



智投贏行

Tax Loss Selling

Using Canadian-listed ETFs
to defer taxes on capital gains

No one likes losing money on an investment, but claiming capital losses can reduce your tax bill and ease the pain. *Tax loss selling* is a technique for harvesting capital losses in non-registered accounts so they can be used to offset capital gains. This strategy can help you defer taxes until the capital gains can be realized at a more beneficial time.

Suppose you hold \$50,000 worth of a Canadian equity ETF and the value of the holding declines to \$45,000. By selling your shares, you can crystallize a capital loss of \$5,000. And by claiming that loss, you may be able to offset a \$5,000 capital gain elsewhere in your portfolio, potentially deferring hundreds of dollars in taxes. This may sound like the cardinal sin of “selling low,” but we’ll explain in a moment why that’s not the case.

When you file your tax return, any capital losses must first be used to offset capital gains you’ve incurred in the current tax year. Any remaining losses can be carried back up to three years, or carried forward indefinitely to offset future capital gains. (To carry back current capital losses to prior years, you need to file form [T1A – Request For Loss Carryback](#) with your return.)

Here’s an example. Let’s say you got a big promotion in 2011 and your marginal tax rate jumped from 31% to 46%. Let’s also assume your investments had net capital gains of \$25,000 annually from 2010 to 2012, and then a net capital loss of \$25,000 in 2013. You could carry back the loss to offset gains realized during any of the previous three years. One option would be to use the losses to offset the capital gain from 2011, since your marginal tax rate was much lower in 2010. That way you’d get more bang for your capital-loss buck:

Tax Year	2010	2011	2012	2013
Net capital gain (+) or loss (-)	+\$25,000	+\$25,000	+\$25,000	-\$25,000
Marginal tax rate	31%	46%	46%	46%
Tax deferral from claiming 2013 loss	\$7,750	\$11,500	\$11,500	–

Why it’s OK to Sell Low

The problem with realizing a capital loss is that it can mean selling a security that plays an important role in your portfolio. This is why investors who buy individual stocks have limited opportunity for tax loss selling: if your holding in Royal Bank is down in value and you sell it to capture the capital loss, you could miss a big upward move in that stock. And you can’t simply buy back more Royal Bank shares and continue to hold them: if you do, the Canada Revenue Agency (CRA) will declare it a *superficial loss* and you won’t be able to use it to offset gains.

This is where ETF investors have an advantage: by following the techniques we describe here, you can systematically harvest capital losses while maintaining constant exposure to all the asset classes in your portfolio—all while staying within the rules set by CRA.

The Superficial Loss Rule

As we’ve said, the CRA does not allow you to sell a security to crystallize a loss, immediately buy it back, and then continue to hold it. If you do that, your claim will be denied as a [superficial loss](#). To avoid the superficial loss rule, you (or a person [affiliated](#) with you, which includes your spouse or a corporation controlled by either of you):

- A. cannot buy, or have the right to buy, the same or [identical property](#), during the period starting 30 calendar days before the sale, and ending 30 calendar days after the sale; **and**
- B. cannot still own or have the right to buy, the same or identical property 30 calendar days after the sale.

Notice that in part A of this rule, the period spans 61 days: the settlement date of the sale, plus the 30 calendar days before and the 30 calendar days after the settlement date. Part B sounds like it is redundant, but there’s an important subtlety. You can buy the identical security anytime during the 61-day period: *you just have to ensure you don’t still own it by the end of the period*. If you do, the loss will be denied and added back to the adjusted cost base (ACB) of the identical security.

Example. You purchase 5,000 shares of the [iShares MSCI Emerging Markets IMI ETF \(XEC\)](#) on April 10, 2013 for \$100,000 (at \$20 per share). On June 11 you sell 5,000 shares for proceeds of \$93,700 (at \$18.74 per share), resulting in a capital loss of \$6,300. You immediately buy back 5,000 shares of XEC for the same price. Both trades settle on June 14 (T+3).

If you still own 5,000 shares of XEC on July 14 (30 calendar days after the settlement date of the sale), your loss will be deemed superficial, and you will be required to add the denied loss to your ACB. Since you purchased the shares for \$93,700 and realized a capital loss of \$6,300, your new ACB will be \$100,000 (\$93,700 + \$6,300). You're now back to where you started.

