

ROYAL BANK OF CANADA  
 Form FWP  
 December 15, 2017

---

RBC Capital Markets® Filed Pursuant to Rule 433  
 Registration Statement No. 333-208507

The information in this preliminary terms supplement is not complete and may be changed.

Preliminary Terms

Supplement

Subject to Completion:

Dated December 14,  
 2017

\$

Pricing Supplement Auto-Callable Contingent Coupon Barrier Notes

Dated December \_\_, Linked to the Lesser Performing of Two Equity

2017 to the Product Securities, Due December 28, 2020

Prospectus Supplement Royal Bank of Canada

No. TP-1, the Prospectus

Supplement and

the Prospectus, Each

Dated January 8, 2016

Royal Bank of Canada is offering Auto-Callable Contingent Coupon Barrier Notes (the “Notes”) linked to the lesser performing of two equity securities (each, a “Reference Stock” and collectively, the “Reference Stocks”). The Notes offered are senior unsecured obligations of Royal Bank of Canada, will pay a quarterly Contingent Coupon at the rate and under the circumstances specified below, and will have the terms described in the documents described above, as supplemented or modified by this terms supplement.

Reference Stocks	Initial Stock Prices*	Coupon Barriers and Trigger Prices
------------------	-----------------------	------------------------------------

Amgen Inc. (“AMGN”)		60.00% of its Initial Stock Price
---------------------	--	-----------------------------------

Biogen Inc. (“BIIB”)		60.00% of its Initial Stock Price
----------------------	--	-----------------------------------

\* For each Reference Stock, the Initial Stock Price will be its closing price on the Trade Date.

The Notes do not guarantee any return of principal at maturity. Any payments on the Notes are subject to our credit risk.

Investing in the Notes involves a number of risks. See “Risk Factors” beginning on page PS-5 of the product prospectus supplement dated January 8, 2016, on page S-1 of the prospectus supplement dated January 8, 2016, and “Selected Risk Considerations” beginning on page P-7 of this terms supplement.

The Notes will not constitute deposits insured by the Canada Deposit Insurance Corporation, the U.S. Federal Deposit Insurance Corporation or any other Canadian or U.S. government agency or instrumentality.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of the Notes or determined that this terms supplement is truthful or complete. Any representation to the contrary is a criminal offense.

Issuer:	Royal Bank of Canada	Stock Exchange Listing:	None
Trade Date:	December 22, 2017	Principal Amount:	\$1,000 per Note
Issue Date:	December 28, 2017	Maturity Date:	December 28, 2020
Observation Dates:	Quarterly, as set forth below.	Coupon Payment Dates:	Quarterly, as set forth below
Valuation Date:	December 22, 2020		

Edgar Filing: ROYAL BANK OF CANADA - Form FWP

Contingent Coupon Rate: [7.50%-8.50%] per annum (to be determined on the Trade Date)

Contingent Coupon: If the closing price of each Reference Stock is greater than or equal to its Coupon Barrier on the applicable Observation Date, we will pay the Contingent Coupon applicable to the corresponding Observation Date. You may not receive any Contingent Coupons during the term of the Notes.

Payment at Maturity (if held to maturity): If the Notes are not previously called, we will pay you at maturity an amount based on the Final Stock Price of the Lesser Performing Reference Stock: For each \$1,000 in principal amount, \$1,000 plus the Contingent Coupon at maturity, unless the Final Stock Price of the Lesser Performing Reference Stock is less than its Trigger Price. If the Final Stock Price of the Lesser Performing Reference Stock is less than its Trigger Price, then the investor will receive at maturity, for each \$1,000 in principal amount, a cash payment equal to: \$1,000 + (\$1,000 x Reference Stock Return of the Lesser Performing Reference Stock) Investors could lose some or all of their principal amount if there has been a decline in the trading price of the Lesser Performing Reference Stock.

Lesser Performing Reference Stock: The Reference Stock with the lowest Reference Stock Return

Call Feature: If the closing price of each Reference Stock is greater than or equal to its Initial Stock Price starting on June 22, 2018 and on any Observation Date thereafter, the Notes will be automatically called for 100% of their principal amount, plus the Contingent Coupon applicable to the corresponding Observation Date.

Call Settlement Dates: Quarterly, as set forth below.

Final Stock Price: For each Reference Stock, its closing price on the Valuation Date.

CUSIP: 78013XCF3

	Per Note	Total
Price to public <sup>(1)</sup>	100.00%	\$
Underwriting discounts and commissions <sup>(1)</sup>	2.25%	\$
Proceeds to Royal Bank of Canada	97.75%	\$

<sup>(1)</sup>Certain dealers who purchase the Notes for sale to certain fee-based advisory accounts may forego some or all of their underwriting discount or selling concessions. The public offering price for investors purchasing the Notes in these accounts may be between \$977.50 and \$1,000 per \$1,000 in principal amount.

The initial estimated value of the Notes as of the date of this terms supplement is \$945.51 per \$1,000 in principal amount, which is less than the price to public. The final pricing supplement relating to the Notes will set forth our estimate of the initial value of the Notes as of the Trade Date, which will not be less than \$925.51 per \$1,000 in principal amount. The actual value of the Notes at any time will reflect many factors, cannot be predicted with accuracy, and may be less than this amount. We describe our determination of the initial estimated value in more detail below.

If the Notes priced on the date of this terms supplement, RBC Capital Markets, LLC, which we refer to as RBCCM, acting as agent for Royal Bank of Canada, would receive a commission of approximately \$22.50 per \$1,000 in principal amount of the Notes and would use a portion of that commission to allow selling concessions to other dealers of up to approximately \$22.50 per \$1,000 in principal amount of the Notes. The other dealers may forgo, in their sole discretion, some or all of their selling concessions. See “Supplemental Plan of Distribution (Conflicts of Interest)” below.

RBC Capital Markets, LLC



Auto-Callable Contingent Coupon Barrier Notes  
 Linked to the Lesser Performing of Two  
 Equity Securities, Due December 28, 2020  
 Royal Bank of Canada

**SUMMARY**

The information in this “Summary” section is qualified by the more detailed information set forth in this terms supplement, the product prospectus supplement, the prospectus supplement, and the prospectus.

