, they were able to gain market share and force less efficient breweries out of business. This process, born in the 1870s, continues through the 1910s. The total number of breweries falls steadily, and the biggest firms increase their market share. Small, local breweries are unable to compete; those that manage to stay in business rely on their geographic insulation from the big shipping breweries.

Despite the industry's achievements, it was unable to prevent or forestall national prohibition. Breweries responded in several ways. Some sold all of their equipment; others shifted to related products such as ice cream and soda, and so were better positioned to make the transition back to brewing.

Though some of the contributors to the standard narrative treat Prohibition as a great gap in time, it is very much a story of progress and continuity and progress. The focus is always on the national shippers who continue to increase their annual production levels through the 1930s, and to further strengthen their hold on the industry. These achievements are due to the shipping breweries' greater productive and distributive efficiencies; they are in no way the result of advertising campaigns.

The standard story, while appealing, is incomplete in some respects, and wrong in others. The fundamental problem is that it is predisposed to interpret developments in the brewing industry as efficiency driven: if national shippers eventually came to dominate the industry, it must be because they were more productive and better able to respond to consumer demand. This view ignores firm motive, because it presumes that economic processes unfold naturally, inevitably, and beneficially. Even dynamic firms, from this vantage, respond to the market and to consumer demand.

My Quadrant IV story approaches the problem quite differently. First, it begins by examining the steps entrepreneurial firms took in structuring their social and economic environment. It recognizes that motive is important, and that we must understand why and how firms stood to benefit or lose under varying production and distribution schemes. Second, it evaluates the effects of these actions. Unlike the standard story, this interpretation cannot presume, for example, that changes in a product are necessarily good and that the consumer automatically benefits.

The development of packaged beer provides a useful contrast of the standard story against my approach. The standard story documents the technical and scientific developments that made mass produced packaged beer possible, but, it ignores firm motive, and it fails to consider whether consumers benefited from packaged beer or even whether packaged beer was good beer.

I argued in Chapters Three and Five that the shippers had a series of reasons for wanting to replace draught with packaged beer. After I examined the issue of motive, I evaluated the effects of moving from draught to bottled beer. I showed that bottled beer was more expensive and, especially in its early decades, of dubious quality. Consumers did not necessarily benefit, and the product itself was often harmed as a result of pasteurization and shipping.

In the standard story, rational consumers would never demand beer that was inferior yet more expensive. If consumers are sovereign, and if firms only respond passively to consumer demand, then this set of events would be highly unlikely. But, if we accept that dynamic firms constantly interact with their environment, and we allow for possible suboptimal results, then we can begin to imagine a setting in which consumer demand is not some ahistorical, acultural fact, but a variable that is influenced by its social and economic environment.

Let me now briefly summarize my alternative interpretation of the brewing industry. I agree with the standard view, that the modern phase began after the Civil War. I also accept that in the 1870s and 1880s, a small number of nationally oriented shipping firms emerged. I would add to the standard story that the achievements of these shippers depended not only on their investments in new technology and science, but also in the remarkable entrepreneurial abilities of their early leaders. Gustav Pabst, Valentin Blatz, and Adolphus Busch were

remarkable men, and they understood not only how to mass produce beer, but how to construct demand for it. They were clearly not content to rely upon exogenous consumer preferences to dictate their futures.

I begin to differ from the standard story in the period from the 1890s to the 1910s. The received view, in essence, assumes that the remarkable achievements of the shippers in the late nineteenth century continued into the 1910s. I argue that their progress stalled during these later years, and that it was the much maligned local breweries who propelled the industry during this period. Key to the achievements of the locals was their growing control of saloons, the dominant retail outlet in a market controlled by draught beer. Williamson[3] believes that brewery control of saloons during these years was ill-advised, since such control was ruled illegal after the repeal of Prohibition. I argue that he completely misunderstands the historical circumstances surrounding these investments, and ignores how successful this strategy was.

Local breweries understood that in a market dominated by draught beer sold in saloons, control of the retail outlets was key. By gaining control of saloons, they secured outlets for their beer, while preventing the shippers from selling in their backyards. This downstream investment was an important contributor to their pre-Prohibition successes. That local breweries exhibited keen entrepreneurial insight is not to suggest that this automatically benefited consumers. We next need to evaluate the consequences of this process.

Some might object that this amounted to the creation of local monopolies, and as a result restricted consumer choice. This is partly true. Local breweries did use their control over saloons to keep out shipped beer, but I would counter that consumers were not necessarily hurt by this process. First, local breweries concentrated on fresh, draught, unpasteurized beer, so their consumers received fresher, higher quality beer. Second, if the shipped beer was bottled, then it would have been much more expensive than the local draught beer. Thus, I would argue that the local breweries seeking to control their downstream outlets did not hurt consumers. These examples from the pre-Prohibition period show the value of this Quadrant IV approach. It requires that we examine how breweries interacted with their environment, and then it forces us to evaluate these steps.

Thus, for this early period, my story differs from the standard interpretation by its examination of why breweries acted as they did, and, then its evaluation of the consequences of these actions. As with other Quadrant IV stories, my narrative delves deep into the historical record, and uncovers data that contradict many suppositions made in the standard story.

I gave close consideration to Prohibition, which the standard story does not do. I examine how the industry actively worked to exempt beer from the agenda of the temperance movement, and how the shippers worked throughout Prohibition to promote not only repeal, but a repeal from which they would benefit the most.

The shippers, fully aware of how local breweries had used control of local saloons to restrict their access in the years leading up to Prohibition, called for a new regulatory system that would establish a buffer between producers and retailers. This process, little commented on, was, I believe, another example of the shippers' entrepreneurial insight. They were not content to sit idly by and let other groups decide their future. The owners of many local breweries had left the industry, and those that remained did not seek to promote the earlier tied-house system which had been crucial to their pre-Prohibition successes. Thus, the shippers were quite active during Prohibition, especially in the years directly leading up to repeal. This interpretation does not have a parallel in the standard story.

With the repeal of Prohibition in 1933, legal brewing resumed in America. Again, however, my story differs greatly from the received view. The standard story asserts that shippers had steadily increased their hold of the industry in the years leading up to Prohibition, so that upon repeal, they quite naturally picked up where they had left off. I argue that the shippers had seen their relative market share fall in the decades immediately before Prohibition; though they were amongst the largest and most powerful breweries, they needed to prevent the local breweries from reasserting themselves. Shippers aligned themselves with an emerging repeal coalition that favored a new regulatory system. One of the key aspects of this new system was its call for a strict separation between the producing and retailing of beer.