Identical Property

The good news for ETF investors is that you can avoid the superficial loss rule while still maintaining exposure to the same asset class. Remember, the superficial loss rule only applies if you sell and then repurchase the same security or an [identical property](#).

In 2001, the CRA issued a bulletin (TI 2001-008038) stating that two index funds tracking the same benchmark are considered identical property. According to this interpretation, you cannot sell the [iShares MSCI Emerging Markets Index Fund \(XEM\)](#) and replace it with the [BMO MSCI Emerging Markets ETF \(ZEM\)](#). Other examples of identical property would include the [iShares S&P/TSX Capped Composite Index Fund \(XIC\)](#) and the [BMO S&P/TSX Capped Composite Index ETF \(ZCN\)](#). Vanguard, BMO and iShares all have funds tracking the S&P 500, and these too would be considered identical property according to the CRA interpretation.

However, it is possible to find pairs of ETFs in the same asset class that track different indexes. By selling your existing ETF and repurchasing a similar one—but not an identical property—you can realize a capital loss and still maintain similar diversification in your portfolio.

Example. You purchase 5,000 shares of the [iShares MSCI Emerging Markets IMI ETF \(XEC\)](#) on April 10, 2013 for \$100,000 (at \$20 per share). On June 11 you sell 5,000 shares for proceeds of \$93,700 (at \$18.74 per share), resulting in a capital loss of \$6,300. You immediately buy 3,850 shares of the [Vanguard FTSE Emerging Index ETF \(VEE\)](#) for \$93,700 (at \$24.34 per share). Both trades settle on June 14 (T+3). Because you are replacing one emerging markets ETF with another, you maintain a constant exposure to this asset class. And because these two ETFs track different indexes, they do not meet the CRA's definition of identical property, so the superficial loss rule will not apply.

We have suggested some other possible ETF pairings at the end of this paper.

Partial Disposition of Shares

It's possible to trigger a partial superficial loss, whereby only a portion of the capital loss is denied. This would occur if you buy back a lesser number of shares of the identical property during the 61-day holding period and are still holding these at the end of the period. The partial loss is calculated based on the following [equation](#):

$$\text{Denied Loss} = \frac{(\text{Least of } S, P \text{ and } B) \times L}{S}$$

Where:

S = the number of shares sold

P = the number of shares bought during the 61-day period

B = the number of shares remaining at the end of the 61-day period

L = the initial loss

Example. You purchase 5,000 shares of the [iShares MSCI Emerging Markets IMI ETF \(XEC\)](#) on April 10, 2013 for \$100,000 (at \$20 per share). On June 11 you sell 5,000 shares for proceeds of \$93,700 (at \$18.74 per share), resulting in a capital loss of \$6,300. You decide not to purchase a replacement ETF.

On June 19 you notice the price of XEC has dropped even further to \$18.25 per share and you see a buying opportunity. You purchase 2,000 shares for \$36,500 and you hold onto these shares until after the 61-day period ends on July 14. This will result in a partial superficial loss calculated as follows:

$$= \frac{(\text{Least of } 5,000, 2,000 \text{ and } 2,000) \times \$6,300}{5,000}$$

$$= \frac{2,000 \times \$6,300}{5,000}$$

$$= \$2,520$$

You can now claim a loss of just \$3,780 (\$6,300 – \$2,520). The denied loss of \$2,520 is added to the adjusted cost base of your 2,000 shares, increasing the ACB to \$39,020 (\$36,500 + \$2,520).

Determining the 61-Day Period

The 61-day period includes the settlement date of the sale as well as the 30 calendar days before and after the settlement date. We suggest first using a calendar to determine the settlement date of the sale: in the case of an ETF this is T+3, or three business days after the trade. (When determining settlement dates, do not include weekends or [holidays](#) when the Canadian stock markets are closed.)

Once that is done, shade in the 30 days before and 30 days after the settlement date. Ensure all purchases of the identical security settle outside of this 61-day period (unless you plan on selling the shares before the end of the 61-day period).

