

Oktoberfest 2019: New record high in beer liquidity?

- “O’zapft is” (the keg has been tapped) – this Saturday, the Oktoberfest will open its gates for the 186th time.
- Beer price inflation at the world’s largest folk festival will hit 3.2% this year, as the average price of one “Mass” (one liter) of beer has increased to EUR 11.60 from EUR 11.24 in 2018.
- Our famous Wiesen visitor price index (WVPI) shows an increase of 2.7% this year, thereby considerably outpacing consumer price inflation in Germany and the eurozone, which have remained well below the ECB’s target rate of 2%.
- We expect that neither rising beer prices nor geopolitical uncertainties are likely to do lasting damage to the Wiesen economy this year. Therefore, we are curious to see whether beer sales will rise to a new record high after hitting their highest level since 2011 last year.

At noon this Saturday, the mayor of Munich, Dieter Reiter, will ceremoniously tap the first keg of beer to be served at this year’s festival and declare “O’zapft is”, officially opening the 186th Oktoberfest. Since October 1810, and with only 24 exceptions when it was canceled due to epidemics and the two world wars, the Oktoberfest has been held every year at Theresienwiese (which is usually shortened to Wiesen in the local dialect), the fairgrounds in Munich named in honor of Crown Princess Therese of Saxe-Hildburghausen.

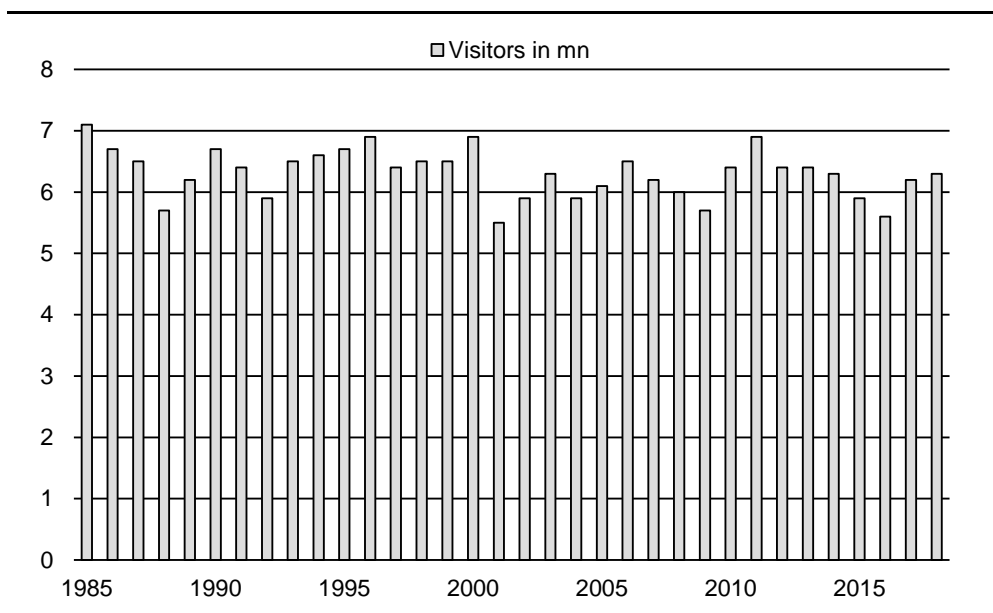
This year, beer price inflation at Oktoberfest will slightly ease to 3.2% from 3.8% recorded in 2018. This is in line with the average year-on-year price increase at the annual Munich folk festival over the last ten years. Consequently, the change in beer prices will continue to outpace consumer price inflation in Germany and the eurozone, which has remained well below the ECB’s target rate of 2%. However, neither rising beer prices nor increased geopolitical uncertainties due to the ongoing US-China trade dispute and an increased probability of a no-deal Brexit are likely to do lasting damage to the Wiesen economy this year. Therefore, we are curious to see whether beer sales will rise to a new record high, after hitting their highest level since 2011 last year (see paragraph on beer-consumption conundrum and Chart 8 below).

