



CAVEAT INDEXER : THE CASE FOR SMALL-ISSUE HIGH YIELD BONDS

by Bob Sydow, Senior Vice President and High Yield Portfolio Manager

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Abstract

We are often asked why our portfolio contains a high concentration of relatively small bond issues (which tend to be issued by commensurately smaller companies – firms having enterprise values between \$300 million and \$1 billion). In this white paper, we will make the case that 1) such issues tend, for a variety of reasons, to offer greater value in terms of yield per unit of default risk, 2) that such excess return is of greater value to almost all investors than the foregone value of the allegedly higher liquidity of very large issues, and that 3) the information dynamics of small issues provide an opportunity for an active manager to add security-specific alpha above and beyond the simple “liquidity premium” observed in the high yield market.

We will start with a review of issue sizes. As the high yield market has grown over time, the size of average high yield bond issue has grown with it. Chart 1 shows that the average size issue has quadrupled since 1983.

We, as well as Credit Suisse’s research department, have historically stratified issues as very small (<\$100 million in proceeds), small (\$101 to \$299 million in proceeds), large (>\$300 million in proceeds) and very large (>\$500 million in proceeds.) Chart 2 shows the percentage of total new issue proceeds accounted for by issues within these size strata. Large and very large issue volume, combined, has risen from a starting point of 30% of marketwide proceeds to an all-time high of approximately 85% in each of the last four years. In contrast, small issues have declined from a peak of 40% of the market to approximately 14% since 2007. We believe this major trend has three main causes. First, the tendency of successful (non-defaulting) high yield issuers is to grow over time, typically at a rate higher than GDP, because many high yield issuers are in newer industries, which are unable to attract an investment grade rating. Cellular telephony, cable television, and gaming, for example, are high-growth industries, which were almost entirely financed by high yield debt, and the early players in these industries now issue bond debt by the billion. Second, private equity funds, which initiate bond issues with their purchases of companies, have become so large that they seek economies of scale – they want to spread their fixed costs of analyzing, negotiating and

financing their purchases over larger transaction sizes. And third, as we shall show, the high yield bond buying community has shown a marked preference for larger issue sizes.

The Yield Advantage of Small Issues

Are small issues systematically better or worse than large ones? This is a complex, data-intensive question. To assess it, we look at the average credit statistics of new issues during the period 2000-2010. Although there is older data, we believe this period is most relevant because it is the most recent, it has been tested by two recessions, and it encompasses about 62% of all high yield debt ever issued and about 78% of all defaults (by par value) ever experienced.

As shown in Table 1 (page 4), the average leverage of newly sold small issues during 2000-2010 was 4.5x. Larger deals were levered 5.3x at issuance – a very meaningful difference, because as leverage increases, default risk increases in a non-linear manner. In addition, the average debt to market capitalization ratio of small issues (43.5%) was more conservative than the corresponding number for large issues (46.4%). Thus, viewed in this highly aggregated way, it appears that smaller issues are not riskier from a default point of view than larger ones and may be a bit safer.

Despite their apparently superior credit statistics during this 10 year period, small new issues have been priced, on average, at 540 basis points over Treasuries and larger new issues have

CHART 1: AVERAGE SIZE AND NUMBER OF NEW ISSUES (Proceeds)



priced at 484 bp over Treasuries – a significant 56 basis points premium in promised yield in favor of small issues.

What is the reason for this apparent anomaly? There are intangibles that are believed by many market participants to have a bearing on risk that are not captured in raw credit statistics. For example, rating agencies believe that large companies are more capable of weathering financial distress and avoiding default – it is commonly believed that larger companies have better management teams and better access to the capital markets. In addition, short of actual default risk, many investors believe that large issues are more liquid and that such liquidity is worth paying for by accepting a lower yield. We will argue against that notion later in this paper.

