

## Oktoberfest 2018: beer price inflation does not worry the ECB

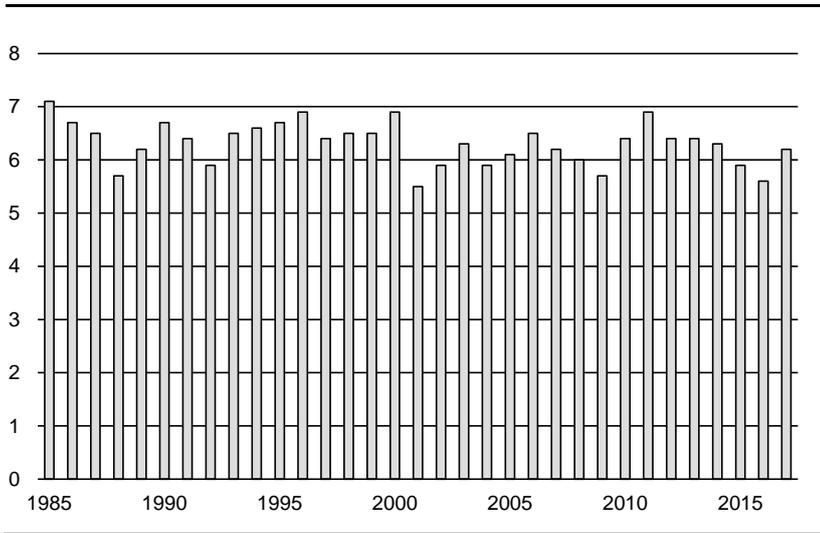
- Beer price inflation at the world’s biggest folk fest will hit 3.8% this year, but neither the ECB nor investors are really worried about this.
- “O’zapft is” (the keg has been tapped) – this Saturday, the Oktoberfest will open its gates again for the 185th time.
- Our famous *Wiesn Visitor Price Index* is showing an increase of 3.3% this year, as the average price of one “Mass” (or one liter) of beer will be EUR 11.24.

The yearly Oktoberfest is drawing near. Beer price inflation at the annual Munich festival will hit 3.8% this year, thereby representing the most pronounced increase since 2012, when it rose by 3.9%. However, neither the ECB nor investors are really worried about rising beer prices. A few months ago, the ECB signaled that it would delay the timing of its first rate hike to after the summer of 2019, and ten-year Bund yields have hovered around 0.5% since the start of the year.

This Saturday, at noon, the mayor of Munich will ceremoniously tap the first keg of beer to be served at this year’s festival and declare “O’zapft is” (“it is tapped”), officially opening the Oktoberfest, a festival that traces its roots back to the festivities held to celebrate the marriage of Bavaria’s Crown Prince Ludwig to Princess Therese of Saxe-Hildburghausen on 12 October 1810. With only 24 exceptions, when it was canceled due to epidemics and the two world wars, the Oktoberfest has been held every year since at the Theresienwiese (usually shortened to Wiesn in the local dialect), the fairgrounds in Munich named in honor of the Crown Princess.

After decreasing in recent years, the annual number of visitors to the Oktoberfest recovered in 2017, when 6.2mn visitors attended (see Chart 1).

**CHART 1: OKTOBERFEST VISITORS**



Source: City of Munich, UniCredit Research

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**Overall conditions bode well for a high number of visitors and ample beer consumption in 2018 (again), albeit slightly less favorable than in 2017**

Last year, the number of visitors to the Oktoberfest increased by about 600,000, from 5.6mn in 2016. This represents the biggest increase in absolute numbers since 2010, when the “Oide Wiesn” (or old Oktoberfest), a special attraction and designed to give festival goers a historic Oktoberfest experience via nostalgic beer tents and traditional attractions, was introduced at the Oktoberfest, pushing attendance for that year up significantly. Visitor numbers last year were supported by 2017’s being a “Grosse Wiesn” year, which occurs whenever the Day of German Unity, a national holiday on 3 October in honor of Germany’s reunification in 1990, falls on the Monday or Tuesday of the week following the two regular Oktoberfest weeks. Thus, the Wiesn was one day longer last year than it was in 2016. There will be no such effect this year, meaning the Oktoberfest will take place over 16 days, compared to 18 days in 2017 (and 17 in 2016). Moreover, this year there will again be no Bavarian Central Agricultural Festival, an agricultural exhibition that takes place at the same time as the Oktoberfest every four years, and which usually poses downside risk to the number of Wiesn visitors. Therefore, overall conditions, aside from being a bit less favorable than they were in 2017, bode well for a high number of visitors and ample beer consumption at the Oktoberfest this year (again).

