

Business History



ISSN: 0007-6791 (Print) 1743-7938 (Online) Journal homepage: https://www.tandfonline.com/loi/fbsh20

Beer, brewing, and business history

Ignazio Cabras & David M. Higgins

To cite this article: Ignazio Cabras & David M. Higgins (2016) Beer, brewing, and business history, Business History, 58:5, 609-624, DOI: 10.1080/00076791.2015.1122713

To link to this article: https://doi.org/10.1080/00076791.2015.1122713

	Published online: 22 Jan 2016.
	Submit your article to this journal 🗗
ılıl	Article views: 16565
Q ^L	View related articles ☑
CrossMark	View Crossmark data 🗹
4	Citing articles: 10 View citing articles



Beer, brewing, and business history

Ignazio Cabras^a and David M. Higgins^b

^aNewcastle Business School, Northumbria University, Newcastle upon Tyne, UK; ^bNewcastle University Business School, Newcastle upon Tyne, UK

ARSTRACT

This editorial introduces the eight articles in the special issue on 'Beer, brewing and business history'. Following the BEERONOMICS conference held at the University of York, 2013, and the subsequent approval of the editorial board of Business History, we received many submissions discussing beer, brewing, and their importance to business history (broadly defined). In this editorial we provide a brief overview of the historical development of beer and brewing; explain the appeal to business historians of the principal themes which have emerged in the historiography of this industry, and provide a short introduction to the articles accepted for publication in this special issue.

KEYWORDS

Brewing industry; beer marketing and branding; bars and public houses; globalisation

There can be little doubt that the production and consumption of beer feature prominently in our daily lives. Brewers have been adept at launching powerful, and often humorous advertising campaigns, which bombard our TV viewing, including: 'Australians wouldn't give a Castlemaine XXXX for anything else'; Foster's, 'the Amber Nectar', and 'I bet he drinks Carling Black label'. Additionally, a strong relationship has emerged between brewers and the sponsorship of major sporting events. Thus, Marston's 'Pedigree' is the 'official beer' of the English Cricketing Board; the 'Heineken' or 'H' Cup was the most prestigious award in European rugby union between 1995 and 2014. In the US, Budweiser was the official sponsor for the FIFA World Cup in football, and in 2010 Budweiser Light paid \$1 billion to secure publicity rights with the NFL. The previous examples could be extended in any number of ways to include beer consumption during major sporting events and social celebrations.

The advertising activities of the brewing industry conceal the considerable importance that brewing has on economic life. For example, in the EU, brewing and related activities make significant contributions to the economy. Between 2008 and 2013, excise duties levied on beer raised approximately €10 billion. Over the same period, the number of active brewing companies (excluding micro-breweries) increased from 1818 to 3906.² In the US, the figures are mind-boggling: in 2014, the total economic impact of the brewing industry was \$78 billion in wages and over \$250 billion in output (or approximately 1.5% of national output). In the same year, the total excise and sales tax revenues exceeded \$11 billion.³

The current scale and diversity of the brewing industry belies its relatively humble beginnings.4 Until the late mid- to late-nineteenth century, most brewers were locally based and privately owned. National, let alone global brands, barely existed. The evolution of the industry into the global behemoth it is today has attracted considerable attention, first amongst business and economic historians⁵ and, subsequently, by scholars interested in industrial economics and strategic management.⁶ However, despite the considerable volume of work published on this industry (which we discuss in later sections), the future evolution of the brewing industry presents a number of challenging research issues. One topic is the extent to which growing beer consumption in Latin America and Eastern markets will alter the geographic concentration of the global brewing industry. For example, mergers between national brewers and multinational companies in the former continent ignited complex trajectories that shaped the global characteristics of the industry. Consider the formation of AmBey, a merger between Companhia Antarctica and Cervejaria Brahma in 1999. Subsequently, AmBev merged with the Belgian company Interbrew to form InBev in 2004, becoming AB-InBev in 2008.

A related topic is the relationship between major brewers and their smaller, 'craft' or 'micro' brethren. For example, will some of the latter emerge to become major players tomorrow?⁷ This raises a number of questions: can 'traditional' beers and ales be produced on a larger scale – or would this undermine their 'distinctiveness'? Alternatively, if the major brewers perceive micro-brewers to be a threat, they could respond by launching their own versions of 'real' ale and utilise their considerable financial and logistic capabilities to dominate this market. Such speculation is not fanciful: joint ventures enable large companies to benefit from the expertise of smaller competitors. Current trends, however, suggest that the two markets can coexist and that the major brewers are more concerned with their direct rivals. For example, at the time of writing (October, 2015) Anheuser-Busch InBev had launched a takeover of its rival, SABMiller, for a purchase of slightly over \$100bn - making it the fifth biggest acquisition ever - and comfortably in excess of Pfizer Incorporated's takeover of Warner-Lambert in 1999 for \$87.3bn, and Royal Dutch Shell's acquisition of Shell Transport & Trading Company in 2004 for \$80.1bn.8

A final topic which is becoming more prominent is the social role of pubs. Historically, pubs developed in a variety of forms, from serving drinks only, to providing food, accommodation, and other services. However, the pub is a vital institution which not only retails beer but provides opportunities for socialising. Pubs provide important physical places for social aggregation and engagement, and contribute to a sense of social belonging for the stakeholder groups they serve within the community. This is particularly true in rural and remote areas of Britain and Ireland, especially those marginalised in terms of critical infrastructure, where pubs represent vital assets and networking places.9 The impact of their decline, which has been steady since the 1980s, had a considerable effect on the levels of community cohesion and social wellbeing in rural communities. Their decline also had an impact on alcohol consumption trends: pubs provide a safe and controlled environment which fosters 'social drinking', but their decline is frequently associated with increased levels of alcohol consumption within private premises. This signifies higher risks in terms of health and depression, which in the absence of pubs (or similar places for communal aggregation) often remain unreported even in the smallest communities.¹⁰

This editorial begins with a history of the brewing industry, from ancient to modern times and notes the key drivers of change (section II). Because of the diverse interest in beer and brewing, subsequent sections highlight particular themes which have featured prominently in academic debate on the development of this industry. In section III, we discuss how mergers and acquisitions (M&A), at the national and global level, have shaped concentration in this industry, and how this activity has fostered the growth of microbreweries. As noted above, brands and trademarks have featured prominently in the brewing industry, and the role of these indicia is reviewed in Section IV. In Section V we present an overview of the articles that appear in this Special Issue.

