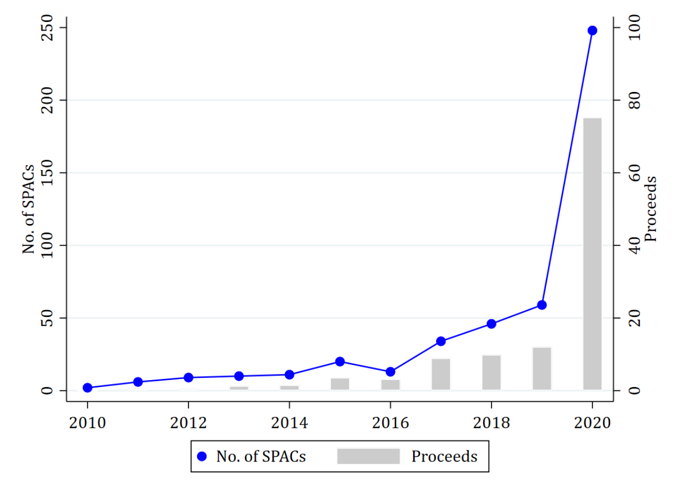
SPACs

Minmo Gahng (U. of Florida)
Jay R. Ritter (U. of Florida)
Donghang Zhang (U. of South Carolina)

July 2021

Motivation 1: Booming market!



- 298 SPAC IPOs as of March 2021!

Motivation 2: Critiques

Special purpose acquisition companies + Add to myFT

The Spac sponsor bonanza

FT analysis shows backers of cash shells earn billions in what Ackman calls 'one of the greatest gigs'

OPINION | COMMENTARY

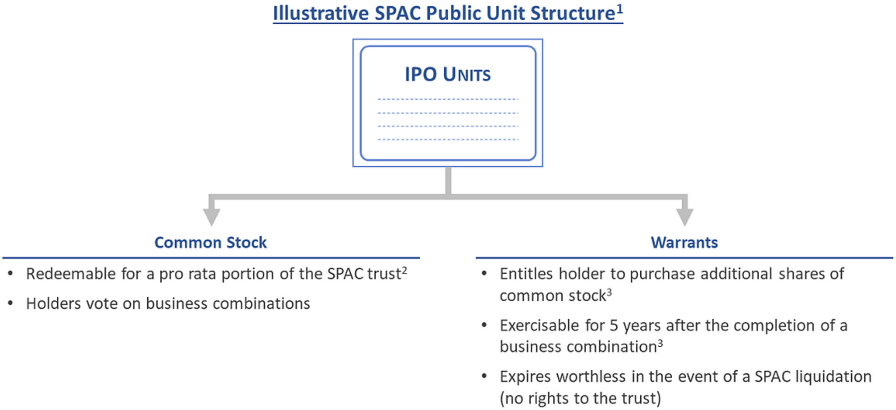
The SPAC Bubble May Burst— and Not a Day Too Soon

The hot new way to take companies public hurts most investors, and its track record is now clear.

By Michael Klausner and Emily Ruan
Jan. 6, 2021 6:25 pm ET

SPAC Structure1: SPAC Units

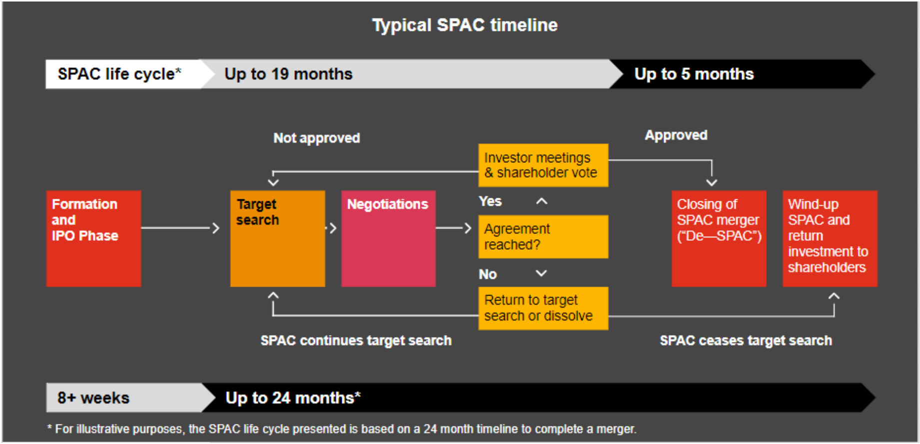
- A SPAC goes public to find a non-listed operating company to merge with



*source: Gritstone Asset Management

- The money raised in the IPO is placed in an escrow account (trust)
- Units are un-bundled two months after the IPO

