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Report on the Management of Canada's Official International Reserves

April 1, 2021 - March 31, 2022

Canada

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Purpose of the Report

This edition of the *Report on the Management of Canada's Official International Reserves* provides details on official international reserves operations from April 1, 2021 to March 31, 2022 (the 2021–22 fiscal year).

As required under the *Currency Act*, the report provides a comprehensive account of the framework within which the Exchange Fund Account (EFA) is managed, the composition and changes in the EFA during the year, a statement of whether the strategic objectives established for the EFA have been met, and information on agents appointed to perform services concerning the EFA.

The unaudited financial statements that appear at the end of this report are in Canadian dollars, as reported in the *Public Accounts of Canada*.

Exchange Fund Account

The EFA, which is held in the name of the Minister of Finance, represents the largest component of Canada's official international reserves. It is a portfolio that is primarily made up of liquid foreign currency securities, deposits and special drawing rights (SDRs). SDRs are international reserve assets created by the International Monetary Fund (IMF) whose value is based on a basket of five major international currencies (the US dollar, the euro, the Chinese renminbi, the Japanese yen, and the British pound sterling). In addition to the EFA, Canada's official international reserves include Canada's reserve position at the IMF. This position, which represents Canada's investment in the activities of the IMF, fluctuates according to drawdowns by and repayments from the IMF.

The legislative purposes of the EFA, as specified in the *Currency Act*, are to aid in the control and protection of the external value of the Canadian dollar and to provide a source of liquidity for the Government, if required. Under the *Currency Act*, the Minister of Finance has the authority to acquire, borrow, sell or lend assets held in the EFA in accordance with the *Statement of Investment Policy for the Government of Canada* (see Annex 1).

The Department of Finance Canada and the Bank of Canada jointly develop and implement the funding and investment policy program of the EFA. As fiscal agent of the Government, the Bank of Canada executes funding and investment transactions and manages EFA cash flows.

A detailed description of the EFA's management framework is provided in Annex 2. The framework includes the objectives, principles and governance structure of the EFA. Annex 2 also describes the policies that pertain to foreign currency funding activities, investments, risk management, and performance measurement.

Executive Summary

The *Currency Act* stipulates that this report provide a statement of whether the strategic objectives established for the EFA have been met during the review period. These objectives—to maintain an adequate level of liquidity, to preserve capital value, and, subject to these two primary objectives, to optimize returns—were achieved during 2021–22.

Level of the official international reserves: The market value of Canada's official international reserves increased to US$103.8 billion as at March 31, 2022, from US$83.4 billion as at March 31, 2021. Growth in the EFA portfolio was largely driven by the expansion in Special Drawing Rights (SDR) holdings at the IMF in August 2021 as part of a broader international effort to boost global liquidity.

EFA assets totaled US$99.4 billion as at March 31, 2022. The level of liquid reserves (EFA assets less SDR) amounted to US$75.4 billion, or 3.5 per cent of nominal gross domestic product, were at a level that is consistent with the Government's commitment to maintain holdings of liquid foreign exchange reserves at or above 3 per cent of nominal gross domestic product. Liquid reserve assets are composed primarily of debt securities of highly rated sovereigns, sub-sovereigns, agencies and supranational organizations that borrow on public markets.

Table 1

The EFA and Official International Reserves

market value in millions of US dollars, settled basis

	March 31, 2022	March 31, 2021	Change
Securities	71,104	68,407	2,697
Deposits[1]	4,283	1,846	2,437
Total securities and deposits (liquid reserves)	75,387	70,253	5,134
SDR	23,983	8,625	15,358
Total EFA	99,370	78,878	20,492
IMF reserve position	4,394	4,497	-103
Total official international reserves	103,764	83,375	20,389

Note: Numbers may not add due to rounding.

[1] Cash deposits with central banks and the Bank for International Settlements.

Portfolio performance and return: In 2021–22, the EFA earned an average positive spread (or net "coupon return") of 15 basis points, down from 19 basis points the previous year. This spread represents the difference between the yield to maturity on foreign currency fixed-income assets held in the EFA and the yield to maturity of foreign currency liabilities used to fund the assets at the time of calculation. The decline in this spread over the past year was most notably caused by weaker returns outside of the United States, with euro funding spreads being a noticeable drag on returns in a volatile year.

Taking into account cash flows and unrealized changes in the market value of assets and liabilities due to changes in interest rates and credit spreads, the EFA reported a total return of 75 basis points in 2021–22 (a mark-to-market gain of US$565 million), up from a total return of 32 basis points (mark-to-market gains of US$225 million) in the previous year. This improved total return was associated with the cost of liabilities declining faster than the return on assets.

EFA composition: As at March 31, 2022, the US dollar share of EFA liquid investments was US$53.1 billion or 70.5 per cent, the euro share was equivalent to US$11.0 billion or 14.6 per cent, the British pound sterling share was equivalent to US$6.6 billion or 8.7 per cent, and the yen share was equivalent to US$4.7 billion or 6.2 per cent. Broadly, the portfolio shifted more towards US dollar assets and slightly away from euros during the year based on more favourable returns and greater economic stability in the United States compared to Europe.

Investments in fixed-income securities issued by sovereigns, sub-sovereigns and government agencies made up 75.7 per cent of EFA liquid investments, 18.7 per cent was invested in securities issued by supranational organizations and 5.7 per cent was held in cash.

Based on the second highest rating among those provided by Moody's Investors Service, Standard & Poor's, Fitch Ratings and Dominion Bond Rating Service, as of March 31, 2022, 77.8 per cent of EFA liquid reserve investments were rated AAA and 84.4 per cent were rated AA+ or better.

EFA funding sources: The foreign currency reserve assets held in the EFA are funded in a cost-effective manner through a funding framework that mitigates the impacts of movements in interest rates and foreign exchange rates on the Government's fiscal position by matching the funding with the currency, term and/or duration of the reserve assets.

During 2021-22, EFA operations were largely financed through cross-currency swaps[1] of domestic obligations and direct foreign currency issuance. Total cross-currency swap funding and maturities during the reporting period were US$17.6 billion and US$5.6 billion respectively. The swaps were transacted in US dollars, euros, pound sterling, and yen, at various terms, and at a weighted cost equivalent to 3-month US$ LIBOR (London Interbank Offered Rate) less 32.6 basis points (approximately equivalent to a Secured Overnight Financing Rate (SOFR) less 20.2 basis points). This compared to an average rate of 3-month US$ LIBOR less 27.8 basis points for 2020-21. The primary driver for the change in funding costs from the prior year was the opportunistic timing of funding operations with more conducive market conditions.[2] Additionally, an increase in the 10-year Canadian cross-currency basis enabled a decline in funding costs.[3] For example, the 10-year cross-currency basis increased from an average of around -13 basis points in fiscal year 2020-21 to an average of about -11.3 basis points in fiscal year 2021-22. An increase in the Canadian cross-currency basis reduces the cost of funding the EFA with cross-currency swaps, all else being equal.

The level of outstanding short-term US dollar commercial paper issued under the Canada bills program was US$2.1 billion at year-end, lower than the US$3.2 billion in the previous year. The decrease was primarily due to the higher outstanding amount of floating cross-currency swaps as a result of the completion of the global transition from LIBOR to SOFR rates. The average commercial paper cost was US$ LIBOR less 9.6 basis points (approximately equivalent to SOFR plus 2.8 basis points), compared to US$ LIBOR less 18.4 basis points in the previous year.

A global bond was also launched in May 2021. This 5-year US$3.5 billion global bond was issued in May 2021 at 6 basis points over the 5-year U.S. Treasury. This global bond issuance priced more tightly than any of the 5-year US dollar bonds issued by Canada's peers in recent history.

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[1] A cross-currency swap agreement is a contract in which one party borrows one currency from another party and simultaneously lends the same value, at current spot rates, of a second currency to that party.

[2] Cost of funding is inversely correlated with dealer balance sheet capacity. Offsetting transactions enable dealers to intermediate with their clients at lower costs, thus reducing the EFA's funding costs.

[3] The cross-currency basis indicates the amount by which the interest paid to borrow one currency by swapping it against another differs from the cost of directly borrowing this currency in the cash market.

Report on Operations in 2021–22

The following sections describe the impact of market developments on the EFA, policy and program initiatives undertaken during the reporting period, and portfolio performance.

Global Economic Developments

The global economy featured several important turning points through the 2021-22 fiscal year. Early in the period, the IMF described the global economy as being on a "mending path", with growth prospects improving despite the continued pandemic. In Canada and many advanced economies, output losses from the COVID-19 recession were largely recovered and labour markets returned to near pre-crisis norms. Central banks continued to provide policy support with initial inflationary pressures being viewed as transitory.

These generally supportive global macroeconomic conditions persisted into the latter half of 2021, although inflation became more entrenched from labour markets tightness, continued supply chain blockages, and a commodity price shock following the Russian invasion of Ukraine. The Federal Reserve and other central banks began to take action to address inflationary pressures, signaling that policy support would be tapered through late-2021 while policy rates started to rise just before the end of the fiscal year. The European Central Bank, facing greater economic uncertainty from the invasion of Ukraine, and the Bank of Japan with its weaker inflationary pressures, did not pursue similar tightening polices. The considerable economic and financial uncertainty resulting from these macroeconomic and geopolitical events persists in 2022.

