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WHO ARE THE SPAC INVADERS ?

LES ÉTUDES DU CLUB

N° 87

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Thomas Rézette
July 2010

Who Are the SPAC* Invaders?

***Special Purpose Acquisition Companies**

Abstract

Since 2003, Special Purpose Acquisition Companies (SPACs) have become an important component of the IPO market, raising over $25bn in the US and Europe combined. These shell structures give investors a risk-free option to invest in a future acquisition. In this paper I explain the mechanisms of the SPAC structure and its background, showing that it was in fact created in the mid 90's. I then present an analysis of this short-lived market, based on the 175 SPACs that were listed since 2003, and create two SPAC indices to measure the performance of these structures until completion of an acquisition or liquidation. I find a compound annual rate of return of almost 9% since 2006, and show this result suggests SPACs create value for investors.

I thank M. Ulrich Hege, my professor,
for his advice and support.

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1 - Introduction

In recent years, Special Purpose Acquisition Companies, or SPACs, have become one of the largest components of the US IPO market, and have raised over $25bn on both sides of the Atlantic. These companies are acquisition vehicles that are IPOed as a shell to raise funds for a future and undetermined acquisition. Behind these SPACs, many prominent business figures, such as Roland Berger, Bruce Wasserstein or Steve Wozniak, leverage their track record as dealmakers or operating executives to attract investors. Even Hollywood actor Ashton Kutcher got involved in a SPAC seeking to make an acquisition in the Entertainment & Media sector[1].

The aim of this research is to understand the specificity of the SPAC structure and try to find out if it creates value for investors. For this purpose, I attempt to answer the following questions: how does the SPAC structure work? why and when was it created? what is the economic rationale behind it? what are the key trends of this new market? and what is the market performance of SPACs?

The existing literature on SPACs is of course very recent. Hale (2007) describes the main features of SPACs, while Berger (2008) gives an overview of the structure and discusses three case studies illustrating why private companies could seek to be acquired by a SPAC. Within the legal literature, Heyman (2008) explores the regulatory changes in the early 90's that led to the invention of the SPAC, and Sjostrom (2008) explains why reverse mergers with a SPAC can compare favourably with a traditional IPO. More recently, Jenkinson and Sousa (2009) focus on the conflict of interests that leads some SPAC managers to push for the approval of value-destroying acquisitions, while Lewellen (2009) analyses SPACs' trading behaviour and uses SPACs as a proxy to measure the systematic risk of leveraged buyouts.

The remainder of this paper is organised as follows. Section 2 describes the main features of the SPAC structure, while section 3 discusses its predecessors and the regulatory changes that led to its invention. Section 4 explains the economic rationale behind the SPAC for the different parties involved. Section 5 provides an overview of the data collected for this research and key SPAC market statistics. Finally, section 6 describes the market performance of SPACs ıcusses implied value creation. Section 7 concludes.

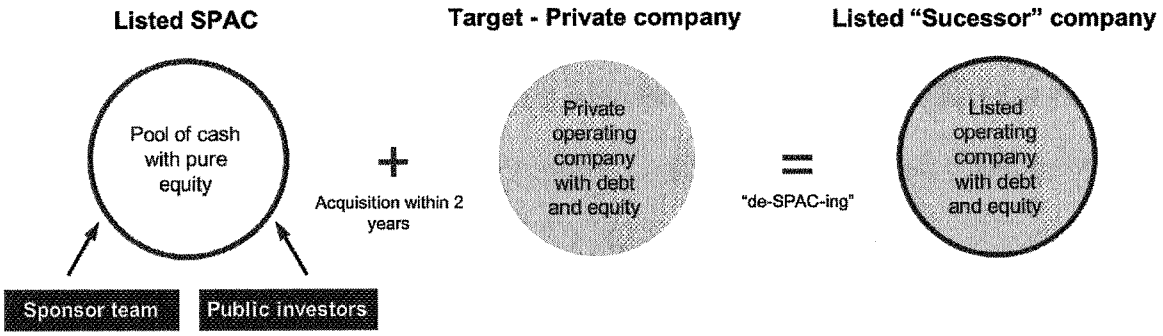
[1] Ashton Kutcher was one of the directors of *Performance Acquisition Corp.*, which filed to raise $500m in March 2008.

2 - How Do SPACs Work?

2.1 - What Is a SPAC?

A SPAC ("Special Purpose Acquisition Company") is a publicly listed acquisition vehicle whereby a small team of sophisticated investors or industry experts (the "Sponsors") raises a blind pool of cash on the equity market to acquire an operating private[2] company in the future. This financing tool allows investors to invest "publicly" side-by-side with a best-in-class entrepreneur/deal-maker and benefit from downside protections while the Sponsor team, if successful, is entitled to entrepreneurial economics.

Figure 1 - The Basics of SPACs



As an example, here are the first lines of the prospectus of the biggest SPAC listed to date[3]:

> *"Liberty Acquisitions Holdings Corp. is a blank check company recently formed to acquire one or more operating businesses through a merger, stock exchange, asset acquisition, reorganization or similar business combination. Our efforts in identifying a prospective target business will not be limited to a particular industry. We do not have any specific merger, stock exchange, asset acquisition, reorganization or similar business combination under consideration or contemplation. We will have no more than 36 months to consummate a business combination. If we fail to do so, we will liquidate and dis to our public stockholders the net proceeds of this offering, plus certain interest, less certain costs, each as described in this prospectus. We*

[2] Target is in general meant to be a private company, although this is not always the case (Grupo Prisa, for example)
[3] As of July 2010

have not, nor has anyone on our behalf (including our founders), contacted, or been contacted by, any potential target business, conducted any evaluation or had any substantive discussions, formal or otherwise with respect to such a transaction prior to, in anticipation of or subsequent to our incorporation."

This statement[4] is typical of a SPAC, although some of them can claim to seek targets in a particular industry or geographic area. At the time of its IPO, a SPAC is just a newly formed shell company with no operations and minimal assets. In a way, its only significant asset is its management team (the Sponsors), whose experience and track record are supposed to attract investors. Once the IPO is completed, the SPAC usually has a period of 2 years (typically 24 months plus 6 additional months if an acquisition is announced) to complete an acquisition, after which it will have to return the funds to investors. Any proposed acquisition has to be approved by shareholders, and IPO proceeds are kept in a trust account and invested in risk-free instruments in the meantime. Placing the net proceeds of the IPO (plus additional funds provided by the Sponsors) in a trust account managed by a third party provides public investors with solid downside protection (trust value is usually close to 100% of gross IPO proceeds), while still giving exposure to unlimited upside potential.

2.2 - Life of a SPAC

The IPO

First important step in the life of a SPAC once it has been incorporated is its IPO. For various reasons (discussed in section 3), most US SPACs are listed either on the OTC Bulletin Board or on the AMEX, while European listings so far have been made either on AIM or leading national stock exchanges (Euronext, Frankfurt etc). At the time of its IPO, the SPAC has no specific target in mind, and the Sponsors have not initiated discussions with any prospective business.

Since 2003[5], 175 SPACs have completed their IPO, with proceeds ranging from $9.1m[6] to [illegible][7]. The typical SPAC offering implies selling units consisting of common stock and [illegible]its which will trade separately after the IPO. This allows SPAC investors,

[4] *Liberty Acquisition Holdings Corp.* prospectus p. 1
[5] As of July 2010
[6] *Trinity Partners Acquisition Company*, listed on the OTC Bulletin Board in July 2004
[7] *Liberty Acquisition Holdings Corp.*, listed on the AMEX in December 2007

unlike those who commit capital to private equity funds[8], to sell their holdings anytime they want.

Once the IPO is completed, a large portion of the proceeds - between 80% and 100% of gross proceeds - are placed in a trust and can't be used by the Sponsors except for a planned working capital allowance supposed to cover the cost of seeking out targets.

Announced Acquisition

Once a target business is identified and the terms of the acquisition have been negotiated, the SPAC makes a public announcement and prepares proxy materials for shareholders and regulatory approval.

There is no maximum deal size for SPAC acquisitions (since the company can issue new shares and use them as a currency), but there is a minimum deal size: fair value of the equity of the target must be equal to at least 80% of the SPAC's net assets.

Once the acquisition has been announced, a roadshow starts to market the deal to current shareholders, potential new investors and sector specialists. Public shareholders receive detailed financial statements of the target and an EGM notice is sent out.

Shareholder Vote

Any business combination made by a SPAC has to be approved by its public shareholders. Voters have the choice between the following options:

- approve the proposed transaction;
- reject the proposed transaction and keep their shares if the transaction is ultimately approved;
- reject the proposed transaction and redeem their shares for the pro-rata value of the trust funds if the transaction is ultimately approved.

In addition, shareholders who decide to redeem their shares are allowed to keep and/or exercise th rrants irrespective of their voting decision.

[8] A number of private equity funds are quoted on stock markets, but these are an exception rather than the rule.

There is no specified quorum threshold for the vote, but in order to be approved a proposed transaction must meet the following two conditions:

- a simple majority of shareholders must vote to approve the transaction
- less than a predetermined percentage of shareholders (usually between 20%-30%) must choose to redeem their shares.

Acquisition Completed

If the above-mentioned conditions are verified, the approved acquisition is then completed. This step is often called the "de-SPACing", since after completion of the acquisition the SPAC becomes a simple listed operating company.

In addition, the business combination usually changes drastically the shareholder base of the SPAC, with the former owners of the target company often becoming a significant shareholder (if part of the acquisition is paid in shares). Also, warrants become exercisable once the acquisition is completed.