**Some Wiesn arithmetic**

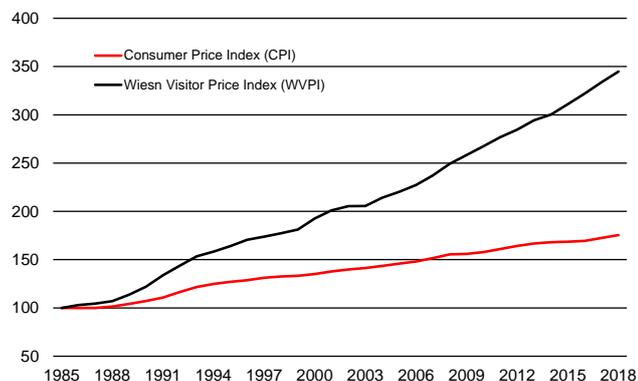
**The rise in Wiesn beer prices has significantly outpaced the rise in German consumer prices**

The price of a Mass of beer (one liter of beer) crossed the psychologically important threshold of EUR 10 for the first time in 2014. Since then, all beer tent operators have increased their prices gradually and are now charging significantly above this threshold. This year, the cheapest Mass can be bought for EUR 10.70 in a beer tent called Wirtshaus Schichtl, but the average price will be EUR 11.24, compared to EUR 10.83 in 2017 (a table comparing beer prices and price trends can be found at the end of this article). This implies beer price inflation of 3.8%, which is again far above overall consumer price inflation in Germany. 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 260%. Whereas, German consumer prices have risen by just 76% over the same period.

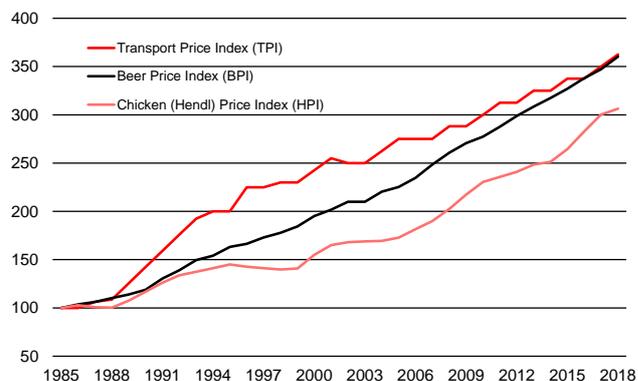
**Recent drivers of our WVPI: weaker Hendl price inflation exerted a drag, while beer price inflation continued to rise**

In order to estimate the overall cost of a visit to the Oktoberfest each year, we turn to 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 a roasted chicken (or “Hendl” in the local dialect), a popular dish served at the Oktoberfest. The WVPI increased by 3.3% in 2018, after posting a 3.7% rise in the previous year (see Chart 2). A look at the WVPI’s components reveals that Hendl prices have only increased slightly this year (by 2.0%, compared to a massive 6.2% in 2017) and have thus weighed on overall WVPI inflation. Beer price inflation, however, has continued to increase significantly, at 3.8% (2.8% in 2017), while inflation in the cost of public transport has remained largely unchanged, at 3.6% (see Chart 3).

