The Market Humbles the Majority – Yet Convertible Bonds Provide an Attractive Tradeoff between Upside Participation and Downside Protection

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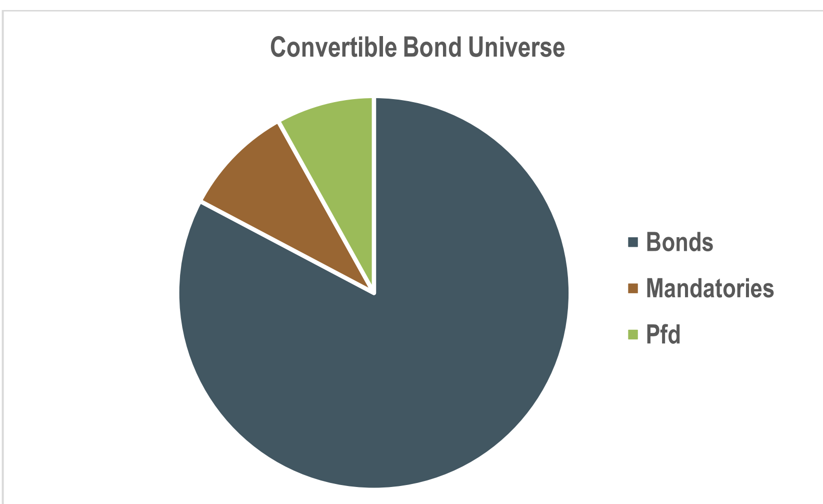
This is Part I of a new series of papers that shed some direct light on SSI's practical views on certain industry sectors and securities, as well as our approach to how we actively manage our investment portfolios. Part I includes a particular focus on the Technology Sector.

The Convertible Bond Asset Class

Convertible bonds are a unique asset class – they provide upside participation with the underlying equity, but also limit downside via the embedded bond floor. Many of our clients in this asset class use convertible bonds as a conservative equity alternative. SSI Investment Management has been managing convertible bonds for 36 years. Over that time period, SSI has generated an annualized return of 10.27% (gross of fee), capturing 90.5% of the S&P 500's advance[1].

As shown below in Figure 1, the majority of the convertible bond universe is represented by 'straight' convertible bonds (82%). The remaining structures include mandatory convertibles and preferred convertibles.

Figure 1.



Source: ICE BofA Merrill Lynch. Above convertible bond universe represented by ICE BofA ML All US Convertibles Index (VXA0) as of 10/31/2018.

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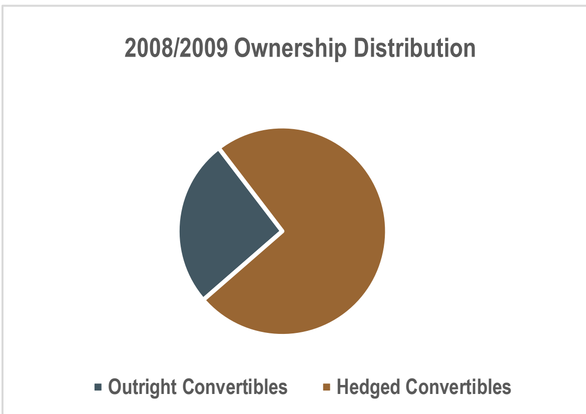
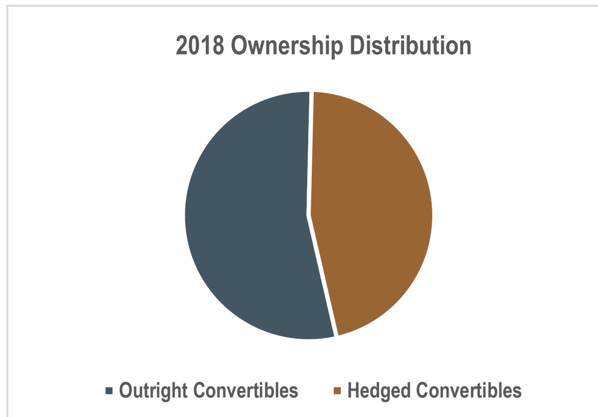
Ownership Distribution

The ownership distribution of the convertible universe is important in our asset class. During the financial crisis of 2008/2009, 74% of the securities were owned by hedge convertible investors, many of which were levered multiple times. Accordingly, the overall asset class did not protect as well to the downside as it had historically, as leverage by hedge investors was unwound. Now, ownership is nicely balanced at 54% outright / 46% hedge, as shown below in Figure 2. The continued participation of hedge convertible investors is important, as they provide liquidity when needed.

