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RBC Capital Markets – Global Equity Linked Products March 2017 Structured Notes Primer

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2 1. Structured Notes Primer 2. Principal Return Notes3. Principal At Risk Notes - Growth Notes - Income Notes See important 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 1. Structured Notes Primer See important 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 What are structured notes? Structured Notes “SNs” are flexible investment vehiclesRepresent a powerful “tool kit” for clientsCan be created to reflect a specific investment view of a clientMany aspects of a SN can be customized TermStated minimum amount of principal to be returnedUnderlying market asset and currencyUpside participationOthers Structured Notes – A Primer See important 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 What are structured notes? SNs are senior unsecured debt obligations of RBC or other issuersNo FDIC insurancePayoff at maturity and/or coupon linked to the performance of a market assetGeneral features of SNsDesigned to be alternatives to traditional equity investments such as:Stocks, ETFs, mutual funds, and closed-end fundsUpside and downside market exposure as do traditional equitiesSometimes less downside risk depending on the structure ("buffered", conditional or full return of investment)Downside issuer credit risk similar to traditional bondsMinimum Offering Size RequirementsTypically, $1,000 minimum investment and $1,000 increments Structured Notes – A Primer See important 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.

Types of NotesPrincipal at Risk Notes (“PARNs”) allow you to customize the return profile of an equity underlying. PARNs may have one or more of following characteristics:Fixed or contingent interest paymentsDownside buffers or barriersUpside capsLeveraged participation1 for 1 exposure to a basket Dividends accounted for in pricing the structure – not typically paid out to investorsPrincipal Return Notes (“PRNs”) provide full return of principal at maturity, subject to the issuer’s ability to pay at the time and may have one or more of following characteristics:Fixed or contingent interest paymentsUpside capsLeveraged participationDividends accounted for in pricing the structure – not typically paid out to investors Structured Notes – A Primer 6 See important 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 Important Features Products with a purposeEquity alternatives Opportunity for diversification One ticket solutionPotential tax efficienciesToolkitCan be customized to reflect an investor's own view or strategyTransparencyFeesInformation on underlying assets typically publicly availableSecondary marketWhile not guaranteed, generally provided daily by an affiliate of the issuer. (See the "Risk Considerations" discussed below.) Structured Notes – A Primer See important 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.

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8 Some Key Risk Considerations include, but are not limited, to the following:Creditworthiness of the IssuerAll notes are an obligation of the IssuerReturns are dependent on the Issuer's ability to payAny secondary market prices will typically decline if the Issuer's credit risk increasesPotential loss of some or all principal (depending on structure)Returns could be less than traditional debt securitiesReturns may be capped (depending on structure)Secondary market is not guaranteed; sales prior to maturity may result in a lossSee "Risk Considerations" below for additional risk considerations Structured Notes – A Primer See important 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 0% 30% -30% 50% Market Value of Underlying Investment Return Initial Price -50% -40% -30% -20% -10% 10% 20% 30% 40% 50% Payoff profile of a traditional equity investment: One-for-One Return Structured Notes – A Primer Note: This illustration does not show the positive investment impact from dividends See important 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 2. Principal Return Notes See important 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.

11 Hypothetical Terms:Term: 7 yearsReturn of Principal: If Index Performance is zero or negative, full return of principal.Index: Dow Jones Industrial Average® IndexUpside Participation Rate: 50%Upside Variable Return: For positive Index Performance, 50% participation in the appreciation of Index.Additional Considerations:Return cannot be negative - full principal return at maturity, subject to the issuer's ability to pay.Investors do not receive dividends paid by the stocks in the Index.May have limited to no secondary market. The price at which the notes can be sold, if at all, prior to maturity may be at a substantial discount from the principal amount. Potential returns described herein assume that the notes are held to maturity.Subject to issuer's credit risk. All payments subject to issuer's ability to pay.Notes have complex features and may not be suitable for all investors. RBC Dow Jones Industrial Average® Return Growth Notes Illustrative Payoff Profile See important 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. Terms depicted on this page are illustrative only and do not represent any specific offering

12 3. Principal at Risk Notes See important 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.