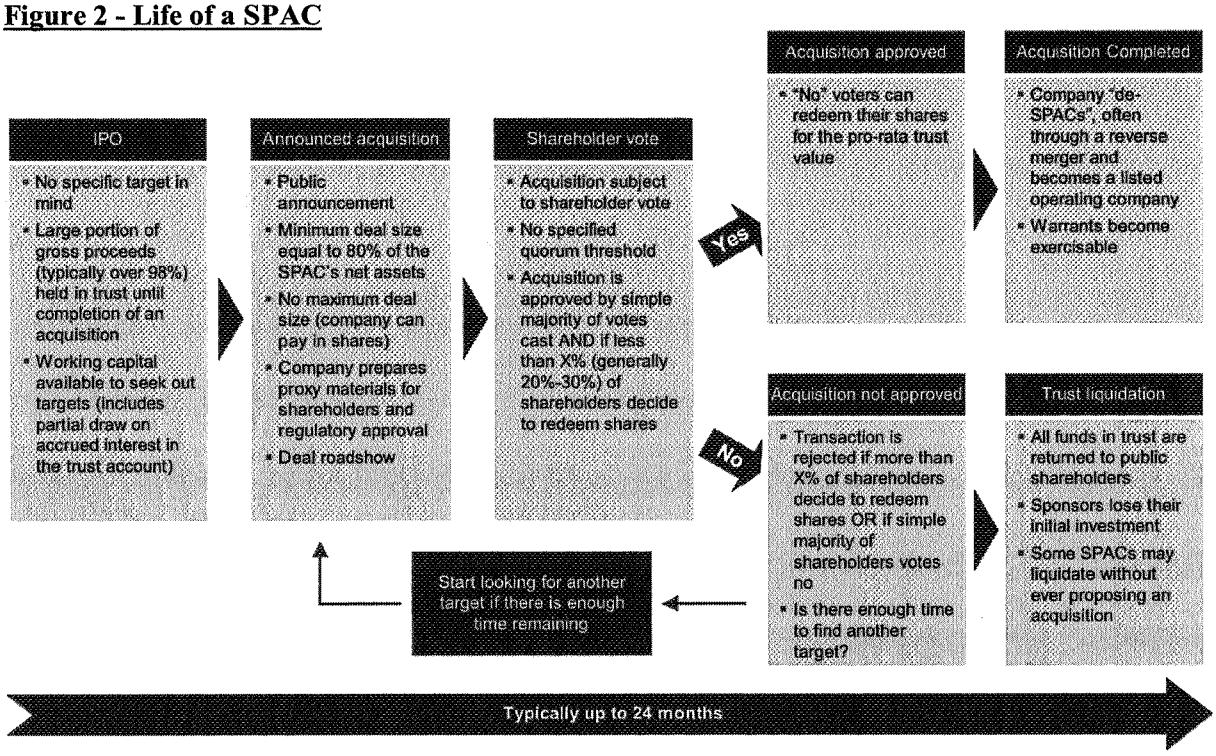
Acquisition Rejected/Liquidation

On the contrary, if shareholders reject the proposed acquisition then what happens next all depends on how much time the SPAC has left to live. If there is enough time, management can try to find another target and propose a new business combination, but in most cases a rejected acquisition leads to the liquidation of the trust. In case of liquidation, public shareholders receive their pro-rata share of the funds held in the trust, while the Sponsors lose their initial investment (see section 2.4 for more details).

It can also occur that SPACs liquidate without ever proposing an acquisition, or with an approved acquisition, simply because the 24-months deadline expires before the acquisition can be completed.

The different steps described above are summarized in Figure 2.

Figure 2 - Life of a SPAC



2.3 - Share Structure

During the IPO, SPAC shares are sold in the form of units consisting in general of one common stock and one or two in-the-money warrants. These units are typically sold at a price of $6, $8 or $10, and the warrants are usually not exercisable until an acquisition is completed. A few weeks after the IPO, shares and warrants start trading separately.

Shares sold during the IPO, which we refer to as "public shares", must be differentiated from shares acquired by the Sponsors before the IPO (generally at nominal cost), which we refer to as "founder shares". Only the public shares are entitled to pro-rata share of trust funds in case of liquidation, and the founder shares are usually voted with the majority of public shares when a business combination is proposed.

Less frequently[9], the share structure can be slightly more complex, with two different kinds of units being sold during the IPO:

- Series A units consisting of Class A stock and typically 5 to 10 warrants;

[9] See for example the terms of the offerings of *Good Harbor Partners Acquisition Corp.* (March 2006), or *Middle Kingdom Alliance Corp.* (December 2006)

- Series B units consisting of Class B stock and typically 1 or 2 warrants.

In this case, only Class B stock would give right to pro-rata share of trust funds in the case of liquidation (playing the role of public shares) and this until an acquisition is completed and all stock is automatically converted to Class A. In such an offering, the Sponsors usually buy Series A units before the offering (playing the role of founder shares). Such structure allows other investors to buy Series A units and have a different risk-reward profile.

2.4 - Sponsor Economics

The Sponsors have a very different risk-reward profile from the public investors. Indeed, the SPAC structure provides extremely attractive economics for Sponsors who are able to complete an acquisition.

Sponsors do not receive any salary or management fee, but they are generally allowed to purchase a large number of shares (the founder shares, also referred to as the "Sponsors' promote") at a nominal cost ($0.01 per share, for example) before the IPO, so much so that they typically own about 20% of the firm's equity after the IPO. However, as mentioned above, these shares are worthless if no acquisition is completed. The Sponsors usually agree to deposit these shares into an escrow account and to vote them with the majority of public shares when an acquisition is proposed.

Moreover, Sponsors usually commit to purchase a large number of warrants in a private placement, the proceeds of which will be added to the trust account. The purchase of these warrants is an at risk investment for the Sponsors, since the warrants will be worthless if no acquisition is made. Table 1 below describes illustrative Sponsor economics for a $250m SPAC with $10 units.

Table 1 - Illustrative Sponsor Economics for a $250m SPAC with $10 Units

	Initial investment	Liquidation scenario	Share price at acquisition	
			$10.0	$15.0
At risk warrants	$7.5m 7.5m warrants at $1.0	$0.0	$18.8m $2.5 in the money	$56.3 $7.5 in the money
Sponsors' promote	"Free" 20% promote 6.25m shares	$0.0	$62.5m	$93.8m
Total	$7.5m	$0.0	$81.3m	$150.1m

Note: scenario based on a $250m SPAC offering 25m units at $10 each consisting of one share and on warrant with $7.5 strike price. Warrant valuation considers only intrinsic value and excludes any time value.

As shown in the table, the Sponsors' incentives to complete a business combination are extremely attractive, with potential payoffs of 20 times their initial investment in the example above. On the contrary, if no acquisition is made, they lose all their initial investment.

2.5 - The Trust

Capital held in the trust account after the IPO typically exceeds 98% of the gross proceeds[10], and can only be invested in short-term conservative securities[11]. In order to make the structure even more attractive to public investors, the percentage of gross proceeds in the trust can be very close to 100% (sometimes even higher), despite underwriting fees and working capital allowances. As an example, Table 2 below gives the breakdown of the use of proceeds for *Global Brands Acquisition Corp.*, a US SPAC listed on the AMEX in December 2007 and focusing on the consumer sector.

Table 2: Use of Proceeds for *Global Brands Acquisition Corp.* [12]

	in $ '000	**% of gross proceeds**
Gross proceeds from IPO	**250,000**	**100.0%**
Underwriting discount	-17,500	-7.0%
Legal fees and expenses	-230	-0.1%
Printing and engraving expenses	-75	*n.s.*
Accounting fees and expenses	-50	*n.s.*
SEC registration fee	-15	*n.s.*
FINRA filing fee	-51	*n.s.*
AMEX fees	-80	*n.s.*
Other expenses	-74	*n.s.*
Total offering expenses	**-18,075**	**-7.2%**
Sponsors' at risk investment	5,000	2.0%
Working capital allowance	-50	*n.s.*
Deferred underwriting fees	12,500	5.0%
Total funds in trust at IPO	**249,375**	**99.8%**

[10] This percentage has gradually increased with time. As an example, the percentage of gross proceeds held in trust after the IPO for *Millstream Acquisition Corp.* (August 2003) was 85%, versus 100% for *Helikos SE* (January 2010).

[11] Short-term US government securities in the case of US SPACs.

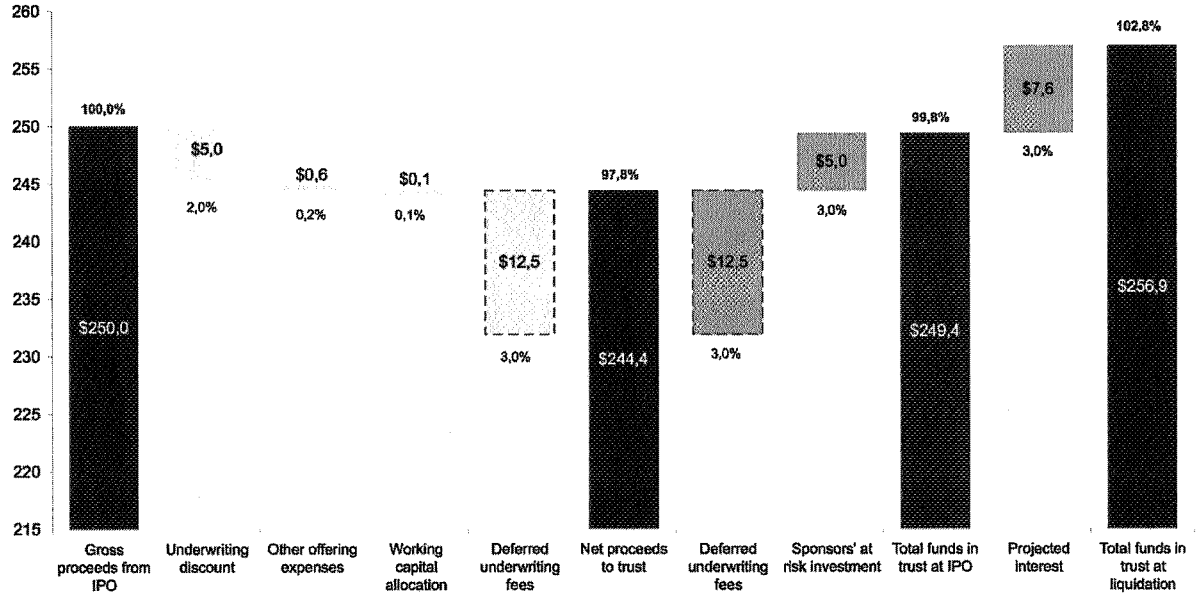
[12] As described in the IPO prospectus, without over-allotment option.

