

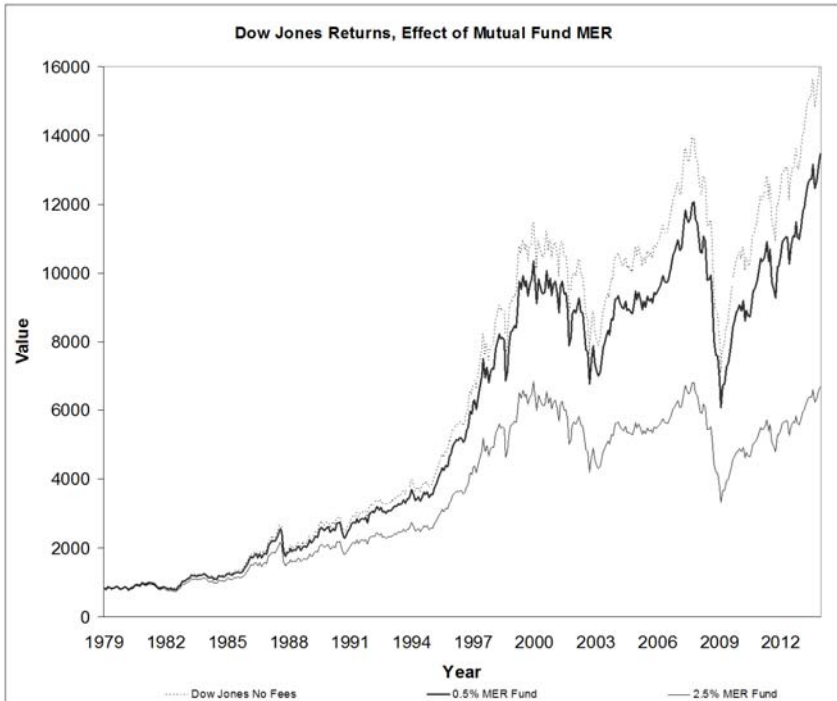
The Value of Simple Figures and Tables

Introduction

Seeing the figures and tables included in the book can be difficult on some platforms. This document contains the tables and figures without context – please purchase the book for all the information.

The chapter headings will help orient you to where each figure came from.

The Framework of the Story – Part 2: Fees



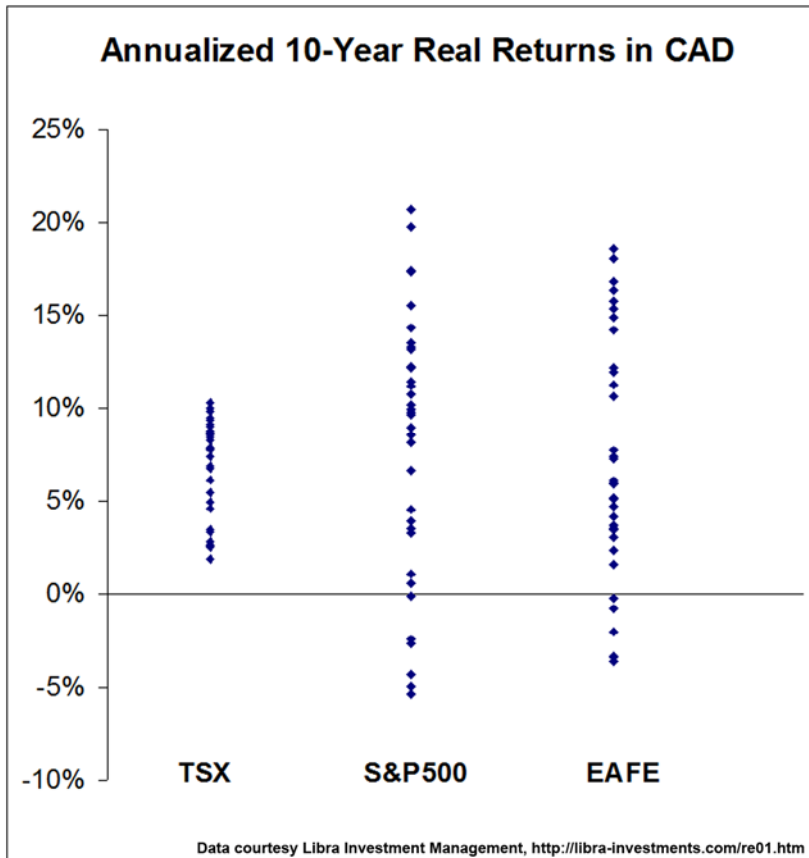
The effect of fees on returns over the long term. Inspired by a figure from Michael Wiener. Here the returns for the DJIA and a simulated mutual fund with a 0.5% and 2.5% MER are compared. The 2.5% MER ends up costing almost a third of the total returns. www.michaeljamesonmoney.com/2009/12/mer-drag-on-returns-in-pictures.html