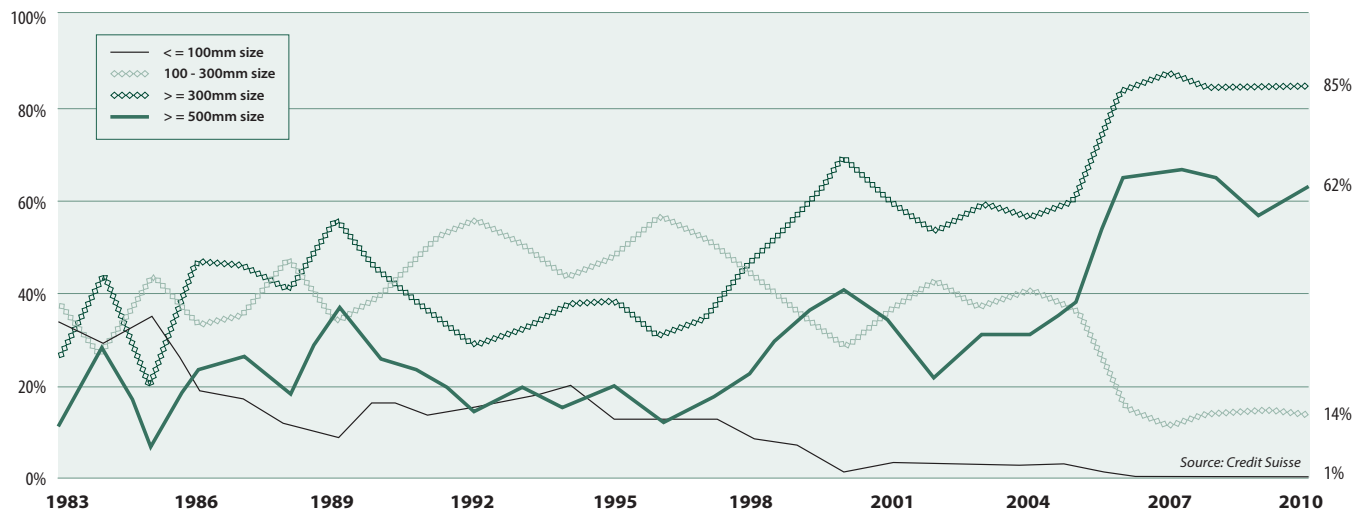
One way to check the lower-risk hypothesis is to look at actual default rates. This is not quite as “clean” an analysis as the above data on new issues, because default rates also capture defaults of “fallen angels” – formerly investment grade issues that are downgraded to speculative grade and thus migrate through the high yield market on their way to default. But the data does lend some credence to the image of size bringing resilience. Despite being more levered, large companies did experience slightly lower average annual default losses than small issuers: large issues showed a default loss rate (that is, the net cost of defaults assuming the defaulted bonds were sold at the prevailing market prices just after the defaults) of 3.23% per year, 37 basis points lower than the annual default loss rate for small issues, which was 3.60%. However, the net of the 56 basis points yield premium and the 37 basis points higher default loss rate still leaves a nontrivial 19 basis point risk-adjusted, post hoc advantage in return to the smaller issues.

Dispersion – The Active Manager’s Friend

Beyond the gross statistics reviewed above, there is an information cost dynamic at work in our investment philosophy. Large issues attract attention and coverage by both the underwriters and such private research firms as Gimme Credit and CreditSights. Issuers of large bond cohorts have tended to have publicly traded equity, which is also a “free” resource to allow a bondholder to quickly read the latest Street thinking on a company. Large issues have tended to be widely owned and, thus, followed by enough smart investors to be efficiently priced. A small \$200 million issue, on the other hand, is likely to be covered by at most one or two researchers, possibly only the underwriter, and such coverage is likely to consist of a one-page tear sheet rather than an in-depth analysis of the credit and its industry. This is to be expected, because a small issue does not produce enough secondary market trading volume to make the publication of research a profitable undertaking. Indeed, Gimme Credit and CreditSights cover only a handful of the bonds in the PIA High Yield Fund.