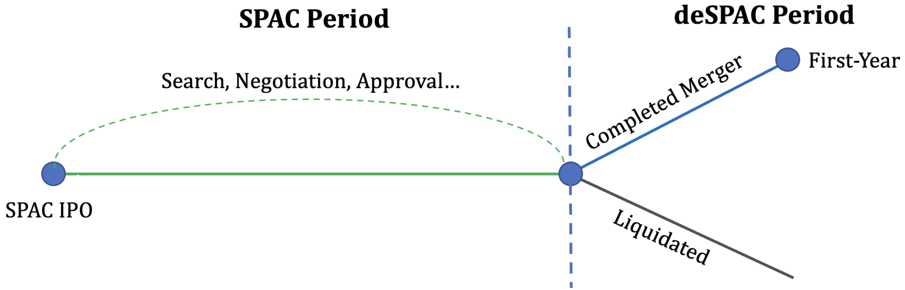
SPAC Structure2: Lifecycle



*source: PWC

SPAC Structure2: Lifecycle

- Underwriting fee: 5.5% (2% + 3.5%)
- Sponsors cover the fees by purchasing warrants
- Sponsor compensation (promote): 20% free shares conditional on mergers



Viewpoint: Economic Tensions

Three Main Players

1. Operating Companies
2. Sponsors
3. Investors

$\rightarrow$ Economic Tensions (e.g., wealth transfer, agency issues...)

Understanding Contractual Terms

- Deadlines are designed to incentivize the sponsor to keep the public market investment liquid, rather than parking the money in a trust fund and leaving it there for a long period.

- Deadlines create an incentive for the sponsor to do a bad deal rather than no deal as the deadline approaches, but the redemption option controls this problem.

- The separation of the merger vote and redemption decision limits the ability of a hedge fund to block a merger unless it receives a side payment.

Costs of Going Public

	Costs
SPAC	SPAC IPO Underwriter Commissions, Sponsor Promotes, Warrants and Rights
Traditional IPO	Underwriter Commissions, Money Left on the Table (Underpricing)
Direct Listing	Financial Advisor Commissions

- Sample: Between 01/2015 and 02/2021

	SPAC (N=142)		Traditional IPO (N=653)		Direct Listing (N=6)	
	$\frac{\text{Costs}}{\text{Proceeds}}$	$\frac{\text{Costs}}{\text{Market Cap}}$	$\frac{\text{Costs}}{\text{Proceeds}}$	$\frac{\text{Costs}}{\text{Market Cap}}$	$\frac{\text{Costs}}{\text{Proceeds}}$	$\frac{\text{Costs}}{\text{Market Cap}}$
10th percentile	16.3%	4.8%	-4.1%	-0.9%	-	0.1%
25th percentile	28.6%	8.5%	7.0%	1.1%	-	0.1%
Median	47.6%	15.1%	21.9%	3.3%	-	0.3%
75th percentile	86.3%	28.6%	50.1%	7.1%	-	1.1%

Economic Roles of Sponsors

- Then why do certain companies merge with a SPAC to go public?
  $\rightarrow$ What are the economic roles of sponsors?
- Sponsors: Specialized PE GPs with deep pockets working as ad-hoc underwriters
  - Specialized: Individuals behind many sponsors are industry veterans
  - PE GPs: Face deadlines (Pros vs. Cons)
  - Deep Pockets: Invest their own capital (certification)
  - ad-hoc Underwriter: Going public + capital raise

Relative Advantages of Merging with a SPAC

1. Capital + "Extra-Financial" Value (e.g. mentorship... Hsu (2004))

2. Faster with pre-loaded dry power (e.g., a wave of EV companies)
   $\rightarrow$ Days between Merger Announcements and Business Combinations

Year	No. of Announcements	Average Days	Median Days
2017	16	139	140
2018	26	151	141
2019	35	175	142
2020	96	129	114
Total	**173**	**141**	**126**

3. Forward looking statements (safe harbor)
   $\rightarrow$ Recent SEC probe

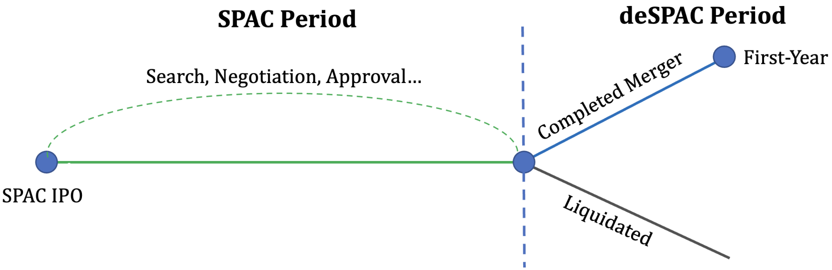
More in the paper with limitations

Sponsor Compensation Haircuts

- Sponsors transfer their compensation to others as inducements to salvage mergers, especially weak deals (Sample: 145 mergers between 01/2015 and 02/2021)

	Low Redemption (Strong Deals)	High Redemption (Weak Deals)
Average Redemption Ratio	3%	75%
Inducement: Common Shares	10%	25%
Inducement: Warrants	14%	25%
New Capital as % of Total Cash Delivered	35%	47%