The use of deferred underwriting fees - which are paid to the underwriters only if an acquisition is made - and the Sponsors' at risk investment allow a percentage of gross proceeds held in trust close to 100%, creating an attractive bond floor for public investors.

Moreover, working capital needs during the life of the SPAC are essentially financed by draws on interest income earned on the amounts held in the trust, hence a low initial working capital allowance. Typically, the maximum amount that management can draw from the trust for working capital purposes is 1% to 2% of gross proceeds.

Figure 3 summarizes the various trust account flows until liquidation.

Figure 3 - Illustrative trust account flows[13]



Note: Interest assumed for 2 years at $ depositary rates of approximately 2.0% annually less one time $2.5m interest draw for working capital allowance (1% of gross proceeds).

2.6 - Dilution

A key challenge when the time comes to complete an acquisition is dilution. As Berger (2008) points out, SPACs are burdened by two forms of dilution: the Sponsors' promote (approximately 20% of outstanding shares after the IPO) and the outstanding warrants. two factors combined typically create a 58% valuation overhang, as illustrated in Table 3.

[13] Based on the *Global Brands Acquisition Corp.* example.

Table 3: Illustrative Valuation Overhang for a $250m SPAC

	# of shares (m)	in $m
Public shares	25.00	250.00
Sponsors' promote	6.25	62.50
Total basic shares	**31.25**	**312.50**
Public investors' warrants	25.00	62.50
Sponsors' at risk warrants	7.50	18.80
Total warrants	**32.50**	**81.30**
Dilutive shares attributable to warrants	8.13	81.30
Fully diluted shares outstanding	**39.38**	**393.80**
Valuation overhang	**14.38**	**143.80**
As % of IPO shares	57.5%	57.5%

Note: Assumes $10 units consisting of one share and one warrant with $7.5 exercise price. Also assumes Sponsors buy 7.5m warrants at $1 each. In-the money warrants converted to shares using the treasury method.

This valuation overhang can have a significant impact on valuation multiples paid by SPAC shareholders, and can make negotiations fail if the deal is not sized properly. As shown in Table 4, when a $250m SPAC buys a $250m target with $25m net income in cash, the target is valued at a 10.0x P/E multiple but the investor who bought common stock of the SPAC is actually paying a 15.8x P/E multiple. However, selecting larger targets can significantly decrease the dilution hurdle. For example, if a $250m SPAC buys a $1.0bn target with $100m net income, then the target is still valued at a 10.0x P/E multiple but SPAC shareholders will pay an effective P/E multiple of 11.4x.

Table 4: Impact of Dilution on Transaction Multiples for a $250m SPAC

in $m	Scenario 1: $250m deal	Scenario 2: $1.0bn deal
Acquisition price	**250**	**1,000**
of which paid in cash	250	250
of which paid in shares	0	750
Net income	25	100
Transaction P/E multiple	**10.0x**	**10.0x**
Fully diluted SPAC shares (m)	39.38	39.38
New shares issued (m)	0	75
Fully diluted total shares (m)	**39.38**	**114.38**
Fully diluted market cap	393.8	1143.8
Fully diluted P/E multiple	**15.8x**	**11.4x**

Note: Assumes same SPAC structure as Table 3, and a $10 share price.

SPACs will therefore tend to do larger deals in order to minimize this impact by spreading the valuation overhang over a larger base thanks to newly issued shares. SPACs that attempt to acquire small targets relative to their size will find it harder to receive approval from their shareholders, and are less likely to succeed.

3 - Background: The Reincarnation of Blank Check Companies

3.1 - SPACs' Inglorious Ancestor: The Blank Check

In the history of finance, SPACs are not the first shell companies to have made public offerings to make an unnamed acquisition in the future. Such companies have existed in the US many years before SPACs were invented, and were known as blank check companies. In fact, most US SPACs still describe themselves as such in their prospectus, and are classified under SIC[14] code 6770 ("Blank Check Company") in the SEC database.

Blank check offerings would typically issue "penny stock". Section 3(a)51(A) of the Securities Exchange Act of 1934 defines penny stock (as amended in 1990) the following way:

> *The term ''penny stock'' means any equity security other than a security that is:*
> *(i) registered or approved for registration and traded on a national securities exchange that meets such criteria as the Commission shall prescribe by rule or regulation for purposes of this paragraph;*
> *(ii) authorized for quotation on an automated quotation system sponsored by a registered securities association, if such system (I) was established and in operation before January 1, 1990, and (II) meets such criteria as the Commission shall prescribe by rule or regulation for purposes of this paragraph;*
> *(iii) issued by an investment company registered under the Investment Company Act of 1940;*
> *(iv) excluded, on the basis of exceeding a minimum price, net tangible assets of the issuer, or other relevant criteria, from the definition of such term by rule or regulation which the Commission shall prescribe for purposes of this paragraph; or*
> *(v) exempted, in whole or in part, conditionally or unconditionally, the definition of such term by rule, regulation, or order prescribed by the Commission.*

[14] Standard Industrial Classification

Because penny stocks were not registered or even approved for registration (and therefore fell below the SEC's radar), they had become in the late 80's an area of serious abuse[15]. Blank checks in particular were often used to defraud unsophisticated investors. In 1990, a House of Representatives Report[16] states:

> *A common method of perpetrating penny stock fraud is through the marketing of "shell" corporations, or "blank check companies" with no operating history, few employees, few or no discernible assets, and no legitimate likelihood of success in the future. Often the only legally stated purpose of such companies is to seek investment opportunities through mergers and acquisitions.*

According to this same report, fraudulent schemes associated with blank check offerings would typically see a collection of friendly broker-dealers and clients buy most of the stock and then, in collusion, maintain control of the market. They would easily manipulate prices and when the company announced an acquisition the salespeople could generate excitement about the stock and sell it at inflated prices. Eventually, unsuspecting buyers of the stock would find out that their stock is worthless when they try to cash out and realise there is no one to buy it.

3.2 - Regulator's Response: The Penny Stock Reform of 1990

In 1990, blank check companies and penny stocks in general were clearly an area in need of regulation. In fact, some regulators were probably willing to see blank checks, in any form, completely disappear for good. In the hearings related to the Securities Enforcement Remedies and Penny Stock Reform Act of 1990 (the "Penny Stock Reform of 1990"), the US Attorney for the district of Utah stated about blank check offerings: "*[we] find no evidence that these offerings provide any benefits to the US economy or capital formation*"[17]. One of the reasons why blank check companies were not outlawed completely by the state and

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[15] According to the North American Security Administrators Association, in 1988 alone public investors lost more than $2bn in penny stock schemes. Niesar G.V. & Niebauer D.M. (1992), *The Small Public Company after the Penny Stock Reform Act of 1990*, 20 SEC. REG. L.J. pp.227-239.

[16] House of Representatives Report No. 101-617 (1990).

[17] *id.*

federal regulation that went into place at that time seems to be that SEC chairman[18] and NASD Enforcement Director[19] of the time agreed that "*blank check offerings could be and were used in legitimate business transactions outside the penny stock area*".

The Regulator responded with the Penny Stock Reform of 1990, which opens with the following findings:

> *(1) The maintenance of an honest and healthy primary and secondary market for securities offerings is essential to enhancing long-term capital formation and economic growth and providing legitimate investment opportunities for individuals and institutions.*
>
> *(2) Protecting investors in new securities is a critical component in the maintenance of an honest and healthy market for such securities.*
>
> *(3) Protecting issuers of new securities and promoting the capital formation process on behalf of small companies are fundamental concerns in maintaining a string economy and viable trading markets.*
>
> *(4) Unscrupulous market practices and market participants have pervaded the "penny stock" market with an overwhelming amount of fraud and abuse.*
>
> *(5) Although the Securities and Exchange Commission, State securities regulators, and securities self-regulators have made efforts to curb these abusive and harmful practices, the penny stock market still lacks an adequate and sufficient regulatory structure, particularly in comparison to the structure for overseeing trading in National Market System securities.*
>
> *(6) Investors in the penny stock market suffer from a serious lack of adequate information concerning price and volume of penny stock transactions, the nature of this market, and the specific securities in which they are investing.*
>
> *(7) Current practices do not adequately regulate the role of noters" and "consultants" in the penny stock market, and many professionals who have been banned from the securities markets have ended up in promoter and consultant roles, contributing substantially*

[18] Richard Breeden
[19] John Pinto

to fraudulent and abusive schemes.

(8) The present regulatory environment has permitted an ascendancy of the use of particular market practices, such as "reverse mergers" with shell corporations and "blank check" offerings, which are used to facilitate manipulation schemes and harm investors.

(9) In light of substantial and continuing problems in the penny stock markets, additional legislative measures are necessary and appropriate.

Among the new legislative measures introduced by the Penny Stock Reform of 1990 and announced in finding (9), the two most important were the creation of an automated quotation system for penny stocks, and the introduction of restrictions on blank check offerings.

