

## Convertible bonds: the opportunity

### UNDERSTANDING A FIXED INCOME AND EQUITY HYBRID

Convertible bonds ('convertibles') combine both debt and equity features and offer a compelling value proposition: to participate in the potential for equity price appreciation while having the downside protection provided by the bond. They are hybrid financial instruments – a bond that pays fixed coupons but has a special option to convert into shares of the issuing company's stock.

This convertible option is quantified by the bond's **conversion ratio**, which defines how many equity shares the investor receives in exchange for each bond. This conversion ratio determines a **conversion price** – the price at which, relative to the face value of the bond, the holder can exchange the bond for the predetermined number of equity shares. The **conversion premium**, which measures the conversion price as a percentage of the current stock value, can be used to determine if it makes sense to convert to the company's stock.

### HOW DOES A CONVERTIBLE BOND WORK?

**Bond Value:**

\$1,000

**Conversion Ratio:**

1 bond receives 20 shares of stock

**Conversion Price:** (Bond price / Conversion Ratio)

$\$1,000 / 20 = \$50$

**Conversion Premium:** (Conversion Price / Current stock price)

If the stock is worth \$40, the premium is  $(\$50 / \$40) - 1 = 0.25$  or 25%



#### SCENARIO 1: STOCK PRICE RISES TO \$55

The convertible bond is worth approximately:

$$\$1,100 = [20 \times (\$55 - \$50)] + \$1,000$$

Current Value = [number of shares in Conversion Ratio X (Current Share Price – Conversion Price)] + Bond Value

The convertible bond has appreciated 10%.

#### SCENARIO 2: STOCK PRICE STAYS UNDER \$50

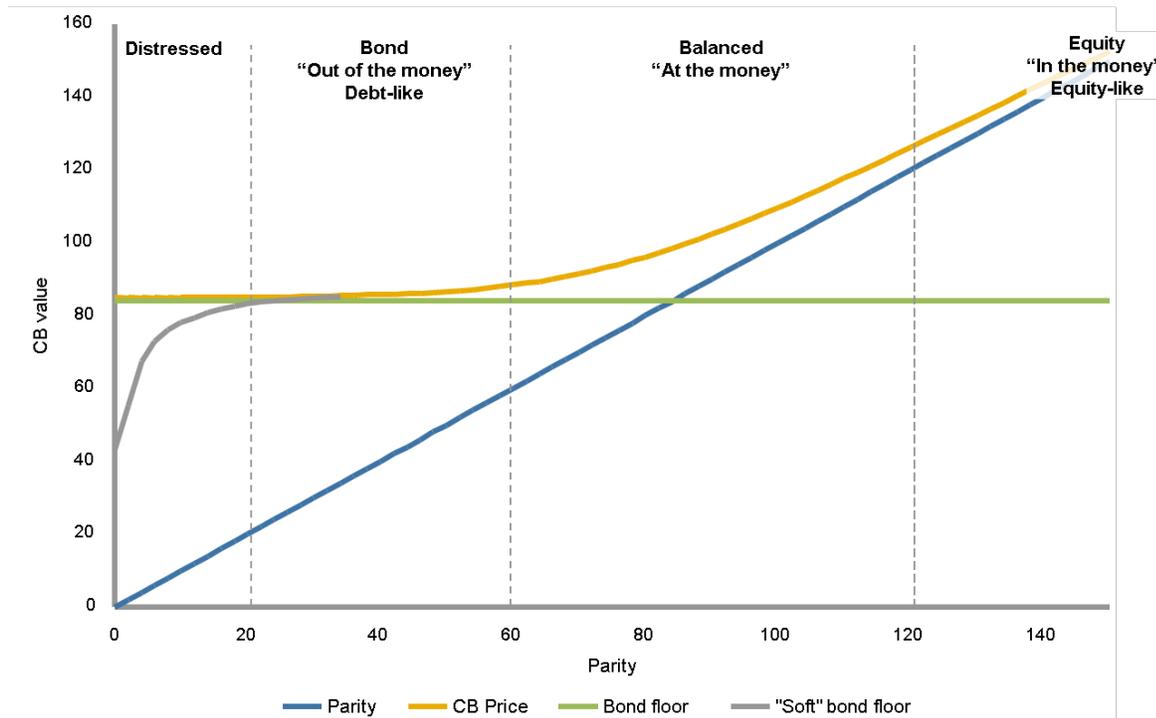
If stock price remains under the Conversion Price (\$50), the conversion option has little value and the convertible is basically a bond with no conversion feature.

