

ROYAL BANK OF CANADA

Form FWP

August 27, 2018

Filed Pursuant to Rule 433

Registration Statement No. 333-208507

Filed Pursuant to Rule 433 Registration Statement No. 333-208507

Home · RBCStructured X \ f- C i Secure I [https:// www.-.rbc usno tes .co m/ beta/](https://www.rbc.usnotes.com/beta/) I. I RBC Capital
Markets Regional Sites v Contact Us IQ Client Centre I Home curren t Offerings ExistingProducts
Productsummaries Resources 0. Royal Bank of Canada des igns and issuesa rangeof structured notes to meet client
investment objectives. we regularly issue notes to the investing public t hat complement equity and fixed income portf
olios. The breadth of our capabilities also allowsus to offer strategies that complement alternative investment
approaches for generating growth, income and capital protection. Current Offerings Existing Products r• I I I I I \ . I

[Product Summaries](#) [Resources](#) [SET UP AN ACCOUNT](#) Our Client Centre provides exclusive
access to custom tracking, alerts and position reporting. Register Today

. I I RBC Capital Markets !!! Regional Sitesv Contact Us IQ Client CentreI Home Current Offerings Existing Products Product Summaries Resources Q. HOME TERMS OF SERVICE Please read these Terms of Service(the "l\greement") carefully. Your use of the Site (as defined below) constitutes your consent to this Agreement.This Agreement is between you and Royal Bank of Canada ("RBC" or "!"iS/" or "!!:!") concerning your use of (including any access to) the U.S. Structured Notes site currently located at [https:// www.rbcusnotesc.om](https://www.rbcusnotesc.om)(together with any materials and services available therein, and successor site(s) thereto, the "Site"). This Agreement hereby incorporates by this reference any additional terms and conditions posted by RBC through the Site, or ot herwise made available to you by RBC.BY USING THE SITE, YOU AFFIRM THAT YOU ARE OF LEGAL AGE TO ENTER INTO THIS AGREEMNTAND THAT YOU ARE A RESIDENT OF THE UNITED STATES.IF YOU ARE AN INDIVIDUAL ACCESSING OR USING THE SITE ON BEHALF OF, OR FOR THE BENEFIT OF, ANY CORPORATION,PARTNERSHIP OR OTHER ENTITY WITH WHICH YOU ARE ASSOCIATED (AN "ORGANIZATIO")N, THEN YOU ARE AGREEING TO THIS AGREEMENT ON BEHALF OF YOURSELFAND SUCH ORGANIZATION, AND YOU REPRESENT AND WARRANT THAT YOU HAVE THE LEGAL AUTHORITY TO BIND SUCH ORGANIZATION TO THIS AGREEMENT. References to "you " and "your" in thisAgreement will refer to both the individual using the Site and to any such Organization.THIS AGREEMENT CONTAINS A MANDATORY ARBITRATION PROVISIONTHAT, AS FURTHER SET FORTH IN SECTION 17 BELOW, REQUIRES THEUSE OF ARBITRATION ON AN INDIVIDUAL BASIS TO RESOLVE DISPUTES, RATHER THAN JURY TRIALS OR ANY OTHER COURT PROCEEDINGS, OR CLASS ACTIONS OF ANY KIND.Changes.We may change this Agreement from t ime to time by notifying you of such changes by any

reasonable means, including by posting a revised Agreement through the Site. Any such changes will not apply to any dispute between you and us arising prior to the date on which we posted the revised Agreement incorporating such changes, or otherwise notified you of such changes. Your use of the Site following any changes to this Agreement will constitute your acceptance of such changes. The "Last Updated" legend above indicates when this Agreement was last changed. We may, at any time and without liability, modify or discontinue all or part of the Site (including access to the Site via any third-party links); or offer opportunities to some or all Site users. Information Submitted Through the Site. Your submission of information through the Site is governed by RBC's Privacy Policy, located at <https://www.rbcwealthmanagement.com/us/en/legal/privacy-policy> (the "Privacy Policy"). You represent and warrant that any information you provide in connection with the Site is and will remain accurate and complete, and that you will maintain and update such information as needed. Jurisdictional Issues. The Site is controlled or operated (or both) from the United States, and is not intended to subject RBC to any non-U.S. jurisdiction or law. The Site may not be appropriate or available for use in some non-U.S. jurisdictions. Any use of the Site is at your own risk, and you must comply with all applicable laws, rules and regulations in doing so. We may limit the Site's availability at any time, in whole or in part, to any person, geographic area or jurisdiction that we choose. Legal Disclosure Relating to Structured Notes. Investors should read the applicable information statement or prospectus documents (including prospectus supplements and pricing supplement) for an issue of notes carefully before investing, and should discuss the suitability of an investment in the notes with their investment advisor. **Prison. The**