**General:** This terms supplement relates to an offering of Auto-Callable Contingent Coupon Barrier Notes (the “Notes”) linked to the lesser performing of two equity securities (the “Reference Stocks”).

**Issuer:** Royal Bank of Canada (“Royal Bank”)

**Issue:** Senior Global Medium-Term Notes, Series G

**Trade Date:** December 22, 2017

**Issue Date:** December 28, 2017

**Term:** Approximately three (3) years

**Denominations:** Minimum denomination of \$1,000, and integral multiples of \$1,000 thereafter.

**Designated Currency:** U.S. Dollars

We will pay you a Contingent Coupon during the term of the Notes, periodically in arrears on each Coupon Payment Date, under the conditions described below:

- If the closing price of each Reference Stock is greater than or equal to its Coupon Barrier on the applicable Observation Date, we will pay the Contingent Coupon applicable to that Observation Date.
- If the closing price of either of the Reference Stocks is less than its Coupon Barrier on the applicable Observation Date, we will not pay you the Contingent Coupon applicable to that Observation Date.

You may not receive a Contingent Coupon for one or more quarterly periods during the term of the Notes.

**Contingent Coupon:**

**Contingent Coupon Rate:** [7.50%-8.50%] per annum ([1.875%-2.125%] per quarter), to be determined on the Trade Date.

**Observation Dates:** Quarterly on March 22, 2018, June 22, 2018, September 24, 2018, December 24, 2018, March 22, 2019, June 24, 2019, September 23, 2019, December 23, 2019, March 23, 2020, June 22, 2020, September 22, 2020 and the Valuation Date.

**Coupon Payment Dates:** The Contingent Coupon, if applicable, will be paid quarterly on March 27, 2018, June 27, 2018, September 27, 2018, December 28, 2018, March 27, 2019, June 27, 2019, September 26, 2019, December 27, 2019, March 26, 2020, June 25, 2020, September 25, 2020 and the Maturity Date. The record date for each Coupon Payment Date will be the date one business day prior to that scheduled Coupon Payment Date; provided, however, that any Contingent Coupon payable at maturity or upon a call will be payable to the person to whom the payment at maturity or upon the call, as the case may be, will be payable.

**Record Dates:**

**Call Feature:** If, starting on June 22, 2018 and on any Observation Date thereafter, the closing price of each Reference Stock is greater than or equal to its Initial Stock Price, then the Notes will be automatically called.

**Payment if Called:** If the Notes are automatically called, then, on the applicable Call Settlement Date, for each \$1,000 principal amount, you will receive \$1,000 plus the Contingent Coupon otherwise due on that Call Settlement Date.

Edgar Filing: ROYAL BANK OF CANADA - Form FWP

Call Settlement Dates: If the Notes are called on any Observation Date starting on June 22, 2018 or thereafter, the Call Settlement Date will be the Coupon Payment Date corresponding to that Observation Date.  
Valuation Date: December 22, 2020  
Maturity Date: December 28, 2020

P-2 RBC Capital Markets, LLC

---

Auto-Callable Contingent Coupon Barrier Notes  
 Linked to the Lesser Performing of Two  
 Equity Securities, Due December 28, 2020  
 Royal Bank of Canada

Initial Stock Price:	For each Reference Stock, its closing price on the Trade Date.
Final Stock Price:	For each Reference Stock, its closing price on the Valuation Date.
Trigger Price and Coupon Barrier:	For each Reference Stock, 60.00% of its Initial Stock Price.
Payment at Maturity (if not previously called and held to maturity):	<p>If the Notes are not previously called, we will pay you at maturity an amount based on the Final Stock Price of the Lesser Performing Reference Stock:</p> <ul style="list-style-type: none"> <li>· If the Final Stock Price of the Lesser Performing Reference Stock is greater than or equal to its Trigger Price, we will pay you a cash payment equal to the principal amount plus the Contingent Coupon otherwise due on the Maturity Date.</li> <li>· If the Final Stock Price of the Lesser Performing Reference Stock is below its Trigger Price, you will receive at maturity, for each \$1,000 in principal amount, a cash payment equal to: \$1,000 + (\$1,000 x Reference Stock Return of the Lesser Performing Reference Stock)</li> </ul> <p>The amount of cash that you receive will be less than your principal amount, if anything, resulting in a loss that is proportionate to the decline of the Lesser Performing Reference Stock from the Trade Date to the Valuation Date. Investors in the Notes will lose some or all of their principal amount if the Final Stock Price of the Lesser Performing Reference Stock is less than its Trigger Price.</p>
Stock Settlement:	Not applicable. Payments on the Notes will be made solely in cash.
Reference Stock Return:	<p>With respect to each Reference Stock:</p> $\frac{\text{Final Stock Price} - \text{Initial Stock Price}}{\text{Initial Stock Price}}$
Lesser Performing Reference Stock:	The Reference Stock with the lowest Reference Stock Return.
Market Disruption Events:	The occurrence of a market disruption event (or a non-trading day) as to either of the Reference Stocks will result in the postponement of an Observation Date or the Valuation Date as to that Reference Stock, as described in the product prospectus supplement, but not to any non-affected Reference Stock.
Calculation Agent:	RBC Capital Markets, LLC (“RBCCM”)
U.S. Tax Treatment:	By purchasing a Note, each holder agrees (in the absence of a change in law, an administrative determination or a judicial ruling to the contrary) to treat the Notes as a callable pre-paid cash-settled contingent income-bearing derivative contract linked to the Reference Stocks for U.S. federal income tax purposes. However, the U.S. federal income tax consequences of your investment in the Notes are uncertain and the Internal Revenue Service could assert that the Notes should be taxed in a manner that is different from that described in the preceding sentence. Please see the section below, “Supplemental Discussion of U.S. Federal Income Tax Consequences,” and the discussion (including the opinion of our counsel Morrison & Foerster LLP) in the product prospectus supplement dated January 8, 2016 under “Supplemental Discussion of U.S. Federal Income Tax Consequences,” which apply to the Notes.