The performance of Canada's official international reserves portfolio for fiscal year 2021-22 mirrored these global macroeconomic trends. The continuation of very accommodative monetary policy, with low rates and in some cases continued asset purchases, by many advanced economies' central banks earlier in 2021 helped bolster the values of the foreign exchange assets through lower short term interest rates (thereby supporting the value of the underlying assets held in the foreign exchange reserves). However, as policy rates and bond yields moved up (i.e., the value of the underlying assets declined), this put downward pressure on the overall return of Canada's foreign exchange reserves through late-2021 and into 2022.

Returns from foreign exchange reserves (which are valued in US dollars) were also deflated by the decline of the euro and yen against the US dollar. This trend accelerated in the latter part of the reporting period as market volatility and economic uncertainty encouraged capital inflows to the United States. These exchange rate trends and more attractive returns in the United States encouraged global managers of foreign exchange reserves to re-orient their portfolios more towards the US dollar and to reduce euro exposure.

Interest Rates

Overall, changes in interest rates in 2021–22 resulted in a decrease of US$3,614 million in the market value of the liquid foreign reserves as bond prices declined alongside rising interest rates. However, the foreign reserves are managed under an asset-liability matching framework, and as such, interest rate movements had a relatively minor impact on the Government's financial position since the decline in the market value of assets is offset by a similar decline in the value of associated liabilities.

In the United States, the Federal Reserve maintained its target range for the federal funds rate throughout much of the year. As inflation pressures increased in late-2021, the Federal Reserve began to clearly signal that interest rates would increase as needed. The Federal Reserve started to reduce the pace of asset purchases and increases the federal funds rate by 25 basis points in March 2022. The yield on U.S. 3-month bills ended 2021–22 at 51 basis points (up from 1.5 basis points a year previous), while the 10-year Treasury note ended at 232 basis points (up from 174 basis points).

In Europe, the European Central Bank continued its asset purchase programs, which grew the central bank's balance sheet over 2021–22. The deposit facility rate was unchanged and remained at negative 50 basis points. Rates on German benchmark securities below the 3-year maturity remained negative while longer-term yields became positive following a rapid increase associated with the invasion of the Ukraine.

Credit Spreads

Credit spreads on fixed-income securities issued by supranational institutions, sovereigns and agencies in US dollars evolved alongside Federal Reserve actions and economic factors throughout the year. Credit spreads generally declined from the beginning of the year until late-2021, when they started to rise as the Federal Reserve began to signal interest rate increases. These spreads continued to rise modestly as the Russian invasion of Ukraine began but stabilized after the Federal Reserve increased interest rates and U.S. government bond yields began to rise as well.

Credit spreads on euro-denominated securities were generally declining or stable through the first half of the fiscal year but began to rise rapidly as inflationary concerns and the threat of the Russian invasion of Ukraine became more apparent.

Overall, there was approximately US$395 million increase in the market value of reserves due to changes in credit spreads between April 1, 2021 and March 31, 2022.

Exchange Rates

In 2021–22, exchange rate movements resulted in a decrease of US$2,167 million in the market value of the liquid foreign reserve assets. However, the foreign reserves are managed under an asset-liability matching framework, and as such, exchange rate movements had a relatively minor impact on the Government's financial position since the decline in the market value of assets is offset by a similar decline in the value of associated liabilities.

The EFA is denominated in US dollars and so a decline in the value of other currencies against the US dollar will decrease the value of the reserves. Through 2021-22 the euro declined by 6 per cent against the US dollar, the British pound sterling by 5 per cent, and the yen by 11 per cent. With these currencies accounting for 30 per cent of EFA assets (excluding SDR holdings), these declines weighed on the value of the EFA.

For financial reporting purposes, the performance of the EFA is presented in Canadian dollar terms. The Canadian dollar appreciated by just under 1 per cent through the fiscal year, with the EFA growing by 25 per cent in Canadian dollar terms compared to 26 per cent in US dollars.

Initiatives in 2021–22

Canada's official international reserves are exposed to LIBOR with respect to some of its liabilities, specifically LIBOR-referenced floating rate cross-currency swaps. In response to the global transition from Interbank Overnight Rates (IBORs), such as US$ LIBOR, to Risk Free Rates, such as the U.S. Secured Overnight Financing Rate (SOFR), a LIBOR transition program was developed in 2019 to gradually eliminate Canada's exposure to LIBOR in its official international reserves.

In 2021–22, work on the final phase of the transition program continued including systems, policy and legal work and committing to the International Swaps and Derivatives Association Fallbacks Protocol. The timing for the elimination of existing LIBOR exposures in the EFA was also extended to early 2023 for two reasons: following a broad-based consultation, LIBOR's regulator, the U.K. Financial Conduct Authority, postponed the end date for transitioning US$ LIBOR swaps to the SOFR from December 2021 to June 2023; and liquidity in the SOFR market was still developing.

Performance versus Strategic Objectives

The *Currency Act* stipulates that this report provide a statement of whether the strategic objectives established for the EFA have been met during the review period. These objectives—to maintain an adequate level of liquidity, to preserve capital value, and, subject to these two primary objectives, to optimize returns—were achieved during 2021–22. The planned level of liquidity was maintained for the reserves portfolio throughout the reporting period, and the portfolio's exposure to market and credit risks was managed within approved limits. In addition, the net underlying return (coupon return) was positive despite a volatile global economic and financial climate. The EFA also outperformed a benchmark portfolio of similar assets by 2 basis points, down from 30 basis points in the previous year.

EFA Returns

The EFA is a financial asset portfolio within the *Public Accounts of Canada*. For risk management purposes and to provide transparency on the net economic return or cost to the Government of maintaining the EFA, several performance indicators are measured and tracked on a regular basis and reported to senior management at the Department of Finance Canada and the Bank of Canada. In addition, the net revenue of the EFA and corresponding cost of advances to the EFA are reported at book value. A brief overview of the portfolio's performance is provided below (a more detailed description is provided in Annex 4).

EFA Performance

Given the movements in interest rates and foreign exchange rates globally, the assets held in the EFA generated lower net revenues in 2021–22 than in 2020–21 (C$709 million versus C$2.5 billion) (Table 2). The cost of advances to the EFA, which represents the estimated economic cost to the Government of financing the EFA, was essentially unchanged at C$1.2 billion.

Table 2
Summary of Main Performance Indicators

	April 1, 2021 to March 31, 2022	**April 1, 2020 to March 31, 2021**
1) Net revenue of the Exchange Fund Account (C$ millions)	709	2,541
2) Cost of advances to the EFA (C$ millions)	1,178	1,166
3) Measures of the net return on assets and liabilities		
Coupon return (basis points/US$ millions)	15/131	19/130
Total return (basis points/US$ millions)	75/565	32/225
4) Risk measures (at end of fiscal year)		
Total market risk (99% 10-day VaR, US$ millions)	312	1,351

Notes: Net revenue and cost of advances are based on actual and forecasted cash payments and receipts. The numbers are presented in Canadian dollars to be consistent with the financial statements. The measures of net return are market-based estimates and are presented in US dollars to be consistent with performance reporting for the EFA. See Annex 4 for further information on performance indicators.

In 2021–22, the net coupon return for the EFA, the difference between the yield to maturity of reserve assets and liabilities issued to fund the assets, was 15 basis points. The total return[4] of the EFA increased to 75 basis points from 32 basis points the previous year.

Total Market Value at Risk (Total Market VaR)—which measures the potential loss on a net basis arising from interest rate, foreign exchange rate, credit and funding spread changes that will not be exceeded 99 per cent of the time if the EFA is held over a 10-holding-day period—stood at US$312 million as at March 31, 2022. This decline in the Total Market VAR was driven by greater market stability in 2021-22 compared to the beginning of the COVID-19 pandemic, and to a lesser extent, by changes to the methodology used in calculating the VAR.

Liquidity and Preservation of Capital

In practice, the EFA’s liquid reserves (which exclude SDR holdings and the IMF reserve position) are mainly invested in the debt of sovereigns and their agencies (75.7 per cent as at March 31, 2022), as these securities both enhance the liquidity and preserve the capital value of the EFA (Table 3). A more detailed description of the changes in the level of the official international reserves is provided in Annex 3.

Table 3

Composition of EFA Liquid Reserves

market value in millions of US dollars, settled basis

	March 31, 2022	March 31, 2021	Change
Sovereigns and agencies	57,032	53,822	3,210
Supranationals	14,071	14,585	-514
Cash	4,283	1,846	2,437

Notes: Liquid reserves exclude SDR holdings. Numbers may not add due to rounding.

The largest portion of EFA liquid reserves is in U.S. dollars given its central role as a global reserve currency and because Canada’s potential foreign currency needs are mostly in US dollars. As at March 31, 2022, the US dollar share of EFA liquid investments was US$53.1 billion or 70 per cent, the euro share was equivalent to US$11.0 billion or 15 per cent, the British pound share was equivalent to US$6.6 billion or 9 per cent, and the yen portion was equivalent to US$4.7 billion or 6 per cent (Table 4). By comparison, as at March 31, 2021, the US dollar share was 64 per cent, the euro share was 21 per cent, the British pound share was 9 per cent and the yen share was 6 per cent.

