ROYAL BANK OF CANADA Form FWP October 04, 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 October 4, 2017 \$_

Pricing Supplement Issuer Callable Contingent Coupon Barrier Notes

Dated October ___, 2017 Linked to the Common Stock of Microsoft

to the Product Corporation,

Prospectus Supplement Due October 9, 2019 No. TP-1, Prospectus Royal Bank of Canada

Supplement and

Prospectus, Each Dated

January 8, 2016

Royal Bank of Canada is offering Issuer Callable Contingent Coupon Barrier Notes (the "Notes") linked to the common stock of Microsoft Corporation (the "Reference Stock"). 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.

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

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 **Exchange Listing:** None

Trade Date: October 4, 2017 Principal Amount: \$1,000 per Note October 9, 2019 Issue Date: October 10, 2017 Maturity Date:

Quarterly, as set forth **Observation Dates:** Coupon Payment Dates: Quarterly, as set forth below

below

Valuation Date: October 4, 2019 8.10% per annum Contingent Coupon Rate:

The closing price of the Reference Stock on the Trade Date. **Initial Stock Price:** The closing price of the Reference Stock on the Valuation Date. Final Stock Price:

Trigger Price and Coupon

Contingent Coupon:

80.00% of the Initial Stock Price. Barrier:

> If the closing price of the Reference Stock is greater than or equal to the Coupon Barrier on the applicable Observation Date, we will pay the Contingent Coupon

applicable to that Observation Date. You may not receive any Contingent

Coupons during the term of the Notes.

If the Notes are not previously called, we will pay you at maturity an amount based on the Final Stock Price:

For each \$1,000 in principal amount, \$1,000 plus the Contingent Coupon at

maturity, unless the Final Stock Price is less than the Trigger Price.

Payment at Maturity (if held to

Physical Delivery Amount:

maturity):

If the Final Stock Price is less than the Trigger Price, then the investor will receive at maturity, for each \$1,000 in principal amount, the number of shares of the Reference Stock equal to the Physical Delivery Amount, or at our election, the

cash value of those shares.

Investors in the Notes will lose some or all of their principal amount if the Final

Stock Price of the Reference Stock is less than the Trigger Price.

For each \$1,000 principal amount, a number of shares of the Reference Stock equal to the principal amount divided by the Initial Stock Price, subject to

adjustment as described in the product prospectus supplement.

Call Feature: The Notes may be called at our discretion on any Coupon Payment Date, if we

send prior written notice, as described below.

CUSIP: 78013GFA8

Per Note Total Price to public $^{(1)}$ 100.00% \$ Underwriting discounts and commissions $^{(1)}$ 1.00% \$ Proceeds to Royal Bank of Canada 99.00% \$

(1)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 \$990.00 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 \$982.43 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 \$962.43 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 \$10.00 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 \$10.00 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

Issuer Callable Contingent Coupon Barrier Notes Linked to the Common Stock of Microsoft Corporation, Due October 9, 2019

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.

This terms supplement relates to an offering of Issuer Callable Contingent Coupon Barrier

General: Notes (the "Notes") linked to the common stock of Microsoft Corporation (the "Reference

Stock").

Issuer: Royal Bank of Canada ("Royal Bank")
Issue: Senior Global Medium-Term Notes, Series G

Trade Date: October 4, 2017
Issue Date: October 10, 2017

Term: Approximately two (2) 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 the Reference Stock is greater than or equal to the Coupon Barrier on the applicable Observation Date, we will pay the Contingent Coupon applicable

to that Observation Date.

Contingent Coupon:

If the closing price of the Reference Stock is less than the 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 Rate: 8.10% per annum (2.025% per quarter)

Observation Dates: Quarterly on January 4, 2018, April 4, 2018, July 5, 2018, October 4, 2018, January 4,

2019, April 4, 2019, July 5, 2019 and the Valuation Date.

The Contingent Coupon, if applicable, will be paid quarterly on January 9, 2018, April 9,

Coupon Payment Dates: 2018, July 10, 2018, October 10, 2018, January 9, 2019, April 9, 2019, July 10, 2019 and

the Maturity Date.