Edgar Filing: ROYAL BANK OF CANADA - Form FWP

Secondary Market: RBCCM (or one of its affiliates), though not obligated to do so, may maintain a secondary market in the Notes after the Issue Date. The amount that you may receive upon sale of your Notes prior to maturity may be less than the principal amount.

Listing: The Notes will not be listed on any securities exchange.

Settlement: DTC global (including through its indirect participants Euroclear and Clearstream, Luxembourg as described under “Description of Debt Securities—Ownership and Book-Entry Issuance” in the prospectus dated January 8, 2016).

Terms Incorporated in the Master Note: All of the terms appearing above the item captioned “Secondary Market” on the cover page and pages P-2 and P-3 of this terms supplement and the terms appearing under the caption “General Terms of the Notes” in the product prospectus supplement dated January 8, 2016, as modified by this terms supplement.

P-3 RBC Capital Markets, LLC

---

Auto-Callable Contingent Coupon Barrier Notes  
Linked to the Lesser Performing of Two  
Equity Securities, Due December 28, 2020  
Royal Bank of Canada

#### ADDITIONAL TERMS OF YOUR NOTES

You should read this terms supplement together with the prospectus dated January 8, 2016, as supplemented by the prospectus supplement dated January 8, 2016 and the product prospectus supplement dated January 8, 2016, relating to our Senior Global Medium-Term Notes, Series G, of which these Notes are a part. Capitalized terms used but not defined in this terms supplement will have the meanings given to them in the product prospectus supplement. In the event of any conflict, this terms supplement will control. The Notes vary from the terms described in the product prospectus supplement in several important ways. You should read this terms supplement carefully.

This terms supplement, together with the documents listed below, contains the terms of the Notes and supersedes all prior or contemporaneous oral statements as well as any other written materials including preliminary or indicative pricing terms, correspondence, trade ideas, structures for implementation, sample structures, brochures or other educational materials of ours. You should carefully consider, among other things, the matters set forth in “Risk Factors” in the prospectus supplement dated January 8, 2016 and in the product prospectus supplement dated January 8, 2016, as the Notes involve risks not associated with conventional debt securities. We urge you to consult your investment, legal, tax, accounting and other advisors before you invest in the Notes. You may access these documents on the Securities and Exchange Commission (the “SEC”) website at [www.sec.gov](http://www.sec.gov) as follows (or if that address has changed, by reviewing our filings for the relevant date on the SEC website):

Prospectus dated January 8, 2016:

<http://www.sec.gov/Archives/edgar/data/1000275/000121465916008810/j18160424b3.htm>

Prospectus Supplement dated January 8, 2016:

<http://www.sec.gov/Archives/edgar/data/1000275/000121465916008811/p14150424b3.htm>

Product Prospectus Supplement dated January 8, 2016:

<https://www.sec.gov/Archives/edgar/data/1000275/000114036116047446/form424b5.htm>

Our Central Index Key, or CIK, on the SEC website is 1000275. As used in this terms supplement, “we,” “us,” or “our” refers to Royal Bank of Canada.

Royal Bank of Canada has filed a registration statement (including a product prospectus supplement, a prospectus supplement, and a prospectus) with the SEC for the offering to which this terms supplement relates. Before you invest, you should read those documents and the other documents relating to this offering that we have filed with the SEC for more complete information about us and this offering. You may obtain these documents without cost by visiting EDGAR on the SEC website at [www.sec.gov](http://www.sec.gov). Alternatively, Royal Bank of Canada, any agent or any dealer participating in this offering will arrange to send you the product prospectus supplement, the prospectus supplement and the prospectus if you so request by calling toll-free at 1-877-688-2301.

P-4 RBC Capital Markets, LLC

---



Auto-Callable Contingent Coupon Barrier Notes  
 Linked to the Lesser Performing of Two  
 Equity Securities, Due December 28, 2020  
 Royal Bank of Canada

#### HYPOTHETICAL EXAMPLES

The table set out below is included for illustration purposes only. The table illustrates the Payment at Maturity of the Notes (including the final Contingent Coupon, if payable) for a hypothetical range of performance for the Lesser Performing Reference Stock, assuming the following terms and that the Notes are not automatically called prior to maturity:

Hypothetical Initial Stock Price:	\$100.00*
Hypothetical Trigger Price and Coupon Barrier:	\$60.00, which is 60.00% of the hypothetical Initial Stock Price
Hypothetical Contingent Coupon Rate:	8.00% per annum (or 2.00% per quarter), which is the midpoint of the Contingent Coupon Rate range of [7.50%-8.50%] per annum (to be determined on the Trade Date).
Hypothetical Contingent Coupon Amount:	\$20.00 per quarter
Observation Dates:	Quarterly
Principal Amount:	\$1,000 per Note

\* The hypothetical Initial Stock Price of \$100 used in the examples below has been chosen for illustrative purposes only and does not represent the expected actual Initial Stock Price of any Reference Stock. The actual Initial Stock Price for each Reference Stock will be set forth on the cover page of the final pricing supplement relating to the Notes. We make no representation or warranty as to which of the Reference Stocks will be the Lesser Performing Reference Stock. It is possible that the Final Stock Price of each Reference Stock will be less than its Initial Stock Price. Hypothetical Final Stock Prices are shown in the first column on the left. The second column shows the Payment at Maturity for a range of Final Stock Prices on the Valuation Date. The third column shows the amount of cash to be paid on the Notes per \$1,000 in principal amount. If the Notes are called prior to maturity, the hypothetical examples below will not be relevant, and you will receive on the applicable Coupon Payment Date, for each \$1,000 principal amount, \$1,000 plus the Contingent Coupon otherwise due on the Notes.

