ROYAL BANK OF CANADA Form 424B3 October 19, 2018

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Prospectus Supplement to Prospectus Dated September 7, 2018

Royal Bank of Canada Structured Warrants

Royal Bank of Canada may from time to time offer and sell warrants, which we refer to as the "warrants" in this prospectus supplement, with various terms.

The terms of each warrant will be included in a pricing supplement together with, in some cases, an applicable product prospectus supplement. We refer to pricing supplements and applicable product prospectus supplements, if any, as "pricing supplements."

Investing in the warrants may involve significant risks and risks not associated with an investment in conventional securities. See "Risk Factors" beginning on page S-1 to read about factors you should consider before investing in any warrants.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of the securities or passed upon the adequacy or accuracy of this prospectus supplement and the accompanying prospectus. Any representation to the contrary is a criminal offense.

The warrants will not constitute deposits insured under the Canada Deposit Insurance Corporation Act or by the United States Federal Deposit Insurance Corporation or any other Canadian or United States governmental agency or instrumentality.

Royal Bank of Canada may sell the warrants directly or through one or more agents or dealers, including the agents referred to under "Supplemental Plan of Distribution." The agents are not required to sell any particular amount of the warrants.

Royal Bank of Canada may use this prospectus supplement in the initial sale of any warrants. In addition, Royal Bank of Canada, RBC Capital Markets, LLC or certain other affiliates of Royal Bank of Canada (the "Market-Makers") may use this prospectus supplement and accompanying prospectus in market-making or other transactions in any warrant after its initial sale. A Market-Maker may engage in market-making transactions only in those jurisdictions in which it has all necessary governmental and regulatory authorizations for such activity. Unless Royal Bank of Canada or its agent informs the purchaser otherwise in the confirmation of sale or pricing supplement, this prospectus supplement and accompanying prospectus are being used in a market-making transaction.

The date of this prospectus supplement is October 19, 2018.

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ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying prospectus and, if applicable, a product prospectus supplement, provide you with a general description of the warrants we may offer. Each time we sell warrants, we will provide a pricing supplement containing specific information about the terms of the warrants being offered. Each pricing supplement may include a discussion of any risk factors or other special considerations that apply to those warrants. The pricing supplement may also add, update or change the information in this prospectus supplement and any applicable product prospectus supplement. If there is any inconsistency between the information in this prospectus supplement, you should rely on the information in that pricing supplement. In this prospectus supplement when we refer to this prospectus supplement we are also referring to any applicable product prospectus supplement, unless the context otherwise requires.

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RISK FACTORS

An investment in the warrants is subject to the risks described below, as well as the risks described under "Risk Factors" in the accompanying prospectus. You should carefully consider whether the warrants are suited to your particular circumstances. This prospectus supplement should be read together with the accompanying prospectus, any applicable product prospectus supplement and the relevant pricing supplement. The information in the accompanying prospectus is supplemented by, and to the extent inconsistent therewith replaced and superseded by, the information in this prospectus supplement, any applicable product prospectus supplement and the relevant pricing supplement and the relevant pricing supplement. This section describes the most significant risks relating to the terms of the warrants. We urge you to read the following information about these risks, together with the other information in this prospectus supplement, the accompanying prospectus, any applicable product prospectus supplement and the relevant pricing supplement, the accompanying information about these risks, together with the other information in this prospectus supplement, before investing in the warrants.

General Risks Relating to the Warrants

The Warrants Are a Risky Investment and May Expire Worthless

Warrants are highly speculative and highly leveraged. They do not guarantee any return of your initial investment. The warrants could expire worthless and you could lose the entire amount of your initial investment.

The Warrants Are Suitable Only For Investors With Options-Approved Accounts

You will not be able to purchase the warrants unless you have an options-approved brokerage account. The warrants are not suitable for any investors who cannot sustain a total loss of their investment. You should be prepared to sustain a total loss of the purchase price of your warrants.

An Investment in the Warrants Is Subject to Our Credit Risk

Any payment to be made on the warrants depends on our ability to pay all amounts due on the warrants on the applicable payment date. Therefore, an investment in any of the warrants is subject to our credit risk. The existence of a trading market for, and the market value of, any of the warrants may be impacted by market perception of our creditworthiness. If market perception of our creditworthiness were to decline for any reason, the market value of your warrants, and availability of the trading markets generally, may be adversely affected.

