US Ski Resort Pricing and Volumes: Downhill Racing
January 2018
US Ski resorts have dramatically increased prices. Casual skiers have been particularly hard hit.

**Vail Resorts Effective Ticket Price**

Average ticket prices have increased at 2.25x the rate of inflation since 2008 (US CPI = 2.1%)

**Effective Ticket Price Excluding Pass Holders vs. Inflation (2008 = 100)**

Ticket prices for casual skiers have increased at 4.5x the rate of inflation since 2008.
These price increases have led to very strong financial metrics

Vail Resorts Margins and ROIC

![Chart showing Vail Resorts Margins and ROIC from 2000 to 2017. The chart indicates an increasing trend in EBIT Margin and ROIC over the years, with notable peaks and troughs. The EBIT Margin peaks in 2015 and 2017, while the ROIC shows a steady increase from 2000 to 2017.]

Source: Bloomberg
And high valuations which assume continued price increases

Vail Resorts Valuation Metrics

<table>
<thead>
<tr>
<th>Metric</th>
<th>FY1 P/E</th>
<th>Price / Book</th>
<th>EV / EBIT</th>
<th>EV / EBITDA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>30.7x</td>
<td>4.7x</td>
<td>21.5x</td>
<td>15.3x</td>
</tr>
</tbody>
</table>

Implies company can continue to earn returns c. 4x its cost of capital on incremental investments in perpetuity.

Price increases at 2x+ inflation cannot continue indefinitely. Long term growth must be volume driven.

Source: Bloomberg
What has enabled this? US Resorts are exploiting a perceived lack of competition (from Vail Resorts 10-K)

Compartment

There is limited opportunity for development of new destination ski resorts due to the limited private lands on which ski areas can be built, the difficulty in obtaining the appropriate governmental approvals to build on public lands and the significant capital needed to construct the necessary infrastructure. As such, there have been virtually no new destination ski resorts in North America for over 30 years, which has and should continue to allow the best-positioned destination resorts to benefit from future industry growth. Our resorts compete with other major destination mountain resorts, including, among others, Aspen Snowmass, Copper Mountain, Mammoth, Deer Valley, Snowbird, Squaw Valley USA, Killington, Okemo, Sierra at Tahoe, Steamboat, Jackson Hole and Winter Park, as well as other ski areas in Colorado, California, Nevada, Utah, the Pacific Northwest, the Northeast, Southwest and British Columbia, Canada, and other destination ski areas in North America and worldwide as well as non-ski related vacation options and destinations. Additionally, our season pass products compete with other multi-resort frequency and pass products in North America.
But these price increases have come at the cost of significant declines in industry volumes.

Skiing in the US has become significantly less popular despite a major economic expansion since the end of the crisis and continued population growth.

Source: NSAA, Bloomberg
As prices continue to increase, skiers will continue to seek out alternatives

- Other types of vacations (e.g. beach)
- Alternative mountain sports (e.g. backcountry skiing)
- New capacity in US (possible given price umbrella)
- Travel to other geographies (e.g. Europe)
- Regulation (e.g. antitrust regulation preventing further acquisitions)
- Recession

Example of a threat to US ski industry seen in following pages – NOT THE ONLY ONE (or even the most likely to have an impact)
US lift ticket prices are now dramatically out of line with global standards

**Price of One Day Ski Pass (Per Resort Website for February 24 2018)**

<table>
<thead>
<tr>
<th>Resort</th>
<th>Adult Price</th>
<th>Child Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vail</td>
<td>164</td>
<td>164</td>
</tr>
<tr>
<td>Park City</td>
<td>129</td>
<td>83</td>
</tr>
<tr>
<td>Jackson Hole</td>
<td>135</td>
<td>83</td>
</tr>
<tr>
<td>Chamonix</td>
<td>76</td>
<td>65</td>
</tr>
<tr>
<td>Verbier</td>
<td>73</td>
<td>39</td>
</tr>
<tr>
<td>Megeve</td>
<td>56</td>
<td>45</td>
</tr>
<tr>
<td>Zermatt</td>
<td>94</td>
<td>0</td>
</tr>
</tbody>
</table>