' ['.LEGALNOTICE - RBCStr x C i Secure I https:// www.rbcusnotes.com/ beta/ lega l * &! .I IRBC Capital Mark et s Home current Offerings ExistingProducts Product summaries Resources 0.suppummflts dild p1 lc111g suppteli\Uil()161 di\ Issue 61 li0le5 camIuny umore lr\VeStlllg. dlld Silb dlldls1055um SdlldbhllYbl di\ I11Ve5tiileill Iii me IIolt!SWitil tileli investment advisors before making an investment decision. The offering and sale of notes may be prohibited by laws in certain jurisdictions. Notes may only be purchased where they may be lawfully offered for sale and only through individuals qualified to sell them in such jurisdictions. The information statement or prospectus documents for a particular series of notes are available on the summary page for the applicable series of notes.s. Local Laws;Export Control It is important to note that not all of the products, services and information accessible through the Site are available in jurisdictions outside the United States. such information does not constitute an offer or solicitation to buy or sell any security, currency, investment fund or other product, service or information to anyone in any jurisdiction in which an offer or solicitation is not authorized or cannot legally be made or to any person to whom it is unlawful to make an offer or solicitation. For information specific to any specific jurisdiction, please contact your sales representative or advisor. The terms and conditions applicable to any product, service or information will be those determined at the time of provision of the product, service or information. Please be aware of the laws of your jurisdiction or that otherwise apply to you in relation to any of the matters described in these pages. If you choose to access the Site from outside of the United States, you do so on your own initiative and are responsible for compliance with applicable local, national or international laws. You may not use or export or re-export the information accessible through the Site, or any copy or adaptation of such information, in violation of any applicable laws or regulations, including export laws and regulations of the United States in force from time to time. NOT ALL OF THE

- - - ' [jLEGAL NOTICE - REC Str . Xf- C I i Secu re I htt p s://w v,rw.rbcusnotes.com/ beta/ Le g al *
I .I IRBCCap i ta l M ar ke ts Home current Offer ings Existing Products Pro duct s u mmar ies Resources QPOS(trJ
llSriil t 01 OtiilirWISli rildlW dVdildblli rn1oug11 61 111 COM\Q(tlbi With lhli Si tli ar1y VIIUSw, orm . lrdjdii
iioiSli , tasrn r ti gg, tllr\Q Do/lib, spywam di Otlllii computer code, file or program t hat is or is potentially harmful or
invasive or intended to damage or hijack th e operati on of, or t o monitor t he use of, any hardware, software or
equipment (each, a " ").Use the Sil e for any pur pose that is fraudulent or ot herwise to rtio us or unlawf ul.Harvest o r
coll ect info rmat ion about u sers of the Sit e.Interfere wit h or dis ru pt th e operati on of the Site or the servers or net
works used to make the Sit e availab le, incl ud ing by hacking or defa ci ng any porti on of the Site : or violate any
requirement. procedure or policy of such servers or networks.Restrict or inhibit any ot her person f rom using the Sit
e.Reproduce, modify, adapt, t ranslat e, creat e derivative wor ks of, sell , rent, lease, loan, tim eshare, dist ribute or ot
herwise exploit any port ion of (or any use of) the Si t e except as expressl y aut horized herein, wit hout RBC's
express p rior writte n consentReverse engineer, decompil e or disassemble any port ion of t he Site , except where
such restr ict io n is expressly prohibited by app li cab le law. Remove any copyright, trademark or oth er pro prietary
rights not ice fro m th e Sit e.Frame or mirror any portio n of the Sit e, o r ot herwise i ncorporat e any port ion of the
Sit e into any product or service, wit hout RBC's express prior writt en co nsentSystematicall y downl oad and st ore
Sit e cont entUse any robot, spider, site search/ retr ival appli cation or ot her manual o r automat ic device to
retrieve, i ndex. "scrape," "dat a mine" or ot herwise gat her Sit e cont ent, or reproduce or circumvent the navigat io
nal struct ure or presentat ion of t he Site, wit hout RBC's express prior writt en consent.You a re respo nsi ble for
obtaining. mai ntai ning and paying for all hardware and all t elecommunications and other services needed to use t he

Site. Monitoring. We may (but have no obligation to) monitor or analyze your access to or use of the Site. We may disclose information regarding your access to and use of the Site, and the circumstances surrounding such access and use, to anyone for any reason or purpose. Your Limited Rights. Subject to your compliance with this Agreement and solely for so long as you are permitted by RBC to use the Site, you may view one (1) copy of any portion of the Site to which we provide you access under this Agreement, on any single device, solely for your personal, non-commercial use. RBC's Proprietary Rights. We and our suppliers own the Site, which is protected by proprietary rights and laws. Our trade names, trademarks and service marks include RBC and ROYAL BANK OF CANADA and any associated logos. All trade names, trademarks, service marks and logos on the Site not owned by us are the property of their respective owners. You may not use our trade names, trademarks, service marks or logos in connection with any product or service that is not ours, or in any manner that is likely to cause confusion. Nothing contained on the Site should be construed as granting any right to use any trade names, trademarks, service marks or logos without the express prior written consent of the owner. Third Party Materials; Links. Certain Site functionality may make available access to information, products, services and other materials made available by third parties, including Submissions ("Third Party Materials"), or allow for the routing or transmission of such Third Party Materials, including via links. By using such functionality, you are directing us to access, route and transmit to you the applicable Third Party Materials.

