BMO Structured Notes

Understanding Performance

- Structured Notes are valuable investments that provide clients with predefined contractual payoffs. While there is certainty in the payoff profile, Notes are not immune to changing market conditions during their term to maturity.
- Many Notes are still early in their term. As global markets begin to recover, we anticipate price expectations will similarly improve resulting in a rebound in the secondary price of Notes.
- During these turbulent times, we hope this product overview serves as a useful guide in understanding the key factors that can impact the secondary market performance of Notes.

Market Factors Impacting Secondary Price

Market Factors	Market Change	Bid Price Impact	General Relationship *
Asset Price	↓	↓	Falling market = lower final return = lower present value.
Volatility	↑	↓	Increase in volatility = more uncertainty = lower present value.
Dividend Yield	↑	↓	Increase in dividend expectation = lower retained earning = lower forecasted price = lower present value.
Interest Rates	↑	↓	Increase in interest rates = Increase in discount rate = lower present value.
Time to maturity	↑	↓	Longer investment term = increase in discount rate = lower present value.
Credit Spreads	↑	↓	Increase in credit spreads = increase in discount rate = lower present value.

* Applicable to Principal At Risk Notes

Quick Definitions

- **Volatility – Volatility is a measure of uncertainty about the future price movements of the Reference Asset.**
- **Dividend Yield – The dividend yield is the amount of money a company pays to shareholders (over the course of a year) for owning a share of its stock divided by its current stock price. It is typically displayed as a percentage.**
- **Time to Maturity – The time remaining until a financial contract (Structured Note) expires.**
- **Credit Spreads – The difference in yield between a corporate debt investment relative to its risk free benchmark.**
- **Present Value (PV) – Present Value is another term used for the Bid Price. Present Value is the value of a future sum of money or stream of cash flows expressed in today's dollars using a specified discount rate.**
- **Discount Rate – Discount rate is the interest rate used to determine the present value of future cash flows. The discount rate reflects the risk or uncertainty associated with receiving the future cash flows.**

BMO Structured Notes

Callable Income Notes Example

Objective

The objective of Callable Income Notes is to generate a steady and predictable coupon for investors while offering downside protection against a slight to moderate decline in the Reference Basket at Maturity. Callable Income Notes do not participate in upside returns; instead, they aim to generate a higher income stream than a standard debt security or dividend-paying stock. Contingent protection is offered for both the principal and the coupon payments. The AutoCall feature provides an opportunity to reinvest if the Reference Baskets performs “better-than-expected” during the term.

Example

JHN12211 BMO Canadian Insurance Callable Equity Income Principal At Risk Notes, Series 839 (CAD)	
Term	7.0 years
Reference Basket	GWO, MFC, POW, SLF
Coupon Payments	7.75% per annum; paid only if the Basket Return is equal to or above the Coupon Knock-Out Level on the applicable Observation Date
Coupon Payment frequency	Semi-Annually
Coupon Knock-Out Level	A Basket Return equal to -30%
AutoCall Feature	Starting in month 6, the Notes will be automatically called if the Basket Return is at or above the AutoCall Level (i.e., Basket Return equal to 5%) on any Observation Date
AutoCall Level	A Basket Return equal to 5%
Barrier Level	A Basket Return equal to -30%

Positioning

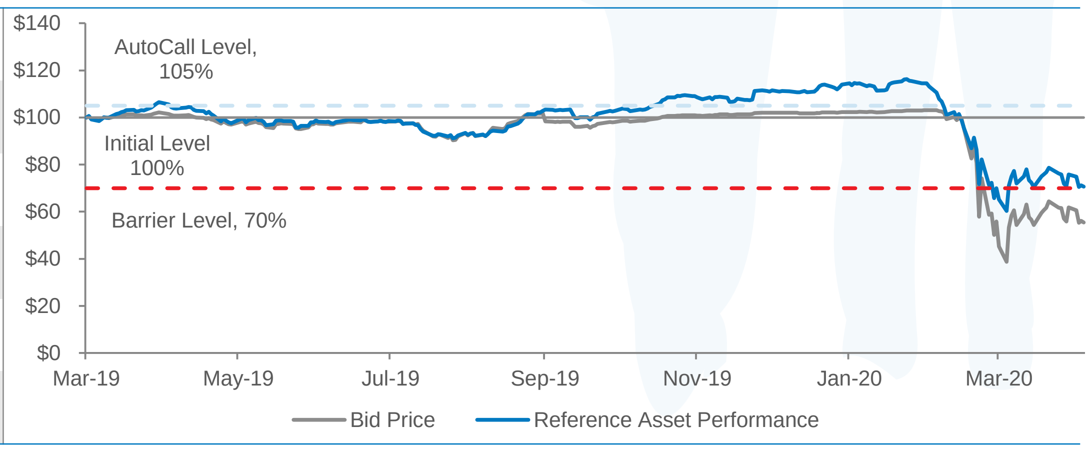
These Notes will pay 7.75% per annum (paid semi-annually) and full principal at maturity, provided the Basket Return never declines by more than 30% on any Observation Date. If the Basket Return increases by 5% or more on any Observation Date, the Notes will be automatically called providing the investor with a reinvestment opportunity. The Notes are intended to generate a consistent income stream in a range bound market for investors.