What this creates is a relative information vacuum, where investors must utilize their own information and judgments. In truth, some do not try. We see many issues in which there are one to three large owners who make an effort to remain in contact with the operations of the company (which is expensive) and then perhaps two thirds of the issue is owned by a couple dozen holders of small blocks who effectively act as indexers. They often rely on trailing indicators (such as bond ratings) or public information (such as SEC filings) to keep them apprised of the status of their investment. (We know this to be true, because when we visit our investee companies we

CHART 2: NEW ISSUES BY SIZE (Proceeds): 1982 – 2010



are often told by management that we are only the first or second bondholder to make the trip.) The presence of so many uninformed holders allows individual bonds to diverge from their true value, creating opportunities for investors who work hard to acquire proprietary information and judgments. The high cost of proprietary information causes more dispersion – more bonds that are undervalued and more that are overvalued too. The situation is analogous to an auction of oil leases where there is a paucity of geological and seismic data – the first player to map the geology acquires a significant advantage. These opportunities do arise from time to time in the large-cap market too, but they are encountered much more frequently in corners of the market where there are few competitors.

It's not Size That Matters – its Market Share

We soundly disagree with the thinking that the resilience of a credit is related to its absolute size. (Caveat: we **do** believe that of the very small bond issues of under \$100 million, which are a different class of company entirely). If an industry is stricken with poor economics, size will not save it. GM and Chrysler failed, as did almost every large telecom issue in the early 2000's as well as most of the very large merchant power suppliers who built excess capacity, most large supermarkets that tried to compete with WalMart and almost every airline. Time and again, the hypothesized "market access" to emergency equity financing vanished when it was most needed and for good reason. Logically, what really matters to a business' survivability is its skill and cost position relative to its competitors, the stability of the economics of the industry and the amount of industry-wide excess capacity. We look for a \$500 million revenue company in a \$2 billion oligopoly with stable economics, slow growth,

and a stable supply/demand balance. What we seek are the structural indicia of stability: the classic "barriers to entry," an indispensable product or service with few substitutes, a product with little obsolescence risk, a product with low exposure to exchange rates, and a product with high switching costs so that its customers will be "sticky". Note that none of these are related to absolute size. All it takes is **relative** size in a niche to endow a company with pricing power, the value of a brand, the ability to enter strategic partnerships with customers, and the ability to be a first mover in new products. As a bonus, many such small companies are owned by families or founders rather than financial engineers that are more prone to layer financial risk on top of operating risk. There are many such companies in numerous niches, and we look for them constantly.

In fact, absolute size can be a disadvantage in a rapidly growing industry precisely **because** of the easy access to capital it provides. An industry with many competitors and large scale, well followed by the research community and having a clientele of investors comfortable with the sector, can more easily develop overcapacity courtesy of the capital raising option provided by the high yield market. Over our careers, we have seen several such industry-wide bubbles abetted by high yield financing (most notably in the media/telecom constellation of industries, which accounted for fully half of all new issues during 1999-2000 and subsequently 75% of all defaults in the peak year of 2002). More recently, large capacity increases in the movie exhibition, steel, gaming and other industries have destroyed the economics of those businesses - and in the last three years, easy financing in the mortgage market created the biggest bubble of them all. Digressing for a moment, Fannie

Mae and Freddie Mac were gargantuan in scale, had a near monopoly and near perfect liquidity and all it allowed them to do was attract enough capital to become the largest failures of all time.

The Advantage of Simple Capital Structure

A corollary of smaller issuers is that they have tended to have simple capital structures. Smaller companies tend to have just two layers of debt – a secured bank facility (probably including a revolving line of credit for seasonal needs) and a single unsecured high yield bond issue. In the event of a distressed reorganization, either in or out of bankruptcy, the critical inter-creditor negotiation process necessary to preserve the company's value is made much easier than in the case of a larger company, where multiple layers of holding companies, multiple collateral pools, and multiple creditor groups are all immobilized by the scourge of multiple law firms that are paid by the hour. Complex capital structures are almost always created by financial engineers to benefit the equity holder, not the creditors. Enron, for example, was able to mask its fraud in large part because its structurally fractured finances were so hard to understand that investors and bond rating agencies were unaware of the debacle until the company actually ran out of cash – by which time the ability to maximize enterprise value for the benefit of creditors was lost. In several of our simple companies, restructuring negotiations were completed in just one lawyer-free meeting, usually resulting in the bondholders exchanging their debt for the vast majority of the reorganized equity quickly, with low legal fees, and with no erosion of the business' value because competitors could not attack it during a drawn-out negotiation process. Although we are unaware of any detailed studies analyzing any systematic relationship between company size and post-default performance, we believe that the reduction in agency and contracting costs afforded by simple capital structures is an important and overlooked benefit of investing in smaller companies.

