5

Belgium: Craft Beer Nation?

Eline Poelmans and Johan Swinnen

5.1 Introduction

As Elzinga et al. (Chap. 2) and Garavaglia and Swinnen (Chap. 1) clearly explain, it is easy to identify the start of craft brewing in the USA, but much more difficult in Western Europe. This is especially the case for Belgium. In a way, as Swinnen and Briski (2017) argue, Belgium has to some extent always been a "craft beer nation." The evolution of Belgium's beer industry and its craft brewers has both similarities to other countries and also several distinctive elements.

Some developments of Belgium's beer industry have been very similar to other traditional "beer-drinking nations" (see Colen and Swinnen 2015). As in many other countries, the industrial revolution and World War I caused the growth of the lager beer industry. This lager beer industry came

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to dominate the Belgian beer market in the twentieth century (in particular from 1900 to 1980) and caused a dramatic consolidation. In Belgium, the number of breweries declined from more than 3000 in 1900 to around 150 in 1980. Also the growth of craft beer production and consumption since 1980 and the growth in the number of small craft breweries, as well as the emergence of homebrewing, are similar to other countries.

However, in other ways Belgium has been quite different than other countries (Swinnen 2017). The first main difference is that a variety of different types of beer survived to a greater extent in Belgium than in other traditional beer-drinking countries. This is arguably best documented not in the writings of Belgian beer experts, but in those of an American visitor to the Belgian (and the world's) beer scene, Michael Jackson, who wrote:

> The great beers of Belgium are not its lagers. Its native brews are in other styles, and they offer an extraordinary variety, some so different from more conventional brews that at the initial encounter they are scarcely recognisable as beers. Yet they represent some of the oldest traditions of brewing in the Western world.[1]

The survival of more varieties is to some extent related to the survival of smaller breweries, but not completely. For example, many small breweries survived the "twentieth-century brewery shake-out" to a much greater extent in Germany than in Belgium, but the variety of beer types in the second half of the twentieth century was much greater in Belgium than in Germany. It is especially the large variety of beer styles that persisted in Belgium in the late twentieth century, often produced by small independent breweries, which made that country and its brewers become a source of inspiration for the world's craft brewers, as is documented in many chapters in this volume.

Another specific characteristic is the dramatic export growth of Belgian craft beers, especially since 2000. Swinnen (2017) argues that this spectacular export growth is the result of the combination of several factors, including the symbiotic interaction between large multinational brewing companies and small-scale crafts. We will explain this further in this chapter.

[1]Jackson (1999), *Beer Hunter*.

Our chapter is organized as follows. We first document the consolidation of the Belgian brewing industry in the twentieth century and the consequent growth of craft beers in both consumption and production. Then we look at the growth in the market share of craft beers and the types of craft beers in Belgium. Afterwards, the rapid growth of craft exports is investigated. We conclude with an overview of the drivers and champions of the Belgian craft beer market.

5.2 Consolidation of the Belgian Beer Industry in the Twentieth Century

While there are many interesting developments in Belgian beer markets prior to 1900, the history which is most relevant for our analysis is the start of the consolidation of the Belgian beer industry, which, as in many other countries, was at the beginning of the twentieth century.[2]

While the two world wars disrupted beer consumption and production, there is a general trend of consolidation over the 1900–1990 period. Breweries merged, were acquired, went bankrupt, or just stopped producing. Figure 5.1 illustrates the evolution of the number of breweries in Belgium, which declined from 3223 in 1900 to 1546 in 1930, 414 in 1960, 143 in 1980, and to its lowest number—113—in 2000.

The reasons for this consolidation are well known now (Clemons et al. 2006; Swinnen 2011; Tremblay and Tremblay 2005). First, technological progress—such as automation of the beer production process; the acceleration of packaging; a more automated brewing, fermenting, and conditioning process; and a better distribution through improved road networks—led to greater economies of scale (Adams 2006; Gourvish 1994). Second, the introduction of bottom-fermented beers in the first part of the twentieth century led to higher fixed costs than

[2]For analyses of the earlier period, we refer to Hornsey (2003); Poelmans and Swinnen (2011); Unger (2001, 2004); Van Dijck et al. (Chap. 10) and Van Uytven (2007). Since Belgium and the Netherlands were both part of the Low Countries in much of this period, the developments are very similar. Persyn et al. (2011) document the more recent history.

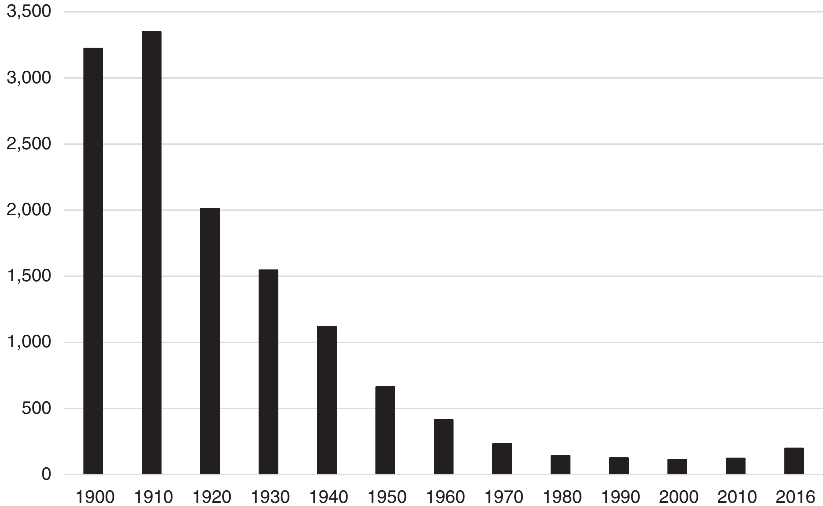

Fig. 5.1 Number of breweries in Belgium, 1900–2016. *Source* Belgische Brouwers (2004) Het Brouwersblad, June 2004, vol. 111, p. 6; Belgische Brouwers (2009) Jaarverslag, p. 25; (2012) Jaarverslag, p. 2 and (2016) Jaarverslag, p. 30