In both scenarios, the minimum value of the convertible is the bond's maturity value.

Note: Calculations have been simplified, assumes a simple convertible, no changes in underlying interest rates after bond issue and the company remains solvent.

Convertibles can be characterized into four main categories: distressed debt, bond, balanced and equity (Figure 1). Two main factors determine a convertible security’s performance: Conversion Premium and Parity. **Parity**, or conversion value, is the value of a convertible security if it were to be converted into stock.

**Figure 1 – Convertible categories<sup>1</sup>**



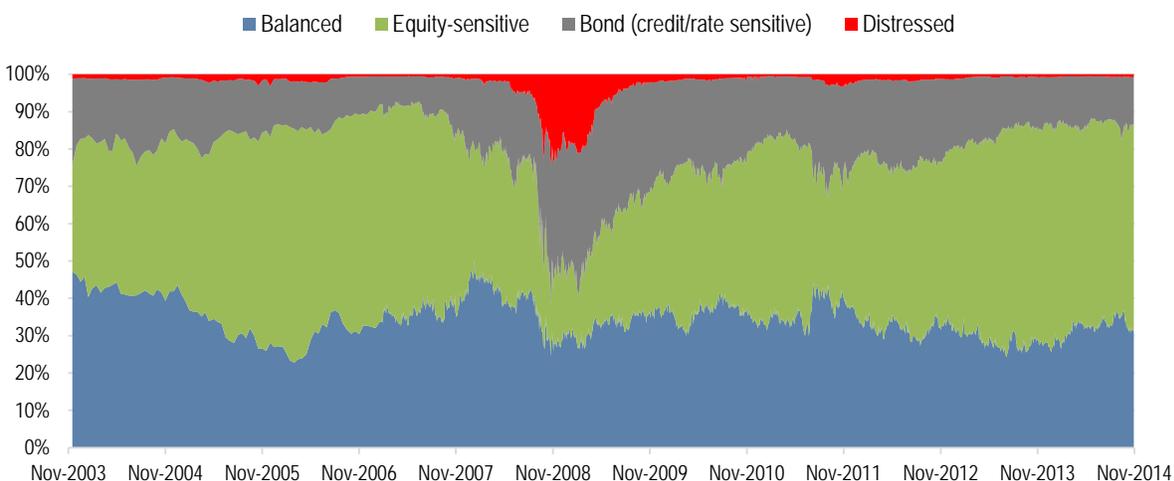
Distressed debt	Bond	Balanced	Equity
In this category, convertibles have broken down due to concerns about the company’s viability and so trade more like the equity, as investors consider the possibility of default and potential recovery value.	Convertibles in this range are “out of the money” and behave almost like pure debt instruments. These securities are characterized by higher yields to attract investors and high conversion premiums. Deltas are low, typically between 0.1 and 0.4.	In this mid-range, convertibles are “at the money” with modest yields and conversion premiums. Equity sensitivity is higher, with deltas in the range of 0.4 and 0.8.	“In the money” convertibles behave similar to a pure equity investment. Characterized by lower yields and conversion premiums. Deltas are typically greater than 0.8, making this type of security very sensitive to changes in the underlying equity.

**Delta** measures the sensitivity of the bond in relation to the underlying stock price, i.e., the change in bond value for a given change in equity value.