This new regulatory system was clearly not preordained; it reflected, in part, instance lobbying by the

shippers, which was just one of their aggressive activities. Though the standard story claims that the years from 1933-1940 were notable for the thinness of advertising, the data I adduce in Chapter Five show otherwise. Shippers supported their products with extensive marketing and advertising campaigns, and these efforts, in conjunction with the new regulatory system, enabled them to greatly increase their sales during the years between repeal and W.W.II.

I have also discussed the consequences of this process. The standard story assumes that consumers benefited from higher quality beer. I argue that the move to pasteurized, packaged beer, shipped greater and greater distances, lowered the quality of beer. Though the large shippers enjoyed some economies of scale in production, these advantages were offset through considerable advertising expenditures and higher transportation costs, which drove up retail prices.

I would now like to discuss my next steps. I plan to extend this study forward several decades, from the 1940s to the 1980s, when the shipping breweries continued to consolidate their hold on the brewing industry. The five firm concentration ratio has increased every decade since the 1930s, and it is now well above 80%.[4] I would like examine in detail the reasons for and the consequences of this continued consolidation.

Though the industry has indeed become increasingly concentrated, I also plan to study a contrary trend. Until the late 1970s, there were fewer and fewer breweries every year; with the recent boom of 'microbreweries' and 'brewpubs', there has been a great resurgence in the number of breweries, though it must be emphasized that these new businesses have not gained much market share.[5] Microbreweries were initially defined to be breweries producing under 15,000 barrels of beer a year, though some definitions now include slightly larger operations.6 Brewpubs are restaurants that brew and sell their own beer. Their arrival has forced states to change their laws regarding the separation of the production and retailing of beer.

There are some interesting parallels between the successes many microbreweries have enjoyed in the 1980s and 1990s and the achievements of many local breweries that thrived a century ago. One of the key similarities, I believe, is that the pre-Prohibition local breweries and today's microbreweries understand that beer is a perishable product, one best produced and consumed locally. An interesting difference, however, is that while local breweries prior to Prohibition catered to the working class, today's microbreweries sell their product at a super-premium price, much higher than mass-produced beers. Many beer experts argue that microbreweries offer very high quality beer, and some consumers gladly pay for this quality.[7] An irony here is that prior to Prohibition, it was the working class who drank high quality, fresh beer in local saloons. The more expensive packaged and shipped beer offered by national breweries was not as fresh, and as pasteurization often gave it undesirable flavors. One of the fascinating questions this process raises is how do classes of consumers come to develop tastes or preferences for specific types of beer. While I plan to explore this issue for beer, it may be extended to a range of goods in America, including coffee, cheese, and bread.

Appendix A

Production time series

	1878	1879	1880	1881	1882	1883	1884
NY	3,500,000	3,900,000	5,000,000	4,860,000	5,640,000	5,931,000	6,266,000
PN	1,034,000	1,097,000	1,343,000	1,407,000	1,744,000	1,838,000	1,990,000
OH	981,000	1,039,000	1,245,000	1,313,000	1,576,000	1,628,000	1,721,000
IL	595,000	645,000	805,000	891,000	1,051,000	1,087,000	1,147,000
WI	500,000	625,000	853,000	952,000	1,224,000	1,323,000	1,448,000
MO	549,000	614,000	756,000	838,000	1,019,000	1,050,000	1,146,000
MA	618,000	591,000	678,000	738,000	836,000	861,000	861,000
NJ	517,000	539,000	641,000	666,000	810,000	852,000	905,000
CT & RI	90,000	94,000	121,000	130,000	176,000	192,000	192,000
MD	244,000	246,000	276,000	305,000	362,000	381,000	424,000
MI	200,000	228,000	284,000	294,000	329,000	340,000	400,000
MN	111,000	118,000	151,000	183,000	215,000	248,000	283,00
Sub-Total	8,939,000	9,736,000	12,153,000	12,577,000	14,982,000	15,731,000	16,783,000
US	10,241,000	11,103,000	13,347,000	14,311,000	16,952,000	17,757,000	18,998,000

	1885	1886	1887	1888	1889	1890	1891
NY	6,438,000	6,942,000	7,548,000	7,978,000	8,088,000	8,572,000	8,230,000
PN	1,983,000	2,119,000	2,372,000	2,472,000	2,367,000	2,762,000	3,145,000
OH	1,684,000	1,773,000	1,998,000	2,195,000	2,102,000	2,393,000	2,661,000
IL	1,204,000	1,358,000	1,691,000	1,907,000	2,011,000	2,281,000	2,665,000
WI	1,418,000	1,488,000	1,656,000	1,683,000	1,817,000	2,067,000	2,477,000
MO	1,144,000	1,203,000	1,420,000	1,562,000	1,669,000	1,883,000	2,043,000
MA	885,000	966,000	1,000,000	1,017,000	1,003,000	947,000	1,008,000
NJ	953,000	1,055,000	1,213,000	1,316,000	1,364,000	1,526,000	1,640,00
CT & RI	181,000	181,000	219,000	260,000	265,000	293,000	334,000
MD	446,000	494,000	566,000	634,000	658,000	687,000	729,000
MI	389,000	436,000	477,000	522,000	519,000	557,000	618,000
MN	278,000	304,000	331,000	306,000	314,000	332,000	372,000
Sub-Total	17,003,000	18,319,000	20,491,000	21,852,000	22,177,000	24,300,00	25,922,000
US	19,185,000	20,710,000	23,121,000	24,680,000	25,119,000	27,561,000	30,497,000

	1892	1893	1894	1895	1896	1897	1898
NY	9,558,000	9,978,000	9,772,000	9,758,000	10,051,000	9,490,000	10,090,000
PN	3,203,000	3,584,000	3,447,000	3,591,000	4,047,000	3,902,000	4,245,000
OH	2,668,000	2,834,000	2,621,000	2,633,000	2,879,000	2,631,000	2,886,000
IL	2,939,000	3,417,000	3,310,000	3,292,000	3,580,000	3,244,000	3,601,000
WI	2,631,000	3,019,000	2,908,000	2,807,000	2,854,000	2,662,000	2,873,000
MO	2,047,000	2,281,000	2,188,000	2,139,000	2,262,000	2,246,000	2,427,000
MA	1,123,000	1,241,000	1,248,000	1,337,000	1,580,000	1,670,000	1,805,000
NJ	1,793,000	1,915,000	1,892,000	1,894,000	2,023,000	2,001,000	2,109,000
CT & RI	360,000	408,000	433,000	492,000	558,000	571,000	631,000
MD	792,000	852,000	820,000	837,000	892,000	916,000	981,000
MI	650,000	725,000	655,000	659,000	722,000	675,000	792,000
MN	384,000	416,000	390,000	420,000	463,000	492,000	558,000
Sub-Total	28,148,000	30,670,000	29,684,000	29,859,000	31,911,000	30,5000,000	32,998,000
US	31,856,000	34,591,000	33,562,000	33,589,000	35,589,00	34,423,000	37,493,000

