



ETF

& MUTUAL FUND UPDATE

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Market Radar		
Markets	TSX Composite	S&P 500
P/E	16.23	22.17
Yield (%)	3.21	2.33
YTD Performance (%)	0.28	4.12
Top Performers	ETF	Mutual Fund
1-Month	Marijuana Opportunities ETF	Dynamic Power American Growth
YTD	iShares TSX Capped Info Tech	Dynamic Power American Growth
3-Year	First Asset Tech Giants Cov Call	Resolute Performance
Market data as of June 11, 2018; top performers as of month-end.		
Note: We are no longer including leveraged ETFs in top performers list		

To Hedge Or Not To Hedge

Ryan Modesto, CFA

I am going to start this piece with an “apology”. It is lengthy and might even be a bit dry as it deals with foreign exchange exposure in funds. However, I do think it is well worth the read and thought, as it could be an area where many portfolios are exposed to some risk and may not even realize. For better or worse, I need to build this topic from the ground up to make sure a common understanding exists and I debated splitting the articles into two pieces then decided not to leave a reader ‘hanging’. Don’t worry, this won’t be a trend in article length but doing a deep dive like this is worthwhile from time to time.

The question of currency hedging in Exchange Traded Funds (ETFs) or mutual funds is one that comes up often for Canadian investors. Due to the size of the Canadian market relative to others, it is more of a pertinent issue to address for the average Canadian than it may be for other global investors. It also seems that for every Canadian traded ETF that invests globally, there is a currency-hedged option available. So not only is an investor tasked with finding the appropriate ETF/ allocation but is then faced with the decision of whether to hedge the currency or not.

An Overview of Currency Hedged ETFs

While we are referring to ETFs throughout this piece, the same logic will apply to any fund that utilizes currency hedging. The question surrounding currency hedging arises from funds that invest in securities that are traded in a foreign currency. For a Canadian investor, this relates to buying a Canadian traded ETF that invests in say the S&P 500. Since the underlying holdings (U.S. stocks) are valued in U.S. dollars but the ETF trades in Canadian dollars, there is extra variation or volatility due to the exchange rate. So, while the underlying stocks can move in one direction, the movement of the exchange rate can make that move more or less pronounced, depending on which way the currency moves. Essentially, an investor now needs to think about the underlying holdings as well as the currency exposure. The funds that have a hedged currency exposure are usually denoted by the term ‘CAD-hedged’ or some sort of variant appended to the end of the fund description. An example would be the Vanguard US Dividend Appreciation ETF (VGG) and the Vanguard U.S. Dividend Appreciation Index Fund (CAD-hedged) ‘VGH’. The two funds are identical except for the currency exposure and sometimes a very small difference in fees. At the end of this issue you can find a table outlining the Canadian traded funds with a hedged



and unhedged version.

What Currency Hedging Aims To Achieve

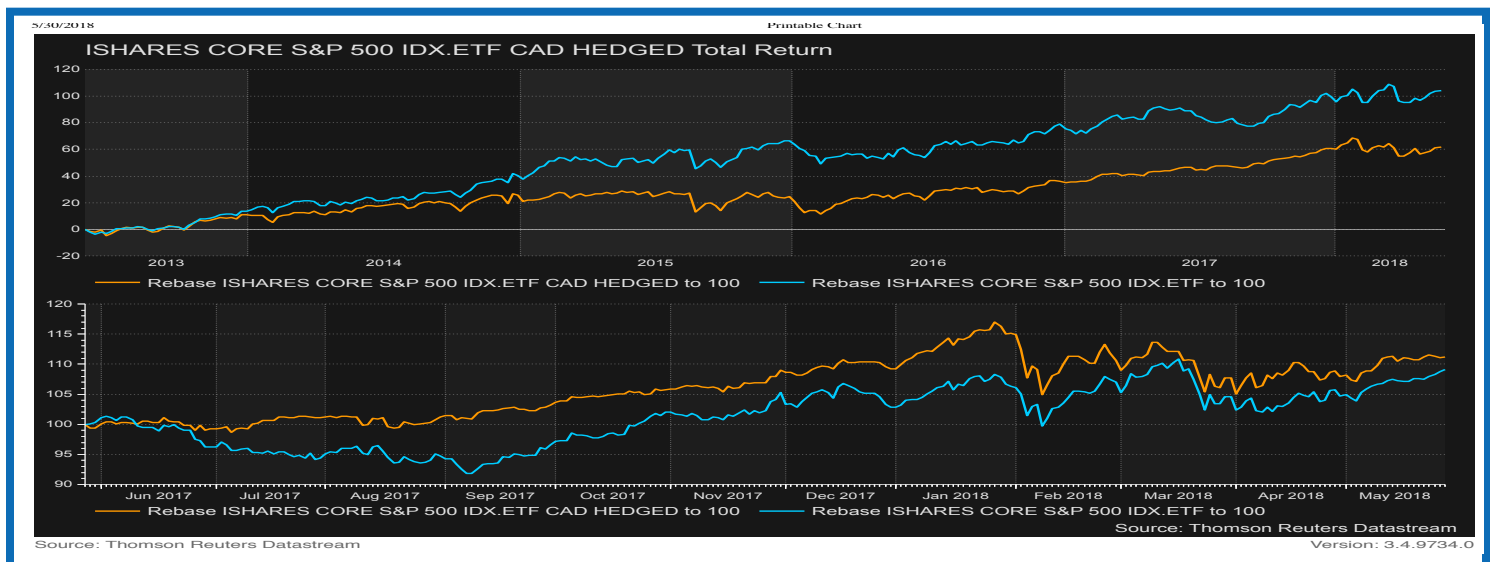
The primary purpose of currency hedging in a fund is to eliminate the foreign exchange movements. A fund with a CAD-Hedged notation to it would neutralize the impact of foreign currency movements so an investor is only exposed to the underlying holdings of the fund and not the movements of currencies. A fund that invests in global securities that is not currency hedged would offer an investor returns from the underlying holdings as well as any returns (or lack thereof) from the foreign exchange movements. It is important to note here that this added piece of exchange rate movement can either improve returns or hurt returns.