**CHART 2: WVPI AND GERMAN CPI**



**CHART 3: WVPI COMPONENTS**

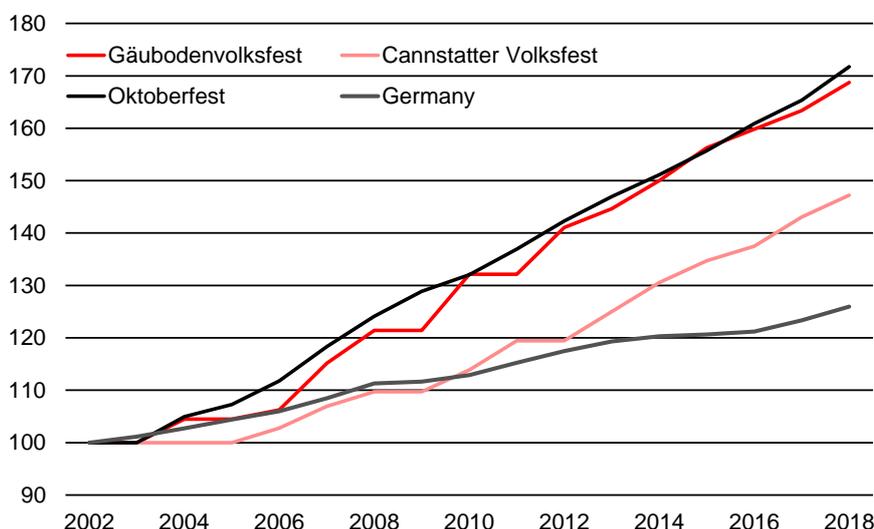


Source: City of Munich, Munich public transport authority, Wiesn vendors, UniCredit Research

**Beer price inflation at Oktoberfest and at two other German festivals outpaced German beer price inflation significantly**

However, is high inflation, especially in beer prices, unique to the Oktoberfest or can it be observed at other festivals as well? To get to the bottom of things, it is helpful to compare beer price inflation at the Wiesn to that of other big beer festivals in southern Germany: the Gäubodenvolksfest in Straubing, Bavaria (with 1.4mn visitors attending in 2017), and the Cannstatter Volksfest in Stuttgart, Baden-Württemberg (with 4.1mn visitors attending in 2017). As can be seen in Chart 4, which shows a comparison of the three festivals, since 2002, beer prices have increased the most at the Oktoberfest (by about 72% to 2018). While beer price inflation at the Gäubodenvolksfest has been almost as high (by around 69%), the average beer price started from EUR 5.60, compared to the Wiesn's EUR 6.55. In contrast, the Cannstatter Volksfest had the highest beer price in 2002 (median at EUR 7.20), but with an acceleration of around 47% over the same period, inflation there was substantially lower. Hence, beer prices at the Oktoberfest took the lead in 2007. However, all three festivals easily exceed overall beer price inflation in Germany, which stands at 26% since 2002.

**CHART 4: BEER PRICE INDEX (2002=100)<sup>1</sup>**



Source: Cannstatter Volksfestverein, German statistical office, various online sources, UniCredit Research

**Other factors driving Wiesn prices**

**Security costs...**

When assessing price increases at the Oktoberfest, it is important that one also take into account that there has also been a disproportionate increase in the cost of erecting and operating a Wiesn beer tent, not least as a result of an increase in the stringency of security requirements. In particular, due to rising expenditure for security (amounting to an additional EUR 5.2mn), the City of Munich decided to introduce a turnover fee of 5.1% last year to replace the general space-rental fee, paid by the operators of the beer tents. This year, the turnover fee was increased to 7.8% for big tents and 6.1% for smaller ones.<sup>2</sup> Such a variation in fees may explain why beer price inflation in big tents has been higher than in smaller tents, at 4.8% versus 2.9%, respectively.

<sup>1</sup> Beer price indices are calculated with the mean price for the Oktoberfest, the median price for the Cannstatter Volksfest and the highest price for the Gäubodenvolksfest. Nevertheless, the indices are comparable as the median price at Cannstatter Volksfest and the maximum price at the Gäubodenvolksfest are close to their mean. To predict the overall German beer price index for 2018, the latest available year-over-year inflation rate of beer in Germany was used (July 2018).