An historical overview of the beer industry

The discovery and development of brewing techniques represents one of the most important technological achievements of humankind. A number of authors even indicate brewing as the cornerstone of the so-called "Neolithic Revolution" (about 12000 BC), characterised by the transition from hunting and gathering to living in stable settlements.¹¹ It was the discovery of the alcohol contained in beer and its associated intoxicating effects, rather than the use of grain for other foodstuffs, that provided a key-incentive to the domestication of various types of plants and animals and to the emergence of agricultural techniques. 12

The dating of the invention of beer brewing technology to the beginning of the Neolithic period has still not found official confirmation. However, since the development of agriculture related to the processing of grain after the harvest, it is highly possible that beer brewing soon became a common process for grain conservation and consumption.¹³ Historically, the production and consumption of derivatives from the fermentation of grains has been proved in different parts of the world, in Europe as well in North Africa and China. 14 In ancient times, however, the raw materials, ingredients, processes and techniques used to produce beer varied significantly.

The first evidence of fermented beverages appears from China. Shards of pottery, collected from a Neolithic village known as Jiahu in Northern China's Henan province, and analysed with modern techniques including mass spectrometry, chromatography and isotope analysis revealed traces of alcoholic liquid dated between 9000 and 7000 years ago. The liquids were the result of a mixed fermented beverage of wild grapes (the earliest attested use), hawthorn, rice, and honey. 15

Other evidence of sustained beer brewing arrives from ancient Mesopotamia, where archaeological fragments of potteries dating back to about 6000 BC reveal the presence of systematic brewing activities. 16 Significant climate changes in this region, occurring around 4000 BC, caused a dramatic decrease in the water level, which favoured the emergence of settlements in the fertile areas between the Tigri and Euphrates rivers. The region became the centre of Sumerian culture, and saw the development of large cities, with primordial forms of stratification of society and the definition of social classes with different access to resources. Sumerians also invented various tools such as clay-tokens, numerical tablets, and protocuneiform writing. These tools had an important role in re-distributing resources among social classes, contributing to shaping the growing Sumeric economy.¹⁷ Proto-cuneiform texts dating from 3200 to 3000 BC document that 'beer was no longer simply an agricultural product of the rural settlements, but rather belonged to the products subjected to the centralised economy of Sumerian states'. 18 Beer was then a commercialised product in early cities, subjected to original forms of duties and taxation (first introduced by King Hammurabi around 4000 BC) but with totally disjointed patterns of production and consumption.¹⁹

Substantial and continuous documentation of the production and consumption of beer arrives from ancient Egypt too, where beer brewing as well as bread baking had been established as a common commercial activity since 5000 BC. As reported by Brewer and Teeter, wages were paid in grain which was used to make two staples of the Egyptian diet: bread and beer.²⁰ At that time, beer was sold in public drinking places and exported to other ports across the main commercial routes which started flourishing in the south Mediterranean Sea.²¹ The Egyptians called their beer hequ or heqa, and among the range of grains used in the brewing process, barley was the most important. Ancient Egyptian beer had to be drunk soon after it was made because it went flat very quickly. The Egyptians made a variety of beers of different strengths.

As reported by Colen and Swinnen, the earliest indications of beer production in Europe are from around 3600 BC with evidence of brewing activities in different locations across the continent²² Confirmation of sustained beer production and consumption can be found in ancient Greece dating back to 3000 BC. It is possible that brewing techniques for obtaining ancient Greek beer were influenced by the Egyptians. Beer - or brytos - was the beverage for the lower social classes, while the aristocracy tended to consume wine.²³

This tendency continued in Roman times, during which wine came to supplant beer (or honey beer or mead) as the upper-class beverage in most of these areas. Commercial routes for wine flourished across the Mediterranean Sea during the emergence of the Roman Empire, developing from the networks started by the Greeks who had already exported wine to southern France, particularly via Massala (Marseille), from 650 BC. However, it appears that the Romans learnt to brew beer - or cerevisia - directly from the Egyptians, although the name has Celtic roots. The Romans soon started to despise the beverage and its drinkers, who were indicated as 'uncivilised' or 'barbarians'.²⁴

With the Roman conquest of Europe, the diffusion of wine spread over the continent. Wine started to be extensively produced in regions located above the Po River, speeding eastward across the Alps to Provence, the Iberian Peninsula, and later to Northern Gaul. For hundreds of years until the collapse of the Roman Empire, wine continued to be considered as a luxury item and only consumed by the upper classes, with beer mostly brewed and consumed by the lower classes.²⁵

Meanwhile, beer brewing remained popular among the Germanic and Celtic populations occupying the Northern and Eastern parts of Europe. Evidence of sustained brewing activity is documented in the regions now forming Germany, across the British Isles and in Scandinavia. Particularly diffused in these areas was mead, an alcoholic beverage obtained by fermenting honey with water, sometimes with various fruits, spices, grains, or hops. Considered by many as a precursor of beer in Northern Europe, mead would continue to be brewed in Scandinavia until the late Middle Ages.²⁶

The spread of the Holy Roman Empire from the 9th century encouraged the building of monasteries throughout Europe. While monasteries located in Southern Europe continued to grow grapes and produce wine, many monasteries located in Northern Europe became centres of brewing. The cooler climate made it easier to grow barley instead of grapes and led to the emergence in the early Middle Ages of 'monastic brewing' which spread to the British Isles, Germany, Scandinavia and the Low Countries.²⁷ Monks brewed beer predominantly for their own consumption or to refresh quests and pilgrims. Later, between the twelfth and thirteenth centuries, monks started to supply beers to noblemen and to sell their brew in so-called 'monastery pubs', with brewing slowly emerging as a commercial venture. In

addition, as the water in the Middle Ages was often polluted, beer was healthier than water, and this gave an important boost to the production and consumption of this beverage.²⁸

The introduction of hops to the brewing process by German monks represents an important innovation of monastic brewing. Hops were used mostly to preserve beer and to counterbalance the rather sweet flavour of the malt, the predominant ingredient in Germanic beer.²⁹ The addition of hops in the brewing process eventually spread slowly across other parts of Europe because of taxes raised by local authorities. Before the introduction of hops, breweries were subjected to a 'flavoring licence' called 'Grutrecht', named after the grut - a combination of herbs that were used to flavour and preserve the beer.³⁰ Grut was an important factor in distinguishing between different beer brews. Local rulers had different rules and different compositions of ingredients to be charged by applying the Grutecht. Brewers were forced to buy grut for their brews from local rulers since brewing beer without grut was forbidden. To avoid tax evasion, the exact composition of grut was kept a secret. When the practice of adding hops threatened the Grutrecht, local rulers in many regions reacted by forbidding their use - a prohibition that lasted until after the fourteenth century.³¹

The discovery of America in 1492 and the explorative voyages financially supported by European crowns between 1500 and 1800, opened new commercial routes for beer. Moreover, explorations provided evidence of brewing activities in cultures and communities previously unknown. The chronicles left by the first conquistadores in South America mention the 'chicha', a sort of beer brewed by the Inca from the maze which contained a slight amount of alcohol (1-3%). More evidence of beer brewing, although with different grains used in the fermentation process, is available from the native populations in Central America. Similarly, evidence of beer brewing is available among native populations in West and South Africa, and from Australasia.32

In the nineteenth century, technological discoveries and improvements such as the introduction of refrigeration and the development of pasteurisation techniques dramatically changed beer brewing. By controlling the brewing process, the environment and type of fermentation, and the type of yeast culture, brewers were able to obtain a 'standardised' product, something that could not be achieved in the past. In addition, the expansion of the steam engine and the invention of the 'chilled iron mould' enhanced opportunities for mass production and consumption as well as large scale packaging and distribution, determining the industrialisation of brewing as a production process. The expansion of infrastructure and railway networks accelerated the diffusion of beer. Better packaging and faster transport increased the quantity and quality of distribution, enlarging markets and enhancing the importance of beer as a global product.

