ROYAL BANK OF CANADA Form FWP December 12, 2018

Equity Linked Notes Customized Capabilities As of December 12, 2018

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Equity Linked Notes (ELNs) allow clients to customize return to suit their investment needs. Traditional equity investments provide full exposure to the market, whether the performance is positive or negative. ELNs provide clients with an alternative to traditional equities that can offer an enhanced return if the underlying equity assetrises, and varying levels of protection if the market falls. ELNs can be linked to a variety of underlying assets, including indices, single stocks, portfolios of shares and industry sectors, and can be expanded to include commodities and currencies. ELNs may be suited for clients who: Want access to products that can be customized to reflect their return preferencesWant to limit market exposure to match their level of risk toleranceRequire growth or income in their portfolioPrefer a medium term investment of 3 - 10 yearsAre comfortable with the credit risk of the applicable issuer Understanding Our Products BenefitsCustomized Equity Investing ELNs deliver tailored exposure to equity markets. For markets with high expected growth, clients may consider notes that provide an accelerated or boosted return. These products provide enhanced participation in the positive performance of a selected equity market. For investors that require income, notes that pay fixed or conditional coupons at above-market rates may be appropriate.Risk Tolerance ELNs are created to accommodate a variety of risk tolerance levels. Notes can be designed to provide partial or conditional downside exposure while still offering upside return in positive markets. Flexible and Timely Issuance Based on Current Market Conditions ELNs can be customized and made available for purchase within a short time frame, typically a few days. Clients can choose to participate in ELNs when it best suits their investment outlook, Transparent, Passive and Formulaic The return on ELNs is based on a defined payment formula, so the current performance of the notes can be calculated at any point throughout the term of the ELN. The return formula is pre-determined before note issuance and the return calculation is therefore transparent. See Additional Risk Considerations at the end of this document. Investors need to review offering documents for a specific offering for a detailed explanation of the potential risks. 3

RisksSome key risk considerations include, but are not limited, to the following:ELNs are senior debt obligations of the issuer of the ELN. Therefore, returns are dependent on the issuer's ability to pay. Any secondary market prices will typically decrease if the issuer's credit risk increases.Depending on the structure, investors may lose all or a part of their initial investment based on the performance of the underlying equity asset.Return formulas are pre-defined and cannot be changed during the term of the note.Returns could be less than traditional debt securities.Returns may be capped (depending on the structure).Although investors might hold a note linked to an underlying equity asset that generates dividends, ELN investors most often do not receive the benefit of these dividends (depending on individual note features).A secondary market for ELNs is not guaranteed. The price at which ELNs can be sold in the secondary market, if any, prior to maturity may be at a substantial discount from the investor's initial investment. Typically, the market value of an ELN will only fully reflect the return formula at or close to maturity. Prior to maturity, a variety of factors may cause the market value of an ELN to be less than the principal amount, or less than the amount that may be expected to be paid at maturity. Prior to investing, potential investors should review the relevant offering documents for details specific to the ELN offering. See Additional Risk Considerations at the end of this document. Investors need to review offering documents for a specific offering for a detailed explanation of the potential risks. 4

Choosing an Equity Linked Note ELNs are created based on the investment preferences of clients. Investors can choose from notes with a growth or income focus, based on their personal requirements. How it works Choosing the Upside Return – Growth Notes Growth notes offer investors the potential for positive returns in a variety of market conditions at the maturity of the note. Booster Note A Booster Note will provide a minimum return at maturity if the performance in the underlying equity asset at maturity is positive but less than the stated Booster Percentage. For any positive performance greater than the Booster Percentage, the investor will typically participate in the full appreciation of the underlying equity asset at maturity. For any negative performance in the underlying equity asset, the investor will receive a return equal to the underlying equity asset's price return at maturity, unless the note includes limits on Customizing the UPSIDE return and DOWNSIDE exposureInvestors may customize the downside exposure. level of upside participation they want to an underlying equity asset, as well as the amount of downside exposure desired.UPSIDE DOWNSIDE Growth Income Booster Return Enhanced Full or Partial Repayment Return Return of Principal Fixed Coupons Callable Conditional Coupons No Exposure See Additional Risk Considerations at the end of this document. Investors need to review offering documents for a specific offering for a detailed explanation of the potential risks. 5 Partial Conditional Absolute Exposure Exposure Value ("Buffer") ("Barrier") Exposure