	1899	1900	1901	1902	1903	1904	1905
NY	9,665,000	9,923,000	9,945,000	10,467,000	10,566,000	10,691,000	11,060,000
PN	4,299,000	4,683,000	4,917,000	5,567,000	6,018,000	6,123,000	6,114,000
OH	2,785,000	3,049,000	3,202,000	3,489,000	3,684,000	3,825,000	3,907,000
IL	3,549,000	3,809,000	3,680,000	4,132,000	4,488,000	4,632,000	4,777,000
WI	2,797,000	3,157,000	3,209,000	3,675,000	3,853,000	4,035,000	4,078,000
MO	2,254,000	2,461,000	2,670,000	2,996,000	3,110,000	3,395,000	3,502,000
MA	1,763,000	1,802,000	1,827,000	1,831,000	1,765,000	1,841,000	1,832,000
NJ	2,043,000	2,150,000	2,219,000	2,463,000	2,617,000	2,665,000	2,684,000
CT & RI	673,000	739,000	787,000	884,000	904,000	907,000	937,000
MD	976,000	1,025,000	1,107,000	1,161,000	1,206,000	1,220,000	1,310,000
MI	804,000	907,000	969,000	1,109,000	1,177,000	1,217,000	1,217,000
MN	581,000	706,000	738,000	869,000	926,000	973,000	986,000
Sub-Total	32,189,000	34,411,000	35,270,000	38,643,000	40,314,000	41,524,000	42,404,000
US	36,581,000	39,330,000	40,517,000	44,478,000	46,650,00	48,208,000	49,459,000

	1906	1907	1908	1909	1910	1911	1912
NY	12,345,000	13,016,000	12,692,000	12,572,000	12,095,000	13,729,000	13,674,000
PN	6,961,000	7,541,000	7,569,000	7,050,000	7,664,000	7,811,000	7,449,000
OH	4,254,000	4,323,000	4,401,000	4,058,000	4,252,000	4,568,000	4,740,000
IL	5,196,000	5,423,000	5,535,000	5,525,000	6,024,000	6,630,000	6,265,000
WI	4,532,000	4,985,000	4,875,000	4,569,000	4,790,000	5,262,000	4,991,000
MO	3,580,000	3,848,000	3,841,000	3,704,000	3,890,000	4,204,000	4,004,000
MA	2,042,000	2,158,000	2,201,000	2,042,000	2,112,000	2,381,000	2,386,000
NJ	3,003,000	3,138,000	3,178,000	3,114,000	3,260,000	3,417,000	3,396,000
CT & RI	1,084,000	1,222,000	1,239,000	1,211,000	1,311,000	1,385,000	1,403,000
MD	1,429,000	1,453,000	1,443,000	1,376,000	1,434,000	1,077,000	1,093,000
MI	1,382,000	1,521,000	1,539,000	1,483,000	1,538,000	1,724,000	1,792,000
MN	1,112,000	1,238,000	1,337,000	1,411,000	1,578,000	1,651,000	1,511,000
Sub-Total	46,920,000	49,866,000	50,120,000	48,115,000	49,948,000	53,839,000	52,704,000
US	54,651,000	58,546,000	58,747,000	56,303,000	59,485,000	63,216,000	62,108,000

	1913	1914	1915	1916	1917	1918	1919
NY	13,951,000	14,040,000	13,180,000	12,732,000	13,198,000	11,325,000	1,597,000
PN	7,959,000	8,008,000	7,166,000	7,634,000	8,174,000	7,315,000	4,444,000
OH	5,148,000	5,147,000	4,622,000	4,844,000	5,458,000	4,825,000	1,948,000
IL	6,656,000	6,987,000	6,269,000	5,955,000	6,223,000	4,925,000	2,768,000
WI	5,142,000	5,278,000	4,718,000	4,525,000	4,919,000	3,935,000	2,036,000
MO	4,139,000	4,412,000	3,567,000	3,344,000	3,434,000	2,880,000	1,265,000
MA	2,541,000	2,521,000	2,378,000	2,450,000	2,518,000	2,218,000	1,396,000
NJ	3,531,000	3,495,000	3,219,000	3,278,000	3,402,000	2,927,000	2,154,000
CT & RI	1,487,000	1,477,000	1,381,000	1,559,000	1,699,000	1,552,000	1,066,000
MD	1,139,000	1,177,000	1,116,000	1,119,000	1,164,000	1,041,000	522,000
MI	2,008,000	2,113,000	1,929,000	2,154,000	2,338,000	1,534,000	65,000
MN	1,631,000	1,749,000	1,643,000	1,511,000	1,539,000	1,068,000	490,000
Sub-Total	55,332,000	56,404,000	51,188,000	51,105,000	54,066,000	45,545,000	19,751,000
US	65,245,000	66,189,000	59,808,000	58,633,000	60,817,000	50,266,000	27,712,000

Appendix B

A note on data sources

I would like to take a moment and discuss the steps I took in searching for primary data relating to the brewing industry. Kerr states that he was unable to find any primary data for breweries, distilleries, or their trade associations, and I had similar experiences (Kerr, K.A. (1985) *Organized for Prohibition*. New Haven: Yale Press.Kerr, p.287).

I visited the Beer Institute in Washington, D.C., which is the current incarnation of the United State Brewers Association. While the Beer Institute has some interesting secondary materials, the staff were unable (or perhaps unwilling) to provide me with their historical records.

I searched for, but did not locate, very many brewery records. I visited and corresponded with state, county, and local historical societies in hopes of finding donated brewery records, but for the most part I was disappointed. Representatives from these historical societies suggested that most of the failed breweries probably just threw their records away.

I held out hope that a few of the large breweries still in operation today might make their records available, or least be willing to share the records of companies they had bought, but I was disabused of these thoughts. I contacted the largest breweries in America asking for access to some of their records, or, at least, the records of companies they had acquired. Of these firms, only Heileman, in LaCrosse, Wisconsin, allowed me to visit. They showed me some of their historical reports, but it became quickly apparent that they had kept very few of their own records, and none of the records of the breweries they acquired.