Hypothetical Final Stock Price of the Lesser Performing Reference Stock	Payment at Maturity as Percentage of Principal Amount	Cash Payment Amount per \$1,000 in Principal Amount
\$180.00	102.00%	\$1,020.00*
\$170.00	102.00%	\$1,020.00*
\$160.00	102.00%	\$1,020.00*
\$150.00	102.00%	\$1,020.00*
\$140.00	102.00%	\$1,020.00*
\$125.00	102.00%	\$1,020.00*
\$120.00	102.00%	\$1,020.00*
\$110.00	102.00%	\$1,020.00*
\$100.00	102.00%	\$1,020.00*
\$90.00	102.00%	\$1,020.00*
\$80.00	102.00%	\$1,020.00*

Edgar Filing: ROYAL BANK OF CANADA - Form FWP

\$70.00	102.00%	\$1,020.00*
\$60.00	102.00%	\$1,020.00*
\$59.99	59.99%	\$599.90
\$50.00	50.00%	\$500.00
\$40.00	40.00%	\$400.00
\$30.00	30.00%	\$300.00
\$20.00	20.00%	\$200.00
\$10.00	10.00%	\$100.00
\$0.00	0%	\$0.00

\*Including the final Contingent Coupon, if payable.

P-5 RBC Capital Markets, LLC

---

Auto-Callable Contingent Coupon Barrier Notes  
Linked to the Lesser Performing of Two  
Equity Securities, Due December 28, 2020  
Royal Bank of Canada

#### Hypothetical Examples of Amounts Payable at Maturity

The following hypothetical examples illustrate how the payments at maturity set forth in the table above are calculated, assuming the Notes have not been called.

Example 1: The price of the Lesser Performing Reference Stock increases by 40% from the Initial Stock Price of \$100.00 to its Final Stock Price of \$140.00. Because the Final Stock Price of the Lesser Performing Reference Stock is greater than its Trigger Price and Coupon Barrier of \$60.00, the investor receives at maturity, in addition to the final Contingent Coupon of \$20.00 otherwise due on the Notes, a cash payment of \$1,000 per Note, despite the 40% appreciation in the price of the Lesser Performing Reference Stock.

Example 2: The price of the Lesser Performing Reference Stock decreases by 10% from the Initial Stock Price of \$100.00 to its Final Stock Price of \$90.00. Because the Final Stock Price of the Lesser Performing Reference Stock is greater than its Trigger Price and Coupon Barrier of \$60.00, the investor receives at maturity, in addition to the final Contingent Coupon of \$20.00 otherwise due on the Notes, a cash payment of \$1,000 per Note, despite the 10% decline in the price of the Lesser Performing Reference Stock.

Example 3: The price of the Lesser Performing Reference Stock is \$50.00 on the Valuation Date, which is less than its Trigger Price and Coupon Barrier of \$60.00. Because the Final Stock Price of the Lesser Performing Reference Stock is less than its Trigger Price and Coupon Barrier of \$60.00, the final Contingent Coupon will not be payable on the Maturity Date, and we will pay only \$500.00 for each \$1,000 in the principal amount of the Notes, calculated as follows:

Principal Amount + (Principal Amount x Reference Stock Return of the Lesser Performing Reference Stock)  
= \$1,000 + (\$1,000 x -50.00%) = \$1,000 - \$500.00 = \$500.00

\* \* \*

The Payments at Maturity shown above are entirely hypothetical; they are based on prices of the Reference Stocks that may not be achieved on the Valuation Date and on assumptions that may prove to be erroneous. The actual market value of your Notes on the Maturity Date or at any other time, including any time you may wish to sell your Notes, may bear little relation to the hypothetical Payments at Maturity shown above, and those amounts should not be viewed as an indication of the financial return on an investment in the Notes.

P-6 RBC Capital Markets, LLC

---

Auto-Callable Contingent Coupon Barrier Notes  
Linked to the Lesser Performing of Two  
Equity Securities, Due December 28, 2020  
Royal Bank of Canada

#### SELECTED RISK CONSIDERATIONS

An investment in the Notes involves significant risks. Investing in the Notes is not equivalent to investing directly in the Reference Stocks. These risks are explained in more detail in the section “Risk Factors” in the product prospectus supplement. In addition to the risks described in the prospectus supplement and the product prospectus supplement, you should consider the following:

**Principal at Risk** — Investors in the Notes could lose all or a substantial portion of their principal amount if there is a decline in the trading price of the Lesser Performing Reference Stock between the Trade Date and the Valuation Date. If the Notes are not automatically called and the Final Stock Price of the Lesser Performing Reference Stock on the Valuation Date is less than its Trigger Price, the amount of cash that you receive at maturity will represent a loss of your principal that is proportionate to the decline in the closing price of the Lesser Performing Reference Stock from the Trade Date to the Valuation Date. Any Contingent Coupons received on the Notes prior to the Maturity Date may not be sufficient to compensate for any such loss.

**The Notes Are Subject to an Automatic Call** — If on any Observation Date beginning in June 2018, the closing price of each Reference Stock is greater than or equal to its Initial Stock Price, then the Notes will be automatically called. If the Notes are automatically called, then, on the applicable Call Settlement Date, for each \$1,000 in principal amount, you will receive \$1,000 plus the Contingent Coupon otherwise due on the applicable Call Settlement Date. You will not receive any Contingent Coupons after the Call Settlement Date. You may be unable to reinvest your proceeds from the automatic call in an investment with a return that is as high as the return on the Notes would have been if they had not been called.

**You May Not Receive Any Contingent Coupons** — We will not necessarily make any coupon payments on the Notes. If the closing price of either of the Reference Stocks on an Observation Date is less than its Coupon Barrier, we will not pay you the Contingent Coupon applicable to that Observation Date. If the closing price of either of the Reference Stocks is less than its Coupon Barrier on each of the Observation Dates and on the Valuation Date, we will not pay you any Contingent Coupons during the term of, and you will not receive a positive return on your Notes. Generally, this non-payment of the Contingent Coupon coincides with a period of greater risk of principal loss on your Notes. Accordingly, if we do not pay the Contingent Coupon on the Maturity Date, you will also incur a loss of principal, because the Final Stock Price of the Lesser Performing Reference Stock will be less than its Trigger Price. **The Notes Are Linked to the Lesser Performing Reference Stock, Even if the Other Reference Stock Performs Better** — If either of the Reference Stocks has a Final Stock Price that is less than its Trigger Price, your return will be linked to the lesser performing of the two Reference Stocks. Even if the Final Stock Price of the other Reference Stock has increased compared to its Initial Stock Price, or has experienced a decrease that is less than that of the Lesser Performing Reference Stock, your return will only be determined by reference to the performance of the Lesser Performing Reference Stock, regardless of the performance of the other Reference Stock. Because the issuer of each Reference Stock operates in the same industry, they both may experience simultaneous and significant declines due to adverse conditions in that sector.