Category weights within convertibles tend to fluctuate over time (Figure 2), responding to shifting market environments and technical factors, such as supply and demand. Over the last decade, the average historical exposures to Equity, Balanced, Bond and Distressed were 43%, 34%, 20% and 3%, respectively. Note that if we exclude the years 2008 and 2009, which experienced a significant rise in distressed debt as a result of the Great Recession, the average of the Distressed category was a mere 1%.

<sup>1</sup> Source: UBS, October 2008. For illustrative purposes only.

**Figure 2 – Convertible category weights have fluctuated over time<sup>2</sup>**



## WHY CONSIDER AN ALLOCATION TO CONVERTIBLES

### DECENT DOWNSIDE PROTECTION WITH GOOD UPSIDE POTENTIAL

The hybrid nature of convertible securities makes them attractive to a wide range of investors. Due to the embedded equity option and the fact that most bonds typically pay the par value plus accrued interest at maturity, there is generally no other fixed-income security that offers as much upside potential.

In terms of downside protection, the bond's investment value behaves as a "floor" for the convertible bond price. Further, in the event of a bankruptcy, convertibles rank higher in the capital structure than common stock.

### LOWER SENSITIVITY TO INTEREST RATES

As the price of the underlying equity rises towards the conversion price, the bond behaves less like a bond and more like an equity (Figure 1 above). The ability to convert to equities enables the convertible bond's price to be less sensitive to rising interest rates than a non-convertible bond.

In addition, because maturities tend to be shorter, convertibles often have lower durations than conventional bonds. Presently, the average duration of global convertible bonds is 2.1<sup>3</sup>, which offers a compelling way to help mitigate interest-rate risk in an investor's fixed-income portfolio during periods of rising interest rates. Historically, and unlike most traditional fixed-income securities, convertibles have performed strongly in rising interest-rate environments as higher rates typically indicate an improving economy and rising equity markets (Figure 3).

<sup>2</sup> Barclays Capital U.S. Convertibles Index, December 15, 2003 to November 28, 2014.

<sup>3</sup> Barclays Capital. Average duration of Barclays Global Convertibles Index, November 30, 2014.

**Figure 3 – Strong historical protection against rising yields<sup>4</sup>**



Total return <sup>5</sup>	June 13, 2003 – June 14, 2004	June 1, 2005 – June 28, 2006	Dec. 30, 2008 – Apr. 5, 2010	Jul. 24, 2012 – Dec. 31, 2013
Rise in U.S. 10-yr yields (bps)	176	136	193	164
Global investment-grade bonds	0.2%	-1.6%	5.5%	-0.2%
Convertible bonds	12.7%	12.3%	62.4%	36.5%

**FLEXIBILITY TO SHIFT TOWARD OFFENCE OR DEFENCE**

The diversity of the convertible debt market enables a portfolio manager to shift allocations depending on the market environment and investment objectives. For example, an asset manager can shift to more defensive or bond-like convertibles when the situation warrants more risk-averse investments and to more equity-like ones when risk appetite increases.

**LOW CORRELATION WITH OTHER FIXED-INCOME ASSET CLASSES**

The low correlation (Figure 4) that convertibles have exhibited with other fixed-income categories offers investors strong diversification benefits, making this asset class a great complement to a core bond portfolio<sup>6</sup>.

**Figure 4 – low historical correlation<sup>6</sup>**

5-year correlation	Canadian bonds	Global bonds	Canadian equities	Global equities
Convertible bonds	-0.35	-0.16	0.77	0.95