This begs the question of how currency hedging is achieved. To keep it higher level, currency hedging is done through derivatives (not all derivatives are bad!). While not every fund is the same, the general idea is if a fund has exposure to \$100 worth of U.S. stocks (and in turn \$100 worth of U.S. currency), the fund also takes a 'short' position on \$100 worth of U.S. dollars. The securities themselves will do what they do but for

every gain/(loss) in the U.S. dollar that occurs on the underlying fund, there will be an equivalent loss/(gain) in the derivative position as it takes an opposite position, offsetting the impact of the currency move.

Hopefully we did not lose you here, but if we did, the key is that a currency-hedged fund looks to remove any impact from foreign currency movements and achieves this typically with derivatives. If the fund is unhedged, the return will include the move in the underlying holdings as well as any returns from the foreign currency impact. For Canadian investors invested in unhedged U.S. funds, this has been a boon to returns. An investor would have held U.S. stocks that have done well and overlaid this by holding them in U.S. dollars which have become worth more relative to Canadian dollars over the last few years. In other words, if you held U.S. dollars when they were trading close to par, they now would be able to be converted to roughly 30% more Canadian dollars due to the move in the exchange rate. This would also be reflected in an unhedged fund compared to the same hedged fund. Let's look at a chart comparing two of the same funds with different currency exposures to see the impact over longer and shorter periods.

It is apparent that the difference can be material but there is a huge caveat here: just because this worked in





the past, does not mean it will work in the future. If the Canadian dollar started to strengthen for multiple years, the longer-term chart would reverse. We think it is key to keep in mind that while a choice between an unhedged or hedged currency ETF can improve returns, an investor should not try to jump back and forth between these types in an attempt to time currency moves. They should instead invest in whichever type of structure that makes sense for their personal situation.

Why An Investor Should Not Speculate on Currency Moves

To put it nicely, speculating on currencies is a mugs game. If you think picking successful stocks or successful funds is difficult, try picking a currency which essentially attempts to boil down everything happening in an economy into one number. Imports, exports, employment, oil, company health (private and public), interest rates and more are all factors that can impact a currency. Adding to the difficulty, you do not need to just know all these factors for a single country but the country you are pairing the currency to as well! For USD/CAD foreign exchange rates, you need to know what is going on in Canada as well as the U.S. because if Canada is 'weak' but the U.S. is 'weaker' economically, then the Canadian currency can actually strengthen in relative terms. So, if it is so difficult to pick a winning currency with consistency, should an investor even have any foreign currency exposure?

We do still view having some foreign currency exposure as important in a portfolio. What is less certain is how much is appropriate. The primary reason it is important is that it adds to portfolio diversification and more diversification means lower correlations across assets which helps improve risk-adjusted returns. The other reason it is important is related to the fact that as a Canadian investor, you likely are going to need it to have a truly diversified portfolio. We hinted at this at the beginning of the article, but the issue of currency exposure is a bigger one for Canadians than it is for U.S.-based investors. This is because theoretically due to the size of Canadian markets relative to the global

economy, the Canadian exposure should be fairly low in a portfolio. This of course leads to ownership of many securities denominated in foreign currencies. Alternatively, even if an investor has a high proportion of Canadian exposure, they are likely to have or need some U.S. currency exposure through companies that generate U.S. revenues or to be able to fill in any gaps in thin sectors in Canada such as healthcare, consumer sectors and technology. For better or worse, some of the best and largest companies trade on U.S. markets and to get exposure to them, foreign currency exposure is likely required in some form.