Between the first and second world wars, beer production and consumption were affected significantly. The war effort resulted in a great shortage in supply for brewers, who had to cope with rising prices of grains combined with a general scarcity of raw materials. Governments issued laws to limit the distribution and consumption of alcoholic drinks, pushing larger brewers to diversify into alternative products such as soft drinks. Particularly in the US, the rise of the 'Temperance Movement' and the introduction of Prohibition nearly wiped out the entire brewing industry in the country, with surviving breweries turning to producing mostly alcohol-free beverages.³³ Moreover, the Great Depression, combined with a series of dust storms and severe drought (known as the 'dust bowl'), significantly affected the nature of the brewing process during the 1930s. Brewers reacted to increased grain prices by switching ingredients, producing a lighter beer by predominantly using corn and



rice to supplement malted barley. This left a legacy on US consumer preferences that has remained to the present, with major brand beers such as Budweiser still brewed from a grist incorporating a significant proportion of rice.34

Mergers, acquisitions and microbreweries

In a British context, the market for corporate control in brewing received a rude awakening when, in 1959, Charles Clore made a hostile cash bid for a 75% share in Watney Mann. This 'bolt out of the blue [led] to a closing of the brewing ranks'.35 From the post-war period until the early 1980s, the number of independent brewing companies across the world decreased steadily, while concentration in national markets resulted in the rise of major corporate players almost everywhere in the world. Traditional brew-houses or brew-pubs, places that brewed their own beer mostly in a brewery on site or nearby their premises, disappeared almost completely, either purchased by larger breweries or ceasing activity.

The effects of concentration in the market started to be most significant during the 1970s and 1980s. A number of global conglomerates originated as a result of a series of large acquisitions and mergers. In the US, the continued expansion of Anheuser-Busch, Miller Brewing Company, Coors Brewing Company and Pabst brought almost 75% of the US market into the hands of only four companies in the early 1980s. In the UK, the market was dominated by six large national brewers (Whitbread Beer Company, Scottish & Newcastle, Courage, Bass, Watneys/Grand Metropolitan, Allied-Lyons) which controlled not only the production but also the distribution of beer, given that these companies had purchased the vast majority of pubs in the country. Subsequently, further merger and acquisition (M&A) activity – especially the formation of Scottish & Newcastle and its acquisition of Courage in 1995 meant the latter accounted for approximately 30% of UK beer supplies. Conversely, it has been argued that unsuccessful M&A activity by Bass and Whitbread accounted for their exit from the UK beer market.³⁶ In Europe, Heineken dominated the market, together with Guinness (later Diageo) and Carlsberg. By 1999, four global leaders accounted for 60% the world production of beer with Anheauser-Busch having a quarter (25%), Interbrew (13%), Heineken (12%) and AmBev (later Inbev, 10%) in volume terms.³⁷

In the more recent period, a number of studies have emerged which seek to explain the pattern of cross-border M&A and its effects on concentration in the global beer industry.³⁸ For example, between 2002 and 2013, concentration in the global beer market more than doubled.³⁹ It is now recognised that plant-level scale economies were important determinants of M&A at the national level. But beer is generally a bulky, low-value product and international trade (as opposed to production), is small. Recent studies have suggested that cross-border M&A has been motivated by the synergies resulting from firm-level scale economies, especially in advertising, branding and distribution.⁴⁰ Other studies recognise the importance of firm-level scale economies, and the powerful role that advertising and branding exert on the beer industry, and suggest that 'behavioural lock-in' has also facilitated the emergence of global brands.⁴¹

However, most recent times have seen a rise in the number of micro and craft breweries almost everywhere in the world. In 1980, the number of breweries in the UK was about 142. Just over three decades later, in 2012, the number increased to 1,113. An even larger growth was registered in the US within the same period, with the number of breweries rising from 92 to 2751. Similar trends are registered in many other European countries, such as Germany,

Italy and Spain, and are explained by: the heavy concentration processes in the brewing industry, which left space for new entrants and created condition for niche markets; policies in support of small entrepreneurs, such as rate reliefs and financial grants made available by local governments; and an increased level of sophistication in consumers' tastes, more inclined to try qualitatively different products.

We indicated earlier that the global beer trade is now dominated by a handful of international brewers who are, effectively, multinational companies. To a large extent this concentration was inevitable: having achieved supremacy in their domestic markets, the major brewers sought to increase their scale and scope through international expansion. However, the emergence of an oligopolistic structure in international brewing belies the fact that, at the grass-roots level, there has been a rapid growth in the number of 'micro' or 'craft' breweries. The data, however, disguises a shift in the dynamic within the brewing sectors of some nations. For instance, in the US and the UK, where beer sales are in overall decline, there is a healthy upturn in beers belonging to the co-called craft or micro-brewing sectors. This positive trend in both countries has occurred mostly in recent decades. The number of breweries in the UK increased from 142 to 1,285 between 1980 and 2014. Similarly, the number of breweries in the US increased from 92 to 3,464 in the same period.⁴² Notwithstanding the space left to new entrants by the high concentration processes in the brewing industry, several other factors contributed to reviving micro-brewing in the two countries, which deserve some consideration.

