A Sober Look at SPACs

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Setting Up the SPAC

SPAC Sponsor

20% "Promote"

Warrants/Shares

$ Warrants/Shares

Public Investors

In Trust

Unit

SPAC

Warrants

Rights

Shares
Two Years Later: Redemption, PIPE and Merger

Private Investors

$ \rightarrow \text{Shares} \rightarrow \text{SPAC}

\text{SPAC}

$ \rightarrow \text{Shares} \rightarrow \text{Public Investors}

Public shares are redeemable
Outcome

SPAC Sponsor

Public SPAC Investors

Private SPAC Investors

Target Shareholders

<50%

>50%

Combined Company
Finding #1: IPO Investors ≠ Merger Investors

Redemption, PIPE & Merger (Steps b, c, d)
Finding #2: High Transaction Costs/Dilution

SPAC Sponsor

Public Investors

SPAC

Private Investors

Public Investors

Warrants/Shares

20% Promote

Rights

Warrants

Shares

$"In Trust"

Underwriting fee

SPAC

Shares

$
Finding #2: High Transaction Costs/Dilution

• Sponsor’s “promote”
  • 400% return

• Warrants/rights to IPO investors
  • 11.6% annualized return—no downside risk

• Underwriting fees as percent of nonredeemed shares
  • Mean 345%
  • Median 16%
# SPAC Costs as % Pre- and Post-Merger Equity

## Costs as % Pre-Merger Equity

<table>
<thead>
<tr>
<th></th>
<th>Median</th>
<th>Mean</th>
<th>25th Percentile</th>
<th>75th Percentile</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net Promote</strong></td>
<td>21%</td>
<td>28%</td>
<td>11%</td>
<td>43%</td>
</tr>
<tr>
<td><strong>Underwriting Fee</strong></td>
<td>5%</td>
<td>7%</td>
<td>3%</td>
<td>9%</td>
</tr>
<tr>
<td><strong>Warrant+Right Cost</strong></td>
<td>12%</td>
<td>14%</td>
<td>6%</td>
<td>23%</td>
</tr>
<tr>
<td><strong>Total Costs</strong></td>
<td>36%</td>
<td>49%</td>
<td>23%</td>
<td>80%</td>
</tr>
<tr>
<td><strong>Cash per Share</strong></td>
<td>$6.40</td>
<td>$5.10</td>
<td>$2.00</td>
<td>$7.70</td>
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</tbody>
</table>

## Costs as % Post-Merger Equity

<table>
<thead>
<tr>
<th></th>
<th>Median</th>
<th>Mean</th>
<th>25th Percentile</th>
<th>75th Percentile</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net Promote</strong></td>
<td>8%</td>
<td>9%</td>
<td>5%</td>
<td>11%</td>
</tr>
<tr>
<td><strong>Underwriting Fee</strong></td>
<td>2%</td>
<td>2%</td>
<td>1%</td>
<td>3%</td>
</tr>
<tr>
<td><strong>Warrant+Right Cost</strong></td>
<td>4%</td>
<td>5%</td>
<td>3%</td>
<td>6%</td>
</tr>
<tr>
<td><strong>Total Costs</strong></td>
<td>14%</td>
<td>16%</td>
<td>10%</td>
<td>20%</td>
</tr>
</tbody>
</table>
Cash Per Share--Illustration

- SPAC Sells 80 shares in IPO for $10 each.
  - Gives 20 shares free to SPAC sponsor as “promote.”
  - Initially SPAC has $8.00/share in cash --$800 total
- 50% redemptions $\rightarrow$ $400$ cash remaining
  - 60 shares = $6.67$/ share in cash
- 75% redemptions $\rightarrow$ $200$ cash remaining
  - 40 shares = $5.00$/ share in cash
Who Bears the Costs?

• Depends on merger deal

• SPAC purports to be worth $10/sh
  • If target merges on that basis → target bears cost of dilution
  • Post-merger shares = $10 (plus surplus)

• SPAC has $6.40 in cash
  • If target merges on that basis → SPAC shareholders bear the cost
  • Post-merger shares = $6.40 (plus surplus)

• We can make an inference from post-merger share prices
# Post-Merger Returns

<table>
<thead>
<tr>
<th></th>
<th>Six-Month</th>
<th></th>
<th></th>
<th>Twelve-Month</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>All</td>
<td>HQ</td>
<td>Non-HQ</td>
<td>All</td>
<td>HQ</td>
</tr>
<tr>
<td>Mean Return (Excess over IPO Index)</td>
<td>-33.3%</td>
<td>-0.2%</td>
<td>-67.8%</td>
<td></td>
<td>-54.4%</td>
<td>-20.3%</td>
</tr>
<tr>
<td>Median Return (Excess over IPO Index)</td>
<td>-45.5%</td>
<td>-31.0%</td>
<td>-59.9%</td>
<td></td>
<td>-80.6%</td>
<td>-54.8%</td>
</tr>
<tr>
<td>Mean Return (Excess over NASDAQ)</td>
<td>-18.0%</td>
<td>17.5%</td>
<td>-55.1%</td>
<td></td>
<td>-28.3%</td>
<td>14.0%</td>
</tr>
<tr>
<td>Median Return (Excess over NASDAQ)</td>
<td>-35.1%</td>
<td>-26.8%</td>
<td>-67.8%</td>
<td></td>
<td>-63.1%</td>
<td>-56.3%</td>
</tr>
<tr>
<td>N SPACs</td>
<td>47</td>
<td>24</td>
<td>23</td>
<td></td>
<td>29</td>
<td>15</td>
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</tbody>
</table>
Finding #3: SPAC Shareholders Bear the Costs
Post-Merger 1-Year Returns—Past 10 Years

Average Excess Return (Over Russell 2000)
## SPAC vs. IPO Costs

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<th>75th Percentile</th>
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</thead>
<tbody>
<tr>
<td><strong>Costs as % Cash Delivered</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPAC</td>
<td>50%</td>
<td>29%</td>
<td>261%</td>
</tr>
<tr>
<td>IPO</td>
<td>28%</td>
<td>7%</td>
<td>52%</td>
</tr>
<tr>
<td><strong>Costs as % Post-Merger Equity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPAC</td>
<td>14%</td>
<td>10%</td>
<td>20%</td>
</tr>
<tr>
<td>IPO</td>
<td>5%</td>
<td>1%</td>
<td>9%</td>
</tr>
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</table>
Purported SPAC Benefits

• Price and Deal Certainty?
• Not necessarily
Regulatory Implications

• In the US: Disclosure
  • Better disclose of costs and cash per share
  • Equalize rules for SPACs vs. IPOs