So, How Much Unhedged Fund Exposure Is Right For You?

Be warned, you will not get any specific answer here as it would differ from person to person given their personal situations. We can provide some general rules of thumb and things to consider. If we go back to the theoretical portfolio, Canadian exposure should technically only be 3% of your portfolio. Obviously for tax reasons and investor comfort, this would not be a reasonable expectation for most Canadian investors. More importantly, however, it is very unlikely that most investors could handle 97% of their portfolio being exposed to foreign currency movements every day. This does highlight why what appears to be a benign topic at face value is actually important for a Canadian investor, as a lot of the portfolio could or should be exposed to foreign investments and in turn foreign currencies.

When deciding what the amount of hedged or unhedged funds to hold is, here are some items to consider:

- Are you a fully passive or active investor?
- Do you want some variation that allows out/underperformance?
- What is your investment timeframe?
- How much do you expect to spend in foreign currencies?

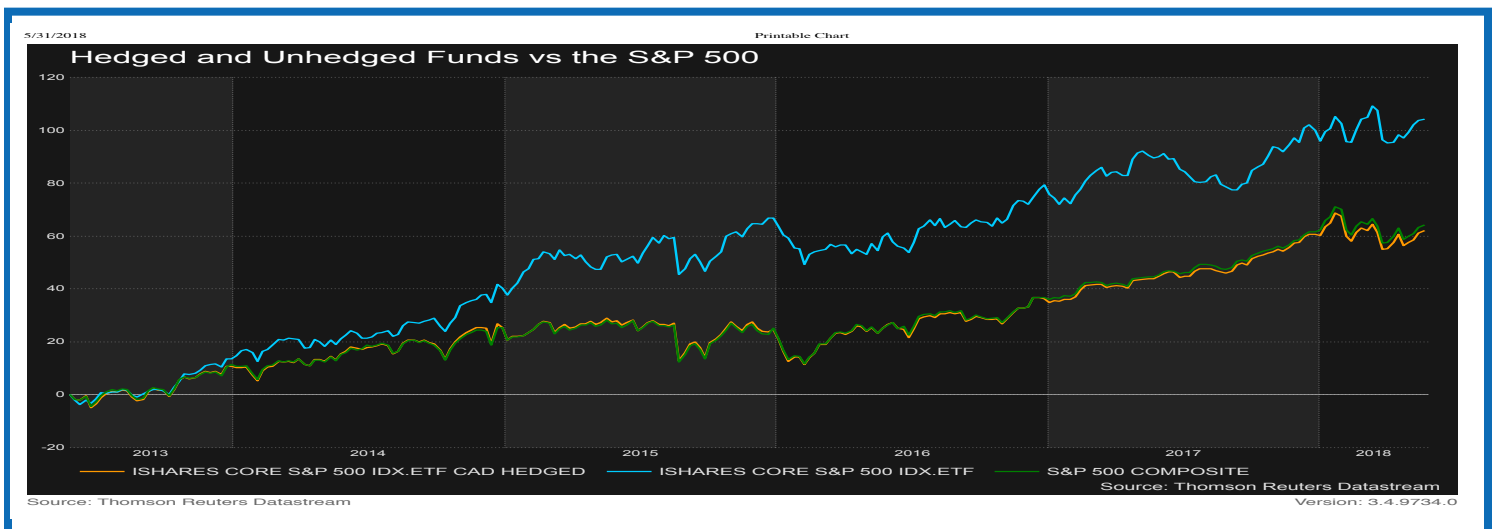


If you aim to be a fully passive investor, we think using hedged currency funds is the way to go. This ensures that an investor tracks the benchmark. Once you introduce extra volatility from foreign exchange movements, you increase the chances that your portfolio differs from a benchmark. This also makes comparing results more difficult. If an investor simply wants to match the S&P 500 performance and at year-end compares results to the S&P 500, the currency hedged fund would deliver this result. If an unhedged fund was held, an investor may find that their results differ greatly (good or bad) from what they were expecting given benchmark performance. From a passive investment point of view, you could understand the surprise and disappointment an investor may have if they thought the S&P 500 returned 10% in a year but found their portfolio only returned 5% due to the currency exposure. So, to reiterate, if you are a truly passive investor trying to track a benchmark, currency hedged funds are the way to go. The below chart helps to paint a bit of a picture on the 'surprise' one could see by investing in an unhedged currency ETF.

The second point may be attractive to an investor who wants to take a more passive approach but also have a chance for outperformance. If this is the case, some unhedged funds are likely appropriate. It is important to keep in mind that this is essentially making a bet on a currency movement. We do think it can be looked at a bit differently though.