In the UK, the revival of micro and small breweries was ignited by the Campaign for Real Ale (CAMRA), and the increasing dissatisfaction among consumers with the bland offerings by the major brewers. These trends indicate that consumer tastes were becoming increasingly sophisticated and micro-brewers were better able to cater for this market. CAMRA activities and campaigns increased awareness of traditional ales, creating a potential customer base for new breweries representing an alternative to mass producers.⁴³ The rapid increase in the number of new businesses fostered the development of specialised real-ale producers, and enabled many new breweries to start with more efficient and more cost effective brewing equipment. The introduction of the Beer Orders in 1989, which forced the larger brewers to divest a large number of their pubs from the tie enabled the formation of large retailing companies or pubcos, which purchased the majority of pubs and selected a very limited range of breweries as their suppliers, creating fewer opportunities for new breweries to expand their supply network.⁴⁴ But the introduction of Progressive Beer Duty (PBD) in 2002, which granted small and micro-breweries a lower tax levy than large brewers, boosted the growth of these businesses throughout the country.⁴⁵ Moreover, the most recent financial crisis forced large pubcos to put large parts of their estates on the market, creating more opportunities for small breweries to acquire their own pubs. 46

Having smaller fixed costs and therefore being less reliant on economies of scale, micro-brewers have been more adept at responding to changing consumer tastes. In addition, because they supply a more discerning market, the craft brewers can afford to be more adventurous in the styles of beer they produce and this has increased their competitiveness even though they are selling at premium prices. Viewed from another perspective, the growth of micro-brewers is testament to growing entrepreneurship in this industry. Thus, in 2011, the BrassCastle brewery established itself in a garage before renting brewing facilities on Lord Halifax's Garrowby estate. Of the two partners, Phil Saltonstall worked parttime with the Royal National Lifeboat Institution (RNLI), while Ian Goodall was semi-retired. They received support from David Smith, a local brewing consultant who helped set up more than 100 small and micro-breweries in the UK since the 1980s. Similarly, Nick Stafford, founder of Hambleton Ales, was made redundant twice within seven months during the worst recession since World War II and set out to earn a living without relocating. Despite severe underfunding, and after only a few months, awards, employment and growth were significant features of this business. Financial targets were met months early and after just three years the brewery had to be relocated within the hamlet. In 1997 Hambleton Ales gained the coveted award of CAMRA Champion Winter Beer of Britain for its Nightmare brand. Turnover is now £1.3 million.

In the US, the growth of small and micro-breweries was facilitated by changes in government regulations and cuts in federal taxes for smaller breweries introduced in the late 1970s. In 1979, the Cranston Act legalised home-brewing for the first time since before Prohibition, opening the market to many home-brewers.⁴⁷ In addition, discounted excise rates were applied to brewers selling less than two million barrels per year, generating a significant effect on the costs of small producers. 48 Between the 1980s and 1990s, a growing number of US micro-brewers started to contract their production to larger breweries. By doing so, smaller brewers avoided enlarging existing, or building new facilities, while large brewers could reduce their excess capacity.⁴⁹ In the 2000s, micro-breweries and brewpubs continued to rise in number, but some of the older breweries consolidated their presence in the market by enlarging their brewing facilities and acquiring new plants to increase their capacity, and expanding their production into other states through a series of acquisitions and mergers, becoming major national brewing companies whilst exporting to different markets worldwide.50

The growth of micro-breweries and craft beers in the US and UK was rapid, but similar patterns of growth have been registered in other countries in recent times, although with sharper and more rapid trajectories⁵¹. In the Czech Republic the number of micro and small breweries almost trebled from about 80 to more than 220 between 2003 and 2012.52 Interestingly, this sharp growth has also been observed in non-traditional beer-drinking countries, such as Italy and Spain, where micro and craft breweries grew from a few dozen to 650 and 430 respectively in 2014.53

In contrast with the tremendous growth registered by microbreweries at a global level, patterns of beer consumption have shifted dramatically, with a now significant proportion of beer sold by the off-trade rather than in the on-trade market. The UK is a clear example: traditional public houses or pubs have declined from about 64,000 to less than 49,500 between 1990 and 2012.54

British pubs, and on-sale retailers in general, have been affected by a variety of factors which affected the market since the 1960s. Above all were the progressive separation of pubs from the breweries that traditionally owned them, and the Beer Orders which forced breweries to sell pubs at very attractive prices, leading to the rise and enlargement of corporate pub-companies, or pubcos, dedicated to retail. These companies exploited the traditional tiesystem in which regional breweries operated pubs as their direct outlets. With pubcos, the number of lease and tenancy holders exploded, bringing the vast majority of pubs under direct control of either large national brewers or corporate pub chains. At the end of 2011, 55% of the UK pubs were controlled by pubcos, while the number of free houses, privately owned or family managed pubs, decreased to about a fifth of the total.⁵⁵

The financial crisis brought heavy financial losses for some of the largest pubcos, which catalysed significant disinvestment, ownership changes and several pub closures. In 2015, two fifths of British pubs are owned by pubcos, two fifths are free-houses and the rest are owned by breweries. Despite this rebalance in the market and the introduction of selfregulatory bodies to monitor the industry, tenants continue to struggle financially, with many generating a profit below the minimum wage.⁵⁶ Changes in the ownership structure also brought about changes in the marketing strategies pursued by pubs with regard to customers. Many pubs ceased their traditional beer-oriented vocation and started to develop into different types of businesses e.g. gastro-pubs or European style cafes, or the so called 'theme-pubs', which combine drink-retailing with a specific environmental setting (i.e. sophisticated premises, 1980's style, sport bars, etc.).⁵⁷

A significant decrease in the prices of food and alcoholic beverages from off-licenses and supermarkets has also had an impact on customers' choice and on the attractiveness of pub nights. More affordable prices provided by the off-licence trade gave incentives for people to drink at home rather than in public places.⁵⁸ In addition, the growth of home entertainment has also contributed to making pub nights less attractive. Devices such as high-definition TVs and home-theatre sound systems have become progressively more affordable in the past 20 years, and the commercialisation of video-game consoles that enable players to play in groups of two or more has provided significant opportunities for in-house gatherings. As a consequence, the average number of nights out among households has been progressively reduced and mainly pushed to the weekend.⁵⁹

The decline of pubs, the rise of off-trade sales and the increase in home-entertainment have had an inevitable impact on society, which has been more significant for small communities located in spatially remote areas. Several studies have demonstrated the crucial role pubs play in fostering and enhancing community and social cohesion within local communities. ⁶⁰ Pubs enhance the level of social capital defined as the total of networking relationships and ties and human resources endowment in a given area. In addition, pubs increase the levels of community and social cohesion. The former is the volume of relationships and activities that make residents feel that they belong to a given community, the latter describes the level of cohesiveness among different components forming a social context, e.g. ethnic and/or religious groups, census, etc. Pub closures, therefore, frequently result in the vanishing of many opportunities associated with social and economic development: these businesses work as incubators and hubs for communal initiatives and are frequently used as selling points from local businesses.