for top-fermented beers, as artificial cooling was needed during the fermentation and throughout the longer maturation time. This caused smaller breweries to exit the market (Persyn et al. 2011). This process was reinforced by equipment confiscation during both world wars and a shortage of capital, which induced many breweries to either quit or merge with larger breweries because of the investments that were necessary for re-equipment and modernization of the breweries (Poelmans and Swinnen 2011). A last contributing factor was the spread of large-scale advertising since World War II, which led to an escalation of sunk advertising costs, which could only be paid by larger breweries (Sutton 1991; George 2009).

The consolidation of the beer industry coincided with the growth of lager beer ("pils" as it is typically referred to in Belgium) as the dominant beer produced and consumed. By the mid-1980s "pils beer" represented 77 percent of the market. Around 6 percent of beer was low-alcoholic beer (so-called table beers) and the remaining 17 percent was various other types of beers, which we will refer to as "craft beers" in this chapter.

5.3 Defining Belgian Craft Beer

The concept of "craft beers" is not perfectly defined in the literature. In Chap. 1, Garavaglia and Swinnen discuss the different ways of defining craft beers. The definition of what they refer to as "real craft" refers to the combination of small brewer, independent ownership (meaning not owned by another large macrobrewery), and using a traditional or innovative brewing recipe. Some of the Belgian beers obviously fit these criteria. Several new breweries have been recently started up brewing "new beers" using old (or "traditional") recipes. There are also (very) old breweries which fit these criteria. Probably best known is the famous case of the Trappist monks of Westvleteren, who brew their Westvleteren Trappist themselves. Despite the fact that their Trappist was named "Best Beer in the World" four years in a row (from 2011 to 2014), they brew the beer themselves and restrict the supply of Westvleteren to the amount they need to finance their day-to-day "worldly needs" (Van den Steen 2011).

However, many other Belgian beers which are clearly different from pils beer do not easily fit within these three criteria. Many beers that may have started out as craft have now become so popular that they have grown in size and several of them have been taken over by larger brewers. These large brewing companies have used their marketing and distribution power to upscale the craft beer production and distribution. These would fit better under the "ex-craft" beers classification suggested by Garavaglia and Swinnen (Chap. 1).

A well-known example is the white Hoegaarden beer, which was initially brewed since 1966 in a small village brewery, following a fifteenth-century recipe. However, since 1985 it has been taken over by AB InBev and is now sold all over the world. More recently, in 1996, the seven-generations-old, but still small, Bosteels Brewery started brewing Tripel Karmeliet beer, following a recipe from 1679 from an old Carmelite monastery. Since then it has gone on to win global Best Beer Awards and its success triggered a rapid growth in production volume, and recently a takeover by AB InBev.

Also several other Belgian Trappist and abbey beers no longer fit the restrictive "real craft" criteria. Many of these breweries have significantly increased their output and several are no longer brewed by the monks, but by larger commercial brewers. In some cases brewing takes place under contract with the monasteries; in other cases the link with the monastery is mostly in the name of the beer. An example is the award-winning Tongerlo beer,[3] brewed since 1954 but outside the actual abbey of Tongerlo, and since 1990 owned and brewed by Brouwerij Haacht, a major pils brewery. Other examples are the Grimbergen and Affligem beers, which were initially brewed by abbeys in the villages of Grimbergen and Affligem, both close to Brussels. For several decades their brewing has taken place in commercial breweries, and the beers are now brewed and sold by Heineken and Carlsberg. Other traditional beers that barely survived the concentration shake-out of the twentieth century, but have since witnessed a real revival and are currently growing in market share and exports, are several gueuze and cherry beers, based on old recipes, such as Boon Geuze & Kriek and Liefmans Kriek.

Within the statistics it is not possible to distinguish between these different versions of "craft" beer. For this reason, in our analysis of the Belgian beer and craft market in this chapter, we use a broad definition of craft. We define it as the beers which are in the statistics of Belgian brewers captured under the headings of "Trappist beers," "Abbey beers," "Gueuze beers," and "Specialty beers." Box 5.1 illustrates some of the beers in these different categories.

All the beers that we refer to as "craft beers" started out as "real craft" beers, but by now several of them have either grown in size and/or have been taken over by larger brewers—which would qualify them as "ex-craft beers" in the classification suggested by Garavaglia and Swinnen (Chap. 1). The vast majority of the Belgian "craft beers" (including most "Trappist," "abbey," and "other specialty beers") are brewed under top fermentation and contain a relatively high alcohol percentage; that is, higher than 6 percent. The "gueuze" and "other sour" beers are mostly brewed under mixed or spontaneous fermentation and have an alcohol percentage of around 3–6 percent.

[3]Tongerlo Blond won gold at the World Beer Awards 2014 in the category Pale Beer and was World's Best Beer in 2014.

Box 5.1 Examples of different categories of Belgian craft beers

Trappist beer	Abbey beer	Gueuze beer	Specialty beer
			
Name Westvleteren Blond *Alcohol* 5.8% *Brewery* Brewery of the Sint-Sixtus Abbey	*Name* Tongerlo Prior *Alcohol* 9% *Brewery* Brewery Haacht	*Name* Oude Geuze Boon *Alcohol* 6.5% *Brewery* Brewery Boon	*Name* Lupulus Triple *Alcohol* 8.5% *Brewery* Brewery les 3 Fourquets

Source Deweer, H. (2015) All Belgian beers—Alle Belgische bieren—Toutes les bières belges

5.4 Changes in Belgian Beer Consumption

The growth of craft beers occurred in a period when the Belgian beer market as a whole was shrinking—at least in volume terms (there is no good data on value). The early 1970s were important years in Belgian beer markets for several reasons: during those years (a) Belgian beer consumption (in terms of volume) was at its highest; (b) the market share of pils beer was at its highest; and (c) the market share of craft beer was at its lowest.