There May Be No Market through which the Warrants May Be Sold, and Holders May Not Be Able to Sell the Warrants

Unless otherwise specified in the relevant pricing supplement or any applicable product prospectus supplement, there may be no market through which the warrants may be sold, and holders may not be able to sell the warrants. This may affect the pricing of the warrants in the secondary market, the transparency and availability of trading prices and the liquidity of the warrants. Even if a secondary market for the warrants 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 warrants in any secondary market could be substantial.

If you are able to sell your warrants during their term, you may have to do so at a substantial discount from the issue price, and as a result, you may suffer substantial losses.

The Warrants are Structurally Subordinated to the Liabilities of Our Subsidiaries

If we become insolvent, our governing legislation provides that priorities among payments of our deposit liabilities and payments of all of our other liabilities (including payments in respect of the warrants) are to be determined in accordance with the laws governing priorities and, where applicable, by the terms of the indebtedness and liabilities. Because we have subsidiaries, your right to participate in any distribution of the assets of our banking or non-banking subsidiaries, upon a subsidiary's dissolution, winding-up, liquidation or reorganization or

otherwise, and thus your ability to benefit indirectly from such distribution, is subject to the prior claims of creditors of that subsidiary, except to the extent that we may be a creditor of that subsidiary and our claims are recognized. There are legal limitations on the extent to which some of our subsidiaries may extend credit, pay dividends or otherwise supply funds to, or engage in transactions with, us or some of our other subsidiaries. Accordingly, the warrants will be structurally subordinated to all existing and future liabilities of our subsidiaries, and holders of warrants should look only to the assets of the Bank and not those of our subsidiaries for payments on the warrants. The Warrants Will be Subject to Risks, Including Non-Payment in Full, Under Canadian Bank Resolution Powers Under Canadian bank resolution powers, the Canada Deposit Insurance Corporation ("CDIC") may, in circumstances where the Bank has ceased, or is about to cease, to be viable, assume temporary control or ownership of the Bank and may be granted broad powers by one or more orders of the Governor in Council (Canada), each of which we refer to as an "Order," including the power to sell or dispose of all or a part of the assets of the Bank, and the power to carry out or cause the Bank to carry out a transaction or a series of transactions the purpose of which is to restructure the business of the Bank. As part of the Canadian bank resolution powers, certain provisions of and regulations under the Bank Act (Canada) (the "Bank Act"), the Canada Deposit Insurance Corporation Act (the "CDIC Act") and certain other Canadian federal statutes pertaining to banks, which we refer to collectively as the "bail-in regime," provide for a bank recapitalization regime for banks designated by the Superintendent of Financial Institutions (Canada) (the "Superintendent") as domestic systemically important banks, which include the Bank. We refer to those domestic systemically important banks as "D-SIBs." See "Description of Debt Securities Canadian Bank Resolution Powers" in the accompanying prospectus for a description of the Canadian bank resolution powers, including the bail-in regime. If the CDIC were to take action under the Canadian bank resolution powers with respect to the Bank, this could result in holders or beneficial owners of the warrants being exposed to losses

As a result, you should consider the risk that you may lose all of your investment if the CDIC were to take action under the Canadian bank resolution powers.

USE OF PROCEEDS

Except as otherwise set forth in a pricing supplement, the net proceeds from the sale of any warrants, or upon exercise of any warrants, will be added to our general funds and will be used for general banking purposes.

DESCRIPTION OF THE WARRANTS WE MAY OFFER

You should carefully read the description of the terms and provisions of our warrants and warrant indenture under "Description of Warrants" in the accompanying prospectus. That section, together with this prospectus supplement, the relevant pricing supplement and any applicable product prospectus supplement, summarizes all the material terms of our warrant indenture, and your warrant, as applicable. They do not, however, describe every aspect of our warrant indenture and your warrant, as applicable.

The specific terms of any series of warrants will be described in the relevant pricing supplement. As you read this section, please remember that the specific terms of your warrant as described in your pricing supplement will supplement and, if applicable, may modify or replace the general terms described in this section. If your pricing supplement is inconsistent with this prospectus supplement or the product prospectus supplement or the accompanying prospectus, your pricing supplement will control with regard to your warrant. Thus, the statements we make in this section may not apply to your warrant.