**Your Payment on the Notes Will Be Determined by Reference to Each Reference Stock Individually, Not to a Basket, and the Payment at Maturity Will Be Based on the Performance of the Lesser Performing Reference Stock** — The Payment at Maturity will be determined only by reference to the performance of the Lesser Performing Reference Stock, regardless of the performance of the other Reference Stock. The Notes are not linked to a weighted basket, in which the risk may be mitigated and diversified among each of the basket components. For example, in the case of notes linked to a weighted basket, the return would depend on the weighted aggregate performance of the basket components reflected as the basket return. As a result, the depreciation of one basket component could be mitigated by the appreciation of the other basket component, as scaled by the weighting of that basket component.

However, in the case of the Notes, the individual performance of each of the Reference Stocks would not be combined, and the depreciation of one Reference Stock would not be mitigated by any appreciation of the other Reference Stock. Instead, your return will depend solely on the Final Stock Price of the Lesser Performing Reference Stock.

The Call Feature and the Contingent Coupon Feature Limit Your Potential Return — The return potential of the Notes is limited to the pre-specified Contingent Coupon Rate, regardless of the appreciation of the Reference Stocks. In addition, the total return on the Notes will vary based on the number of Observation Dates on which the Contingent Coupon becomes payable prior to maturity or an automatic call. Further, if the Notes are called due to the Call Feature, you will not receive any Contingent Coupons or any other payment in respect of any Observation Dates after the applicable Call Settlement Date. Since the Notes could be called as early as June 2018, the total return on the Notes could be minimal. If the Notes are not called, you may be subject to the full downside performance of the Lesser Performing Reference Stock even though

P-7 RBC Capital Markets, LLC

---

Auto-Callable Contingent Coupon Barrier Notes  
Linked to the Lesser Performing of Two  
Equity Securities, Due December 28, 2020  
Royal Bank of Canada

your potential return is limited to the Contingent Coupon Rate. As a result, the return on an investment in the Notes could be less than the return on a direct investment in the Reference Stocks.

**Your Return May Be Lower than the Return on a Conventional Debt Security of Comparable Maturity** — The return that you will receive on the Notes, which could be negative, may be less than the return you could earn on other investments. Even if your return is positive, your return may be less than the return you would earn if you bought a conventional senior interest bearing debt security of Royal Bank.

**Payments on the Notes Are Subject to Our Credit Risk, and Changes in Our Credit Ratings Are Expected to Affect the Market Value of the Notes** — The Notes are our senior unsecured debt securities. As a result, your receipt of any Contingent Coupons, if payable, and the amount due on any relevant payment date is dependent upon our ability to repay its obligations on the applicable payment dates. This will be the case even if the prices of the Reference Stocks increase after the Trade Date. No assurance can be given as to what our financial condition will be during the term of the Notes.

**There May Not Be an Active Trading Market for the Notes-Sales in the Secondary Market May Result in Significant Losses** — There may be little or no secondary market for the Notes. The Notes will not be listed on any securities exchange. RBCCM and our other affiliates may make a market for the Notes; however, they are not required to do so. RBCCM or any other affiliate of ours may stop any market-making activities at any time. Even if a secondary market for the Notes develops, it may not provide significant liquidity or trade at prices advantageous to you. We expect that transaction costs in any secondary market would be high. As a result, the difference between bid and asked prices for your Notes in any secondary market could be substantial.

**The Initial Estimated Value of the Notes Will Be Less than the Price to the Public** — The initial estimated value set forth on the cover page and that will be set forth in the final pricing supplement for the Notes does not represent a minimum price at which we, RBCCM or any of our affiliates would be willing to purchase the Notes in any secondary market (if any exists) at any time. If you attempt to sell the Notes prior to maturity, their market value may be lower than the price you paid for them and the initial estimated value. This is due to, among other things, changes in the prices of the Reference Stocks, the borrowing rate we pay to issue securities of this kind, and the inclusion in the price to the public of the underwriting discount and the estimated costs relating to our hedging of the Notes.

These factors, together with various credit, market and economic factors over the term of the Notes, are expected to reduce the price at which you may be able to sell the Notes in any secondary market and will affect the value of the Notes in complex and unpredictable ways. Assuming no change in market conditions or any other relevant factors, the price, if any, at which you may be able to sell your Notes prior to maturity may be less than your original purchase price, as any such sale price would not be expected to include the underwriting discount and the hedging costs relating to the Notes. In addition to bid-ask spreads, the value of the Notes determined by RBCCM for any secondary market price is expected to be based on the secondary rate rather than the internal funding rate used to price the Notes and determine the initial estimated value. As a result, the secondary price will be less than if the internal funding rate was used. The Notes are not designed to be short-term trading instruments. Accordingly, you should be able and willing to hold your Notes to maturity.

**The Initial Estimated Value of the Notes on the Cover Page of this Terms Supplement and that We Will Provide in the Final Pricing Supplement Are Estimates Only, Calculated as of the Time the Terms of the Notes Are Set** — The initial estimated value of the Notes will be based on the value of our obligation to make the payments on the Notes, together with the mid-market value of the derivative embedded in the terms of the Notes. See “Structuring the Notes” below. Our estimates are based on a variety of assumptions, including our credit spreads, expectations as to dividends, interest rates and volatility, and the expected term of the Notes. These assumptions are based on certain forecasts about future events, which may prove to be incorrect. Other entities may value the Notes or similar

securities at a price that is significantly different than we do.

