

Note 3: Securities

Securities are divided into six types, each with a different purpose and accounting treatment. The types of securities we hold are as follows:

Trading securities are securities purchased for resale over a short period of time. Trading securities are recorded at fair value through profit or loss. Transaction costs and changes in fair value are recorded in our Consolidated Statement of Income in trading revenues.

Fair value through profit or loss securities are measured at fair value with changes in fair value and related transaction costs recorded in our Consolidated Statement of Income in securities gains and losses, other than trading, except as noted below. This category includes the following:

Securities Designated at FVTPL

In order to qualify for this designation, the security must have reliably measurable fair values and the designation eliminates or significantly reduces the inconsistent treatment that would otherwise arise from measuring the gains and losses on a different basis. Securities must be designated on initial recognition, and the designation is irrevocable. If these securities were not designated at FVTPL, they would be accounted for as either FVOCI or amortized cost.

We designate certain securities held by our insurance subsidiaries that support our insurance liabilities at fair value through profit or loss since the actuarial calculation of insurance liabilities is based on the fair value of the investments supporting them. This designation aligns the accounting result with the way the portfolio is managed on a fair value basis. The change in fair value of the securities is recorded in non-interest revenue, insurance revenue and the change in fair value of the liabilities is recorded in insurance claims, commissions and changes in policy benefit liabilities. The fair value of these investments as at October 31, 2018 of \$8,783 million (\$8,465 million as at October 31, 2017) is recorded in securities in our Consolidated Balance Sheet. The impact of recording these investments at fair value through profit or loss was a decrease of \$372 million in non-interest revenue, insurance revenue, for the year ended October 31, 2018 (increase of \$39 million for the year ended October 31, 2017).

Securities Mandatorily Measured at FVTPL

Securities managed on a fair value basis, but not held for trading, or debt securities whose cash flows do not represent solely payments of principal and interest and equity securities not held for trading are classified as FVTPL.

Debt securities measured at amortized cost are debt securities purchased with the objective of collecting contractual cash flows and those cash flows represent solely payments of principal and interest. These securities are initially recorded at fair value plus transaction costs and subsequently measured at amortized cost using the effective interest method. Impairment losses (recoveries) are recorded in our Consolidated Statement of Income in securities gains, other than trading. Interest income earned and amortization of premiums, discounts and transaction costs are recorded in our Consolidated Statement of Income in interest, dividend and fee income, securities.

Debt securities measured at FVOCI are debt securities purchased with the objective of both collecting contractual cash flows and selling the securities. The securities' cash flows represent solely payments of principal and interest. These securities may be sold in response to or in anticipation of changes in interest rates and resulting prepayment risk, changes in credit risk, changes in foreign currency risk, changes in funding sources or terms, or to meet liquidity needs.

Debt securities measured at FVOCI are initially recorded at fair value plus transaction costs. They are subsequently measured at fair value, with unrealized gains and losses recorded in our Consolidated Statement of Comprehensive Income until the security is sold or impaired. Gains and losses on disposal and impairment losses (recoveries) are recorded in our Consolidated Statement of Income in non-interest revenue, securities gains, other than trading. Interest income earned is recorded in our Consolidated Statement of Income in interest, dividend and fee income, securities using the effective interest method.

Equity securities measured at FVOCI are equity securities where we have elected to record changes in the fair value of the instrument in other comprehensive income as opposed to fair value through profit or loss. Gains or losses recorded on these instruments will never be recognized in profit or loss. Equity securities measured at FVOCI are not subject to an impairment assessment.

Other securities are investments in associates and joint ventures where we exert significant influence over operating, investing and financing decisions (generally companies in which we own between 20% and 50% of the voting shares). These are accounted for using the equity method of accounting. Our share of the net income or loss is recorded in investments in associates and joint ventures in our Consolidated Statement of Income. Any other comprehensive income amounts are reflected in the relevant section of our Consolidated Statement of Comprehensive Income.

We account for all of our securities transactions using settlement date accounting in our Consolidated Balance Sheet. Changes in fair value between the trade date and settlement date are recorded in net income, except for those related to securities measured at FVOCI, which are recorded in other comprehensive income.

Impairment Review

Debt securities classified as amortized cost or FVOCI are assessed for impairment using the ECL model, with the exception of securities determined to have low credit risk where the allowance for credit losses is measured at a 12 month expected credit loss. A financial asset is considered to have low credit risk if the financial asset has a low risk of default, the borrower has a strong capacity to meet its contractual cash flow obligations in the near term and adverse changes in economic and business conditions in the longer term may, but will not necessarily, reduce the ability of the borrower to fulfill its contractual cash flow obligations.