Example. You purchase 5,000 shares (at \$20 per share) of the [iShares MSCI Emerging Markets IMI ETF \(XEC\)](#) for \$100,000 in your non-registered account on April 10, 2013. On June 11 your holding is now worth \$93,700, so you sell your 5,000 shares (at \$18.74 per share) and immediately purchase 3,850 shares (at \$24.34 per share) of the [Vanguard FTSE Emerging Index ETF \(VEE\)](#) for \$93,700.

The transactions would settle on June 14 (T+3). The 61-day period would run from May 15 to July 14 (30 calendar days before and after the settlement date). You would therefore have been able to buy XEC anytime on or before May 9, as the trade would have settled on May 14, a day before the 61-day period began. You would also be free to repurchase XEC anytime on or after July 10, as the trade would settle on July 15, a day after the 61-day period ends. But any purchases during this window could trigger a superficial loss if the shares are still held at the end of the period.

So to stay within the rules, you sell 3,850 shares (at \$24 per share) of VEE on July 10 and receive proceeds of \$92,400. You immediately purchase 5,000 shares (at \$18.48 per share) of XEC for \$92,400. The trades both settle on July 15 (T+3).

May 2013							June 2013							July 2013						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
			1	2	3	4							1		1	2	3	4	5	6
5	6	7	8	9 _{T-0}	10 _{T+1}	11	2	3	4	5	6	7	8	7	8	9	10 _{T+0}	11 _{T+1}	12 _{T+2}	13
12	13 _{T+2}	14 _{T+3}	15	16	17	18	9	10	11 _{T+0}	12 _{T+1}	13 _{T+2}	14 _{T+3}	15	14	15 _{T+3}	16	17	18	19	20
19	20	21	22	23	24	25	16	17	18	19	20	21	22	21	22	23	24	25	26	27
26	27	28	29	30	31		23/30	24	25	26	27	28	29	28	29	30	31			
May 9: Last day to purchase XEC within 61-day period							June 11: Sold 5,000 shares-XEC to crystallize capital loss							July 10: XEC can be purchased on this day or later						
May 14: Settlement date for May 9 transaction							June 14: Settlement date for June 11 transaction (61-day period is 30 days before and 30 days after this date)							July 15: Settlement date for July 10 transaction						

Transaction History

Date	Transaction	Security	Shares	Price/Share	Market Value	Realized Gain/Loss
April 10, 2013	Bought	XEC	5,000	\$20.00	\$100,000	
June 11, 2013	Sold	XEC	5,000	\$18.74	\$93,700	-\$6,300
June 11, 2013	Bought	VEE	3,850	\$24.34	\$93,700	
July 10, 2013	Sold	VEE	3,850	\$24.00	\$92,400	-\$1,300
July 10, 2013	Bought	XEC	5,000	\$18.48	\$92,400	
Net Gain/Loss						-\$7,600

Notice that emerging markets equities continued to fall in price during June and July, so the sale of VEE resulted in an additional capital loss of \$1,300. In other cases, markets may recover during the 30 days after the replacement ETF is purchased, in which case selling it would trigger a capital gain.

Note the 61-day rule applies to affiliated persons as well. Suppose you and your spouse keep separate finances. On May 31, 2013 (during the 30 days prior to your original disposition), your spouse purchases 5,000 shares (at \$19.85 per share) of XEC for \$99,250 in his or her non-registered account and continues to hold them on the day your 61-day period ends. This transaction would cause your entire loss to be denied, and your spouse would be required to add your \$6,300 superficial loss to his or her adjusted cost base, increasing it to \$105,550 (\$99,250 + \$6,300).

When should you sell your losers?

Many investors—and advisors—pay little attention to tax loss selling until the end of the year. By doing so, they miss opportunities that arise from market downturns throughout the year. Consider an investor who purchased \$100,000 of the [Vanguard FTSE Emerging Index ETF \(VEE\)](#) on February 28, 2012. VEE was down for most of the year, but at the beginning of December it made an impressive recovery. The investor could have crystallized a loss of more than \$11,000 in August, but by the end of that year the opportunity had vanished. That's why we recommend keeping an eye on your non-registered accounts all year round, not just in December.