Brands and trademarks

In recent years there has been a resurgence of interest in the role of branding as an important part of business strategy and the beer industry has featured prominently in these debates.⁶¹ Traditionally, most beer was brewed and consumed within a limited geographical region. As rail networks expanded during the nineteenth and early twentieth centuries, brewers recognised that they could only expand the scale of their operations if they sought to satisfy regional, national, and international markets. Branding and advertising were important components of the competitive strategy in responding to growing market share because the established relationship between *local* brewer and *local* consumer was weakened once beer sales extended beyond the immediate vicinity.⁶² It is perhaps unsurprising, therefore,

that one of the UK's leading brewers, Bass, registered the first trademark under the Trade Marks Act, 1875.

It has long been recognised in the law and economics literature that trademarks are an important intangible asset that can yield numerous benefits to their owners including, for example, conveying reputation and assuring consumers that quality will not be debased. Additionally, trademarks can facilitate the maintenance of monopoly power.⁶³ However, the growing geographical distance between production and consumption meant it became increasingly important that firms with the most-highly valued - and therefore most imitated trademarks, ensured that these indicia were not fraudulently used. Misuse of trademarks deprives the genuine owner of the benefits they have established for their brand. In addition, if the mark is misused on inferior products, an insidious process of quality debasement can arise which ultimately renders the mark worthless.⁶⁴ Consumers are also disadvantaged from illicit use of a trademark. For example, the mark no longer guarantees they will obtain expected levels of satisfaction (based on previous experience) and they pay a higher price for a lower-quality product.

The threat posed by misuse of trademarks varied according to business structure. For example, a fully vertically-integrated brewer had direct control over the beer from brewery through to final consumer. One of the defining characteristics of the beer industry, both in continental Europe and the UK was its reliance on the 'tied house'. 65 Before 1880 the majority of brewers relied almost entirely on sales to independent publicans. ⁶⁶ However, in the last 20 years of the nineteenth century, there was a rapid growth in tied housing. Until this period, the tied trade was most pronounced in the provinces. For example, Greenall Whitley & Co. (St Helens), owned 681 houses and Peter Walker & Co. (Warrington) owned 410 houses.⁶⁷ The provincial tied estates were rapidly surpassed by London brewers: between 1895 and 1902 the London brewers as a whole were acquiring approximately 500 leases a year, and by 1902, almost 90% of the trade of the leading London brewers was tied. One of the consequences of this integration was that fraudulent imitation of the trademarks of, for example, Barclay Perkins, Watney, Combe & Reid, and Whitbread, was non-existent.⁶⁸

In contrast, Paul Duquid has shown that fraudulent imitation of trademarks was most pronounced among producers who did not pursue extensive vertical integration. The port and champagne trades were vulnerable to misrepresentation throughout the supply chain.⁶⁹ In beer, Bass and Guinness featured prominently. Bass made only tentative steps in acquiring tied housing prior to 1914, and the bulk of its beer was sold to agencies while Guinness was wholly reliant on the free-trade.⁷⁰ These two brewers experienced innumerable infractions of their marks by a variety of underhand practices: bottles of inferior beer were sold with imitation labels and the 'get-up' of rivals' marks was almost indistinguishable from the genuine marks of Bass and Guinness. Unsurprisingly, both of these brewing companies were unstinting in the defence of their marks, both prior to 1914 and during the inter war period.⁷¹

Turning to the modern period, the trade-marking strategies of some European brewers have changed significantly. Currently, the *global* marketplace is dominated by a few super-brands, such as Brahma, Budweiser, Coors Light, Heineken, and Tsingtao. The beer sold with these marks is ubiquitous and because this beer is produced in many locations, the brand does not signify geographical origin. In any case, it is likely that most consumers are indifferent about where mass-produced beers and lager are made. However, in a European context, the geographical location of beer is becoming more important. Many beers, for example, Rutland Bitter and Kentish Ale produced in the UK, and Bremer, Dortmunder, and Münchener, made in Germany – as well as *Oktoberfestbier* – are marked to indicate their geographical location.

The impetus to indicate geographic origin stems from an EU initiative launched in 1992. It was thought that greater emphasis on 'traditional' or artisanal methods of production would help EU agriculturalists fight back against the onslaught of globalisation. Heterogeneity would replace homogeneity. To achieve this aim, the EU established the Protected Designation of Origin (PDO) and Protected Geographical Indication (PGI) schemes. These indicia fulfil a number of requirements including product specification, but differ according to the strength of the relationship between geographic origin and product. The former designation requires that the quality or characteristics of a product are, 'essentially or exclusively', due to a particular location; the latter requires only that a particular characteristic is, 'attributable to the geographical origin'. For this reason, most EU beers which participate in the scheme bear the PGI mark. The only exception to this is that some EU beers, designated Traditional Speciality Guaranteed (TSG), do not make any claim that their particular characteristics are due to location. Nonetheless, beers which are classed as TSG, such as Sahti (Finland) and Lambic, Geuze, Kriek and Framboise-Lambic, which are made in Belgium, must ensure that they have a traditional character in terms of composition or means of production.

Articles in this special issue

The first article, by Ignazio Cabras and Charles Bamforth discusses the rapid growth in small and micro-breweries in the UK and the US from the early 1980s. This trend can be explained by the superior ability of these brewers to cater for niche and specialist markets in which economies of scale and scope are unimportant. Many of these small brewers retain their original size. Using case studies of *Brew Dog* (UK) and *Sierra Nevada* (US), Cabras and Bamforth show that these brewers developed from small-scale to medium-sized brewers, supplying national and international markets. Their analysis emphasises the aggressive marketing and innovation strategies pursued by these breweries.

The next two articles, by Julie Bower, and by David Higgins, Steve Toms and Moshfique Uddin, examine the consequences of the dismantling of the 'traditional' structure of the UK beer industry following the Beer Orders of 1989. Prior to these Orders, major national brewers such as Bass, Courage, Grand Metropolitan (owners of Watney Mann), and Scottish & Newcastle, owned substantial estates of tied-houses in which they vended their beer. These estates represented a high barrier to entry for new entrants and meant the leading brewers had a substantial monopoly position. A priori, we might expect that the enforced divestment of much of these estates would have improved the performance of this industry. However, Bower's study raises the possibility that the original structure of the industry might have been preferable to what emerged after the Orders when a new breed of owners - not engaged in brewing, but heavily involved in financial engineering – emerged. Higgins, Toms and Uddin also re-appraise the effects of the financialisation of the industry, but from a different perspective. Their study examines the risk-return trade-off for different categories of publican – tenants and managers under the 'old' and 'new' system and demonstrate that post-Beer Orders, the new breed of 'pubcos' transferred a disproportionate amount of risk onto their publicans. This was possible because the 'pubcos' were able to use the wet/dry rent system to specify asymmetric contracts.

