



智投贏行

Asset Location for Taxable Investors

Is it still wise to keep bonds in your RRSP?

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Introduction

“Asset location” involves finding the most tax-efficient account type for each holding in a portfolio. The various types of investment returns—interest from bonds, dividends from Canadian and foreign stocks, capital gains—are taxed in different ways, so asset location can have a large impact on after-tax returns.

For investors with unused contribution room in RRSPs and other registered accounts, asset location is rarely a concern. However, if you have maxed out your tax-sheltered accounts, you will need to keep any additional savings in non-registered (taxable) accounts. The most important question, therefore, is which asset classes are best held in your RRSP, and which should be held in taxable accounts?

What about TFSAs?

We have excluded Tax-Free Savings accounts from our analysis in this paper. As of 2014, the maximum contribution room in a TFSA was a modest \$31,000. If you have a maxed-out RRSP and significant non-registered savings, this amount would not represent a significant portion of your net worth. That will change in the future, but for now TFSAs are not a major factor in the asset location decision.

Does the conventional wisdom still hold?

The traditional advice has been to hold bonds and other fixed-income investments in an RRSP as far as possible, while any non-registered accounts should be filled with equities first. This makes intuitive sense: interest income is taxable at your full marginal rate, so keeping bonds in an RRSP offers significant tax deferral. Equities, meanwhile, have some tax advantages. Dividends from Canadian stocks benefit from the dividend tax credit: even in the highest federal bracket, eligible Canadian dividends are effectively taxed at 19.29%, compared with 29% for interest income. Moreover, equity investors can defer capital gains indefinitely, and realized gains are taxed at just half your marginal rate.

Example: Assume you are an Ontario investor with a marginal tax rate of 46.41%. Now assume your non-registered account holds \$1,000 in Canadian equities that return 8%, of which 3% is from eligible dividends and 5% is a realized capital gain. You would pay \$8.86 in tax on the dividend income ($\$30 \times 29.52\%$) and \$11.60 on the realized capital gain ($\$50 \times 23.20\%$), for a total of \$20.46.

Now imagine you hold a \$1,000 bond yielding 5% (which was typical for 10-year Government of Canada bonds in the early 2000s). In a non-registered account, the \$50 in annual interest would be taxed at your full marginal rate, resulting in a tax bill of \$23.21.

In this example, even though the total return on the stocks was higher (8% versus 5%) the amount of tax payable on the bond holding was significantly greater. If you had only \$1,000 of RRSP room and you wanted to maximize your tax deferral, it would have been preferable to keep the bonds in the RRSP and the equities in a taxable account.

Recently, however, this conventional wisdom has been challenged. With interest rates near historical lows, some have suggested it no longer makes sense to shelter fixed income in an RRSP, since the tax deferral would be modest. They argue the investor's total after-tax return is likely to be higher if the equities are held in the RRSP instead, since these higher-growth assets tend to result in a higher tax bill.

To return to our example above, if the \$1,000 bond yielded 2.5% it would generate \$25 in annual interest, resulting in a tax bill of just \$11.25. In that case, you would enjoy greater tax deferral by holding the equities in your RRSP.

It's all in the details

As even our simplified examples show, any analysis of asset location relies on many assumptions. One is the investor's marginal tax rate—both today and in retirement, when the accounts are ultimately liquidated. (The dividend tax credit on eligible Canadian dividends, for example, is much more beneficial for those with lower incomes.) But the most important factor is the expected return of bonds and stocks: a small change in this assumption can completely change the results.

Dan Hallett of HighView Financial Group did [an analysis](#) in 2012 that underscores this point. Hallett used an expected return of 8% for Canadian stocks and 2.36% for bonds, based on yields at that time. (There were further assumptions about when deferred capital gains and losses were realized.) His projections suggested those with five-figure incomes (and therefore lower tax brackets) should follow the conventional advice and keep bonds in an RRSP. However, for those in higher tax brackets the overall tax payable was lower when bonds were held in non-registered accounts.

Hallett was quick to point out that the details matter a lot: “Despite the apparent precision, I can’t stress enough that the [analysis] is a very general illustration. For any given situation, the conclusion can swing either way. For instance, if stocks produce a still-respectable but lower 7% annualized return (or much lower), it will probably make more sense to hold stocks in non-registered accounts. But investors buying only high-yield stocks—a popular strategy today—may save taxes by doing the opposite and keeping that yield in registered plans to defer or shelter the tax.”

