NORTHFIELD modeling financial markets worldwide

aspequity

If it Walks like a SPAC, and it Quacks like a SPAC, is it Private Equity?

Emilian Belev, CFA, ARPM
Head of Enterprise Risk Analytics

April, 2021

What is a SPAC

- A sponsor creates a Special Purpose Acquisition Company and goes public
- Investors provide cash to the new company by investing in the IPO
- The SPAC is looking for a suitable acquisition target – a private company
- There is a time limit to find a target, and if a merger with a target is not achieved by that time, the SPAC has to redeem the cash raised to investors
- If a target is found, the de-SPAC process begins – the assets of the two companies are merged. The SPAC then re-lists on the exchange with the changed name of the target company
- The owners of the target company receive equity shares in the combined entity, cash, or both

What is a SPAC (cont'd)

- The sponsor of the SPAC receives ~25% of the shares as a compensation for their service
- In addition to shares, the investors in the original SPAC receive warrants, which become exercise-able should a merger occur
- The SPAC allows redemption of the investor participation up until the moment of a potential merger or acquisition of a target, paying a pre-determined rate of interest
- In some cases SPACs allows investors to keep the warrants even if they redeem their principal SPAC investment
- The underwriting of the original SPAC IPO is effectively paid for by the initial SPAC investors as they fund the floating of the SPAC shares

General SPAC Characteristics

- Exploded in popularity in 2020 and even more so in early 2021
- Appear to offer "pre-IPO" opportunities to retail investors
- Offer fast-track to going public for private companies
- Does not automatically displace original private owners keeping motivation in place
- Offer exit opportunities for private companies and private equity funds that may own them: EY - 30% of companies merging with SPACS are owned by PE funds
- Depending on sponsor experience, some SPACS may offer management skill benefit unlike conventional IPOs

Characteristics (cont'd)

- Three levels of dilution – equity charge of SPAC sponsor, incentive warrants, underwriting fee
- Harvard study indicates these factors amount to 50% dilution for original investors: https://corpgov.law.harvard.edu/2020/11/19/a-sober-look-at-spacs/
- Cash drag: although some of the original cash contribution is redeemed, the merged entity ends up holding cash
- Misalignment of incentive: for reputational reasons SPAC sponsors may to "spend" all the cash and bid-up valuations
- SPACS pose conflicts of interest for PE managers that sponsor SPACS as receptacles for the portfolio companies in their Limited Partnership funds

Similarities with PE Limited Partnerships

- The identity of the private company that ends up acquired is unknown at the time of committing to invest
- Expectation of an unrecognized opportunity like similar to a pre-IPO
- Perception of "management advantage" similar to the operating partner aspect of private equity
- Some overlap with the stage of maturity of the companies that get purchased by both SPACS and late-stage PE funds
- Often times the financing of the SPAC deal may directly require private capital (PIPE)

Differences with PE LP Funds

- No diversification: in most cases, an SPAC ends up holding a single company rather than a portfolio
- All capital is called at the very beginning of SPAC's existence
- By definition a SPAC is a fully liquid investment: investors pay for liquidity
- Dilution charge of SPAC is 50% which is significantly greater than the cost of owning PE LP funds - carried interest, asset management fees, and operating expenses which total to 20-30%
- There is no planned divestiture and sunset clauses in SPACs like the ones for LP Funds

SPAC Pricing

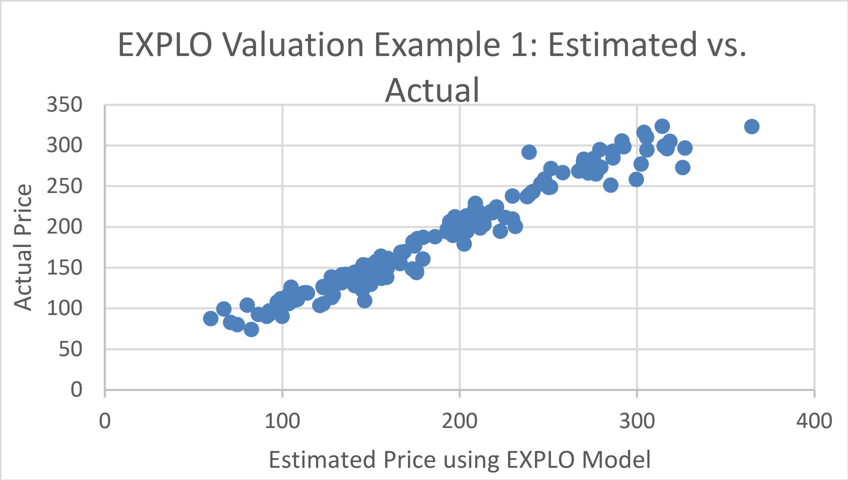
- Clearly there are various dimensions of optionality and scenario analysis that impact the fair value of an SPAC