Just like beer consumption, the number of visitors at this year’s Oktoberfest is expected to be high. After recovering strongly in 2017, annual Oktoberfest attendance reached 6.3mn last year (see Chart 1), an increase of 100,000. This is impressive in light of the fact that the 2017 Oktoberfest was what is referred to as a “Grosse Wiesen”, a year when the Oktoberfest lasts two days longer (18 days instead of 16 days). Nonetheless, the Wiesen continued to gain in popularity in 2018, with daily attendance up by 14% compared to 2017. This year, the Oktoberfest will again go on for 16 days.

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CHART 1: OKTOBERFEST ATTENDANCE



Source: City of Munich, UniCredit Research

Some Wiesn arithmetic

The rise in Oktoberfest beer prices has significantly outpaced German consumer price inflation

The price of a Mass of beer (one liter of beer) at the Oktoberfest crossed the psychologically important threshold of EUR 10.00 for the first time in 2014. Since then, beer tent operators have raised prices gradually and are now charging prices that are significantly above this threshold. This year, the average beer price will increase to EUR 11.60 from EUR 11.24 in 2018 (a table comparing beer prices can be found at the end of this article). While the cheapest Oktoberfest Mass can be bought for EUR 11.20 in the beer tent Familienplatzl, the most expensive beer price (EUR 11.80) will be charged by several of the large beer tents at the Wiesn. Changes in the price of beer at the Oktoberfest imply beer price inflation of 3.2%. In 1985, the price of one Mass was 6.10 deutschmarks, or EUR 3.10. Since then, the beer price at the Wiesn has risen by more than 270%. In contrast, German consumer prices have increased by just 78% over the same period, as indicated in Chart 2.

Drivers of our WVPI: beer and Hendl price inflation have continued to rise, while public transport prices have remained unchanged

In order to estimate the overall cost of a visit to the Oktoberfest, we consulted our famous Wiesn visitor price index (WVPI), which is a composite index of different expenses that reflect the cost of visiting the Wiesn. It is broken down as follows: **1.** the price of public transport (return ticket), **2.** the consumption of two Mass of beer and **3.** half of a roasted chicken (or “Hendl” in the local dialect). The WVPI increased by 2.7% in 2019, after posting a 3.3% rise in the previous year (see Chart 2). A look at the WVPI’s components reveals that Hendl prices have only increased slightly in the last two years (by roughly 2.0% in 2018 and 3.2% in 2019, compared to 6.2% in 2017). Furthermore, beer price inflation eased to 3.2% from 3.8% in 2018. Nevertheless, Hendl and beer prices have continued to push up the WVPI this year, while the cost of public transport has remained unchanged and thus has weighed on the overall price index (see Chart 3).

CHART 2: WVPI AND GERMAN CONSUMER PRICE INDEX

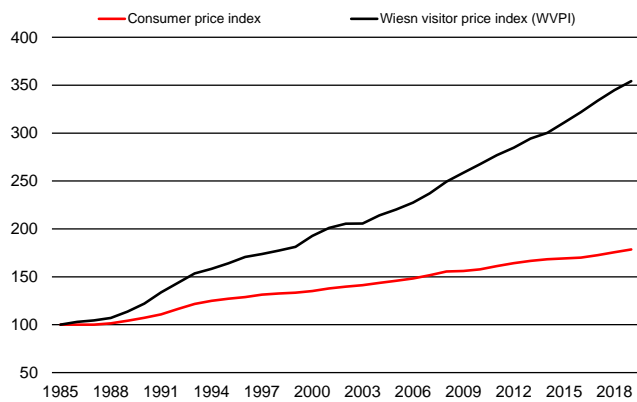
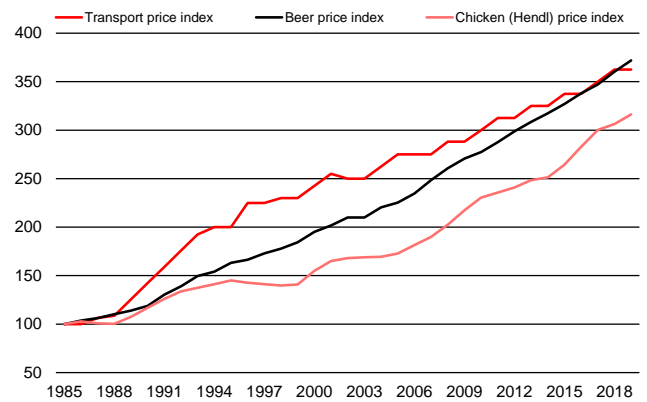