Classification of Securities

Our securities are classified as at October 31, 2018 under IFRS 9 and as at October 31, 2017 under IAS 39 as follows:

(Canadian \$ in millions)	2018	2017
Trading	99,697	99,069
FVTPL (1)	11,611	na
FVOCI - Debt and Equity (2)	62,440	na
Available-for-sale	na	54,075
Amortized cost (3)	6,485	na
Held-to-maturity	na	9,094
Other	702	960
	180,935	163,198

(1) Comprised of \$2,828 million mandatorily measured at fair value and \$8,783 million designated at fair value.

(2) Includes allowances for credit losses on FVOCI debt securities of \$2 million (na at October 31, 2017).

(3) Net of allowances for credit losses of \$1 million (na at October 31, 2017).

na - not applicable due to IFRS 9 adoption.

Fair Value Measurement

For traded securities, quoted market value is considered to be fair value. Quoted market value is based on bid prices. For securities where market quotes are not available, we use estimation techniques to determine fair value. A discussion of fair value measurement is included in Note 17.

Classified under IFRS 9

(Canadian \$ in millions, except as noted)

	Term to maturity					2018
	Within 1 year	1 to 3 years	3 to 5 years	5 to 10 years	Over 10 years	Total
Trading Securities						
Issued or guaranteed by:						
Canadian federal government	4,103	2,195	2,038	1,077	907	10,320
Canadian provincial and municipal governments	1,293	2,029	1,235	1,355	2,790	8,702
U.S. federal government	2,684	2,835	1,260	1,895	843	9,517
U.S. states, municipalities and agencies	756	135	29	114	182	1,216
Other governments	485	557	330	40	-	1,412
NHA MBS, U.S. agency MBS and CMO (1)	382	497	477	346	7,482	9,184
Corporate debt	2,635	1,821	1,295	1,413	2,034	9,198
Loans	14	82	55	48	-	199
Corporate equity	-	-	-	-	49,949	49,949
Total trading securities	12,352	10,151	6,719	6,288	64,187	99,697
FVTPL Securities						
Issued or guaranteed by:						
Canadian federal government	328	-	4	2	97	431
Canadian provincial and municipal governments	-	23	5	22	896	946
U.S. federal government	69	-	-	-	-	69
NHA MBS, U.S. agency MBS and CMO (1)	-	3	4	-	-	7
Corporate debt	616	56	125	692	5,331	6,820
Corporate equity	-	-	-	-	3,338	3,338
Total FVTPL securities	1,013	82	138	716	9,662	11,611
FVOCI Securities						
Issued or guaranteed by:						
Canadian federal government						
Amortized cost	6,600	4,036	1,711	537	-	12,884
Fair value	6,592	4,006	1,688	519	-	12,805
Yield (%)	1.52	1.58	2.09	2.14	-	1.64
Canadian provincial and municipal governments						
Amortized cost	3,200	1,229	1,742	713	12	6,896
Fair value	3,204	1,227	1,726	693	12	6,862
Yield (%)	1.36	1.81	2.67	2.59	3.58	1.90
U.S. federal government						
Amortized cost	462	1,604	7,116	8,221	-	17,403
Fair value	454	1,595	6,858	7,916	-	16,823
Yield (%)	2.39	2.61	1.98	2.35	-	2.22
U.S. states, municipalities and agencies						
Amortized cost	356	684	542	1,177	935	3,694
Fair value	355	678	540	1,158	924	3,655
Yield (%)	1.69	2.07	2.59	2.59	2.66	2.42
Other governments						
Amortized cost	1,193	1,187	2,135	303	-	4,818
Fair value	1,192	1,183	2,113	302	-	4,790
Yield (%)	1.82	2.21	2.74	2.87	-	2.39
NHA MBS (1)						
Amortized cost	306	62	2,014	-	-	2,382
Fair value	310	62	1,998	-	-	2,370
Yield (%)	1.95	1.32	2.00	-	-	1.98
U.S. agency MBS and CMO (1)						
Amortized cost	-	13	109	1,819	9,870	11,811
Fair value	-	13	106	1,761	9,437	11,317
Yield (%)	-	2.31	2.50	2.51	2.29	2.33
Corporate debt						
Amortized cost	672	1,992	569	509	41	3,783
Fair value	671	1,980	566	498	41	3,756
Yield (%)	1.45	2.86	2.87	3.24	4.02	2.67
Corporate equity						
Amortized cost	-	-	-	-	62	62
Fair value	-	-	-	-	62	62
Yield (%)	-	-	-	-	-	-
Total cost or amortized cost	12,789	10,807	15,938	13,279	10,920	63,733
Total fair value	12,778	10,744	15,595	12,847	10,476	62,440
Yield (%)	1.55	2.09	2.23	2.44	2.32	2.13
Amortized Cost Securities						
Issued or guaranteed by:						
Canadian provincial and municipal governments						
Amortized cost	230	280	143	179	-	832
Fair value	230	282	145	184	-	841
Other governments						
Amortized cost	-	3	7	-	-	10
Fair value	-	3	7	-	-	10
NHA MBS, U.S. agency MBS and CMO (1)						
Amortized cost	171	452	-	1,884	3,045	5,552
Fair value	171	454	-	1,808	2,913	5,346
Corporate debt						
Amortized cost	1	10	10	5	65	91
Fair value	1	10	10	5	65	91
Total cost or amortized cost	402	745	160	2,068	3,110	6,485
Total fair value	402	749	162	1,997	2,978	6,288
Other Securities						
Carrying value	-	-	-	-	702	702
Total carrying value or amortized cost of securities	26,556	21,785	22,955	22,351	88,581	182,228
Total value of securities	26,545	21,722	22,612	21,919	88,137	180,935
Total by Currency (in Canadian \$ equivalent)						
Canadian dollar	18,091	12,284	9,782	5,475	37,135	82,767
U.S. dollar	7,799	9,423	12,718	16,404	49,922	96,266
Other currencies	655	15	112	40	1,080	1,902
Total securities	26,545	21,722	22,612	21,919	88,137	180,935