' ['.LEGALNOTICE - RBCStr x C i Secure I https:// www.rbcusnotes.com/ beta/ lega l * &! .I IRBC Capital Mark et s Home current Offeri ngs Exist ing Products Product summaries Resour ces 0.We neither control nor endorse, nor are we responsible for, any Third Party Materials, including the accuracy, validity, timeliness,completeness,reliability, integrity, quality, legality,usefulness or safety ofThird Party Materials, or any intellectual property rights therein. Certain Thi rd Party Materials may, amongother things, be i naccurate,misleading or deceptive. Nothing in this Agreement shall be deemed to be a representation or warranty by RBC with respectto any Third Party Materials. We have no obligation to monitor Thi rd Party Materials, and we may block access to any Third Party Materials (in whole or part) through the Site at any time. In addition, the availability of any Third Party Materials through the Site does not imply our endorsement of, or our affiliation with, any provider of such Third Party Materials, nor does such availabil i ty create any legal relationship between you and any such provider. No such Thi rd Party Materials shall be deemed to be included or incorporated by reference intothe Site.YOUR USE OFTHIRDPARTY MATERIALS IS AT YOUR OWN RISK AND IS SUBJECT TO ANY ADDITIONAL TERMS, CONDITIONSAND POLICIESAPPLICABLE TO SUCH THIRD PARTY MATERIALS (SUCH AS TERMS OF SERVICE OR PRIVACYPOLICIES OFTHE PROVIDERS OF SUCH THIRD PARTY MATERIALS).LIM ITATIONOF LIABILITY.TO THE FULLEST EXTENT PERMITTED UNDER APPLICABLE LAW,(A) RBC WILL NOT BE LIABLE FOR ANY INDIRECT, INCIDENTAL, CONSEQUENTIAL, SPECIAL, EXEMPLARY OR PUNITIVEDAMAGES OF ANY KIND, UNDER ANY CONTRACT, TORT (INCLUDING NEGLIGENCE),TRICT LIABILITY OR OTHER THEORY, INCLUDING DAMAGES FOR LOSS OF PROFITS,USE OR DATA, LOSS OFOTHER INTANGIBLES, LOSS OF SECURITY OF SUBMISSIONS (I

INCLUDING UNAUTHORIZED INTERCEPTION BY THIRD PARTIES OF ANY SUBMISSIONS), EVEN IF ADVISED IN ADVANCE OF THE POSSIBILITY OF SUCH DAMAGES OR LOSSES; (B) WITHOUT LIMITING THE FOREGOING, RBC WILL NOT BE LIABLE FOR DAMAGES OF ANY KIND RESULTING FROM YOUR USE OF OR INABILITY TO USE THE SITE OR FROM ANY PRODUCTS OR THIRD PARTY MATERIALS, INCLUDING FROM ANY VIRUS THAT MAY BE TRANSMITTED IN CONNECTION THEREWITH; (C) YOUR SOLE AND EXCLUSIVE REMEDY FOR DISSATISFACTION WITH THE SITE OR ANY PRODUCTS OR THIRD PARTY MATERIALS IS TO STOP USING THE SITE; AND (D) THE MAXIMUM AGGREGATE LIABILITY OF RBC FOR ALL DAMAGES, LOSSES AND CAUSES OF ACTION, WHETHER IN CONTRACT, TORT (INCLUDING NEGLIGENCE) OR OTHERWISE (OTHER THAN ANY DAMAGES ARISING OUT OF THE U.S. FEDERAL SECURITIES LAWS, IF APPLICABLE), SHALL BE THE GREATER OF (A) THE TOTAL AMOUNT, IF ANY, PAID BY YOU TO RBC FOR THE RIGHT TO USE THE SITE; AND (B) TWENTY U.S. DOLLARS (\$20.00) Indemnity. To the fullest extent permitted under applicable law, you agree to defend, indemnify and hold harmless RBC and the Affiliated Entities, and their respective successors and assigns, from and against all claims, liabilities, damages, judgments, awards, losses, costs, expenses and fees (including attorneys' fees) arising out of or relating to (a) your use of, or activities in connection with, the Site (including all Submissions); and (b) any violation or alleged violation of this Agreement by you. Termination. This Agreement will continue until terminated. RBC may terminate or suspend your use of the Site at any time and without prior notice. Immediately upon any such termination or suspension, your right to use the Site will end, and RBC may deactivate or delete your user name, password and account, and all associated materials, without any obligation to provide further access to those materials. Sections 2-10 and 12-20 will survive the term of this Agreement. Governing Law; Arbitration. The terms of this Agreement are governed by the laws of the United States (including federal arbitration law) and the State of New York, U.S.A., without regard to its principles of conflicts of law, and regardless of your location. Except for disputes that qualify for small claims court, and except for disputes arising under the U.S. federal securities laws, all disputes arising out of or related to this Agreement or any aspect of the relationship between you and RBC, whether based in contract, tort, statute, fraud, misrepresentation, or any other legal theory, will be resolved through final and binding arbitration before a neutral arbitrator instead of in a court by a judge or jury, and you agree that you and RBC are each waiving the right to trial by a jury. Except as provided below regarding the class action waiver, such disputes include, without limitation, disputes arising out of or relating to interpretation or application of this arbitration provision, including the enforceability, revocability or validity of the arbitration provision or any portion of the arbitration provision. All such matters shall be decided by an arbitrator and not by a court or judge. However, as set forth below, the preceding arbitration requirement shall not apply to disputes to the extent relating to the interpretation or application of the class action waiver below, including its enforceability, revocability or validity. YOU AGREE THAT ANY ARBITRATION UNDER THIS AGREEMENT WILL TAKE PLACE ON AN INDIVIDUAL BASIS; CLASS ARBITRATION AND CLASS ACTIONS ARE NOT PERMITTED AND YOU ARE AGREEING TO GIVE UP THE ABILITY TO PARTICIPATE IN A CLASS ACTION. Notwithstanding anything to the contrary in this Section or any other provision of this Agreement or in the JAMS Streamlined Arbitration Rules and Procedures, disputes regarding the enforceability, revocability or validity of the foregoing class action waiver may be resolved only by a civil court of competent jurisdiction and not by an arbitrator. In any case in which (1) the dispute is filed as a class, collective, or representative action, and (2) there is a final judicial determination that all or part of such class action waiver is unenforceable,