Articles four and five, by Eline Poelmans and Jo Swinnen, and by Graeme Acheson, Christoher Coyle and John Turner, focus on excise and corporate governance, respectively. In the former, Poelmans and Swinnen examine how the success of the Dutch revolt against Spanish rule, between 1566 and 1648, can be explained by the superior ability of the Dutch to finance their campaign. In this respect beer excise played a crucial role: this levy was equivalent to about a third of Spanish tax revenues on silver from America. The success of the revolt led, ultimately, to the creation of Belgium as a separate state. Acheson, Coyle and Turner analyse the returns to investors in the British brewing industry between the late nineteenth and the early twentieth century. Their findings – that post-1900 performance correlates positively with capital-market discipline and good corporate governance and negatively with family control – advances our understanding of the effects of the financing of this industry.

The final three articles in this special issue examine the broader social and institutional environment within which breweries operated. The first, by Ranjit Dighe, echoes some of the themes by Cabras and Bamforth. Dighe argues that the strong temperance movement in the US stimulated brewers to produce lighter beers with low ABV. But the longer-term consequence of this trend was to encourage a consumer backlash against 'boring beers and this provided a fertile environment for the growth of micro-brewers. Richard White examines the beer industry in Alabama and its post-Prohibition renaissance which was characterised by the brewpub movement. Central to White's analysis are switches in the legislative environment, culminating in the 1902 Brewpub Act. The final article in this Special Issue, by William Foster, Kai Lamertz, Joachem Kroezen and Diego Coraiola, presents an exploratory analysis of historical narratives and data covering 200 years of beer brewing in the Canadian province of Ontario. They describe how many brewers fell by the wayside as the beer brewing field matured and settled on a path of corporate development. A novel feature of this article is its emphasis on collective identity and organisational legacy.

Notes

- 1. Interested readers are encouraged to access the following vintage adverts which became classics in the advertisement of beer: https://www.youtube.com/watch?v=7TGCrBE3JvY; https://www.youtube.com/watch?v=9mp646_H_xo
- 2. Calculated from Beer Statistics, 2014 edition, Table 13: 28; Table 11: 25.
- 3. Calculated from Beer Serves America, Economic Impact, 1–2.
- 4. Poelmans, and Swinnen, "From Monasteries to Multinationals."
- 5. Mathias, *The Brewing Industry*; Gourvish and Wilson, *The British Brewing Industry*.
- 6. Hawkins and Pass, The Brewing Industry; Mutch, Strategic and Organisational Change; Swinnen, The Economics; Trembly and Tremblay, The US Brewing Industry.
- 7. The chapter by Cabras and Bamforth explains the rapid growth of Sierre Nevada from a small to medium sized brewer supplying national and international markets.
- 8. http://www.businessinsider.com/16-biggest-acquisitions-of-all-time-2014-2?IR=T
- 9. Mount and Cabras "Community Cohesion."
- 10. Cabras and Mount "Economic Development."
- 11. Katz and Maytag, "Brewing and Ancient Beer"; Joffe, "Alcohol and Social Complexity."
- 12. Damerow "Sumerian Beer."
- 13. Ibid.
- 14. Colen and Swinnen, "Beer Drinking Nations."
- 15. McGovern et al, "Fermented Beverages."
- 16. Hardwick, "Handbook of Brewing."



- 17. Katz and Voigt, "Beer and Bread."
- 18. Damerow "Sumerian Beer," 3.
- 19. Brewer and Teeter, "Egypt and the Egyptians."
- 21. Damerow, "Sumerian Beer"; Katz and Maytag "Brewing an Ancient Beer."
- 22. Poelmans and Swinnen "A Brief Economic History."
- 23. Nelson, "The Barbarian Beverage."
- 24. Hardwick, "Handbook of Brewing"; Poelmans and Swinnen "A Brief Economic History"; Colen and Swinnen, "Beer Drinking Nations."
- 25. Ibid.
- 26. Nelson, "Beer?"
- 27. Unger, "Beer in the Middle Ages"; Poelmans and Swinnen, "A Brief Economic History."
- 28. Horsney, A History of Beer.
- 29. Poelmans and Swinnen, "A Brief Economic History."
- 30. Ibid.
- 31. Behre, "The History"; Unger, "Beer in the Middle Ages"; Nelson, "The Barbarian Beverage."
- 32. Swinnen, The Economics.
- 33. Stack, "A Concise History."
- 34. Ibid.
- 35. Spicer et al. Intervention, 2; Further details of Clore's M&A activity can be found in Toms and Wright, "Corporate Governance."
- 36. Bower and Cox, "How Scottish"; see also Lopes, "Brands."
- 37. See Stone and McCall, International Strategic Marketing.
- 38. Madsen, Pedersen, and Lund-Thomsen, "Effects of the M&A wave"; Pedersen, Madsen, and Lund-Thomsen, "How Mergers and Acquisitions."
- 39. Madsen and Wu, "Marketing and Globalisation."
- 40. Ibid.
- 41. Stack, Gartland, and Keane, "Path Dependency."
- 42. This figure comprises both craft/micro-breweries, regional breweries and brewpubs aside larger brewers (Brewers Association, Craft Beer Defined).
- 43. Mason and McNally, "Market Change"; Jennings, "The Local."
- 44. Preece, "Turbulence in UK."
- 45. Mason and McNally, "Market Change"; Wyld, Pugh, and Tyrrall, "Evaluating the Impact."
- 46. Andrews and Turner, "Is the Pub", Preece "Turbulence in UK."
- 47. Stack, "A Concise History."
- 48. Tremblay and Tremblay, "The U.S. Brewing Industry."
- 49. Ibid.
- 50. Moore et al., "The Locational Determinants."
- 51. Bamforth and Cabras, "Interesting Times."
- 52. Balach, "Czech Beer Market."
- 53. Garavaglia and Pezzoni, "The Evolution."
- 54. British Beer and Pubs Association, "Statistics Handbook."
- 55. Mount and Cabras, "Community Cohesion."
- 56. All Party Parliamentary Save the Pub Group.
- 57. Pratten, "The Changing Nature."
- 58. Pratten, "Examining."
- 59. Cabras, Canduela, and Raeside, "The Relationship..."
- 60. See, for example, the work of Cabras, "Industrial and Provident"; Cabras and Bosworth, "Embedded Models"; Cabras et al., "The Relation"; Mount and Cabras, "Community Cohesion" on the significance of pubs in spatially remote areas.
- 61. See, for example, Duguid, "Developing the Brand"; Lopes, Global Brands; Higgins and Verma, "The Business."
- 62. Wilkins, "The Neglected."