Date	Market Value \$
February 28, 2012	\$100,000
March 30, 2012	\$97,221
April 30, 2012	\$94,311
May 31, 2012	\$88,155
June 29, 2012	\$91,252
July 31, 2012	\$90,058
August 31, 2012	\$88,808
September 28, 2012	\$92,035
October 31, 2012	\$92,986
November 30, 2012	\$93,677
December 31, 2012	\$99,347

Source: Vanguard Canada

In his book [The Only Guide You'll Ever Need for the Right Financial Plan](#), Larry Swedroe suggests two requirements that should be met before engaging in tax loss selling. We use similar guidelines with our clients, though you can adapt them to your own preferences:

- a minimum dollar loss on the security of \$5,000, and
- a minimum percentage loss on the security of 5%

Example. Suppose you own the [iShares MSCI Emerging Markets IMI ETF \(XEC\)](#) in your non-registered account and your holdings currently show the following:

Symbol	Quantity	Current Price	Market Value	Book Value	\$ Gain/Loss	% Gain/Loss
XEC	5,000	\$18.740	\$93,700.00	\$100,000.00	-\$6,300.00	-6.30%

Your holding has a dollar loss of \$6,300 (calculated as Market Value minus Book Value). This loss exceeds our minimum threshold of \$5,000. XEC also has a percentage loss of 6.30% (\$ Gain/Loss divided by Book Value). This loss also meets our minimum threshold of 5%.

Since both requirements have been met, you could sell 5,000 shares of XEC and immediately purchase an equivalent amount of the [Vanguard FTSE Emerging Index ETF \(VEE\)](#) to realize the loss and maintain your exposure to emerging markets equities. After 30 calendar days, you can switch back to your original holding.

Underperformance of Replacement ETF

In our example above, from June 11 to July 10, the performance of XEC and VEE differed by just a single basis point (-1.39% versus -1.40%). That is an ideal result, but things don't always work out so well. There is always a risk the replacement ETF will significantly underperform the original ETF during the 30 calendar days after the switch. This is most likely to occur when the two ETFs track significantly different indexes: for example, if one index tracks the broad market and the replacement tracks only large-cap stocks. It's even possible that the replacement security will lag by a large enough amount that the tax benefit will not make up for the underperformance.

Of course, the relative difference in performance is just as likely to work in your favour: the replacement ETF could outperform the original during the 30 days after the switch.

Market Recovery

You will also notice in our examples that the initial capital loss of \$6,300 was increased to \$7,600 (\$6,300 + \$1,300) as a result of switching from VEE back to XEC on July 10. Again, this was an unpredictable result.

In other cases, markets may recover during the 30 days after the switch. In that case, selling the replacement ETF and repurchasing the original security could result in a large enough capital gain to entirely offset the capital loss you just triggered. A significant recovery in the markets is hardly the worst thing that could happen, but it would still defeat the purpose of tax loss selling.

Bid-Ask Spreads

When trading ETFs, you buy at the ask price and sell at the bid price. The difference in the two prices (multiplied by the number of shares bought and sold) is another cost of the strategy that can't be ignored.

For example, suppose the [bid-ask spread](#) of XEC was \$0.04 per share. Buying and selling 5,000 shares of this ETF would cost you an additional \$200 (5,000 shares x \$0.04). In our examples, you also bought and sold 3,850 shares of VEE: this would cost an additional \$77, assuming a bid-ask spread of \$0.02 per share. That's a total transaction cost of \$277.

Trading Commissions

Although our example did not include commissions, investors generally pay anywhere from \$10 to \$30 per ETF trade. Assuming two purchases and two sales, the strategy could cost the investor an additional \$40 to \$120.

Dividend Reinvestment Plans (DRIPs)

By enrolling in DRIPs through your brokerage account, you may be inadvertently setting yourself up for partial superficial losses. If you (or your spouse) have a DRIP set up on an ETF that you decide to sell for tax purposes, a portion of the loss may not be allowed. This is one of several reasons [we advise against using DRIPs in taxable accounts](#).