Since the mid-1970s beer consumption per capita has been declining in Belgium. With limited population growth this translated in a shrinking beer market—and substantially so. In the early 1970s, per capita beer consumption in Belgium was around 132 liter, while by 2015 it had fallen to 71 liter—a decline of almost 50 percent (see Fig. 5.2). This fall has dramatically reduced domestic beer demand.

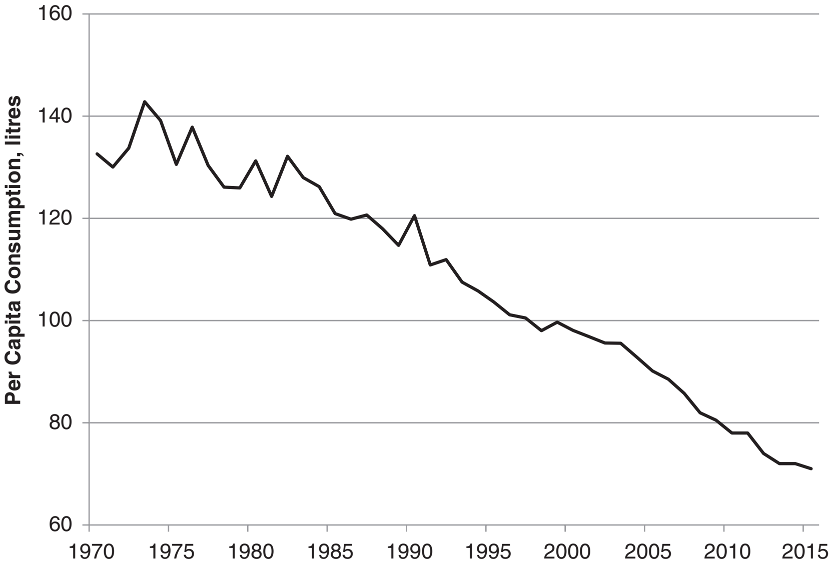

Fig. 5.2 Per capita beer consumption, 1970–2015. *Source* Belgische Brouwers (2004) Het Brouwersblad, June 2004, vol. 111, p. 12; Belgische Brouwers (2009) Jaarverslag, p. 25; (2012) Jaarverslag, p. 2 and (2015) Jaarverslag, p. 5

Studies have indicated several reasons for the decline in beer consumption in traditional beer markets, such as a lower tolerance for alcohol (ab)use; a shift in consumer preferences to soft drinks and bottled water since the 1980s; and a shift from "economization" (a large volume of low-priced products) to "premiumization" (less, but better and more expensive beers; Persyn et al. 2011; Colen and Swinnen 2015 and Piron and Poelmans 2016).

Disaggregated data on beer consumption or production per type of beer is remarkably limited. Table 5.1 summarizes the available consumption data. Lager beers ("pils") made up 55 percent of the market in 1947, leaving 45 percent for low-alcohol beer (so-called table beer) and craft beers. By 1975, 28 years later, lager beer made up 80 percent of consumption and low-alcohol beer another 10 percent, leaving only 10 percent for craft beers. In terms of market share this appears to have been the low point for craft beers.

Table 5.1 Beer consumption by type in Belgium, 1947–2000 (% of total)

<table>
<tr><th rowspan="2"></th><th rowspan="2">Lager beer ("Pils")</th><th rowspan="2">Low/Non-alcohol beers</th><th colspan="5">Craft beers</th></tr>
<tr><th>Craft total</th><th>Trappist</th><th>Abbey</th><th>Gueuze/ Sour</th><th>Other specialty</th></tr>
<tr><td>1947</td><td>55</td><td colspan="6">45</td></tr>
<tr><td>1975</td><td>80</td><td>10</td><td colspan="5">10</td></tr>
<tr><td>1980</td><td>76</td><td>7</td><td>17</td><td colspan="2">7</td><td colspan="2">10</td></tr>
<tr><td>1990</td><td>74</td><td>5</td><td>21</td><td>5</td><td>4</td><td colspan="2">12</td></tr>
<tr><td>2000</td><td>71</td><td>3</td><td>26</td><td>8</td><td>3</td><td colspan="2">15</td></tr>
</table>

Source Kredietbank (1987) België, bierparadijs. *Weekberichten van de kredietbank*, 11 December 1987, 42nd year, no. 45, pp. 1–3; Belgische Brouwers (1993) 100 jaar Het kleine Brouwersblad, December 1993, vol. 101, pp. 8–10 and Belgische Brouwers (2004) Het Brouwersblad, June 2004, vol. 111, p. 12

Table 5.2 Share of different beer types in total production

	Lager beer ("Pils")	Low/Non-alcohol beers	Craft beers				
			Craft total	Trappist	Abbey	Gueuze/ Sour	Other specialty
1985	77.2	5.9	16.9	1.8	1.3	4.1	9.7
1990	73.7	5.7	20.6	2.1	2.7	3.5	12.3
1992	71.1	5.0	23.9	2.2	3.5	3.0	15.2

Source Belgische Brouwers (1993) 100 jaar Het kleine Brouwersblad, December 1993, vol. 101, p. 8

5.5 The Growth of Craft

The share of craft beers in Belgian consumption increased from 10 percent in 1975 to 17 percent by 1980, and it keeps growing, to 21 percent in 1990 and 26 percent in 2000. In particular the Trappist and abbey beers, and the other highly fermented beers, became more popular, while gueuze and other sour beers saw their market share further decline. The share of pils fell to 71 percent by 2000 (Table 5.1).