PAYMENT AT MATURITY \$50\$0 \$100 \$150 \$200 -100% 100% Payment at Maturity Percentage Change in the Underlying Equity Asset Downside Participation Upside Participation Employing a Booster strategy may be appropriate in the following scenarios. An investor is moderately bullish: As an example, a note that offers a 50% booster for any return in the underlying equity asset between 0-50%, will provide the investor with a 50% payout at maturity even if the performance of the underlying equity asset is 0.01%. This is displayed visually in the graph below. An investor is bullish but wants to maximize return in the event that equity market performance is mediocre: If the underlying equity asset generates significantly positive returns, the investor participates in these returns but also receives the boosted return during mediocre market performance. Considerations Investors will lose some or all of their initial investment if the underlying equity asset's price return at maturity is negative. Investors do not receive dividends paid by the stocks in the Index. PAYMENT AT MATURITY \$100 \$150 0%INDEX PERFORMANCE -100% -50% 100% 50% Payment at Maturity Percentage Change in the Index Downside Participation\$50\$0 Enhanced Return NoteAn Enhanced Return Note will return an accelerated performance of an underlying equity asset if its performance is positive at maturity. For any negative performance in the underlying equity asset, the investor will receive a return equal to the underlying equity asset's price return at maturity, unless the note includes limits on downside exposure. As an example, if an investor with a long time horizon who is looking for higher than average market returns purchases a 6-year note that offers 1.5 times the appreciation of an equity index, then at maturity, for any positive return in the index, the investor receives 150% of such positive return. Considerations Investors will lose some or all of their initial investment if the underlying equity asset's price return at maturity is negative. Investors do not receive dividends paid by the stocks in the Index. Upside For illustration purposes only. Not an actual Note. See Additional Risk Considerations at the Participation\$200 end of this document. Investors need to review offering documents for a specific offering for a detailed explanation of the potential risks. 6 -50% 0% 50%UNDERLYING EQUITY ASSET PERFORMANCEFor illustration purposes only. Not an actual Note.

Bear Note A Bear Note offers a level of upside return on a decline in performance of the underlying equity asset. If the performance of the underlying equity asset is greater than or equal to zero, investors will typically only receive their principal amount. For example, if the performance of the underlying equity asset is negative, but is greater than or equal to a stated negative percentage change, the notes pay a positive return equal to the absolute value of the negative performance. Some Bear Notes will pay a fixed rebate if the performance of the underlying equity asset is less than the stated negative percentage. Considerations Bearish notes will not participate in the positive returns on the underlying equity. The investor will only receive the principal amount of the note upon maturity in an upward market. PAYMENT AT MATURITY \$50 \$100 \$150 -100% 100% Payment at Maturity Percentage Changein the Underlying Equity Asset Note: the chart assumes a rebate is paid for negative performance below the stated percentage. -50% 0% 50%UNDERLYING PERFORMANCEFor illustration purposes only. Not an actual Note. Downside Participation Upside Participation See Additional Risk Considerations at the end of this document. Investors need to review offering documents for a specific offering for a detailed explanation of the potential risks. 7

