# Investing Independently 

## University of Toronto Faculty Association Seminar / Workshop <br> November 27, 2009

# Norm Rothery, PhD, CFA www.stingyinvestor.com 

## Overview

Before investing
Investing the surplus
Easy things to control

- Fees
- Taxes
- Trading

Why Indexing is worth considering

- A few ETFs \& index funds

Diversification

- Historical perspective
- Asset allocation
- Asset mixer

State of the markets

- History of bear markets
, Stock valuation
- Moderation

Further reading

## Before investing

Be debt free

- No Credit Card Balances
- No Loans
- No Mortgages
"I've seen more people fail because of liquor and leverage
- leverage being borrowed money."
- Warren Buffett

Have a rainy day fund
. Stash 3-6 months of income in short term notes

- High interest bank accounts (ING Direct, etc.)
- Short-term GICs
(T-Bills $\sim 0.5 \%$, GICs $\sim 1.0 \%$, Savings $\sim 1.0 \% 1 \mathrm{yr}$ )
- Save for large ticket items
v Homes
- Cars
- Tuition
- Medical


## Insurance

- Make sure that your family is fully covered


## Investing the surplus



## Control Fees: TSX return after fund fees



## Cut Taxes: TSX return with a tax on gains



If possible, use RRSPs / TFSAs / etc. to reduce taxes.

## Trading can be dangerous

Taiwan Stock Exchange 1995-2000
x Average turnover between 308\% and 630\%
$\times \quad$ Average annual trading losses of 350 bps .

- Who Gains from Trade? (Barber et al.)

The average U.S. mutual fund earned $5.7 \%$ annually from 1998 to 2001 and the average fund investor earned $1 \%$. Poor timing reduced returns by 470 bps a year.

- June 2002 Money Magazine (Jason Zweig)

The S\&P500 fund (SPY) gained 0.3\% annually over the last 5 years but the average fund investor lost $4.3 \%$ a year. Poor timing reduced returns by 460 bps a year.

- October 31, 2009 (Morningstar.com)


## Potential Defenses

- Opt for long holding periods
- Move to less volatile investments
- Consider low-fee balanced funds to avoid regret
"Be fearful when others are greedy. Be greedy when others are fearful." - Warren Buffett


## Investing with friction: TSX with costs



## Why indexing might be a good choice

Simply buy a basket of stocks that mimics an index.

Potential Advantages
. low cost

- broad diversification
v tax efficiency through low turnover

S\&P 500 vs. Large Cap Equity Funds to 12/31/2003

| Years | 1 | 3 | 5 | 10 | 20 |
| ---: | :---: | :---: | :---: | :---: | :---: |
| $\%$ S\&P Outperformed | $73 \%$ | $72 \%$ | $63 \%$ | $86 \%$ | $90 \%$ |

Source: Burton G. Malkiel, Lipper, Wilshire \& the Vanguard Group

Potential Disadvantages
x selecting a good index
x high-fee index funds \& ETFs
$\times \quad$ limited diversification from specialty indexes
x high turnover on specialty funds
$\times \quad$ valuation

## Select ETFs \& index funds

Index Funds MER
TD Balanced Index ..... 0.84\%
TD Canadian Index eFund ..... 0.31\%
TD Government Bond Index eFund ..... 0.48\%
TD U.S. Index eFund ..... 0.33\%
TD International Index eFund ..... 0.48\%
Canadian Exchange Traded Funds ..... MER
iShares S\&P/TSX 60 (T:XIU) ..... 0.17\%
iShares S\&P/TSX Composite (T:CIX) ..... 0.25\%
iShares Canadian Bond (T:XBB) ..... 0.30\%
iShares Canadian Dividend (T:XDV) ..... 0.50\%
iShares Canadian Value (T:XCV) ..... 0.50\%
U.S. \& International Exchange Traded Funds ..... MER
Vanguard Total Stock Market (N:VTI) ..... 0.07\%
Vanguard FTSE All-World ex-US (N:VEU) ..... 0.25\%
Vanguard Total World Stock (N:VT) ..... 0.25\%
Vanguard Dividend Appreciation (N:VIG) ..... 0.28\%
Vanguard High Dividend Yield (N:VYM) ..... 0.25\%
Balanced Exchange Traded Funds ..... MER
Claymore Balanced Income (T:CBD) ..... 0.25\%
Claymore Balanced Growth (T:CBN) ..... 0.25\%