CHART 3: WVPI COMPONENTS



Source: City of Munich, Munich public-transport authority, Wiesn vendors, UniCredit Research

Oktoberfest worldwide

A Mass of beer may be perceived as expensive or inexpensive depending on beer prices in a visitor's home country

While the price of a Mass of beer at the Oktoberfest may be perceived as expensive by locals, this may not be the case for the Wiesn's many international visitors, depending on the price of beer in their home countries. Foreign visitors to the Oktoberfest constitute 14% of total attendees (see Chart 4), with Americans, Swiss and Italians constituting the largest foreign groups, each representing 1.7% of total visitors. In contrast, Brits, Austrians and Australians each make up roughly 1% of foreign guests. Because of the large share of foreign visitors to the Oktoberfest, it is worth examining how the price of a Mass of beer at the Oktoberfest compares to the price of one Mass of beer in these visitors' home countries (see Chart 5). Therefore, we assume that a Mass of beer at the Oktoberfest and abroad are homogenous goods. This enables us to exploit the fact that two Munich-based breweries operate German beer halls in various countries, and these far-flung German beer halls usually arrange their own Oktoberfests.

CHART 4: ORIGINS OF WIESN VISITORS (2014)

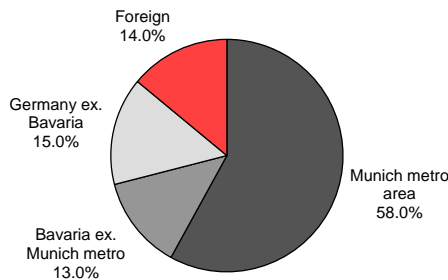
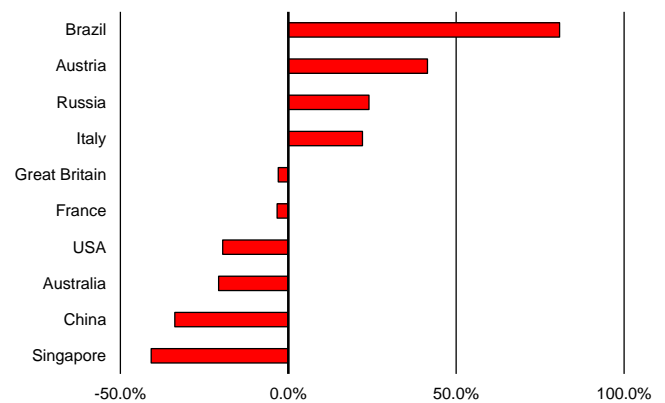


CHART 5: OVER (+)/UNDER (-) PRICING OF OKTOBERFEST BEER VS. COMPARABLE ALTERNATIVES ELSEWHERE



Source: City of Munich, various online sources, UniCredit Research

According to this comparison, visitors from Italy, Brazil and Austria spend more on each beer at the Oktoberfest than they would spend on an equivalent measure of beer in their home countries, while visitors from the US and Australia, among others, spend less. Moreover, in relative terms, the Oktoberfest is most expensive for Brazilians, who pay an 81% markup in comparison to the EUR 6.42 (or BRL 29) they would pay for a Mass of beer at home.