Passive Investing

Mutual Funds vs. Index Funds vs. ETFs

	<u>Regular Mutual Funds</u>	<u>Index Funds</u>	<u>ETFs</u>
Account	Can be purchased from a simple mutual funds account or select brokerage accounts; managed account or self-directed	Can be purchased from a simple mutual funds account or select brokerage accounts; usually self-directed accounts only	Can be purchased from any brokerage account – even funds trading on US exchanges can be purchased; usually self-directed accounts only
Fees/MERs	Typically the highest in the world, over 2%/year. Usually no fee to buy, but can have deferred sales charges (DSC) to sell early (and “early” can mean up to 7 years)	Usually no fees to purchase or sell; middle-range ongoing fees of ~1% for many index funds, but <0.5% for TD e-series	Commissions to sell, usually commission to buy, depending on the brokerage. Lowest ongoing fees
Minimum Holding Period	Usually a minimum holding period, can be extremely long (up to 7 years)	Usually a minimum holding period (none for Tangerine, 30 days for TD e-series, both discussed later)	No minimum holding period
Selection	Vast array available	Somewhat limited, major indexes with perhaps some currency neutral options	Vast array available, not all are <i>passive index</i> ETFs, like with mutual funds
Pricing	Based on value of underlying holdings	Based on value of underlying holdings	Based on market trading, <i>usually</i> tied very closely to value of underlying holdings
Units	Can buy partial units to invest to the last penny	Can buy partial units to invest to the last penny	Must purchase whole units, preferably in blocks of 100 units
Minimum Investment	Usually \$100 to both open an account and make an individual purchase; pre-authorized purchases can be set up for as little as \$25 per purchase	Usually \$100 to both open an account and make an individual purchase; pre-authorized purchases can be set up for as little as \$25 per purchase (even less through Tangerine)	Usually \$5,000 - \$15,000 to avoid fees on account; minimum individual purchase depends on ETF value and when it makes sense to pay a commission (if applicable)