The record date for each Coupon Payment Date will be one business day prior to that

Record Dates: 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.

Call Feature: The Notes may be called at our discretion on any Coupon Payment Date, if we send written

notice to the trustee at least three business days prior to that Coupon Payment Date.

If the Notes are called, then, on the applicable Coupon Payment Date, for each \$1,000

Payment if Called: principal amount, you will receive \$1,000 plus the Contingent Coupon otherwise due on

that Coupon Payment Date.

Valuation Date: October 4, 2019 Maturity Date: October 9, 2019

Initial Stock Price: The closing price of the Reference Stock on the Trade Date. Final Stock Price: The closing price of the Reference Stock on the Valuation Date.

P-2 RBC Capital Markets, LLC

Issuer Callable Contingent Coupon Barrier Notes Linked to the Common Stock of Microsoft Corporation, Due October 9, 2019

Trigger Price

and Coupon

80.00% of the Initial Stock Price.

Barrier:

If the Notes are not previously called, we will pay you at maturity an amount based on the Final Stock

Price of the Reference Stock:

 \cdot If the Final Stock Price is greater than or equal to the Trigger Price, we will pay you a cash payment equal to the principal amount plus the Contingent Coupon otherwise due on the Maturity

Payment at Maturity (if not

payment equal to the principal amount plus the Contingent Coupon otherwise due on the Maturity Date.

previously called and held to

If the Final Stock Price is below the Trigger Price, you will receive at maturity, for each \$1,000 in principal amount, the number of shares of the Reference Stock equal to the Physical Delivery Amount, or at our election, the Cash Delivery Amount. If we elect to deliver shares of the Reference Stock, fractional shares will be paid in cash.

maturity):

The value of the cash or shares that you receive will be less than your principal amount, if anything, resulting in a loss that is proportionate to the decline of the 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 Reference Stock is less than the Trigger Price.

Physical Delivery Amount:

For each \$1,000 in principal amount, a number of shares of the Reference Stock equal to the principal amount divided by the Initial Stock Price, subject to adjustment as described in the product prospectus supplement. If this number is not a round number, then the number of shares of the Reference Stock to be delivered will be rounded down and the fractional part shall be paid in cash.

Cash Delivery

Amount:

The product of the Physical Delivery Amount multiplied by the Final Stock Price.

Market The occurrence of a market disruption event (or a non-trading day) as to the Reference Stock will result in the postponement of an Observation Date or the Valuation Date, as described in the product

Disruption Events:

prospectus supplement.

Calculation

RBC Capital Markets, LLC ("RBCCM")

Agent:

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 contingent income-bearing derivative contract linked to the Reference Stock for U.S. federal income tax

U.S. Tax Treatment:

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. RBCCM (or one of its affiliates), though not obligated to do so, may maintain a secondary market in

Secondary Market: 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 of the Notes.

maturity may be less than the principal amount of the 140

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

DTC global (including through its indirect participants Euroclear and Clearstream, Luxembourg as

Settlement: described under "Description of Debt Securities—Ownership and Book-Entry Issuance" in the prospectus

dated January 8, 2016).

Terms All of the terms appearing above the item captioned "Secondary Market" on the cover page and pages Incorporated P-2 and P-3 of this terms supplement and the terms appearing under the caption "General Terms of the

in the Notes" in the product prospectus supplement dated January 8, 2016, as modified by this terms

Master Note: supplement.

P-3 RBC Capital Markets, LLC

Issuer Callable Contingent Coupon Barrier Notes Linked to the Common Stock of Microsoft Corporation, Due October 9, 2019

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 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. 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 1-866-609-6009.