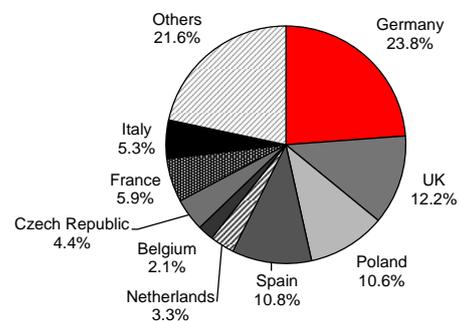
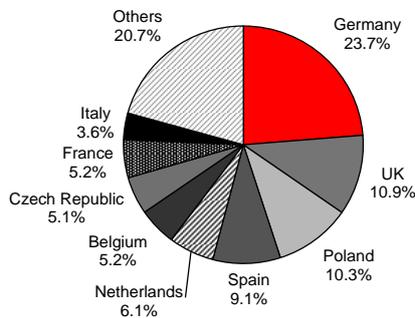
<sup>2</sup> <https://www.sueddeutsche.de/news/kultur/feste-umsatzpacht-bei-oktoberfest-steigt---damit-auch-die-preise-dpa.um-newsml-dpa-com-20090101-180512-99-274167>, in German, accessed on 28 August 2018.

...and competition support higher prices

Furthermore, competition for business at the Oktoberfest is completely different than that of restaurants and the retail beer trade in Germany. The variety of beers offered in Germany is enormous. Across the country, there are nearly 1,500 operating breweries, and their number is increasing. This suggests that German breweries have little pricing power. From a European perspective, having produced 40bn liters of beer in 2016, Germany represents nearly one quarter of total EU beer production (see Chart 5). In terms of consumption, around 36bn liters of beer were consumed in the EU in 2016, with beer consumption in Germany accounting for roughly one quarter of this (see Chart 6).

CHART 5: BEER PRODUCTION (% OF EU TOTAL)

CHART 6: BEER CONSUMPTION (% OF EU TOTAL)



Source: The Brewers of Europe, UniCredit Research

However, this does not hold true for the Oktoberfest, where competition is limited. The regulations for 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 in the City of Munich and that can ensure a secure and uninterrupted flow of beer are allowed to supply beer tents at the Wiesn. At the moment, only six breweries meet these requirements.

**The beer-consumption conundrum continues**

Overall beer sales have increased due to a surge in visitors and an increase in per capita consumption

As only a few Munich-based traditional breweries are allowed to supply the famous beer served at the Oktoberfest, downward pressure on beer prices is rather limited. Despite a continuous increase in prices, consumption per visitor has shown a solid upward trend since the early 1990s (see Chart 7). Only in 2013 was there a significant decline in beer consumption per capita, which was more than compensated for one year later, when it peaked at 1.27 Mass per visitor in 2015. After two years of consecutive declines, overall consumption recovered to 7.8mn liters last year, which can be largely attributed to a surge in the absolute number of visitors (caused by the Oktoberfest lasting for two additional days) as well as an increase in per capita consumption.

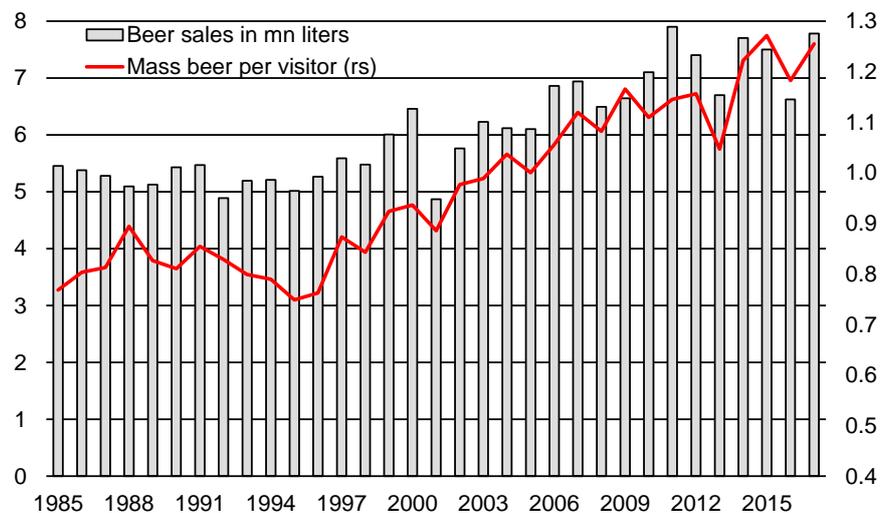
The rebound to 1.25 Mass per visitor in 2017 marks the beer price hitting its second-highest level since 1985

While it was not clear one year ago whether the correction of per capita consumption observed in 2016 (down to 1.18 Mass per visitor from its peak in 2015) constituted a sustained break in the upward trend, last year’s rebound to 1.25 Mass per visitor rebuffed this presumption. Not only did per capita consumption recover significantly, it even reached its second-highest level since 1985.