Vanguard also released a [white paper](#) in March 2014 that attempted to quantify the value-add from the asset location decision using a hypothetical scenario. Their analysis implied a potential value-add of **0.30%** for a balanced portfolio that held equities in the taxable account first, rather than in the tax-deferred account.

Rather than using hypothetical numbers, we set out in this paper to examine the asset location question using actual returns from popular index ETFs over a 10-year period. Our goal was to see which asset location strategy would have produced the best result during this decade. We also wanted to identify the subtle details that might help investors make more informed asset location decisions in the future.

Methodology

We compared the after-tax returns of two simulated portfolios from 2003 through 2012. Portfolio A held a bond ETF in an RRSP and three equity ETFs in a taxable account, while Portfolio B did the opposite: the equity ETFs were placed in an RRSP and the bond ETF went in the taxable account.

Both portfolios had a starting value of \$1 million, split evenly between the RRSP and the taxable account. The target asset allocation for both portfolios was 50% bonds and 50% equities (split evenly between Canadian, US and international stocks).

This scenario is ideal for our analysis. After all, an investor with equal stock and bond holdings—as well as RRSP and non-registered accounts roughly equal in size—faces the most difficult asset location decisions. By comparison, investors with only a small allocation to fixed income or equities—or those able to hold the vast majority of their holdings in a tax-deferred account—have fewer options and stand to gain less from finding the optimal strategy.

We chose the following four iShares ETFs to represent the four asset classes, primarily because all of them have 10 full years of data:

Canadian bonds	iShares DEX Universe Bond Index Fund (XBB)
Canadian equities	iShares S&P/TSX Capped Composite Index Fund (XIC)
US equities	iShares Core S&P 500 ETF (IVV)
International equities	iShares MSCI EAFE ETF (EFA)

In the tables below, we have included the beginning balance for each of the portfolios’ asset classes, as of January 3, 2003:

Portfolio A: Bonds in RRSP and equities in taxable account

Security	Target Allocation	Number of Shares	RRSP	Taxable Account
Cash	0.0%	-	\$24	\$158
iShares DEX Universe Bond Index Fund (XBB)	50.0%	18,395	\$499,976	\$0
iShares S&P/TSX Capped Composite Index Fund (XIC)	16.7%	15,649	\$0	\$166,662
iShares Core S&P 500 ETF (IVV)	16.7%	1,167	\$0	\$166,554
iShares MSCI EAFE ETF (EFA)	16.7%	3,169	\$0	\$166,626
Total	100.0%		\$500,000	\$500,000

Portfolio B: Bonds in taxable account and equities in RRSP

Security	Target Allocation	Number of Shares	RRSP	Taxable Account
Cash	0.0%	-	\$158	\$24
iShares DEX Universe Bond Index Fund (XBB)	50.0%	18,395	\$0	\$499,976
iShares S&P/TSX Capped Composite Index Fund (XIC)	16.7%	15,649	\$166,662	\$0
iShares Core S&P 500 ETF (IVV)	16.7%	1,167	\$166,554	\$0
iShares MSCI EAFE ETF (EFA)	16.7%	3,169	\$166,626	\$0
Total	100.0%		\$500,000	\$500,000

Rebalancing frequency. The number of ETF shares to be held at the start of each year was calculated by taking the overall portfolio value, multiplying it by the target allocation and dividing by the current net asset value per share (in CAD). The result was then rounded down to the nearest share. For example, at the beginning of 2003, when the portfolio value was \$1 million, the target amount of shares of XBB was **18,395**:

$$\begin{aligned} &= \$1,000,000 \times 50\% / \$27.18 \\ &= 18,395.87932 \\ &\approx \mathbf{18,395 \text{ shares}} \end{aligned}$$

With this method there will always be a portion of cash left over, but it eliminates the need to make a judgment call on which security to buy with the excess cash.

We converted the price of the US-listed ETFs into Canadian dollars using the historical daily exchange rates (see Table 1 in the Appendix). For example, on January 3, 2003, IVV had a net asset value per share (NAVPS) of \$91.06 in US dollars. By dividing this value by the posted exchange rate ($\$91.06 / 0.63804$) we get a NAVPS of \$142.72 in Canadian dollars.