A Short Digression on Modern Private Equity: the Mega-LBO

As longtime participants in the high yield market, PIA's portfolio managers have been lending into LBO transactions since 1988. The classic LBO in the early days of the high yield market was a company with low operating risk and low cash flow variability, which was correspondingly able to bear high financial risk. But there was much more to buyouts than that. Buyers sought relatively small companies (or divisions of large companies) where their firms could add not just financial engineering but could also bring in new management, growth capital, board leadership and, importantly, could improve incentives by giving managers an equity stake, which could be truly transformational. We argue that as private equity firms have evolved and, particularly, as they have grown enormously, their own incentives and behavior have changed. The costs of a private equity firm are largely fixed: they perform due diligence, negotiate purchases and financings, sit on boards and so on. Their level of effort on a \$2 billion transaction is not much greater than on a small buyout and as their fees are related to size, they derive enormous operating leverage from pursuing larger transactions. We believe this has changed their behavior, and, thus, the risks of lending to their transactions. As they pursue ever larger targets, LBO purchasers are buying more sophisticated and better managed firms than they have

TABLE 1: CREDIT STATISTICS AND ISSUE SPREADS Small vs. Large Issues

	\$101-\$299MM IN ISSUE SIZE			OVER \$300MM IN ISSUE SIZE		
	Spread at Issuance	Debt/EBITDA	Debt/Market Cap	Spread at Issuance	Debt/EBITDA	Debt/Market Cap
2000	563	4.9	44.20%	550	6.2	33.20%
2001	519	4.0	47.60%	468	5.3	50.60%
2002	533	4.3	50.60%	459	5.1	53.60%
2003	536	4.7	51.20%	480	5.5	57.20%
2004	449	4.9	44.50%	360	5.2	46.80%
2005	421	4.3	35.70%	361	4.6	36.50%
2006	411	4.8	40.20%	383	5.6	45.60%
2007	404	4.9	38.10%	389	5.5	40.60%
2008	651	3.9	32.50%	630	5.6	45.80%
2009	802	4.0	50.50%	691	4.8	53.50%
2010	646	4.7	43.30%	553	5.0	46.90%
Average 2000 – 2010	540	4.5	43.49%	484	5.3	46.39%

Source: Credit Suisse

in the past. Their targets today are not lacking for capital (most large targets are already public companies). Their targets today also have tended to have managements which are already fully incented by option packages and, in many cases, the targets have already been owned by another private equity firm, which has presumably instituted changes to capture the achievable operating gains. This means the benefits of actual operational improvements in LBO companies (which benefit bondholders) are less than in the past. It appears that limited partners now are content with high-teens returns rather than the 30-40% or higher internal rates of return consistently posted in prior decades by LBO pioneers. The upshot is that LBO firms now more commonly seek gains from pure leverage rather than from operating acumen. They routinely issue the riskiest, most aggressively structured, and most levered bonds in our market. And due to their own fixed cost structure and the fact that many of their funds require them to rapidly invest billions of unspent capital or return it to their limited partners, we see their activity concentrated on the very largest high yield issues (for example, buyouts of mammoth corporations like HCA). Although we never reject a transaction merely because it is large, we very rarely find value, and we often find a great deal of risk, in these very large private equity driven bond issues. A very large deal can be a huge payoff, and since the LBO firm knows it can sustain bankruptcies and still be very successful at the portfolio level, we find these large buyouts firms much more willing to embrace risk than a very small fund for whom a default on a \$250 million bond is a major financial and reputational catastrophe.