Automated Quotation System

The Penny Stock Reform of 1990 amended the Securities Exchange Act of 1934 by inserting Section 17B entitled *Automated Quotation Systems for Penny Stocks*. This section gives mandates the SEC to establish an electronic quotation system for such securities:

(1) IN GENERAL - The Commission shall facilitate the widespread dissemination of reliable and accurate last sale and quotation information with respect to penny stocks in accordance with the findings set forth in subsection (a), with a view toward establishing, at the earliest feasible time, one or more automated quotation systems that will collect and disseminate information regarding all penny stocks.

(2) CHARACTERISTICS OF SYSTEMS - Each such automated quotation system shall:

(A) be operated by a registered securities association or national ities exchange in accordance with such rules as the Commission and these entities shall prescribe;

(B) collect and disseminate quotation and transaction information;

(C) except as provided in subsection (c), provide bid and ask quotations of participating brokers or dealers, or comparably

accurate and reliable pricing information, which shall constitute firm bids or offers for at least such minimum numbers of shares or minimum dollar amounts as the Commission and the registered securities association or national securities exchange shall require; and

(D) provide for the reporting of the volume of penny stock transactions, including last sale reporting, when the volume reaches appropriate levels that the Commission shall specify by rule or order.

A notable outcome of this measure was the creation of the OTC Bulletin Board, which began operations in 1990 on a pilot basis and was finally approved on a permanent basis by the SEC in 1997. Since August 2003, nearly half of all US SPAC listings have been made on the OTC Bulletin Board.

Restrictions on Blank Checks

The other important contribution of the Penny Stock Reform of 1990 was to introduce a series of restrictions on blank check offerings, and to complete the definition of blank checks. For this purpose, Section 508 of the Penny Stock Reform of 1990 amended Section 7 of the Securities Act of 1933 by inserting the following subsections (b)(1-3):

(1) The Commission shall prescribe special rules with respect to registration statements filed by any issuer that is a blank check company. Such rules may, as the Commission determines necessary or appropriate in the public interest for the protection of investors

(A) require such issuers to provide timely disclosure, prior to or after such statement becomes effective under section 8, of (i) information regarding the company to be acquired and the specific application of the proceeds of the offering, or (ii) additional information necessary to prevent such statement from

ng misleading;

(B) place limitations on the use of such proceeds and the distribution of securities by such issuer until the disclosures required under subparagraph (A) have been made; and

(C) provide a right of rescission to shareholders of such

securities.

(2) The Commission may, as it determines consistent with the public interest and the protection of investors, by rule or order exempt any issuer or class of issuers from the rules prescribed under paragraph (1).

(3) For purposes of paragraph (1) of this subsection, the term "blank check company" means any development stage company that is issuing a penny stock (within the meaning of section 3(a)(51) of the Securities Exchange Act of 1934) and that

(A) has no specific business plan or purpose; or

(B) has indicated that its business plan is to merge with an unidentified company or companies.

The "special rules" announced by paragraph (1) were implemented a few years later in 1992 by SEC rule 419, while paragraph (3) clearly indicated that in order to be considered as a blank check company (and therefore be concerned by these restrictions) the issuer had to be issuing penny stock, as defined by the amended Securities Exchange Act of 1934. However, as cited above in section 3.1, exclusion (iv) of this definition allows the SEC to exclude companies from the penny stock category "*on the basis of exceeding a minimum price, net tangible assets of the issuer, or other relevant criteria*". The scope of these exclusions, which will be discussed later on, is critical since it creates a possibility for blank check companies to avoid being classified as penny stock issuers, and therefore avoid being subject to rule 419 restrictions.

Rule 419

In 1992, SEC Rule 419 implemented the restrictions on blank checks announced by the Penny Stock Reform of 1990. The rule was designed with the dual purpose of placing strict control on the proceeds of the blank check offering and allowing investors to reconsider their inves with the knowledge of all the facts of the company, especially its acquisition target. The five most important restrictions introduced by the rule are the following:

- the funds received and securities issued must be placed in an escrow or trust account until consummation of an acquisition. At least 90% of proceeds must be held in trust;

- the business acquired must have a fair value of at least 80% of the maximum offering proceeds, including funds received or to be received upon exercise of warrants, but excluding underwriting expenses and dealer allowances payable to nonaffiliates;
- upon execution of an acquisition agreement, the company must file a post-effective amendment including financial statements of the issuer and the target. The purchasers must be sent the prospectus included in this amendment and given between 20 and 45 business days from the effective date of this amendment to notify the company if they intend to remain investors;
- if an investor chooses not to remain an investor, or if the company does not receive notification of his intention to do so within the prescribed time, he or she will see his deposited funds (including interest less certain expenses) returned;
- the company has 18 months to complete an acquisition, otherwise funds will be returned to investors.

Exclusions from the Definition of Penny Stock

As cited above in section 3.1, the definition of penny stock in the Securities Exchange Act of 1934 (as amended in 1990) allows the SEC to exclude certain companies from such definition "*on the basis of exceeding a minimum price, net tangible assets of the issuer, or other relevant criteria*". At the time the Penny Stock Reform of 1990 was written, such exclusions concerned:

- any company issuing securities at $5 or more;
- issuers with net tangible assets in excess of $2 million AND in continuous operation for more than 3 years (which obviously couldn't apply to blank check offerings or SPACs);
- issuers with net tangible assets in excess of $5 million.

In 1993, following the introduction of Rule 419, the Regulators found that the current state of the law allowed blank check issuers to easily avoid being subject to Rule 419 by using the $5 min price exclusion, which led to SEC to abolish it. SEC Release 33-7024 states:

> *As discussed in the Proposing Release, it has become apparent that, for blank check offerings, the five dollar price threshold presents an easy mechanism for avoiding the regulatory scheme contemplated by Congress. Applying the five dollar exclusion contained in Rule 3a51-1*

to offerings by blank check issuers undercuts the investor protection purpose of the blank check rules.

Accordingly, the Commission is revising the definition of penny stock, solely for purposes of section 7(b) of the Securities Act and Rule 419 thereunder, so that the five dollar price exclusion provided by Rule 3a51-1 will not prevent offerings registered under the Securities Act by blank check companies from being subject to Rule 419.

However, the SEC chose not revise the other two exceptions, and in particular the one excluding companies with net tangible assets over $5 million. On the contrary, the Commission deliberately left the door open by allowing blank check issuers underwritten on a firm commitment basis to avoid Rule 419 compliance if proceeds are to exceed $5 million[20], which allowed for the invention of SPACs:

Questions have been raised with respect to whether an offering by a blank check issuer that is underwritten on a firm commitment basis, with the proceeds to exceed $5 million, must comply with Rule 419. Although the closings for these offerings typically do not occur for a short period of time following effectiveness of the registration statement and no audited balance sheet could be produced prior to that time, the Commission has been urged to permit issuers to use the proceeds of such a firm commitment underwriting in calculating the issuers net tangible assets, solely for purposes of determining whether compliance with the blank check rule is required. [...]

The commission has determined that an issuer that otherwise would be subject to Rule 419 will be permitted to aggregate the proceeds of a firm commitment underwriting with its other tangible assets solely in order to determine whether the offered security must comply with Rule 419, provided that the issuer files an audited balance sheet reflecting net tangible assets (including the proceeds of the offering) in excess of

reshold promptly after the closing date and files such balance sheet under cover of Items 5 and 7 of Form 8-K.

[20] SEC Release 33-7024 (1993)

3.3 - The SPAC Invention

In the end, the new regulation introduced in the early 90's was so limiting that it seemed unlikely anyone would use a blank check offering anymore. But because in some cases the blank check structure responded to a legitimate capital raising need, a group of creative lawyers and bankers found their way through the new regulation and invented the SPAC.

Special Purpose Acquisition Companies ("SPACs"), though initially called *Specified Purpose Acquisition Companies*[21], were invented in the US in 1992 as a way of raising capital through a blank check offering excluded from the penny stock definition[22] and therefore that does not need to comply with Rule 419. In order to be approved by the SEC, SPACs voluntarily follow most of Rule 419's requirements while avoiding its most oppressive features. This way, the Commission was satisfied that the SPAC was not used as a defrauding tool, while Sponsors could modify the structure in order to make it attractive to investors. Table 5 below compares the SPAC structural requirements with those of Rule 419.

Table 5: Rule 419 Requirements and SPAC "Self-Imposed" Rules Compared

Rule 419 requirements	Are SPACs compliant?	SPAC "self-imposed" rules
At least 90% of proceeds placed in trust account until completion of an acquisition	Yes(1)	Funds held in trust must be invested in short term government securities, while Rule 419 allows funds to be invested in any government security or money-market fund(2)
Securities issued placed in escrow until completion of an acquisition	No	SPACs allow for the trading of units immediately after the IPO, and stocks and warrants trade separately a few weeks after
Target fair value of at least 80% of the maximum offering proceeds	Yes	Target fair value of at least 80% of the net asset value of the SPAC at the time of acquisition
Disclosure requirements	Yes	Full disclosure
Purchasers that do not specifically approve the acquisition get their money back	No	Only those that specifically ask to redeem shares get their money back. However, SPACs usually require that less than 20%-30% of shareholders ask to redeem shares for an acquisition to be approved
18-m eadline	No	Deadline extended to 24 months (sometimes a little more)

(1) Though so... ...Cs do not fully comply because percentage of proceeds held in trust is below 90%, most actually exceed the 90% threshold
(2) SEC Rule 419, section II B

[21] The use of the term *Special* seems to have progressively replaced *Specified*
[22] On the basis of exceeding $5 million net tangible assets

Among the differences between the SPAC structure and Rule 419 requirements, two are obviously made to improve the SPAC's efficiency and attractiveness:

- Rule 419 requires stock and warrants to be placed in escrow until an acquisition is made, which would make the offering unattractive to investors; instead, SPACs allow for the trading of units immediately after the IPO, and stocks and warrants can trade separately a few weeks after (attracts hedge funds);
- the 18-months deadline of Rule 419 has been extended for SPACs to 24 months in general (and sometimes up to 36 months) in order to give more time to complete an acquisition.