I did locate one major brewing archive, the Blatz papers stored at the University of Wyoming's Heritage Center. To my knowledge, no one has ever used these records before. Blatz was one of the large, pre-Prohibition shipping brewers based in Milwaukee, and it was sold in several times in the 1940s and 1950s. In the 1960s, the University of Wyoming acquired some of their operating papers, and had them shipped to the American Heritage Center in Laramie. I worked with this collection for a week, and while there are many volumes concerning daily operations, there are no summary reports or financial statements, and there is no personal correspondence. I was able to glean some trends from these volumes, but these papers were too helpful. For example, I was unable to construct a time series of Blatz's annual production levels.

The Wisconsin State Historical Library and Archives is supposed to house the records of several local Wisconsin breweries. Unfortunately, when I visited, they were unable to locate most of these files. I did review some documents from the Effinger Brewery, and though the papers did not correspond with the period studied in my dissertation, I use some of these data in Chapter Five.

I reviewed many of the brewing industry trade journals that were published during the years of this study, and have made ample use of articles taken from these journals.

I relied heavily on several United States Brewers Association publications. Many of the industry data I cite are taken from volumes of the *Brewers Almanac*, published annually since the 1940s. I also used the *United States Brewers Association Year Books*, which were published from 1909 to 1920.

Finally, I used several government reports extensively. The most useful were the *Census of Manufactures* reports. However, I quickly discovered that these reports were not consistent in terms of the types of data they presented. For example, the 1905 *Census of Manufactures* was the only one that provided subsets of data by the size of breweries. Thus, in Chapter Three, when I compare differently sized breweries, I can make these calculation only for 1905.

References

Chapter 5

1. For a more detailed discussion of my experiences in trying to find primary data, see Appendix B.

2. For example, in a recent collection of papers on the international brewing industry, Canada was not studied (Wilson, R. and Gourvish, T.R. (eds.) (1998) *The Dynamics of the International Brewing Industry Since 1800*. London: Routledge).

3. The major shippers may have been taken aback by the loss suffered by Lemp, one of the leading pre-Prohibition shipping breweries. Lemp was sold at auction in 1922 at a loss of 90% on the investment (Baron, S. (1962) *Brewed In America: A History of Beer and Ale in the United States*. Boston: Little, Brown, and Co. p.315).

4. United States Brewers Foundation (1956) *Brewers Almanac*. p.10.

5. McGahan, A. (1991) 'The Emergence of the National Brewing Oligopoly: Competition in the American Market, 1933-58', *Business History Review*, 65. p.243.

6. Cochran, T. (1948) *Pabst Brewing Company: The History of an American Business*. New York: New York University Press. pp.378-380.

7. Bull, D., Friedrich, M. and Gottschalk, R. (1984) *American Breweries*. Trumball, CT: Bullworks. pp. 252, 265, 283.

8. One of the frustrations of this study has been the lack of primary, firm-level data. Cochran published his study of Pabst in 1948, but Pabst officials today do not know what has become of the records he reviewed. Plavchan wrote his dissertation of Anheuser-Busch in 1969, but he was not given access to many of the financial records. Anheuser-Busch officials declined requests to allow me to review company records. None of other breweries listed in Table 5.3 still operate as independent firms, and none have been the subject of business histories. In Appendix B, I discuss in more detail the difficulties in trying to obtain primary data regarding the brewing industry.

9. Elzinga emphasizes the importance of economies of scale in accounting for the declining number of breweries, and he draws a long run average cost curve which does not reach its lowest costs until very large output levels (Elzinga, K. (1990) 'The Beer Industry', in Adams, W. (ed.) *The Structure of American Industry*. 8th ed. New York: Macmillan. pp.233-236).

10. These data were based on a survey the United States Brewing Association conducted in 1940. They polled several hundred breweries overall, but it is not clear how representative the breweries which responded were.

11. McGahan, A. (1991) op. cit. Cochran also argues that Pabst incurred significant transportation costs. He states that the 'great disadvantage faced by the shipping brewers in competition with local brewers was transportation cost' (Cochran, T. (1948) op. cit. p.369). He estimated that in 1939, Pabst spent $1.91 per barrel on railroad and trucking costs.

12. ibid. p.238. McGahan's finding that shippers had higher average costs of (delivered) beer seems difficult to reconcile with her main theme, which is that the shippers exploited economies of scale to drive local firms out of business.

13. McGahan makes two mistakes. First, she fails to distinguish between medium and large breweries, which as the table shows, had distinct average production costs. She condenses these three categories to two, small (under 100,000 barrels) and large (over 100,000 barrels), and states that large breweries had average costs of $7.61 per barrel (McGahan, A. (1991) op. cit. p.238). In fact, breweries between 100,000 to 300,000 barrels had average barrels costs of $7.61, and breweries above 300,000 barrels had average costs of $7.12. In addition, she states that by adding in a transportation rate factor of 30%, the average barrel for large breweries rises from $7.61 to $10.87; in fact, it would increase to $9.89. So, the differential between large and small breweries is not 13% but 2.4%. This correction does not, however, impugn her basic point, which is that larger breweries did not provide consumers cheaper beer. However, this conclusion is a bit misleading. Shippers did enjoy a cost advantage in packaged beer sold locally; but, this advantage declined as their shipping radius increased. Conversely, locally produced keg beer started out cheap, but became more expensive the further it was sold from the locals' home base.

14. American Can Company (1969) *A History of Packaged Beer and Its Market in the United States*. Self published pamphlet. p.14.

15. Many local breweries continued to emphasize draught rather than packaged beer in the late 1930s. For a list of how many breweries divided their production between draught and packaged beer, see Research Company of America (1941) *A National Survey of the Brewing Industry*. Self published. pp.80-131.

16. Beach, A. (1942) 'The Small Brewer … How He Fits Into The War Effort', *Brewers Digest*, 17 (April). p.27.

17. Effinger Brewery Archives. (1948) State Historical Society of Wisconsin. Annual Financial Report.

18. Elzinga, K. (1990) op. cit. is clear that larger breweries took advantage of economies of scale to offer lower priced beer. McGahan equivocates on this point, conceding at least for the 1930s that the retail price of shippers' beer exceeded

the price of their local rivals.