This growing share of US dollar assets reflects the shift of the EFA towards the United States and away from Europe over the past year. This was part of a global flight to safety in US dollar assets as the global economic and political situation became more volatile and because US dollar assets were providing stronger returns than in Europe.

[4] The total return represents the net return generated by the EFA by including the changes in the market values of the assets and liabilities over the reporting period. It includes the realized coupon return, as well as the unrealized gains or losses due to changes in the market value.

Table 4

Currency Composition of EFA Liquid Reserves

market value in millions of US dollars, settled basis

	March 31, 2022	March 31, 2021	Change
US dollars	53,114	44,708	8,406
Euros	10,989	14,444	-3,455
Pound sterling	6,594	6,717	-123
Yen	4,690	4,384	306

Notes: Liquid reserves exclude SDR holdings. Numbers may not add due to rounding.

As specified in the *Statement of Investment Policy for the Government of Canada,* to help achieve the objective of preserving capital value, an issuing entity must be deemed by Canada to have a credit rating of A- or higher to be eligible for investment in the EFA. Compliance with issuer credit limits is monitored on a real-time basis.

The Government of Canada is committed to limiting mechanistic reliance on external credit ratings, consistent with Financial Stability Board principles and G20 commitments. Hence, Canada performs an internal assessment to support external credit risk assessments. As of March 31, 2022, the majority of EFA investments are given a rating of AA+ or higher by external credit rating agencies, as indicated in Table 5. The external rating is based on the second highest rating among those provided by Moody’s Investors Service, Standard & Poor’s, Fitch Ratings and Dominion Bond Rating Service.

Table 5

Credit Composition of EFA Liquid Reserves

market value in millions of US dollars, settled basis

	March 31, 2022	March 31, 2021	Change
AAA	55,362	52,971	2,391
AA+	4,652	3,532	1,120
AA	6,254	7,248	-994
AA-	160	320	-160
A+	4,675	4,336	339
A	–	–	–
A-	–	–	–
Below A-	–	–	–

Notes: Liquid reserves exclude SDR holdings. Numbers may not add due to rounding.

Exchange Fund Account Financing

EFA assets are funded by borrowings from a variety of sources (Table 6). Funding requirements are partially met through an ongoing program of cross-currency swaps of domestic obligations. Total cross-currency swap funding and maturities during the reporting period were US$17.6 billion and US$5.6 billion respectively. There was also a further US$1.5 billion in amendments to existing swaps executed as part of the transition from LIBOR to SOFR.

During 2021–22, foreign currency was raised through cross-currency swaps at an average cost equivalent to 3-month US$ LIBOR less 32.6 basis points (approximately equivalent to SOFR less 20.2 basis points). This funding cost was lower than rates obtained during the previous fiscal year, which averaged 3-month US$ LIBOR less 27.8 basis points. As at March 31, 2022, Government of Canada cross-currency swaps outstanding stood at US$64.8 billion (par value). Swaps of US dollars, euros, British pound, and yen made up 65.3 per cent, 17.4 per cent, 9.9 per cent and 7.4 per cent of the swap portfolio respectively. A global bond[5] program is another important funding mechanism, while other funding options that are available but used to a lesser extent include a short-term US dollar paper program (Canada bills[6]) and medium-term note programs (Canada notes[7] and euro medium-term notes[8]). These funding mechanisms are useful to diversify funding sources which help promote orderly conditions for the Canadian dollar in foreign exchange markets and provide a source of liquidity to the government, if needed.

A 5-year US$3.5 billion global bond was issued in May 2021. This bond was issued at 6 basis points over the 5-year U.S. Treasury. The issuance received strong demand from investors in North America, Europe, and Asia, as indicated by an order book that was in excess of US$7 billion. Thanks to strong demand, this global bond issuance priced tighter than any of the 5-year US dollar bonds issued by Canada's peers in recent history.

Table 6

Outstanding Foreign Currency Issues

par value in millions of US dollars

	March 31, 2022	March 31, 2021	Change
Swapped domestic issues	64,754	55,175	9,579
Global bonds	9,500	9,000	500
Canada bills	2,060	3,226	-1,166
Medium-term notes			
Euro medium-term notes	0	0	0
Canada notes	0	50	-50
Total	76,314	67,451	8,863

Note: Liabilities are stated at the exchange rates prevailing on March 31, 2022.

The mix of funding sources used to finance the reserves depends on several considerations, including relative cost, market conditions and the objective of maintaining a prudent foreign-currency-denominated debt maturity structure.

5 Global bonds are syndicated, marketable debt instruments issued in a foreign currency with a fixed interest rate. The majority of global bonds issued by Canada are denominated in US dollars. Global bonds are issued for foreign exchange reserve funding purposes only.

6 Promissory notes denominated in US dollars and issued only in book-entry form. Canada bills mature not more than 270 days from their date of issue, and are discount obligations with a minimum order size of US$1,000,000 and a minimum denomination of US$1,000. Delivery and payment occur in same-day funds through Citibank, N.A. in New York City. Rates on Canada bills are posted daily.

7 Promissory notes usually denominated in US dollars and available in book-entry form. Canada notes are issued in denominations of US$1,000 and integral multiples thereof. Notes can be issued for terms of nine months or longer, and can be issued at a fixed or a floating rate. The interest rate or interest rate formula, issue price, stated maturity, redemption or repayment provisions, and any other terms are established by the Government of Canada at the time of issuance of the notes and are indicated in the Pricing Supplement. Delivery and payment occur through Citibank, N.A. The Government may also sell notes to other dealers or directly to investors. Canada notes are issued for foreign exchange reserve funding purposes only.

8 Medium-term notes issued anywhere outside the United States and Canada. Government of Canada euro medium-term notes (EMTNs) are sold through dealers acting as a Government agent for particular transactions. The arranger for the EMTN program is TD Securities. Notes issued under this program can be denominated in EFA-eligible currencies and structured to meet investor demand. EMTNs are issued for foreign exchange reserve funding purposes only.

International Monetary Fund Programs

The Government of Canada participates in two lending arrangements with the International Monetary Fund (IMF) outside of the quota system that affect Canada's official international reserves: the multilateral New Arrangements to Borrow (NAB) and the temporary bilateral borrowing agreements (BBAs). These serve as second and third lines of defence, respectively, to supplement the IMF's loanable resources in the instance of severe global economic crises.

The NAB is periodically reviewed and renewed by the IMF's Board of Governors. On January 1, 2021, a NAB reform became effective, doubling the NAB credit arrangements and establishing a new NAB period through end-2025. As of March 31, 2022, Canada's NAB commitment is SDR 7,747 million, with SDR 76 million currently drawn (about US$10,710 million and US$105 million respectively).

Canada's participation in the BBAs is governed by the 2020 Note Purchase Agreement, which became effective in January 2021. With the doubling of the NAB, the BBAs were roughly halved, keeping overall borrowed resources broadly unchanged. The new BBA agreement has a term of three years (through end-2023) and is extendable by one year. Canada's bilateral credit line to the IMF is SDR 3,532 million (about US$4,883 million). The BBAs have never been activated by the IMF's Board of Directors, and no draws have been made on Canada's commitment. Amounts advanced under these arrangements are considered part of the official international reserves of Canada.

The Minister of Finance has authority, under subsection 8.1(1.1) of the *Bretton Woods and Related Agreements Act*, to make loans to the IMF of up to SDR 13 billion. The changes in the sizes of the NAB and of the BBAs led to a reduction of Canada's combined NAB and BBA commitments from the 2020 level of SDR 12,074 million to the current total amount of SDR 11,279 million.

As of March 31, 2022, Canada's paid-up quota in the IMF is SDR 11,023 million and SDR holdings amount to SDR 17,348 million (about US$15,239 million and US$23,983 million respectively). Canada's SDR holdings and allocation at the IMF increased by SDR 10.5 billion in August 2021. This one-off increase was based on a decision by the IMF's Board of Governors to approve a general allocation of SDRs equivalent to US$650 billion (about SDR 456 billion) to boost global liquidity[9]. This global increase in SDRs, which are included in Canada's official international reserves, intends to benefit all IMF members, address the long-term global need for reserves, build confidence, and foster resilience and stability of the global economy.

[9] The SDR were allocated pro rata in relation to the country's IMF quota.

Annex 1: Statement of Investment Policy for the Government of Canada (August 2018)

1. Purpose of Policy

The *Statement of Investment Policy for the Government of Canada (*SIP*)* sets out the policy governing the acquisition, management, and divestiture of assets held in the Exchange Fund Account (EFA). The Minister of Finance establishes the SIP under the *Currency Act*.

2. Purposes of Exchange Fund Account

The EFA is the principal repository of Canada's official international reserves. As stated in the *Currency Act,* the purposes of the EFA are to aid in the control and protection of the external value of the Canadian dollar and provide a source of liquidity to the Government. Assets held in the EFA shall be managed to provide liquidity to the Government and to promote orderly conditions for the Canadian dollar in the foreign exchange markets, if required. The liquid foreign currency assets held in the EFA also form a key component of the Government of Canada's prudential liquidity, which is available to meet financial requirements in situations where normal access to funding markets may be disrupted or delayed.