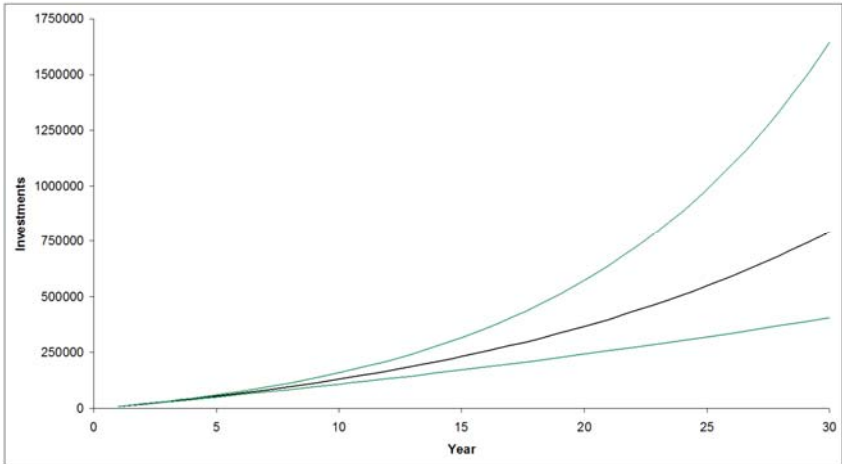
Risk and Historical Returns



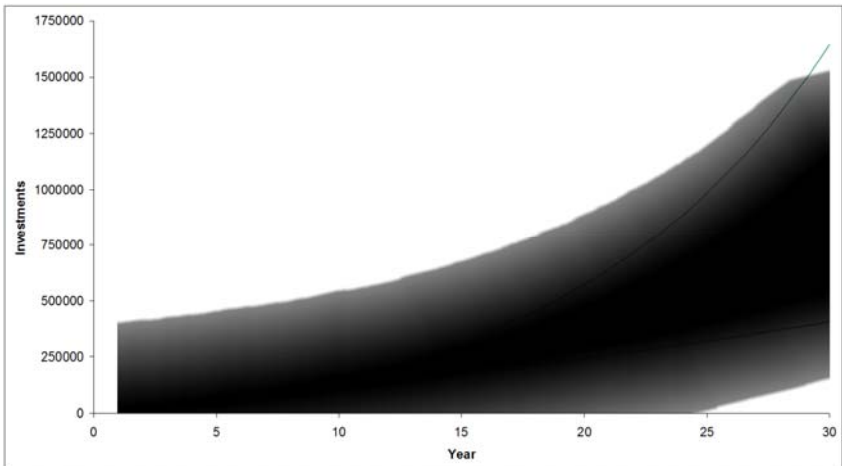
Here are the annualized total real returns for Canadian, US, and international equities over rolling ten-year periods – that is, this chart shows you the average return you would get each year through the ten-year periods of 1970-1979, 1971-1980, 1972-1981, etc., through to 2004-2013. The returns have been adjusted back to Canadian dollars, adjusted for inflation, and include dividends. Note that all of the negative returns in this data include the 2008/2009 market crash, but not all ten-year periods that include the crash had negative returns. Source data

*collected and provided by Libra Investment Management,
libra-investments.com/re01.htm.*

The Cone of Probability



Savings and investments plotted over 30 years with a most likely or “base” case of 6% investment returns, along with best case (10%) and worst case (2%) scenarios.



A visualization of a cloud of probability – of uncertainty – around potential future outcomes. The cloud is an artists' rendition and not a statistical display or calculation.

Step 2: Determine Your Risk Tolerance and Asset Allocation

Asset Allocation Guide

Component	Minimum Recommended	Default Suggestion	Maximum Recommended
Bonds/fixed income	5% of total	Your Age – 10 (in %)	65% of total*
Canadian Stocks	15% of equities	1/3 of equities	60% of equities
US Stocks	15% of equities	1/3 of equities	50% of equities
International Stocks	15% of equities	1/3 of equities	50% of equities

** pre-retirement – in retirement, or even close to it, you may wish to have more in fixed income.*

Step 4: Create an Account and Invest!

Three Investing Options – Effort vs. Cost

	Tangerine	TD e-series	ETFs (Questrade)
Effort required (increasing left to right)	<ul style="list-style-type: none"> • Can invest to the last penny • Automatic rebalancing • Orders very straightforward • Preauthorized purchases 	<ul style="list-style-type: none"> • Can invest to the last penny • Must rebalance manually • Orders very straightforward • Preauthorized purchases 	<ul style="list-style-type: none"> • Must invest in whole ETF units • Must rebalance manually • Orders more complex • Margin accounts
Typical MER ¹	1.07%	0.422%	0.178%
Annual cost for \$20,000	\$214.00	\$84.50	\$45.50
Annual cost for \$300,000	\$3,210.00	\$1,267.50	\$542.50

¹ Assuming 25% in each of a bond fund, Canadian, US, and International equities. For dollar comparisons, assumes \$10 in commissions per year. If you decide to shift to ETFs and want to stay with TD Direct Investing, assume that you will have about \$40/yr in additional commissions over Questrade. Rounded to 3 significant figures.

Step 4b: Investing with TD Direct Investing

Table of TD E-series Funds

Fund Name	Fund Code	MER	Index Tracked	Notes
TD Canadian Bond Index (e-series)	TDB909	0.50%	DEX Universe Bond	Minimum purchase \$100; 30 day minimum holding period
TD Canadian Index (e-series)	TDB900	0.33%	TSX Composite Index (Canadian equities)	Minimum purchase \$100; 30 day minimum holding period
TD US Index (e-series)	TDB902	0.35%	S&P 500 Index (US equities)	Minimum purchase \$100; 30 day minimum holding period
TD International Index (e-series)	TDB911	0.51%	MSCI EAFE Index (international equities)	Minimum purchase \$100; 30 day minimum holding period

Step 4c: Investing in ETFs

Table of Exchange-Traded Funds

ETF Name	Ticker/ Exchange	Category	Management Fees and Alternatives
High Quality Canadian Bond Index	VAB / Toronto	Bond	Fees of 0.12%. Alternatives include CAB (0.12%), ZAG (0.20%), XQB (0.13%), XBB (0.33%)
Canadian Capped Composite Index	XIC / Toronto	Canadian Equity	Fees of 0.05%. Alternatives include VCN (0.05%), VCE (0.05%), ZCN (0.05%)
US Total Market Index	VUN / Toronto	US Equity	Fees of 0.15%. Alternatives include S&P 500 funds XUS (0.10%), ZSP (0.10%) VFV (0.16%)
Developed Excluding North America Index	XEF / Toronto	International Equity	Fees of 0.20%. Alternatives include ZEA (0.20%), VIU (0.20%)

The first step is to create an account² with Questrade by visiting: <http://www.questrade.com/account/online>

² If you're opening an account you can use my referral code, called a QPass: 356624159378948. This will give you a cash bonus between \$25 and \$250 depending on how much you deposit, and will also give me a \$25 bonus.