Classified under IAS 39

(Canadian \$ in millions, except as noted)	Term to maturity					2017
	Within 1 year	1 to 3 years	3 to 5 years	5 to 10 years	Over 10 years	Total
Trading Securities						
Issued or guaranteed by:						
Canadian federal government	4,862	1,527	2,021	1,313	1,104	10,827
Canadian provincial and municipal governments	812	1,343	714	1,991	2,467	7,327
U.S. federal government	1,332	1,758	2,000	1,906	2,477	9,473
U.S. states, municipalities and agencies	642	222	86	100	1,081	2,131
Other governments	85	438	266	34	-	823
NHA MBS, U.S. agency MBS and CMO (1)	147	571	203	8	2	931
Corporate debt	1,298	1,375	795	1,281	7,014	11,763
Loans	-	28	7	118	-	153
Corporate equity	-	-	-	-	55,641	55,641
Total trading securities	9,178	7,262	6,092	6,751	69,786	99,069
Available-for-Sale Securities						
Issued or guaranteed by:						
Canadian federal government						
Amortized cost	5,585	1,764	1,266	597	-	9,212
Fair value	5,578	1,749	1,262	591	-	9,180
Yield (%)	0.66	1.48	1.46	1.57	-	0.99
Canadian provincial and municipal governments						
Amortized cost	1,157	265	1,293	860	38	3,613
Fair value	1,156	266	1,310	855	40	3,627
Yield (%)	0.85	1.45	2.24	2.32	3.27	1.77
U.S. federal government						
Amortized cost	15	-	3,128	11,338	-	14,481
Fair value	17	-	3,115	11,137	-	14,269
Yield (%)	0.88	-	1.81	1.80	-	1.80
U.S. states, municipalities and agencies						
Amortized cost	370	563	463	1,329	1,333	4,058
Fair value	370	566	467	1,357	1,336	4,096
Yield (%)	1.63	1.78	2.26	2.40	1.71	2.00
Other governments						
Amortized cost	1,592	1,231	725	19	-	3,567
Fair value	1,593	1,225	722	18	-	3,558
Yield (%)	1.44	1.34	1.52	2.72	-	1.43
NHA MBS (1)						
Amortized cost	255	1,143	1,059	-	-	2,457
Fair value	262	1,141	1,052	-	-	2,455
Yield (%)	2.05	1.83	1.56	-	-	1.74
U.S. agency MBS and CMO - U.S. (1)						
Amortized cost	1	20	62	658	10,161	10,902
Fair value	1	19	62	659	10,020	10,761
Yield (%)	1.83	3.12	2.25	2.31	1.97	1.99
Corporate debt						
Amortized cost	995	2,082	737	607	93	4,514
Fair value	997	2,080	734	619	95	4,525
Yield (%)	0.75	2.08	2.48	3.08	3.64	2.02
Corporate equity						
Amortized cost	-	-	-	-	1,499	1,499
Fair value	-	-	-	-	1,604	1,604
Yield (%)	-	-	-	-	2.37	2.37
Total cost or amortized cost	9,970	7,068	8,733	15,408	13,124	54,303
Total fair value	9,974	7,046	8,724	15,236	13,095	54,075
Yield (%)	0.89	1.72	1.85	1.95	2.00	1.72
Held-to-Maturity Securities						
Issued or guaranteed by:						
Canadian federal government						
Amortized cost	1,855	-	-	-	-	1,855
Fair value	1,857	-	-	-	-	1,857
Canadian provincial and municipal governments						
Amortized cost	735	510	-	322	-	1,567
Fair value	737	512	-	341	-	1,590
NHA MBS, U.S. agency MBS and CMO (1)						
Amortized cost	191	485	364	999	3,633	5,672
Fair value	191	486	366	997	3,609	5,649
Total cost or amortized cost	2,781	995	364	1,321	3,633	9,094
Total fair value	2,785	998	366	1,338	3,609	9,096
Other Securities						
Carrying value	7	21	13	38	881	960
Total carrying value or amortized cost of securities	21,936	15,346	15,202	23,518	87,424	163,426
Total value of securities	21,940	15,324	15,193	23,346	87,395	163,198
Total by Currency (in Canadian \$ equivalent)						
Canadian dollar	16,959	8,546	7,222	6,235	41,261	80,223
U.S. dollar	3,948	6,662	7,916	17,087	44,384	79,997
Other currencies	1,033	116	55	24	1,750	2,978
Total securities	21,940	15,324	15,193	23,346	87,395	163,198