Since very few people can call a currency move correctly, we would view it more as a diversification tactic than a 'bet' on a currency. In other words, allowing for some currency exposure adds another piece of diversification that will allow for some variation of the fund away from the benchmark returns (in either direction). For an investor looking for a bit of variation from currencies, we think a range of 10% to 25% of fund exposure being unhedged could be appropriate. It is important to keep in mind that there is no steadfast rule here that determines what is appropriate but from a test of reasonableness, not many investors would likely be comfortable with having over a quarter of the portfolio moving with currencies. At a 10% to 25% range, an investor is given plenty of opportunity for a portfolio to see a material impact from this added exposure as well. The final two bullet points from above also help impact this range.

If an investor has a long timeframe or a lot of expenses in U.S. dollars, then this would help justify tilting the weighting closer to the 25% range. Over the long-term, the currency moves should have less of an impact while market and stock fundamentals take over and become the real driver of returns. For an investor that goes to the U.S. for the winter, there could be a justification for having more U.S. dollar exposure, but this is due to more expenses likely being incurred in the U.S. Essentially, the closer the investor is to spending, the less they want to be exposed to additional volatility in the form of currency movements.





This is a similar concept to an investor wanting less equities in retirement due to the higher volatility compared to fixed income. U.S. living expenses aside, while an argument can be made for a higher allocation to assets with a foreign exchange component, we do think that if an investor goes above 25% in unhedged currency exposure, they need to do two things while everyone should consider number 3:

1. Be aware that a large degree of portfolio performance could be impacted by foreign exchange movements.
2. Understand why someone wants such a high currency exposure. It may not be right or wrong, but a thoughtful discussion with yourself or an advisor on why you hold a higher allocation to foreign currencies, along with the risks that come with it, would be prudent.
3. Look at your portfolio and see how much foreign currency exposure you actually have. If the portfolio is full of unhedged funds, you may be taking more risk than you either want or know. Since these funds trade in Canadian dollars, it is easy to overlook this risk within a portfolio.

Admittedly this piece quickly became much larger than we had intended but we think the lesson here is well worth the pages it is printed on. Canadian investors are in a unique position where a large degree of our portfolios could be exposed to foreign currency movements. Furthermore, by holding ETF or mutual fund units that are denominated in Canadian dollars but exposed to foreign markets, this risk almost becomes hidden in plain sight where it looks like there is Canadian dollar exposure, while in reality, the particular fund can still be impacted by exchange rates. While there may not be a right answer on how much exposure you should have to currencies, Canadian investors should be aware that this is a real risk factor to a portfolio and if one finds there is over 25% of their portfolio exposed to unhedged funds or foreign currencies, a hard look should be taken to determine if this is appropriate and time should be taken to understand what this means for a portfolio.

ETF Spotlight: iShares US Medical Devices ETF (IHI)

By Ryan Modesto, CFA

Canadian investors can have a tough time gaining exposure to the healthcare space. When looking within Canada, the space is full of stories where investors have been burned and for many, Valeant's impact on Canadian healthcare and investor returns will not soon be forgotten. Currently, Canadian healthcare has a situation where it is at least 45% comprised of cannabis companies when looking at market-cap and we are probably being conservative with this number as we are not including companies that are shifting strategies into the space. This hardly provides a broad spectrum of companies in the healthcare sector for an investor to own. This leaves an investor to look to the U.S. and this is where the Exchange Traded Funds (ETF) spotlight has ventured to this month.

A different exposure to healthcare

When investors think healthcare, our minds often wander to the companies creating drugs, going through complicated trials and testing processes and ultimately having a blockbuster drug or a flop. This comes with a lot of speculative risk in an area where many do not have a whole lot of insight. On the other hand, you have very large drug companies with far too much debt which is the problem many companies are running into currently. Add all the political risks that are occurring in the U.S. currently surrounding pricing and it is hard to have much confidence in the pharmaceutical and healthcare sector.

This, however, is where ETFs can be very useful. No longer does an investor have to hold the whole sector to gain exposure to it. ETFs now offer exposure to subsets of a sector and this is where the iShares US Medical Devices ETF (IHI) comes in. IHI allows an investor to get U.S.



healthcare exposure but avoid the types of companies investors may have had bad past experiences with as well as avoiding the companies that are in political crosshairs.

IHI measures the performance of the medical equipment sector in the U.S. Examples of companies within the fund are Medtronic, which manufactures devices for heart problems, Intuitive Surgical, which produces 'robots' that aid in minute medical surgeries, and numerous other companies doing pretty interesting things.