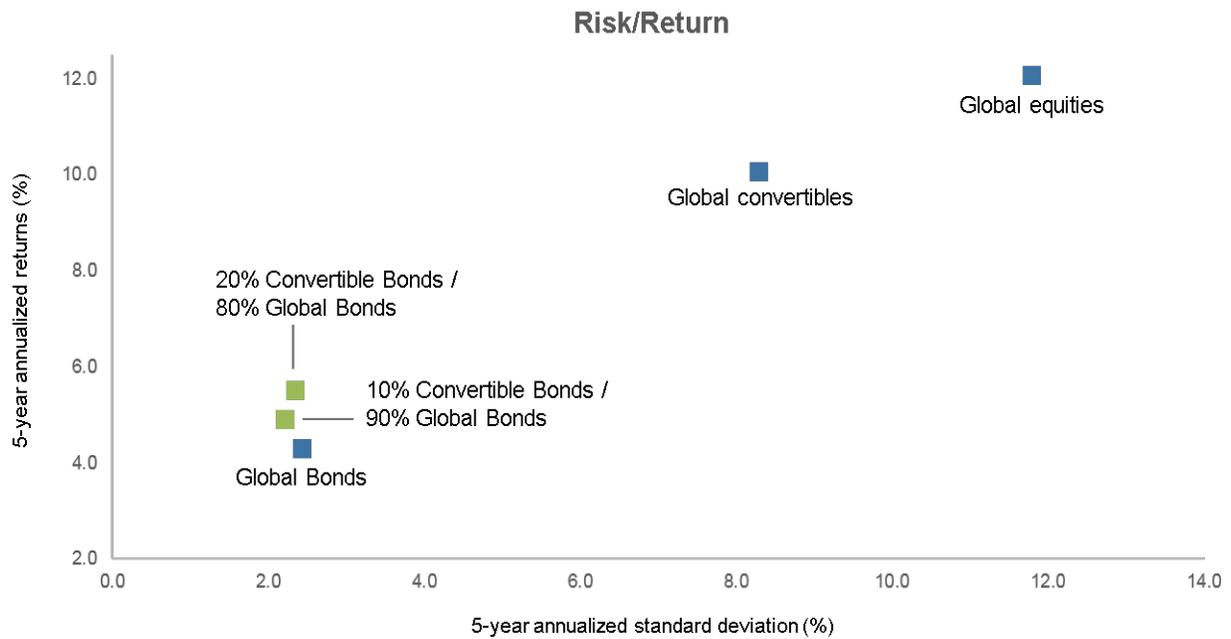
<sup>4</sup> Bloomberg, JPMorgan, November 2014. Returns in U.S. dollars. Convertible bonds represented by Barclays Capital U.S. Convertibles Composite Index, global investment-grade bonds represented by Barclays Capital Global Aggregate Bond Index. Index levels rebased to 100 at January 15, 2003. For illustrative purposes only. You cannot invest directly in an index.

<sup>5</sup> Ibid.

<sup>6</sup> Source: Morningstar Direct, November 30, 2014. Correlation is a statistical measurement of the relationship between two variables. A correlation of less than one is considered a favourable correlation. All indexes in base currency. Convertible bonds are represented by Barclays Capital Global Convertibles Hedged Index (US\$); Canadian bonds by FTSE TMX Canada Universe Bond Index (C\$); Global bonds by Barclays Global Aggregate TR Hedged Index (US\$); Canadian equities by S&P/TSX Composite TR Index (C\$); Global equities by MSCI (All Country) World GR Index (local currency). For illustrative purposes only. You cannot invest directly in an index.

Importantly, the addition of convertibles can potentially reduce the risk profile of a portfolio of securities containing both stocks and bonds. This has been the case historically, with convertibles having generated strong risk-adjusted returns over time (Figure 5).

**Figure 5 – Favourable risk/return<sup>6</sup>**



**GLOBAL MARKET IS WELL DIVERSIFIED BY GEOGRAPHY, SECTOR, CATEGORY AND RATING**

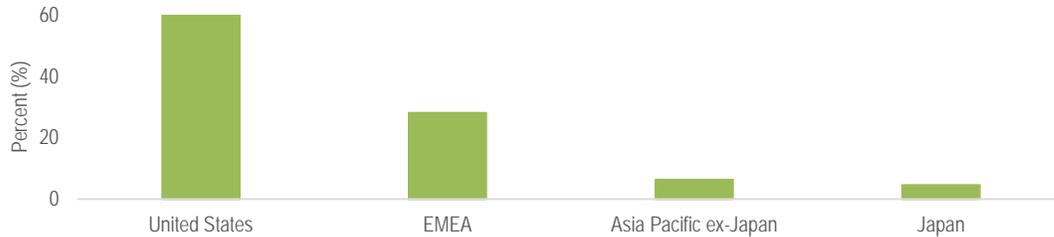
The convertible bond category is large, well established and represented by companies from countries all over the world and across all sectors. Thus, a convertible bond portfolio can offer a low correlation with other fixed-income securities and still be well diversified across geography, sector, category and rating.