13 Growth Notes See important 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.

14 RBC Buffered Return Notes Additional Considerations:Investors will lose some or a substantial portion of their initial investment if the Index Performance is less than -25%.Investors do not receive dividends paid by the stocks in the Index.May have limited to no secondary market. The price at which the notes can be sold, if at all, prior to maturity may be at a substantial discount from the principal amount. Potential returns described herein assume that the notes are held to maturity.Subject to issuer's credit risk. All payments subject to issuer's ability to pay.Notes have complex features and may not be suitable for all investors. Illustrative Payoff Profile Hypothetical Terms:Term: 6 YearsReturn of Principal: Return of principal up to a negative Index Performance of -25% at maturity.Index: S&P 500® IndexUpside Participation Rate: 100%Variable Return: For positive Index Performance, 100% participation in the appreciation of Index. If Index Performance is zero or negative, principal is returned up to a negative performance of 25%. If Index performance is a loss greater than 25%, Investor will outperform on the downside by 25% (e.g. Index loss of 50%, Investor loss of 25%). Terms depicted on this page are illustrative only and do not represent any specific offering See important 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.

15 RBC Absolute Return Notes Additional Considerations:Investors will lose some or a substantial portion of their initial investment if the Index Performance is negative by more than 20%.Investors do not receive dividends paid by the stocks in the Index.May have limited to no secondary market. The price at which the notes can be sold, if at all, prior to maturity may be at a substantial discount from the principal amount. Potential returns described herein assume that the notes are held to maturity.Subject to issuer’s credit risk. All payments subject to issuer’s ability to pay.Notes have complex features and may not be suitable for all investors. Illustrative Payoff Profile Terms depicted on this page are illustrative only and do not represent any specific offering Hypothetical Terms:Term: 6 YearsIndex: S&P 500® IndexUpside Performance: 100% participation in the positive performance of the index over the 6.0 year term. No cap on potential return.Variable Downside Absolute Return: For any loss in the index up to -20%, the investor will receive a positive return at maturity. Example: A loss of -15% on the index will equate to a +15% return at maturity. For any loss in the index up to -20% the investor receives a positive return at maturity equal to the absolute value of the return. Downside Principal Buffer: If Index Performance is a loss greater than 20%, Investor will outperform on the downside by 20% (e.g. Index loss of 40%, Investor loss of 20%). See important 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.

16 RBC Barrier Enhanced Return Notes Additional Considerations:Investors will lose some or all of their initial investment if the Index Performance is negative by more than 50% at maturity.Investors do not receive dividends paid by the stocks in the Index.May have limited to no secondary market. The price at which the notes can be sold, if at all, prior to maturity may be at a substantial discount from the principal amount. Potential returns described herein assume that the notes are held to maturity.Subject to issuer's credit risk. All payments subject to issuer's ability to pay.Notes have complex features and may not be suitable for all investors. Illustrative Payoff Profile Hypothetical Terms:Term: 6 YearsReturn of Principal: Return of principal up to a negative Index Performance of -50% at maturityIndex: S&P 500® IndexUpside Participation Rate: 110%Variable Return: For positive Index Performance, 110% participation in the appreciation of Index. If Index Performance is negative, principal is returned up to a negative performance of 50%. If Index Performance is a loss equal to or greater than 50%, investor will receive a return equal to the Index Performance. Terms depicted on this page are illustrative only and do not represent any specific offering See important 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.

17 RBC Barrier Booster Notes Illustrative Payoff Profile Hypothetical Terms:Term: 6 YearsReturn of Principal: Return of principal up to a negative Index Performance of -30% at maturity.Index: S&P 500® IndexBooster: At maturity, if the Index Performance is positive, the return will be the greater of (i) the Booster Level and (ii) the Index Performance.Booster Level: 47%Downside Variable Return: If Index Performance is zero or negative, full principal is returned up to a negative performance of 30%. If Index Performance is a loss greater than 30%, investor will receive a return equal to the Index Performance. Additional Considerations:Investors will lose some or all of their initial investment if the Index Performance is negative by more than 30% at maturity.Investors do not receive dividends paid by the stocks in the Index.May have limited to no secondary market. The price at which the notes can be sold, if at all, prior to maturity may be at a substantial discount from the principal amount. Potential returns described herein assume that the notes are held to maturity. Subject to issuer's credit risk. All payments subject to issuer's ability to pay.Notes have complex features and may not be suitable for all investors. Terms depicted on this page are illustrative only and do not represent any specific offering See important 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.