Notes Are Different From A Direct Investment

The Notes are different than a direct investment in the insurance companies . A direct investment in shares of the insurance companies would provide full upside, dividend income, and no principal protection. The Notes provide a predefined payoff designed to deliver a steady income and some downside protection in changing market conditions.

Current Status As Of April 23, 2020

Issue Date:	March 20, 2019
Basket Return:	-29.41%
Coupon Knock-Out Level Breached:	No
Barrier Level Breached:	No
Remaining Term :	5.9 years
Indicative Maturity Payment:	$100.00



BMO Structured Notes

Break-down of the Bid Price

The Bid Price for Callable Equity Income Notes reflects a probability-weighted Present Value (PV) of the following components:

Cash Flow	Reference Basket Range
PV of receiving the stream of coupons during the term	Basket Return ≥ -30%
PV of receiving $100.00 principal on call or maturity date	Basket Return ≥ -30%
PV of receiving less than $100.00 at maturity (i.e., capital loss)	Basket Return < -30%

Why is there a discrepancy between the Bid Price and the performance of the Reference Basket?

If the Reference Basket is trading near or through the Barrier Level the Bid Price reflects the following:

- For Callable Income Notes, the PV of coupons is a bigger proportion of the Bid Price relative to Notes that do not pay a coupon. As the price of the Reference Basket approaches the Barrier Level the Bid Price reflects a lower PV of future coupons because there is a higher chance that some coupons will not be paid out.
- Lower probability of getting called early or maturing at $100.00 par value.
- Higher chance that the Notes will pay less than $100.00 principal at Maturity. With a -30% Barrier Level at Maturity, the Bid Price reflects the PV of receiving less than $70.00 at Maturity (i.e. PV of receiving less than $70.00 in 5.9 years/remaining term).

Summary

Since Structured Notes offer defined payoffs that are measured from the issue date, interim performance of the Notes will only matter if a holder wishes to sell the Notes before maturity. Even though the basket of insurance companies has declined significantly, the investor can take comfort that both the principal and cash flow remain protected through the contingent barrier features.

In this case, the "Indicative Maturity Payment" shows that a holder will continue to receive consistent coupon payments during the term and full $100.00 principal repayment at maturity. This occurs because the Basket Return did not breach the -30% Barrier Level if the Notes matured today. If the Basket Return declines below the Barrier Level, for example declining by -35%, the Basket Return would only need to recover ~5% to restore future coupon payments and full principal payment at Maturity.

Callable Equity Income Notes are designed to generate a steady income in a flat to moderately declining market. Despite the current market pullback, the Notes are still delivering what they are designed to do for investors.

Point-to-Point Return Comparison

Investment	Barrier Protection / Coupon Knock-out Level	Current Level (Basket Return)	% Increase Required for Coupon Payment / Principal Protection	Time for Investment to Recover
Direct Investment in Insurance Companies	None	-29.41%	29.41% (Dividends dependent on health of the Companies)	Market Driven
BMO Note – JHN12211 Principal Repayment	-30.00%	-29.41%	0.00% (Principal protected in this range)	5.9 years
BMO Note – JHN12211 Coupon Payments	-30.00%	-29.41%	0.00% (Coupons protected in this range)	5.9 years

Additional Resources

For the performance of any specific notes, please visit our website at www.bmonotes.com.