Figure 2.





Source: Barclays Research 12/13/2018.

New Issuance

New convertible bond issuance is crucial to, and constructive for, our universe. It helps representation of the balanced zone – where the tradeoff between upside participation and downside protection is most optimal. For that particular reason, we are predominantly invested with an overweight in the securities of that segment of the convertible bond market, as reflected in Figure 3 below. Our investment process incorporates trimming or selling positions that have appreciated into the equity-like zone, and redeploying the proceeds back into the convex (balanced) section of the universe.

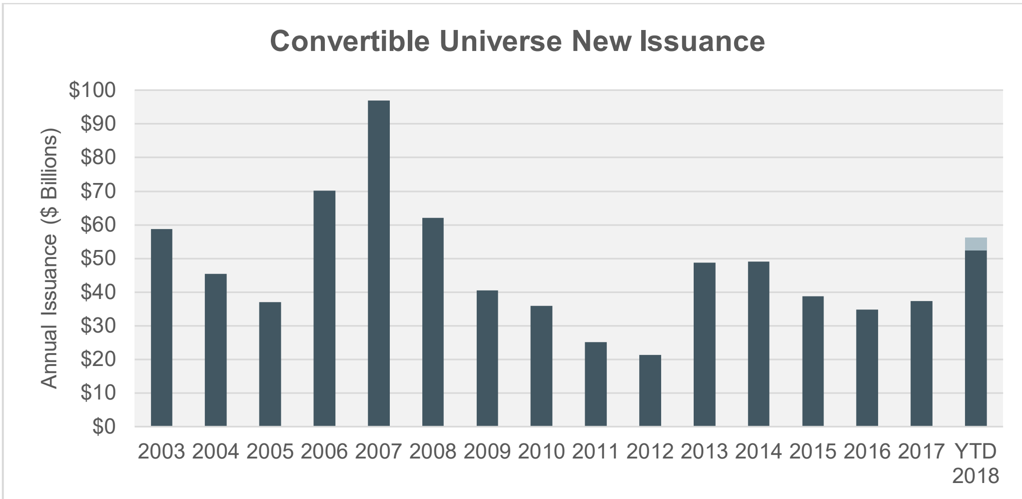
Figure 3.

Effective Delta	SSI Convertible Investment Strategy[2]	VXA0
<40%	**29.83**	35.15%
40-80%	**51.25**	41.54%
>80%	**18.92**	23.31%

Source: SSI internal research & ICE BofA Merrill Lynch. Data as of 11/30/2018.

As of Dec 12, 2018, new YTD convertible bond issuance has totaled $52.4 billion ($56.2 billion annualized), versus $37.4 billion in 2017. Issuance has improved since the fallout from the financial crisis (see Figure 4 below).

Figure 4.



Source: Barclays Research: US Convertibles Outlook 2019 – 12/13/2018; YTD 2018: 12/12/2018.