As you would expect given the more niche nature of this fund, the underlying holdings have a higher concentration which does pose some risk but the ETF remains well balanced with the highest single position making up 8% of the fund. The fee is low at 0.44%, as is the yield at roughly 0.30%. Performance has been consistently strong with a since inception return of 12.13%, five-year return of 20.08% and one-year return of 22.48%. These returns do come with risks though. The underlying holdings typically have high P/E ratios and the average P/E is 38.5. Some nuance is appropriate here as these companies are not the best to value based on earnings but the caveat is still the same: This is a higher risk and more volatile sector exposure. The offset to this in our view is that typically a healthcare exposure is higher risk to begin with. So, for investors looking for some healthcare exposure, it should not come as much of a shock that an ETF like this carries the risk of a bit more volatility than other potential investments.

While the medical device sector is an interesting one, we also need to see how it has performed relative to a broader healthcare ETF. Interestingly, IHI has vastly outperformed the healthcare iShares Dow Jones US Healthcare (ETF) (IYH) as seen on the top of page 7.

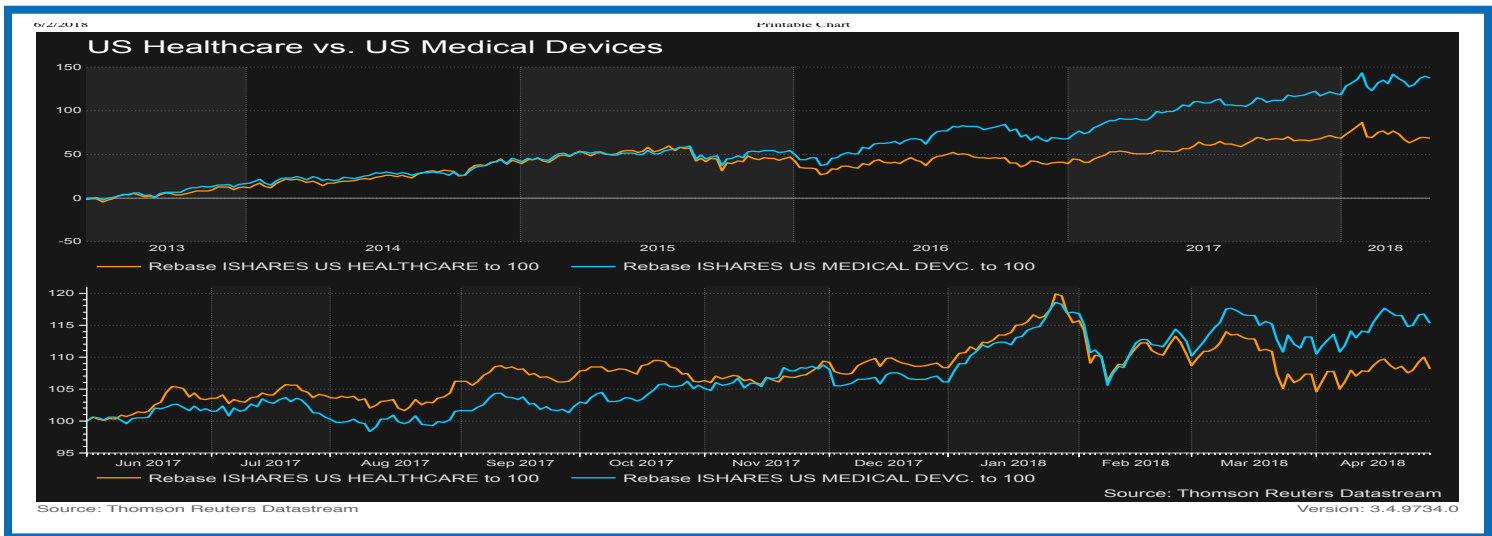
While there may be a bit more risk in a fund such as IHI, the performance has justified this risk over a one-year and five-year period. As always, past performance does not guarantee future success but there is fortunately more of a case to make for medical devices than simply

past performance.

The shorter-term case we think an investor can make for the medical device segment over broader healthcare is that it should be less subject to political risks. So far, the companies seem to have been able to avoid the political scrutiny other healthcare companies receive. This political uncertainty ends up being a big weight on investment performance as it becomes hard to gauge what the prospects of a company or industry will be due to interference. An ETF like IHI helps to avoid this. The other case we think that can be made for medical devices is that longer-term, it should see stable and likely growing demand. As generations grow older and live longer, there will be an increasing need for devices that either help keep patients healthy or help save lives in a consistent and repeatable manner. As technology improves and best practices adapt, there should also be increased adoption of more of these high-tech types of devices such as surgical robots.

