

ROYAL BANK OF CANADA REDEMPTION OF US \$ NON-CUMULATIVE FIRST PREFERRED SHARES SERIES C-1

TAX QUESTIONS AND ANSWERS

These comments are provided for general information purposes only and should not be construed as legal, tax or investment advice to any particular holder. On November 13, 2017, the Bank will redeem the US \$ Non-Cumulative First Preferred Shares Series C-1 (the "Series C-1 shares") and, concurrently, the related NYSE-listed depositary shares (the "Series C-1 depositary shares"), each of which represents a 1/40th interest in a Series C-1 share. The redemption may have various tax consequences depending upon what the US\$/CDN\$ exchange rate is on the redemption date. Holders should consult with their own tax advisors regarding the tax treatment with respect to their own particular circumstances arising from the redemption of these shares.

The comments below discuss certain of the Canadian federal income tax consequences of the redemption that generally apply to beneficial owners of Series C-1 depositary shares who are Canadian resident individuals (other than trusts) or individuals (other than trusts) who are non-residents of Canada and who hold such shares as capital property for Canadian tax purposes and (in the case of non-residents) do not use or hold the shares in a business carried on in Canada, and have not made a functional currency tax election for Canadian tax purposes. The comments below do not consider tax considerations of any province, territory or other jurisdiction (including United States) which may differ from those discussed below.

1. What amount will be paid on redemption?

On the redemption date of November 13, 2017 the Bank will pay a redemption price of US\$1,000 per Series C-1 share (equivalent to US \$25.00 per Series C-1 depositary share).

In addition the Bank will pay the final quarterly dividend of US\$13.75 per Series C-1 share (equivalent to US\$0.34375 per Series C-1 depositary share).

2. How will this redemption affect my Canadian taxes?

As discussed below, the Canadian income tax consequences of the redemption will depend on the value of the US dollar relative to the Canadian dollar as of the redemption date as compared to the Canadian dollar amount included in the Stated Capital account for the Series C-1 depositary shares on the issue date of November 2, 2015. All amounts relating to the acquisition, holding or disposition of the shares must be expressed in Canadian dollars for Canadian income tax purposes.

3. When will there be a deemed dividend? How will the deemed dividend be calculated?

For Canadian tax purposes, a holder of the Series C-1 depositary shares will be deemed to have received a dividend to the extent that the redemption amount (in Canadian dollars) exceeds the paid-up capital (in Canadian dollars) of such holder's redeemed shares.

A holder's redemption amount in respect of each Series C-1 depositary share will be the Canadian dollar equivalent of US\$25.00 calculated using the US\$/Cdn\$ exchange rate in effect on November 13, 2017.

The paid-up capital of each Series C-1depositary share is \$32.4303, being the Canadian dollar amount per Series C-1 depositary share that was included in the Stated Capital account for the Series C-1 depositary shares on November 2, 2015, the date the shares were issued.

In the event that the Cdn\$ equivalent of the redemption amount is greater than \$32.4303 on the redemption date of November 13, 2017, a deemed dividend will result from the redemption.

Illustrative Example

Assuming a US\$/Cdn\$ exchange rate of 1.3500 on November 13, 2017, a holder will be deemed, for Canadian tax purposes, to have received a dividend of Cdn\$1.3197 per redeemed Series C-1 depositary share, calculated as follows:

Redemption Amount Cdn\$33.7500 (US\$25 @ 1.3500¹)

Less: Paid-up capital Cdn\$32.4303² Deemed Dividend per Series C-1 depositary share Cdn \$1.3197

For Canadian individuals, a deemed dividend (if any) will be subject to the gross-up and dividend tax credit rules normally available on dividends from taxable Canadian corporations.

4. For Canadian individuals, how is the capital gain or loss calculated if the redemption results in a deemed dividend?

The redemption is a disposition of the Series C-1 depositary shares. This disposition may give rise to a capital gain or capital loss, depending on the holder's cost at the time of acquisition (the "adjusted cost base"), determined in Canadian dollars using the exchange rate in effect on the date of the acquisition of the holder's Series C-1 depositary shares. The capital gain or loss is determined by calculating the difference between the holder's proceeds of disposition and the holder's adjusted cost base of the redeemed shares, in Canadian dollars, less any reasonable costs of disposition. The holder's proceeds of disposition will be the Canadian dollar equivalent of US\$25.00 per Series C-1 depositary share, calculated using the US\$/Cdn\$ exchange rate in effect on November 13, 2017, less the amount of any deemed dividend (in Canadian dollars).