Sector Distribution

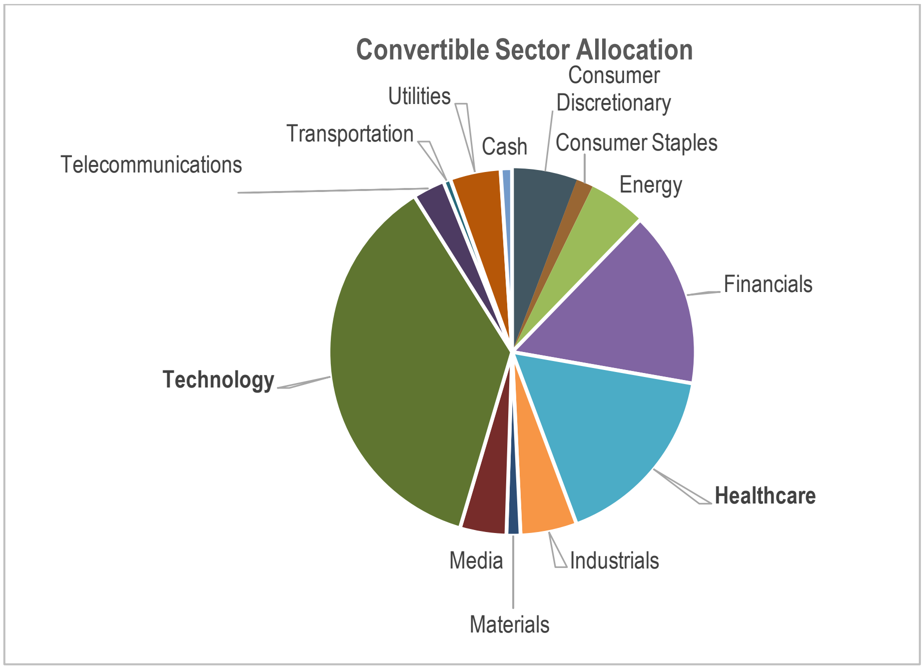
The Technology and Healthcare sectors have been and continue to dominate issuance and weights in this asset class (see Figures 5 & 6 below). The typical convertible bond issuer is a mid- or large-cap growth company, where the convertible debt taken on is the only debt on the balance sheet. In aggregate, these two sectors make up 53% of the USD-denominated universe (as of 10/31/2018).

Figure 5.

New Issue Sectors	# of New Issues
Consumer Discretionary	6
Consumer Staples	1
Energy	7
Financials	13
Healthcare	**20**
Industrials	7
Materials	1
Media	4
Technology	**41**
Telecommunications	4
Transportation	1
Utilities	4
TOTAL	**109**

Source: SSI internal research.

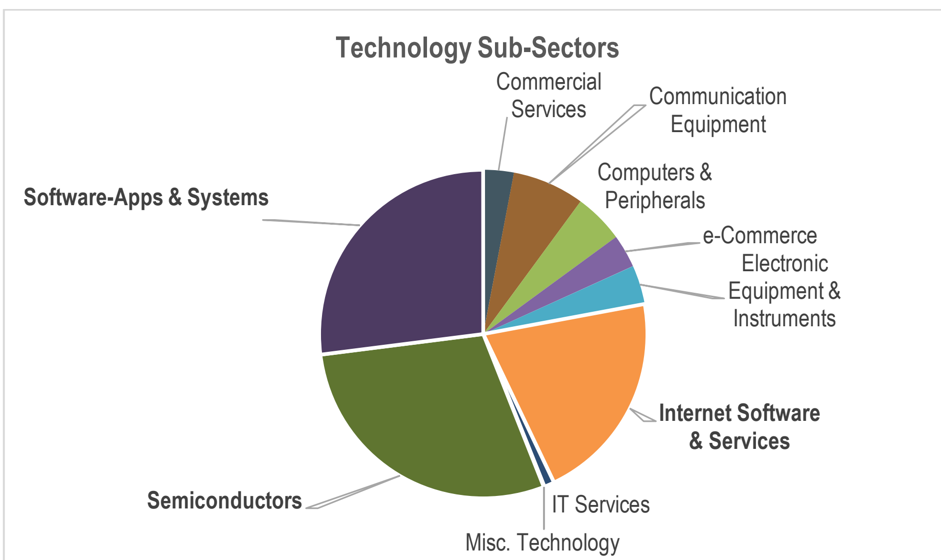
Figure 6.



Technology Convertible Bonds

Figure 7 below highlights the Technology sector and its components. Semiconductor (29%), Software (27%), and Internet (21%) issuers represent the largest sub-sectors within Technology.

Figure 7.



Both above sector allocation charts source: ICE BofA Merrill Lynch. Convertible bond universe represented by ICE BofA ML All US Convertible Index (VXA0) as of 10/31/2018.