While IHI is not without its risks, we think it is a space that offers potential over shorter and longer terms. It avoids many of the pitfalls that the pharmaceutical industry is facing and also allows a Canadian investor to gain exposure to a healthcare space that really just doesn't exist in Canada from an investment point of view. We think this niche will continue to receive interest from investors and would consider it an interesting investment for a fund investor that can stomach a bit more volatility than you may get from a broader ETF exposure.

Company	Weighting
MEDTRONIC PLC ORD	8.25%
ABBOTT LABORATORIES ORD	7.77%
THERMO FISHER SCIENTIFIC INC ORD	7.04%
BECTON DICKINSON AND CO ORD	5.89%
DANAHER CORP ORD	5.76%
STRYKER CORP ORD	5.41%
INTUITIVE SURGICAL INC ORD	5.06%
BOSTON SCIENTIFIC CORP ORD	4.40%
BAXTER INTERNATIONAL INC ORD	4.03%
EDWARDS LIFESCIENCES CORP ORD	3.29%
Top 10 Total	56.90%



Question and Answer

Courtesy of 5i Research

Question

Looking for your insights on fixed income strategies in this environment of potentially rising rates. I have reviewed a number of etf 's which have shown negative returns over the last couple of years. Are there any etfs, bond funds or strategies (laddered gic's?) that you feel are suited to what may be a new era of gradual interest rate creep.

Answer

One option here is to look at floating rate ETFs, such as Horizons Active Floating Rate Bond ETF (HFR) and iShares Floating Rate Bond ETF (FLOT). Owning a pool of adjustable rate bonds does offer a bit of protection in a rising rate scenario. You are right that fixed income securities have not performed well, but the market is dynamic: rates won't rise forever. We would also suggest a 1 to 5 year laddered bond strategy held directly.

Question

With a large portion of VBAL in fixed income why is the dividend only 1.03%. Is this simply due to the ratio of equity to fixed income or does this fund reinvest some income or dividends within the fund?

Answer

The fund is 40% fixed income right now, so yield will be impacted with (relatively) low rates. The yield on Canadian stocks is 2.8%, so the combined yield is not likely to be overly high. The ETF has not been around a long time, and has only paid one dividend so far, so it will remain to be seen how the yield progresses. Capital gains may be redistributed but we will have to wait to year end to see how this is allocated for 2018.

Question

Would this be a good portfolio of Mawer Funds for a time frame of at least 15 years, or is there something I am missing or could be improved upon: Mawer Global Small-Cap (MAW150), Mawer Global Equity (MAW120), Mawer International Equity (MAW102), Mawer Balanced Fund (MAW104).

Answer

Mawer is a good fund company with relatively low fees. However we might caution against having all funds at one company, and the set up proposed is highly skewed to international equities. While fees are low, they still range here from 0.92% to 1.76% and this needs to be considered. We might balance some of this exposure out with a general (and cheaper) Canadian ETF such as XIC.