The Mirage of Liquidity – and Why it is Overvalued

The most frequent objection to our thesis is that our approach entails liquidity costs that are not captured adequately, in either the statistics cited thus far in this report or in our results.

At the outset, it is crucial to distinguish two meanings of this imprecise word “liquidity.” The classic economic definition is the ability to buy or sell, in a relatively short period, a sizable position without affecting the price of the security. In the very simple case of a desire to instantly sell a security, a large issue in which multiple trading desks make a two-sided market will certainly be more “liquid” in this classic sense – in large part because the security is sufficiently well known, and trading volume is large enough, that a trading desk will buy or sell a bond for its own proprietary account without first finding another client to take the other side of the trade. In other words, the market maker is confident enough of finding a matching transaction within an

hour or a day that he will “position” the bond in the expectation of making a low-risk profit equal to his bid/ask spread.

In the case of a less liquid security, we believe the wise strategy for a portfolio manager is to minimize liquidity costs by giving a standing buy or sell order to a counterparty trading desk for delayed execution as an agent rather than for immediate execution as a principal. The idea is that if he is required to provide immediate execution, a market maker will require a larger bid-ask spread than he would work for if he was permitted a period of time to assemble both legs of the trade so that its execution is riskless to him. Under such circumstances, most trades will be executed pursuant to an order, and this is exactly what we do.

An important exception to this optimal tradeoff of immediacy versus trading costs is present if the portfolio manager is time sensitive because he possesses unique information that is expected to become public very quickly. A transactor with such information will not want to give a standing order to a counterparty, because his information advantage is perishable. He will demand immediate execution. A rational market maker must take account of that risk, especially if he knows he is dealing with a well informed and smart investor. For this reason, when he quotes a bid/ask spread for immediate execution, he prices it to include the risk that he is dealing with an informed investor who is exploiting his asymmetric information to pass the soon-to-be-lower bond to the market maker. Outside of this limited case, it seems economically logical that as a general matter, if transactors operate with limit standing orders that do not expose the market maker to risk, bid/ask spreads (i.e., liquidity costs) for small issues will tend to approximate the bid/ask spread for large issues, because the risk to the market maker of trading each is the same. This is particularly true with the advent of the very important TRACE trade reporting system, under which transactors can see all trades of public bonds in near real time and can, thus, deduce the spread collected by the market maker who executes an order. In addition, it is important to note that the total dollar cost of this “normal” trading to the actual account owner is the product of the average bid/ask spread incurred and the turnover rate of the portfolio – and a portfolio that has low turnover will already be minimizing its trading costs. Since the unique information we strive to obtain is rarely of the type that rapidly becomes public (such as an earnings announcement), we are able to make market makers compete.

Now, let’s move to the quite different dynamics prevailing in

what we will refer to as “event liquidity” – that is, the liquidity of a high yield bond in the immediate aftermath of the emergence of significant bad news, such as loss of a major customer, a major product failure, or very bad financial results. When this occurs, “all bets are off” as it pertains to liquidity. Just as in the equity market, when new negative information emerges, portfolio managers and market makers are in the same position – each must assess what the information means in a fundamental sense for the value of the security and, in addition, each must estimate what conclusion other transactors will reach. While this reassessment is taking place, the normal level of market maker “instant” liquidity will immediately vanish (just as it does, for example, when trading in a stock is suspended by an exchange.) The trader will widen his bid-ask spread enormously, often tenfold, so that his risk of losing money by buying bonds will be minimized, or he may only “quote” the bond instead of actually bidding for it or bid for only a small block rather than a normal block. The point is that when liquidity is needed the most, it can vanish.

This is exactly the result we should expect. Secondary market trading is a zero sum game – it cannot affect the reality that ultimately a new and lower equilibrium price for the security will be determined and that holders, as a whole, must bear that entire loss. Some portfolio managers think that by immediately selling “at any price” they are somehow avoiding the full brunt of the just released information, but the high yield market is not that inefficient. Other managers acknowledge that there is no greater fool sitting at a trading desk who is going to overpay for his bond but just seem relieved to “get out.” We estimate that roughly one third of B-rated bonds eventually default, so a rational valuation of the bond after bad news emerges is an important part of any manager’s skill set.