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The top 15 issuers in the sector represent 49.4% of total Technology issues outstanding and 18.1% of the overall convertible bond universe, making them crucial to overall returns (MCHP, TWTR, BKNG, INTC, AMD, MU, SPLK, WDAY, PANW, CTXS, AKAM, SQ, ON, TEAM, NUAN). The underlying stocks of the convertible bonds in this sector have very reasonable Net Debt/EBITDA ratios. The average price of Technology convertible bonds is 123.7, 11.1 points higher than the overall market. The average yield of this sector is 0.4% versus a yield of 2.6% for the overall asset class. However, the delta (equity sensitivity) of these bonds is 64.3 versus 54.6 and the conversion premium is lower at 35.6% versus 42.7%.

Select Technology Portfolio Highlights

As highlighted above, SSI overweights our portfolios in the convex (balanced) zone of the convertible universe. The securities described below are examples of firms that exhibit the characteristics of what SSI deems prudent convertible bond investments:

- Companies with an attractive growth profile, a competitive advantage, and technology/patent leadership
- Industries with reasonable barriers to entry and favorable regulations
- An experienced management team, preferably with a long track record of execution
- Most importantly – an attractive convertible bond structure (at entry), where the upside participation/downside protection tradeoff is decidedly favorable (high)

Servicenow Inc. (NOW)

Servicenow provides enterprise information technology management software, designing, developing, and producing prepackaged computer software, cloud services, and IT management platforms. Essentially, the company's products are aimed at automating multiple categories of enterprise workflows, thereby decreasing IT-related productivity losses. Servicenow has been successful in increasing its customer base more than seven-fold, and the average annual revenue per customer five-fold, over the last 7-8 years. The company IPO'd in mid-2012, and the underlying stock has grossly outperformed the Nasdaq Composite, Russell 1000, Russel 1000 Technology, and the S&P 500 since then, and now exhibits a market cap of over $32 billion.

Servicenow's 0.000% convertible notes due June 2022 have participated with the underlying equity's appreciation since issue (May 2017), and are now trading at 147.500. As the issue had become more equity-sensitive, we recently trimmed this position to redeploy the funds into more balanced convertible bond structures. The security still has $783 million in face value outstanding, which is important for liquidity purposes. While it trades at a premium to bond floor, we are still comfortable with the underlying equity's potential. With a delta of 86 and a conversion premium of less than 6%, the convertible bond will participate with any additional upside in the stock.

Splunk Inc. (SPLK)

Splunk develops web-based application software that collects and analyzes machine data generated by websites, applications, servers, networks, and mobile devices. Revenue, EBITDA, and free cash flow generation have been and are expected to continue to be impressive. After a consolidation of the underlying equity in October (like most Technology stocks), the company's stock is rallying back on strong share volumes (a sign of institutional buying).

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The 0.500% convertible bonds due September 2023 are a recent new issue (mid-Sep 2018). They currently trade around 100.250, with a low investment value (bond floor) premium of 9%, a delta of 59, and a conversion premium of 36%, making gamma (convexity) 55. A convertible bond structure is an ideal way of investing in this kind of company, where growth is expected to be very strong, but any pullbacks in the underlying equity should be moderated by the imbedded bond floor of the security.

Conclusion

The convertible bond asset class has always included a large – and attractive – portion of high growth Technology companies. Servicenow Inc. and Splunk Inc. are only two examples of that. Other examples include graphics software company Nvidia and software infrastructure company Red Hat Inc., whose market cap appreciated from $5 billion at the time of convertible bond issuance (2004) to $32 billion currently, and recently received an acquisition offer from IBM Corp.

Another sector that has and continues to include high growth companies in attractive convertible bond structures - Healthcare. For example, Celgene, Amgen, and Onyx Pharmaceuticals have financed their tremendous growth via this asset class. The next part of this series is due to be released in 2019.

About SSI		
Headquartered in Los Angeles, CA	Founded in 1973	13 Investment Professionals
100% Employee Owned	$1.8 Billion AUM	37 Employees

[1]SSI Convertible Investment Strategy gross of fee performance as of 11/30/2018. Net of fee performance: +9.83%. Inception date: 1/1/1983. S&P 500 annualized return 1/1/1983-11/30/2018: +11.34%.

[2]SSI statistics are from the respective Strategy's representative portfolio as of 11/30/2018.