In addition, some elements of the SPAC structure are actually safer for investors than Rule 419 requirements:

- the trust funds must be invested in short-term government securities only, while Rule 419 allows any kind of government security or money-market fund;
- SPACs usually keep over 98% of gross proceeds in trust, while Rule 419 only requires 90%[23].

Other differences include the fact that SPAC warrants are exercisable only after an acquisition is completed (while Rule 419 does not require anything specific), and the way the acquisition phase is organized. Under Rule 419, when an acquisition is announced, the investor has the choice between notifying his intention to remain investor, asking for his money back, or doing nothing, the last two options resulting both in him receiving his pro-rata share of the trust. Provided that there is still sufficient funding in the company, the deal could in theory still be completed even if less than a majority of shareholders approve the transaction. In comparison, SPACs can seem less safe for investors (since only those who specifically ask to redeem their shares will get their funds back), but compensate by requiring a majority of shareholders to approve the transaction, and that less than 20%-30% of them ask to redeem shares. Moreover, on could argue that due to their size, SPACs are marketed to sophisticated investors who will not forget to ask to redeem their shares if it is in their best interest.

The SPAC structure was improved with time, always keeping in mind that the regulator was keeping a close eye on this experimental "legitimate" blank check. As David

[23] Though a few SPACs have had less than 90% of gross proceeds in trust after their IPO, most of them exceed the 90% threshold

Allan Miller, one of the lawyers that participated in the invention of the SPAC structure, reminds us[24] in 2007, the first SPACs were launched in the mid 90's, under close scrutiny from the SEC:

> *Don't forget that, after we helped to invent the product in 1992, we consummated about 15 SPAC offerings between '93 and '96. During each of these two runs, issues arose when the structure was "tweaked." The regulators properly need to make sure that new tweaks don't run afoul of any law. There have been half a dozen or so times over the course of both runs where tweaks we have made have resulted in enhanced regulatory review before clearance was obtained. Some of these tweaks would include adding the obligation of the insiders to buy warrants in the aftermarket and morphing that into the obligation of the insiders to instead purchase shares or warrants directly from the SPAC on a private basis at the time the IPO closes. Both require the SPACmeisters to have "skin in the game," but in the latter case, the sale proceeds go to the SPAC, thereby increasing the amount in trust for the public holders.*

The Penny Stock Reform of 1990 and the rules that followed proved quite successful in curbing abuse. Of course, there were still occasional cases in which the blank check structure was used for market manipulation, even with SPACs. In 1997, the NASD sanctioned GKN Securities and 29 of its supervisors and brokers, accused of manipulating the market and overcharging clients. The NASD press release[25] states:

> *From December 1993 through April 1996 GKN dominated and controlled the immediate after-market trading in eight securities it underwrote so that there was no competitive market for them. As a result, GKN was able to charge excessive markups ranging from six percent to as much as 67 percent over the prevailing market price in more than 1,500 transactions. At least 90 percent of these transactions fraudulent because the mark-up exceeded 10 percent (a level considered fraudulent).*

---

[24] Interview in IPO Vital Signs (2007)

[25] NASD Regulation press release, 14 August 1997, available at http://www.finra.org/Newsroom/NewsReleases/1997/P010512

Among the eight securities for which GKN was accused of fraud, at least three of them were SPAC warrants. The SPACs involved were *European Gateway Acquisition Corp.* (listed in October 1993), *Restructuring Acquisition Corp.* (listed in May 1994) and *Entertainment/Media Acquisition Corp.* (listed in February 1995). By the time GKN got sanctioned, two[26] of these SPACs had already successfully completed an acquisition, while the third liquidated after shareholders rejected a proposed acquisition[27].

By the end of the 90's, demand for SPACs had disappeared because of the strong IPO market, so much so that no SPAC IPOs occurred until *Millstream Acquisition Corp.* went public in August 2003, raising proceeds of $24.2m. Since then, over $25bn has been raised in such offerings, in the US but also in Europe.

[26] In August 1995, *European Acquisition Corp* acquired *Speech Design GmbH* and *Bogen Corp.*, two subsidiaries of *Geotek Communications Inc* ; in October 1996, *Entertainment/Media Acquisition Corp.* acquired *Overseas Filmgroup*.

[27] In May 1996, *Restructuring Acquisition Corp.* shareholders voted against the proposed acquisition of *Media Technology Corp.*, after which the SPAC expired and liquidated.

4 - The Different Parties' Interests

4.1 - The Investors

Given the nascent state of the SPAC sector, the investor base is evolving, with new types of investors becoming increasingly active. Lewellen (2009) finds that institutional investors own on average 35% of all SPAC shares, but agrees that this is probably an understatement due to a calculation method bias[28]. Moreover, taking into account the fact that 20% of the shares are typically kept in escrow and owned by the management (Sponsors' promote), it seems more relevant to measure institutional ownership as a fraction of the free float. According to Lewellen, investment bankers and hedge fund managers believe that the level of institutional ownership in SPACs is closer to 75%-90% of free float. Among these institutional investors, hedge funds form the bulk of demand; other investor types such as long only funds and private wealth managers are also represented, but are interested in the product for different reasons.

Hedge Funds

Hedge funds are the group of institutional investors with the greatest appetite for SPACs. Their interest in the product has given birth do different trading strategies, which can be summarized into four categories:

- *Enhanced cash*: such investors will buy the SPAC shares when they trade at a discount to the trust value. Many investment banks[29] quote an implied yield to maturity on the common stock (which is more or less like a risk-free bond until an acquisition becomes likely) by calculating a discount yield from the last market price to the estimated trust value at expiration date. Hedge funds following this strategy will buy units at the IPO if they can make an above-market risk-free yield by selling the warrants as soon as they trade separately, and holding the shares to maturity to earn the pro-rata trust value. If investors follow an enhanced cash strategy, they will

[28] Lewellen measures institutional ownership using the CDA/Spectrum S34 files. This method cannot account for hedge funds with less than $100m in assets, which are not required to disclose their portfolio holdings. Many such hedge funds are likely to be SPAC investors.
[29] For example, in its *SPAC Market Daily Update*, Morgan Joseph gives an implied yield to maturity for all SPACs that are seeking acquisition or have announced an acquisition.

typically reject any proposed acquisition[30], unless someone offers to buy their shares at a price above the trust value.

- *Arbitrage*: many hedge funds build strategies to take advantage of mispricings between the units, the shares and the warrants of a given SPAC, since they all trade separately a few weeks after the IPO.
- *SPACmailing*: this strategy, also known as "Greenmailing", consists in accumulating a position in the common stock before the shareholder vote if shareholder approval of the proposed acquisition is not certain. The hedge fund will then notify to the Sponsors his intention to reject the deal in order to force them to buy the position at a higher price, or will offer to vote in favour in exchange for an additional compensation.
- *Private equity portfolio*: hedge funds can buy and hold a portfolio of SPACs to create a diversified private equity fund, and maximize their chances of backing a successful Sponsors team. If a SPAC proposes an acquisition they do not like, they still have the option of selling their position and/or asking to redeem their shares.

Long Only Funds

Traditional long only funds have become increasingly active in SPACs. Some investors, which are a focused on a particular sector, will appreciate SPACs with the same focus, especially since sector expertise enables these investors to make a judgement on the quality of the Sponsors. Contrary to hedge funds, these investors are generally interested in holding the shares and benefiting from the potential value creation of an acquisition. From the Sponsors' point of view, they are therefore the most desirable investor base to have at the time of shareholder vote.

Private Wealth Managers

Even if they account for a small fraction of the investor base, private wealth managers and family offices appreciate the bond-like floor with upside potential of the structure. They value the private equity aspects of SPACs, and like their transparency and entrepreneurial nature. For relatively small investors, SPACs can be a way to get exposure to private equity

[30] This became obvious in the last months of 2008 when hedge funds were forced to sell their holdings at a loss to raise cash for investor redemptions, causing SPAC shares to trade at a large discount to trust value. New investors that replaced the hedge funds were following an aggressive enhanced cash strategy and pushed for early liquidations. For more details, see Mueller (2008).

without having millions of dollars to invest.

4.2 - The Target Company

For small and midsize companies, SPACs can be a solution to get access to public markets without having to complete a traditional IPO. It is not just pure coincidence if SPACs completely disappeared in the late 90's until 2003, when the IPO market for small companies was boosted by the dotcom fever. In times when there is little interest in the market for small company IPOs, such companies are left with few options to raise funds. Merging with a SPAC can provide them with an immediate cash injection (if current shareholders accept to be paid in SPAC shares), and propel the company on a listed exchange where it can raise cash from public markets in the future.

In addition, merging with a SPAC gives access to best-in-class managers (the Sponsors) who will allow the company to enjoy better acknowledgement from the capital markets and hopefully make operational improvements. Of course, this may also be a problem if conflicts arise with existing management.

4.3 - The Sellers

Sellers' interests are not always aligned with those of the target company. If they wish to cash-out, partially or totally, then there is no cash injection for future growth. Moreover, sellers who wish to cash-out totally will find it extremely difficult to merge with a SPAC, since SPAC shareholders are extremely reluctant to complete such an operation (which could be compared to a pure secondary IPO).

On the contrary, sellers are typically willing to remain as investors in the new company, and would usually accept to be paid with shares. Depending on how the deal is structured, they can even retain a majority stake in the business, with the difference that they are now shareholders of a listed company, enjoying better liquidity.