- 63. See, for example, Landes and Posner, "Trademark Law"; Ramello, "What's in a Sign?"; Davis and Maniatis, "Trade Marks."
- 64. Akerlof, "The Market."
- 65. See, for example, Deconinck and Swinnen in Cabras, Higgins and Preece.
- 66. Hawkins and Pass, The Brewing Industry, 25.
- 67. Ibid., 30.
- 68. Even a casual glance of Cox, A Manual, and Kerly's Law of Trade Marks, confirms this.
- 69. Duguid, "Networks and Knowledge."
- 70. Owen, The Greatest Brewery, 235–242.
- 71. Higgins and Verma, "The Business"; Lopes and Casson, "Brand Protection," 297–303.

Acknowledgements

It is appropriate to thank Ray Stokes and the editorial team of Business History for approving this special issue. We are also pleased to record our thanks to the many referees who helped us to determine the final selection of articles: Julie Bower; Derek Brewin; Jesus Canduela; Howard Cox; Ronal Davies; Darren Eberts; Simon Loretz; Jill McClusky; Eline Poelmans; Vito Polito; David Preece; Carlo Reggiani; Neil Reid; Felix Schulz; Martin Stack; James Sumner; Jo Swinnen; Kevin Tennant and Steve Toms. Charles Bamforth, Ignazio Cabras, David Higgins, Eline Poelmans, Jo Swinnen, Steve Toms and Moshfique Uddin were not involved in the refereeing of their papers. We are also grateful to the participants at the Beeronomics Conference held at The York Management School, University of York, in 2013.

References

Akerlof, G. "The Market for Lemons: Quality Uncertainty and the Market Mechanism." Quarterly Journal of Economics 84, no. 3 (1970): 488-500.

All Party Parliamentary Save the Pub Group; London Economics 'Research' as Fundamentally Flawed, Biased and a Suspicious Waste of £40K of Taxpayers' Money. London: APPSTP, 2014.

Andrews, D., and S. Turner. "Is The Pub Still the Hub?" International Journal of Contemporary Hospitality and Management 24, no. 4 (2012): 1-11.

Balach, V. Czech Beer Market Development. Czech Beer Market Association. 201; Available at: http://www. eesc.europa.eu/resources/docs/balach.pdf [accessed 24 March 2015].

Bamforth, C., and I. Cabras. "Interesting Times: Changes for Brewing," In Brewing, Beer and Pubs: A Global Perspective, edited by I. Cabras, D. Higgins and D. Preece, 13–33. London: Palgrave Macmillan, 2016.

Beer Serves America. Economic Impact of the Beer Industry, 2014 data. Available at http://www. beerinstitute.org/br/economic-impact [accessed 25 March 2015].

Beer Statistics, 2014 edition. Available at: http://www.brewersofeurope.org/uploads/mycms-files/ documents/publications/2014/statistics_2014_web_2.pdf [accessed 30 March 2015].

Beer Institute. Beer Tax Facts: The Economic and Societal Impacts of State and Federal Taxes on Beer. Washington, DC: The Beer Institute, 2014. Available at: http://www.beerinstitute.org/assets/uploads/ Beer Tax Facts1.pdf [accessed 23 March 2015].

Beer Institute, 2014 Brewers Almanac 2013. Beer Institute website. Available at: www.beerinstitute.org/ assets/uploads/Brewers_Almanac-_20131.xlsx [accessed 2 April 2015].

Behre, K. "The History of Beer Additives in Europe - A Review." Vegetarian History of Archaeobotanic 8 (1999): 35-48.

Bower, J., and H. Cox. "How Scottish & Newcastle Became the World's Largest Brewer: A Case of Regulatory Capture?" Business History Review 86, no. 2 (2012): 43–68.

Brewer, D., and E. Teeter. Egypt and the Egyptians. Cambridge: Cambridge University Press, 2007.

Brewers Association. Craft Beer Defined. Brewers Association website 2014: Available at: http://www. brewersassociation.org/statistics/craft-brewer-defined/[accessed 3 November 2014].

British Beer and Pub Association. Statistical Handbook. London: BBPA, 2015.

Cabras, I. "Industrial and Provident Societies and Village Pubs: Exploring Community Cohesion in Rural Britain." Environment and Planning A 43, no. 10 (2011): 2435–2451.

Cabras, I., J. Canduela, and R. Raeside. "The Relation of Village and Rural Pubs With Community Life and Peoples Well-being in Great Britain." *German Journal of Agricultural Economics* 61, no. 4 (2012): 265–274.

Cabras I., and G. Bosworth. "Embedded Models of Rural Entrepreneurship: The Case of Pubs in Cumbria, North West of England." *Local Economy*, 29, no. 6/7 (2014): 598–616.

Cabras, I., and M. Mount. "Economic Development, Entrepreneurial Embeddedness and Resilience: The Case of Pubs in Rural Ireland." European Planning Studies (2015): doi: 10.1080/09654313.2015.1074163.

Colen, L., and J. Swinnen. "Beer Drinking Nations: The Determinants of Global Beer Consumption." In *The Economics of Beer*, edited by J. Swinnen, 123–140. Oxford: Oxford University Press, 2011.

Davis, J., and S. Maniatis. "Trade Marks, Brands and Competition." In *Trademarks, Brands, and Competitiveness*, edited by Teresa da Silva Lopes and Paul Duguid, 119–137. London: Routledge, 2010.

Damerow, P. "Sumerian Beer: The Origins of Brewing Technology in Ancient Mesopotamia." *Cuneiform Digital Library Journal* (2012): 1–20.

Da Silva, Lopes T., and M. Casson. "Entrepreneurship and the Development of Global Brands." *Business History Review* 81, no. 4 (2007): 651–680.

Deconinck, K., and J. Swinnen. "Tied Houses: Why they are so common and why Breweries Charge them high prices for their beer." In *Brewing, Beer and Pubs: A Global Perspective*, edited by I. Cabras, D. Higgins and D. Preece, 231–246. London: Palgrave Macmillan, 2016.

Duguid, P. "Developing the Brand: The Case of Alcohol, 1800–1880." Enterprise and Society 4, no. 3 (2003): 405–441.

Duguid, P. 2005. "Networks and Knowledge: The Beginning and End of the Port Commodity Chain, 1703–1860. *Business History Review* 79, no. 2 (2005): 493–526.

Garavaglia, C., and M. Pezzoni. 2013. "The Evolution of the US Brewing Industry: A History-friendly Model." Paper presented at the III Beeronomics Conference, York (UK), 18–21 September

Gourvish, T., and R. Wilson. *The British Brewing Industry, 1830–1980*. Cambridge: Cambridge University Press, 1994.

Hardwick, W. Handbook of Brewing. New York, NY: Marcel Dekker Inc., 1994.

Hawkins, K., and C. Pass. *The Brewing Industry*. London: Heinemann, 1979.

Higgins, D., and S. Verma. "The Business of Protection: Bass & Co. and Trade Mark Defence, c.1870–1914." Accounting, Business & Financial History 19, no. 1 (2009): 1–19.