[j LEGAL NOTICE - RBC St• X - I -- -= f- C I i Sec ure I https:// www.rbcusnotes.com/ beta/ Le g al *1
'!l. .I IRB C Capital Markets Home current Offe ri ngs Exist ing Pro du cts Pro du ct s ummaries Resources Qfile d as
a class, coll ective, or representa t ive acti on, and (2) t here is a final judicia l determination that all or part of such cl
ass action waiver is unenforcea ble, then the class, coll ect i ve, an d /or re presentative act i on, to that extent, must be
liti gated in a civil court of compet ent jurisdiction, but th e port ion of such class action waiver that is enforceable
shall be enforced in arbitration.The arbit rat io n will be administered by JAMS u n der it s St reamli ned Ar bi t rat io
n Ru l es and Pro cedures (currentl y ava ilable at htt p:// www.jamsadr.com/ rules– st reamli ned-arbit rati on/), as
amended by this Agree ment. The arbit rat or will conduct hearings, if any, by teleconference or vi deoconfe rence, rat
her than by person al appearances, unless you requ est an in -person hearingc Any i n-p erson appearances will be held
in your hometown area. Unless you initiate t hearbiration, RBC will be responsible f or all arb it rator and JAMS fees
and costs. If you i nit iat e the arbitration, you wil l be responsible for paying t wo hundred fift y dolla rs (\$250) and
RBC will be responsible for paying all ot her arbit rat or and JAMS fees an d costs. The arbitr ator's decision will

follow the terms of this Agreement and will be final and binding. The arbitrator will have authority to permit the discovery or exchange of non-privileged information relevant to the dispute. The arbitrator will have the authority to award temporary, interim, or permanent injunctive relief or relief providing for specific performance of this Agreement, but only to the extent necessary to provide relief warranted by the individual claim before the arbitrator. The award rendered by the arbitrator may be confirmed and enforced in any court having jurisdiction thereof. Notwithstanding any of the foregoing, nothing in this Agreement will preclude you from bringing issues to the attention of federal, state, or local agencies and, if the law allows, they can seek relief against us for you. Filtering. Please note that parental control protections are commercially available that may assist in limiting access to material that is harmful to minors. current providers of these protections are listed at: http://en.wikipedia.org/wiki/Comparison_of_content-control_software_and_providers. RBC does not endorse any of the listed products or services. Affiliates. All disclaimers and limitations of liability of any kind in this Agreement, as well as all other representations and agreements made by you for the benefit of RBC hereunder, are made for the benefit of both RBC and its affiliates (including RBC Capital Markets, LLC), and its and their respective shareholders, directors, officers, employees, affiliates, agents, representatives, licensors, suppliers and service providers, and their respective successors and assigns (collectively, the "Affiliated Entities"). The Affiliated Entities are third-party beneficiaries of this Agreement. Miscellaneous. This Agreement does not create any partnership, joint venture, employer-employee, agency or franchisor-franchise relationship between you and RBC. If any term of this Agreement is found to be unenforceable for any reason, that term will be considered separable from this Agreement and will not affect the enforceability of any other term. You may not assign, transfer or sublicense any of your rights or obligations under this Agreement we may assign, transfer or sublicense any or all of our rights or obligations under this Agreement without restriction. Neither party's waiver of any breach under this Agreement will be considered a waiver of any earlier or later breach. Any headings in this Agreement are for convenience only. The term "including" and its variations will be interpreted as if followed by the phrase "without limitation": This Agreement, including any incorporated terms, is the entire agreement between you and RBC relating to its subject matter, and supersedes any earlier or contemporaneous agreements or understandings between you and RBC relating to that subject matter. Notices to you may be made by posting to the Site or by e-mail or by regular mail. RBC will not be responsible for any failure to fulfill any obligation due to any cause beyond its control. Site © 2018 Royal Bank of Canada unless otherwise noted. All rights reserved. **PRIVACY LEGAL NOTICE ACCESSIBILITY** Connect With Us: 0:, CJ copyright © 2018 All rights reserved. This material may not be published, broadcast, rewritten or redistributed in any form. Please [click here](#) for legal restrictions and terms of use applicable to this site. Use of this site signifies your agreement to the terms of use. Royal Bank of Canada has filed a registration statement (including product prospectus supplement, a prospectus supplement, and a prospectus) with the SEC for any offering to which these materials relate. Before you invest, you should read those documents and the other documents relating to the offering that Royal Bank of Canada has filed with the SEC for more complete information about Royal Bank of Canada and the offering. You may obtain these documents without cost by visiting EDGAR on the SEC Website at www.sec.gov. Alternatively, Royal Bank of Canada, any agent or any dealer participating in any offerings to which these materials relate will manage to send you the relevant product prospectus supplement, the prospectus supplement, the prospectus and any other underlying supplements. If you so request by calling toll-free at 1-877-688-2301.

J'.JCurrent Offerings. - RBC X f- C I i Secure I http:// www.rbcu:snote.com/ beta/Cu rrentO ffe rings .I
IRBC Capital Markets Regional Site sv Co ntact Us IQ Client Centre I Home curr ent Off erings Existing
Products Product sum maries Resources Q Income Notes Growth Notes ' C'.JCurrent Offerings. - R BC
X - al J C I i Sec ure I http:// www.rbcu:snote:s.com/ beta/Cu rrentO ffe rings -* I@ .I IRBC Capital
Markets Regiona l Site s '-' Co ntact Us Home curr ent Offerings Existing Products Product summaries Iii Cli
ent CentreIResources Q Income Notes offer an investor the ability to receive fixed or conditional incom{! Growth
Notes

' C.I Curre n t Offer in g s R BC X \ C i Secure I http s:// www.rbcusnotes.com/ beta/Cu rrentOfferings .I
IRBC Capital Markets RegionalSites v Contact Home Curren t Offerings Existing Products Product Summaries us
IQ Client Cen t r e IResources Q a e HOMf Current Offerings Income Notes Growth Notes are designed to
enhance returns when market perfonnanrn is positive