Production data is even more limited than consumption data. Since export was quite limited until the 1990s (see below), the production and consumption data are largely consistent (see Table 5.2).

The data in Table 5.2 indicates that by 1985, pils beer made up 77 percent of beer production in Belgium and low-alcohol beer around

Table 5.3 Evolution of beer consumption by most favorite beer type in Belgium (% of total)

	Lager beer ("Pils")	Trappist	Abbey	Regional beer	Strong blond beer	Other beer types
2005	52	5	9	6	7	21
2011	38.4	12.9	14.7	8.8	13.5	11.7
2016	30.8	12.4	13.9	15	14.2	13.7

Note Under "other beer types" different types are counted, such as gueuze beers and other sour beers, and fruit beers. However, the largest share of these "other beer types" is the Witbier
Source Belgische Brouwers (2016) Bierbarometer, edition 2013 and Belgische Brouwers (2016) Bierbarometer, edition 2016

6 percent. Craft beers as a whole accounted for around 17 percent of Belgian beer production in 1985 (in volume terms), with specialty beers occupying almost 10 percent of the market, gueuze beers around 4 percent, and Trappist and (other) abbey beers between 1 percent and 2 percent. By 1992 the share of crafts in total volume had increased again, to 24 percent—a growth in market share of roughly 1 percent per year. The growth was mostly concentrated in the specialty beers and abbey beers categories. At the same time, the share of pils beers was the mirror image: it declined from 77 percent in 1985 to 71 percent in 1992—a substantial decline in market share equivalent to roughly 1 percent per year. The decline in percentage terms hides an even stronger decline in volume, as the total volume of beer was declining at the same time.

Other data sources document the growth in popularity of craft beers for more recent years. Since 2005, the Belgian Brewers Association has undertaken a yearly survey on Belgian alcohol consumption habits. Table 5.3 summarizes the survey results. They are consistent with the other data in that they confirm the declining share of pils, which has fallen from 52 percent in 2005 to 31 percent in 2016. This is a dramatic fall: around a 2 percent annual decline in market share, which is double the annual decline in (production) market share between 1985 and 1991, as indicated in Table 5.2. Hence the fall of lager has not slowed down, but increased instead.

The survey data also suggests that the growth in domestic consumption of abbey beers and Trappist beers was a very important driver for the overall growth in craft beers until 2011: the share of abbey beers went from 9 percent in 2005 to 14.7 percent in 2011, and the share of Trappist beers went from 5 percent in 2005 to 12.9 percent in 2011. However, their growth in market share seems to have stopped in recent years: abbey beers decreased from 14.7 percent in 2011 to 13.9 percent in 2016 and Trappist beers decreased from 12.9 percent in 2011 to 12.4 percent in 2016.

Interestingly, the growth in craft beers in recent years is mostly due to the growth in regional beers: from 8.8 percent in 2011 to 15 percent in 2016. These are mostly newly produced craft beers. Trappist and abbey beers are mostly "old" craft beers (although many of these have been upgraded and modernized).

Figure 5.3 shows Belgian beer consumption figures since 1975. Although based on different sources and not completely comparable—real consumption data from 1975 to 2000 and survey data on Belgian

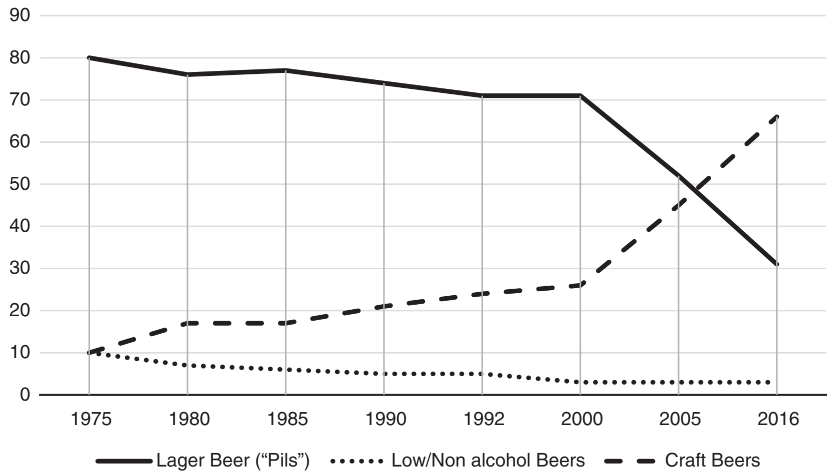

Fig. 5.3 Estimation of Belgian beer consumption by percentage, 1975–2016. *Note* This figure is based on real consumption data from 1975 to 2000 and survey data on Belgian alcohol consumption habits after the year 2000. *Source* Kredietbank (1987) België, bierparadijs. *Weekberichten van de kredietbank*, 11 December 1987, 42nd year, no. 45, pp. 1–3; Belgische Brouwers (1993) 100 jaar Het kleine Brouwersblad, December 1993, vol. 101, pp. 8–10; Belgische Brouwers (2004) Het Brouwersblad, June 2004, vol. 111, p. 12; Belgische Brouwers (2016) Bierbarometer, edition 2013 and Belgische Brouwers (2016) Bierbarometer, edition 2016