**Per capita consumption at Oktoberfest outpaces that of other German beer festivals**

A comparison of per capita consumption at the Oktoberfest to that of the other two German festivals included in our analysis shows that the Wiesn is again in the lead. With an average of 1.2 Mass per visitor at the Oktoberfest over the last five years, per capita consumption at the Wiesn is more than twice as high as the average for the other two festivals: 0.6 at Gäubodenvolksfest and 0.5 at Cannstatter Volksfest<sup>3</sup>. This is also in stark contrast to the development of the German beer market, where total beer turnover in hectoliter per capita (including sales of both alcoholic and alcohol-free beer) has continuously declined over the last decade (see Chart 8).

**CHART 7: BEER SALES AT OKTOBERFEST**



Source: City of Munich, UniCredit Research

**Growing popularity of alcohol-free beer in Germany is not apparent at the Oktoberfest**

It is also surprising that, since 2008, an outright boom in demand for alcohol-free beer has set in in Germany. This is apparent in the rising share of sales of alcohol-free beer in total beer turnover (see Chart 9). In 2007, only 2.2% of beer produced in Germany was alcohol-free. However, this figure had tripled to 6.6% by 2017. Once again, the Oktoberfest stands out in this respect. Aside from in 2015, there has hardly been any considerable growth in the share of alcohol-free beer being sold at the Oktoberfest over the same period.

**Giffen good and age structure may help explain Oktoberfest beer-consumption conundrum**

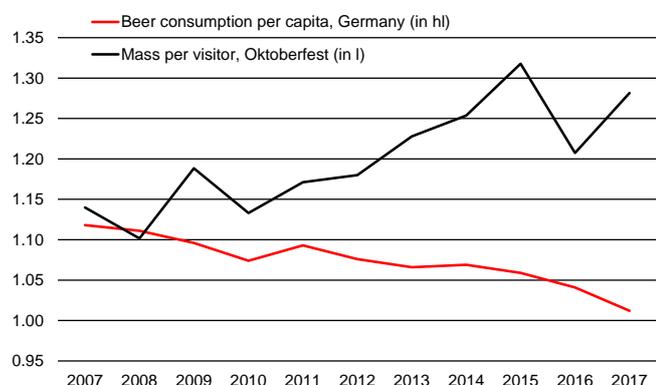
As we have pointed out several times before, the beer-consumption conundrum at the Oktoberfest can be explained in various ways.

One explanation is that beer at the Oktoberfest resembles a Giffen good, which is a good that people consume more of as its price increases. It has been shown that such goods really exist. The rationale behind a Giffen good is that price increases of such a good makes consumption of other expensive substitutes no longer affordable, which is why consumers need to stick with it and buy more of the good despite the increase in its price.<sup>4</sup> In a similar way, this applies to beer consumption at the Oktoberfest, particularly as close substitutes inside tents are not available.

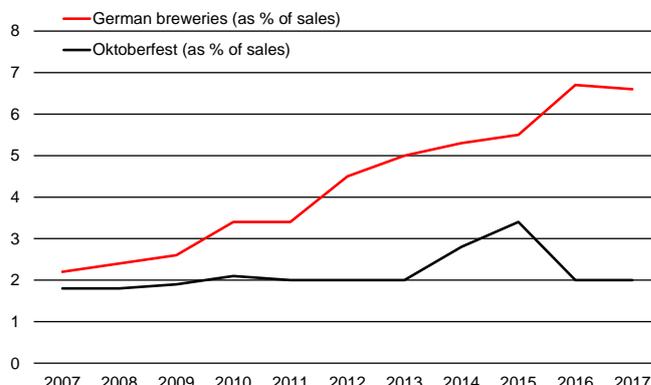
<sup>3</sup>This number is a rough estimate as it stems from newspaper articles, rather than official sources.