In contrast, a Mass of beer costs EUR 14.41 (USD 16) in the US, meaning that a Wiesn beer is about 20% less expensive than what Americans would pay at home. However, when assessing whether beer at the Oktoberfest is over- or underpriced in the eyes of foreigners, it is important to keep in mind that local beer prices may include a markup for various factors, such as transportation costs, import tariffs or different tax rates on alcoholic beverages, aside from mere exchange-rate effect.

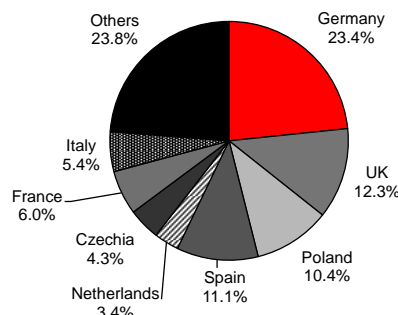
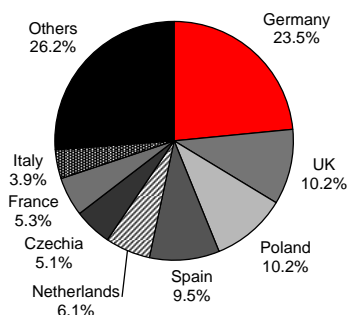
Factors that drive Wiesn prices

Limited competition and security costs support higher prices

Limited competition contributes to the rise in beer prices at the Oktoberfest. In contrast, the variety of beer on offer in Germany is enormous. Across the country, there are more than 1,500 operating breweries. This suggests that German breweries have little pricing power. Having produced 9.3bn liters of beer in 2017, Germany’s beer produces account for nearly one quarter of total EU beer production (see Chart 6), which amounted to almost 40bn liters. Germans also consumed roughly 8.4bn liters of beer in 2017, more than any other European country (see Chart 7). Stricter security requirements have also caused the cost of assembling and operating a Wiesn beer tent to increase in recent years and may continue to push costs upward.

CHART 6: BEER PRODUCTION (% OF EU TOTAL)

CHART 7: BEER CONSUMPTION (% OF EU TOTAL)



Source: The Brewers of Europe, UniCredit Research

However, the market structure of the Oktoberfest is completely different to that of the retail beer trade in Germany, as competition among Oktoberfest suppliers is limited due to the market’s high barriers to entry. The regulations that apply to operating a beer tent at the Wiesn state the following:

“The Oktoberfest is the traditional Munich festival with Munich hospitality and Munich beer. The aim is to preserve this tradition. For this reason, visitors to the Wiesn may only be served Munich beer brewed by the efficient and traditional Munich breweries that comply with the Munich Purity [Law] promulgated in 1487 and the German Purity [Law] promulgated in 1906.”

Accordingly, only larger breweries that have production facilities located within the city limits of Munich and that are able to ensure a safe and uninterrupted supply of beer are allowed to set up beer tents at the Wiesn. Currently, only six breweries meet these requirements. Because only a few traditional Munich-based breweries are allowed to supply the Oktoberfest’s famous beer, competition is thus hindered. This significantly increases the pricing power of the Oktoberfest’s suppliers and diminishes the bargaining power of its consumers. Hence, downward pressure on beer prices is rather limited.

The Oktoberfest beer-consumption conundrum continues

Beer sales at the Oktoberfest have increased due to an increase in visitor numbers and an increase in per-capita consumption

Beer consumption at the Oktoberfest increased further to 7.9mn liters in 2018, hitting a record high last reached in 2011. Already in 2017, there was a strong surge in consumption to 7.8mn liters. This was largely attributed to a jump in total attendance that year. Beer consumption per visitor slightly declined in 2018 but did not significantly break away from a solid upward trend that began in the mid-1990s – which was only temporarily interrupted by a drop in consumption in 2013 (see Chart 8). Hence, the fact that the upward trend in beer consumption per visitor is still intact while beer inflation continues to increase suggests that the so-called Oktoberfest beer-consumption conundrum we have highlighted for quite some time remains unresolved.