BMO Structured Notes

AutoCallable Notes Example

Objective

The objective of AutoCallable Notes is to generate an fixed return for investors with a neutral to slightly bullish view of the Reference Basket over the term of the Notes. The AutoCall feature allows the Notes to be automatically called prior to their scheduled Maturity Date if the Reference Basket is at or higher than the Autocall Level on an Observation Date. A key feature of AutoCallable Notes is the "memory coupon" that will pay all coupons not previously paid on the Call Dates, if the Reference Basket is above the Autocall Level on an Observation Date. AutoCallable Notes typically have a contingent protection barrier that protects against a slight to moderate decline in the Reference Basket at Maturity.

Example

JHN6819 BMO Canadian Banks AutoCallable Principal At Risk Notes Series 833 (CAD) (F-Class)	
Term	5.0 years
Reference Basket	BNS, CM, NA, RY, TD
AutoCall Coupon	11.50% per annum if the Basket Return is equal to or above the AutoCall Level
AutoCall Coupon (Next Call Date)	23.00%
AutoCall Feature	The Notes will be automatically called if the Basket Return is at or above the AutoCall Level (i.e., Basket Return equal to 0%) on any Valuation Date
AutoCall Level	A Basket Return equal to 0%
Observation Frequency	Annually
Barrier Level	A Basket Return equal to -20%

Positioning

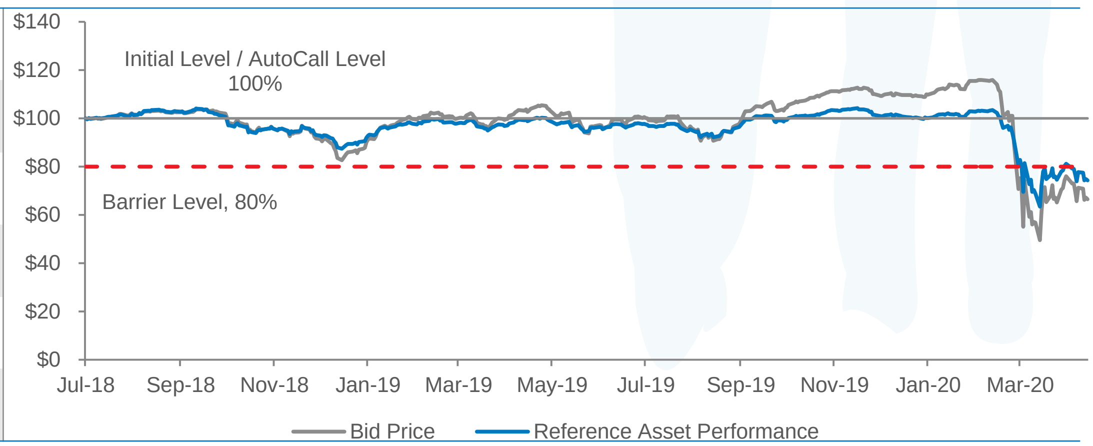
The Notes are designed to pay 11.50% per annum if the Basket Return of 5 Canadian banks is flat / positive on any annual Observation Date. If the Notes are not called on the first Observation Date, the AutoCall Coupon will accumulate resulting in 23.00% being paid on the second Call Date if the Basket Return is equal / above the AutoCall Level on the second Observation Date, and so on. If the Notes are not called and the Basket Return is still negative after 5 years, the Notes provide contingent protection against a 20% decline in the Reference Basket at Maturity. The Notes are intended to generate an attractive return and reinvestment opportunity in a range bound market for investors.

Notes Are Different From A Direct Investment

The Notes are different than a direct investment in Canadian banks. A direct investment in the shares of Canadian banks would provide full upside, dividend income, and no principal protection. The Notes provide a predefined payoff designed to deliver an attractive fixed return and reinvestment opportunity with some downside protection at maturity.

Current Status As Of April 23, 2020

Issue Date:	July 10, 2018
Basket Return:	-25.66%
Coupon Knock-Out Level Breached:	Yes
Barrier Level Breached:	Yes
Remaining Term :	3.21 years
Indicative Maturity Payment:	$74.34



BMO Structured Notes

Breakdown of the Bid Price

The Bid Price for AutoCallable Notes reflects a probability-weighted Present Value (PV) of the different payout components:

Cash Flow	Reference Basket Range
PV of receiving the (sum of) AutoCall Coupons during the term	Basket Return ≥ 0%
PV of receiving $100.00 principal on call or maturity date	Basket Return ≥ -20%
PV of receiving less than $100.00 principal at maturity (i.e., capital loss)	Basket Return < -20%

Why is there a discrepancy between the Bid Price and the Performance of the Reference Basket?