## Diversification

"Divide your fortune into four equal parts: stocks, real estate, bonds, and gold coins. Be prepared to lose on one of them most of the time. During inflation, you will lose on bonds and win on gold and real estate; during deflation, you will lose on real estate and win on bonds while your stocks will see you through both periods, though in a mixed fashion. Whenever performance differences cause a major imbalance, rebalance your fortunes back to the four equal parts."

- Jacob Fugger the Rich, 1459-1525


## Asset Allocation

## The Couch Potato

- Select a simple asset allocation and stick with it

| Couch Potato <br> Portfolios | Canadian <br> Bonds | Canadian <br> Stocks | U.S. <br> Stocks | International <br> Stocks |
| :--- | :---: | :---: | :---: | :---: |
| Classic | $34 \%$ | $33 \%$ | $33 \%$ |  |
| Global | $40 \%$ | $20 \%$ | $20 \%$ | $20 \%$ |
| High-Growth | $25 \%$ | $25 \%$ | $25 \%$ | $25 \%$ |

## Age Determined

- Set the \% in Bonds to one's age. That way you move into less risky assets over time. Bonus points for living to 100+.


## Individualized

- Allocation based on an involved analysis which includes a discussion of return objectives, investment time horizon, risk tolerance, liquidity needs, constraints, etc.


## Potential Problems

x Special needs or constraints.
x Bonds may be risky. (Inflation \& default)

* Above average wealth may allow for more stocks.
x The value offered by any particular asset may be poor.
* Just because you can take on more risk doesn't mean that you should.


## Asset Mixer

## The Stingy Investor Asset Mixer

Portfolio by Asset Class

| Asset Class | Start Year | Alpha |  | Weight |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 3 month T-bills | 1961 | 0.00 | \% | 0.00 | $\% \pm 1=$ |
| Short Canadian Bonds | 1980 | 0.00 | \% | 0.00 | $\% \pm 1=$ |
| Long Canadian Bonds | 1970 | 0.00 | \% | 0.00 | $\% \pm 1=$ |
| All Canadian Bonds | 1961 | 0.00 | \% | 25.00 | $\% \pm 1=$ |
| Real Return Bonds | 1992 | 0.00 | \% | 0.00 | $\% \pm 1=$ |
| TSX Composite | 1961 | 0.00 | \% | 25.00 | $\% \pm 1=$ |
| S\&P500 | 1961 | 0.00 | \% | 25.00 | $\% \pm 1=$ |
| Wilshire 5000 | 1975 | 0.00 | \% | 0.00 | $\% \pm 1=$ |
| MSCI EAFE | 1961 | 0.00 | \% | 25.00 | $\% \pm 1=$ |
| MSCI Emerging Markets | 1988 | 0.00 | \% | 0.00 | \% $\pm 1=$ |
| Gold Bullion | 1970 | 0.00 | \% | 0.00 | $\pm 1=$ |

Options:
Annual Withdrawal Rate (\%): 0.00

| Starting Portoflio Size (\$): |  | 1000.00 |
| :--- | :--- | :--- |
| Year Range | Start: | 1961 |
| Set Global Alpha Assumption: | Stop: 2007 |  |
| Nominal $-~ p r e t a x ~ r e t u r n s ~ i n ~ C a n a d i a n ~ d o l l a r s . ~$ | None |  |

Nominal pretax returns in Canadian dollars.

