# Practical <br> Portfolio Construction 

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## Dan Hallett \& Associates

Dan Hallett and Associates is an investment counsel and independent research firm offering services to individuals, advisors, and institutions.

For Individual Investors

- Investment and financial planning advice provided on a fee-for-service basis.
- Minimum portfolio size is \$250,000.
- We favour value investing \& index investing.


## The Rothery Report

- The Rothery Report stock newsletter covering Canadian \& U.S. equities for value investors.

Rothery Report Performance
(March 2001 to December 2008)

> Average Capital Gain $26.5 \%$

Average Holding Period 2.3 Years

S\&P500: -22.2\%, TSX Composite: +18.1\%
$1 / 2$ S\&P + 1/2 TSX: $-2.1 \%$

## 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
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. You really don't need leverage in this world much. If you're smart, you're going to make a lot of money without borrowing."

\author{

- Warren Buffett
}

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

- High interest bank accounts
- ING Direct, PC Financial, etc.
. Short-term GICs
- Save for large ticket items
- Homes
- Cars
- Tuition
- Medical


## Insurance

- Make sure that your family is fully covered


## Investing the surplus

## Long-Term Market Returns



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## Control Fees: TSX return after fund fees

Return of the S\&P/TSX Composite less fees


## Cut Taxes

## Return of the S\&P/TSX Composite with a tax on gains



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

## Trading can be dangerous

Poor Timing

v Taiwan Stock Exchange 1995-2000

- Average turnover ranged between 308\% and 630\%
- Average annual trading losses of 350 bps.
- Who Gains from Trade? (Barber et al.)
v 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)
v The Vanguard Total Stock Market Index Fund lost 0.7\% annually over the last 10 years but the average fund investor lost $3.7 \%$ a year. Poor timing reduced returns by 300 bps a year.
- December 31, 2008 (Morningstar.com)
- Over the long term, poor timing reduced returns by
- 130 bps for the NYSE/AMEX market from 1926-2002
- 530 bps for the Nasdaq from 1973-2002
- 150 bps for 19 world stock markets from 1973-2002
- What are Stock Investors' Actual Historical Returns? (Ilia D. Dichev)


## Investing with friction

Growth of the S\&P/TSX Composite Including Costs


Year (Annual Drags: 3\% Bad Timing, 2.5\%Fees, 23\% Capital Gains Tax)

## Why indexing might be a good choice

Simply buy a basket of stocks that mimics an index.
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 Advantages

- low cost
- broad diversification
v tax efficiency through low turnover
Potential Disadvantages
v selecting a good index
v high-fee index funds \& ETFs
v limited diversification from specialty indexes
v high turnover on specialty funds
- valuation

| Average Annual Index Turnover (1998-2003) |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| S\&P | S\&P | S\&P | Russel |  |  |
| 500 | 500 | 500 | 2000 | Russel |  |
| Value | Growth |  | Russel <br> Value | 2000 <br> Growth |  |
| $4.6 \%$ | $26.1 \%$ | $24.6 \%$ | $34.3 \%$ | $41.7 \%$ | $47.4 \%$ |
| Sources: |  |  |  |  |  |
| Burton G. Malkiel, Frank Russell Co. and The Vanguard Group |  |  |  |  |  |
| Note: Fund turnover not the same as strategy turnover |  |  |  |  |  |

## Select ETFs \& index funds

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\%
Index Funds ..... MER
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\%

## 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+.

Risk Adjusted

- 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 Bonds may well be risky. (Inflation \& default)
$\times$ Above average wealth may allow for riskier posture

* Special needs or constraints.
x The value offered by any particular asset may be poor


## 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

## U.S. Stock Valuation

U.S. Stocks Cheapest Since 1990


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## Forward Returns

S\&P500 Next-20-Yr Annualized Return vs. P/10-Yr-Earnings


## Canadian Stock Valuation

S\&P/TSX Composite by Book Value


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## Stingy Investor Asset Mixer

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

## Practical Portfolio Construction Slides

 http://www.stingyinvestor.com/SI/articles/talk_0309.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 by James Montier
Market History

A Splendid Exchange
Extraordinary Popular Delusions
Confusión de Confusiones
by William J. Bernstein
by Charles Mackay
by Joseph de la Vega