P-4 RBC Capital Markets, LLC

Issuer Callable Contingent Coupon Barrier Notes Linked to the Common Stock of Microsoft Corporation, Due October 9, 2019

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 Reference Stock, assuming the following terms and that the Notes are not called prior to maturity:

Hypothetical Initial Stock Price: \$100.00*

Hypothetical Trigger Price and Coupon Barrier: \$80.00, which is 80.00% of the hypothetical Initial Stock Price

Contingent Coupon Rate: 8.10% per annum (or 2.025% per quarter)

Hypothetical Contingent Coupon Amount: \$20.25 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. The actual Initial Stock Price will be set forth on the cover page of the final pricing supplement relating to the Notes.

Hypothetical Final Stock Price of the Reference Stock	Percentage Change of the Reference Stock	Payment at Maturity (assuming that the Notes were not previously called)*	Physical Delivery Amount as Number of Shares of the Reference Stock	Cash Delivery Amount
\$180.00	80.00%	\$1,020.25*	n/a	n/a
\$170.00	70.00%	\$1,020.25*	n/a	n/a
\$150.00	50.00%	\$1,020.25*	n/a	n/a
\$140.00	40.00%	\$1,020.25*	n/a	n/a
\$130.00	30.00%	\$1,020.25*	n/a	n/a
\$125.00	25.00%	\$1,020.25*	n/a	n/a
\$110.00	10.00%	\$1,020.25*	n/a	n/a
\$100.00	0.00%	\$1,020.25*	n/a	n/a
\$90.00	-10.00%	\$1,020.25*	n/a	n/a
\$80.00	-20.00%	\$1,020.25*	n/a	n/a
\$75.00	-25.00%	Physical or Cash Delivery Amount	10	\$750.00
\$65.00	-35.00%	Physical or Cash Delivery Amount	10	\$650.00
\$60.00	-40.00%	Physical or Cash Delivery Amount	10	\$600.00
\$50.00	-50.00%	Physical or Cash Delivery Amount	10	\$500.00
\$40.00	-60.00%	Physical or Cash Delivery Amount	10	\$400.00
\$30.00	-70.00%	Physical or Cash Delivery Amount	10	\$300.00

\$20.00	-80.00%	Physical or Cash Delivery Amount	10	\$200.00
\$10.00	-90.00%	Physical or Cash Delivery Amount	10	\$100.00
\$0.00	-100.00%	Physical or Cash Delivery Amount	10	\$0.00

^{*}Including the final Contingent Coupon, if payable.

P-5 RBC Capital Markets, LLC

Issuer Callable Contingent Coupon Barrier Notes Linked to the Common Stock of Microsoft Corporation, Due October 9, 2019

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 Reference Stock increases by 25% from the Initial Stock Price of \$100.00 to the Final Stock Price of \$125.00. Because the Final Stock Price is greater than the Trigger Price and its Coupon Barrier of \$80.00, the investor receives at maturity, in addition to the final Contingent Coupon of \$20.25 otherwise due on the Notes, a cash payment of \$1,000 per Note, despite the 25% appreciation in the price of the Reference Stock. Example 2: The price of the Reference Stock decreases by 10% from the Initial Stock Price of \$100.00 to the Final Stock Price of \$90.00. Because the Final Stock Price is greater than the Trigger Price and its Coupon Barrier of \$80.00, the investor receives at maturity, in addition to the final Contingent Coupon of \$20.25 otherwise due on the Notes, a cash payment of \$1,000 per Note, despite the 10% decline in the price of the Reference Stock. Example 3: The price of the Reference Stock is \$50.00 on the Valuation Date, which is less than the Trigger Price of \$80.00. Because the Final Stock Price is less than the Trigger Price and its Coupon Barrier, the final Contingent Coupon will not be payable on the Maturity Date, and the investor receives 10 shares of the Reference Stock at maturity, or at our option, the Cash Delivery Amount, calculated as follows: Physical Delivery Amount x Final Stock Price = 10 x \$50.00 = \$500.00

The Payments at Maturity shown above are entirely hypothetical; they are based on theoretical prices of the Reference Stock 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

* * *

Issuer Callable Contingent Coupon Barrier Notes Linked to the Common Stock of Microsoft Corporation, Due October 9, 2019