US-dollar distributions received during the year accumulated in the portfolio's cash allocation (i.e. they were not reinvested in the ETF) and were converted to Canadian dollars at the beginning of the following year.

We rebalanced both portfolios annually on the first day of the year when the NAVPS for all funds and the USD/CAD exchange rates were available from BlackRock and the [CanadianForex website](#) (see Table 2). These rebalancing trades assume no transaction costs.

Tracking of adjusted cost base. To ensure any realized capital gains and losses were accurately tracked, we calculated the adjusted cost base of the ETFs with the online resource [AdjustedCostBase.ca](#), using the same methodology described in our white paper, [As Easy As ACB](#).

Realized capital losses were used to offset any gains in the current or prior three tax years or carried forward indefinitely. Superficial losses were ignored. Return of capital and reinvested distributions were accounted for using the [CDS Innovations Tax Breakdown Posting](#) and the iShares websites.

Taxation of distributions. Canadian-dollar distributions for each tax year were broken down into their appropriate classification (i.e. other/foreign income, capital gains, dividends, eligible dividends or non-eligible dividends) and then taxed at the top marginal federal and provincial tax rates for an Ontario resident (see Table 3). The taxes payable were then removed from the portfolio before the annual rebalancing occurred.

US-dollar distributions were converted to Canadian dollars using the historical yearly average rates from [CanadianForex](#) (see Table 4) and then taxed as foreign income. We ignored foreign withholding taxes, as they would not affect our analysis. In Portfolio A (equities in a taxable account) the US withholding taxes would generally be recoverable with the foreign tax credit, and in Portfolio B (equities in an RRSP) these taxes would not apply.

Results

Our analysis revealed that after 10 years, Portfolio A (bonds in an RRSP) would have been worth approximately **\$55,447** more than Portfolio B (bonds in a taxable account):

Beginning Portfolio Value: 2003–2012

Beginning of Year	Bonds in RRSP (Portfolio A)	Bonds in Taxable Account (Portfolio B)	Difference (A–B)
2003	\$1,000,000	\$1,000,000	\$0
2004	\$1,093,204	\$1,081,870	\$11,333
2005	\$1,174,397	\$1,154,559	\$19,837
2006	\$1,297,458	\$1,272,137	\$25,321
2007	\$1,423,359	\$1,394,208	\$29,152
2008	\$1,424,810	\$1,395,417	\$29,392
2009	\$1,262,675	\$1,233,955	\$28,720
2010	\$1,411,698	\$1,373,051	\$38,647
2011	\$1,493,307	\$1,448,451	\$44,856
2012	\$1,537,667	\$1,489,101	\$48,566
2013	\$1,622,688	\$1,567,241	\$55,447

In percentage terms, this would have added an additional **0.36%** after-tax return pre-liquidation (i.e. before realizing the deferred capital gains in the taxable account) and **0.30%** post-liquidation (i.e. after realizing the deferred capital gains in the taxable account).

After-Tax Annualized Return: 2003–2012

After-Tax Return	Bonds in RRSP (A)	Bonds in Taxable Account (B)	Difference (A–B)
Pre-Liquidation	4.96%	4.60%	0.36%
Post-Liquidation	4.81%	4.51%	0.30%

Discussion

Our analysis demonstrates that an investor in a high tax bracket would have been better off holding bonds in an RRSP from 2003 through 2012. However, we cannot draw sweeping conclusions from this finding. The results would vary for investors with a lower marginal tax rate, for example. And the analysis might have turned out very different had we examined another 10-year period. Since future income distributions, taxes and rates of return are unknowable in advance there is no definitive answer to this most basic of asset location questions.

However, investors must make a decision based on the best available information. We generally hold our clients' fixed-income assets in RRSPs whenever possible, while keeping equities in taxable accounts when registered accounts are full. The analysis in this paper supports that decision, and there are several other reasons to believe it is likely to result in higher after-tax returns in the long run.

Factors favouring bonds in an RRSP and equities in a taxable account

Deferred capital gains can be realized at a lower tax rate. In our analysis, we assumed the investor realized all capital gains at the end of the 10-year period and paid taxes at 23.20%. In a real-life scenario this would be unlikely: the investor would almost always realize the gains gradually with an eye to minimizing taxes. If you expect your marginal tax rate to be lower in retirement than it is today, the total amount of tax payable on your equity portfolio would be lower than our estimate.