General

We will offer the warrants on a continuous basis through one or more agents, as described listed in the section entitled "Supplemental Plan of Distribution" in this prospectus supplement. The indenture does not limit the aggregate number of warrants that we may issue. We may from time to time, without the consent of the existing holders of the relevant warrants, create and issue further warrants having the same terms and conditions as such warrants in all respects, except for the issue date and issue price.

Unless we specify otherwise in the relevant pricing supplement, currency amounts in this prospectus supplement are expressed in U.S. dollars. Unless we specify otherwise in any warrant and pricing supplement, the payments on the warrants will be made in U.S. dollars. If any amounts on the warrant are to be paid in one or more currencies (or currency units) other than U.S. dollars, additional information (including related exchange rate information) will be provided in the relevant pricing supplement.

Each warrant will be issued as a book-entry warrant in fully registered form without coupons. Each warrant issued in book-entry form may be represented by a global warrant that we deposit with and register in the name of a financial institution or its nominee, that we select. The financial institution that we select for this purpose is called the depositary. Unless we specify otherwise in the applicable pricing supplement, The Depository Trust Company, New York, New York, will be the depositary for all warrants in global form. Except as discussed in the accompanying prospectus under "Description of Debt Securities—Ownership and Book-Entry Issuance", owners of beneficial interests in book-entry warrants will not be entitled to physical delivery of warrants in certificated form. We will make payments on the warrants through the applicable trustee to the depositary for the warrants.

Legal Ownership

Street Name and Other Indirect Holders

Investors who hold their warrants in accounts at brokers, banks or other financial institutions will generally not be recognized by us as legal holders of warrants. This is called holding in street name. Instead, we would recognize only the bank or broker, or the financial institution the bank or broker uses to hold its warrants. These intermediary banks, brokers and other financial institutions pass along payments on the warrants, either because they agree to do so in their customer agreements or because they are legally required to do so. If you hold your warrants in street name, you should check with your own institution to find out:

·how it handles warrant payments and notices;

 \cdot whether it imposes fees or charges;

·how it would handle voting if it were ever required;

whether and how you can instruct it to send you warrants registered in your own name so you can be a direct holder as described below; and

how it would pursue rights under the warrants if there were a default or other event triggering the need for holders to act to protect their interests.

Direct Holders

Our obligations, as well as the obligations of the trustee and those of any third parties employed by us or the trustee, under the warrants run only to persons who are registered as holders of warrants. As noted above, we do not have obligations to you if you hold in street name or other indirect means, either because you choose to hold your warrants in that manner or because the warrants are issued in the form of global warrants as described below. For example, once we make payment to the registered holder we have no further responsibility for the payment even if that holder is legally required to pass the payment along to you as a street name customer but does not do so. Global Warrants

A global warrant is a special type of indirectly held security, as described above under "—Street Name and Other Indirect Holders." If we choose to issue warrants in the form of global warrants, the ultimate beneficial owners of global warrants can only be indirect holders. We require that the global warrant be registered in the name of a financial institution we select.

We also require that the warrants included in the global warrant not be transferred to the name of any other direct holder except in the special circumstances described in the accompanying prospectus in the section "Description of Debt Securities—Ownership and Book-Entry Issuance." The financial institution that acts as the sole direct holder of the global warrant is called the depositary. Any person wishing to own a global warrant must do so indirectly by virtue of an account with a broker, bank or other financial institution, known as a "participant", that in turn has an account with the depositary. The pricing supplement indicates whether your series of warrants will be issued only in the form of global warrants.

Further details of legal ownership are discussed in the accompanying prospectus in the section "Description of Debt Securities—Ownership and Book-Entry Issuance."

In the remainder of this description, "you" or "holder" means direct holders and not street name or other indirect holders of warrants. Indirect holders should read the previous subsection titled "—Street Name and Other Indirect Holders." Market-Making Transactions

If you purchase your warrant in a market-making transaction, you will receive information about the price you pay and your trade and settlement dates in a separate confirmation of sale. A market-making transaction is one in which an agent or other person resells a warrant that it has previously acquired from another holder. A market-making transaction in a particular warrant occurs after the original sale of the warrant.