SELECTED RISK CONSIDERATIONS

An investment in the Notes involves significant risks. Investing in the Notes is not equivalent to investing directly in the Reference Stock. 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 Reference Stock between the Trade Date and the Valuation Date. If the Notes are not called and the Final Stock Price on the Valuation Date is less than the Trigger Price, the value of the shares or 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 Reference Stock from the Trade Date to the Valuation Date. If you receive shares of the Reference Stock, their value could decrease between the Valuation Date and the Maturity 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 Issuer Call — We may call the Notes at our discretion on any Coupon Payment Date. If the Notes are called, then, on the applicable Coupon Payment Date, for each \$1,000 in principal amount, you will receive \$1,000 plus the Contingent Coupon otherwise due on the applicable Coupon Payment Date. You will not receive any coupon payments after that payment. You may be unable to reinvest your proceeds from the 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 the Reference Stock on an Observation Date is less than the Coupon Barrier, we will not pay you the Contingent Coupon applicable to that Observation Date. If the closing price of the Reference Stock is less than the 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 will be less than the Trigger Price.

.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 Stock. 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 issuer 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 Coupon Payment Date. Since the Notes could be called as early as the first Coupon Payment Date, 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 Reference Stock even though 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 Stock.

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 Royal Bank's senior unsecured debt securities. As a result, the amount due on any relevant payment date is dependent upon Royal Bank's ability to repay its obligations on the applicable payment dates. This will be the case even if the price of the Reference Stock increases 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 other affiliates of Royal Bank may make a market for the Notes; however, they are not required to do so. RBCCM or any other affiliate of Royal Bank 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. Owning the Notes Is Not the Same as Owning the Reference Stock — The return on your Notes is unlikely to reflect the return you would realize if you actually owned the Reference Stock. For instance, you will not receive or be entitled to receive any dividend payments or other distributions on the Reference Stock during the term of your Notes. As an owner of the Notes,

P-7 RBC Capital Markets, LLC

Issuer Callable Contingent Coupon Barrier Notes Linked to the Common Stock of Microsoft Corporation, Due October 9, 2019

you will not have voting rights or any other rights that holders of the Reference Stock may have. Furthermore, the Reference Stock may appreciate substantially during the term of the Notes, while your potential return will be limited to the applicable Contingent Coupon payments.

There Is No Affiliation Between the Issuer of the Reference Stock and RBCCM, and RBCCM Is Not Responsible for any Disclosure by the Issuer of the Reference Stock — We are not affiliated with Microsoft Corporation. However, we and our affiliates may currently, or from time to time in the future engage, in business with Microsoft Corporation. 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 Stock. Microsoft Corporation is not involved in this offering and has no obligation of any sort with respect to your Notes. Microsoft Corporation has no obligation to take your interests into consideration for any reason, including when taking any corporate actions that might affect the value of your Notes.

Our Business Activities May Create Conflicts of Interest — We and our affiliates expect to engage in trading activities related to the Reference Stock 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 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 prices of the Reference Stock, 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 issuer of the Reference Stock, 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 Stock. 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 price of the Reference Stock, and, therefore, the market value of the Notes.

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 of this terms supplement 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 price of the Reference Stock, 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.

P-8 RBC Capital Markets, LLC

Issuer Callable Contingent Coupon Barrier Notes Linked to the Common Stock of Microsoft Corporation, Due October 9, 2019

INFORMATION REGARDING THE REFERENCE STOCK ISSUER

The Reference Stock is 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. In addition, information regarding the Reference Stock 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 issuer of the Reference Stock is derived from publicly available information. We have not independently verified the accuracy or completeness of reports filed by the issuer of the Reference Stock 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 Stock set forth below from Bloomberg Financial Markets.

Microsoft Corporation ("MSFT")

Microsoft Corporation develops, manufactures, licenses, sells, and supports software products. The company offers operating system software, server application software, business and consumer applications software, software development tools, and Internet and intranet software. The company also develops video game consoles and digital music entertainment devices.

The company's common stock is listed on the Nasdaq Global Select Market under the ticker symbol "MSFT."

P-9 RBC Capital Markets, LLC