J L) Ge neric Summa ries - RB C i Sec ure I <https://www.rbcusnotes.com/beta/Performance/GeneralSummaries> . I I RBC Capital Markets Regional Sites v Contact Us IQ Client Centre I Home current Offerings Existing Products Product summaries Resources Q View descriptions and sample return profiles for our Income and Growth Notes in the following Product summaries. Income Notes Autocallable Contingent Coupon Barrier Notes (Lesser Performing) Growth Notes Absolute Return Notes Barrier Enhanced Return Notes Booster Notes Buffered Enhanced Return Notes Principal Return Notes PRIVACY LEGAL NOTICE ACCESSIBILITY Connect With US : © 2018 All rights reserved This material may not be published, broadcast, rewritten or redistributed In any form Please click here for legal restrictions and terms of use applicable to this site use of this site signifies your agreement to the terms of USO

, ['.l Reso urces - RBC St ructu X \C i Sec ure I htt ps:// www.rbcusnote s.co m/ be ta /l earningCentre .I I
RBC Capital Markets Regional sites" contact us I Q client centrIe Offeri xisting Prod Homo curre nt ngs E ucts
Product summaries Resources Q - --.,,.._III.. t_. _.. HOME Resources CUSTOMIZED
CAPABILITIES s UNDERSTANDING OUR PRODUCTS Gain insight on suitability, benefits and
risk related to our products along with a v iew to how they work. Learn
More - FAQ PRIVACY LEGAL NOTICE ACCSES IBILITY Connect With Us: 1!11 CJ copyrIght o 201s
ALrights reserve(1.This material may not be published, broadcast.rewritten or redistributed In anyform.Please click
herefor legalrestrictions and terms of use applicable to th is site.use of thl s site signifiesyour agreement to the
termsof use. RavalBankof canada has fileda registration statement(Including productprospectus supplements. a
prospectus supplement. and a prospectus)withthe SECfor anyofferingto whichthese materials relate.Before
youInvest,you shouldread those documents and the other documentsrelatingto the offeringthatRoyalBank of canada
hasfiled with the SEC for more complete Informationabout RoyalBank of canada and the offering."bu mayobtai n
thesedocuments withou t cost by visiting EDGAR on the SEC Website at www.sec.gov. Alternatively,RoyalBankof
c.anada. anyagentor anydealer participatingIn anyofferingsto whichthese materials relatewillarrange to send you the
relevant product prospectussupplement, the prospectus supplement, the prospectus and anyother
undertyngsupplements If you so request by callingtoll-freet 1-877-688-2301.

[.] ELNs.- RBC Structured t-. X \ C i Sec ur e I htt p s:// www .rb cu sn otes .com / beta/ lea rning Centre/El
Ns .I I RBC Capital Markets Regional sites "" contact us I Q cli ent ce n tre I Home curre nt Offerings Existing
Products Product summaries Resources Q - • ' -- EM I -'llllr.al HOME I RESOURCES Understanding Our
Products Equity Linked Notes 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 asset rises, 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. senents Risks ELNs may be suited for clients who: Want access to
products that can be customized to reflect their return preferences Want to limit market exposure to match their level
of risk tolerance Require growth or income in their portfolio Prefer a medium term investment typically of 3 - 10
years A le com forta ble wi th the cred it ri sk o f the applica b le issuer custo mized Equity inv esting ELNs deliver
tailored exposure to equity markets. For markets with 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 the ELNs is based on a defined payment formula applied to the performance of an underlying asset. The current

' [jELN s RSC Stru ctur ed \ X - : 1 C I i Secu re I htt ps://w ww..rbcusnotes.co m/ beta/
Le amingCen tre/ ELNs ' - -cle. * I© .I IRBC Cpa i at l Ma rke ts Home Cu rr fl n t Off flrings Existi ng Pro du cts
Product Sum m ari fls Rfl sources Q The return on t he ELNs is based on a defined payment formula applied to the
performance o f an underlying asset Th e cu rren t p erf ormancfl of thfl underlying asset can be o bserved throughout
the tfl r m of th fl ELN. The return formula is pr fl-deter mined beforfl note issuance and th e return calcu lation is
therefore t ransparent How it worKschoosing an Equity Linked NoteELNsare created based on t he investment
preferences of clients. Investors can choose from notes with a growth or i ncome focus, based on t heir personal requ
iremen ts. Cust omi zing the UPSIDE return and DOWNSIDE exposureInves tor's may cus tomize t he level of upside
pal'tici patio n they wan t to an u nderlyi ng equity asset, as well as theamount of downsid e expos ure des
ired. UPSIDE DOWNSIDE Growth Income eoosu-,R tum Enhancet Full or Partial Fi11.e dR tum R,tum Coupo n
s Cond itionalCoupons Calla ble- NoExposure PartialExposull'l Condi tio naiExposure ("Bulfe r") ("Ba rti
e,..) Choo sing the Upside Return - Gro wth NotesGrowth notes are desig-ned ta enhance returns when mar ket pe
rformance is positive. Booster Not es and Enh im ced Return Not es are two types of Gro wth notes. Booster Not eA
Booster Note will provide a minimum retu rn at maturity ifl he performance in th e underlying equity asset at matur ity
is pos itive but less than the stated Boost er Percen tage.For any posit ive performance grea ter tha n the Boo ster
Percentage, the Investor will typicall y part icipate i n the full appr eciation of the underly ing equity asset at matu rit
y. For any negati ve p erformance In t he u nde rlyi ng i < "<,- Upsid ePartldpalJon

