**How ski-resort tickets price affected from the present of snow-park**

The question I wish to answer is simple and policy-relevant: **Does adding a snow park to a ski resort let the resort charge a higher day-ticket price and make the resort more attractive to skiers?** Because ticket prices are set by the resorts themselves, the first hurdle is to justify treating the posted price as a **market-based measure of how desirable the experience looks to potential visitors.**

#### Why can price stand in for perceived quality

Economists have repeatedly shown that, for repeatedly traded products, posted prices tend to capitalise whatever buyers regard as valuable—even when that value is hard to observe directly. Two examples anchor this idea:

* **Fine wine vintages.** Ashenfelter demonstrated that random, year-to-year weather shocks in Bordeaux explain most of the variation in mature-wine auction prices; warmer, drier growing seasons produce wines that later command markedly higher prices. Because the weather is truly exogenous to the wine trade, the resulting price response can only reflect how the market collectively ranks the vintage’s quality—buyers are willing to pay more when the objective growing conditions were better.
* **U.S. ski areas.** A recent cross-resort study regressed log day-ticket price on objective characteristics—lift count, summit altitude, snow-making coverage, annual snowfall and share of expert trails—and found that these five variables alone explain roughly 90 % of price differences across the country. In other words, the prices skiers accept line up closely with the physical attributes they value .

Taken together, these papers show that for experience goods whose quality cannot be measured in a single metric (wine flavour; overall skiing experience) the market price nevertheless embeds consumers’ collective evaluation. **A higher price signals that people expect the product to be better.**

#### Data to be analysed

I will merge two publicly available sources:

1. **Kaggle worldwide ski-resort panel** (≈ 500 resorts). Key fields include the binary indicator Snowparks, the posted day-ticket Price, lift and terrain variables, snow-making capacity, and child-friendliness.
2. **Rank-Tank user scores** for the same resorts, which aggregate thousands of skier reviews into a numerical popularity rating.

Ticket price will serve as **Outcome 1** (monetised valuation). The Rank-Tank score and review count provide **Outcome 2** (direct popularity).

#### Causal framework and assumptions

* **Treatment** is the presence of a snow-park (T = 1 if the resort offers a terrain park).
* **Potential confounders**— country, beginner/advanced resort, altitude, vertical drop, lift capacity, snow reliability, region-level cost of living, and continent-fixed effects—are observed and will be controlled for.
* **Timing** helps: snow-parks are built (and listed in brochures) before the season’s ticket prices are published, so reverse causality is unlikely within a winter season.
* **Stable-unit assumption**: one resort’s decision to add a park does not change another resort’s ticket price in the same season; the sample is geographically dispersed enough that cross-resort spill-overs are minimal.

These conditions give the ignorability claim: **conditional on the observed attributes, whether a resort has a snow-park is plausibly independent of the error term in the price and popularity equations.**

#### Empirical strategy

1. **Effect on price**  
   Regress log day-ticket price on the snow-park indicator and the full vector of resort attributes. A positive and significant coefficient on Snowpark will indicate that parks allow resorts to extract a price premium over otherwise similar hills.
2. **Effect on popularity**  
   Repeat the regression with Rank-Tank score (or log review count) as the outcome. Evidence that snow-parks raise popularity after holding ticket price and other features constant will confirm that visitors view parks as a valued amenity, not merely a price-inflating gimmick.
3. **Robustness checks**
   * Propensity-score weighting to ensure covariate balance between park and non-park resorts.
   * A “placebo” variable—summer-skiing availability—tested on winter prices; it should have no effect if the model is well specified.
   * Separate estimates by continent and by resort size to test external validity.

**Sources:**

**Studys that use price as an indicator for quality:**

Whether affects wine piece - <https://www.worldwineweather.com/ashenfelter-wine-quality-index-1950-2020/#:~:text=industry%20when%20it%20was%20released,indicated%20by%20its%20market%20price>

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