Continuing our examples above, suppose your spouse also owns 5,000 shares of XEC in a non-registered account that he or she purchased outside the 61-day window. On June 28, 2013, your spouse receives a dividend from the fund, most of which is used to automatically purchase 22 additional shares of XEC at \$18.71 (for a total DRIP of \$411.62). If these 22 shares are not sold by the end of the 61-day period, a partial superficial loss will occur.

Calculating Your Adjusted Cost Base (ACB)

Before engaging in tax loss selling, it is important to ensure your tax strategy is based on accurate information. It is your responsibility (not your brokerage's) to ensure your adjusted cost base (ACB) is accurate and up-to-date. This includes making adjustments for buys, sells, DRIPs, return of capital, reinvested distributions and unit splits. For more details on how to track your adjusted cost base, refer to our white paper, [As Easy as ACB](#).

Multiple Portfolio Managers

Some investors feel that using more than one portfolio manager or investment adviser offers some diversification benefit. The problem is, it can cause major headaches when it comes to calculating capital gains and losses. If one of the managers sells a security to realize a loss, there is no way for him to know whether another manager is buying shares of the same security during the 61-day period.

Separate Spousal Finances

Some spouses prefer to keep their finances separate, but this too can cause issues when trying to avoid the superficial loss rule. If one spouse sells a security in order to realize a loss, the other spouse may inadvertently purchase the same security during the 61-day period, offsetting all or a portion of the tax benefit.

Which ETF pairs should I use when tax loss selling?

With the recent launch of several ETFs from iShares and Vanguard, tax loss selling for Canadians has never been easier. Here we suggest ETF pairs we believe would be good candidates for the strategy. We start with the most broadly diversified ETFs that hold Canadian, U.S., international and emerging markets stocks. We then suggest a replacement that will provide similar market exposure without being deemed identical property. As always, you should speak with your accountant or other specialist before engaging in any tax strategy.

Canadian Equities

[Vanguard FTSE Canada All Cap Index ETF \(VCN\)](#): The FTSE Canada All Cap Index tracks 255 large, mid and small-cap companies in the Canadian stock market.

[BMO S&P/TSX Capped Composite Index ETF \(ZCN\)](#): The S&P/TSX Capped Composite Index tracks 234 large, mid and small-cap companies in the Canadian stock market. As the name suggests, index weights are capped at 10% (avoiding a future Nortel scenario, where a single company dominates the index).

From 2003 to 2012, these two indices had a monthly tracking error of 0.325%. This is a very small tracking error, which indicates these two indexes can be interchanged with little effect on market exposure. By comparison, the monthly tracking error over the same period between the FTSE Canada All Cap Index and the S&P/TSX 60 Index (which includes large-cap stocks only) was 0.505%.

It is important to note that if a single company were to one day become larger than 10% of the FTSE Canada All Cap Index, we might see significantly higher tracking error between the two indices (as the S&P/TSX Capped Composite would cap the security at 10%).

Index Performance (CAD) – 2003 to 2012



Sources: FTSE, S&P Dow Jones Indices, Dimensional Returns 2.0

The term **tracking error** is used to describe the difference between the performance of an investment fund or portfolio and that of its benchmark.

Informally, the term is often used to describe the size of the fund's outperformance or shortfall. For example, if the fund returns 9.5% in a given year and its underlying index returned 10%, the tracking error is 0.5%.

In technical usage, however, the term means something quite different. When comparing the performance of two indexes, the **tracking error** is the *standard deviation of the differences in their monthly returns*. A low value indicates that the indexes track each other closely. This is the way we use the term in this paper.

U.S. Equities

Vanguard U.S. Total Market Index ETF (VUN): This fund tracks the CRSP US Total Market Index, which includes over 3,500 large, mid, small and microcap companies, making it one of the most diversified indexes of U.S. equities

BMO S&P 500 Index ETF (ZSP): The S&P 500 is the most widely recognized benchmark index for U.S. equities. It tracks 500 large-cap companies.

From 2003 to 2012, the underlying indices had a monthly tracking error of 0.407%. While a large-cap index like the S&P 500 is not an ideal substitute for a total-market index, it is currently the best option available. (Note that the **Vanguard S&P 500 Index ETF (VFV)** or the **iShares S&P 500 Index ETF (XUS)** can be used in place of ZSP.)