## URL: http://www.stingyinvestor.com/cgi-bin/downside_adv.cgi

## Asset Mixer: Select Results

Return vs Volatility (1961 to 2008)

| Asset | Alpha | Arithmetic <br> Avg Return | Standard <br> Deviation |
| :--- | ---: | ---: | ---: | ---: |
| Portfolio | $0.00 \%$ | $10.73 \%$ | $12.39 \%$ |
| 3 month T-bills | $0.00 \%$ | $6.86 \%$ | $3.82 \%$ |
| Long Canadian Bonds | $0.00 \%$ | $8.72 \%$ | $10.36 \%$ |
| All Canadian Bonds | $0.00 \%$ | $8.29 \%$ | $7.42 \%$ |
| TSX Composite | $0.00 \%$ | $10.75 \%$ | $16.64 \%$ |
| S\&P500 | $0.00 \%$ | $11.17 \%$ | $17.44 \%$ |
| MSCI EAFE | $0.00 \%$ | $12.70 \%$ | $21.41 \%$ |
| Gold Bullion | $0.00 \%$ | $9.77 \%$ | $26.64 \%$ |


| Periodic Table of Annual Returns (2003 to 2008) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
| $\begin{aligned} & +28.4 \% \\ & \text { Emerg Mkt } \end{aligned}$ | $\begin{gathered} +17.5 \% \\ \text { RRBs } \end{gathered}$ | $\begin{aligned} & +\mathbf{3 0} .2 \% \\ & \text { Emerg Mkt } \end{aligned}$ | $\begin{aligned} & +32.9 \% \\ & \text { Emerg Mkt } \end{aligned}$ | $\begin{gathered} +18.9 \% \\ \text { Emerg Mkt } \end{gathered}$ | $\begin{aligned} & +28.2 \% \\ & \text { Gold } \end{aligned}$ |
| $\begin{gathered} +26.7 \% \\ \text { TSX } \end{gathered}$ | $\begin{aligned} & +\mathbf{1 6 . 8 \%} \\ & \text { Emerg Mkt } \end{aligned}$ | $\begin{gathered} +24.1 \% \\ \text { TSX } \end{gathered}$ | $\begin{gathered} +27.1 \% \\ \text { EAFE } \end{gathered}$ | $\begin{gathered} +12.2 \% \\ \text { Gold } \end{gathered}$ | $+8.6 \%$ <br> S. Bond |
| $\begin{gathered} +14.4 \% \\ \text { EAFE } \end{gathered}$ | $\begin{gathered} \mathbf{+ 1 4 . 5 \%} \\ \text { TSX } \end{gathered}$ | $\underset{\text { RRBs }}{+15.2 \%}$ | $\begin{gathered} +23.5 \% \\ \text { Gold } \end{gathered}$ | $\begin{gathered} +9.8 \% \\ \text { TSX } \end{gathered}$ | $\begin{aligned} & +6.4 \% \\ & \text { All Bond } \end{aligned}$ |
| $\begin{gathered} \mathbf{+ 1 3 . 4 \%} \\ \text { Portfolio } \end{gathered}$ | $+\underset{\text { EAFE }}{+11.9 \%}$ | $\begin{aligned} & \text { +13. } 9 \% \\ & \text { Gold } \end{aligned}$ | $\underset{\text { TSX }}{+17.3 \%}$ | $\begin{aligned} & \mathbf{+ 4 . 3 \%} \\ & \text { T-Bill } \end{aligned}$ | $\begin{aligned} & \mathbf{+ 2 . 8 \%} \\ & \text { T-Bill } \end{aligned}$ |
| $\begin{aligned} & +13.2 \% \\ & \text { RRBs } \end{aligned}$ | $+10.3 \%$ <br> I. Bond | +13. 8\% I. Bond | $\begin{aligned} & +\mathbf{1 6 . 1 \%} \\ & \text { Portfolio } \end{aligned}$ | $\begin{aligned} & +4.1 \% \\ & \text { S.Bond } \end{aligned}$ | $+2.7 \%$ <br> L. Bond |