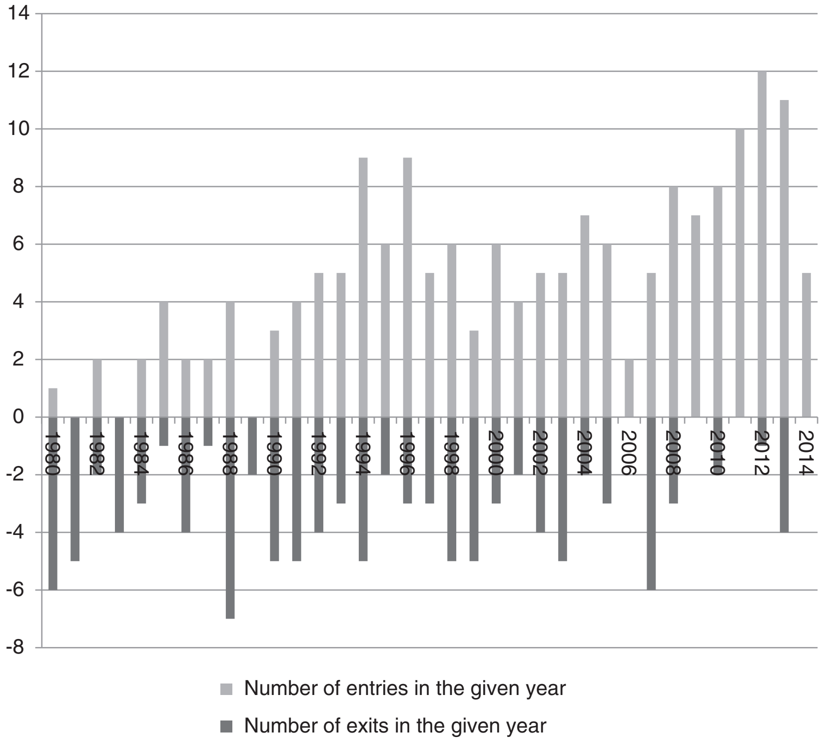

Fig. 5.4 Number of entries and exits in the Belgian brewing industry since 1980. *Source* Persyn et al. (2011) Belgian beers: Where history meets globalization, p. 140 and data obtained from Zythos on entries and exits since 2000

alcohol consumption habits after 2000—the data shows a clear trend: a decreasing share of pilsner beers and a rapidly increasing share of craft (including "ex-craft") beers.

5.6 Brewers of Craft Beers

As explained already, growth in the market share of craft beers came from various sources, including the increased output from existing breweries and from the start of new breweries. As Figs. 5.4 and 5.5

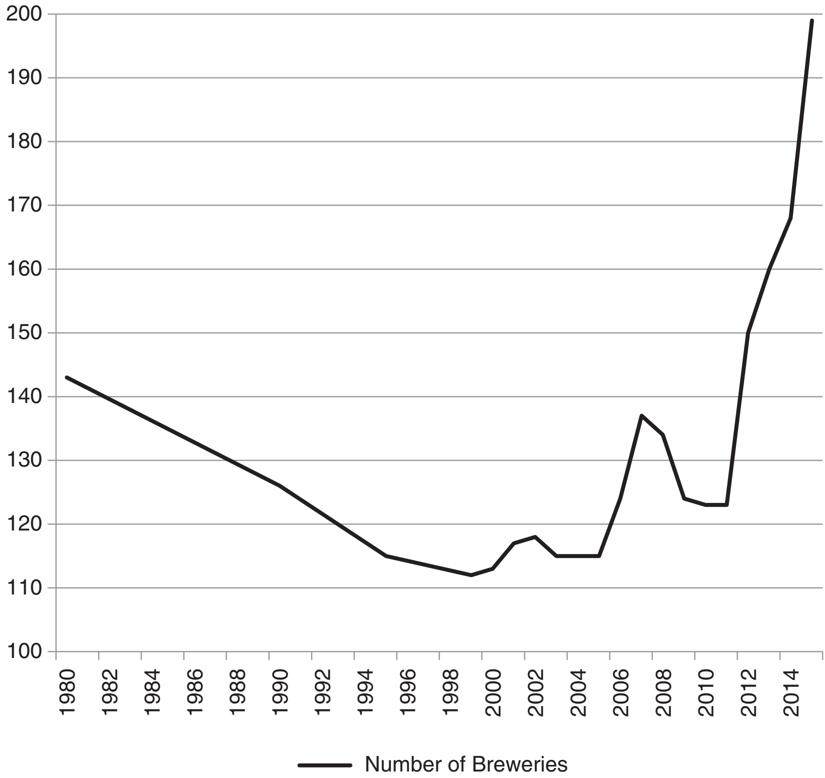

Fig. 5.5 Number of breweries since 1980. *Source* Belgische Brouwers (2004) Het Brouwersblad, June 2004, vol. 111 and Belgische Brouwers (2009, 2010, 2011, 2012, 2013, 2014, 2015) Jaarverslag

illustrate, several new breweries started in the 1980s and the pace of entrance increased significantly in the 1990s.

The precise evolution depends somewhat on the data source (see Figs. 5.4 and 5.5). However, the story that is consistent across sources is the following. First, the number of brewers keeps declining in the 1980s, with more breweries exiting than entering the market. Second, there are a lot of breweries starting up and going out of business in the 1990s. Third, from 2000 onward, there are more breweries starting up than stopping. The official number of breweries increased from 113 in 2000 to 123 by 2010. Fourth, there is an "explosion" of new breweries since 2010, with almost 200 breweries in 2015 (see Fig. 5.5). After 2010, every year around 10 breweries enter with few exiting.

Several new craft beers have been produced and launched, with greater or lesser success, both by existing brewers and by new breweries. Existing breweries could draw on their brewing infrastructure to try out new beers. New breweries sometimes used other brewers' excess capacity to produce their beers on contract. Such contract brewing is an interesting strategy for new breweries to overcome infrastructure and capital constraints. In many cases, when the beer is successful, the breweries have later invested in their own production facilities.