**DIVERSIFICATION BY GEOGRAPHY<sup>7</sup>**

While the United States constitutes approximately 60%<sup>7</sup> of the global convertible market (Figure 6), there is still ample opportunity for adequate geographic diversification. Europe, the Middle East and Africa (EMEA) represent almost 30% of the index, while Asia, including Japan, Hong Kong, Singapore and Taiwan represent the remainder.

<sup>7</sup> Source: Barclays Capital, Barclays Global Convertibles Index, November 30, 2014.

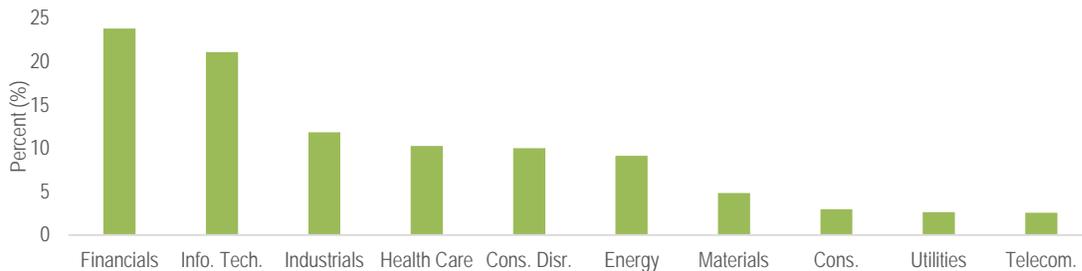
**Figure 6 – Geographic diversification<sup>7</sup>**



**DIVERSIFICATION BY SECTOR**

In terms of GICS sectors, while just under half of the global convertibles market is concentrated within two sectors – Financials and Information Technology – there is still more than sufficient representation outside these sectors<sup>7</sup> (Figure 5). For Canadian investors, this factor is particularly relevant as the Canadian securities market is highly concentrated within the Financials and Energy sectors.

**Figure 7 – Global sector diversification<sup>7</sup>**



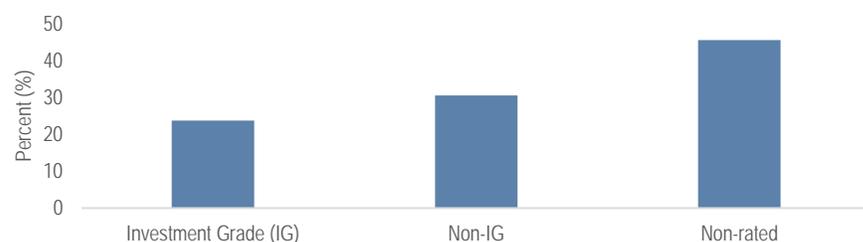
**DIVERSIFICATION BY CATEGORY**

Diversifying convertible bonds by classification (equity-like, balanced, debt-like) is also beneficial as the categories can be overweighted or underweighted relative to the benchmark, depending on the market environment and the portfolio manager’s outlook. While equity-like convertibles currently make up half of the index, as a consequence of the multi-year rally in equity markets, the other half of the market is well diversified across the balanced and bond-like (credit/rate sensitive) categories (Figure 2, above).

**DIVERSIFICATION BY RATING**

The global convertibles market is also well diversified across the credit rating spectrum, with approximately one-quarter of the market constituting investment-grade securities and 30% in high-yield. Since convertible bonds do not require a rating, many issuers do not undergo the process, which can be long and costly for many issuers. For these reasons, almost half of the market<sup>8</sup> is non-rated. As a result, non-rated bonds may be of high or low quality and should not be assumed to be all high-yield equivalent.