Index Performance (CAD) – 2003 to 2012



Sources: CRSP, S&P Dow Jones Indices, Dimensional Returns 2.0

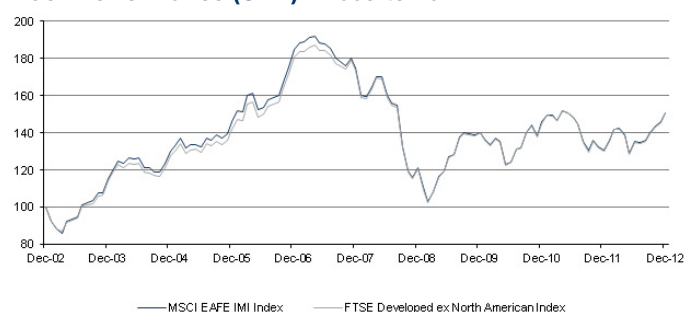
International Equities

iShares MSCI EAFE IMI Index ETF (XEF): The MSCI EAFE Investable Market Index comprises more than 3,000 large, mid and small-cap companies in developed countries, excluding Canada and the U.S. It is important to note that MSCI does not consider South Korea to be a developed country (it is included in the MSCI Emerging Markets Index).

Vanguard FTSE Developed ex North America Index ETF (VDU): tracks the FTSE Developed ex North America Index, which is comprised of over 1,300 large and mid-cap companies in developed countries, excluding Canada and the U.S. South Korea is included in this index.

From 2003 to 2012, the underlying indices had a monthly tracking error of 0.343%. By comparison, the monthly tracking error over the same period between the MSCI EAFE Investable Market Index and the MSCI EAFE Index was even lower at just 0.192%. However, no Canadian-listed ETF tracks the MSCI EAFE Index without using currency hedging, so VDU is currently the best substitute.

Index Performance (CAD) – 2003 to 2012



Sources: CRSP, S&P Dow Jones Indices, Dimensional Returns 2.0

Note that FTSE has classified South Korea as a developed country only since 2009. This suggests future tracking error between XEF and VDU may be expected to increase.

Emerging Markets Equities

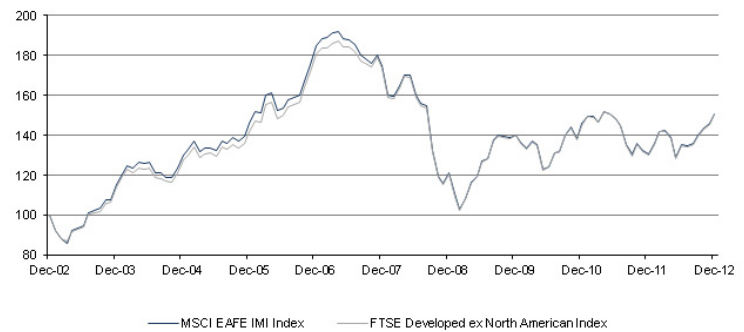
[iShares MSCI Emerging Markets IMI ETF \(XEC\)](#): The MSCI Emerging Markets Investable Market Index comprises over 2,600 large, mid and small-cap companies in emerging countries. MSCI considers South Korea an emerging market: the country makes up about 15% of this index.

[Vanguard FTSE Emerging Index ETF \(VEE\)](#): The FTSE Emerging Index includes over 800 large and mid-cap companies in emerging countries. Since 2009, FTSE has classified South Korea as a developed market, so it gets no allocation in this index.

From 2003 to 2012, the underlying indices had a monthly tracking error of 0.554%. By comparison, the monthly tracking error over the same period between the MSCI Emerging Markets Investable Market Index and the MSCI Emerging Markets Index was just 0.262%. However, we prefer to do tax loss selling with ETF pairs that track benchmarks created by different index providers to reduce the possibility of the securities being deemed identical property. If you disagree, consider the [BMO MSCI Emerging Markets Index ETF \(ZEM\)](#) as a replacement for XEC.

Since FTSE stopped classifying South Korea as an emerging market country in 2009, the future tracking error of the indices may be expected to increase.

Index Performance (CAD) – 2003 to 2012



Sources: FTSE, MSCI, Dimensional Returns 2.0