We would argue, in fact, that the mirage-like quality of “event liquidity” offers a major opportunity for superior credit analysts. In the aftermath of the bad news, as investors arrive at their new estimates of fair value, the presence of non-analytical sellers or even merely mistaken sellers is good news for those who follow a small issue well and can more rapidly and confidently decide whether the bad news is terminal or survivable for the issuer. When the bad news occurs, what market makers want to find is a real end buyer so they can trade and make a spread without having to provide liquidity (on their own balance sheets) to the abundant sellers at the riskiest of times. Suddenly, the seller who a day ago was very price sensitive just wants “any bid” and does not much care if the bond price is “gapping down”

by ten or twenty points. It is at times like this that providers of liquidity to “stressed” issues can make extraordinary profits. We believe those profits are available to players who have already developed a niche of knowing small companies well, so that they can assess the new data without having to re-underwrite the entire credit file. It is at that moment that superior judgment, information and nerve matter. Small issues have tended to be held in small lots within very large portfolios, and are essentially placeholders in a closet indexation strategy. So, the conditions for smart provision of liquidity are at hand: scarce and costly information, a relatively large number of holders whose positions are considered minor and not “core” to a strategy, a significant difference in the information sets of the holders and, above all, fear. In fact, our strategy when buying new issues is never to own a “full” position at the outset. During the life of each credit, it is likely that there will at some time(s) be negative news that moves the bond price down by several points and, at those times, we want to be able to provide the liquidity the market demands (and pays for) in those situations where we believe the news is temporary and survivable.

There is an additional issue size-related subtlety involved when security prices are discontinuous due to new bad news. Huge pools of high-velocity capital seeking to trade on such news exist around the periphery of the high yield markets. We refer to hedge funds, so-called distress funds and capital structure arbitrageurs. These tend to be opportunistic, short term and very event-driven participants. They are not typical investors, and their sudden presence can cause a great deal of volatility and noise in the establishment of a new equilibrium price. We almost never see that in the niche of small issues, because almost no small issues are tracked by company-specific derivatives (credit default swaps) and very few small issues have publicly traded stock to provide the second leg in the perceived arbitrage. Thus, a small issue specialist is far less likely to be whipsawed by hedge fund activity than a large cap high yield manager whose security prices move not because smart money is actually assessing the fundamental value of the high yield bond but rather because an arbitrageur is shorting his bond (or buying protection in the credit default swap market), because he views the bond as being overpriced relative to some other security in the hedge fund’s portfolio.

Before leaving the subject of liquidity, we want to return to the intentionally provocative claim made in the subheading that liquidity tends to be overvalued by most managers. All else being equal, the more liquidity the better – it is why exchanges and

market makers exist. It is important to recognize that liquidity is not free and carries with it opportunity costs. To confine oneself only to liquid securities would mean to turn away from some of the value-additive features of less liquid securities.

The right way to think about liquidity is as a classical equalization of marginal cost and revenue and that calculus, in turn, ties to the nature of the account owner. A pension fund with known, stable liabilities has the ability to shift asset allocations gradually, and typically it does, for example, after a strategic review or asset allocation study. It would be a mistake for a manager of such an account to prepare himself for an event (instant sale of the entire portfolio) it is not likely that will ever happen. For that account, it might suffice to have the ability to sell a portfolio over a horizon of one to four weeks, and a portfolio of small issue high yield bonds could be liquidated over that time horizon with incremental trading costs of a small fraction of a point. Such an account derives no marginal benefit from what we have called “instant liquidity,” and would pay dearly for it. A mutual fund with the ability to manage modest redemptions with a line of credit would also have little need for instant liquidity. It would need some to sell securities in favor of more attractive ones, and it might establish as a goal to be able to satisfy a redemption seen only once in, say, 20 years in much the same way that engineers calibrate structures to withstand a hundred year storm. If the worst case is a redemption of, say, 30 percent of the portfolio in a month, the marginal benefit of liquidity exceeding 30 percent is close to zero.