, ['1 ELNs. - RBCStructured t-. X\ - ' C i Sec ure I [https:// www.rbcusnotes.com/ beta/lea](https://www.rbcusnotes.com/beta/learningCentre/EINs)
Resour ces 0. Choos ing the Upside Return - Growth Notes Growth not es are designed to enhance returns when
market performance is positive. Booster Notes and Enhanced Return Notes are two types of GrowthnotQs. A Booster
NoteA 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
Percent age, 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 downside exposure. 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 modest: If the underlying equity asset generates significantly positive returns, the investor participates in these re-
turns but also receives the booster return during modest market performance. Upside Participation Payment at
Maturity UNDERLYING PERFORMANCE Percentage change in the 1. Index Δ \times $\frac{1}{1 + \Delta}$ For illustration
purposes only. Not an actual Note. Considerations Investors will lose some or all of their initial investment if the
underlying equity asset's price return at maturity is negative, unless the note includes limits on downside exposure.
Investors do not participate in dividends paid by the stocks in the Index. Enhanced Return Note

' [jELNs - RBC Structured \ X - a.db =_ f- C I i Secure I ll ttp s.// w 1,v w . r b cusn otes.com / beta/
Learn ingCe ntre /ELN s * I® .I IRBC Capital Markets Ho me current Offerings Exist ing Pro d ucts Product s u
mmar ies Resou rces 0. Enh a n c ed Ret u rn NoteAn En hanced Retu rn Note wil l return an accelerat ed
performance of an underlying equity asset if its performance is posi ti ve at maturity. For any negative performance in
the underlying equity asset, the investor will receive a retu rn equal to t he underlying equit y asset' s price return at
matu rity, unless the note incl udes limits on downside exposure.As an example, if an i nvestor with a l ong t ime
horizon who i s l ooking for higher tha n average market retu rns purc hases a 6-year note that off ers 1.s times t he
appreciat ion of an equity i ndex, the n at matur ity , fo r any posit ive retu rn i n the index, t he investor receives 1so%
of such pos i tive return. Consid erations I n vestors will lose some or all of the ir initia l invest ment if the
underlying equity asset' s price return at matu rity is negative, unless the note inclu des li mit s on downs ide
exposure. Investors do not receive dividends paid by t he stocks i n t he Index. °:, ' I,i.: z :';!i • Payment I
Maturity U NDERLYING PERFORMANCEPn-c11ntali'11 ch nll"! in t M Indu For illustration purposes only. Not
an actual Note. Choos ing the Upside Return - Income Notes ..., Income Notes offer an investor t he ability to
receive fixed or condit ional income. Fixed Coupon Barrier Notes and Aut ocalla ble Notes are two types of Income
Noles.Fi xed co upon Barr ier NotesThis type of note provides fixed coupon payments on a regular basis and usuall y
offers conditi onal limits on downside exposure at matur ity. These notes are commonly linked to a single broad-based
equity i ndex, such as the S&P soo® I nd ex, the Russell 20000> I nd ex, etc. At mat urity, as long as the index does
not drop to the pre-specified barrier love the I nvesto r receives a return of principa l. If the index trades at or below
the barrie r level at maturity, the investor loses pri ncipal in line with the perform ance of the

index. considerations While these strategies may meet investors' needs for income, the limits on downside participation offered at maturity are conditional on the underlying equity asset not trading below the barrier level shortly before 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

' L]EL N :s - RBC Structur ed (\ X - ! E. - al X f- C I i Sec ure I https:// \.vv.n.v.rbcu sno tes .co m/ beta / l e.arningCe r,tre/ ELNs *I IRBCCap i ta l M ar ke ts Home current Off eri ngs Existing Product s Product s ummari es Resources QAut ocallable condit ional coupon Not esThese not es pay a condit ional coupon if the underlyi ng market is abovethe coupon barrier level on the relevant observat ion date. The notes are automa ticall y called at a price equal to the original i nvestment amount. if t he level of the underlying equit y asset as of the relevant observation date i s equal t o or above its initi al level. If t he note i s not call ed during its term and on t he matu ri ty date the underlying equity asset is not below th e pre-determined principal barr ier level, the note returns the original i nvestment amount. However, if the underlyi ng equity asset is trading below the principal barrier level at maturity, t he investor receives t he market return and potenti ally a substantial lossof principal.considerationsWhil e these no tes may provide a greater return over traditional income -generat ing invest ments, retu rns are not guaranteed and are condit ional on th e underlying equity asset performance. Additionally, return of principal at maturity is al so condit ional on t he underlying equit y asset performance. All coupons and payments at matu rity are subject to t he issuer's credit and are therefore dependent on th e issuer's ability to pay at the ti me. If the notes are called prior t o maturi ty, i nvestors will not receive any further coupons and may not be able t o invest the proceeds i n another product with comparable tN ms. Choosing the Level of Downside Exposure ;.. ELNs can be designe d to include a desired level of downside exposure. ELNs may provide full, partial o r condit ional limits on downside exposure so t hat on ly the protection requi red by i nvestors is actually purchase d, which poten tially allows for greater upside partici pat ion i n t he performance of the underlying equity asset Two common forms of providing downside li mits are the Buff er and the Barrier.BuffersBuffers offer part ial prot ection from a depreciati on in th e equity market by protecting an i

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 incur a loss reflecting 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. Barrier: 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 unbuffered strategies, where investors would only participate in the incremental drop beyond 30%.