18 Historical 6 year S&P 500® Index returns Worst return: period that ended in March 2009 provided a 6 year return of -18.4%Best return: period that ended in March 2015 provided a 6 year return of 207.8%Past Performance is not Indicative of Future Results This graph shows the distribution of the historical returns of the S&P 500® Index using daily rolling 6 year periods from January 1, 2000 to February 27, 2017 (Source: RBC Capital Markets, Bloomberg) See important 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.

19 Income Notes See important 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.

20 RBC Contingent Coupon Barrier Notes Hypothetical Terms:Term: 5.5 YearsReturn of Principal: Principal returned as long as the underlying does not decline below the Principal Barrier at maturity. Variable Return: If the Index declines below the Principal Barrier at maturity, investor receives the full negative performance of the Index and will lose some or all of their principal. Contingent Coupon: Investors receive a coupon, paid quarterly on the observation date if the index is equal to or above the 70% Coupon Barrier. Additional Considerations:Investors will lose some or all of their initial investment if the Index Performance is negative by more than 30% at maturity.The only return will be the contingent coupon, if any. Investors will not otherwise participate in any appreciation of the Index.Investors do not receive dividends paid by the stocks in the Index.May have limited to no secondary market. The price at which the notes can be sold, if at all, prior to maturity may be at a substantial discount from the principal amount. Potential returns described herein assume that the notes are held to maturity. Subject to issuer's credit risk. All payments subject to issuer's ability to pay.Notes have complex features and may not be suitable for all investors. Index Currency Term Coupon Observation Frequency Coupon Barrier PrincipalBarrier Contingent AnnualizedCoupon S&P 500®Index USD 5.5 Years Quarterly 70% 70%, at maturity 5.40% per annum Terms depicted on this page are illustrative only and do not represent any specific offering See important 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.

21 RBC Auto-Callable Contingent Coupon Notes Hypothetical Terms:Term: 3 YearsReturn of Principal: Principal returned as long as all three indexes do not decline below the Principal Barrier at maturity. Variable Return: If any of the indices declines below the Principal Barrier at maturity below, investor receives the full negative performance of the lesser performing Index and will lose some or all of their principal. Contingent Coupon: Investors receive a coupon if on an observation date all three indices are equal or above the Coupon Barrier. Automatic Call: Notes will be redeemed automatically earlier if on an observation date all three indices are equal to or above its initial level. In that case, invested principal is returned plus the Contingent Coupon. Additional Considerations:The only return will be the contingent coupon, if any. Investors will not otherwise participate in any appreciation of any index.The notes are only linked to the lesser performing index, even if the other indices perform better.Investors will lose some or all of their initial investment if the return of the lesser performing index is negative.The notes are subject to an automatic call based on the performance of the indices. If the notes are called before maturity, you 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 notes not been called.Investors do not receive dividends paid by the stocks in the indices.May have limited to no secondary market. The price at which the notes can be sold, if at all, prior to maturity may be at a substantial discount from the principal amount. Potential returns described herein assume that the notes are held to maturity. Subject to issuer’s credit risk. All payments subject to issuer’s ability to pay.Notes have complex features and may not be suitable for all investors. Indices Currency Term Autocall and CouponObservation Frequency Coupon Barrier PrincipalBarrier Contingent AnnualizedCoupon S&P 500® IndexRussell 2000® IndexNasdaq 100® Index USD 3 Years Quarterly (Not callable 1 year) 75% 75%, at maturity 7.30% per annum Terms depicted on this page are illustrative only and do not represent any specific offering See important 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.