In recent years capital and infrastructure constraints for new microbreweries have lessened as the supply of small-scale brewing technology (including for homebrewing) has developed and it has been easier for start-up breweries to get access to finance, with the general success of craft beers—as has been the case in other countries such as the USA and the Netherlands (see Elzinga et al. in Chap. 2 and van Dijk et al. in Chap. 10).

While craft beer production, its market share, and the number of breweries have grown together, the relationship between craft beer and the size of the breweries is more complicated because of acquisitions in the craft sector. Some of the craft breweries have been taken over by large brewing companies, which until the 1980s produced mostly lager beer (pils). These large companies have used their marketing and distribution power to upscale craft beer production and distribution. Well-known examples are Hoegaarden, Leffe, and Tripel Karmeliet, which are now all owned by AB InBev and part of AB InBev's "craft & specialty beers" network. This means that while craft beers have continued to grow and new small breweries have continued to start up, the share of the small breweries is much smaller than the size of the craft beer market.

These mergers and acquisitions also affect the total number of breweries officially registered, and the share of the independent craft breweries in the total market. In fact, today Belgium is characterized by a dual market structure, with a few very large breweries (about 5 percent of the number of breweries) and many small-scale craft breweries (about 95 percent of all Belgian breweries). Jointly these small-scale breweries

Table 5.4 Classification of all beers produced in Belgium in 2015 according to fermentation type

Alcohol percentage (%)	Nature of fermentation				Sub-total (%)
	Pils	Craft			
	Bottom fermentation (%)	Top fermentation (%)	Spontaneous fermentation (%)	Mixed fermentation (%)	
1–3	0.6	0.3	0.5	0	1.4
3.1–6	4.6	22.0	7.5	1.0	35.1
6.1–8	0.4	36.4	0.8	1.0	38.6
> 8	0.4	24.5	0	0	24.9
Sub-total	6.0	83.2	8.8	2.0	100

Notes
Top-fermentation beer: e.g., Trappist or abbey beers (Westmalle, Leffe, etc.) or White beer (Hoegaarden, etc.)
Spontaneous-fermentation beer: e.g., lambic, gueuze, and fruit beer (Geuze boon, Kriek Lindemans, etc.)
Bottom-fermentation beer: e.g., pilsner beers (Stella, Jupiler, etc.)
Mixed-fermentation beer: e.g., red brown ales (Rodenbach caractère rouge, etc.)
Source Authors' own calculations based on Deweer, H. All Belgian beers—Alle Belgische bieren—Toutes les bières belges, 2015

produce a large variety of different craft beer types, but account for less than 10 percent of total beer production (Persyn et al. 2011 and Belgische Brouwers, jaarverslag, 2015).

To document the variety of craft beers, Deweer (2015) provides a list of more than 1600 different Belgian beers produced in Belgium in 2015. According to our definition of craft beers, approximately 94 percent of all Belgian beers in 2015 were craft beers. Table 5.4 classifies these 1600 different Belgian beers by fermentation types and alcohol percentages. Of all the beers brewed in Belgium in 2015, 83 percent were brewed under top fermentation, followed by 9 percent under spontaneous fermentation, 6 percent under bottom fermentation, and 2 percent under mixed fermentation. Most are "craft beers." Most of the top-fermentation beers have an alcohol content of more than 6 percent. Most bottom-fermentation beers have an alcohol content of less than 6 percent. Hence, more than 63 percent of the available beers have an alcohol content of more than 6 percent.

5.7 Trade in Craft Beers

Growing exports have more than compensated for the fall in beer consumption in Belgium. As Fig. 5.6 illustrates, beer exports were close to zero in the 1960s and increased particularly in the 1990s and 2000s. In 2005, Belgium for the first time exported more beer than it consumed domestically. In volume terms, exports increased from 20.5 million liters in 1960 (2 percent of total Belgian production) to 1.3 billion liters in 2015 (66 percent of production). In 2015, the largest shares of exports went—in decreasing order—to France, the Netherlands, the USA, Germany, Italy, China, and Canada (Belgische Brouwers, jaarverslag, 2015).

There is no representative data on the share of craft beers in trade, but different indicators point to the rapid growth of craft exports as part of the overall growth in exports. First, there is anecdotal information

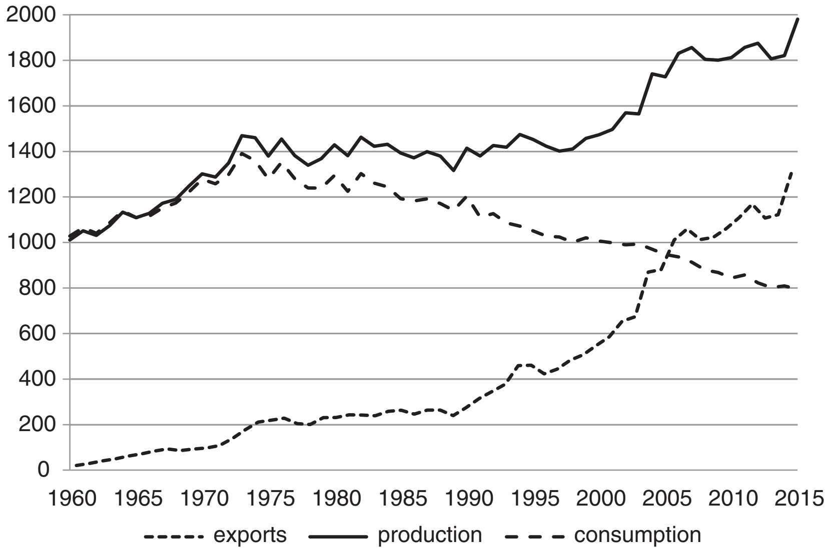

Fig. 5.6 Beer production, consumption, and exports in Belgium (in millions of liters), 1960–2015. *Source* Belgische Brouwers (2004) Het Brouwersblad, June 2004, vol. 111, p. 12; Belgische Brouwers (2009) Jaarverslag, p. 25; (2012) Jaarverslag, p. 2 and (2015) Jaarverslag, p. 5