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

**CHART 8: BEER SALES PER CAPITA WIESN VS. GERMANY<sup>5</sup>**



**CHART 9: SHARE OF ALCOHOL-FREE BEER (IN % OF SALES)**



Source: German Association of Breweries, various online sources, UniCredit Research

Another explanation could be that there has been a shift in the age structure of Oktoberfest visitors. If fewer families with children have visited the Wiesn in recent years, the relative amount of visitors of an eligible age to drink beer has likely increased, and this would have increased per capita consumption. However, while it is true that the share of visitors under 30 years of age decreased by four percentage points between 2008 and 2014, at the same time, the number of visitors accompanied by children 14 and under increased by four percentage points. Unfortunately there is insufficient data to further examine the role that the age-structures plays in beer-consumption per visitor at the Oktoberfest. What can be said is that the share of visitors older than 45 has steadily increased, and as these visitors are typically wealthier, they can more easily absorb the increase in the price of a Mass.

**Finally...**

...given last year's Wiesn statistics, it does not seem as if increases in beer prices would have had a significant impact on sales, and the downturn in per capita beer consumption in 2016 only represented a bump in the road. Therefore, last year's rebound in sales bodes well for consumption to remain high this year. An increase in Wiesn prices, however, is unlikely to impact overall consumer prices in Germany or, in particular, the eurozone, as beer prices constitute just 1% of the basket of goods used to calculate the inflation rate in Germany. Prost!<sup>6</sup>

**A brief history of the Oktoberfest**

The roots of the Oktoberfest can be traced back to October of 1810, when Munich's citizens were invited to celebrate the wedding of Bavaria's Crown Prince Ludwig (later King Ludwig I) to Princess Therese of Saxe-Hildburghausen. What became an annual celebration was eventually brought forward to September due to weather considerations. Nowadays, the last day of the Oktoberfest 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). 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

<sup>5</sup>includes sales of alcoholic and alcohol-free beer  
<sup>6</sup>Cheers!

**OKTOBERFEST TENTS – WHERE TO FIND THE BEST BEER PRICES THIS YEAR**

EUR	Beer price 2018	Beer price 2017	Difference yoy	
			In cents	In %
Ammer	10.80	10.80	0	0.0
Armbrustschützen-Festzelt	11.40	10.85	55	5.1
Augustiner-Festhalle	11.10	10.70	40	3.7
Bräurosl	11.40	10.90	50	4.6
Familienplatzl	10.90	10.60	30	2.8
Festzelt Tradition (Oide Wiesn)	11.10	10.65	45	4.2
Fisch Bäda	11.10	10.80	30	2.8
Fischer-Vroni	11.35	10.95	40	3.7
Glöckle Wirt	11.20	10.90	30	2.8
Goldener Hahn	11.40	10.90	50	4.6
Hacker-Festhalle	11.40	10.90	50	4.6
Haxnbraterie	11.05	10.70	35	3.3
Heinz' Sausage and Chicken Grill	10.95	10.80	15	1.4
Hofbräuhaus-Festzelt	11.40	10.90	50	4.6
Käfer Wies'n Schänke	11.50	10.90	60	5.5
Kalbsbraterie	11.30	10.80	50	4.6
Löwenbräu-Festzelt	11.50	10.80	70	6.5
Marstall	11.50	10.90	60	5.5
Ochsenbraterie	11.20	10.70	50	4.7
Paulaner-Festhalle	11.50	10.95	55	5.0
Poschner	11.50	10.90	60	5.5
Schottenhamel-Festhalle	11.45	10.95	50	4.6
Schützenzelt	11.40	10.90	50	4.6
Vinzenz Murr Metzgerstüb	10.90	10.70	20	1.9
Wildstuben	11.35	10.85	50	4.6
Wirtshaus Schichtl	10.70	10.70	0	0.0
Zum Stiftl	10.90	10.90	0	0.0
Zur Bratwurst	11.40	10.85	55	5.1
<b>Average</b>	<b>11.24</b>	<b>10.83</b>	<b>41.1</b>	<b>3.8</b>

Source: City of Munich, UniCredit Research

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