| $\begin{aligned} & \mathbf{+ 9 . 1 \%} \\ & \text { L. Bond } \end{aligned}$ | $+9.1 \%$ <br> Portfolio | $\begin{aligned} & \mathbf{+ 1 0 . 6 \%} \\ & \text { Portfolio } \end{aligned}$ | $\begin{aligned} & \text { +16.1\% } \\ & \text { Wilshire } \end{aligned}$ | $\begin{gathered} +3.7 \% \\ \text { All Bond } \end{gathered}$ | $\begin{gathered} \mathbf{+ 0 . 4 \%} \\ \text { RRBs } \end{gathered}$ |
| $\begin{gathered} \text { +8.2\% } \\ \text { Wilshire } \end{gathered}$ | $\begin{aligned} & +7.1 \% \\ & \text { All Bond } \end{aligned}$ | $+10.3 \%$ | $\begin{aligned} & +\mathbf{1 6 . 0 \%} \\ & \text { S\&F500 } \end{aligned}$ | $+3.4 \%$ I. Bond | $\begin{aligned} & -19.8 \% \\ & \text { Portfolio } \end{aligned}$ |
| $\begin{gathered} \mathbf{+ 6 . 7 \%} \\ \text { All Bond } \end{gathered}$ | $+5.1 \%$ <br> 5 . Bond | $\begin{aligned} & +6.5 \% \\ & \text { All Bond } \end{aligned}$ | $+4.1 \%$ <br> L. Bond | $\underset{\text { RRBs }}{+1.6 \%}$ | $\begin{aligned} & -22.6 \% \\ & \text { S\&P500 } \end{aligned}$ |
| $\begin{aligned} & \mathbf{+ 5 . 8 \%} \\ & \text { S\&P500 } \end{aligned}$ | $\begin{gathered} \text { +4.4\% } \\ \text { Wilshire } \end{gathered}$ | $\begin{gathered} +2.9 \% \\ \text { Wilshire } \end{gathered}$ | $+4.1 \%$ <br> All Bond | $\begin{gathered} -0.4 \% \\ \text { Portfolio } \end{gathered}$ | $\begin{aligned} & -23.0 \% \\ & \text { Wilshire } \end{aligned}$ |
| $+5.1 \%$ <br> 5. Bond | $\begin{aligned} & \mathbf{+ 2 . 8 \%} \\ & \text { S\&P500 } \end{aligned}$ | $\begin{aligned} & \mathbf{+ 2 . 6 \%} \\ & \text { T-Bill } \end{aligned}$ | $\begin{aligned} & +4.0 \% \\ & \text { T-Bill } \end{aligned}$ | $\frac{-5.0 \%}{\text { EAFE }}$ | $\begin{gathered} -\mathbf{3 0 . 0 \%} \\ \text { EAFE } \end{gathered}$ |
| $\begin{aligned} & \mathbf{+ 2 . 9 \%} \\ & \text { T-Bill } \end{aligned}$ | $\begin{aligned} & +2.3 \% \\ & \text { T-Bill } \end{aligned}$ | +2. 4\% <br> 5. Bond | $+4.0 \%$ S. Bond | $\begin{aligned} & \mathbf{- 1 0 . 1 \%} \\ & \text { Wilshire } \end{aligned}$ | $\underset{\text { TSX }}{-33.0 \%}$ |
| $\begin{gathered} -1.5 \% \\ \text { Gold } \end{gathered}$ | $\begin{gathered} -3.0 \% \\ \text { Gold } \end{gathered}$ | $\begin{aligned} & +1.5 \% \\ & \text { S\&P500 } \end{aligned}$ | $\begin{gathered} -2.9 \% \\ \text { RRBs } \end{gathered}$ | $\begin{gathered} \mathbf{- 1 0 . 3 \%} \\ \text { S\&P500 } \end{gathered}$ | $\begin{aligned} & -42.5 \% \\ & \text { Emerg Mkt } \end{aligned}$ |