19. McGahan, A. (1991) op. cit. p.525.

20. Williamson, O. (1985) *The Economic Institutions of Capitalism*. New York: Free Press.p.11.

21. Raymond Fosdick had a long relationship with Rockefeller, becoming head of the Rockefeller Foundation in 1936 after serving several years as a trustee (Kay, L. (1993) *The Molecular Vision of Life: Caltech, The Rockefeller Foundation, and the Rise of the New Biology*. New York: Oxford University Press.p.98). Kay argues that Fosdick 'believed there had to be a place for social intervention based … on principles of excellence, rationality, and science' (ibid. p.33). Rockefeller supported Fosdick's long-standing interest in improving society through the application of carefully constructed social science ideas, and their 1933 book addressed how best to introduce a systematic method for liquor control. It is clear that Fosdick and Rockefeller saw liquor control as an important part of their broader interest in social control (Kay, L. (1997) 'Rethinking Institutions: Philanthropy as an Historiographic Problem of Knowledge and Power', *Minerva*, 35. pp.283-293).

22. Fosdick, R. and Scott, A. (1933) *Toward Liquor Control*. New York: Harper & Brothers International. p.x.

23. ibid. p.18.

24. ibid.

25. ibid. p.19.

26. ibid. pp.18-19.

27. See especially Chapter Three: Light Wines and Beers Vs. Sprits, ibid.

28. In the November 1933 Hearings on the Marketing Agreements, Codes … , several representatives of the brewing industry voiced their belief that beer should be treated separately from spirits. However, they were not clear if beers above 3.2% should be treated with lower alcohol beer, in a category by themselves, or with spirits. A representative from the Piel brewery spoke of the need for beer under 3.2% to be taxed at the rate of $2.00/barrel, far less than the $5.00/barrel rate imposed by the Cullen Act which legalized 3.2 beer in April, 1933. Anheuser Busch, in contrast, began lobbying before repeal for the legalization of 4% beer. Some breweries were content to brew beer up to 3.2%, while other wanted all beer grouped together in a separate category from spirits.

29. Burk, R.F. (1990) *The Corporate State and the Broker State: The DuPonts and American National Politics, 1925-1940*. Cambridge, MA: Harvard University Press. pp.4-6.

30. There is some disagreement about the relative importance of DuPont's underlying motivations. Dobyns (Dobyns, F. (1940) *The Amazing Story of Repeal: An Expose of the Power of Propaganda*. Chicago: Willett, Clark & Co.) emphasizes the importance of income taxes as a motivating factor, while Kyvig argues that DuPont's rationale stemmed from his concern about 'intemperance, lawlessness, threats to property rights and the loss of local decision making' (Kyvig, D. (1979) *Repealing National Prohibition*. Chicago: University of Chicago Press. p.81). Burk suggests that a frustration with income taxes did play a major role in DuPont's frustration with prohibition and the end of excise revenues from alcohol (see Burk, R.F. (1990) op. cit. pp.21-25).

31. Burk, R.F. (1990) op. cit. p.103-104.

32. This list of objectives can be found in Fosdick, R. and Scott, A. (1933) op. cit. and in testimony by leading brewery representatives at the November 1933 Hearings, Marketing Agreements … held before the AAA.

33. This is not to suggest that this new alliance was unopposed. Many fervent supporters of Prohibition continued to lobby against all alcohol. During the early years following repeal, prohibitionists redirected their energies away from national legislation toward local option campaigns. Having lost the war, they found that that they could still skirmish effectively. Representative John Cochran, in a speech included in the 1937 Congressional Record, commented on the continuing efforts by dry forces: 'The dry organizations are rapidly revitalizing themselves and reorganizing on wide fronts … Thousands of local-option elections are being called. A discouraging number of these elections have gone against [the brewing industry.]' (U.S. Congress. December 15 1937-December 21 1937. Congressional Record Appendix and Index: Proceedings and Debates of the 75th Congress, 2nd session. 82 Part 3. p.83).

34. Fogarty, D. (1985) 'From saloon to supermarket: packaged beer and the reshaping of the U.S. brewing industry', *Contemporary Drug Problems*. Winter. p.563.

35. Downard, W. (1980) *Dictionary of the History of the American Brewing and Distilling Industries*. Westport, CT: Greenward Press. p.55.

36. Fogarty, D. (1985) op. cit. p.566.

37. An additional government document published by the Federal Alcohol Control Administration in 1935 entitled *Legislative History Of The Federal Alcohol Administration Act* shows that many of the key aspects of the 1933 hearings and codes continued in effect later in the decade. It details the continuing, and, in some eyes, noxious influence members of the alcohol industry, especially brewers, continued to wield on Congress. See in particular testimony from Representative Fuller from Arkansas regarding how this legislation was a 'surrender to the liquor and to the glass-bottle lobby of the

United States as well as to the brewers' (U.S. Federal Alcohol Control Administration (1935) *Legislative History of the Federal Alcohol Administration Act*. Washington D.C: GPO. pp.33-35).

38. I learned of these hearings from Fogarty, D. (1985) op. cit., the only work on the brewing industry of which I am aware which used these hearings.

39. For more information on the National Recovery Act and the Codes of Fair Competition, see Leuchtenburg, W. (1963) *Franklin D. Roosevelt And The New Deal*. New York: Harper.Leuchtenburg, especially pp.63-70.

40. This is not to suggest that all 360 breweries stood to benefit equally under this code. It is not evident how many of the local breweries appreciated how this regulatory system would diminish their competitiveness.

41. Though Fogarty does not make this point clear, there were actually two distinct sets of hearings. On 27 November 1933, a committee of brewing industry and trade union representatives testified before members of the National Recovery Administration to discuss labor and wage issues. This hearing was conducted quickly, culminating in only 61 pages of testimony. A second hearing, held on 27 & 28 November 1933, was presented before representatives of the Agricultural Adjustment Administration. This more lengthy hearing totaled over 400 pages of testimony. It was intended to consider all issues not specified for the N.R.A. session which was limited to labor issues such as minimum wages and maximum hours.

42. By qualifying this discussion to examine only those regulatory steps which proved to be long-lasting, I will not discuss one of the most intriguing features of the *Code of Fair Competition*, that which addressed prices. Though Cochran interpreted the code as placing 'no controls on methods of production or prices' (U.S. Department of Agriculture, Agriculture Adjustment Administration (1933) *Code of Fair Competition For The Brewing Industry*. Washington D.C: GPO. p.367), this is not correct. As laid out in Article V,

> Each member of the industry shall keep posted with the Code Authority or appropriate regional board, in accordance with regulations prescribed by the Code Authority, and upon request make available to trade and consumer buyers a price list which shall set forth (a) all the brands and types of products containing more than one half of one per centum of alcohol by volume offered for sale by such member, (b) the sale price thereof to various classes of trade buyers, and (c) all discounts and other terms of sale, other than usual periods of credit, or such trade products. Such prices and terms shall not be effective until 10 days after they have been posted as aforesaid (ibid. pp.5-6).