(1) These amounts are supported by insured mortgages or issued by U.S. agencies and government-sponsored enterprises. NHA refers to the National Housing Act, MBS refers to mortgage-backed securities and CMO refers to collateralized mortgage obligations.

Yields in the tables above are calculated using the cost of the security and the contractual interest rate associated with each security, adjusted for any amortization of premiums and discounts. Tax effects are not taken into consideration. The term to maturity included in the table above is based on the contractual maturity date of the security. Actual maturities could differ, as issuers may have the right to call or prepay obligations. Equity securities with no maturity date are included in the over 10 years category.

Unrealized Gains and Losses

The following table summarizes the unrealized gains and losses on FVOCI securities as at October 31, 2018 under IFRS 9 and the unrealized gains and losses on available-for-sale securities as at October 31, 2017 under IAS 39.

(Canadian \$ in millions)	2018				2017			
	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value
Issued or guaranteed by:								
Canadian federal government	12,884	1	80	12,805	9,212	6	38	9,180
Canadian provincial and municipal governments	6,896	8	42	6,862	3,613	29	15	3,627
U.S. federal government	17,403	4	584	16,823	14,481	12	224	14,269
U.S. states, municipalities and agencies	3,694	16	55	3,655	4,058	43	5	4,096
Other governments	4,818	2	30	4,790	3,567	3	12	3,558
NHA MBS	2,382	6	18	2,370	2,457	9	11	2,455
U.S. agency MBS and CMO	11,811	2	496	11,317	10,902	6	147	10,761
Corporate debt	3,783	6	33	3,756	4,514	23	12	4,525
Corporate equity	62	-	-	62	1,499	121	16	1,604
Total	63,733	45	1,338	62,440	54,303	252	480	54,075

Unrealized gains (losses) may be offset by related (losses) gains on hedge contracts.

Interest, Dividend and Fee Income

Interest, dividend and fee income has been included in our consolidated financial statements as follows, excluding other securities and trading securities. Related income for trading securities is included in Note 17 Trading-Related Revenue.

(Canadian \$ in millions)	2018	2017	2016
FVTPL	16	na	na
FVOCI	1,118	na	na
Amortized cost	172	na	na
Available-for-sale securities	na	662	509
Held-to-maturity securities	na	150	143
Total	1,306	812	652

na - not applicable due to IFRS 9 adoption.

Certain comparative figures have been reclassified to conform with the current year's presentation.

Non-Interest Revenue

Net gains and losses from securities, excluding net realized and unrealized gains on trading securities, have been included in our Consolidated Statement of Income as follows:

(Canadian \$ in millions)	2018	2017	2016
Non-Interest Revenue			
FVTPL securities	106	na	na
FVOCI securities (1)			
Gross realized gains	363	228	59
Gross realized (losses)	(216)	(99)	(16)
Unrealized gains on investments reclassified from available-for-sale to other	na	-	7
Other securities, net realized and unrealized gains	-	49	51
Impairment write-downs	(14)	(7)	(17)
Securities gains, other than trading (2)	239	171	84

(1) Realized gains (losses) are net of unrealized gains (losses) on related hedge contracts. Fiscal 2017 and prior years represent available-for-sale securities (Note 1).

(2) The following amounts of income related to our insurance operations were included in non-interest revenue, insurance revenue, in our Consolidated Statement of Income: Interest, dividend and fee income of \$354 million for the year ended October 31, 2018 (\$325 million in 2017); and securities gains, other than trading, of \$1 million for the year ended October 31, 2018 (\$nil in 2017).

Unrealized gains and losses on trading securities are included in trading-related revenue in Note 17.

na - not applicable due to IFRS 9 adoption.