The EFA also facilitates Government of Canada transactions with the International Monetary Fund (IMF) under the IMF Articles of Agreement. These transactions include the provision of freely usable currencies to the IMF, through the purchase and sale of special drawing rights, as well as various transactions relating to Canada's reserve position in the IMF (which does not form part of the EFA).

3. Governance

Part II of the *Currency Act* governs the management of the EFA and allows the Minister of Finance to establish an investment policy for EFA assets. The Minister of Finance may delegate the responsibility for the implementation of the approved policy to officials of the Department of Finance Canada.

The *Bank of Canada Act* provides statutory authority for the Bank of Canada to act as the Government's fiscal agent in the management of the Government of Canada's EFA.

Within the Minister of Finance's delegated authorities, the Funds Management Committee (FMC), composed of senior officials from the Department of Finance Canada and the Bank of Canada (together, "EFA officials"), prepares recommendations for the Minister of Finance and oversees the management of the EFA.

The FMC is supported by a Foreign Reserves Committee (FRC) and a Risk Committee (RC). The FRC oversees the funding of and investment of the foreign reserves and provides strategic and policy advice to the FMC related to the management of foreign reserves. The RC is an advisory body to the FMC that reviews and reports on risk exposures, highlights strategic risk issues the FMC should be aware of and identifies measures to mitigate these risks, and advises on broad risk considerations relevant to funds management activities.

Further information regarding oversight and governance is available within the *Funds Management Governance Framework*.

4. Alignment of EFA Activities with Government of Canada Policy Priorities

4.1 Guiding Principles

The SIP is based on principles that a person of ordinary prudence would apply in dealing with the property of others. The EFA shall be managed according to the fundamental principles of fiscal prudence, transparency and accountability, risk management, effectiveness and efficiency, and financial stability in order to protect the interests of Canadians.

4.2 Fiscal Prudence

The EFA is an account that forms part of the Government of Canada's balance sheet. Recognizing the importance of fiscal prudence and sustainability in public finances, the EFA shall be managed in a cost effective manner under an asset-liability matching framework, whereby the market value of assets and liabilities are matched to the extent possible by currency, term and/or duration, to mitigate the potentially negative impacts of movements in interest rates and foreign exchange rates on the Government's fiscal position. Credit risks associated with assets and liabilities are not offset under this framework and are therefore addressed by other means (see the appendix).

4.3 Promoting Financial Stability

Canada's international commitments and global regulatory initiatives to support financial stability will be taken into account in conducting EFA activity.

5. Investment Objectives

Consistent with the purpose of the EFA as defined in section 2, maintaining liquidity and preserving capital are the primary objectives for managing the EFA. Accordingly, the EFA shall hold assets that can be sold or otherwise deployed on very short notice with minimal market impact and loss of value in order to maintain a high standard of liquidity. The EFA shall hold a diversified portfolio of fixed-income assets of high credit quality, and follow leading risk management practices in order to meet the objective of preserving capital value. The EFA shall be managed to maximize return on investments once the objectives of liquidity and capital preservation are clearly met.

6. Investment Process

The EFA shall be governed by a framework that includes a formalized, top-down investment management style that provides clarity on roles, decision-making authority, and accountability to facilitate the achievement of the EFA's objectives. The Minister of Finance shall establish the risk tolerances of the portfolio through approvals of the Strategic Portfolio Parameters. The FMC shall establish the risk preferences of the portfolio through approval of the Strategic Asset Allocation. The FRC shall establish a benchmark that details asset allocations to individual counterparties deemed eligible for investment.

6.1 Strategic Portfolio Parameters

Strategic Portfolio Parameters for the EFA shall include, but are not limited to, the level of reserves, criteria for currency and asset class eligibility based on liquidity and capital preservation considerations, and portfolio risk limits. The Strategic Portfolio Parameters are included in the appendix. The Minister of Finance may except the liquid assets held in the EFA from the application of some or all the Strategic Portfolio Parameters where any of these assets are: (i) sold to provide foreign currency liquidity to the Government; (ii) sold to promote orderly conditions for the Canadian dollar in the foreign exchange markets; or (iii) sold in other similar circumstances.

6.2 Strategic Asset Allocation

The Strategic Asset Allocation shall direct the asset allocation of the portfolio in a manner that is consistent with meeting the EFA's objectives. The Strategic Asset Allocation shall provide a framework to inform the investment decision-making process and to measure progress toward achieving the EFA's objectives of maintaining liquidity and preserving capital.

6.3 Investment Benchmark

The Investment Benchmark shall be established by the FRC. It will specify investment exposures to eligible counterparties while adhering to the Strategic Portfolio Parameters (6.1) and in a manner consistent with achieving the Strategic Asset Allocation (6.2).

7. Securities Lending and Use of Derivatives

In order to meet the objectives of the EFA, officials may acquire or borrow assets, sell or lend those assets, and undertake related activities for the purposes of executing those transactions. Short sales are prohibited.

EFA officials shall only use derivatives and undertake related activities in a manner that is consistent with the objectives of the EFA of preserving capital value, maintaining a high standard of liquidity and, subject to these, optimizing returns.

8. Performance Assessment and Risk Management Reporting

EFA officials shall be responsible for measuring and monitoring the performance and risk exposures of the EFA and tracking these positions against the Strategic Asset Allocation and other appropriate indices, and providing regular reports to senior officials and the Minister of Finance.

Performance and risk measures shall be consistent with leading practices and provide timely and accurate information on the returns on EFA assets, the cost of associated liabilities and the relevant financial risks. An explanation of these measures can be found in the *Government of Canada Treasury Risk Management Framework*.

8.1 Public Reporting

The *Currency Act* requires annual reporting to Parliament on whether the objectives of the EFA have been met. This is accomplished through the annual reporting of the EFA's performance in the *Report on the Management of Canada's Official International Reserves.* In addition, the Minister of Finance provides monthly updates on the performance of the EFA, in accordance with the IMF's General Data Dissemination System standards.

The *Financial Administration Act* requires annual reporting to Parliament on the funding associated with the investments.

8.2 Commercial Confidentiality

Notwithstanding the requirement to provide timely and comprehensive information on the EFA to Canadians, the names of individual counterparties or the securities held in the EFA shall not be disclosed for reasons of financial stability and commercial confidentiality.

9. Review

The SIP shall be reviewed regularly. Until the Minister of Finance otherwise amends and approves the SIP and the governance and risk management frameworks, they shall remain in effect.

Appendix: Strategic Portfolio Parameters (August 2018)

The following Strategic Portfolio Parameters have been established to ensure that the liquid assets held in the EFA meet the primary objectives of maintaining liquidity and preserving capital. The parameters define eligible investments for the EFA and specify limits to protect the liquidity and capital value of EFA investments.

Liquidity Risk Tolerances

Liquidity risk tolerances have been established to ensure that a suitable level of EFA investments that can be readily sold during volatile market conditions is available to the Government at all times in the event that regular channels of financing are temporarily unavailable.

1. Level of Liquid Foreign Reserves

Liquid foreign reserves are held to safeguard Canada's ability to meet payment obligations in situations where normal access to funding markets may be disrupted or delayed and to support investor confidence in securities issued by the Government of Canada.

- The level for the total market value of all foreign currency-denominated investments must be maintained at or above 3 per cent of Canada's annual nominal gross domestic product.
- The composition of liquid assets shall adhere to the requirements detailed in the Government's Prudential Liquidity Plan and foreign exchange intervention framework.

2. US Dollar Holdings

Currency interventions to support orderly conditions for the Canadian dollar in the foreign exchange markets are likely to involve sales of US dollars to purchase Canadian dollars, highlighting the importance of owning the most liquid US dollar-denominated assets. Thus, at least 50 per cent of liquid foreign reserves,[10] measured on a market-value basis, must be denominated in US dollars.

As a contingency against a short-term interruption of domestic funding markets, at least 6 per cent of liquid foreign reserves on a market-value basis shall comprise U.S. Treasury bills and US dollar cash.

[10] Liquid foreign reserves comprise foreign currency securities, and deposits. Special drawing rights, which are international reserve assets created by the International Monetary Fund, are excluded in the definition of liquid foreign reserves, although they form part of the EFA.

3. Eligible Assets

Liquid foreign reserves shall be readily available to be sold or otherwise deployed with limited price impact to meet the Government's foreign currency requirements.

- Eligible assets include fixed-income securities issued by sovereigns (including central banks and government-related entities), sovereign-supported issuers, sub-sovereign entities,[11] and supranational institutions.
- Eligible assets also include deposits with commercial banks, central banks and the Bank for International Settlements, repurchase agreements, commercial paper and certificates of deposit issued by private sector entities, gold and International Monetary Fund (IMF) special drawing rights. Bonds with embedded options and holdings of securities issued by and deposits with Canadian-domiciled entities (or entities that derive a majority of their revenues from their Canadian operations) are not permitted.
- All other classes of assets not listed in this appendix are prohibited.

4. Exposure to Issuers

Three categories of asset issuers have been defined for the EFA:

i. **Reference Issuers:** These are government issuers of securities that are deemed by Canada to have reserve currency status and are actively traded, including cash.
   - The minimum exposure to this category is 35 per cent of liquid foreign reserves on a market-value basis.

ii. **High Credit Quality Issuers:** These issuers are deemed by Canada to be of very high credit quality.

iii. **Other Issuers:** These issuers are high credit quality sovereigns and other entities that meet Canada's liquidity and capital preservation requirements.