The examples mentioned in this report are not recommendations. Investors must assess the suitability of any particular investment opportunity and carry out any due diligence that they require in relation to the strategy or investments or individual holdings of the strategies that SSI manages. In doing this, investors should seek separate advice. There is no guarantee these targets will be achieved and any investment is at risk of loss. These materials shall not constitute an offer by SSI Investment Management to sell or a solicitation of an offer to buy any securities.

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SSI performance disclosure continues on next page.

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Compliance Statement

SSI Investment Management, Inc. ("SSI") claims compliance with the Global Investment Performance Standards (GIPS®).

Definition of the Firm

SSI was established in 1973 and is a Registered Investment Advisor based in Los Angeles, CA. SSI manages assets in domestic and global capital markets. SSI acquired the assets of Froley, Revy Investment Co., Inc. ("Froley Revy") and its composites as of March 1, 2009. SSI is 100% employee owned and is not affiliated with any parent organization nor does SSI have any subsidiaries. SSI applies quantitative disciplines and fundamental research in its management of alternative and traditional portfolios for institutional and high net-worth investors. SSI manages separate accounts, limited partnerships and acts as sub-advisor to mutual funds.

Policies

SSI's policies for valuing portfolios, calculating performance, and preparing compliant presentations is available upon request.

The Composite & Benchmark

The Convertible Investment Strategy (composite created January 1983) is invested in convertible bonds and convertible preferred stocks, and do not have credit quality restrictions. The Strategy may hold 144A securities. The composite contains fully discretionary accounts including those no longer with the firm. SSI believes a performance comparison versus the ICE BofA Merrill Lynch All Convertibles Index (the "VXA0") is appropriate. The VXA0 measures the return of all U.S. convertibles. SSI does not hold all convertibles in the VXA0 and may also hold convertibles that are not included in the VXA0. The Strategy is less diversified than the VXA0. The volatility of this strategy may be greater than the volatility of the VXA0 as the strategy holds a smaller number of positions than the Index. The return, if any, above the VXA0 is dependent upon SSI's discretionary management. Any other indices shown are not necessarily comparable to SSI's Convertible Investment Strategy. These are widely recognized market indices that are shown for informational purposes only. The composite name was formally known as SSI Outright Discretionary Convertible Strategy from 1/1/1983 – 3/31/2016 and on 4/1/2016 the new composite name became the SSI Convertible Investment Strategy.

Investment Management Fees

Returns are presented gross and net of management fee. Actual results of an individual account may be materially different from the performance shown herein because of differences in inception date, transaction and related costs, restrictions, fees and other factors. All performance is based in U.S. dollars and reflect, on a percentage basis for each of the periods indicated: (a) the net increase (decrease) of all SSI Convertible Investment Strategy portfolios, dollar-weighted, including adjustments for unrealized gains and losses, the reinvestment of dividends and other earnings, the deduction of investment costs except any separate custodial or related fees, time-weighted to adjust for additions and withdrawals, and (b) the net increase (decrease) of the VXA0.

Net performance is reduced by SSI's *actual* investment management fees. Gross performance does not include deduction of SSI's investment management fees.

If performance is gross of management fees, client's actual return will be reduced by the management fees and any other expenses which may be incurred in the management of an investment advisory account. See SSI's Form ADV, Part 2A for a complete description of the investment advisory fees customarily charged by SSI. As an example, an account with an initial $1,000,000 investment on January 1, 2003, earning a recurring 5% semi-annual gross return (10.25% annualized), and paying a .5% semi-annual management fee (1% annual fee) would have grown to $1,340,096 on a gross of fees basis and $1,300,392 on a net of fees basis by December 31, 2005 (3 years).

List of Composites

A list of the Firm's composite descriptions and/or compliant presentations are available upon request. Please contact juliea@ssi-invest.com.

Additional Disclosure

When representative portfolio information is shown the representative portfolio is selected by comparing any one (but not limited to) the following criteria: most in line with composite investment objectives /consistency of investment strategy, investment restrictions, fee structure, time frame managed, type of client, size of account.

SSI acquired Froley Revy and its composites as of March 1, 2009. Prior to the acquisition, Froley Revy claimed GIPS compliance for the periods of 1983-2008 and was independently verified by Ashland Partners & Co.

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