'C'.iELNs - RSC Structured f\ X - f- C I i Secure I h tt p s:// vvw w .rbcusn o tes.co m /beta/ Lea m i ngCent r e/ ELNs * I .I I RBC CapitalM ark et s Home current Offe ri ngs Existing Pro du ct s Pro d uct s ummar ies Resources 0.underlying equity asset This is unlike buff ered strat egies, where investors would only participate in the incremental drop beyond 30%.considerationsTh e barrier does not provide for a minimum return of princi pal. In addi tion and simila rt o the buff er above, the benefi t s of the barr ier are only realized at maturity. All payment s at maturity are subject to the issuer 's credit and are t herefo re dependent on t he issuer 's abili ty to pay at the tim e. Impor tant Infor mat ion Additional Risk ConsiderationsThis communi cation has been generat ed by RBC capi tal Markets' Global Eq u ity Linked Pro ducts and is not a research report or a product of RBC Capital Markets' Research DepartmentThese materials are for informati onal purp oses only and do not contain all informat ion t hat may be requi red to evaluat e, and do not constit ute a recommendati on with respect to, any investment Any reci pient of these mat erial s should conduct it s own independent analysi s of the matter s referred to herein. Investors must consult wit h their own advisors prior to investing. We are not providi ng you wit h any account ing, legal or tax advice in connection wit h t hese mat erials.Before a potent ial i nvestor can purchase any struct ured notes, they must have completed account opening procedures and have execut ed relevant documentati on. Prior t o investing i n a structured note, a potential investor will need to carefully review t he relevant offeri ng documents to full y understand the investment and the potent ial risks. Please revise the "Addit ional Risk Considerat ions" ta b for important risk factors t hat investors should consider in connection wit h the investments discussed on th is website.The informat ion and any analyses contained in this doc ument are taken from, or based upon, i nformat ion from publ icly available sources, the completeness and accuracy of which has not been in depende ntl y verified. The informat ion and any

analyses in these materials are subject to change with changing market conditions. Any examples, calculations or value ranges indicated herein are hypothetical and should not be construed as indicative of levels at which an issuer may issue a product. RBC Capital Markets is the global brand name for the capital markets business of Royal Bank of Canada and its affiliates, including RBC Capital Markets, LLC (member FINRA, NYSE and SIPC); RBC Dominion Securities Inc. (member IIROC and CIPF); Royal Bank of Canada - Sydney Branch (ABN 86 076 940 880); RBC Capital Markets (Hong Kong) Limited (regulated by the Securities and Futures Commission of Hong Kong and the Hong Kong Monetary Authority) and RBC Europe Limited (authorized by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and Prudential Regulation Authority.) @ Registered trademark of Royal Bank of Canada. Used under license. All rights reserved.

ELNs - RBC Structured FX - C i Secure I <https://www.rbcusnotes.com/beta/LearningCentre/ELNs>. IRBC Capital Markets Home Current Offerings Existing Products Product Summaries Resources 0. Important 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 limited 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 the proceeds from the call in an investment with a comparable return had the ELNs not been called. 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 an ELN at 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.

, C'i ELNs - RIK Structured t\ X - -;;- ill- x - 1 f- C I i Secure I htt ps:// w,;\v.rbcus no tes .co m/ beta/ Le arningCe ntre/ ELNs e, * I '8J I.IRBC Capita\ Markets Home Curr ent Of ferings Existing Pro ducts Product Su mmaries Resources Q Equity Linked Notes Eq uity Linked Notes (ELNs) allow clients t o cust omize ret urn to suit t heir investment needs. Tradi ti onal equity investme nts provi de full exposure to the marke t. whether the performance is positive or negati ve.ELNs provide cli ents with an alternativet o traditional equities that can offer an enhanced return if the underlying equity asset rises, and varyi ng levels of protectio n if the mar ket falls. ELNscan be linked to a variety of underlying assets. inc lu d in g indices, single stocks, portfolio s of shares and in dustry secto rs, and can be expanded to in clud e com modities and currencies . ELNs may bo sultod for cll onts who:Want accessto products l hal can be cust omized t o reflect their return preferencesWant to limit market eKposure to match their level of ri sk toleranceRequire Qrowl h or Income in their portfolfoPrefer a medium term Invest mem typically of J - 10 yearsAre comfortable with the credit risk of the applicable issuer Some key r isk considerations In clude, but a.r e not li mited, t o the following:ELNs are senior debt obli gati ons of t he issuer of t he ELN. Th erefore, ret urns are dependent on the issuer's abili ty to pay. Any secondary ma.rket prices willtypically decrea.:se i f t h e i ssuer's cn:ld i t r i s k i n creases.ELNs most often do not offer full downside protection, so investors may lose all or a par t of the ir initia l investment based on the performance of the underlying equity assetReturn formulas are pre-defined and cannot be changed during the term of the note>Returns could be less t han t radit ional debt securit ies>Returns may be capped (depending on the structure).Altho ugh i nvestors might hold a note li nked to an undertyi ng equity asset that generates divi dends, ELN investors most on en do not receive t he benefit of these dividends (depending on individual note feat ures).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. How It Works
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.