Capital Preservation Risk Tolerances

Capital preservation risk tolerances have been established to ensure that the market value of EFA assets will be relatively well preserved during times of market stress.

1. Maximum Term to Maturity

The term to maturity of individual assets is an important consideration since the value of longer-term fixed-income securities is generally more sensitive than the value of shorter-term fixed-income securities to movements in interest rates. In addition, in many instances longer-term securities are less liquid than shorter-term securities of the same issuer denominated in the same currency. Limiting the maximum term to maturity of assets aids in preserving the liquidity and capital value of assets that can be sold or otherwise deployed.

- The maximum term to maturity of individual assets held in the EFA is 10.5 years.

2. Other Eligible Currencies

To meet liquidity requirements and mitigate currency concentration risk, assets held as part of the liquid foreign reserves can be denominated in currencies other than US dollars, whose reference issuers satisfy the established liquidity and capital preservation constraints.

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[11] Sub-sovereigns are defined as levels of government within a sovereign territory, and hierarchically below the sovereign. For example, this could include, but is not limited to, states, provinces or municipalities within a sovereign.

- Other eligible currencies include euros, British pounds and Japanese yen. In order to meet the Government's international commitments, assets can also be denominated in IMF special drawing rights.

3. Minimum Credit Rating for Issuers of Eligible Assets and Counterparties

In order to mitigate the negative impact of potential credit events on the Government's financial risk exposure related to the EFA, issuers of eligible assets and counterparties must be of acceptable credit quality, a determination that is informed by external credit ratings and internal credit analysis.

- Issuers must be deemed by Canada to have a credit rating of "A-" or higher.
- Counterparties for deposits, certificates of deposit, commercial paper and repurchase agreements must be deemed by Canada to have a credit rating of "A-" or higher.
- Counterparties for swaps and delivery-versus-payment transactions must be deemed by Canada to have a credit rating of "BBB" or higher.
- Reference issuers of securities that are deemed to have reserve currency status and are actively traded are exempt from the minimum credit rating requirement, since they are deemed to be the primary issuer of eligible securities in their local currency.
- The only allowable unrated investments are the following:
    1. securities issued by, and deposits with, central banks where the sovereign's credit quality is acceptable; and
    2. special drawing rights created by the International Monetary Fund.

4. Credit and Market Risk

The market value of liquid foreign reserve assets can be preserved by managing credit and market risks. An asset-liability matching framework, whereby the market value of assets and liabilities are matched by currency, term, and/or duration, is used to manage adverse impacts of changes in interest and foreign exchange rates on the Government's fiscal balance. Metrics such as Value at Risk, which measure the maximum potential loss the portfolio could suffer over a given period at a given confidence level, shall be monitored by senior officials to ensure the potential negative impacts of credit and market risk are managed within acceptable levels.

Annex 2: Overview of the Exchange Fund Account Management Framework

Objectives

The objectives of foreign reserves management are to provide foreign currency liquidity to the Government, support intervention to aid in the control and protection of the external value of the Canadian dollar and promote orderly conditions for the dollar in the foreign exchange markets, if required. The liquid foreign currency assets held in the Exchange Fund Account (EFA) also form a key component of the Government of Canada's prudential liquidity, which is available to meet financial requirements in situations where normal access to funding markets may be disrupted or delayed.

The EFA, which represents the largest component of the foreign reserves, is an actively managed portfolio of liquid foreign currency securities and deposits. The key strategic objectives of the EFA are to maintain a high standard of liquidity, preserve capital value and optimize return subject to the liquidity and capital preservation objectives.

Principles

In pursuit of these objectives, the Government of Canada manages its foreign exchange reserves according to the following principles:

- **Effectiveness and efficiency:** Policy development and operations shall take into account, to the extent possible, leading practices of other comparable sovereigns. Regular evaluations shall be conducted to ensure the effectiveness and efficiency of the governance framework and borrowing and investing programs.
- **Transparency and accountability:** Information on investment and funding plans, activities and outcomes shall be made publicly available in a timely manner. Borrowing costs, investment performance and material exposures to financial risk shall be measured, monitored, controlled and regularly reported, as applicable.
- **Risk management:** Risk monitoring and oversight shall be independent of financial asset and liability management operations.
- **Fiscal prudence:** The EFA is an account that forms part of the Government of Canada's balance sheet. Recognizing the importance of fiscal prudence and sustainability in public finances, the EFA shall be funded in a cost effective manner through a funding framework that mitigates the potentially negative impacts of movements in interest rates and foreign exchange rates on the Government's fiscal position by matching the funding with the currency, term and/or duration of the reserve assets. Credit risks associated with assets and liabilities are not offset under this framework and shall be addressed by other means.
- **Financial stability:** The EFA is an account that supports Canada's preparedness for financial contingencies. As a result, the management of the EFA shall take into account Canada's international commitments and global regulatory initiatives to support financial stability.

For a complete description of the governance framework for managing the Government of Canada's financial assets and liabilities, see https://www.canada.ca/en/department-finance/programs/frameworks/funds-management-governance-framework/framework.html.

Annex 3: Changes in the Level of the Official International Reserves

The level of the official international liquid reserves changes over time due to a variety of factors. As shown in Table A3.1, over the 12-month reporting period the level of reserves increased by US$20,390 million. The increase was due to reserves management operations (US$11,316 million), and other transactions (US$15,049 million from an increase in SDR holdings in August 2021), which was offset by return on investments (-US$2,905 million), foreign currency debt charges (-US$765 million), net government operations (-US$138 million), and revaluation effects (-US$2,167 million).

Table A3.1

Sources of Change in Canada's Official International Reserves Between March 31, 2021 and March 31, 2022

market value in millions of US dollars

	Change
Official intervention	–
Net government operations	-138
Reserves management operations	11,316
Return on investments	-2,905
Foreign currency debt charges	-765
Revaluation effects	-2,167
Other transactions (mostly SDR allocation)	15,049
Total change	20,390

Official Intervention

Official intervention involves buying or selling foreign currencies in exchange for Canadian dollars, and would therefore affect the level of the official international reserves. Intervention in the foreign exchange markets for the Canadian dollar might be considered if there were signs of a serious near-term market breakdown (e.g., extreme price volatility with buyers and/or sellers increasingly unwilling to transact), indicating a severe lack of liquidity in the Canadian-dollar market. It might also be considered if extreme currency movements seriously threatened the conditions that support sustainable long-term growth of the Canadian economy. The goal would be to help stabilize the currency and to signal a commitment to back up the intervention with further policy actions, as necessary.

Since September 1998, the Bank of Canada has not undertaken any foreign exchange market intervention in the form of either purchases or sales of US dollars versus the Canadian dollar.[12,13]

[12] In March 2011, the Bank of Canada, acting as Canada's fiscal agent, joined central banks in the United States, Europe and Japan in a concerted intervention to stabilize the Japanese currency by selling yen in an amount equivalent to US$124 million (C$120 million).

[13] Official intervention is separate from net purchases of foreign currency for government foreign exchange requirements and for additions to reserves.

Net Government Operations

During 2021-22, the Government sold liquid reserve assets with a market value of -US$138 million to address a mismatch in the market value of the asset and liability portfolios. These sales are in accordance with the principles of managing the liquid foreign reserves portfolio under an asset-liability matching framework.

Reserves Management Operations

The purchase and sale of foreign currency assets along with the issuance and maturity of debt used to fund those assets totalled US$11,316 million.

Over the reporting period, funds raised through the issuance of bonds, foreign exchange (FX) swaps, cross-currency swaps, medium-term notes and Canada bills, totaling US$44.3 billion, were higher than debt maturities totaling US$33.0 billion (including Canada bill maturities of US$22.8 billion, cross-currency swap maturities of US$7.1 billion and medium-term note maturities of US$0.05 billion).

Return on Investments

Return on investments comprises interest earned on investments (US$709 million) and a decrease in the market value of securities resulting from changes in interest rates (-US$3,614 million). The overall effect on the official international reserves was a net decrease of -US$2,905million.

Revaluation Effects

Revaluation effects resulting from movements in exchange rates reflect changes in the market value of the official international reserves. Revaluation effects led to a decrease in the market value of the official international reserves of -US$2,167 million, primarily due to the depreciation of the euro, pound sterling, and yen relative to the US dollar during the reporting period.

International Monetary Fund Reserve Position

Each member country of the International Monetary Fund (IMF) is assigned a quota that represents the maximum amount of resources that it is obliged to provide to the IMF, upon request. As well, the IMF typically has on deposit with each government holdings in the form of non-interest-bearing notes and non-interest-bearing accounts. Canada’s reserve position at the IMF represents the difference between Canada’s quota and the IMF’s holdings of Canadian dollars, which is equivalent to the cumulative amount of all the money that Canada has advanced to the IMF over the years.

Canada’s reserve position at the IMF is an asset that is included as a component of the official international reserves but is not held in the EFA. As such, changes in Canada’s reserve position that may result from advances, repayments or revaluations directly impact the Government of Canada’s consolidated financial statements. During 2021–22 the reserve position increased over the previous fiscal year.