If the Reference Basket is trading near or through the Barrier Level the Bid Price reflects:

- For AutoCallable Notes, the PV of the AutoCall Coupons reflect a bigger proportion of the Bid Price. As the price of the Reference Basket approaches the Barrier Level the Bid Price reflects lower PV of the coupons because there is a lower probability that the AutoCall Coupon will be paid out
- Lower probability of getting called early or maturing at $100.00 par value
- Higher chance that the note will pay less than $100.00 principal at Maturity. With a -20% Barrier Level at Maturity, the Bid Price reflects the PV of receiving less than $80.00 at Maturity (i.e. PV of receiving less than $80.00 in 3.21 years/remaining term).

Summary

Since Structured Notes offer defined payoffs that are measured from the issue date, interim performance of the Notes will only matter if a holder wishes to sell the Notes before maturity. Even though the Canadian bank basket has declined significantly, the investor can take comfort that the Reference Basket only needs to recover slightly to the Barrier Level for their full principal investment to be protected under the Notes.

In this case, the “Indicative Maturity Payment” reflects principal repayment of $74.34 and no return at maturity as the Basket Return has declined below the -20% Barrier Level. However, the investor would only need the Reference Basket to recover ~6% over the next 3 years to receive full principal at Maturity. To receive the final AutoCall Coupon ($11.50 x 5 years), the Reference Basket would have to recover to its Initial Level on the Issue Date.

In summary, the AutoCallable Notes are designed to pay an attractive fixed return in a sideways market while protecting against a slight to moderate decline after 5 years. As fears subside and markets begin to recover, a holder will likely receive their full principal back and still have sufficient time to possibly receive a significant return by Maturity.

Point-to-Point Return Comparison

Investment	Barrier Protection / AutoCall Level	Current Level (Basket Return)	% Increase Required for Coupon Payment / Principal Protection	Time for Investment to Recover
Direct Investment Basket of Canadian Banks	None	-25.66%	+25.66% (Dividends dependent on health of the companies)	Market Driven
BMO Note – JHN6819 Principal Repayment	-20.00%	-25.66%	+5.66%	3.21 years
BMO Note – JHN6819 Coupon Payment	0.00%	-25.66%	+25.66% (11.50% p.a. x #years)	3.21 years

Additional Resources

For the performance of any specific notes, please visit our website at www.bmonotes.com.

BMO Structured Notes

Barrier Notes (Accelerator) Example

Objective

The objective of Accelerator Notes is to provide an enhanced (or "accelerated") participation in the price return of the Reference Index. The participation rate will typically be a multiple of the price appreciation (sometimes up to a cap or maximum) of the Reference Index at Maturity. At the same time a contingent barrier allows an investor to reduce downside risk exposure over the stated term.

Example

JHN7267 BMO Canadian Equity Barrier Principal At Risk Notes, Series 44 (CAD)	
Term	5.0 years
Reference Index	S&P/TSX 60 Index
Upside Participation	300% participation (or 3.00 times the Index Return) where the Index Return is positive, up to the Cap Level of 51% return on the Notes
Cap Level	51% return on the Notes
Maximum Payment Amount	$151.00
Barrier Level	70% of the Initial Level