Consider an Ontario investor whose only source of taxable income in retirement (prior to mandatory RRIF withdrawals at age 72) is Canada Pension Plan benefits, Old Age Security and investment income from a taxable portfolio. If this income is below \$40,000 annually, the investor's marginal tax rate on capital gains would be a paltry 10.03%. This may provide an opportunity to realize some of the substantial capital gains that have accumulated in the taxable account at a lower tax rate.

Lower mandatory RRIF withdrawals. The argument for keeping low-yield bonds in a non-registered account to reduce annual taxes is reasonable, but investors need to follow it through. Holding higher-growth equities in an RRSP would defer more taxes today, but the investor would also end up retiring with a larger registered account (relative to if they had held lower-yield fixed income). That could result in significantly higher tax bills during retirement, as well as a clawback of Old Age Security benefits.

RRIF minimum withdrawals begin in the year you turn 72, and these are fully taxable. If you hold bonds in your RRSP and stocks in your taxable account, these mandatory RRIF withdrawals are likely to be smaller and you will have more flexibility when it comes to realizing capital gains in retirement. (The capital gains would also be taxed more favourably, as described above.)

Premium bonds are particularly tax-inefficient. During the period we examined, interest rates trended sharply downward: the yield on 10-year Government of Canada bonds fell from over 5% in January 2003 to 1.89% in December 2012. As a result, bond index funds such as XBB generally increased in price, and there were few periods with significant capital losses. This would have been a relatively good time to hold bonds in a non-registered account.

It is highly unlikely the next decade will be as favourable. The downward trend in interest rates means most bonds currently trade at a premium: that is, their coupon rate is higher than their yield to maturity. Premium bonds are exceptionally tax-inefficient and should generally not be held in non-registered accounts

What if you must hold fixed income in a taxable account?

The analysis in this paper assumes the investor's portfolio is equally split between an RRSP and a taxable account. However, high-net-worth investors typically hold most of their assets outside RRSPs. Unless their asset allocation is extremely aggressive, they may have no choice but to hold fixed income in their taxable accounts.

In this case, GICs are often a better choice than traditional bond index funds. GICs are always bought at par, so they do not suffer the same unfavourable tax treatment as premium bonds. We have written extensively about this subject: see, for example, [Why GICs Beat Bonds in Taxable Accounts](#).

Recently some ETF providers have created funds that avoid the tax-inefficiency of premium bonds, such as the BMO Discount Bond Index ETF (ZDB) and the First Asset DEX 1-5 Year Laddered Government Strip Bond Index ETF (BXF). With our clients we often use funds from Dimensional Fund Advisors (DFA): these invest in low-coupon bonds, which makes them more tax-efficient.

Future capital gains distributions from equity ETFs are likely to be lower. Index ETFs normally do not distribute large capital gains, which makes them quite tax-efficient. Neither IVV or EFA, for example, distributed any gains to unitholders during the 10 years we examined. However, XIC distributed \$23,749 of capital gains during this period, resulting in additional taxes of \$5,510 ($\$23,749 \times 23.20\%$).

On November 15, 2005, XIC changed its underlying index from the S&P/TSX Capped 60 (which tracks large-cap stocks) to the S&P/TSX Capped Composite (which tracks large, mid and small-cap stocks). The fund was then compelled to sell shares of the larger companies that had appreciated in value (and thereby realize capital gains) in order to buy the mid-size and smaller companies in the new index. Unfortunately, taxable investors paid the price for this change.

Index changes like this can happen again. On March 28, 2013, the Vanguard MSCI Canada Index ETF (VCE) changed its underlying benchmark to the FTSE Canada Index. Because the MSCI Canada Index holds more stocks than the new index, the fund had to sell a number of holdings and realize capital gains. VCE had a capital gains distribution of more than \$0.13 per unit in 2013.

Large capital gains distributions would be an argument against holding equity ETFs in a taxable account. However, large distributions like this are unusual, especially if investors use total-market ETFs. Even if an index change occurs in the future, it would likely be a switch from one broad market index to another, with few forced sales. In 2013, the Vanguard Total Stock Market ETF (VTI) also changed its index, but the fund did not distribute any capital gains that year.

New contributions would reduce the need to trigger capital gains. Our analysis assumed no new contributions into the portfolio. In reality, investors in the accumulation phase regularly add to their accounts, and this new cash could be used to top up underweight asset classes. That would reduce the need to sell assets when rebalancing, thereby reducing realized capital gains.