More detailed information on monthly levels and changes in Canada's official international reserves is provided in Table A3.2.

Table A3.2

Canada's Official International Reserves

Month-to-Month Changes

market value in millions of US dollars

Month-end	Securities	Deposits	Special drawing rights[1]	Reserve position in the IMF[2]	Total	Total monthly change
2021						
March	68,407	1,846	8,625	4,497	83,375	-2,950
2021-22						
April	68,289	2,720	8,739	4,489	84,237	862
May	73,737	2,312	8,774	4,382	89,205	4,968
June	71,597	4,341	8,670	4,445	89,053	-152
July	70,261	6,752	8,685	4,501	90,199	1,146
August	70,240	7,721	24,091	4,487	106,539	16,340
September	71,671	6,264	23,910	4,425	106,270	-269
October	72,160	3,312	24,267	4,430	104,169	-2,101
November	72,829	2,307	24,018	4,473	103,627	-542
December	71,818	6,331	23,997	4,469	106,615	2,988
January	73,241	2,854	23,863	4,444	104,402	-2,213
February	72,263	2,256	23,916	4,454	102,889	-1,513
March	71,104	4,283	23,983	4,394	103,764	875
Total	n/a	n/a	n/a	n/a	n/a	20,389

Note: Numbers are from the *Official International Reserves* press release.

1 SDR-denominated assets are valued in US dollars at the SDR rate established by the IMF. A rise in the SDR in terms of the US dollar generates an increase in the US dollar value of Canada's holdings of SDR-denominated assets.

2 The reserve position in the IMF represents the amount of foreign exchange that Canada is entitled to draw from the IMF on demand for balance of payments purposes. It equals the Canadian quota, less IMF holdings of Canadian dollars, plus loans to the IMF.

Annex 4: Detailed Portfolio Return and Performance

Unless otherwise noted, in this report, the official international reserves are reported in US dollars on a market-value settled basis. This annex provides detailed technical information on indicators used to measure the portfolio's performance in four areas: 1) revenues; 2) net return on assets; 3) cost of advances to the EFA; and, 4) market and credit risk measures.

1) Revenues

Revenues include income from investments and foreign exchange gains. Data are reported in Canadian dollars, as EFA revenues are reported in Canadian dollars in the attached financial statements. In 2021-22 income totaled C$709 million compared to C$2,541 million in 2020-21. The main categories of income are summarized in Table A4.1.

Table A4.1
Revenues of the Exchange Fund Account
millions of Canadian dollars

	April 1, 2021 to March 31, 2022	April 1, 2020 to March 31, 2021
Net revenue from investments		
Marketable securities	860	2,168
Cash and cash equivalents	3	0
Special drawing rights	20	8
Total net revenue from investments	883	2,176
Other income		
Net foreign exchange gain/loss	(174)	365
Net revenue	709	2,541

2) Total Net Return on Assets

The net return on assets of the EFA is reported using a measure called "total return". It represents the net return generated by the EFA by including the changes in the market values of the assets and liabilities over the reporting period. By including the market or fair values of the EFA's assets and corresponding liabilities, the total return measure includes unrealized gains or losses, which is the difference between what an asset (or liability) is worth compared to what it cost.

Total Return on a Market-Value Basis

The total return measure is used in several different ways. It is used to compare the performance of the EFA's assets to its liabilities in order to depict the net return of the portfolio on a market-value basis. It is also used to decompose the EFA into the key sources of return. This is done by decomposing the total return measures for both the assets and liabilities through a technique called "performance attribution". Performance attribution allows management to discern what aspects of total return resulted from controllable influences as compared to those sources that are market-driven. As well, the attribution analysis provides an indication as to how well objectives of the asset-liability management framework of the EFA are being met. Table A4.2 provides an estimate of the total return on a market-value basis for the EFA as a whole and its key portfolios compared to the corresponding liabilities.

The total return of the asset benchmark is also included (-5.38 per cent versus -5.36 per cent for the EFA asset portfolio). The total net return was 75 basis points, or a gain of US$565 million, in the fiscal year ending March 31, 2022, compared to a total net return 32 basis points, or a gain of US$225 million, in the fiscal year ending March 31, 2021. For 2021-22, the total net return reflects net returns in US dollar terms of 62 basis points for the US dollar portfolio, 93 basis points for the euro portfolio, 137 basis points for the British pound portfolio and 44 basis points for the yen portfolio. The total net return was primarily driven by the difference in the credit spreads on the assets versus changes in funding spreads of the liabilities in the euro, British pound, and yen portfolio. The net coupon effect was also a driver of returns in the yen portfolio. The total return numbers include interest flows as well as all gains or losses earned over the period, regardless of whether they were realized or not.

Table A4.2

Total Return of the EFA Compared to Liability Benchmarks

	April 1, 2021 to March 31, 2022						April 1, 2020 to March 31, 2021
	US$ portfolio	Euro portfolio	GBP portfolio	Yen portfolio	Total EFA	Total benchmark	Total EFA
EFA asset portfolio							
Return in original currency	-3.23%	-6.19%	-3.67%	-0.38%	n/a	n/a	n/a
Return in US$ (A)	-3.23%	-11.87%	-8.54%	-9.48%	-5.36%	-5.38%	0.88%
Liability benchmarks							
Return in original currency	-3.85%	-7.18%	-5.11%	-0.86%	n/a		n/a
Return in US$ (B)	-3.85%	-12.80%	-9.91%	-9.92%	-6.11%		0.56%
Return vs. liability benchmark in basis points (A – B) in US$	62	93	137	44	75	73	32

Performance Attribution of Total Return

Table A4.3 summarizes the attribution results for the EFA's US dollar and euro portfolios for the fiscal year ending March 31, 2022. Total return is decomposed into three underlying return factors: coupon and amortization, changes in credit spreads, changes in interest rates and convexity.

For 2021-22, the attribution results indicate that the negative returns are mainly attributed to the yield curve effect over the past fiscal year. This was driven by an increase in bond yields (and so a reduction in asset prices) as interest rates increased later in the period. The yield curve effect (the impact of changes in the general level of interest rates) demonstrates the extent to which the EFA's assets and liabilities are matched in terms of their sensitivity to changes in interest rates. The small difference for the US dollar and euro portfolios demonstrates the benefit of the asset-liability management framework of the EFA over the reporting period.

The coupon effect (the difference between the yield to maturity of reserve assets and liabilities issued to fund the assets) contributed positively to return on both the US dollar and euro portfolios. The coupon return generally represents the underlying return of the portfolio if matched assets and liabilities are held to maturity.

The credit spread effect (the difference between the change in the market value of EFA assets and the foreign liabilities due to changes in the credit quality of EFA issuers and Canada) was the main driver of returns in the EFA's portfolio. The credit spread effect diverged on assets and liabilities, contributing positive returns to asset portfolios and negative returns to liability portfolios. Due to the strong dollar performance against other currencies, the negative exchange rate effect deteriorated the return on the EUR portfolio. The credit spread effect is transitory to the extent that assets are held to maturity.

Table A4.3
Performance Attribution for the US Dollar and Euro Portfolios Compared to Liability Benchmarks
April 1, 2021 to March 31, 2022
per cent

	US$ portfolio			**Euro portfolio**		
	Assets	**Liabilities**	**Difference**	**Assets**	**Liabilities**	**Difference**
Coupon return	0.91	0.80	0.11	-0.08	-0.38	0.30
Yield curve effect	-4.25	-4.20	-0.05	-6.38	-6.32	-0.06
Credit spread effect	0.07	-0.32	0.39	0.29	-0.51	0.80
Residual return	0.05	0.10	0.15	-0.02	0.02	-0.04
Return in original currency	-3.23	-3.85	0.62	-6.19	-7.18	0.99
Exchange rate effect				-5.68	-5.62	-0.06
Total return in US$	-3.23	-3.85	0.62	-11.87	-12.80	0.93

Note: Numbers may not add due to rounding.

3) Notional Cost of Advances to the EFA

From the Consolidated Revenue Fund

The cost of advances represents an estimate of the cost of maintaining the EFA by adding the cost of foreign debt payments (including the interest on cross-currency swaps) to the notional amount of foreign interest that would be paid on non-interest-bearing items or items funded in Canadian dollars. For 2021-22, the cost of advances to the EFA was C$1,178 million. EFA advances represent funds (liabilities) from the Consolidated Revenue Fund (CRF) in support of maintaining the EFA. The EFA is a stand-alone account of assets while foreign liabilities are recorded in the Department of Finance account.

Actual foreign interest charges: The proceeds from foreign currency borrowings are remitted to the CRF and concurrently advanced to the EFA. Foreign debt interest and principal repayments are charged to the CRF but are paid using the foreign assets of the EFA, reducing the amount advanced to the EFA. Actual foreign interest paid is converted into Canadian currency for the purpose of determining this portion of the notional cost of advances; for 2021-22 this value was C$934 million.