4.4 - The Underwriter

Main reason for investment banks' interest in SPACs is obviously the opportunity to charge a healthy fee. Historically, fee levels for SPAC IPOs have been a little above the usual

7% charged by US investment banks for standard IPOs[31], and were closer to 10%. Several factors can explain this difference:

- SPACs are a relatively new and sophisticated alternative investment product;
- the relatively small size of many SPACs compared to standard IPOs make it possible for the underwriter to negotiate higher fees;
- a portion of the fees is kept in the trust fund as deferred fees that will be paid to the underwriter only if an acquisition is completed.

However, in recent years this fee structure only applied to a minority of SPACs, and fee levels seemed to be more in line with the broader IPO market. Again, several reasons for this change:

- competition for SPAC underwriting has increased, with bulge-bracket investment banks entering the game (see section 5.6);
- size of SPAC offerings has increased as well;
- the level of IPO fees in general (not only SPACs) seems to have decreased in the US[32].

4.5 - The Sponsors

The SPAC structure was designed to align as much as possible the Sponsors' interests with those of public investors. In theory, since only public investors can vote on a proposed acquisition, the only way for Sponsors to be rewarded (by getting access to the Sponsors' promote and being able to exercise their warrants) is to come up with a deal that will be profitable for public investors so that they will approve it. Sponsors have therefore extremely attractive incentives to complete a value creative acquisition, as described previously in section 2.4.

In practice however, things are not that simple. First because, as we have seen previously, different kinds of public investors may have different objectives, some of them being radically opposite to the Sponsors' (*enhanced cash* hedge funds for instance, will always rej roposed business combination). Second because the reward structure for the Sponsors - ----- precisely the Sponsors' promote - create a potential conflict of interest that can push Sponsors to make an acquisition that destroys value for the other shareholders.

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[31] Anderson (2005).
[32] Cowann (2005).

5 - Data Overview and SPAC Market Statistics

5.1 - Data Overview

My sample is made of the 175 SPACs that have completed their IPO since 2003[33], either in the US or in Europe[34], as of July 2010. In order to identify these SPACs, I used two different sources: (1) a search of the SEC EDGAR database for public companies with a SIC code 6770 ("Blank Check Company"), (2) a published report[35] from investment bank Morgan Joseph, which has underwritten several SPAC IPOs.

For each of these 175 SPACs, I collected information regarding the *Offering Date*, *Offering Price per Unit*, *Acquisition Focus* (sector or geography) the *Exchange* on which the SPAC is listed, the *Ticker* and the *Underwriters* from the SEC filings for US listings, AIM filings for AIM-listed SPACs, and from the IPO prospectuses for 4 European SPACs that were listed either on Euronext exchanges or on the Frankfurt Stock Exchange. *IPO Proceeds* data, which includes underwriters' overallotments when exercised, is taken from the Morgan Joseph report, like the *Percentage of Gross Proceeds in Trust at IPO*.

I attributed a *Status* to each of the 175 SPACs, based on information available in the Morgan Joseph report, company filings, and news articles I found using the Factiva database. For each SPAC, the *Status* has to be one of the following:

- *No acquisition announced*: the SPAC has completed its IPO but no target has been found;
- *Announced acquisition*: an acquisition has been announced and has to be approved by shareholders;
- *Completed acquisition*: acquisition has been completed successfully, and the SPAC has become a listed operational company;
- *Liquidated(ing)*: the SPAC has liquidated or liquidation is in progress.

In a ı, in order to measure the share price performance of SPACs (see section 6),

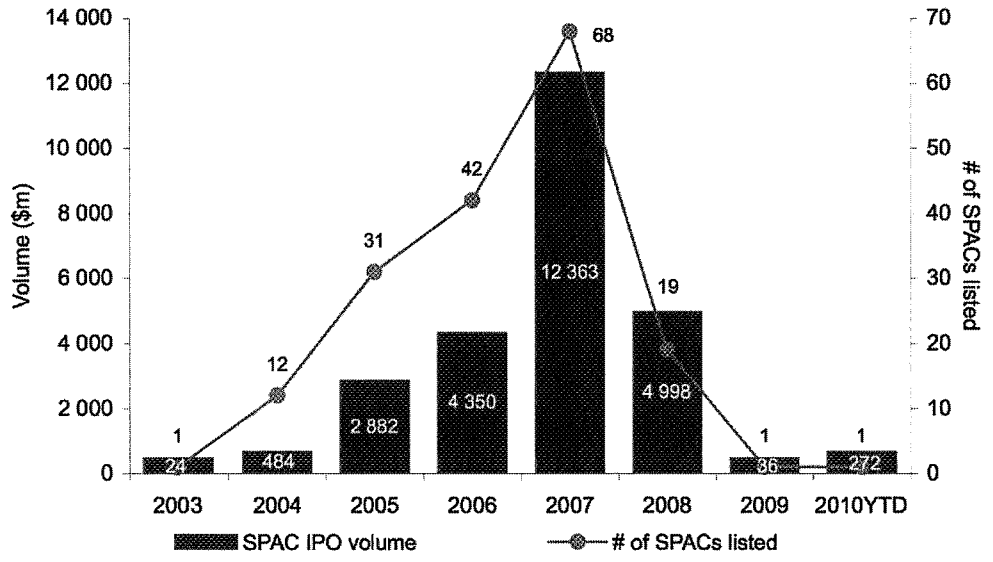
[33] Before 2003, a few SPACs were listed in the mid 90's when the SPAC structure was invented. I ignore these SPACs.
[34] 162 in the US and 13 in Europe.
[35] Morgan Joseph *SPAC Market Daily Update* (2010).

I reduced the size of my sample to keep only the 82[36] SPACs with IPO proceeds over $100m. I downloaded unit price information from Datastream, except for 3[37] of these SPACs where I used stock price information because it was the only data I could find. I then searched company filings and/or press releases to find the exact date of shareholder vote for the SPACs that have completed an acquisition. The data retrieved was inconsistent for two companies so I excluded them from the sample[38]. I downloaded data for the S&P500 from Yahoo Finance, while risk-free rates (used to calculate excess returns) are taken from Kenneth R. French's website.

5.2 - Issuance Statistics

As described in Figure 4, SPAC issuance reached a peak in 2007, with 68 SPACs listings raising proceeds of over $12bn. The impact of the financial crisis is sizeable in 2008 (19 listings and proceeds of nearly $5bn, which still compares favourably with 2006) and becomes obvious in 2009-2010 where SPAC issuance becomes completely anecdotic (only one listing per year).

Figure 4 - US & Europe SPAC Issuance



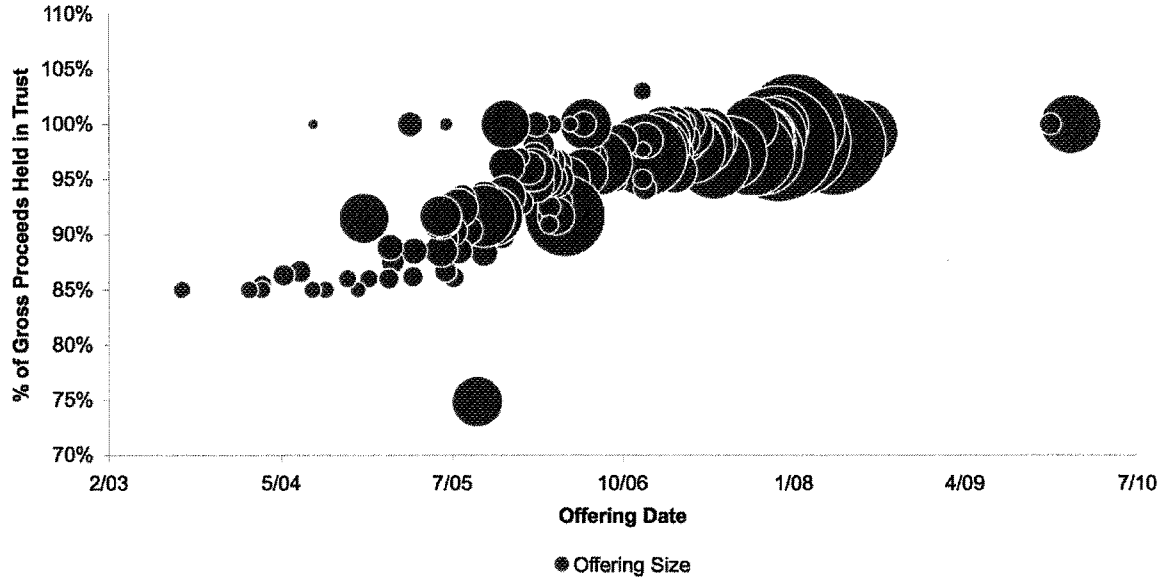
[36] 70 US listed SPACs and 12 European SPACs.

[37] The 3 SPACs are *Liberty International Acquisition Company, India Hospitality Corp.* and *Pan-European Hotel Acquisition Company*

[38] The 2 SPACs are *Infinity Bio-Energy Ltd*, for which I could not find the date of shareholder vote, and *Star Maritime Acquisition Corp.*, which appears to have been delisted before shareholder vote.

Issuance data also shows that the structure of these SPACs has evolved over the 2003-2010 period. With time, both the size of the offerings and the percentage of gross proceeds held in trust have increased, resulting in bigger and "safer" SPACs, as shown in Figure 5. The average offering size increased from $40m in 2004[39] to $263m in 2008[40], and the average percentage of proceeds held in trust increased from 87.3% to 99.5% over the same period.