Whenever possible, contact your advisor ahead of time when you are expecting to make a significant contribution to your portfolio. If you are a do-it-yourself investor, consider holding off on rebalancing if you know you will be making a new contribution in the near future.

Tax loss selling can further defer capital gains. Annual rebalancing of the portfolio with stocks in the taxable account triggered \$60,007 of capital gains and resulted in additional taxes of **\$13,921** ($\$60,007 \times 23.20\%$). The portfolio that held bonds in the taxable account had **\$0** of capital gains realized due to rebalancing (although the bond fund itself distributed **\$35,593** of capital gains). This seems at first to be an argument for holding equities in the RRSP.

However, a disciplined tax loss selling strategy (which we did not include in our analysis) would likely have deferred at least a portion of these capital gains. To learn more about this strategy, please refer to our paper: [Tax Loss Selling: Using Canadian-listed ETFs to defer taxes on capital gains](#).

Foreign withholding taxes may be lost in an RRSP. If you hold US and international equities via Canadian-domiciled funds, you face an additional drag from foreign withholding taxes on dividends. For a portfolio similar to the one in this paper, we estimate that drag to be 0.10% to 0.15%. In a non-registered account these withholding taxes can usually be recovered by claiming the foreign tax credit on your return. In an RRSP, however, the tax cannot be recouped.

One way to reduce or avoid foreign withholding taxes in an RRSP is to use US-listed ETFs, as we did in our analysis. However, these ETFs must be purchased in US dollars, and the cost of converting your Canadian dollars to US dollars can be high.

For more information on this complex topic, see our paper: [Foreign Withholding Taxes: How to estimate the hidden tax drag on US and international equity index funds and ETFs](#).

The other side of the argument

While we believe it makes sense for most investors to hold equities in their taxable accounts when their RRSP is maxed out, that advice may be inappropriate for investors in specific situations.

High-dividend strategies mean higher taxes. Dividend investing has a strong intuitive appeal, especially during sluggish markets, when investors often say they are being “paid to wait.” If you are a taxable investor, however, you are in fact *paying to wait*. The difference in dividend yields (and therefore annual taxes) between broad-market indexes (labeled IMI in the table below) and high dividend yield indexes (HDY) can be substantial:

Expected Annual Taxes Payable for an Ontario Resident in the Highest Marginal Tax Bracket

Index	Investment Amount	Dividend Yield	Tax Rate	Expected Annual Taxes Payable
MSCI Canada IMI Index	\$100,000	2.87%	29.52%	\$847
MSCI Canada HDY Index	\$100,000	4.16%	29.52%	\$1,228
<i>Difference</i>				-\$381
MSCI USA IMI Index	\$100,000	1.91%	46.41%	\$886
MSCI USA HDY Index	\$100,000	3.18%	46.41%	\$1,476
<i>Difference</i>				-\$590
MSCI EAFE IMI Index	\$100,000	2.92%	46.41%	\$1,355
MSCI EAFE HDY Index	\$100,000	4.45%	46.41%	\$2,065
<i>Difference</i>				-\$710

Sources: [MSCI Index Fact Sheets](#) as of February 28, 2014, [Ernst and Young 2014 Personal Tax Calculator](#)

If you use a dividend strategy, it may well make sense to hold high-yield stocks in your registered accounts and low-yield fixed income securities (such as GICs) in your non-registered accounts.

Liquidity can be expensive. In his recent blog post, [Does Asset Location Make Sense?](#), Rick Ferri argues that holding only stocks in taxable accounts can create problems if you need quick access to cash. If you are forced to sell stocks to raise cash, you may realize a significant capital gain at an unfavourable time. This argument certainly has merit, especially for those in higher tax brackets. However, an easy way to avoid this risk is to have an adequate emergency fund that is not part of your long-term investment portfolio.

The next step: Canadian, U.S. and foreign equities in taxable accounts

The asset location decision is rarely as simple as putting all your bonds in an RRSP and all your equities in a taxable account. Many investors divide their equity holdings between an RRSP and a non-registered account. In this case, Canadian, U.S. and international equities need to be considered separately.