This provision amounts to price fixing, though the brewing industry always referred to it as a 'price stabilization' measure. The initial code prepared by the Brewing Industry had called for a period of 15 days during which prices could not be changed. The AAA version did not have any such provision; out of these two different conceptions, the compromise was that prices would not be changed for 10 days once they had been posted. Dr. H.B. Dorau, Professor of Economics at New York University, represented the brewing industry at the hearings regarding the need for this price stabilization measure. His 50 page testimony was one of the longest of the hearings, and his artful defense of this price fixing scheme makes for good reading (see U.S. Department of Agriculture, Agriculture Adjustment Administration (1933) *The Hearings, Marketing Agreements, Codes, Licenses and Processing Tax Matters of the Agricultural Adjustment Administration*. 27-28 November pp.199-248).

43. ibid. p.116.

44. Cochran, T. (1948) op. cit. p.368.

45. These changes in the retailing of beer in America are not directly comparable to other countries. For example, in Great Britain, draught beer consumed on-premise in pubs dominated the British beer market for the years of this study. In 1940, draught beer accounted for approximately 80% of sales (Gourvish, T.R. and Wilson, R.G. (1994) *The British Brewing Industry: 1830-1980*. Cambridge: Cambridge University. pp.340-41). In Canada, after their short lived experiment with Prohibition, each province enacted its own alcohol control policies. One feature common to most of them was the establishment of government-run alcohol stores for off-premise consumption (Brewers Association of Canada (1965) *Brewing In Canada*. Montreal: Ronalds-Federated. pp.98-110). Thus, America's growing reliance on independent retailers for off-premise consumption was not paralleled in England or Canada.

46. The move to packaged products also was greatly influenced by the rapid rise of home refrigeration. We continue the discussion of the relationship between packaged products and refrigeration in Section 5.5.

47. U.S. Department of Agriculture, Agriculture Adjustment Administration (1933) op.cit. p.116.

48. Approved by the President on 9 December 1933, this code had separate sections for the distribution of beer and spirits. There was not a Code of Fair Competition for Retailers, a somewhat striking omission.

49. Porter, G. and Livesay, H. (1971) *Merchants and Manufacturers: Studies in the Changing Structure of Nineteenth-Century Marketing*. Baltimore: Johns Hopkins University Press.

50. Cochran, T. (1948) op. cit. Chapter Seven.

51. An additional point to investigate is the extent to which wholesalers came to favor larger national shippers. This topic has not been discussed in other studies, and the Beer Wholesalers Trade Association did not answer my requests for information regarding the historical relationships between the large national breweries and wholesalers. It seems reasonable that wholesalers would prefer to deal with one large national shipper producing one million barrels of beer, than ten smaller breweries, each producing 100,000 barrels. The administrative ease of focusing on one client may have led wholesalers to offer more attractive rates to larger breweries, thereby giving national shippers a cost advantage in distribution.

52. In addition, as noted in Chapter Four, the shipping breweries gained considerable experience with a three tier system during Prohibition. During these years in which they were divesting themselves of their former saloon properties, they relied on wholesalers and retailers to handle their products which included ice cream, malt syrup, and carbonated soft drinks.

53. U.S. Department of Agriculture, Agriculture Adjustment Administration (1933) op.cit. p.11.

54. ibid. pp.260-61.

55. ibid. p.57.

56. ibid. p.63

57. ibid. p.66.

58. ibid. p.68.

59. See footnote number 21.

60. U.S. Department of Agriculture, Agriculture Adjustment Administration (1933) op.cit. p.221.

61. ibid. pp.43-56.

62. ibid. p.48.

63. ibid.

64. ibid. p.51.

65. More specifically, the breweries which belonged to the United Brewers' Industrial Foundation (UBIF) agreed to this code. By the late 1930s, there were three distinct national beer trade associations. Of these three, the UBIF was the most important, and it was the base for the unified trade association, the United States Brewers Foundation, which was formed in the early 1940s.

66. Badenhausen, C. (1940) 'Self Regulation In The Brewing Industry', *Law and Contemporary Problems*. 7. p.691.

67. O'Neill, J. (1940) 'Federal Activity in Alcoholic Beverage Control', *Law and Contemporary Problems*. 7. pp.570-599.

68. United States Brewers Foundation (1956) op. cit. pp.91-115; Byse, C. (1940). 'Alcoholic Beverage Control Before Repeal', *Law and Contemporary Problems*. 7. pp.544-569; de Ganahl, J. (1940) 'Trade Practice and Price Control In The Alcoholic Beverage Industry', *Law and Contemporary Problems*. 7. pp.665-688; Green, T. (1940) 'Interstate Barriers In The Alcoholic Beverage Field', Law and Contemporary Problems., 7. pp.717-727.

69. U.S. Department of Agriculture, Agriculture Adjustment Administration (1933) op.cit. p.257.

70. ibid. p.261.

71. Piel Brothers Brewery was located in Brooklyn, New York.

72. U.S. Department of Agriculture, Agriculture Adjustment Administration (1933) op.cit. p.275.

73. ibid. p.277.

74. ibid. p.283.

75. ibid. pp.286-87.

76. 'Beer Is Not A 'Hard Liquor' (1935) *Brewers Technical Review*. 10 (July) 14. p.246.

77. Research Company of America (1941) op. cit. p.49.

78. Nelson, B. (1935) 'Radio Beckons The Brewer!' *Brewers Technical Review*. 10 (January). p.27.

79. Research Company of America (1941) op. cit. p.21.

80. In addition to excise taxes, breweries and distilleries also had to pay licensing fees. Licensing fees for distilleries ranged from $500 to $7,500, while for breweries these fees ranged from $750 to $2,500 (Research Company of America (1941) pp.20-21). In this area also, the government treated breweries more leniently.

81. United States Brewers Foundation (1956) op. cit. p.103.

82. ibid. p.105.

83. ibid.

84. ibid.

85. There is some indication that distillers are beginning to explore the ending of this voluntary ban; some government officials have threatened to impose a formal ban on television advertising if distillers break their self-imposed ban.

86. Baron, S. (1962) op. cit. p.325.

87. McGahan, A. (1995) 'Cooperation In Prices and Capacities: Trade Associations in Brewing After Repeal', *Journal of Law and Economics*. 38. pp.529-530.

88. These nine states accounted for 72 to 73% of national production during these years (United States Brewers Foundation (1956) op. cit. pp.13-14).