The affordability of Wiesn beer in Germany declined by 28% between 1996 and 2016...

This phenomenon is even more puzzling when viewed in terms of the beer purchasing power (BPP) of German, Bavarian and Munich-based households (see Chart 9). We define BPP as the number of Mass a household with an average income is able to afford if it spends its entire annual disposable income on beer at the Oktoberfest. In Germany, BPP declined by roughly 28% between 1996 and 2016, because beer price inflation at the Oktoberfest significantly outpaced wage growth during this period. The purchasing power of Bavarian and Munich-based households declined at a similar pace.

...but regional differences in BPP may explain the composition of the Wiesn's German visitors

However, despite overall declining BPP in Germany, regional differences become apparent in absolute terms. While households in Munich are able to afford 2,800 Mass of beer per year, if they spent their entire annual disposable income at the Wiesn, Bavarian and German households could afford 2,300 and 2,100 Mass respectively. This difference may partly explain the composition of the Wiesn's German visitors, as almost two-thirds of visitors come from the Munich metropolitan area, while visitors from the rest of Bavaria and Germany (excluding Bavaria) constitute much smaller shares (see Chart 4). It may be conjectured that Munich's citizens are able to absorb further price increases more easily due to their higher levels of disposable income.

CHART 8: BEER SALES AT OKTOBERFEST

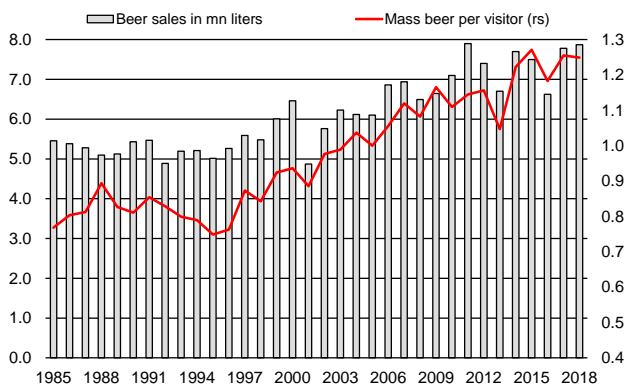
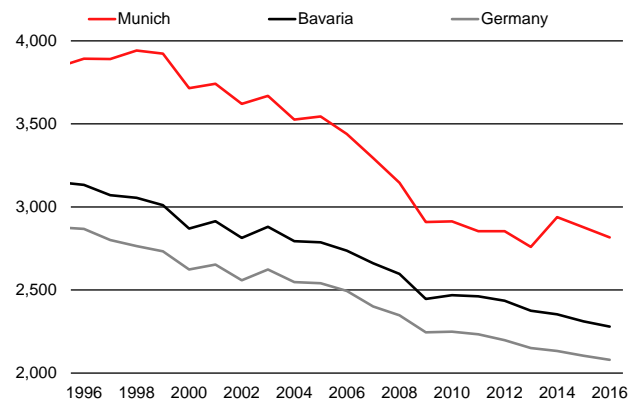


CHART 9: BEER-CONSUMPTION CONUNDRUM: BPP BY REGION, IN MASS OF BEER



Source: City of Munich, Statistische Ämter des Bundes und der Länder, UniCredit Research

Giffen good...

As we have pointed out before, the beer-consumption conundrum at the Oktoberfest may also be explained in alternative ways. First, beer sold at the Oktoberfest could resemble a so-called Giffen good, which is defined as a good that people consume more of as its price increases. While this seems unintuitive, empirical studies have shown that such goods exist. The rationale behind a Giffen good is that, as the price of such a good increases, the consumption of expensive substitutes becomes less affordable.

...and age structure may provide alternative explanations for the beer-consumption conundrum

Therefore, consumers need to buy more of the Giffen good, despite the increase in its price.¹ In a similar way, this applies to beer consumption at the Oktoberfest, particularly as close substitutes are not available for purchase inside the beer tents.