Canadian stocks generally get more favourable tax treatment: eligible Canadian dividends receive the dividend tax credit, while foreign dividends are taxed at your highest marginal tax rate. Moreover, US and international stocks are subject to foreign withholding taxes (though these may be recoverable by claiming the foreign tax credit). Therefore, once an investor runs out of room in registered accounts, Canadian stocks should be the first asset class to go in the taxable account.

That said, the current low dividend yield on US stocks is beginning to level the playing field. The table below estimates the annual taxes payable on a \$100,000 investment based on current index dividend yields. Note that the tax payable on Canadian and US equities is very similar:

Expected Annual Taxes Payable for an Ontario Resident in the Highest Marginal Tax Bracket

Index	Investment Amount	Dividend Yield	Tax Rate	Expected Annual Taxes Payable
MSCI Canada IMI Index	\$100,000	2.87%	29.52%	\$847
MSCI USA IMI Index	\$100,000	1.91%	46.41%	\$886
MSCI EAFE IMI Index	\$100,000	2.92%	46.41%	\$1,355

Sources: [MSCI Index Fact Sheets](#) as of February 28, 2014, [Ernst and Young 2014 Personal Tax Calculator](#)

It is clear from these numbers that international equities are the least tax-efficient and should therefore be the last equity asset class to move into a taxable account when RRSP room is maxed out.

Corporate vs. personal accounts. Investors who split their equity holdings between personal taxable and corporate accounts have an additional asset location decision. In general, these investors should hold Canadian equities in their corporate accounts whenever possible, while foreign equities should go in their personal taxable accounts.

There are two reasons for this. First, foreign income is taxed at a higher rate within a corporation than in a personal account. And second, the gross-up on Canadian dividends in a personal account may lead to a clawback of Old Age Security benefits in retirement (the gross-up within the corporate account does not affect your personal income, unless dividends are paid to you directly).

APPENDIX

TABLE 1: Historical Daily Exchange Rates: USD/CAD

Date	Historical Rate 1 UNIT CAD = X USD
January 3, 2003	0.638040
January 2, 2004	0.771843
January 4, 2005	0.828157
January 3, 2006	0.855725
January 3, 2007	0.858775
January 2, 2008	1.001603
January 2, 2009	0.819504
January 4, 2010	0.949532
January 4, 2011	1.009591
January 3, 2012	0.979528
January 2, 2013	1.005884

Source: CanadianForex

TABLE 2: Annual Rebalancing Dates and Net Asset Value Per Share (in CAD)

Rebalancing Date	XBB (in CAD)	XIC (in CAD)	IVV (in CAD)	EFA (in CAD)
January 3, 2003	27.18	10.65	142.72	52.58
January 2, 2004	27.63	12.86	143.97	58.76
January 4, 2005	28.72	14.06	143.54	63.26
January 3, 2006	29.15	18.01	148.34	70.52
January 3, 2007	29.12	19.97	165.10	85.76
January 2, 2008	28.83	21.91	144.54	78.78
January 2, 2009	28.86	14.55	113.91	54.28
January 4, 2010	29.70	18.70	119.70	59.52
January 4, 2011	29.74	21.76	126.22	57.88
January 3, 2012	31.32	19.25	137.86	51.69
January 2, 2013	31.29	19.80	145.91	56.65

Sources: BlackRock, BlackRock Canada, CanadianForex

TABLE 3: Historical Combined Top Personal Marginal Tax Rates (Ontario Resident)

Tax Year	Other/Foreign Income	Capital Gains	Dividends	Eligible Dividends	Non Eligible Dividends
2003	46.41%	23.20%	31.34%		
2004	46.41%	23.20%	31.34%		
2005	46.41%	23.20%	31.34%		
2006	46.41%	23.20%		25.09%	31.34%
2007	46.41%	23.20%		24.64%	31.34%
2008	46.41%	23.20%		23.96%	31.34%
2009	46.41%	23.20%		23.06%	31.34%
2010	46.41%	23.20%		26.57%	32.57%
2011	46.41%	23.20%		28.19%	32.57%
2012	46.41%	23.20%		29.54%	32.57%

Source: TaxTips.ca

TABLE 4: Historical Yearly Average Exchange Rates: USD/CAD

Tax Year	Yearly Average Rate 1 UNIT CAD = X USD
2003	0.718459
2004	0.770234
2005	0.826569
2006	0.881772
2007	0.935147
2008	0.944173
2009	0.880059
2010	0.970701
2011	1.011464
2012	1.000230

Source: CanadianForex