CERTAIN INCOME TAX CONSEQUENCES

The U.S. and Canadian federal tax consequences of any particular warrant depend on its terms, and the tax treatment of each warrant will be described in the applicable pricing supplement. Moreover, in all cases, you should consult with your own tax advisor concerning the consequences of investing in and holding any particular warrant you propose to purchase.

SUPPLEMENTAL PLAN OF DISTRIBUTION

We and RBC Capital Markets, LLC, as agent, have entered into a distribution agreement with respect to the warrants. The agent or agents through whom the warrants will be offered will be identified in the applicable pricing supplement. Subject to certain conditions, each agent will have agreed to use its reasonable efforts to solicit purchases of the warrants. We have the right to accept offers to purchase warrants and may reject any proposed purchase of the warrants. The agents may also reject any offer to purchase warrants. We will pay the agents a commission on any warrants sold through the agents. The commission will be in such amount as may be agreed between the agents and Royal Bank of Canada and set forth in the applicable pricing supplement.

We may also sell warrants to the agents, who will purchase the warrants as principal for their own accounts. In that case, the agent will purchase the warrants at a price equal to the issue price specified in the applicable pricing supplement, less a discount to be agreed with us at the time of the offering, and set forth in the applicable pricing supplement.

The agents may resell any warrants they purchase as principal to other brokers or dealers at a discount, which may include all or part of the discount the agents received from us. If all the warrants are not sold at the initial offering price, the agents may change the offering price and the other selling terms.

We may also sell warrants directly to investors. We will not pay commissions on warrants we sell directly. We have reserved the right to withdraw, cancel or modify the offer made by this prospectus supplement without notice and may reject orders in whole or in part whether placed directly with us or with an agent. No termination date has been established for the offering of the warrants.

The agents, whether acting as agent or principal, may be deemed to be "underwriters" within the meaning of the Securities Act of 1933, as amended (the "Securities Act"). We have agreed to indemnify the agents against certain liabilities, including liabilities under the Securities Act, or to contribute to payments made in respect of those liabilities.

If the agents sell warrants to dealers who resell to investors and the agents pay the dealers all or part of the discount or commission they receive from us, those dealers may also be deemed to be "underwriters" within the meaning of the Securities Act.

Unless otherwise indicated in any pricing supplement, payment of the purchase price of warrants, other than warrants denominated in a non-U.S. dollar currency, will be required to be made in funds immediately available in The City of New York. The warrants will be the Same Day Funds Settlement System at DTC and, to the extent the secondary market trading in the warrants is effected through the facilities of such depositary, such trades will be settled in immediately available funds.

We may appoint additional agents with respect to the warrants. Any other agents will be named in the applicable pricing supplements and those agents will enter into the distribution agreement referred to above. The agents referred to above and any additional agents may engage in commercial banking and investment banking and other transactions with and perform services for Royal Bank of Canada and our affiliates in the ordinary course of business. RBC Capital Markets, LLC is an affiliate of the Royal Bank of Canada and may resell warrants to or through another of our affiliates, as selling agent.

The warrants are a new issue of securities, and there will be no established trading market for any warrant before its original issue date. We do not plan to list the warrants on a securities exchange or quotation system. We have been advised by RBC Capital Markets, LLC that it may make a market in the warrants that it offers. However, neither RBC Capital Markets, LLC nor any of our other affiliates nor any other agent named in your pricing supplement that makes a market is obligated to do so, and any of them may stop doing so at any time without notice. No assurance can be given as to the liquidity or trading market for the warrants.

This prospectus supplement may be used by RBC Capital Markets, LLC and any other agent in connection with offers and sales of the warrants in market-making transactions. In a market-making transaction, an agent or other person resells a warrant it acquires from other holders after the original offering and sale of the warrant. Resales of this kind may occur in the open market or may be privately negotiated, at prevailing market prices at the time of resale or at related or negotiated prices. In these transactions, such agent may act as principal or agent, including as agent for the counterparty in a transaction in which RBC Capital Markets, LLC or another agent acts as principal, or as agent for both counterparties in a transaction in which RBC Capital Markets, LLC does not act as principal. The agents may receive compensation in the form of discounts and commissions, including from both counterparties in some cases. Other affiliates of Royal Bank of Canada (in addition to RBC Capital Markets, LLC) and the Bank may also engage in transactions of this kind and may use this prospectus supplement for this purpose. The Bank and any of its affiliates may engage in market-making transactions only in those jurisdictions in which it has all necessary governmental and regulatory authorizations for such activity.