on the ample and increasing availability of Belgian beers in many bars in the world. Second, the growth of AB InBev as a global multinational has coincided with the distribution of its portfolio of beers, which includes "craft beers" such as Hoegaarden, Leffe, and others, through its global distribution network. Persyn et al. (2011) estimated that in the second half of the 2000s, 79 percent of total beer exports were produced by the large Belgian beer producers. Third, interviews with smaller Belgian craft brewers reveal that an important share of their production is for export, sometimes to remarkably distant places (Poelmans and Ostyn 2017; Swinnen and Briski 2017).

Finally, available trade data does indicate that the unit value of Belgian beer exports—that is, the ratio of value over volume, which is an indicator of the average price of the beer that is exported—declined over the period 1960–1985, but has increased significantly in real terms since then (see Fig. 5.7). This increase is consistent with the argument that the share of higher-value beers in exports is increasing.

Swinnen and Briski (2017) argue that there has been a remarkable synergy in export strategies of small and large Belgian brewers. While these brewers are competitors on the Belgian domestic beer market, internationally they have reinforced each other's exports. The large variety and historical roots of Belgian crafts have contributed to Belgian beer's attractiveness to a new class of beer drinkers around the world, who prefer craft over traditional lagers. Many "Belgian beers"[4] have won prestigious international beer prizes over the past few years. At the same time, most small craft brewers are too small to launch international marketing campaigns and have thus benefited from the increased export orientation and strategies of the larger Belgian brewers—mainly AB InBev and more recently Duvel Moortgat—which have distributed Belgian beer and advertised it all over the world.

[4]For instance, the Belgian Trappist beer Westvleteren XII was named the "Best Beer in the World" by RateBeer, and this four years in a row (from 2011 to 2014). Nine other Belgian beers can be found in RateBeer's 2014 top 100, including Westvleteren Extra 8, Black Albert, Pannepot and Pannepot Reserva, produced by De Struise Brouwers; Sint-Bernardus Abt 12, Gouden Carolus Cuvée van de Keizer, and raspberry Lambic Hommage, produced by 3 Fonteinen; Bush de Nuits (Scaldis Prestige de Nuits) from the brewery Dubuisson, and Rochefort 10 Trappist. See "Westvleteren XII is world's best beer" (http://deredactie.be/cm/vrtnieuws.english/News/1.1860841).

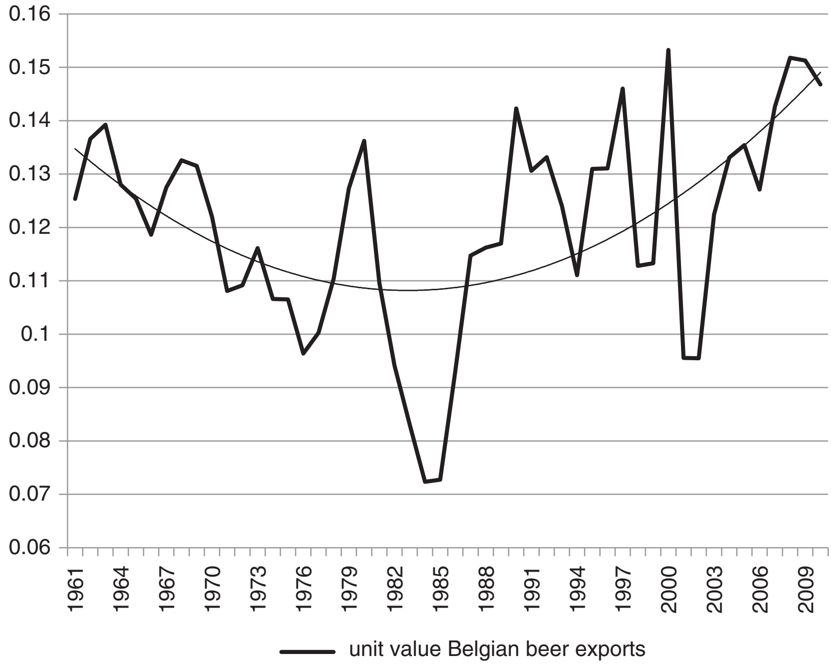

Fig. 5.7 Unit value of Belgian beer exports (in US$/kg) (In real terms and 1961 prices), 1960–2010. *Source* Authors' own calculations, based on Euromonitor (2011) and Faostat (2011)

Interestingly, the spread of Belgian beers around the world is not just through Belgian (-based) multinationals, but also through foreign multinationals. For example, Belgian specialty and abbey beers such as Grimbergen and Affligem are now owned by Danish multinational Carlsberg and Dutch multinational Heineken, respectively, and are part of the portfolio of craft beers that these companies offer globally to their customers.

Finally, there are indications of the increasing impact of international craft beers on Belgian beers. One aspect is the growing number of new craft beers which are inspired by external (non-Belgian) recipes. An obvious example is the IPA-type beers, which have their roots in the UK but have been popularized in the USA in recent years. These beers are new to the Belgian market and a growing number of Belgian brewers are experimenting with them. Another aspect is the import of these type of craft beers into Belgium. While these beers were already competing with Belgian craft beers on export markets, international craft beers (such as Goose Island IPA, initially brewed by a Chicago brewpub but since 2011 part of AB InBev) are now on sale in Belgium.

