

# ABSTRACT

## A Hedonic Pricing Model for German Wine

AUTHORS . Günter Schamel, Humboldt University Berlin

**T**he declaration of a quality category is legally required on every German wine label. The German wine law makes more distinctions within the two broad quality categories mandated by the European Union wine law - table wine and quality wine - than other wine-growing countries. The table wine category has two levels: simple table wine (Deutscher Tafelwein) and superior table wine (Deutscher Landwein).

Quality wine (QbA) must be exclusively from German produce, grown in one of 13 specified wine-growing regions, reach an existing alcohol content of at least 7% by volume. Quality wine with special attributes (QmP) must in addition be from a certain district within a wine-growing region and reach a pre-specified natural alcohol content for the region, grape variety and special attribute.<sup>1</sup> Six special attributes exist which are subject to additional regulations concerning ripeness level, and in some cases, method of harvesting. In ascending order of ripeness at harvest the attributes are: (1) Kabinett: light wine, low in alcohol. (2) Spätlese: late harvest, more intense in flavor and concentration, not necessarily sweet. (3) Auslese: from selected, very ripe bunches, noble wines, intense in bouquet and taste, usually, but not always sweet. (4) Beerenauslese (BA): from selected, overripe berries (usually Botrytis), harvested only during exceptional weather conditions, noted for their longevity, rich, sweet dessert wines. (5) Eiswein: from grapes as ripe as BA, but harvested and pressed while frozen, very concentrated in fruit, acidity, and sweetness. (6) Trockenbeerenauslese (TBA): rare, rich, sweet wine from dried grapes (almost raisins), extraordinary longevity. Moreover, Kabinett wines may not be sold prior to January, higher "Prädikat" wines not before March following the harvest, and BA and TBA may not be harvested mechanically.

In addition, four basic wine styles (dry, semi-dry, mild, sweet) are defined in terms of their dryness or sweetness. Dry ("trocken") indicates that most of the natural sugar has been

---

<sup>1</sup> QbA = Qualitätswein bestimmter Anbauggebiete (quality wine from specified growing regions)  
QmP = Qualitätswein mit Prädikat (quality wine with special attributes).

fermented (up to 9 grams/liter of residual sugar, total acidity must be 2 grams/liter less than residual sugar content). Semi-dry ("halbtrocken") includes wines with 9-18 grams/liter of residual sugar and total acidity must be 10 grams/liter less than the residual sugar. Mild wine ("lieblich") has a residual sugar content between 18 and 45 grams/liter. Sweet wines ("süss") have more than 45 grams/liter of residual sugar.

Each German wine labeled as a "quality wine" undergoes a critical, blind, sensory examination based on a uniform 5-point scale devised by the DLG (German Agricultural Society). In a first round, state level agencies award bronze, silver and gold medals which require at least 3.5, 4 and 4.5 points, respectively. These wines are then eligible to enter an annual national wine competition administered by the DLG where they are awarded bronze, silver and gold prizes, as well as the most prestigious Golden Extra Prize for wines with a perfect 5-point score.

We analyze an extensive data set of 4141 wines from the annual DLG wine competition. The hedonic model includes award level (bronze, silver, gold, gold extra), wine style (dry, semi-dry, mild), color (red, white, rosé), special attributes (e.g. Spätlese, Auslese, Eiswein), and regional origin (e.g. Baden, Pfalz, Rheinhessen) as dependent variables to explain variations in price. The estimated implicit prices for these quality characteristics are significant (except for two regional indicators and rosé) and they exhibit signs and relative magnitudes as expected. The price premiums for special quality attributes are significantly larger than the premiums for awards received in the annual wine competitions.