89. These data, in fact, do not fully capture the magnitude of the move from draught to packaged beer. State-level data are not available for 1933-1935, but national data for these years show that over these three years, draught beer accounted for between 68 to 75% of all sales. Thus, at the national level, packaged beer rose from 25% of the market to 50% between

1934 and 1940 (ibid. p.17).

90. Anchor Brewery, a small San Francisco brewery, which Fritz Maytag bought in the early 1970s and transformed into one of today's leading American quality breweries, packaged only 6% of its beer in 1938, an indication of how even in states like California, there was still a market for small, local draught producers of high-quality beer (Research Company of America (1941) op. cit. p.82).

91. ibid. pp.100, 102.

92. See Table 5.3 for a ranking of the nation's largest breweries for 1938 to 1940.

93. Research Company of America (1941) op. cit. p.106.

94. Ehert, G. (1891) *Twenty Five Years of Brewing*. New York: Gast Lithograph and Engraving.

95. McGahan, A. (1991) op. cit. pp.248, 253-254.

96. Gourvish, T.R. and Wilson, R.G. (1994) op. cit. pp.340-341.

97. ibid. p.547.

98. ibid.

99. Brewers Association of Canada (1965) op. cit. p.134.

100. Though the US brewing industry has been relatively understudied compared to Britain's, there has been even less research regarding Canada's brewing industry. Apart from a brief historical study published by the Canadian Brewers Association in 1965, I did not find any other works on the Canadian industry. This is frustrating, since Canada provides an interesting comparison to the United States for several reasons. Both countries enacted prohibition legislation, supported large waves of immigration, saw packaged beer replace draught beer, and saw the rise of national shippers who came to dominate the market.

101. A comparative study is needed to examine in more detail differences and similarities between the move to packaged beer in the US, Canada, and Britain.

102. 'Canned Beer Declared Failure' (1933) *Brewers Technical Review*. 10 (March). p.101; Cochran, T. (1948) op. cit. p.390.

103. Plavchan, R. (1969) *A History of Anheuser-Busch, 1852-1933*. Ph.D. St. Louis University. p.220. While packaged beer was undoubtedly more costly, and more profitable, than draught beer, estimates of this differential vary widely. Ullman, in a 1934 comparative cost analysis, states that the average price of keg beer was $12.75, while the average cost of bottled beer was $16.25 (Ullman, J. (1934) 'Comparative Cost Analysis for Breweries', *Brewers Technical Review*. 9 (October). p.313.

104. ibid.

105. Krebs, R. and Orthwein, P. (1953) *Making Friends is Our Business: 100 Years of Anheuser-Busch*. St. Louis, MO: self published book, Anheuser-Busch. p.172.

106. Fogarty, D. (1985) op. cit. p.547. While I agree with this statement, it is also true that in England, a small number of very large breweries came to dominate its market in the absence of packaged beer. Thus, while I challenge Fogarty's view that packaged beer was a necessary precondition to large scale brewing, these conflicting experiences illustrate again how culturally contingent industry development is.

107. Parry, T. (1935) 'Bottled Beer - Why and How It Should Be Sold', *Brewery Age*. 3 (August). p.31.

108. This is taken from Anheuser-Busch's web page, http://www.budweiser.com/quality/index.html. A 1941 industry report states that in 1939, Anheuser- Busch sales were divided 55% draught, 45% packaged (Research Company of America (1941) op. cit. p.100).

109. ibid.

110. The importance of culture cannot be ignored. England's radically different experience with on-premise drinking reflects a distinct social attitude towards on-premise drinking. England too had its temperance movement, and while it did not achieve the national successes of their American counterparts, it did succeed in imposing many regulations on the brewing industry. It did not, however, end the long-standing British preference for on-premise draught beer consumption. See Gutzke, D. (1989) *Protecting The Pub: Brewers and Publicans against Temperance*. Woodbridge, Suffolk: The Boydell Press and Gourvish, T.R. and Wilson, R.G. (1994) op. cit.

111. Whether this was good for the environment is to be doubted. The canning industry was well aware that consumers were simply throwing away beverage cans, and trade association publications encouraged consumers and retailers not to pollute (National Canners Association (1954) The Canning Industry. Washington DC: self published pamphlet).

112. See 'Stubby - The Answer to the Beer Can!' (1935) *Brewers Technical Review*. 10 (August). pp.275-76 and 'Stubby Marches On!' (1935) *Brewers Technical Review*. 10 (November). p.392.

113. This is markedly different from the soft drink industry. Though there were a few attempts to can soft drinks in the 1930s, these were quickly abandoned. Canned soft drinks did not make a permanent appearance until the 1950s (Riley, J. (1958) *A History of the American Soft Drink Industry*. Washington D.C: American Bottlers of Carbonated Beverages. pp.153-154). The two most important firms, Coca-Cola and Pepsi, did not begin selling their drinks in cans until 1960 (Muris, T., Scheffman, D. and Spiller, P. (1993) *Strategy, Structure, and Antitrust in the Carbonated Soft-Drink Industry*. Westport CT: Quorum Books. p.41). In addition, soft drink makers did not introduce non-returnable

bottles until the early 1950s; Coca-Cola and Pepsi did not use them until 1961.

114. Though many fruits and vegetables were widely canned by the 1920s, this was not the case for beverages. Fruit juices were just beginning to be canned in the 1920s, and they did not reach wide popularity until the late 1930s and 1940s (National Canners Association (1954) op. cit. p.9). The first product to be widely canned by any beverage firms was malt syrup by former breweries during Prohibition. Though not a drink, the successful canning of malt syrup provided breweries important connections to the can industry, and it provided them with an example of how their products could be successfully canned.

115. Although per capita consumption of soda increased by over 300% from 1934 to 1940, it was still lower than beer consumption in 1940.

Per Capita Consumption (Gallons)

	Beer	Soft Drinks
1934	7.9	2.0
1935	10.3	2.3
1936	11.8	3.4
1937	13.3	4.2
1938	12.9	4.7
1939	12.3	5.5
1940	12.5	6.3

Source. United States Brewers Foundation (1956) op. cit. p.10, and Shih, K.C. and Shih, C.Y. (1958) *American Brewing Industry and the Beer Market*. Brookfield WI. p.46.

116. American Can Company (1969) op. cit. p.14.

117. Manufacturers of bottles and cans were alternately allies and foes. They both gained from changes in the regulatory system which favored off-premise packaged consumption and from the growing appreciation leading breweries showed for branded, packaged goods. Yet, their successes in these fronts inevitably implied that they would increasingly face each other for ultimate control of the beer market. The leading canners and bottlers realized this, and they embarked on aggressive advertising campaigns aimed at both brewers and consumers. Trade journals of the 1930s are full of articles penned by representatives of the canners or bottlers. They were not content to let natural market forces determine who would dominate the lucrative business of supplying beer containers.