Figure 5 - A Move Towards Bigger, Safer SPACs



5.3 - Stock Exchanges

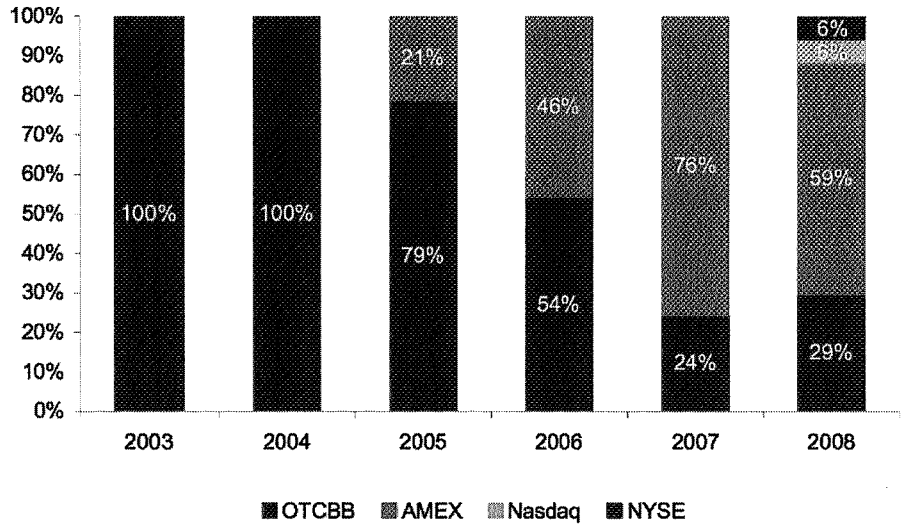
As mentioned in section 3, the OTC Bulletin Board (OTCBB) was created in the US following the Penny Stock Reform of 1990 specifically to provide an automated quotation system for penny stock securities, including blank checks. The OTCBB therefore appeared as the natural exchange for US SPAC listings, and unsurprisingly the first SPAC IPOs were all made on this exchange. However, the interesting fact is that the proportion of US SPAC listings on the OTCBB declined with time in favour of more visible and renowned exchanges such as the AMEX or even the NYSE or the NASDAQ, which is a sign of the financial industry's acceptance of the SPAC as a legitimate capital raising structure. Similar trend happened ope, where SPAC listings have moved from AIM to leading national stock

[39] The average offering size is even lower in 2003 ($24m), but seems less relevant since only one SPAC IPO occurred.

[40] Again, 2009 and 2010 average offering sizes (respectively $36m and $272m) have little relevance since there was only one IPO per year.

exchanges such as Euronext Amsterdam or the Frankfurt Stock Exchange.

Figure 6 - US SPAC Listings by Stock Exchange (2003-2008)

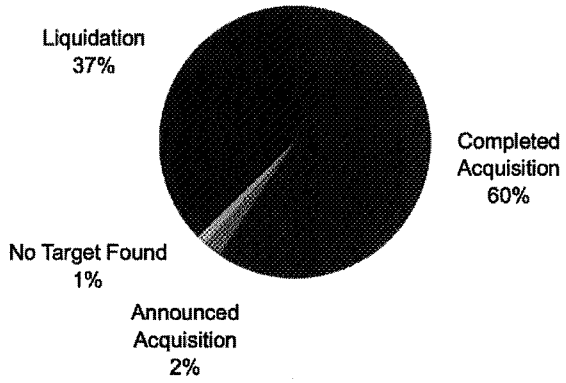


Note: Calculated on an equal-weighted basis.

5.4 - Status

As of July 2010, of the 175 SPACs that have listed since 2003, 104 have completed an acquisition and 65 have liquidated, while 4 have recently announced an acquisition and 2 are still searching for a target. Figure 7 gives the breakdown of SPACs by status.

Figure 7 - Breakdown of SPACs by Status



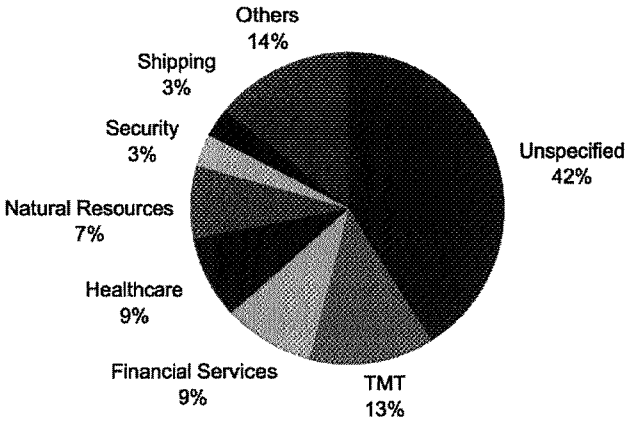
Note: Calculated on an equal-weighted basis.

5.5 - Acquisition Focus

Wh ng public, SPACs can choose to specify whether or not they intend to make an acquisition in a specific sector and/or geographical area. Results show that while a majority of SPACs (58%) announce a sector focus, the same percentage choose not to announce any geographical focus. Moreover, it is worth noting that 15% of all SPACs state an intention of making an acquisition in China. Figures 8 and 9 give provide more detail of the breakdown of

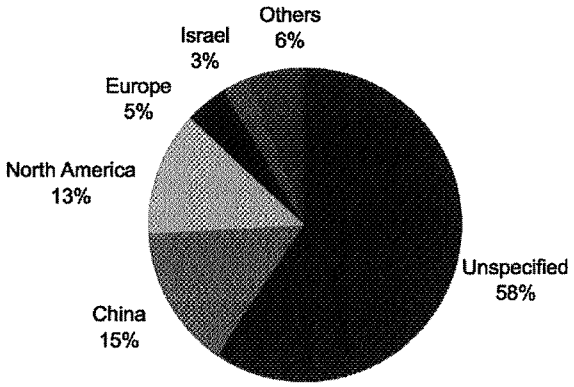
acquisition focus, for sector and geography respectively.

Figure 8 - SPACs by Sector Focus



Note: Calculated on an equal-weighted basis.

Figure 9 - SPACs by Geography Focus



Note: Calculated on an equal-weighted basis.

5.6 - Underwriters

The progressive move to legitimacy and visibility we observed in section 5.3 when looking at the stock exchanges is also observable if we look at the names of the underwriters. While the first underwriters to show interest for the SPAC structure were boutique investment banks such as EarlyBird Capital or Morgan Joseph, a few bulge-bracket investment banks like Citi or Deutsche Bank have become increasingly active on this market since 2005, as a reflection of the industry's acceptance of the vehicle. Since 2003, over 60 firms have underwritten SPACs, some of them of course being a lot more active than others. Based on the data I collected, I was able to create the following league tables of SPAC underwriters for the period running from 2003 to July 2010.

Table 6 - SPAC Underwriters League Table by # of Deals (2003-2010YTD)

Rank	Name	# of deals	Volume ($m)	Average deal size ($m)
1	EarlyBird Capital	42	2 772	66
2	Ladenburg Thalmann	33	6 847	207
3	Maxim Group	30	4 422	147
4	I-Bankers Securities	24	3 090	129
[illegible]	gend Merchant Group	23	1 943	84
[illegible]	i	22	7 750	352
[illegible]	lorgan Joseph	20	2 272	114
8	Deutsche Bank	16	4 847	303
9	Lazard CM	14	2 834	202
10	CRT Capital	11	1 487	135

Table 7 - SPAC Underwriters League Table by Volume (2003-2010YTD)

Rank	Name	# of deals	Volume ($m)	Average deal size ($m)
1	Citi	22	7 750	352
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3	Deutsche Bank	16	4 847	303
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5	I-Bankers Securities	24	3 090	129
6	Lazard CM	14	2 834	202
7	EarlyBird Capital	42	2 772	66
8	Morgan Joseph	20	2 272	114
9	Legend Merchant Group	23	1 943	84
10	Lehman Brothers	2	1 851	926

6 - SPAC Market Performance

In this section, my goal is to measure the market performance of the SPAC structure in recent years, and try to figure out if SPACs manage to create value for investors. My approach is to focus on the "non-operating" life of SPACs, meaning that I measure market performance only in the *No Acquisition Announced* and *Announced Acquisition* periods. By doing this, I measure returns that are more specifically linked to the SPAC structure and eliminate all biases that can appear when the SPAC becomes a "normal" operating company (as detailed in Section 6.3).

6.1 - SPAC Index Construction

To measure SPAC market performance, I created two SPAC indices (equal-weighted and value-weighted) based on information collected on the 83 SPACs with IPO proceeds over $100m (as detailed in section 5.1). I constructed these indices as follows.

Equal-Weighted SPAC Index

This SPAC index is designed to mimic the performance of a strategy consisting in holding, at any point in time, the same amount of units of each available SPAC that has not yet received shareholder approval to make an acquisition. Below is the detail of the formulas I used to construct it.

On any given day *d*, if no rebalancing needs to be done and if we denote by a_d, b_d, ..., f_d the unit prices on that day of SPACs A, B, ..., F respectively (which are all the available SPACs on that day as defined above), then the formula to compute the value I_d of the index would be:

$$I_d = I_{d-1} \times \frac{a_d + b_d + ... + f_d}{a_{d-1} + b_{d-1} + ... + f_{d-1}}$$

Now, if we assume that on day d-1 the population of available SPACs is A, B, ..., F and that on day d SPAC G becomes available (because it has completed its IPO) while all others remain, then the formulas would be:

$$I_d = I_{d-1} \times \frac{b_d + ... + f_d}{a_{d-1} + b_{d-1} + ... + f_{d-1}} \text{ (unchanged) and } I_{d+1} = I_d \times \frac{a_{d+1} + b_{d+1} + ... + f_{d+1} + g_{d+1}}{a_d + b_d + ... + f_d + g_d}$$

Finally, if we assume that on day d-1 the population of available SPACs is A, B, ..., F and that on day d SPAC A exits the index (because its shareholders have approved an acquisition, or because it is liquidating) while all others remain, then the formula would be:

$$I_d = I_{d-1} \times \frac{b_d + c_d + ... + f_d}{b_{d-1} + c_{d-1} + ... + f_{d-1}}$$

Value-Weighted Index

In order to test the robustness of the results of the first index, I also constructed a value-weighted index. In the formulas, the only difference is that I multiplied all SPAC unit prices by the number of units sold at the IPO (which remain constant during the "non-operating" life of the SPAC).