<sup>8</sup> Source: Ibid.

**Figure 8 – Rating diversification<sup>7</sup>**

### ENABLES INVESTORS TO TAKE ‘BABY STEPS’ BACK INTO EQUITIES

For investors who still desire the upside potential of equities but with less risk, convertibles offer a great way to climb higher on the risk/return curve while still retaining a level of downside protection. Also, convertibles typically pay higher income than equities, which can be advantageous to income investors.

### STRONG HISTORICAL RETURNS AS COMPARED TO GLOBAL BONDS

The convertibles asset class has experienced strong historical returns, reflecting the upside potential of equities over time. While the asset class typically underperforms traditional bonds during periods of equity market weakness, it tends to decline less than stocks. During 2008 and 2011, convertibles outperformed equities and produced very strong returns in the following one to two years. Further, over complete market cycles, convertible bonds have produced strong risk-adjusted returns relative to both traditional bonds and equities.

Calendar-year returns <sup>9</sup> (% , USD)	2014 YTD	2013	2012	2011	2010	2009	2008	2007	2006	2005
<b>Convertible bonds</b>	<b>4.8</b>	<b>16.9</b>	<b>12.6</b>	<b>-5.7</b>	<b>12.3</b>	<b>36.8</b>	<b>-27.8</b>	<b>9.8</b>	<b>16.0</b>	<b>0.2</b>
Global bonds	1.3	-2.6	4.3	5.6	5.5	6.9	4.8	9.5	6.6	-4.5
Global equities	6.7	23.4	16.8	-6.9	13.2	35.4	-41.8	12.2	21.5	11.4

Annualized Returns <sup>9</sup> (% , USD)	1-yr.	3-yrs.	5-yrs.	10-yrs.	15-yrs.
<b>Convertible bonds</b>	<b>6.3</b>	<b>11.1</b>	<b>8.2</b>	<b>6.5</b>	<b>5.3</b>
Global bonds	0.7	1.2	2.0	3.8	5.2
Global equities	8.6	15.4	10.6	7.3	4.5

### RISKS TO CONSIDER

While convertibles offer attractive upside potential and downside protection, as with other investments, they do bear investment risks. If a company’s stock trades below the conversion price, the convertible

<sup>9</sup> Source: Barclays Capital as of November 30, 2014. All data is in USD. Convertible bonds represented by BofAML Global Convertible Index, Global bonds represented by Barclays Capital Global Aggregate Bond Index, Global equities represented by MSCI ACWI. For illustrative purposes only. You cannot invest directly in an index.

faces the risks of traditional fixed-income securities – interest rate risk, inflation and company repayment risks. If the stock trades well below its conversion price, the convertible is called a ‘busted convertible,’ with a return below what a non-convertible corporate bond of similar maturity would earn, reflecting solvency concerns. In a scenario where the stock exceeds the conversion price and remains above it, the converted shares are exposed to equity market volatility. Another risk of convertible bonds is that the company issuing the bond has the right to call the bond prior to maturity, either at the bond’s call date or by way of a forced conversion. This can cap the capital appreciation potential of a convertible bond.

## SUMMARY

The potential advantages that convertible securities can offer investors are compelling. Additionally, an actively managed portfolio of convertibles can help enhance potential total-return benefits for fixed-income investors. For investors who are concerned about the potential for rising interest rates, convertibles can be an effective tool to help shield a fixed-income portfolio from the impact associated with such a move. The use of convertibles in a risk-managed strategy may provide additional diversification benefits to investors over and above that of a portfolio of traditional bonds and stocks, thereby potentially improving risk-adjusted returns.

**For investors seeking the best of both worlds, a convertible bond offers a greater potential reward than traditional fixed-income securities but generally with less risk than equities.**

For more information on convertible bonds and other alternative investments to diversify your fixed-income portfolio, please speak to your AGF sales representative and visit [AGF.com/income](https://www.agf.com/income) for more details.

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