Record-Keeping

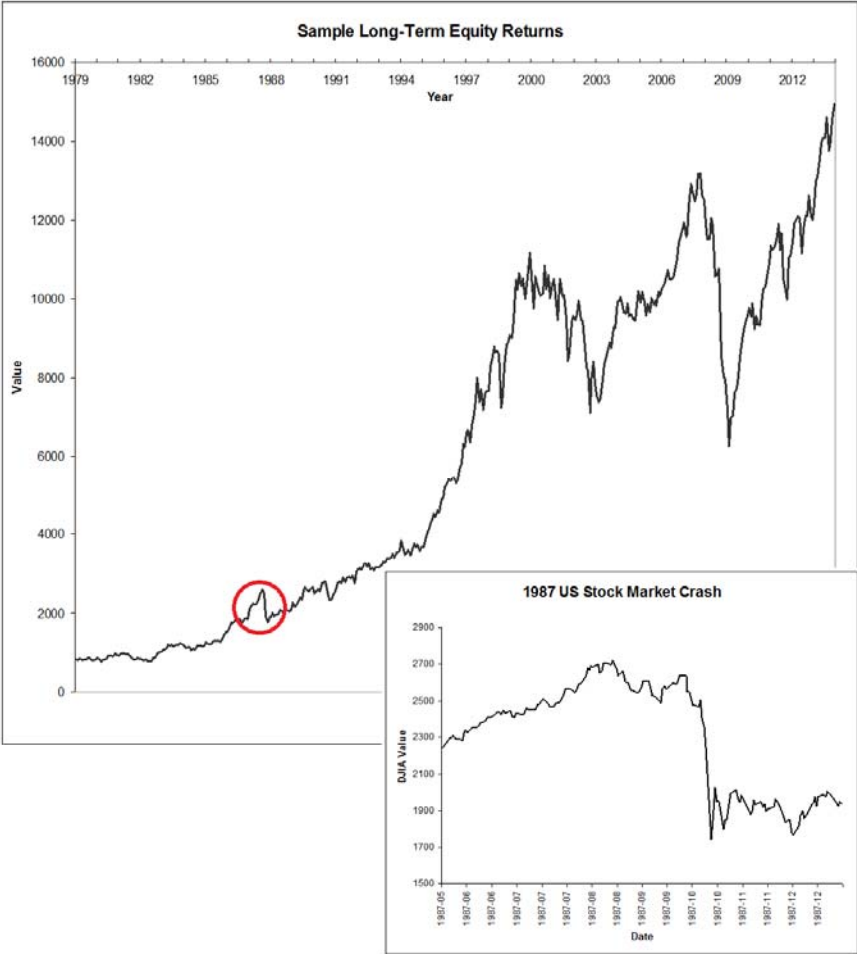
I highly recommend creating a spreadsheet to track your investments. **For tax purposes you will need one for non-registered accounts.** It's not required for registered accounts like TFSAs and RRSPs, but you're always welcome to track your progress. Here's how you can set it up:

Date	Fund name/symbol	Price/unit	Units Purchased	Fees	Total Purchase	Notes
1/28/11	Can Index TDB900	Formula: =total/units purchased \$21.07	35.60	0	\$750	First investment with TD!
Etc.						