118. 'Vigorous Sales Promotion Increases Canned Beer Sales', (1938) *Brewers Digest*. 13 (July). p.43.

119. American Can Company (1969) op. cit. pp.7-8.

120. See for example '"Stubby" Marches On!' (1935) op. cit. p.392, an article written by the publicity department of the Owens-Illinois Glass Company, a top manufacturer of beer bottles and 'Notes On Beer In Cans' (1935) *Brewers Technical Review*. 10 (November). p.393 by the publicity department of the Continental Can Company, one of the two major can companies.

121. These data are only for households that are wired for electricity. It is unclear if there were differences in the rates at which US and British homes were wired.

122. McGahan, A. (1991) op. cit. p.250.

123. ibid. pp.250-251.

124. ibid. p.250.

125. O'Neill, J. (1940) op. cit. These data combine beer and spirits.

126. 'Large Brewers Boost Share of U.S. Beer Business', (1940) *Brewers Digest*. 15 (July). p.55. McGahan states the industry spent $100 million on advertising from 1933-1941. Trade journal reports for both the brewing and advertising industries suggest that this estimate is too low.

127. In her 1995 article, she estimated the average price per barrel to be $8.01 in 1935, $7.39 in 1937, and $9.52 in 1939 (McGahan, A. (1995) op. cit. p.529).

128. 'Beer Becomes a Regular Business', (1940) *Brewers Digest*. 15 (January). p.57. The other two leading shipping breweries were Pabst and Schlitz, both of Milwaukee.

129. Derdak, T. (ed.) (1988) *International Directory of Company Histories*. Chicago: St. James Press. p.218.

130. Beach, A. (1940) 'How To Make Advertising Pay Dividends!' *Brewers Digest*. 15 (October). p.39.

131. Beach, A. (1942) 'The Small Brewer … How He Fits Into The War Effort', *Brewers Digest*. 17 (April). p.27.

132. 'Vigorous Sales Promotion Increases Canned Beer Sales', (1938) *Brewers Digest*. 13 (July). p.43. While there are no comparable estimates for leading bottlers, it must be emphasized that canned beer was less than 10% of the packaged beer market in the 1930s. This suggests that the leading bottlers were also spending millions of dollars on their own advertising campaigns in support of bottled beer.

133. These phrases were taken from Crown Drugstore ads in the *Kansas City Star*, 27 May 1938. A review of the two Kansas City daily newspapers-the *Kansas City Star* and the *Kansas City Journal-Post* shows regular retail advertisements of beer.

134. It does not appear that wholesalers actively advertised beer. They may have devoted their resources to lobbying state and government officials, one of the dominant activities of the beer wholesalers trade association today.

135. In a sense, it did not really matter what low consuming

states did, as they accounted for such a low percentage of the production and consumption of beer. In 1940, the 18 lowest consuming states accounted for only 5.1% of national beer consumption (calculated from data taken from United States Brewers Foundation (1956) op. cit. p.52). These low consuming states did represent potential markets, but the brewing industry had grown to great heights in the pre-Prohibition era by concentrating on a select number of states. Thus, even if there were some restrictions in some low consuming beer states, they probably did not impede the brewing industry.

136. See the discussion in section 5.5 of how shippers were moving increasingly towards packaged beer.

137. Tedlow, R. (1990) *New and Improved: The Story of Mass Marketing in America*. New York: Basic Books. pp.47-68.

138. Schenker, B. (1941) 'Beer Buyer or … Brand Buyer', *Brewers Digest*. 16 (April). p.23.

139. ibid.

140. Wilkins, M. (1994) 'When and why brands names in food and drink', in Jones, G. and Morgan, N. (eds.) *Adding Value: Brands and Marketing in Food and Drink*. London: Routledge. p.18.

141. Casson, M. (1994) 'Brands: Economic Ideology and consumer society', in Jones, G. and Morgan, N. (eds.) op.cit. pp.41-42.

142. As discussed in Chapter Four, the national shippers participated in this general learning process by canning malt syrup in the 1920s.

143. Wahl, R. (1933b) 'A Tavern Conversation: Recommendations to Overcome Certain Prejudices Against Beer', *Brewery Age*. 1 (November). p.23.

144. Lisheron, M. (1997) 'Capture The Past-The Rebirth Of Pre-Prohibition Lager', *Zymurgy*. 20. p.23.

145. Cochran, T. (1948) op. cit. pp.114-115, 191-192.

146. ibid. p.378.

147. Hess, J. and Hess, K. (1977) *The Taste of America*. New York: Viking Press. p.154).

148. March, E. (1941) 'Increasing Beer Consumption through proper dispensing equipment', *Brewers Digest*. 16 (January). p.24.

149. ibid.

150. This is not to suggest that packaged beer could not be improperly handled, but that it was not as fragile as draught beer. Wahl summarized how both bottled and draught beer should be handled after it left the brewery (Wahl, R. (1933a) 'Ice Cold Beer', *Brewery Age*. 1 (June). p.16-17. A potentially important lobby for draught beer, the industry which made the equipment for dispensing beer from kegs, wrote a series of educational articles in the brewing trade journals in an effort to heighten awareness of the potential problems in poorly handled beer (see, e.g., deRoulet, J. (1941) 'Draught Beer Sales Clinics: How to Eliminate the Cause of Falling Draught Beer Sales', *Brewers Digest*. 16, July). These articles, many of which did not appear until the late 1930s and early 1940s came to late to stem the advance of packaged beer.

Chapter 6

1. Arthur, B. (1989) 'Competing Technologies, Increasing Returns, and Lock-In By Historical Events', *Economic Journal*. 99. pp.116-31; Arthur, B. (1990) 'Positive Feedbacks in the Economy', *Scientific American*. 262. pp.92-99; David, P. (1985) 'Clio and the Economics of QWERTY', *American Economic Review, Papers and Proceedings*. 75. pp.332-337.

2. Williamson, O. (1985) *The Economic Institutions of Capitalism*. New York: Free Press.

3. ibid.

4. Elzinga, K. (1990) op. cit.

5. In 1991, the entire market share of all microbreweries was under 5% ('The Year in Review' (1992) *Modern Brewing Age*. 43 (March 16). pp.6-22.

6. Protz, R. (1995a) *The Ultimate Encyclopedia of Beer*. London: Carleton Books.

7. ibid.; Protz, R. (1996) 'Malt: The Soul of Beer', *All About Beer*. 17. pp.16-17.