, Custom ized Capabilities X \ C i Secure I [https:// www.-.rbc usnotes.com/](https://www.rbc-usnotes.com/beta/learningCentre/CustomizedCapabilities)
beta/learningCentre/CustomizedCapabilities .I I RBC Capital Markets Regional Sitesv contact us I a Client
centrleHome curre nt Offerings ExistingProducts Product summaries Resources 0._ HOME I
RESOURCES Customized Capabilities At RBC, the Globa l Equit y Linked Products group offersa
comprehensive spectrum of Equity Linked Notes("ELNs") to sui t the needs of investment advisors, broker-dealers
and their investors. We also recognize that a more customizedapproach to product design may be necessary fo r i
nvesto rs with unique requirements. Our customized solutions are often used by high net worth clients with specific
needs, sophisticated institutionalclients, investment advisors with a hi gh 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 -shelfso
lution does not meet your requirements. or you havea distinct view of the market, we havethe ability to addressyour
needs. We will wo rk withyo u to creat e a solut i on that fits your investment mandate. contact usGeneral
Inquiriesstruc t ur ed .no t es@rbcc m.co m EAST CENTRAL WEST Brent Prowse David Barnes Dan cart
er 1.844.494,4369 1,844.272.2705 1.844.494.4368 Hotline(for advisorsonly)1.844.408.7346

' [jFAQ - RIK S.truct ure<l Ne X -- 1 , . . :. -;- - x- 1 f- C I i Secure I htt ps:/ \, vww.rb cusn o t es.co m/ beta / Leam ingCentre/FAQs El. * . I .-y, . I I RBC Capital Markets Region.al sites v contact us Home currnt orrerlngs Existi ng Products Product summaries Ia Clie nt cent reResourcos Q A Q What type of investors should consider purchasing RBC Structured Nat es?II RBC Str uct ur ed Notes are created for investors who are intereste d in: Th e p oteni al to ea.rn a return great er than what is avail able from traditi onal investmentsExposure to eq uity markets with the pot ential for enhanced returns with t he possibility for mitigati ng downside exposure.Exposure to equity markets that are ot herw i se difficult t a access directly.Investors who are comfo rtable with potential loss of pri ncipal, dependi ng on th e note terms.Investors who are rnm fortab le with the credit risk of the is.suer. Q What are some of t he risks associ ated with RBC St ructured Notes?II Same of the risks associ ated with RBC St ru ct ured Notes. are: All paym ent s are subject t o the issuer's credit risk.Pot ential to Lose som e or all principa l.Limited to no secondary marketPlease see "Understanding Ou r Prod ucts and the offering documents for t he specific Note for a more detailed descri pt io n of the potenti al risks. Q Are there opport unities for a client to r eceive, regular cash flows fr om an RBC Structured Note? RBC Str uctur ed Notes may provide regular m ed-payment or contingent payment cash flows. RBC cl assifies these notes as Income Notes. Peri odic payments may be cont ingent on the per lormance of the applicable asset A A A IIQ What informati on is available to potential purchasers of RBC St ructu red Notes new issues?IJ This in format ion is availab le wit hin the Produ cts. section of the website. The pr eli min ary and fin al off ering documents are filed and available for review

' [jFAQ - RBC Structure d t-.c X -- -• ill f- C I i Secu re I https :// www.rbcusnotes.com/ beta/ Lea m
mgCe nt re/ FAQs e. * I I.RBC Capital Markets Home Cu rr ent Offe rings Existing Products Prod uct Su mmaries
Resources 0. " " This informat ion is avail able wit hin t he Products section of the website. The preli minary and fmal
offering documen ts are filed and available for review on t he SEC web sit e. Are fee s i n cl u de d i n RBC St ru ct u
re d Not es? All f ees and commissions are set forth in the relevant prospectus. Q What i nformati on is available to
potential purchasers of RBC St ru ct ured Note s new i ssues?aQaQ ca n an invest or sell an RBC Stru ctured No t e p
ri o r t o matu rity? From the RBC LaunchPad homepage, select ""TradewebDi rect-, select ""Bid Wanted Reques and
enter the CUSIP.For technica l Issues with Tradeweb, please contact the Business Appli cation & Support gmup (the
Bats line) 1-866-789-6608 . For general questions regardi ng selling Notes thro ugh RBC, please contact the desk at
1-844 -408 -7346. Ttl! nrnformatlon allovl! /H!rtllns to Structu rl! CI Not t!s lssuM lly Royal Bilnk or canaaa_
l'll!nht!r Roy.11 Bank or Canada, nor any or rts amt lat s. makfis any rnmml!nt on thl! basis on Which oot!s tm!
l)roVI CII! El byot hl!r SOU rD! 5- " " Wh il e no t obl igated to do so, RBC o r it s affili ates may maint ain a daily
secondary market in its sole discret ion. Any secondary mar ket may not provide significant Li q u id ity or trade at
prices advant ageous to the investor. Not es are intended to be held until maturity. IIQ can I sell ml(Not es t hrough
RBC?a " PRIVACY L.IGAL NOTICE ACCESSIB ILITY Connect Wit h Us: 11:1 Cl fi;'I st. ll!wrltten
or redl!ltrllmtd ln any form. Please copyr1ght o zole All r1gl!ts reserved. This mater1al mav not be published,
broadca cl!ct here for legal restrictions and term-; of use appllc:able lo this site. use of this slte slgnlfiesyour
agreement to the terms of use. ed a ll!gl!straUon statement !Inc Royal Bank of c.anada has fil ludingproduct
prospectus supplements, a prospectus supplement, and a prospectus) wittl the SEC for any offer1ng to which these

Edgar Filing: ROYAL BANK OF CANADA - Form FWP

materials relate. Before you invest, you should read those documents and the other documents relating to the offering that Royal Bank of Canada has filed with the SEC for more complete information about Royal Bank of Canada and the offering. You may obtain these documents without cost by visiting EDGAR on the SEC website at www.sec.gov. Alternatively, Royal Bank of Canada, any agent or any dealer participating in any offerings to which these materials relate will arrange to send you the relevant product prospectus supplement, the prospectus supplement, the prospectus and any other underlying supplements if you so request by calling toll-free at 1-877-688-2301.