Why Aren't the Advantages of Small Issues Arbitraged Away?

Much attention in both the financial academic and practitioner communities is spent on the identification of systematic and exploitable examples of market inefficiency. They find poorly followed companies, dedicate in-house industry specialist coverage and limit an individual portfolio manager's coverage to roughly 40 issues (as we do) to allow for a labor-intensive approach to credit. Yet the extra value in small issues has persisted in a highly researched, trillion dollar market. Why?

In part, the answer is simply institutional. Some mutual funds, by charter, will not look at small issues. They have adopted what we believe is an extreme position on the liquidity continuum, believing that more is always better. Other managers seem to operate on a consensus model: they derive comfort from the presence of other large players in a large issue that has seemingly earned the imprimatur of the market, and they pay attention to

Wall Street's “buy” recommendations and the pronouncements of the ratings agencies even in 2011. Then, there persists the myth of the “core” holding. The idea that a bond is so large that some of it “must” be held is really a manifestation of closet indexation (or even overt indexation). Many managers owned “at least some” telecommunications bonds in the early 2000s – perhaps they were concerned about tracking error. They may have believed that even though the telecom issuers' business plans were pure speculation and a vast ocean of overcapacity was being built, they would be able to escape the potential denouement because they held large and “liquid” bonds. Of course, when every holder wants liquidity, no one is there to provide it, and telecom holders who bought the biggest issues in the biggest industry suffered the greatest catastrophe in the history of the high yield market.

Another reason for the persistence of the small issue effect, we believe, is simply demographic. High yield debt has grown from inception to a trillion dollar market in about twenty five years, with 70% of that growth having occurred since 1997. The list of issuers has now reached thousands. We believe that analytical capacity in the buy-side community has simply never fully caught up with supply in this market. At any given time, the majority of analytical talent we see in our business is very young. In 2007, when the US entered a bad recession, we believe the majority of high yield professionals had never experienced an economic down-turn. It is human nature to derive comfort from household names early in one's career. It is one reason we require significant industry experience in every analyst we hire.

Summary

All bonds typically price four risks simultaneously: credit risk, interest rate risk, convexity and liquidity. We believe that interest rate risk and convexity, risk are the most highly analyzed risks (by rocket scientists and supercomputers, no less) and, therefore, the most efficiently priced. These macro variables are today driven by arbitrage-free pricing algorithms updated in real time by hundreds of brilliant mathematicians; the number of analysts who can consistently outguess the implied forward pricing curve with respect to these variables is relatively low, and success hard to repeat. Importantly, interest rate risk and convexity should be close to zero sum games, simply because the vast majority of trading is in the secondary market of existing issues or even the tertiary market of derivatives. One trader's gain is another's loss.

Credit is quite different: it is decisively not a zero sum game,

because superior decision making by one competitor need not come at the expense of others. This is true because the output of those marketwide decisions is the risk and return combination of new bonds constantly being sold. Fully one third of all high yield bonds now in existence were issued in the last two years. If the market does a good job of pricing credit risk, at an offered spread of 500bp over Treasuries, high yield debt has the real potential to outperform the risk-adjusted security market line over a multi-year holding period (as it has, on average, by over 200 bp per year for thirty years, 1980-2010),

as represented by the Credit Suisse High Yield Index. Finally, we believe liquidity risk is by far the least important factor in the return experienced by a bond investor unless he is absolutely compelled to exit when a market is in panic. We believe our strategy that includes investing in small issues is the most direct way to capitalize on local informational advantages in the very lucrative realm of credit (where we believe a disciplined approach can systematically add value) while simultaneously "selling" liquidity to parties who systematically overvalue it.

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1299 Ocean Avenue Second Floor Santa Monica California 90401

telephone 310.393.1424 fax 310.434.0100

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