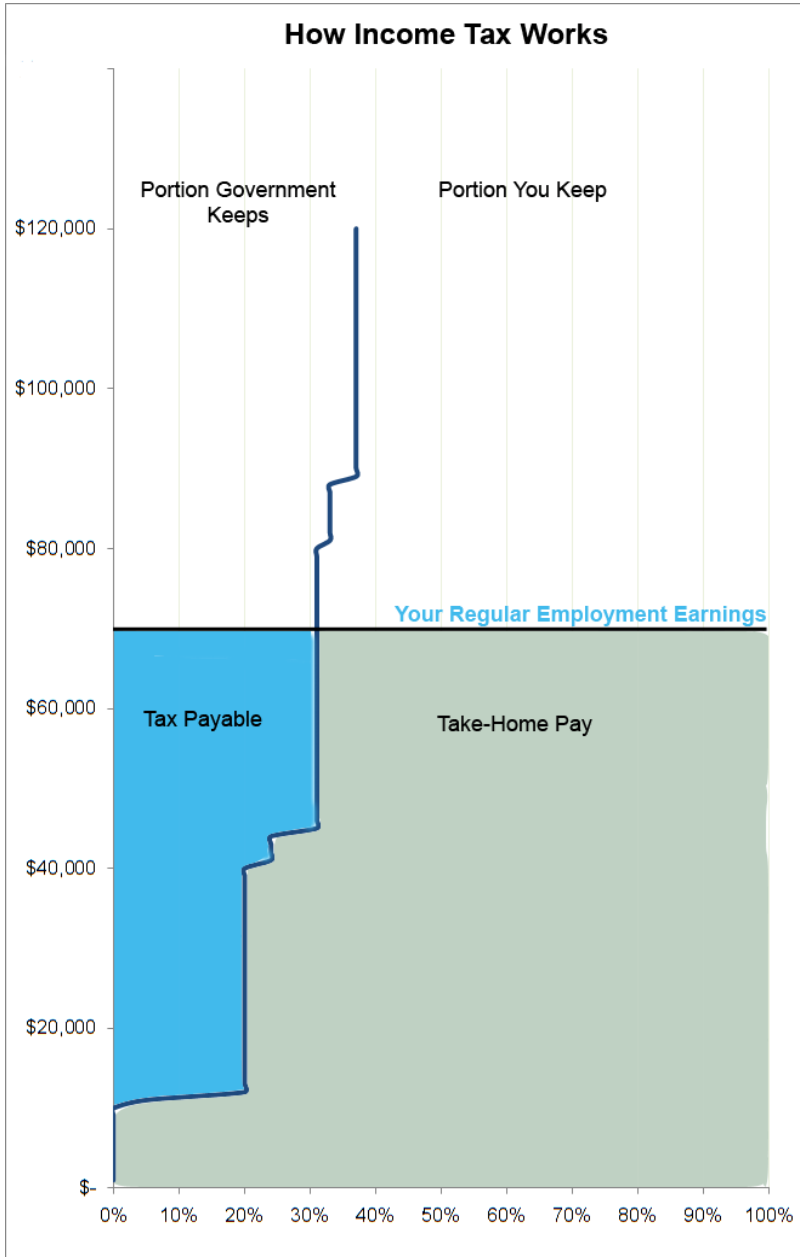
You can create a separate sheet (or separate section in each sheet) for each fund you have to make adding the totals easier when the time comes³. I have a spreadsheet modeled on how your capital gains will eventually be reported in your Schedule 3, available at <http://www.holypotato.net/?p=1274>

³ A hint: *do not* just intermingle your transactions by date. It will make it harder to sort things out later (but even then, some record-keeping is better than none).

Taming the Need to Tinker



Advanced Tax



Facing page: An illustration of progressive taxation, using rounded 2014 rates for Ontario and federal income tax. Note that that the real-life situation is more complicated than this, for instance this does not include the Ontario Health Premium or Ontario surtax, which would make the marginal rate on incomes over about \$88,000 exceed 43%, vs the 37% shown. The tax payable line has several small steps because the provincial and federal cut-offs are not quite the same.

Worked Examples

Advanced Details on Return-of-Capital: Alex

Asset Class	Product	% Weight	\$ to Invest (rounded)	Unit Price	# Units to Buy
Bonds	CAB	20%	\$6,478	\$20.24	319
Canadian Equity	XIC	20%	\$6,478	\$22.99	281
	XRE	6.66%	\$2,157	\$16.19	133
US Equity	VUN	26.67%	\$8,638	\$28.97	297
International Equity	VDU	26.67%	\$8,638	\$28.72	300

Date	Fund Name/Symbol	Units Purchased	Total Purchase	Fees	Cost Basis
June 30, 2014	REIT Index, XRE	133	\$2,153.27	\$0.50	\$2,153.77
Dec 31, 2014	XRE	* return of capital for 2014			(\$0.67)
Dec 31, 2014	XRE	* calculated net cost basis for in-kind contribution to TFSA in January			\$2,153.10
Jan 2, 2015	XRE	* transfer out to TFSA			\$2,304.89

Schedule 3

# Shares	Name of Fund	Year of Acq	Proceeds of Disposition	Adjusted Cost Base	Outlays and Expenses	Gain (or loss)
133	XRE	2014	2,304.89	2,153.10		151.79
281	XIC	2014	6,687.80	6,460.69		227.11