Royal Bank of Canada does not expect to receive any proceeds from market-making transactions, except to the extent it is entitled to proceeds of its own sales of warrants in such transactions. Royal Bank of Canada does not expect that any agent that engages in these transactions will pay any proceeds from its market-making resales to Royal Bank of Canada.

Information about the trade and settlement dates, as well as the purchase price, for a market-making transaction will be provided to the purchaser in a separate confirmation of sale.

Unless Royal Bank of Canada or an agent informs you in your confirmation of sale that your warrant is being purchased in its original offering and sale, you may assume that you are purchasing your warrant in a market-making transaction.

In this prospectus supplement, the term "this offering" means the initial offering of the warrants made in connection with their original issuance. This term does not refer to any subsequent resales of warrants in market-making transactions.

The agents may engage in over-allotment, stabilizing transactions, syndicate covering transactions and penalty bids in accordance with Regulation M under the Exchange Act. Over-allotment involves syndicate sales in excess of the offering size, which creates a syndicate short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum. Syndicate covering transactions involve purchases of the warrants in the open market after the distribution has been completed in order to cover syndicate short positions. Penalty bids permit reclaiming a selling concession from a syndicate member when the warrants originally sold by such syndicate member are purchased in a syndicate covering transaction to cover syndicate short positions. Such stabilizing transactions, syndicate covering transactions and penalty bids may stabilize, maintain or otherwise affect the market price of the warrants, which may be higher than it would otherwise be in the absence of such transactions. The agents are not required to engage in these activities, and may end any of these activities at any time.

In addition to offering warrants through the agents as discussed above, other warrants that have terms substantially similar to the terms of the warrants offered by this prospectus supplement may in the future be offered, concurrently with the offering of the warrants, on a continuing basis by Royal Bank of Canada. Any of these warrants sold pursuant to the distribution agreement or sold by Royal Bank of Canada directly to investors will reduce the aggregate amount of warrants which may be offered by this prospectus supplement.

No Prospectus (as defined in Directive 2003/71/EC (as amended, the "Prospectus Directive")) will be prepared in connection with these warrants. Accordingly, these warrants may not be offered to the public in any member state of the European Economic Area (the "EEA"), and any purchaser of these warrants who subsequently sells any of these warrants in any EEA member state must do so only in accordance with the requirements of the Prospectus Directive, as implemented in that member state.

The warrants are not intended to be offered, sold or otherwise made available to, and should not be offered, sold or otherwise made available to, any retail investor in the EEA. For these purposes, the expression "offer" includes the communication in any form and by any means of sufficient information on the terms of the offer and the warrants to be offered so as to enable an investor to decide to purchase or subscribe the warrants, and a "retail investor" means a person who is one (or more) of: (a) a retail client, as defined in point (11) of Article 4(1) of Directive 2014/65/EU (as amended, "MiFID II"); or (b) a customer, within the meaning of Insurance Distribution Directive 2016/97/EU, as amended, where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or (c) not a qualified investor as defined in the Prospectus Directive. Consequently, no key information document required by Regulation (EU) No 1286/2014 (as amended, the "PRIIPs Regulation") for offering or selling the warrants or otherwise making them available to retail investors in the EEA has been prepared, and therefore, offering or selling the warrants or otherwise making them available to any retail investor in the EEA may be unlawful under the PRIIPs Regulation.

No dealer, salesperson or other person has been authorized to give any information or to make any representation not contained in this prospectus supplement, the accompanying prospectus or any pricing supplement and, if given or made, such information or representation must not be relied upon as having been authorized by Royal Bank of Canada or the agents. This prospectus supplement, the accompanying prospectus and any pricing supplement do not constitute an offer to sell or a solicitation of an offer to buy any securities other than the securities described in the relevant pricing supplement nor do they constitute an offer to sell or a solicitation in such jurisdiction. The delivery of this prospectus supplement, the accompanying prospectus and any pricing supplement at any time does not imply that the information they contain is correct as of any time subsequent to their respective dates.

Royal Bank of Canada

Structured Warrants

October 19, 2018