Illustrative Example

Assuming the Series C-1 depositary shares were all purchased at US\$26.00 per Series C-1 depositary share, including acquisition costs (e.g., brokerage commissions) at a time when the US dollar exchange rate was 1.4000, a capital loss would arise as follows:

Redemption Amount Cdn\$32.4303 (US\$25.00 @ 1.35001 less the Cdn\$1.3197 deemed dividend)

Cdn\$36.4000 (US\$26.00@1.4000²) Less: adjusted cost base

Capital loss per Series C-1 depositary share Cdn (\$3.9697)

Assuming a US\$/Cdn\$ exchange rate of 1.3500 on November 13, 2017, the redemption date. Amount included in Stated Capital account for Series C-1 depositary shares.

¹Assuming a US\$/Cdn\$ exchange rate of 1.3500 on November 13, 2017, the redemption date.

²Assuming a US\$/Cdn\$ exchange rate of 1.4000 on the date the holder purchased the Series C-1 depositary shares.

5. For Canadian individuals, how is the capital gain or loss calculated if the redemption does not result in a deemed dividend?

The redemption is a disposition of the Series C-1 depositary shares. This disposition may give rise to a capital gain or capital loss, depending on the holder's cost at the time of acquisition (the "adjusted cost base"), determined in Canadian dollars using the exchange rate in effect on the date of the acquisition of the holder's Series C-1 depositary shares. The capital gain or loss is determined by calculating the difference between the holder's proceeds of disposition and the holder's adjusted cost base of the redeemed shares, in Canadian dollars, less any reasonable costs of disposition. If there is no deemed dividend, the holder's proceeds of disposition will be the Canadian dollar equivalent of US\$25.00 per Series C-1 depositary share, calculated using the US\$/Cdn\$ exchange rate in effect on November 13, 2017.

Illustrative Example

Using a 1.3500 US\$/Cdn\$ exchange rate on November 13, 2017 and assuming the Series C-1 depositary shares were all purchased by the holder at US\$26.00 each, including acquisition costs (e.g., brokerage commissions) at a time when the US dollar exchange rate was 1.4000, a capital loss would arise as follows:

Capital loss per Series C-1 depositary share Cdn (\$2.65)

Generally, one-half of a capital loss (an "allowable capital loss") is deductible only against one-half of capital gains ("taxable capital gains") in accordance with the detailed provisions of the Income Tax Act (Canada). An allowable capital loss may only be claimed against taxable capital gains realized in that year, any future year, or one of the three preceding years. An allowable capital loss cannot be deducted from other income, including dividends or deemed dividends.

6. What are the implications for Canadian individuals if the Series C-1 depositary shares are sold before the redemption date?

If you sell your Series C-1 depositary shares before the November 13, 2017 redemption date, you will realize a capital gain or loss, *with no deemed dividend*. Your proceeds of disposition will be the sale price of the shares expressed in Canadian dollars using the U.S. dollar exchange rate on the date of the sale, net of any reasonable disposition costs (e.g., brokerage commissions).

7. What are the Canadian tax implications for non-residents of Canada?

Actual dividends and dividends deemed to be paid or credited to a non-resident holder on the redemption of the Series C-1 depositary shares (as described above) will be subject to Canadian non-resident withholding tax at the rate of 25%, subject to any reduction in the rate of withholding to which the non-resident holder is entitled under any applicable income tax convention. Under the Canada-U.S. Income Tax Convention (1980), US residents entitled to benefits under the convention are generally entitled to a reduced rate of 15%.

Any gain or loss on sale of the shares by a non-resident of Canada is not subject to Canadian income tax.

¹Assuming a US\$/Cdn\$ exchange rate of 1.3500 on November 13, 2017, the redemption date. ²Assuming a US\$/Cdn\$ exchange rate of 1.4000 on the date the holder purchased the Series C-1 depositary shares.