Fixed Coupon Barrier NotesThis type of note provides fixed coupon payments on a regular basis and usually offers conditional limits on downside exposure at maturity. These notes are commonly linked to a single broad-based equity index such as the S&P 500® Index, the Russell 2000® Index, etc. At maturity, as long as the index does not drop to the pre-specified barrier level, the investor receives a return of principal. If the index trades at or below the barrier level at maturity, the investor loses principal in line with the performance of the index. Considerations While these strategies may meet investors' needs for income, the limits on downside participation offered at maturity is conditional on the underlying equity asset not trading below the barrier level at maturity. It is also worth highlighting that investors do not receive any additional return based on the performance of the underlying equity asset at maturity over and above the coupon payments paid throughout the term of the note. All coupons and payments at maturity are subject to the issuer's credit and are therefore dependent on the issuer's ability to pay at the time. Autocallable Conditional Coupon Notes These notes pay a conditional coupon if the underlying market is above the coupon barrier level on the relevant observation date. The notes are automatically called at a price equal to the original investment amount, if the level of the underlying equity asset as of the relevant observation date is equal to or above its initial level. If the note is not called during its term and on the maturity date the underlying equity asset is not below the pre-determined principal barrier level, the note returns the original investment amount. However, if the underlying equity asset is trading below the principal barrier level at maturity, the investor receives the market return and potentially a substantial loss of principal. Considerations While these notes may provide a greater return over traditional income-generating investments, returns are not guaranteed and are conditional on the underlying equity asset performance. Additionally, return of principal at maturity is also conditional on the underlying equity asset performance. All coupons and payments at maturity are subject to the issuer's credit and are therefore dependent on the issuer's ability to pay at the time. See Additional Risk Considerations at the end of this document. Investors need to review offering documents for a specific offering for a detailed explanation of the potential risks. 8 Choosing the Upside Return - Income Notes Income Notes offer an investor the ability to receive fixed or conditional income. Fixed Coupon Barrier Notes and Autocallable Notes are two types of Income Notes.

Choosing the Level of Downside ExposureELNs can be designed to include a desired level of downside exposure. ELNs may provide full, partial or conditional limits on downside exposure so that only the protection required by investors is actually purchased, which potentially allows for greater participation in the performance of the underlying equity asset. See Additional Risk Considerations at the end of this document. Investors need to review offering documents for a specific offering for a detailed explanation of the potential risks. 9 BuffersBuffers offer partial protection from a depreciation in the equity market by protecting an investor from a stated decline in the performance of the underlying equity asset at maturity. For example, a note with a 30% buffer limits the investor's exposure to the first 30% drop in the underlying equity asset at maturity. If the underlying equity asset were to suffer a loss beyond 30%, the investor would only participate in the drop beyond 30%, e.g. for a drop of 50% in the underlying equity asset, the investor would only recognize 20% of the decline. Buffer strategies, when combined with boosters or enhanced return features, offer investors the ability to enhance returns while providing insulation from the initial loss of a stated amount. Considerations While this strategy manages the risk of a market fall, the benefits of the buffer are only realized at maturity. The investor is exposed to any loss on the underlying equity asset beyond the buffer. All payments at maturity are subject to the issuer's credit and are therefore dependent on the issuer's ability to pay at the time.Barriers Barriers offer protection that is conditional on the performance of the underlying equity asset on the maturity date. For example, if a note includes a 30% barrier at maturity, as long as the underlying equity asset does not drop by 30% or more at maturity, investors will receive back their original investment. If the underlying equity asset were to drop by 30% or more, investors would fully participate in the drop and lose principal in line with the drop in the underlying equity asset. This is unlike buffered strategies, where investors only participate in the incremental drop beyond 30%. Considerations The barrier does not provide for a minimum return of principal. In addition and similar to the buffer above, the benefits of the barrier are only realized at maturity. All payments at maturity are subject to the issuer's credit and are therefore dependent on the issuer's ability to pay at the time. Bear Note A Bear Note offers a level of upside return on a decline in performance of the underlying equity asset. If the performance of the underlying equity asset is greater than or equal to zero, investors will typically only receive their principal amount. For example, if the performance of the underlying equity asset is negative, but is greater than or equal to a stated negative percentage change, the notes pay a positive return equal to the absolute value of the negative performance. Some Bear Notes will pay a fixed rebate if the performance of the underlying equity asset is less than the stated negative percentage. Considerations Bearish notes will not participate in the positive returns on the underlying equity. The investor will only receive the principal amount of the note upon maturity in an upward market.

At RBC, the Global Equity Linked Products group offers a comprehensive spectrum of Equity Linked Notes ("ELNs") to suit the needs of investment advisors and their investors. We also recognize that a more customized approach to product design may be necessary for investors with unique requirements. Our customized solutions are often used by high net worth clients with specific needs, sophisticated institutional clients, investment advisors with a high degree of autonomy, or those looking to offer bespoke solutions. For these situations, we are able to customize many aspects of an ELN. If an off-the-shelf solution does not meet your requirements, or you have a distinct view of the market, we have the ability to address your needs. We will work with you to create a solution that fits your investment mandate. Customized Capabilities — See Additional Risk Considerations at the end of this document. Investors need to review offering documents for a specific offering for a detailed explanation of the potential risks. 10