Hornsey, I. A History of Beer and Brewing. London: Royal Society of Chemistry, 2013.

Jennings, P. The Local: A History of the English pub. Stroud: Tempus, 2007.

Joffe, A. "Alcohol and Social Complexity in Ancient Western Asia." *Current Anthropology* 39, no. 3 (1998): 297–322.

Katz, S., and M. Voigt. "Beer and Bread: The Early Use of Cereals in the Human Diet." *Expedition* 28 no. 2 (1986): 23–23. Available at: http://www.penn.museum/documents/publications/expedition/PDFs/28-2/Bread.pdf.[accessed 30 April 2015]

Katz, S., and F. Maytag. "Brewing an Ancient Beer." Expedition 44, no. 4 (1991): 24–33.

Keeling, D., D. Llewelyn, J. Melloe, T. Moody-Stuart, and I. Berkeley. *Kerly's Law of Trade Marks and Trade Names*. London: Sweet & Maxwell, 2014.

Landes, W., and R. Posner. "Trademark Law: An Economic Perspective." *Journal of Law and Economics* 30, no. 2 (1987): 265–309.

Lopes, T. "Brands and the Evolution of Multinationals in Alcoholic Beverages." *Business History* 44, no. 3 (2002): 1–30.

Lopes, T., and M. Casson. "Brand Protection and the Globalisation of British Business." Business History Review 86, no. 2 (2012): 287–310.

Madsen, E. S., K. Pedersen, and L. Lund-Thomsen. "Effects of the M&A Wave in the Global Brewing Industry 2000–2010." German Journal of Agricultural Economics 61, no. 4 (2012): 235–243.

Madsen, E., and Y. Wu. "Marketing and Globalisation in the Brewing Industry." In *Brewing, Beer and Pubs: A Global Perspective*, edited by I. Cabras, D. Higgins and D. Preece, 34–53. London: Palgrave Macmillan, 2016.

Mathias, P. The Brewing Industry in England, 1700–1830. Cambridge: Cambridge University Press, 1959.

Mason, C., and K. McNally. "Market Change, Distribution, and New Firm Formation and Growth: The Case of Real-ale Breweries in the United Kingdom." Environment and Planning A 29, no. 2 (1997): 405–417.

McGovern, P., J. Zhang, J. Tang, Z. Zhang, G. Hall, R. Moreau, A. Nuñez, E. Butrym, M. Richards, C. Wang, G. Cheng, Z. Zhao, and C. Wang. "Fermented Beverages of Pre- and Proto-Historic China." Proceedings of the National Academy of Sciences USA 101, no. 51 (2004): 17593–17599.

Moore, M., N. Reid, and R. McLaughlin. "The Locational Determinants of Micro-breweries and Brewpubs in the United States." In Brewing, Beer and Pubs: A Global Perspective, edited by I. Cabras, D. Higgins and D. Preece, 182–204. London: Palgrave Macmillan, 2016.

Mount, M., and I. Cabras. "Community Cohesion and Village Pubs in Northern England: An Econometric Study." Regional Studies (2015): doi:10.1080/00343404.2014.989150.

Mutch, A. Strategic and Organisational Change: From Production to Retailing in UK Brewing, 1950–1990. London: Routledge, 2006.

Nelson, M. The Barbarian's Beverage: A History of Beer in Ancient Europe. London: Routledge, 2005.

Nelson M. "Beer: Necessity or Luxury? AVISTA Forum Journal 21 no. 1/2 (2011): 73–85.

Owen, C. The Greatest Brewery in the World: A History of Bass, Ratcliffe and Gretton. Chesterfield: Derbyshire Record Society, 1992.

Pedersen, K., E. S. Madsen, and L. Lund-Thomsen. "How Mergers and Acquisitions Restructured the International Brewery Industry 2000–10 – And Why?" In The Global Brewery Industry – Markets. Strateaies and Rivalries, edited by J. Gammelgaard and D. Dörrenbächer. Cheltenham: Edward Elgar, 2013.

Poelmans, E., and J. Swinnen. "A Brief Economic History of Beer." In The Economics of Beer, edited by J. Swinnen, 3–28. Oxford: Oxford University Press, 2009.

Poelmans, E., and J. Swinnen. "From Monasteries to Multinationals (and Back): A Historical Review of the Beer Economy." Journal of Wine Economics 6, no. 2 (2011): 196–216.

Pratten, J. "The Changing Nature of the British Pub." British Food Journal 105, no. 4/5 (2003): 252–262.

Pratten, J. "Examining the Possible Causes of Business Failure in British Public Houses." International Journal of Contemporary Hospitality Management 16, no. 4 (2004): 246–252.

Preece, D. "Turbulence in UK Public House Retailing: Ramifications and Responses." In Beer, Brewing and Pubs: A Global Perspective, edited by I. Cabras, D. Higgins and D. Preece, 247–265. London: Palgrave Macmillan, 2016.

Ramello, G. "What's in a Sign? Trademark Law and Economic Theory." Journal of Economic Surveys 20, no. 4 (2006): 547-565.

Stack, M. "A Concise History of American Brewing Industry." 2009, Available at: http://eh.net/ encyclopedia/a-concise-history-of-americas-brewing-industry/ [accessed 21 April 2015]

Stack, M., M. Gartland, and T. Keane. "Path Dependency, Behavioural Lock-in and the International Market for Beer." In Beer, Brewing and Pubs: A Global Perspective, edited by I. Cabras, D. Higgins and D. Preece. London: Palgrave Macmillan, 2016. pp. 54-73.

Spicer, J., C. Thurman, J. Walters, and S. Ward. Intervention in the Modern UK Brewing Industry. London: Palgrave Macmillan, 2012.

Stone, M., and I. McCall. International Strategic Marketing: A European Perspective. London: Routlege,

Swinnen, J. The Economics of Beer. Oxford: Oxford University Press, 2011.

Toms, S., and D. M. Wright. "Corporate Governance, Strategy and Structure in British Business History, 1950–2000." Business History 44, no. 3 (2002): 91–124.

Tremblay, V.J., and C.H. Tremblay. The U.S. Brewing Industry. Cambridge, MA: MIT Press, 2005.

Unger, R. Beer in the Middle Ages and the Renaissance. Philadelphia, PA: University of Pennsylvania State Press, 2004.

Wilkins, M. "The Neglected Intangible Asset: The Influence of the Trade Mark on the Rise of the Modern Corporation." Business History 34, no. 1 (1992): 66–95.

Wyld, J., G. Pugh, and D. Tyrrall. "Evaluating the Impact of Progressive Beer Duty on Small Breweries: A Case Study of Tax Breaks to Promote SMEs." Environment and Planning C: Government and Policy 28, no. 1 (2010): 225–240.