Notional interest charged in Canadian dollars: Because domestically funded EFA assets, SDR advances and the portion of net revenues reinvested in the EFA (i.e., cumulative net revenues of the EFA less cumulative foreign debt interest payments) are not linked to foreign liabilities, an imputed interest cost is used to approximate the notional interest charge on the portion of advances from the CRF related to those assets. For 2020-21, a weighted cost of domestic and foreign funding (1.372 per cent, up from 1.346 in 2020-21) was used in calculating notional interest paid in Canadian dollars, resulting in a value of C$244 million.

4) Risk Measures

The risk management framework covers market, credit, liquidity, legal and operational risks related to the financing and investment of the foreign reserves. Risk measures are reported on a monthly basis to management at the Department of Finance Canada and the Bank of Canada.

Market Risk

Market risk stems from changes in interest rates, credit spreads and exchange rates. Several industry-standard measures of market risk exposure are employed: scenario analysis, stress testing and Value at Risk (VaR) (Table A4.4). Stress testing and scenario analysis are used to evaluate the portfolio’s performance under extraordinary circumstances in the market. VaR is a statistical measure for estimating potential losses to the EFA portfolio arising from extreme but plausible market movements such as changes in interest and exchange rates.

Stress tests are regularly carried out to gauge the sensitivity of the EFA portfolio to large changes in exchange rates and interest rates, including the portfolio impact of a 1 per cent depreciation of the euro, British pound, and yen vis-à-vis the US dollar and a 3 per cent increase in interest rates across the yield curve. In addition, a stress test of cross-currency basis rates is performed. The results showed that, during the reporting period, the EFA assets and the associated liabilities (on a net basis) had very minimal exposure to currency depreciations and upward shifts in the yield curve.

In addition, some hypothetical scenario analyses that mimic market conditions during four previous extraordinary market events were regularly conducted: the 2008 financial crisis, the 2010 European debt crisis, the 2011 Japan earthquake and Brexit in 2016. The scenario analyses showed that the EFA would generally perform well during such periods of market turbulence.

Total Market VaR is a statistical measure that estimates the possible loss in portfolio value within a specific time period as a result of interest rate, foreign exchange rate and credit spread changes. This is regularly reported for the entire EFA portfolio and on the net position of assets and liabilities. As of March 31, 2022, the EFA had a 99-per-cent 10-day Total Market VaR of US$312 million, which implied that 99 per cent of the time, the value of the portfolio was not expected to decline by more than US$312 million, on a net basis, over a 10-trading-day period. The asset-only VaR measure estimates the possible loss in the value of EFA assets within a 10-day period during normal market conditions as a result of interest rate, exchange rate and credit spread changes. As of March 31, 2022, the Asset VaR was US$1,395 million.

Table A4.4

Market Risk Measures

millions of US dollars

	March 31, 2022		March 31, 2021	
	Assets only	Assets vs. liabilities (net)	Assets only	Assets vs. liabilities (net)
Single factor stress tests				
1% depreciation of euro, GBP and yen	-221	-4	-255	-3
3% upward parallel shift in yield curve	-9,904	54	-7,834	48
Cross-currency basis shock	0	-407	0	-597
Scenario analyses				
2008 financial crisis	1,753	-809	1,028	1,970
2010 European debt crisis	-3,540	298	-3,577	94
2011 Japan earthquake	145	-76	133	-57
2016 Brexit	217	-42	75	-387
99% 10-day Total Market VaR		312		1,351
99% 10-day Asset VaR	1,395		3,083	

Credit Risk

Credit risk includes the risk that a counterparty or issuer will be unable or unwilling to meet their obligations to pay as well as the risk that the value of an instrument will change as a result of actual or perceived changes in the credit quality of a counterparty or issuer.

A collateral management framework is used for managing the credit risk to financial institution counterparties arising from the cross-currency swaps used to fund the EFA. Under this framework, Initial Margin, composed of high quality collateral, is pledged by the swap counterparties for the EFA at the initiation of the swap. In addition, Variation Margin is received or paid based on whether the market value of the swaps with each counterparty is positive or negative to the Government of Canada. The Government relies on a collateral manager and the Bank of Canada for the daily management of Initial and Variation Margin.

The Credit VaR model was used to measure the exposure of EFA assets to credit risk during the reporting period (Table A4.5). However, the Credit VaR estimate does not capture the entire set of market risk effect of cross-currency funding and therefore does not reflect the total risk of the EFA.

Table A4.5
Credit Risk Measures
millions of US dollars

	March 31, 2022
Credit VaR and expected shortfall	
99.9% 1-year Credit VaR	2,191
Expected shortfall	7,498

The Credit VaR model provides an estimate of the maximum potential loss in portfolio value within a year as a result of a credit event, such as the downgrade or default of counterparties or issuers, under normal market conditions. As of March 31, 2022, the EFA had a 99.9-per-cent 1-year Credit VaR of US$2,191 million, which implied that 99.9 per cent of the time, the value of the portfolio was not expected to decline by more than US$2.2 billion over a 1-year period due to credit events (down from US$2.5 billion the year prior).

An associated measure, expected shortfall, computes the expected average loss in portfolio value during a 1-year period due to an extreme, unexpected credit event, whose possibility of happening (less than 0.1 per cent) was not captured by the Credit VaR statistic. The expected shortfall measure for the EFA was US$7.5 billion as of March 31, 2022.

Annex 5: List of Agents and Mandataries as Defined by the *Currency Act*

The *Currency Act* stipulates that this report include a list of the following agents and mandataries appointed by the Minister under subsection 17.2(3) of the Act to perform services concerning the EFA.

Bank of Canada

The Bank of Canada, as specified under the *Bank of Canada Act*, is the fiscal agent for the Government of Canada. As part of its fiscal agency responsibilities, the Bank manages the Government's foreign exchange reserves.

RBC Investor Services Trust and State Street Corporation

RBC Investor Services Trust and State Street Corporation manage the securities-lending program for the EFA. As the Government's agents and mandataries, they carry out securities lending on behalf of the Government. The program involves loaning a security from the Government to a counterparty, who must eventually return the same security, in order to earn additional return on the portfolio.

State Street Trust Company Canada, together with State Street Bank and Trust Company

State Street Trust Company Canada, together with State Street Bank and Trust Company, is responsible for managing the collateral pledged in connection with foreign exchange swaps and cross-currency swaps.

Unaudited Statement of Financial Position and Statement of Operations of the Exchange Fund Account

Year ended March 31, 2022

Statement of Financial Position (unaudited) as at March 31
(in millions of Canadian dollars)

	2022	2021
Financial Assets		
Cash and cash equivalents (Note 3)	5,355	2,320
Investments (Note 3)		
Marketable securities	91,752	84,429
Special drawing rights	29,992	10,840
Total investments	121,744	95,269
Total financial assets	127,099	97,589
Liabilities		
Due to the Consolidated Revenue Fund (Note 4)	127,099	97,589

The accompanying notes are an integral part of these financial statements.

Michael Sabia
Deputy Minister
Department of Finance

Christopher Veilleux
Chief Financial Officer
Department of Finance

Statement of Operations (unaudited) for the year ended March 31
(in millions of Canadian dollars)

	2022	2021
Net revenue from investments		
Marketable securities		
Interest	851	1,011
Net gains on sale of marketable securities	11	1,159
Transaction costs and other	(2)	(2)
Interest on cash and cash equivalents	3	-
Interest on special drawing rights	20	8
Total net revenue from investments	883	2,176
Other		
Net foreign exchange gain (loss)	(174)	365
Net revenue for the year	709	2,541

The accompanying notes are an integral part of these financial statements.

Notes to the Statement of Financial Position and Statement of Operations for the Year Ended March 31, 2022 *(unaudited)*

1. Authority and Objectives

The Exchange Fund Account (the Account) is governed by Part II of the *Currency Act*. The Account is in the name of the Minister of Finance and is administered by the Bank of Canada (the Bank) as fiscal agent. The *Financial Administration Act* does not apply to the Account.

The legislative purposes of the Account, as specified in the *Currency Act*, are to aid in the control and protection of the external value of the Canadian dollar and to provide a source of liquidity for the Government of Canada (the Government), if required. Under the *Currency Act*, the Minister of Finance has the authority to acquire, borrow, sell or lend assets held in the Account deemed appropriate for these purposes, in accordance with the *Statement of Investment Policy for the Government of Canada*.

Assets held in the Account are managed to provide liquidity to the Government and to promote orderly conditions for the Canadian dollar in foreign exchange markets, if required. Canada's current policy is to intervene in foreign exchange markets on a discretionary, rather than a systematic, basis and only in the most exceptional of circumstances. Since September 1998, no transactions have been aimed at moderating movements in the value of the Canadian dollar.

In accordance with the *Currency Act*, within three months after the end of the fiscal year the net revenue for the year is paid to the Consolidated Revenue Fund (CRF) of the Government if the amount is positive, or charged to the CRF if the amount is negative. The Minister of Finance reports to Parliament on the operations of the Account within the first 60 days in which Parliament is sitting after the end of the fiscal year. These statements have been prepared by the Department of Finance.

2. Significant accounting policies

As stipulated in the *Currency Act*, the financial statements of the Account are prepared in a manner consistent with the accounting policies used by the Government to prepare its financial statements.

a) Revenue recognition

Revenue from investments is recognized on an accrual basis and includes interest earned (including the amortization of premiums and discounts), gains or losses on sales of securities, and revenues from securities-lending activities. Interest is accrued on short-term deposits, deposits held under repurchase agreements, marketable securities, and special drawing rights (SDRs).

b) Expense recognition

The Account’s administrative, custodial, and fiscal agency services are provided and paid for by the Bank and the Department of Finance. These costs have not been recognized in the Statements.