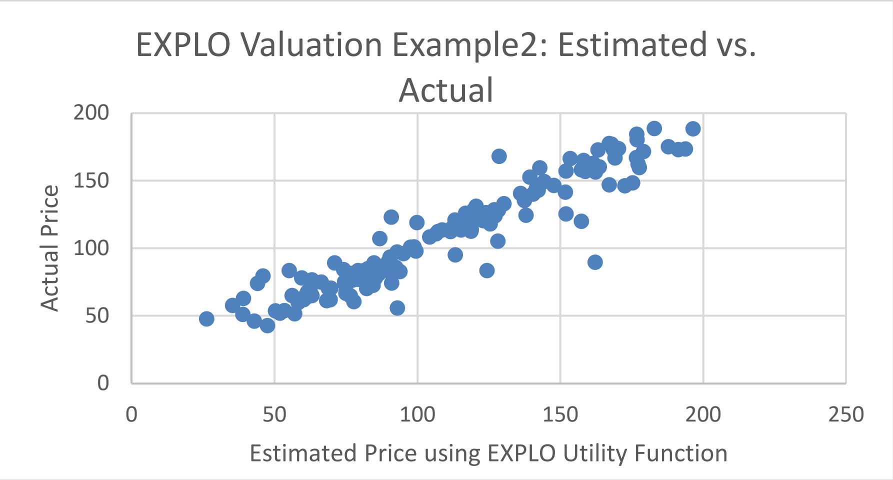
- The typical approaches for valuation in such circumstances are the Option Pricing Model (OPM) and the Probability Weighted Expected Return Model (PWERM)

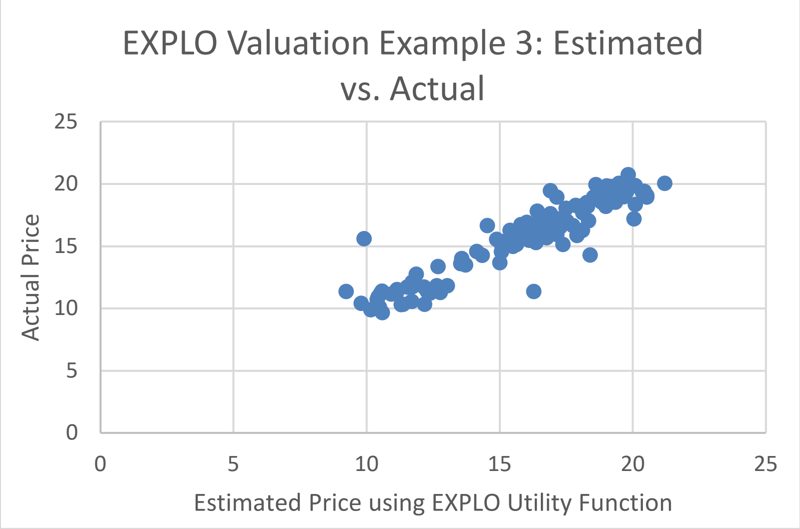
- Hybrid models between OPM and PWERM allow for capturing the higher distributional moments that naturally arise in the SPAC payoffs, as previously discussed

- Northfield in partnership with Aspequity provides a robust valuation model – EXPLO – which is effectively a hybrid valuation model between OPM and PWERM, and is capable of capturing all the required characteristics to calculate the fair value of an SPAC

EXPLO Valuation in Action







NORTHFIELD modeling financial markets worldwide

aspequity

SPAC Pricing: Public Investor Perspective

- Acknowledge that should a merger target is not found the value of the SPAC is slightly above that of cash
- Explore the less trivial case where a target is found
- Incorporate the uncertainty of not knowing what will be the acquired target
- Infer risk aversion from public markets and apply in EXPLO model
- Probability-weigh the value of the cash-redeemed SPAC outcome and the target acquired outcome value
- The result is the fair value of the SPAC