11 | RBC CAPITAL MARKETS Additional Risk Considerations An investment in ELNs involves significant risks. These risks are explained in more detail in the applicable offering documents for a specific offering. Before investing in an ELN, investors should carefully read the relevant offering documents to ensure they understand all of the potential risks. Some general risk considerations for ELNs include, but are not limited to the following: ELNs are unsecured debt obligations of the relevant issuer. Investors are dependent on the ability of the issuer to pay all amounts due on the notes, and therefore, investors are subject to the relevant issuer's credit risk and to changes in the market's view of the creditworthiness of the relevant issuer. Depending on the structure, investors in an ELN could lose some or their entire principal if there is a decline in the underlying equity asset. Even for structures that offer limits on downside exposure, the return of principal will depend on the relevant issuer's ability to pay its obligations at the relevant time. Some structures pay a variable or contingent coupon based on the performance of the underlying equity asset. This coupon may fluctuate over time and potentially be zero for some or all of the ELN's term. In some structures, the coupon may be the only return an investor will be entitled to for the ELN. For structures that are subject to redemption prior to maturity, if the ELNs are called before maturity, an investor will not receive any further coupons and may not be able to reinvest proceeds from the call in an investment with a comparable return had the ELNs not been called. For Bear Notes, investors will generally not participate in the positive performance of an underlying equity asset. Such notes are not designed for investors who seek an investment linked to the positive performance of the relevant asset.ELNs are typically sold at par and include fees and costs such as commissions, hedging costs and projected profits of the relevant issuer or its affiliates. Therefore, the estimated initial value of a ELN on the pricing date will be less than the issue price investors pay for the ELN. The offering documents of an ELN will typically include the issuer's initial estimated value of the ELN. This estimated value does not represent the future value of the ELN.ELNs will not be listed on any securities exchange. While the relevant issuer or its affiliate will generally endeavor to maintain a secondary market, they are not obligated to do so. The issuer or its affiliate may cease any market- making activities at any time. Even if a secondary market for the ELNs develops, it may not provide significant liquidity or trade at prices advantageous to the investor. The price at which an investor may be able to sell ELNs prior to maturity, if at all, may be at a substantial discount from the principal amount of the ELNs, even in cases where the closing price of the underlying equity asset has appreciated since the trade date. In addition, investors will not receive the benefit of any contingent repayment of principal if they sell ELNs before the maturity date. The potential returns described in the relevant offering documents assume the ELNs, which are not designed to be short-term trading instruments, are held to maturity. The return on ELNs may be lower than the return an investor could earn on other investments during the same term. Even if the return on an ELN is positive, it may be less than the return an investor could earn if it bought a conventional debt security of the relevant issuer. Investing in ELNs is not the same as owning the underlying equity asset (or any security or other component including in the underlying equity asset) directly. For instance, investors usually will not receive or be entitled to receive any dividend payments or other distributions on the underlying equity asset. Investors will also not have any voting rights or any other rights that a holder of the underlying equity asset may have. The activities of the relevant issuer or its affiliates may conflict with an investor's interests and may adversely affect the value of the ELNs. Many economic and market factors will influence the value of the ELNs, including but not limited to, interest and yield rates in the market, time to maturity of the ELNs, expected volatility of the underlying equity asset, and economic, financial, political, regulatory or judicial events. While the offering documents will typically contain a summary of the expected U.S. federal income tax consequences of an investment in the ELNs, significant aspects of the tax treatment of the ELNs may be complex and uncertain. Prospective investors should consult with their tax advisor before investing in any ELN to determine the effects based on their individual circumstances.

rbcusnotes.com 18-228A contact us General Inquiries structured.notes@rbccm.com DESK1.844.408.7346 EASTDavid Barnes Jamie Levey Brent Prowse Jennifer Stewart 1.844.272.2705 1.844.478.4617 1.844.494.4369 1.844.478.4618 CENTRALDavid Barnes Jamie Levey Jennifer Stewart 1.844.272.2705 1.844.478.4617 1.844.478.4618 WESTDan Carter Bill Stavropoulos Jeff Goldstein 1.844.494.4368 1.844.277.5218 917.544.0673