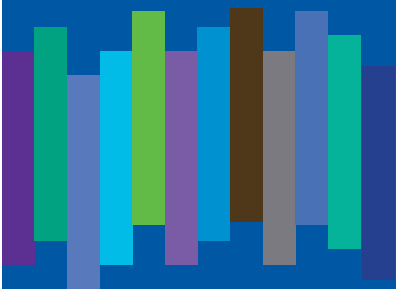




CFA Societies  
Canada

**INVESTMENT PRINCIPLES**  
INFORMATION SHEET FOR INVESTORS

# THE IMPACT OF TAXES



# 3

## **IMPORTANT NOTICE**

The term "financial advisor" is used here in a general and generic way to refer to any duly authorized person who works in the field of financial services, including the following:

- Investment brokers
- Mutual fund brokers
- Scholarship plan dealers
- Exempt market dealers
- Portfolio managers
- Investment fund managers
- Life insurance agents
- Financial planners (F.Pl.)



Copyright © 2016 CFA Montreal. All rights reserved.  
Reproduction in whole or in part without written permission of  
CFA Society Montreal is prohibited.

# THE IMPACT OF TAXES

There are two important issues related to taxation. Firstly, several governments have allowed tax-exempt and tax-deferred accounts designed to promote and facilitate wealth accumulation for the purposes of retirement. Secondly, when investment income is taxed, the tax rates may differ according to the sources of investment income. Even foreign governments may tax part of your investment income. Investors must first maximize the use of tax-exempt and tax-deferred accounts and also ask their advisor to explain how to maximize the after-tax efficiency of their portfolio. Taxation significantly complicates the retirement planning process.

This document explains the difference between tax-deferred and tax-exempt accounts, the investment value of such accounts compared to a taxable account, and the importance of properly managing taxes within taxable accounts.

## TAX-EXEMPT AND

## TAX-DEFERRED ACCOUNTS

Roth IRA (in the US) and TFSA (in Canada) are examples of tax-exempt accounts, while 401-K (in the US) and RRSP (in Canada) are examples of tax-deferred accounts. Under specific conditions, both types of accounts can be similarly efficient. In both accounts, investment income accumulates tax-free. For example, assuming a 6% annual return and 1% all-in fees, net return after fees will be 5% in both accounts.

However, each account differs in terms of what happens when a new contribution is made and when cash is withdrawn. In a tax-deferred account, a new contribution is tax deductible, while any withdrawal is taxable.

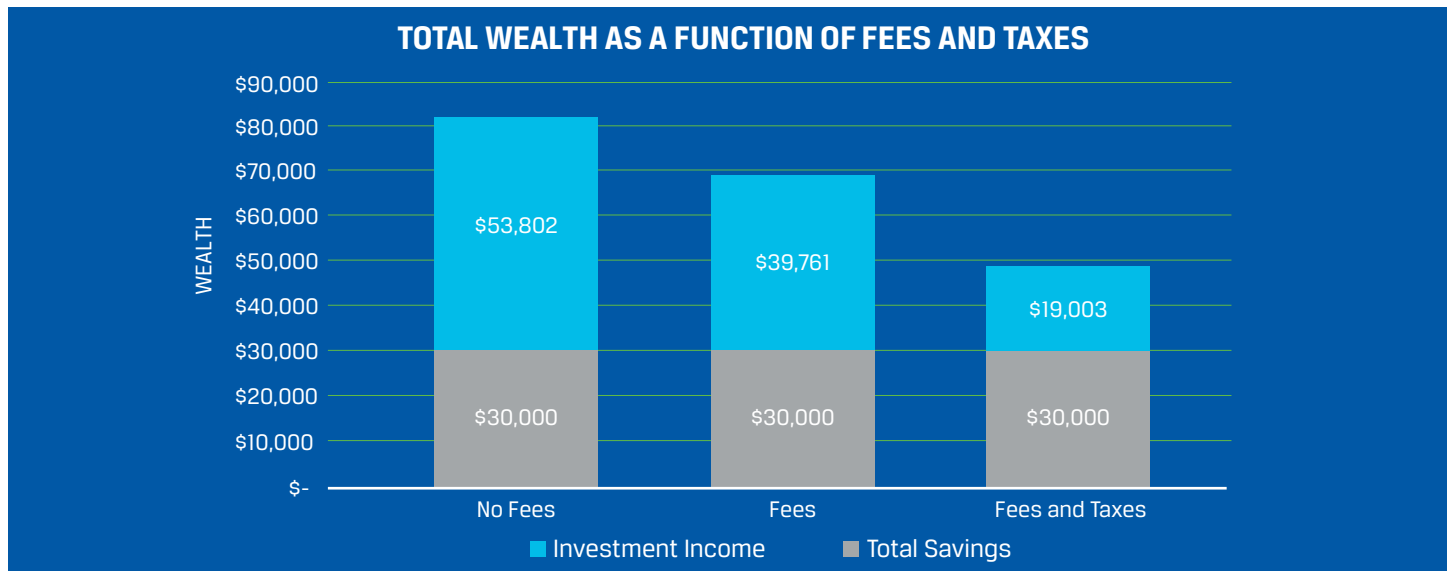
For example, let's assume an investor makes a \$1,000 contribution to a tax-exempt account while making a \$1,667 contribution to a tax-deferred account. The marginal tax rate of the investor is currently 40%, and the tax rate is assumed to remain constant. The following table illustrates the final wealth after tax for both accounts, assuming a 5% net (after fees) annual return.