The value of the Notes at any time after the Trade Date will vary based on many factors, including changes in market conditions, and cannot be predicted with accuracy. As a result, the actual value you would receive if you sold the Notes in any secondary market, if any, should be expected to differ materially from the initial estimated value of your Notes.

**Market Disruption Events and Adjustments** — The payment at maturity, each Observation Date and the Valuation Date are subject to adjustment as described in the product prospectus supplement. For a description of what constitutes a market disruption event as well as the consequences of that market disruption event, see “General Terms of the Notes—Market Disruption Events” in the product prospectus supplement.

**Our Business Activities May Create Conflicts of Interest** — We and our affiliates expect to engage in trading activities related to the Reference Stocks that are not for the account of holders of the Notes or on their behalf. These trading activities may present a conflict between the holders’ interests in the Notes and the interests we and our affiliates will have in their

P-8 RBC Capital Markets, LLC

---

Auto-Callable Contingent Coupon Barrier Notes  
Linked to the Lesser Performing of Two  
Equity Securities, Due December 28, 2020  
Royal Bank of Canada

proprietary accounts, in facilitating transactions, including options and other derivatives transactions, for their customers and in accounts under their management. These trading activities, if they influence the share price of the Reference Stocks, could be adverse to the interests of the holders of the Notes. We and one or more of our affiliates may, at present or in the future, engage in business with the issuers of the Reference Stocks, including making loans to or providing advisory services. These services could include investment banking and merger and acquisition advisory services. These activities may present a conflict between our or one or more of our affiliates' obligations and your interests as a holder of the Notes. Moreover, we and our affiliates may have published, and in the future expect to publish, research reports with respect to the Reference Stocks. This research is modified from time to time without notice and may express opinions or provide recommendations that are inconsistent with purchasing or holding the Notes. Any of these activities by us or one or more of our affiliates may affect the share price of the Reference Stocks, and, therefore, the market value of the Notes.

**Owning the Notes Is Not the Same as Owning the Reference Stocks** — The return on your Notes is unlikely to reflect the return you would realize if you actually owned shares of the Reference Stocks. For instance, you will not receive or be entitled to receive any dividend payments or other distributions on these securities during the term of your Notes. As an owner of the Notes, you will not have voting rights or any other rights that holders of these securities may have. Furthermore, the Reference Stocks may appreciate substantially during the term of the Notes, while your potential return will be limited to the applicable Contingent Coupon payments.

**You Must Rely on Your Own Evaluation of the Merits of an Investment Linked to the Reference Stocks** — In the ordinary course of their business, our affiliates may have expressed views on expected movements in the Reference Stocks, and may do so in the future. These views or reports may be communicated to our clients and clients of our affiliates. However, these views are subject to change from time to time. Moreover, other professionals who transact business in markets relating to any Reference Stock may at any time have significantly different views from those of our affiliates. For these reasons, you are encouraged to derive information concerning the Reference Stocks from multiple sources, and you should not rely solely on views expressed by our affiliates.

**There Is No Affiliation Between the Issuers of the Reference Stocks and RBCCM, and RBCCM Is Not Responsible for any Disclosure by the Issuer of the Reference Stock** — We are not affiliated with Amgen Inc. or Biogen Inc. (each, a "Reference Stock Issuer"). However, we and our affiliates may currently, or from time to time in the future engage, in business with either Reference Stock Issuer. Nevertheless, neither we nor our affiliates assume any responsibilities for the accuracy or the completeness of any information that any other company prepares. You, as an investor in the Notes, should make your own investigation into the Reference Stocks.

P-9 RBC Capital Markets, LLC

---



Auto-Callable Contingent Coupon Barrier Notes  
Linked to the Lesser Performing of Two  
Equity Securities, Due December 28, 2020  
Royal Bank of Canada

#### INFORMATION REGARDING THE REFERENCE STOCK ISSUERS

The Reference Stocks are registered under the Securities Exchange Act of 1934 (the “Exchange Act”). Companies with securities registered under that Act are required to file periodically certain financial and other information specified by the SEC. Information provided to or filed with the SEC can be inspected and copied at the public reference facilities maintained by the SEC or through the SEC’s website at [www.sec.gov](http://www.sec.gov). In addition, information regarding the Reference Stocks may be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents.

The following information regarding the issuers of the Reference Stocks is derived from publicly available information.

We have not independently verified the accuracy or completeness of reports filed by the issuers of the Reference Stocks with the SEC, information published by it on its website or in any other format, information about it obtained from any other source or the information provided below.

We obtained the information regarding the historical performance of the Reference Stocks set forth below from Bloomberg Financial Markets.

We have not independently verified the accuracy or completeness of the information obtained from Bloomberg Financial Markets. The historical performance of the Reference Stocks should not be taken as an indication of their future performance, and no assurance can be given as to the market prices of any Reference Stock at any time during the term of the Notes. We cannot give you assurance that the performance of any Reference Stock will not result in the loss of all or part of your investment.

Amgen Inc. (“AMGN”)

Amgen Inc. is an independent biotechnology medicines company that discovers, develops, manufactures and markets medicines for grievous illnesses. The company focuses solely on human therapeutics and concentrates on innovating novel medicines based on advances in cellular and molecular biology.

The company’s common stock is listed on the Nasdaq Global Select Market (“Nasdaq”) under the ticker symbol “AMGN.”

Biogen Inc. (“BIIB”)

Biogen Inc. develops, manufactures, and commercializes therapies, focusing on neurology, oncology, and immunology. The company products address diseases such as multiple sclerosis, non-hodgkin's lymphoma, rheumatoid arthritis, crohn's disease, and psoriasis.

The company’s common stock is listed on the Nasdaq under the ticker symbol “BIIB.”