Positioning

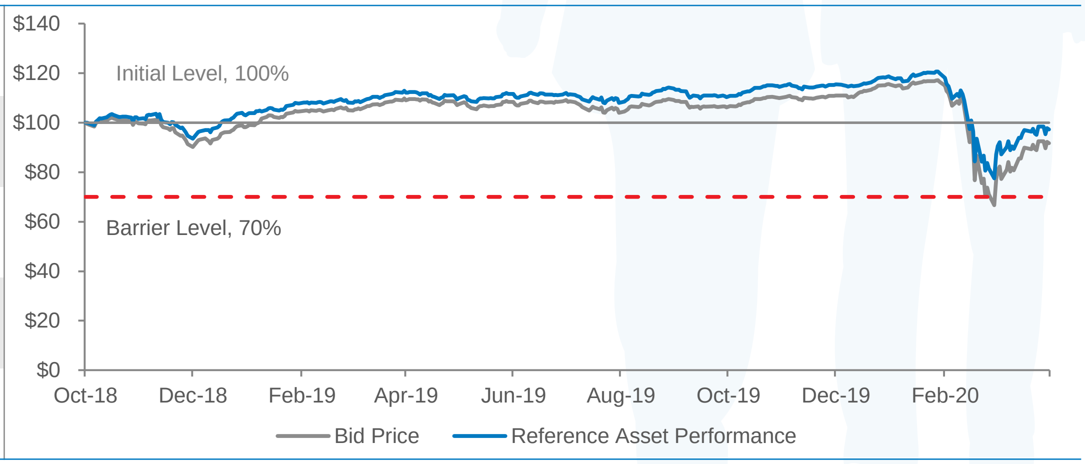
The Notes will provide 3:1 exposure to any positive price appreciation of the S&P/TSX 60 Index over 5 years (up to a maximum return of 51.0%), and 1:1 exposure on the downside with full principal protection against a 30% decline in the Reference Index at Maturity. Accelerator Notes are intended for an investor with a slightly bullish outlook on the Canadian market in the short to medium term.

Notes Are Different From A Direct Investment

The Notes are different than a direct investment in the S&P/TSX 60 Index (e.g., XIU). A direct investment in the corresponding ETF would provide full upside, dividend distributions, and no principal protection. The Notes offer enhanced return potential and downside protection within a pre-defined range and market view.

Current Status As Of April 23, 2020

Issue Date:	October 24, 2018
Index Return:	-2.68%
Barrier Level Breached:	No
Remaining Term :	3.5 years
Indicative Maturity Payment:	$100.00



BMO Structured Notes

Breakdown of the Bid Price

The Bid Price for Growth Notes reflects a probability-weighted Present Value (PV) of the different payout components:

Cash Flow	Reference Index Range
PV of receiving a positive return at Maturity	Basket Return > 0.00%
PV of receiving $100 at call of Maturity	Basket Return ≥ 70.00%
PV of receiving less than $100.00 at Maturity or losing money	Basket Return < 70.00%

Why is there a discrepancy between the Bid Price and the Performance of the Reference Index?

If the Reference Index is trading below its Initial Level, the Bid Price reflects:

- Lower probability of receiving a positive return at Maturity since the Reference Index is negative
- Lower probability of receiving $100.00 principal at Maturity
- Higher chance that the Notes will pay less than $100.00 principal at Maturity. With a 70% Barrier Level at Maturity, the Bid Price reflects the PV of receiving less than $70.00 at Maturity (i.e. PV of receiving less than $70.00 in 3.5 years/remaining term).

Summary

Since Structured Notes offer defined payoffs that are measured from the issue date, interim performance of the Notes will only matter if a holder wishes to sell the Notes before maturity. Even though the S&P/TSX 60 Index has declined, the investor can take comfort that their full principal investment is protected and the Reference Index only needs to recover slightly to realize an enhanced return under the Notes.

In this case, the “Indicative Maturity Payment” is reflecting full $100.00 principal repayment at Maturity as the Reference Index has not breached the 70% Barrier Level. If the Reference Index breaches the Barrier Level, for example declining by -35%, the market needs only to recover ~5% to provide principal protection at Maturity. If the Reference Index is positive in 3.5 years, the investor will receive 300% participation in the positive price performance, up to 51% maximum return on the Notes.

In summary, Barrier (Accelerator) Notes are designed to generate enhanced returns for an investor with a slightly bullish outlook on a Reference Index in the short to medium term. As fears subside and markets begin to recover, the Notes can be expected to deliver positive returns on their stated maturity.

Point-to-Point Return Comparison

Investment	Barrier Protection	Current Level (Index Return)	% Increase Required for Positive Return / Principal Protection	Time for Investment to Recover
Direct Investment S&P/TSX 60 Index	None	-2.68%	+2.68% or more	Market Driven
BMO Note – JHN7267 Principal Repayment	-30.00%	-2.68%	+0.00% (Principal protected in this range)	3.5 years
BMO Note – JHN7267 Accelerated Return	0.00%	-2.68%	+2.68% or more (3 x price return, up to 51%)	3.5 years

Additional Resources

For the performance of any specific notes, please visit our website at www.bmonotes.com.

BMO Structured Notes

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