CAD-Hedged			Unhedged			
Ticker	Name	MER (%)	Benchmark Index	Ticker	Name	MER (%)
ZHP	BMO US Preferred Share	0.51	Solactive US Preferred Share	ZUP	BMO US Preferred Share Index	0.51
QAH	Mackenzie US Large Cap Equity Index ETF	0.08	Solactive US Large Cap	QUU	Mackenzie US Large Cap Equity Index ETF	0.08
QDXH	Mackenzie International Equity Index	0.23	Solactive GBS Dev Markets ex N.A. Large & Mid Cap	qdx	Mackenzie International Equity Index	0.23
ZUB	BMO Equal Weight US Banks	0.40	Solactive Equal Weight US Bank Index	ZBK	BMO Equal Weight US Banks Index	0.39
XUH	iShares Core S&P US Total Market	0.07	S&P Total Market	XUU	iShares Core S&P US Total Market Index	0.07
XMH	iShares S&P U.S. Mid-Cap Index ETF	0.15	S&P MidCap 400 Index	XMC	iShares S&P Mid-Cap ETF	0.07
XHC	iShares Global Healthcare Index ETF	0.65	S&P Global 1200 Healthcare Sector Index(TM)	IXJ	iShares Global Healthcare ETF	0.47
GHD/F	PowerShares S&P Gbl ex Canada Hi-D L-Vol	0.62	S&P Global 1200 Ex. Canada Low Vol High Div Index	GHD	PowerShares S&P Gbl ex Canada Hi-D L-Vol	0.62
THE	TD International Equity Index ETF	0.2	S&P EPAC Ex-Korea LargeMidCap	TPE	TD International Equity Index ETF	0.2
ULV/F	PowerShares S&P 500 Low Volatility	0.36	S&P 500 Low Volatility Index	ULV/C	PowerShares S&P 500 Low Volatility	0.4
UHD/F	PowerShares S&P 500 Hi-Div Low Vol	0.40	S&P 500 Low Volatility High Dividend Index	UHD	PowerShares S&P 500 Hi-Div Low Vol	0.4
TXF	First Asset Tech Giants Covered Call ETF	0.70	S&P 500 Information Technology Index (Total Return)	TXF/B	First Asset Tech Giants Covered Call ETF	0.71
EQL/F	Invesco S&P 500 Equal Weight Index ETF	0.25	S&P 500 Equal Weight	EQL	Invesco S&P 500 Equal Weight Index ETF	0.25
XSP	iShares Core S&P 500 Index ETF	0.11	S&P 500	IVV	iShares Core S&P 500 ETF	0.04
VSP	Vanguard S&P 500 Index ETF	0.08	S&P 500	VOO	Vanguard S&P 500 ETF	0.04
HSH	Horizons S&P 500 ETF	0.10*	S&P 500	HXS	Horizons S&P 500 Index ETF	0.10*
THU	TD S&P 500 Index	0.11	S&P 500	TPU	TD S&P 500 Index ETF	0.11
ZUE	BMO S&P 500 Index	0.09	S&P 500	ZSP/U	BMO S&P 500 Index	0.09
XXM	First Asset Morningstar US Value	0.69	S&P 500	XXM/B	First Asset Morningstar US Value	0.69
DGR	WisdomTree US Quality Div Growth	0.47	S&P 500	DGR/B	WisdomTree US Quality Div Growth	0.44
MULC	Manulife Multifactor US Large Cap	0.45	S&P 500	MULC/B	Manulife Multifactor US Large Cap	0.4
FCY	First Asset Cambridge Core US Equity	0.89	S&P 500	FCY/B	First Asset Cambridge Core US Equity	0.89
MUMC	Manulife Multifactor US Mid Cap	0.57	Russell Midcap Index	MUMC/B	Manulife Multifactor US Mid Cap	0.51
HID	WisdomTree US High Dividend Index	0.48	Russell 1000 Value Index	HID/B	WisdomTree US High Dividend Index	0.44
FHQ/F	First Trust AlphaDEX US Technology	0.79	Russell 1000 Technology Index	FHQ	First Trust AlphaDEX US Technology Sector	0.77
FHG/F	First Trust AlphaDEX US Industrials	0.79	Russell 1000 Producer Durables Index	FHG	First Trust AlphaDEX US Industrials Sector	0.76
FHH/F	First Trust AlphaDEX US Health Care	0.79	Russell 1000 Health Care Index	FHH	First Trust AlphaDEX US Health Care Sector	0.77
FHC/F	First Trust AlphaDEX US Cons Staples	0.79	Russell 1000 Consumer Staples Index	FHC	First Trust AlphaDEX US Consumer Staples	0.77
VGH	Vanguard US Div Appreciation	0.3	NASDAQ US Dividend Achievers Select Index	VGG	Vanguard US Div Appreciation	0.3
QQC/F	PowerShares QQQ Index ETF	0.33	Nasdaq 100	QQQ	PowerShares QQQ Trust Series 1	0.2
NXF	First Asset Energy Giants Covered Call ETF	0.71	MSCI World/Energy NR Index	NXF/B	First Asset Energy Giants Covered Call ETF	0.7
PZW/F	PowerShares FTSE RAFI Gbl SM-Mid Fndmtl	0.68	MSCI World Small Cap Index	PZW	PowerShares FTSE RAFI Gbl SM-Mid Fndmtl	0.61
RWW	First Asset MSCI World Low Risk	0.65	MSCI World Risk Weighted Top 200 Index	RWW/B	First Asset MSCI World Low Risk Weighted	0.68
FCW	First Asset Cambridge Global Div	0.79	MSCI World Index	FCW/B	First Asset Cambridge Global Div	0.79