P-10 RBC Capital Markets, LLC

---

Auto-Callable Contingent Coupon Barrier Notes  
Linked to the Lesser Performing of Two  
Equity Securities, Due December 28, 2020  
Royal Bank of Canada

#### HISTORICAL INFORMATION

The graphs below set forth the information relating to the historical performance of the Reference Stocks. In addition, below the graphs are tables setting forth the intra-day high, intra-day low and period-end closing prices of the Reference Stocks. The information provided in these tables is for the four calendar quarters of 2013, 2014, 2015 and 2016, the first three calendar quarters of 2017 and the period from October 1, 2017 through December 8, 2017.

We obtained the information regarding the historical performance of the Reference Stocks in the graphs and tables below from Bloomberg Financial Markets.

We have not independently verified the accuracy or completeness of the information obtained from Bloomberg Financial Markets. The historical performance of any Reference Stock should not be taken as an indication of its future performance, and no assurance can be given as to the prices of the Reference Stocks at any time. We cannot give you assurance that the performance of the Reference Stocks will not result in the loss of all or part of your investment.

P-11 RBC Capital Markets, LLC

---

Auto-Callable Contingent Coupon Barrier Notes  
 Linked to the Lesser Performing of Two  
 Equity Securities, Due December 28, 2020  
 Royal Bank of Canada

Historical Information for Amgen Inc. (“AMGN”)

Below is a table setting forth the intra-day high, intra-day low and period-end closing prices of this Reference Stock. The information provided in the table is for the period from January 1, 2013 through December 8, 2017.

Period-Start Date	Period-End Date	High Intra-Day Price of this Reference Stock (\$)	Low Intra-Day Price of this Reference Stock (\$)	Period-End Closing Price of this Reference Stock (\$)
1/1/2013	3/31/2013	102.61	81.56	102.51
4/1/2013	6/30/2013	114.95	94.23	98.66
7/1/2013	9/30/2013	117.89	95.05	111.94
10/1/2013	12/31/2013	119.65	105.76	114.16
1/1/2014	3/31/2014	128.96	113.12	123.34
4/1/2014	6/30/2014	127.25	108.24	118.37
7/1/2014	9/30/2014	144.46	115.18	140.46
10/1/2014	12/31/2014	173.14	127.67	159.29
1/1/2015	3/31/2015	172.36	147.43	159.85
4/1/2015	6/30/2015	173.00	150.88	153.52
7/1/2015	9/30/2015	181.74	130.09	138.32
10/1/2015	12/31/2015	165.23	135.64	162.33
1/1/2016	3/31/2016	160.20	139.04	149.93
4/1/2016	6/30/2016	164.70	143.83	152.15
7/1/2016	9/30/2016	176.85	152.25	166.81
10/1/2016	12/30/2016	168.68	133.64	146.21
1/1/2017	3/31/2017	184.20	147.17	164.07
4/1/2017	6/30/2017	175.45	152.16	172.23
7/1/2017	9/30/2017	191.08	166.53	186.45
10/1/2017	12/8/2017	190.00	168.15	175.41

PAST PERFORMANCE IS NOT INDICATIVE OF FUTURE RESULTS.

The graph below illustrates the performance of this Reference Stock from January 1, 2013 to December 8, 2017, assuming an Initial Stock Price of \$175.41, which was the closing price of this Reference Stock on December 8, 2017. The red line represents a hypothetical Coupon Barrier and Trigger Price of \$105.25, which is equal to 60.00% of the closing price on December 8, 2017, rounded to two decimal places. The actual Coupon Barrier and Trigger Price will be based on the closing price of this Reference Stock on the Trade Date.

P-12 RBC Capital Markets, LLC

---

Auto-Callable Contingent Coupon Barrier Notes  
 Linked to the Lesser Performing of Two  
 Equity Securities, Due December 28, 2020  
 Royal Bank of Canada

#### Historical Information for Biogen Inc. (“BIIB”)

Below is a table setting forth the intra-day high, intra-day low and period-end closing prices of this Reference Stock. The information provided in the table is for the period from January 1, 2013 through December 8, 2017.

Period-Start Date	Period-End Date	High Intra-Day Price of this Reference Stock (\$)	Low Intra-Day Price of this Reference Stock (\$)	Period-End Closing Price of this Reference Stock (\$)
1/1/2013	3/31/2013	177.70	128.73	177.69
4/1/2013	6/30/2013	223.39	176.68	198.22
7/1/2013	9/30/2013	229.26	187.55	221.76
10/1/2013	12/31/2013	275.24	203.68	257.68
1/1/2014	3/31/2014	330.42	249.27	281.74
4/1/2014	6/30/2014	296.82	250.56	290.43
7/1/2014	9/30/2014	321.44	274.85	304.71
10/1/2014	12/31/2014	333.37	268.04	312.67
1/1/2015	3/31/2015	442.25	308.02	388.93
4/1/2015	6/30/2015	398.61	339.88	372.07
7/1/2015	9/30/2015	379.68	244.60	268.79
10/1/2015	12/31/2015	287.03	233.97	282.18
1/1/2016	3/31/2016	276.78	223.02	239.78
4/1/2016	6/30/2016	269.60	205.43	222.74
7/1/2016	9/30/2016	306.95	221.19	288.33
10/1/2016	12/31/2016	303.79	247.77	261.21
1/1/2017	3/31/2017	297.95	250.03	273.42
4/1/2017	6/30/2017	291.86	244.31	271.36
7/1/2017	9/30/2017	330.00	269.52	313.12
10/1/2017	12/8/2017	348.65	301.82	325.77

#### PAST PERFORMANCE IS NOT INDICATIVE OF FUTURE RESULTS.

The graph below illustrates the performance of this Reference Stock from January 1, 2013 to December 8, 2017, assuming an Initial Stock Price of \$325.77, which was the closing price of this Reference Stock on December 8, 2017. The red line represents a hypothetical Coupon Barrier and Trigger Price of \$195.46, which is equal to 60.00% of the closing price on December 8, 2017, rounded to two decimal places. The actual Coupon Barrier and Trigger Price will be based on the closing price of this Reference Stock on the Trade Date.