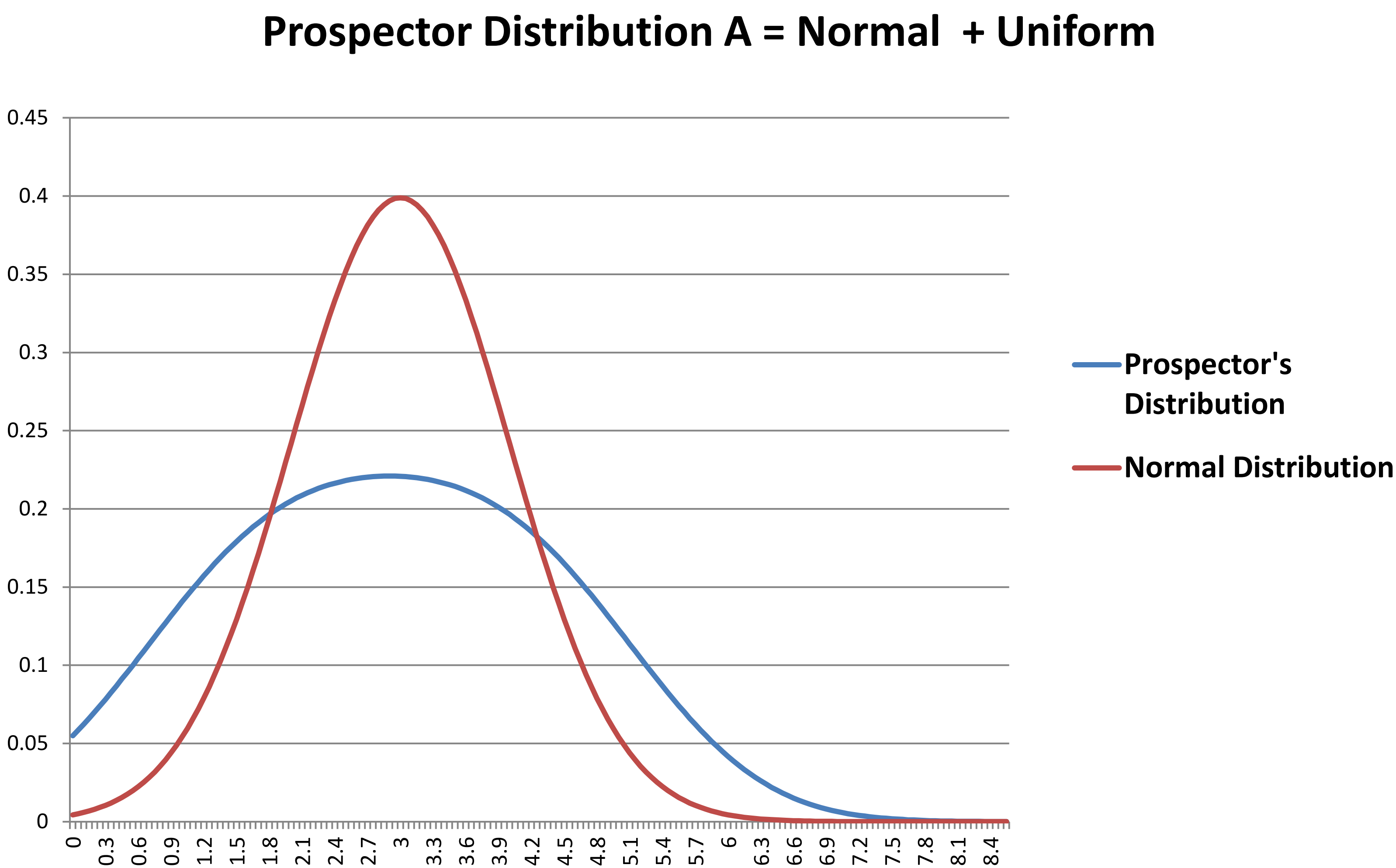
SPACS and Prospector's Distribution

- In describing SPACS, we have just acknowledged two sources of uncertainty should a target to be acquired is found:
  - One arising from the skill of the sponsor to identify a target company with a high expected payoff
  - The other is the dispersion of potential outcomes of the individual deal around the average outcome for the deal, whatever that average may be.