Another explanation for the beer-consumption conundrum could be that the increase in beer prices has been offset by a shift in the age structure of Oktoberfest visitors. Between 2000 and 2014, the number of Oktoberfest visitors under 30 years of age decreased by 17 percentage points, while the share of Wiesn visitors over the age of 30 increased by 43%.² This was mainly driven by a rise in the amount of visitors between the ages of 45 and 59, which may have caused a rise in beer consumption per visitor at the Oktoberfest, as older visitors are typically wealthier and thus can more easily afford the yearly increase in beer prices at the Oktoberfest. The cause behind this shift in the age structure of the Oktoberfest's visitors remains unclear.

Finally...

According to last year's Wiesn statistics, increases in beer prices did not have a significant impact on sales. Since it is unlikely that current geopolitical uncertainties will deter people from visiting the Oktoberfest, beer consumption there is likely to remain ample this year – Prost!³

A brief history of the Oktoberfest

The roots of the Oktoberfest can be traced back to 12 October 1810, when Munich's citizens were invited to celebrate the wedding of Bavaria's Crown Prince Ludwig (later crowned King Ludwig I) to Princess Therese of Saxe-Hildburghausen. What became an annual celebration was eventually brought forward to September due to weather considerations. The last day of the Oktoberfest currently takes place on the first Sunday in October (or on the subsequent Monday or Tuesday if the Day of German Unity falls on either of these dates). Over the past 207 years, the Oktoberfest has been cancelled only 24 times, due to epidemics and two world wars.

Source: City of Munich, UniCredit Research

¹ Jensen, R. T. and N. H. Miller (2008), "Giffen Behavior and Subsistence Consumption", *American Economic Review*, 98(4), pp. 1553–77.

² "Wiesn-Wirtschaft – Wirtschaftswert und mehr", Landeshauptstadt München, Referat für Arbeit und Wirtschaft, press release from 30 July 2019 (in German).

³ Cheers!

A LIST OF OKTOBERFEST TENTS AND WHERE TO FIND THE BEST BEER PRICES THIS YEAR

EUR	Beer price 2019	Beer price 2018	Difference yoy	
			In cents	In %
Ammer	11.50	10.80	70	6.5
Armbrustschützen-Festzelt	11.70	11.40	30	2.6
Augustiner-Festhalle	11.40	11.10	30	2.7
Bräurosl	11.80	11.40	40	3.5
Familienplatzl	11.20	10.90	30	2.8
Festzelt Tradition (Oide Wiesn)	11.40	11.10	30	2.7
Fisch Bäda	11.40	11.10	30	2.7
Fischer-Vroni	11.70	11.35	35	3.1
Glöckle Wirt	11.50	11.20	30	2.7
Goldener Hahn	11.70	11.40	30	2.6
Hacker-Festhalle	11.80	11.40	40	3.5
Haxnbraterie	11.35	11.05	30	2.7
Heinz' Sausage and Chicken Grill	11.40	10.95	45	4.1
Hofbräuhaus-Festzelt	11.70	11.40	30	2.6
Käfer Wies'n Schänke	11.80	11.50	30	2.6
Kalbsbraterie	11.65	11.30	35	3.1
Löwenbräu-Festzelt	11.80	11.50	30	2.6
Marstall	11.80	11.50	30	2.6
Ochsenbraterie	11.50	11.20	30	2.7
Paulaner-Festhalle	11.80	11.50	30	2.6
Poschner	11.80	11.50	30	2.6
Schottenhamel-Festhalle	11.75	11.45	30	2.6
Schützenzelt	11.80	11.40	40	3.5
Vinzenz Murr Metzgerstubb	11.30	10.90	40	3.7
Wildstuben	11.65	11.35	30	2.6
Wirtshaus Schichtl	11.40	10.70	70	6.5
Zum Stifftl	11.50	10.90	60	5.5
Zur Bratwurst	11.70	11.40	30	2.6
Average	11.60	11.24	36.25	3.24

Source: City of Munich, UniCredit Research

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