## Asset Mixer: Select Results

## Overall Portfolio Stats (1961 to 2008)

| Average Gain (Geometric) | $10.011 \%$ |
| :--- | ---: |
| Average Gain (Arithmetic) | $10.726 \%$ |
| Median Annual Gain | $13.237 \%$ |
| Standard Deviation | $12.385 \%$ |
| Total Growth (\%) | $9649 \%$ |
| Total Value of a $\$ 1000$ Investment | $\$ 97491.91$ |
| Total Down Years | 10 years (21\%) |
| Total Years < $5.00 \%$ | 14 years (29\%) |
| Total Years < $10.00 \%$ | 18 years (38\%) |
| Total Time Span | 48 years |

Worst Drops (1961 to 2008)

| Drop Starts | Drop | Recovery Time |
| :--- | ---: | ---: |
| 1973 | $-22.25 \%$ | 3 years |
| 2008 | $-19.80 \%$ | still down |
| 1974 | $-16.83 \%$ | 1 year |
| 2001 | $-16.82 \%$ | 3 years |
| 2002 | $-10.75 \%$ | 1 year |


| Scenario | Return |
| :--- | :--- |
| $1929-32$ US-style equity decline (down $89 \%$ ) | $-66.75 \%$ |
| $1906-07$ US-style equity decline (down $49 \%$ ) | $-36.75 \%$ |
| $1973-74$ US-style equity decline (down $45 \%$ ) | $-33.75 \%$ |
| $1987-87$ US-style equity decline (down $36 \%$ ) | $-27.00 \%$ |
| $1923-24$ German-style hyperinflation (bonds down | $-25.00 \%$ |
| $99.99 \%$ ) |  |

## U.S. Bear Markets

| $\begin{array}{c}\text { Bear } \\ \text { Parkets for the S\&P500 } \\ \text { Period }\end{array}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Start | End | $\begin{array}{c}\text { Peak-Trough } \\ \text { Decline }\end{array}$ | $\begin{array}{c}\text { Months to } \\ \text { Denth }\end{array}$ | $\begin{array}{c}\text { Trough }\end{array}$ |
| Months to |  |  |  |  |
| Recovery |  |  |  |  |$]$

Sources: Robert Schiller, indexfunds.com, S\&P/Citigroup, Based on Month End Data

The October 2007 peak is $\sim 50 \%$ higher than the index's October 2009 price.

## U.S. Stock Valuation: Back to the Future?



## Forward Returns: 20Yr Returns vs P/E10



## Canadian Stock Valuation by the Book



Slide 19 of 21 © Norm Rothery 2009

# Risk, Moderation \& Advanced Topics 

Avoid lottos and sure things.

## Bonds

- It pays to go with 3-to-5 year bonds.
- Opt for BBB bonds over AAAs, but Bs aren't better.


## Stocks

- Avoid risky stocks with lotto like characteristics
$\times$ High beta, high volatility
$\times$ High leverage, low debt ratings (B \& below)
* High valuation, IPOs


## Stingy Investor Asset Mixer

 http://www.stingyinvestor.com/cgi-bin/downside_adv.cgiStingy Investor Free email newsletters http://www.stingyinvestor.com/cgi-bin/email.cgi

## Practical Portfolio Construction Slides http://www.stingyinvestor.com/SI/articles/talk_1109.pdf

## Useful Books

A Random Walk Down Wall Street
The Intelligent Investor
Contrarian Investment Strategies
What Works on Wall Street
Fooled by Randomness
by Burton G. Malkiel
by Benjamin Graham
by David Dreman
by James P. O'Schaugnessy
by Nassim Taleb
Advanced Topics
Security Analysis by Benjamin Graham
Behavioural Investing
Market History
A Splendid Exchange
Extraordinary Popular Delusions
Confusión de Confusiones
The Ascent of Money

by William J. Bernstein<br>by Charles Mackay<br>by Joseph de la Vega<br>by Niall Ferguson