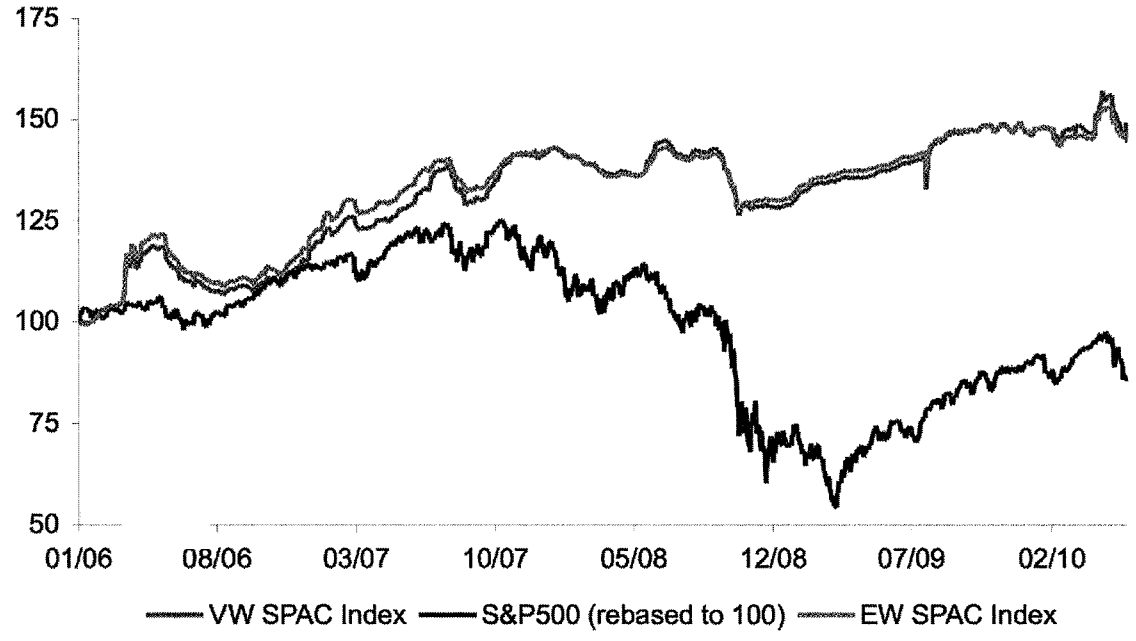
For example, on any given day *d*, if no rebalancing needs to be done and if we denote by a_d, b_d, ..., f_d the unit prices on that day of SPACs A, B, ..., F respectively (which are all the available SPACs on that day as defined above), and by N_A, N_B, ..., N_F the number of units sold of each of these SPACs, then the formula to compute the value I_d of the index would be:

$$I_d = I_{d-1} \times \frac{a_d \times N_A + b_d \times N_B + ... + f_d \times N_F}{a_{d-1} \times N_A + b_{d-1} \times N_B + ... + f_{d-1} \times N_F}$$

6.2 - Results

Figure 10 below shows the performance of the equal-weighted (EW) and value-weighted (VW) indices, together with the S&P500 for comparison purposes. In order to have a significant number of constituents, the indices shown start in January 2006.

Figure 10 - SPAC Indices Performance (2006-2010YTD)



Note: Based on all US and European SPACs with IPO proceeds over $100m.

As shown in Figure 10, both indices seem to give about the same results[41], which is comforting[42]. Over the period running from January 2006 to May 2010, I find compound annual rates of return for SPAC units of 8.7% and 8.9% for the equal-weighted and value-weighted indices respectively. But does this mean SPACs have created any value for their investors? What should the required rate of return on their investment be? Considering the fact investors have the option to redeem their shares in the end and get almost 100% of their money back (the average percentage of gross proceeds held in trust is 97% for this sample), it seems reasonable to think the required rate of return should not be too far above the risk-free rate. In order to measure performance against the risk-free rate, Table 8 below shows the average monthly excess returns for both indices for different periods of time. The result for both indices is that SPACs generated significant positive monthly excess returns every year since 2006 with the exception of 2008. Moreover, I find average monthly excess returns of 0.65% and 0.69% for the equal-weighted and value-weighted indices respectively since January 2006, suggesting SPACS have created significant value for investors over that period.

Table 8: Average Monthly Excess Returns for EW and VW SPAC Indices

	Equal-Weighted Index		Value-Weighted Index	
	Average	Median	Average	Median
2006	1,41%	1,22%	1,18%	0,93%
2007	0,92%	1,18%	1,14%	0,99%
2008	-0,81%	-0,65%	-0,93%	-0,67%
2009	0,93%	0,68%	1,00%	0,76%
2010 YTD	1,09%	0,07%	1,72%	0,60%
Since 2006	0,65%	0,58%	0,69%	0,65%

Note: Risk-free rates are taken from Kenneth R. French's website.

One risk factor that could justify a required rate of return that is higher than the risk-free rate is the uncertainty relating to the time necessary to complete the liquidation, which can be pretty long. For example, if we assume a SPAC starts liquidation two years after the IPO but the funds are not returned to investors until a year later (extreme case), then in order to secure a 4.0% annual return on the 3-year period investors must require a 6.1% annual return duri first two years. Nevertheless, my results suggest that even if we take into

[41] In fact, the two indices appear to be extremely similar, which can be explained first by the nature of the sample (only SPACs above $100m) and the standardization of the structure (typical SPAC size is $200-250m).

[42] These results remain rather unchanged if I modify the indices to eliminate SPACs that could be considered as outliers, especially the best performing ones.

account this risk factor, the observed level of annual return (almost 9%) is positive enough to conclude that SPACs have created value for their investors over the period.

6.3 - Comparison with Existing Literature

Several papers have focused on SPAC market performance, the usual approach being to measure the average returns at each of the steps of a SPAC's life (*No acquisition announced*, *Announced acquisition*, *Completed acquisition*). This approach has been followed by Lewellen (2009), Jenkinson and Sousa (2009), Floros and Sapp (2009) who unanimously found that, on average, SPACs that complete an acquisition tend to earn significantly negative returns after the shareholder vote. In particular, Jenkinson and Sousa (2009) find that more than half of SPAC acquisitions immediately destroy value for their shareholders, with negative risk-adjusted returns after the acquisition was approved. I made similar findings but I believe this approach, though very interesting, is not the most suitable to assess SPACs' value creation capacity, and suffers several biases. First, because it is relevant for small and passive investors who do not exercise their vote or always vote in favour of the proposed deal, while the SPAC investor base is mainly made of sophisticated institutional investors. Second, because in order to measure the actual returns for investors after a deal is approved, it would be necessary to adjust the market prices for the following two reasons:

- company filings provide evidence that some investors receive some form of incentive from the Sponsors, the SPAC itself or from the target company in exchange for their approval of the transaction at shareholder vote;
- once it has completed an acquisition, the SPAC becomes a "normal" operating company that can issue new shares and rights.

Third, because the sample used by Jenkinson and Sousa (60 SPACs that completed an acquisition approved no later than June 2008) means the results must be put into perspective with the poor performance of the US stock market from summer 2007 to spring 2009.

Moreover, it is interesting to compare my results with these authors' findings for the *No acquisition announced* and the *Announced acquisition* phases, since they are exactly what I call the "non-operating" life of the SPAC. Floros and Sousa (2009), for example, find that SPACs earn a risk-free return during the *No acquisition announced* phase, and significantly positive cumulative abnormal returns (CARs) in the *Announced Acquisition* phase. Though

the methodology may differ from mine[43], these findings (which are similar to those of Lewellen or Jenkinson and Sousa) are consistent with my results and stress the fact that most of the positive returns occur following the announcement of an acquisition, suggesting investors usually believe the proposed acquisition creates value.

[43] Floros and Sapp measure cumulative abnormal returns in comparison with the Russell 2000 index. This method makes total sense once an acquisition has been approved, but is questionable during the "non-operating" life of the SPAC, where the risk-free rate seems to be a more appropriate benchmark. Therefore, it is my belief that Floros and Sapp's results tend to underestimate the positive excess returns earned by SPACs during this period.

7 - Conclusion

SPACs are not as recent as it may seem. This structure was invented in the US in the mid 90's after new regulation was introduced to put an end to the fraudulent investment schemes involving blank check companies. SPACs are the reincarnation of blank checks, specifically designed to work around the new regulation while still respecting its investor protection purpose. The first SPACs were IPOed in the mid 90's, but the structure completely disappeared during the dotcom era to resurface in 2003. Since then, 175 SPACs have gone public in the US and in Europe, and the structure has gained in popularity.

With time, SPACs have become bigger and safer and seem to have been accepted by the financial industry as a legitimate capital raising tool, light years away from the fraudulent practices of the late 80's. They can now be listed on high-end stock exchanges like the NYSE, NASDAQ or Euronext, and are increasingly underwritten by bulge-bracket investment banks. Like the overall IPO market, SPAC issuance has been severely hit by the financial crisis (with only 2 SPAC IPOs since January 2009) and though many SPACs are still on file the timing of a potential comeback of SPAC IPOs remains uncertain.

In terms of market performance, I show that during the period from January 2006 to May 2010, SPACs have created value for investors who buy and hold SPAC units from the IPO until an approved acquisition or liquidation.

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