	Tax-Exempt	Tax-Deferred
Initial Contribution	\$1,000	\$1,667
Tax Refund		\$667 (40% of \$1,667)
<b>Net Contribution After-Tax</b>	<b>\$1,000</b>	<b>\$1,000</b>
Final Value Before Tax	\$4,322	\$7,203
<b>Final Value After-Tax</b>	<b>\$4,322</b>	<b>\$4,322 (60% of \$7,203)</b>

In both cases, the net initial saving effort is \$1,000, since the investor will benefit from a tax refund for the tax-deferred contribution. Although the amount invested in the tax-deferred account is larger, once withdrawn, its value after-tax 30 years from now will be identical to that of the tax-exempt account. The tax-deferred account is preferable to a tax-exempt account only if we assume the investor's tax rate 30 years from now would be less than today. Since forecasting tax rates 30 years from now is impossible, we will assume both accounts are financially equivalent.

### TAX-EXEMPT AND TAXABLE ACCOUNTS

Let's return to our 30-year scenario of investing \$1,000 a year at a gross return of 6% while fees are 1%. We will also assume that all fees related to a taxable account are tax-deductible. However, this may not necessarily be the case in all circumstances. As an investor, you should ask your advisor about the deductibility of fees. Let's also assume investment income in the taxable portfolio is taxed at an average rate of 40%. The following figures compare the final wealth assuming no fees and no taxes (our base case), assuming fees and no taxes, and finally assuming fees and taxes.



Using a tax-exempt or a tax-deferred account leads to a final wealth (after tax and fees) of \$69,761 versus \$49,003 in a taxable account or 42.4% more. Therefore, investors should make full use of the capacity available in tax-deferred and tax-exempt accounts before investing in a taxable account.

## THE TAXATION OF DIFFERENT SOURCES OF INCOME

Explaining the many subtleties of tax systems is beyond the purpose of this document. However, there are principles that tend to apply to investors in most countries:

- Interest income is taxed at the applicable income tax rate;
- Dividend income from domestic corporations is taxed at a rate lower than the applicable income tax rate;
- Dividend income from foreign corporations is taxed at the applicable income tax rate;
- Dividend income from foreign corporations may also be subject to withholding taxes levied by foreign governments that may or may not be recoverable;
- Capital gains (selling an asset at a higher price than purchased) are taxed at a rate lower than the applicable income tax rate unless, perhaps, securities are traded frequently (within a year in the US), in which case, they would be taxed at the applicable income tax rate. Capital gain taxes are usually levied when realized (when the security is sold).

For the purposes of illustration, let's assume the following scenario. Interest income is 3%, while equity return on both domestic and foreign markets is 7.0%: 2.0% from dividends and 5.0% from capital gains. The income tax rate is 40% and the tax rate applicable to domestic dividends and capital gains is 20%. We will ignore withholding taxes, but this is an aspect that should be investigated by investors and their advisors. They will vary according to the country and investing instrument. It can get very complicated.

	Fixed Income	Domestic Equity	Foreign Equity
Interest/Dividend	3.0%	2.0%	2.0%
Capital Gain Assumption	-	5.0%	5.0%
<b>Gross Return</b>	<b>3.0%</b>	<b>7.0%</b>	<b>7.0%</b>
Fees	1.0%	1.0%	1.0%
<b>Net Return</b>	<b>2.0%</b>	<b>6.0%</b>	<b>6.0%</b>
Taxes Paid	0.8%	1.2%	1.4%
<b>Net Return After Tax</b>	<b>1.2%</b>	<b>4.8%</b>	<b>4.6%</b>
<b>Taxes as % of Net Return</b>	<b>40%</b>	<b>20%</b>	<b>23%</b>

The average tax rate on interest income (40%) is usually far greater than on domestic and foreign equity (20% and 23%). Even ignoring the impact of withholding taxes, the average tax rate on foreign equity is greater because of the higher tax rate on foreign dividends. Furthermore, capital gains are usually not fully taxed on a yearly basis, since only a portion of capital gains are usually realized each year. This further reduces the effective tax rate on equity below the level indicated in the table. It also allows the portfolio to generate greater returns, since the cash amount related to unrealized capital gains that have yet to be taxed can remain invested.

## SUMMARY AND CONCLUSION

Investors must maximize the use of tax-exempt and tax-deferred accounts. However, once taxable accounts are necessary (for wealthier investors), investment decision become significantly more complex. Asset classes (such as bonds and domestic and foreign equity) must be properly allocated between tax-exempt, tax-deferred and taxable accounts to maximize the long-term after-tax returns of the entire portfolio. Steps must sometimes be taken to manage the realization of capital gains. These are situations where a knowledgeable advisor and reputable financial software are useful. In the next document, we will maintain the assumption of a 40% average tax rate.