5.8 Drivers and Champions of Belgian Craft Beers: Conclusions

In the previous sections we have explained the growth of craft beer in Belgium. The drivers of the Belgian "craft beer revolution" have many similarities to those in other countries. These common drivers are explained in detail in Garavaglia and Swinnen Chap. 1. Yet there are also some factors which are specific to Belgium as a country. These specific factors are explained in detail in Swinnen (2017). Here we summarize some key points.

1. *The growth of craft beers is to an important extent a counter-reaction ("revolution") to concentration and homogenization in beer markets.* As in many other countries, the industrial revolution and associated economies of scale led in the twentieth century to a dramatic consolidation in the number of breweries and a homogenization of beer by a reduction in the number of beers. Lager beers ("pils") totally dominated the market by the 1970s. Other, specialty beers had fallen to a market share of around 10 percent.

   By the 1980s a consumer revolt was starting. A growing number of consumers were (again) searching for diversity and variation in beer types. In Belgium, as in the UK and the Netherlands, these consumers organized themselves. In 1984 De Objectieve Bierproevers, a beer consumers' organization (today better known as Zythos), was founded (Perrier-Robert and Fontaine 1996).

2. *Increased incomes*. Lager beer not only had massive scale economies, it was also cheap. Craft beers typically were more expensive. This

probably contributed to the decline of craft beers over a large part of the twentieth century, as beer prices were a major concern for much of the population. However, as Colen and Swinnen (2015) show, the income elasticity of beer is not constant but falls when people get richer; and at some point becomes negative. By the late twentieth century, growing incomes and globalization contributed to a decline of beer consumption in countries such as Belgium, as consumers consumed fewer alcoholic drinks and fewer standard lager beers, and shifted to other types of alcohol such as imported wines. This shift also included that from standard lager beers to craft beers, which are typically higher priced.

3. *Craft breweries built on a remarkable variation in old brews*. Historically there was a huge variation in beers in Belgium, which still has a major impact on craft beers today. The historical analysis of Poelmans and Taylor (2017) documents how much of the (regional) variation in Belgian craft beers today can be linked to the historical variation in beers. This is not only the case for the Trappist beers, but also for many other types of beers such as gueuze and other craft beers.
4. *Several entrepreneurs and amateurs played a crucial role in the "return of the crafts."* Arguably most important was Pierre Celis, who spent his lifetime saving white beer from extinction. When his hometown brewery in Hoegaarden went bankrupt in the 1960s, he single-handedly revived the brewery and the (now world-famous) Hoegaarden white beer. Later, when Interbrew (now AB InBev) took control of the brewery and used its distribution power to sell the beer first nationwide and later globally, he moved to the USA to start a Belgian-style white beer brewery in Austin, Texas. Other entrepreneurs who saved centuries-old beers from oblivion include Frank Boon of today's Boon Gueuze and Boon Kriek factories and others; see Swinnen and Briski (2017) for more details.
5. *Monks and beer markets.* The Trappist and abbey beer producers played an important role in keeping some of Belgian's finest craft beers alive in the face of consolidation and the growing market power of the large lager beer producers.

6. *Crafts to escape extinction*. Some of the smaller breweries which tried to survive the consolidation shakeout and growing concentration used innovative ways to market specialty beers to try to escape the competitive pressure on the lager beer markets. Early examples are Duvel and Gouden Carolus, and later examples are Omer and Tripel Karmeliet, all craft beers that helped their small breweries survive the scale effects–dominated pils market.
7. *Innovations by newcomers*. New craft breweries used various ways, including contract brewing, to overcome constraints in capital and small-scale brewing technology markets to start brewing. The successful beers were later often produced in their own breweries when cash flow helped to reduce capital constraints.
8. *Development of know-how, input, and technology markets*. The recent development of small-scale brewing technology and input markets and the exchange of brewing experiences among new microbreweries allowed many new breweries to come onto the market.
9. *Macrobrewery responses*. After macrobrewers recognized the potential of craft beers to address new consumer demand and to compensate for the fall in pils beer sales, they entered craft beer markets aggressively. Virtually all of them acquired craft breweries and started marketing their craft beers as part of a portfolio of beers that were offered to bars and retail outlets. A large share of "Belgian craft beers" is currently owned and sold by large breweries and multinationals in Belgium and across the globe, including foreign multinationals such as Heineken and Carlsberg.
10. *Craft nation.* Swinnen and Briski (2017) argue that, possibly more than any other country, Belgium has associated itself with the concept of being a "beer nation" and a "craft beer nation." This is the culmination of various factors which we discussed in this chapter. This association is reinforced in many ways, including in national and international marketing campaigns by Belgian brewers. In particular, in international marketing campaigns large and small brewers reinforce each other's argument of "Belgian beer" rather than compete.
11. *International recognition*. Somewhat paradoxically, one could argue that credit for the first truly international recognition of the

rich craft beer tradition of Belgium is not due to Belgian brewers (or consumers), but to an American visitor, Michael Jackson, who introduced Belgian beers to the world via his book *Great Beers of Belgium* (Jackson, 1991).

In the last decade the Belgian beer culture has become increasingly advertised thanks to new television programs and books on Belgian beers. Different regions/cities started to promote their region/city as a "Belgian beer region/city" to attract beer tourism. Several beer museums were founded or upgraded. Beer gastronomy is growing in Belgium and many beer events are now organized (for example, the yearly "Beer Weekend" in Brussels). Several beer magazines and specialized websites have emerged, such as www.beertourism.com on "Belgian Beer and Food Culture." Zythos, the craft beer consumer organization, publishes a quarterly magazine (Zytholoog) and organizes a yearly beer festival, which offers many beer tastings. All this culminated recently in UNESCO recognizing the Belgian beer culture as a part of world heritage.

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