Adult/Child ratio: 2.94x

**Total Ticket Costs for 5 Day Trip for Family of 4 (from February 25, 2018)**

<table>
<thead>
<tr>
<th>Resort</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vail</td>
<td>2,420</td>
</tr>
<tr>
<td>Park City</td>
<td>1,980</td>
</tr>
<tr>
<td>Jackson Hole</td>
<td>1,920</td>
</tr>
<tr>
<td>Chamonix</td>
<td>1,046</td>
</tr>
<tr>
<td>Verbier</td>
<td>1,093</td>
</tr>
<tr>
<td>Megeve</td>
<td>883</td>
</tr>
<tr>
<td>Zermatt</td>
<td>941</td>
</tr>
</tbody>
</table>

Children under 9 Ski Free: 0

Adult/Child ratio: 2.74x
High ticket prices have largely eliminated any cost advantages for Americans to ski domestically

Total Costs for 5 Day Trip for Family of 4 (Assumed to be Coming from New York City)

<table>
<thead>
<tr>
<th>Location</th>
<th>Skiing Cost</th>
<th>Flight Cost</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vail</td>
<td>3,153</td>
<td>2,420</td>
<td>3,513</td>
</tr>
<tr>
<td>Park City</td>
<td>3,412</td>
<td>1,980</td>
<td>5,392</td>
</tr>
<tr>
<td>Jackson Hole</td>
<td>3,586</td>
<td>1,920</td>
<td>5,506</td>
</tr>
<tr>
<td>Chamonix</td>
<td>3,515</td>
<td>1,046</td>
<td>4,561</td>
</tr>
<tr>
<td>Verbier</td>
<td>3,562</td>
<td>1,093</td>
<td>4,655</td>
</tr>
<tr>
<td>Megeve</td>
<td>3,352</td>
<td>883</td>
<td>4,235</td>
</tr>
<tr>
<td>Zermatt</td>
<td>3,410</td>
<td>941</td>
<td>4,351</td>
</tr>
</tbody>
</table>

Flight Time
- Vail: 04:55
- Park City: 05:36
- Jackson Hole: 05:30
- Chamonix: 07:36
- Verbier: 07:36
- Megeve: 07:36
- Zermatt: 07:36

Drive Time
- Vail: 02:06
- Park City: 00:48
- Jackson Hole: 00:30
- Chamonix: 01:19
- Verbier: 01:51
- Megeve: 01:15
- Zermatt: 02:40

Total Travel Time
- Vail: 07:01
- Park City: 06:24
- Jackson Hole: 06:00
- Chamonix: 08:55
- Verbier: 09:27
- Megeve: 08:51
- Zermatt: 10:16

Mountains are not tradeable goods, but skiers are!

Source: Google flights (flight prices) and Google Maps (drive times)
Are US Resorts a “Luxury Product”?
Europe has a superior product to the US along the most utilized quantitative metrics

Comparison of US vs. European Resort Size (KM of Trails)

Km of Trails
- Vail: 234
- Park City: 265
- Chamonix: 140
- Verbier: 412
- Megeve: 445
- Zermatt: 360

Comparison of US vs. European Resort Size (Skiable Acres)

Skiable Acres
- Vail: 5,289
- Park City: 7,300
- Jackson Hole: 2,500
- Chamonix: 15,000
- Verbier: 26,000

Vertical Drop
- Vail: 3,450
- Park City: 3,100
- Jackson Hole: 4,139
- Chamonix: 6,922
- Verbier: 5,580
- Megeve: 3,835
- Zermatt: 6,837

Source: Resort websites, Wikipedia, OnTheSnow, Snow-Forecast.com
Are US Resorts a “Luxury Product”? European amenities are generally superior to those in the US
### Are US Resorts a “Luxury Product”? US Resorts have generally copied their ambiance from Europe

<table>
<thead>
<tr>
<th>US Ambiance</th>
<th>European Ambiance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mammoth: Imitation European</td>
<td>Europe: Real European Villages</td>
</tr>
<tr>
<td>Restaurant</td>
<td></td>
</tr>
<tr>
<td>Vail: Imitation European</td>
<td></td>
</tr>
<tr>
<td>Village</td>
<td></td>
</tr>
</tbody>
</table>

#### Wikipedia from “History of Squaw Valley”

**Cushing modeled the resort after European ski destinations.** He re-engineered the model of traditional U.S. ski resort by locating a swimming pool, ice rink, roller disco, and restaurants on the mountain instead of at the base. His designs also brought the most advanced lift technology to the U.S. for the first time. [10] When Squaw Valley opened, its Squaw One lift was deemed the longest double chairlift in the world. [11]
Are US Resorts a “Luxury Product”?
European and US après ski scenes are not comparable

| European Apres Ski (La Follie Douce, Megeve) | American Après Ski |