22 RBC Auto-Callable Floating Rate and Contingent Coupon Barrier Notes Hypothetical Terms:Term: 3 YearsReturn of Principal: Principal returned as long as both indices do not decline below the Principal Barrier at maturity. Variable Return: If either index declines below the Principal Barrier at maturity, investor receives full negative performance of the lesser performing Index and will lose some or all of their principal. Floating Rate Coupon: Investors will receive a floating coupon equal to the Floating Annualized Coupon on each observation date, which in no case will be less than 0%. Contingent Coupon: In addition to the Floating Rate Coupon, investors receive a Contingent Coupon, if on the observation date both indices are equal to or above the Coupon Barrier. Automatic Call: Notes will be redeemed automatically earlier if on an observation date, both indices are equal to or above its Initial level. In that case, invested principal is returned plus both the coupons, if any. Indices Currency Term Autocall and CouponObservation Frequency Coupon Barrier PrincipalBarrier Floating AnnualizedCoupon Contingent AnnualizedCoupon S&P 500® IndexRussell 2000® Index USD 3 Years Quarterly (not callable 1 year) 70% 70%, at maturity 3-month Libor + 1.00% 3.00%per annum Additional Considerations:The only return will be the Floating Rate Coupon and the Contingent Coupon, if any. Investors will not otherwise participate in any appreciation of either Index.The notes are only linked to the lesser performing index, even if the other index performs better.Other than any Floating Rate Coupon, investors will lose some or all of their initial investment if the return of the lesser performing index is negative.The notes are subject to an automatic call based on the performance of the indices. If the notes are called before maturity, you 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 notes not been called.Investors do not receive dividends paid by the stocks in the indices.May have limited to no secondary market. The price at which the notes can be sold, if at all, prior to maturity may be at a substantial discount from the principal amount. Potential returns described herein assume that the notes are held to maturity. Subject to issuer's credit risk. All payments subject to issuer's ability to pay.Notes have complex features and may not be suitable for all investors. Terms depicted on this page are illustrative only and do not represent any specific offering See important 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.

23 Risk Considerations An investment in the SNs involves significant risks. These risks are explained in more detail in the applicable offering documents for a specific offering. Before investing in an SN, investors should carefully read the relevant offering documents to ensure they understand all of the potential risks. Some general risk considerations for SNs include, but are not limited to the following:SNs 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 SN could lose some or their entire principal if there is a decline in the underlying 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 asset. This coupon may fluctuate over time and potentially be zero for some or all of the SN's term. In some structures, the coupon may be the only return an investor will be entitled to for the SN.For structures that are subject to an automatic call based on the performance of the underlying, if the SNs 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 SNs not been called.SNs 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 SN on the pricing date will be less than the issue price investors pay for the SN. The offering documents of an SN will typically include the issuer's initial estimated value of the SN. This estimated value does not represent the future value of the SN.SNs 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 SNs develops, it may not provide significant liquidity or trade at prices advantageous to the investor. The return on SNs may be lower than the return an investor could earn on other investments during the same term. Even if the return on an SN 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 SNs is not the same as owning the underlying asset (or any security or other component including in the underlying asset) directly. For instance, investors usually will not receive or be entitled to receive any dividend payments or other distributions on the underlying asset. Investors will also not have any voting rights or any other rights that a holder of the underlying 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 SNs.Many economic and market factors will influence the value of the SNs, including but not limited to, interest and yield rates in the market, time to maturity of the SNs, expected volatility of the underlying 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 SNs, significant aspects of the tax treatment of the SNs may be complex and uncertain. Prospective investors should consult with their tax advisor before investing in any SN to determine the effects based on their individual circumstances.The price at which an investor may be able to sell SNs prior to maturity, if at all, may be at a substantial discount from the principal amount of the SNs, even in cases where the closing price of the underlying asset has appreciated since the trade date. In addition, investors will not receive the benefit of any contingent repayment of principal if they sell SNs before the maturity date. The potential returns described in the relevant offering documents assume the SNs, which are not designed to be short-term trading instruments, are held to maturity.

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