P-13 RBC Capital Markets, LLC

---

Auto-Callable Contingent Coupon Barrier Notes  
Linked to the Lesser Performing of Two  
Equity Securities, Due December 28, 2020  
Royal Bank of Canada

#### SUPPLEMENTAL DISCUSSION OF U.S. FEDERAL INCOME TAX CONSEQUENCES

The following disclosure supplements, and to the extent inconsistent supersedes, the discussion in the product prospectus supplement dated January 8, 2016 under “Supplemental Discussion of U.S. Federal Income Tax Consequences.”

Under Section 871(m) of the Code, a “dividend equivalent” payment is treated as a dividend from sources within the United States. Such payments generally would be subject to a 30% U.S. withholding tax if paid to a non-U.S. holder. Under U.S. Treasury Department regulations, payments (including deemed payments) with respect to equity-linked instruments (“ELIs”) that are “specified ELIs” may be treated as dividend equivalents if such specified ELIs reference an interest in an “underlying security,” which is generally any interest in an entity taxable as a corporation for U.S. federal income tax purposes if a payment with respect to such interest could give rise to a U.S. source dividend. However, the IRS has issued guidance that states that the U.S. Treasury Department and the IRS intend to amend the effective dates of the U.S. Treasury Department regulations to provide that withholding on dividend equivalent payments will not apply to specified ELIs that are not delta-one instruments and that are issued before January 1, 2019. Based on our determination that the Notes are not delta-one instruments, non-U.S. holders should not be subject to withholding on dividend equivalent payments, if any, under the Notes. However, it is possible that the Notes could be treated as deemed reissued for U.S. federal income tax purposes upon the occurrence of certain events affecting the Reference Stocks or the Notes, and following such occurrence the Notes could be treated as subject to withholding on dividend equivalent payments. Non-U.S. holders that enter, or have entered, into other transactions in respect of the Reference Stocks or the Notes should consult their tax advisors as to the application of the dividend equivalent withholding tax in the context of the Notes and their other transactions. If any payments are treated as dividend equivalents subject to withholding, we (or the applicable withholding agent) would be entitled to withhold taxes without being required to pay any additional amounts with respect to amounts so withheld.

#### SUPPLEMENTAL PLAN OF DISTRIBUTION (CONFLICTS OF INTEREST)

We expect that delivery of the Notes will be made against payment for the Notes on or about December 28, 2017, which is the third (3rd) business day following the Trade Date (this settlement cycle being referred to as “T+3”). See “Plan of Distribution” in the prospectus dated January 8, 2016. For additional information as to the relationship between us and RBCCM, please see the section “Plan of Distribution—Conflicts of Interest” in the prospectus dated January 8, 2016.

We expect to deliver the Notes on a date that is greater than two business days following the trade date. Under Rule 15c6-1 of the Exchange Act, trades in the secondary market generally are required to settle in two business days, unless the parties to any such trade expressly agree otherwise. Accordingly, purchasers who wish to trade the Notes more than two business days prior to the original Issue Date will be required to specify alternative settlement arrangements to prevent a failed settlement.

In the initial offering of the Notes, they will be offered to investors at a purchase price equal to par, except with respect to certain accounts as indicated on the cover page of this document.

The value of the Notes shown on your account statement may be based on RBCCM’s estimate of the value of the Notes if RBCCM or another of our affiliates were to make a market in the Notes (which it is not obligated to do). That estimate will be based upon the price that RBCCM may pay for the Notes in light of then prevailing market conditions, our creditworthiness and transaction costs. For a period of approximately three months after the issue date of the Notes, the value of the Notes that may be shown on your account statement may be higher than RBCCM’s estimated value of the Notes at that time. This is because the estimated value of the Notes will not include the underwriting discount and our hedging costs and profits; however, the value of the Notes shown on your account

statement during that period may initially be a higher amount, reflecting the addition of RBCCM's underwriting discount and our estimated costs and profits from hedging the Notes. This excess is expected to decrease over time until the end of this period. After this period, if RBCCM repurchases your Notes, it expects to do so at prices that reflect their estimated value.

We may use this terms supplement in the initial sale of the Notes. In addition, RBCCM or another of our affiliates may use this terms supplement in a market-making transaction in the Notes after their initial sale. Unless we or our agent informs the purchaser otherwise in the confirmation of sale, this terms supplement is being used in a market-making transaction.

P-14 RBC Capital Markets, LLC

---

Auto-Callable Contingent Coupon Barrier Notes  
Linked to the Lesser Performing of Two  
Equity Securities, Due December 28, 2020  
Royal Bank of Canada

#### STRUCTURING THE NOTES

The Notes are our debt securities, the return on which is linked to the performance of the Reference Stocks. As is the case for all of our debt securities, including our structured notes, the economic terms of the Notes reflect our actual or perceived creditworthiness at the time of pricing. In addition, because structured notes result in increased operational, funding and liability management costs to us, we typically borrow the funds under these Notes at a rate that is more favorable to us than the rate that we might pay for a conventional fixed or floating rate debt security of comparable maturity. Using this relatively lower implied borrowing rate rather than the secondary market rate, is a factor that is likely to reduce the initial estimated value of the Notes at the time their terms are set. Unlike the estimated value included in this terms supplement or in the final pricing supplement, any value of the Notes determined for purposes of a secondary market transaction may be based on a different funding rate, which may result in a lower value for the Notes than if our initial internal funding rate were used.

In order to satisfy our payment obligations under the Notes, we may choose to enter into certain hedging arrangements (which may include call options, put options or other derivatives) on the issue date with RBCCM or one of our other subsidiaries. The terms of these hedging arrangements take into account a number of factors, including our creditworthiness, interest rate movements, the volatility of the Reference Stocks, and the tenor of the Notes. The economic terms of the Notes and their initial estimated value depend in part on the terms of these hedging arrangements.

The lower implied borrowing rate is a factor that reduces the economic terms of the Notes to you. The initial offering price of the Notes also reflects the underwriting commission and our estimated hedging costs. These factors result in the initial estimated value for the Notes on the Trade Date being less than their public offering price. See “Selected Risk Considerations—The Initial Estimated Value of the Notes Will Be Less than the Price to the Public” above.

P-15 RBC Capital Markets, LLC

---