SPAC Period Returns



- Sample: 151 SPACs that went public between January 2010 and December 2018
- $P_s/P_i = (1 + R_{SPAC})^{(Months/12)}$
- Optimal Redemption Strategy: $P_s = Max(Sell, Redeem)_{t-5}$
  $\rightarrow R_{SPAC} =$ **12.0%** per year Returns

SPAC Period Returns

- Conditional on Outcomes

Outcome	Number of SPACs	Annualized Returns	Average Months
Merger Completed	125	12.9%	21.5
Liquidated	18	2.0%	27.8
Ongoing	8	20.4%	30.0
Total	**151**	**12.0%**	**22.7**

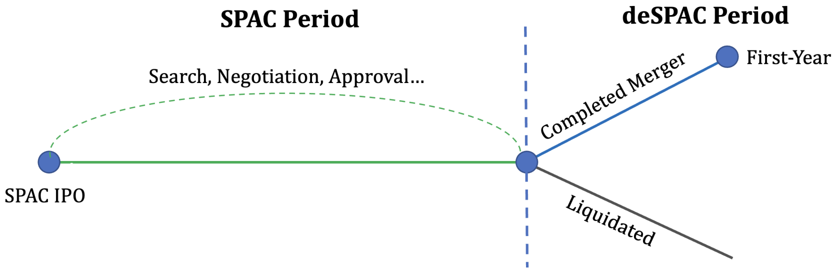
1. *Default-free* convertible bond *gross-of* fees → the lowest return: 0.51% per year
2. Considering the downside protection, annualized return of 12.0% is lucrative!

Expected SPAC-period returns on a point-forward basis

- 1/3 of IPOs will not complete a deal, and will be redeemed with a 1% return and worthless warrants (0.5% annualized)
- 1/3 of IPOs will complete a deal but shares will be redeemed for a 1% return and warrants will be worth \$0.50 (6.0% return over 1.5 years, 4.0% annualized)
- 1/3 of IPOs will complete a deal and shares will be worth \$10.50 and warrants will be worth \$0.75 (12.5% return over 1.5 years, 8.2% annualized)

→ **Average annualized return of 4.2%, due to less generous warrants**

deSPAC Period Returns: Common Shares and Warrants



- Sample: 114 completed mergers between January 2010 and September 2020
- Common Shares: $BHRC_{i,t} = \prod_{t=1}^{min(T,\ delist)}(1 + R_{i,t}) - 1$

  → **-7.3%** (equally) or **2.7%** (\$) for the first year (matched CRSP: 13.6%)
- Warrants: $BHRW_{i,t} = \frac{P_i\_min(T,\ delist)}{P_i\_deSPAC\_date}$

  → **64.4%** (equally) or **27.6%** (\$) for the first year

Interpreting Returns

1. Why do deSPAC period common shares underperform?
   - Three-Year Returns $< -90\%$: 29% of SPAC mergers
     Three-Year Returns $< -90\%$: 9% of traditional IPOs
   - Extreme incentives (sponsors and SPAC investors) to complete mergers
2. Redemption ratios are almost 100% for these mergers
   - $ weighted returns are not as negative as equally weighted returns
3. Warrants are riskier and compensated for volatility
   - Maybe the market is mispricing warrants

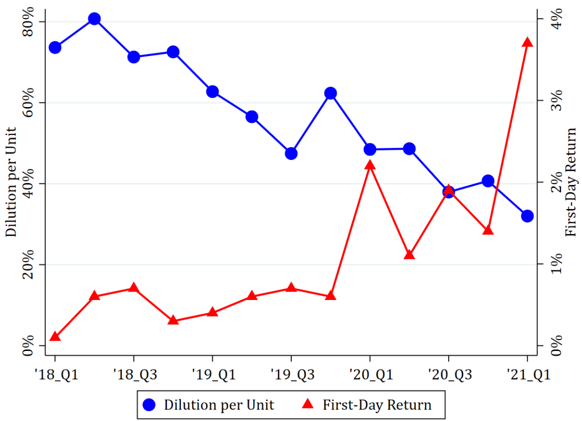
Cross-sectional: underwriter dilution redemption profitability industry country

The Evolution of the SPAC Market

Too favorable for the SPAC period investors and sponsors...

$\rightarrow$ At the expense of merging company's shareholders

The Evolution of the SPAC Market



- Less Dilution: Less profit for SPAC period investors and more upside potential for merging company shareholders
- Higher First Day Return: Free lunch is cleared on the first day, similar to operating company IPOs

Conclusion

- A SPAC merger is a more expensive way of going public than a traditional IPO
- A SPAC merger has relative advantages over a traditional IPO
  → Based on economic roles of sponsors and the structure of SPACs
- SPAC period investors have earned 12.0% per year
  → Underpriced default-free convertible bonds with warrants
- deSPAC period common share returns have been between -7.3% and 4.3% while warrant returns have been between 27.6% and 64.4% for the first-year
  → $ weighted returns are not as poor as equally weighted returns
- The SPAC market is evolving towards a more sustainable equilibrium