- The second source of uncertainty is a distribution conditional on the first

- The aberrations around the mean in the second distribution are independent from the mean itself; thus we can easily combine the two distributions into one which we shall call the *Prospector's Distribution*

Prospector Distribution Family



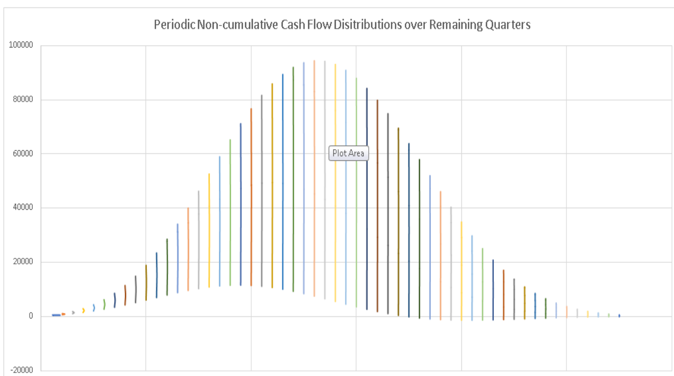
SPAC Pricing: Private Investor Perspective

- SPAC sponsors and private equity funds often compete for acquisition targets
- From the perspective of a private fund the cash-redeem scenario is moot
- For the fund, the only meaningful value is the value of the potential target
- Private funds invest in a portfolio of companies so the investment should be viewed as part of that portfolio
- This implies valuing the private fund portfolio with and without the target company included
- Again, this can be accomplish using the EXPLO model but using private market risk aversion parameter

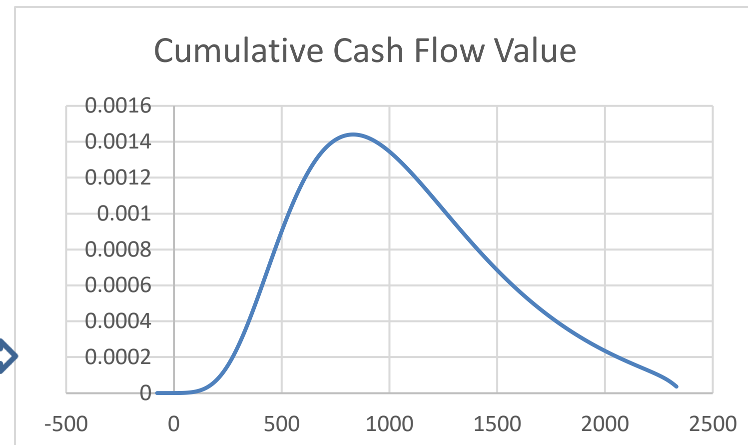
Target Valuation: Private Fund Perspective

Periodic Cash Flow Disbursements to Investor

Cash Flow Forecast



Target Company A: Affects expectation and uncertainty of fund portfolio



ΔP:
Incremental Value

Pricing Engine EXPLO

Private Market Risk Aversion

Private Investor Perspective

- The approach to incremental impact valuation was described in **Optimal Deal Flow for Illiquid Assets** – (Belev, Gold, ARES *Best Practitioner Research Award* for 2015)

- Two main differences with the public investor perspective:

  - Distribution of payoffs exhibits more skew and kurtosis, partially due to the fact that the private holding spans much longer holding horizon

  - Risk aversion parameter is likely higher than in public markets

- Both reasons indicate that it is likely that a private equity fund is prepared to pay less for the same target company than a public investor

- Facing this public market competition the private equity funds will have to pay up for liquidity

Conclusions

- SPACs are vehicles that straddle public and private markets
- They do that by making a contingent commitment to public investors to acquire a private company in the future
- This is good option for the target company due to the reduced cost and effort to gain liquidity
- By introducing liquidity to the private company, the SPAC changes the nature of its payoff distribution as well as the profile of risk aversion of the market players that will define its value
- In theory SPACs offer certain opportunities and benefits to public investors (entry), as well as private funds and private companies (exit)
- However…

Conclusions (cont'd)

- SPACs may offer very steep hidden costs in the form of dilution and underwriting
- Like any investment they have to be subjected to rigorous valuation analysis which compares the fair value based on the prospects and risk vs. the offer
- To the extent that private funds use their own sponsored SPAC vehicles as exit options, conflicts of interests should be explicitly addressed;
- If as safeguards against such conflicts shares of an a SPAC are held in the LP portfolio then pricing considerations for exit should be properly adjusted
- Similar considerations exists when the PE fund participates via PIPE deals
- ***Public investors:*** *bear in mind SPACs represents a number of risks that are not existent in conventional common equity investments*

Questions, Comments, Feedback

Emilian Belev, CFA, ARPM
Director, Enterprise Risk Analytics
emilian@northinfo.com