XDGH	iShares Core MSCI Global Quality Div	0.23	MSCI World High Dividend Yield Index 100%	XDG	iShares Core MSCI Global Quality Div	0.23
RWU	First Asset MSCI USA Low Risk	0.68	MSCI USA Risk Weighted Top 150 Index	RWU/B	First Asset MSCI USA Low Risk	0.69
XMS	iShares Edge MSCI Min Vol US	0.34	MSCI USA Minimum Volatility (USD) Index	XMU	iShares Edge MSCI Min Vol US	0.34
XDUH	iShares Core MSCI US Quality Div	0.16	MSCI USA High Dividend Yield Index 100%	XDU	iShares Core MSCI US Quality Div	0.16
XDUH	iShares Core MSCI US Quality Dividend	0.16	MSCI USA High Dividend Yield Index	XDU	iShares Core MSCI US Quality Dividend	0.16
XFA	iShares Edge MSCI Multifactor USA	0.51	MSCI USA Diversified Multiple-Factor (CAD) 100%	XFS	iShares Edge MSCI Multifactor USA	0.51
RWE	First Asset MSCI Europe Low Risk	0.67	MSCI Europe Risk Weighted Top 100 Index	RWE/B	First Asset MSCI Europe Low Risk Weighted	0.69
XEH	iShares MSCI Europe IMI Index	0.28	MSCI Europe IMI	XEU	iShares MSCI Europe IMI Index ETF	0.28
EHE	WisdomTree Europe Hedged Equity	0.75	MSCI EMU Index	EHE/B	WisdomTree Europe Hedged Equity Index	0.62
RWX	First Asset MSCI Int'l Low Risk Weighted	0.68	MSCI EAFE Risk Weighted Top 175 Index	RWX/B	First Asset MSCI Int'l Low Risk Weighted	0.68
XML	iShares Edge MSCI Min Vol EAFE	0.37	MSCI EAFE Minimum Volatility	XMI	iShares Edge MSCI Min Vol EAFE Index ETF	0.37
IQD	WisdomTree Intl Quality Div Growth	0.7	MSCI EAFE Index	IQD/B	WisdomTree Intl Quality Div Growth	0.59
MINT	Manulife Multifactor Developed Int'l	0.62	MSCI EAFE Index	MINT/B	Manulife Multifactor Developed Int'l	0.57
XFH	iShares Core MSCI EAFE IMI	0.22	MSCI EAFE IMI	XEF	iShares Core MSCI EAFE IMI Index ETF	0.22
XFF	iShares Edge MSCI Multifactor EAFE	0.51	MSCI EAFE Diversified Multiple-Factor	XFI	iShares Edge MSCI Multifactor EAFE Index	0.51
XIN	iShares MSCI EAFE Index ETF	0.49	MSCI EAFE	EFA	iShares MSCI EAFE ETF	0.32
ZDM	BMO MSCI EAFE	0.23	MSCI EAFE	ZEA	BMO MSCI EAFE Index ETF	0.22
XMY	iShares Edge MSCI Min Vol Global	0.48	MSCI ACWI Minimum Volatility (USD) 100%	XMW	iShares Edge MSCI Min Vol Global Index ETF	0.48
CES	First Asset Core US Equity ETF	1.02	Morningstar US Target Value Index	CES/B	First Asset Core US Equity ETF	1.02
YXM	First Asset Morningstar US Momentum	0.69	Morningstar US Momentum Index	YXM/B	First Asset Morningstar US Momentum	0.69
UXM	First Asset Mngstar US Dvd Target 50	0.69	Morningstar US Dividend Target 50 Index	UXM/B	First Asset Mngstar US Dvd Target 50	0.67
XHD	iShares US High Dividend Equity	0.33	Morningstar Dividend Yield Focus Index	XHU	iShares US High Dividend Equity	0.34
VXM	First Asset Morningstar International Value	0.69	Morningstar Dev Markets ex-N.A. Target Value Index	VXM/B	First Asset Morningstar International Value	0.66
ZXM	First Asset Morningstar Intl Momemtum	0.73	Morningstar Dev Markets ex-N.A. Target Momentum Index	ZXM/B	First Asset Morningstar Intl Momemtum	0.73
MUSC	Manulife Multifactor US Small Cap	0.62	John Hancock Dimensional Small Cap Index	MUSC/B	Manulife Multifactor US Small Cap	0.57
FIG	First Asset Investment Grade Bond	1.03	FTSE TMX Canada All Corporate Bond Index	FIG/U	First Asset Investment Grade Bond	0.73
PXS/F	PowerShares FTSE RAFI US Fundamental	0.57	FTSE RAFI US 1000 Index	PXS	PowerShares FTSE RAFI US Fundamental	0.57
VEH	FTSE Developed Europe All Cap Index ETF	0.23	FTSE Developed Europe All Cap Index	VE	FTSE Developed Europe All Cap Index ETF	0.22
VAH	Vanguard FTSE Dev Asia Pacific All Cap	0.23	FTSE Developed Asia Pacific All Cap	VA	Vanguard FTSE Dev Asia Pacific All Cap	0.22
VEF	Vanguard FTSE Dev All Cap ex US	0.21	FTSE Developed All Cap ex US	VDU	Vanguard FTSE Developed All Cap Ex US	0.21
VI	Vanguard FTSE Dev All Cap ex N.A.	0.23	FTSE Developed All Cap ex North America	VIU	Vanguard FTSE Dev All Cap ex N.A.	0.23
DWG/F	PowerShares DWA Global Momentum	0.5	Dorsey Wright Global Technical Leaders Index	DWG	PowerShares DWA Global Momentum Ind	0.5
VUS	Vanguard US Total Market	0.16	CRSP US Total Market	VUN	Vanguard US Total Market Index	0.16