In addition, the notional cost of the funding of the Account’s assets and advances from the CRF is not recognized in these statements.

c) Financial assets

Cash and cash equivalents

Cash and cash equivalents consists of cash on hand and short-term deposits. Short-term deposits are measured at cost and are generally held to maturity. The resulting revenue is included in Interest on cash and cash equivalents in the Statement of Operations.

Deposits held under repurchase agreements

Deposits held under repurchase agreements are measured at cost. The resulting revenue is included in Net revenue from investments in the Statement of Operations. As at March 31, 2022, the Account did not hold any deposits held under repurchase agreements ($nil at March 31, 2021).

Marketable securities

Marketable securities are mainly comprised of sovereign, sovereign-linked and supranational issued securities, including, but not limited to treasury bills and nominal bonds. Purchases and sales of securities are recognized at the settlement dates. Marketable securities are measured at cost and are adjusted for the amortization of purchase discounts and premiums on a straight-line basis over the term to maturity of the security. The carrying amount of marketable securities includes accrued interest.

On derecognition of a security, the difference between the asset’s carrying amount and the sum of the consideration received and receivable is recognized in Net revenue from investments in the Statement of Operations.

Impairment

The Bank assesses at the end of each reporting period whether there has been a loss in the carrying value of short-term deposits, deposits held under repurchase agreements, and marketable securities. When conditions indicate that the decline in value is other-than temporary, these assets are re-measured at their recoverable amount with the amount of the impairment loss recognized in Net revenue from investments in the Statement of Operations.

Securities-lending program

Under the securities-lending program, the Account has agency agreements with two major financial institutions. Loans of securities are effected on behalf of the Account by these agents, who guarantee the loans and obtain collateral of equal or greater value from approved counterparties. These transactions can range from 1 to 31 days in duration. The securities loaned continue to be accounted for as investment assets. Income on securities-lending transactions is included in Interest in the Statement of Operations.

Special drawing rights

Special drawing rights (SDRs) serve as the unit of account for the International Monetary Fund (IMF). The value of SDRs is based on a “basket” of five major currencies: the euro, the US dollar, the British pound sterling, the Japanese yen, and the Chinese renminbi.

SDRs are initially recognized at cost and are subsequently re-measured at each reporting date into Canadian dollars at market exchange rates.

Translation of foreign currencies and SDRs

Assets denominated in foreign currencies and SDRs are translated into Canadian-dollar equivalents at the rates prevailing as at March 31, which were as follows:

	2022	2021
U.S. dollars	1.2502	1.2567
Euros	1.3831	1.4736
Japanese yen	0.0103	0.0113
British pounds sterling	1.6421	1.7324
SDRs	1.7282	1.7809

Gains or losses resulting from the translation of assets and advances from the CRF denominated in foreign currencies and SDRs, as well as from transactions throughout the year, are recognized as Net foreign exchange gain (loss) in the Statement of Operations.

Investment revenue in foreign currencies and SDRs is translated into Canadian-dollars at the foreign exchange rates prevailing on the date the revenue is earned.

d) Use of estimates and measurement uncertainty

The preparation of these statements requires the Bank’s management to make estimates and assumptions based on information available as of the date of the Statements. Significant judgements and estimates are primarily applied in the determination of whether an impairment exists and in the measurement of fair value where quoted prices do not exist (Note 3).

3. Financial instruments

Fair value of financial assets
(in millions of Canadian dollars)

	March 31, 2022		March 31, 2021	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
Cash and cash equivalents				
US dollars	4,596	4,596	1,390	1,390
Euros	387	387	674	674
Japanese yen	19	19	60	60
British pounds sterling	353	353	196	196
Total cash and cash equivalents	5,355	5,355	2,320	2,320
Investments				
Marketable securities				
US dollars	63,690	61,804	53,571	54,792
Euros	14,079	13,351	17,376	17,478
Japanese yen	5,861	5,845	5,427	5,449
British pounds sterling	8,122	7,890	8,055	8,245
Total marketable securities	91,752	88,890	84,429	85,964
SDRs	29,992	29,992	10,840	10,840
Total investments	121,744	118,882	95,269	96,804
Total financial assets	127,099	124,237	97,589	99,124

The estimated fair value of Cash and cash equivalents approximates their carrying amount, given their short terms to maturity.

The estimated fair values of Marketable securities are based on quoted market prices and include accrued interest. If such prices are not available, the fair value is determined by discounting future cash flows using an appropriate yield curve.

Since SDRs are translated into Canadian-dollar equivalents at the rates prevailing at the reporting date, the carrying amount approximates fair value as at that date.

There were no impairments recognized in 2022 ($nil in 2021).

Collateral pledged

As part of its operations, the Account is required to pledge collateral in respect to credit facilities granted by its European clearing house. Collateral pledged must have a fair value of a minimum of US$250 million, post-haircut, in equivalent securities.

As at March 31, 2022, the Account had pledged collateral of marketable securities having a carrying amount of $409 million and fair value of $401 million (carrying amount and fair value of $411 million pledged as at March 31, 2021).

Securities lending

As at March 31, 2022, there were no loaned securities in the EFA's investments ($nil at March 31, 2021).

Credit risk

Credit risk is the risk that a counterparty to a financial contract will cause a loss to the Account by failing to discharge its obligations in accordance with agreed upon terms.

To ensure that the Account's asset portfolio is prudently diversified with respect to credit risk, the *Statement of Investment Policy* prescribed by the Minister of Finance specifies limits on holdings by class of issuer (sovereign, agency, supranational, corporation or commercial financial institution), by individual issuer or counterparty, and by type of instrument.

The *Statement of Investment Policy* also specifies the treatment of holdings that do not meet eligibility criteria or limits due to exceptional circumstances such as ratings downgrades.

With respect to the *Statement of Investment Policy*, the Account may hold fixed income securities of highly rated sovereigns, central banks, government-supported entities and supranational organizations. To be eligible for investment, an entity must have an acceptable credit rating informed by external credit ratings and internal credit analysis. The Account may also make deposits and execute other transactions, up to prescribed limits, with commercial financial institutions that meet the same rating criteria.

As stipulated in the *Currency Act*, the Minister of Finance may appoint agents to perform services concerning the Account. Through the securities-lending program, agents can lend securities only up to a prescribed maximum amount and only to approved counterparties. Each borrower must enter into a Securities Loan Agreement with at least one of the agents. Borrowers are also required to provide collateral for securities borrowed according to a specific list approved by the Government, with collateral limited to specific security types, terms to maturity, and credit ratings. The agents also provide an indemnity in the event of default by the borrower. The Account enters into securities lending transactions in order to increase its return on investments.

Market risk

Market risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate due to changes in market prices. Market risk comprises three types of risk: interest rate risk, currency risk, and other price risk. Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate due to changes in market interest rates. Currency risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates. Other price risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices, other than those arising from interest rate risk or currency risk. The Account is not exposed to significant other price risk.

Interest rate and currency risks are managed, with due consideration of the risk to the Government, through an asset-liability management policy. This policy utilizes a strategy of matching the duration structure and the currency of the Account's assets with the foreign currency borrowings of the Government which notionally finance the Account's assets. Other price risks are mitigated by holding high quality liquid assets.

Liquidity risk

Liquidity risk is the risk that an entity will encounter difficulty in meeting its obligations associated with financial liabilities. Liquidity risk is minimized by limiting the portion of the Government of Canada's foreign liabilities that needs to be renewed within a one-year period. In addition, liquidity risk is mitigated by holding short-term investments that are matched to the Government's maturing liabilities in foreign currencies.

4. Due to the Consolidated Revenue Fund (CRF)

The Account is funded by the Government through interest-free advances from the CRF. Advances to the Account from the CRF are authorized by the Minister of Finance under the terms and conditions prescribed by the Minister of Finance. Pursuant to Section 19 of the *Currency Act*, these advances are limited to US$150 billion by order of the Minister of Finance effective March 26, 2015.

The CRF advances the proceeds of the Government's borrowings in foreign currencies and allocations of SDRs by the IMF to the Account. Subsequent repayments of foreign currency debt are made using the assets of the Account and result in reductions of foreign currency advances from the CRF.

The Account requires Canadian-dollar advances to settle its purchases of foreign currencies. Canadian dollars received from sales of foreign currencies are remitted to the CRF. This, together with foreign currency payments made on behalf of the Government, causes reductions in the level of outstanding Canadian-dollar advances and can result in overall net deposits of Canadian-dollars by the Account with the CRF.

As at March 31, advances from the CRF were composed of the following currencies:

Currency composition of advances from the CRF
(in millions of Canadian dollars)

	2022	2021
US dollars	75,708	61,192
Euros	14,490	17,848
British pounds sterling	8,020	7,768
Japanese yen	5,854	5,446
SDRs	24,197	6,118
Subtotal – foreign currencies	128,269	98,372
Canadian dollars	(1,879)	(3,324)
Net revenue	709	2,541
Total	127,099	97,589