

The Markets Now: July 11, 2016
East India Club, 16 St. James Square, London, SW1Y 4LH

Lazy Portfolios: Do they work?
Introducing Seasonal Portfolios.



Dr David Brown, PhD, FRSC, FRSM

Alchemy Biomedical Consulting
alchemybiomedicalconsulting.vpweb.co.uk
email: davidbrown1000@btinternet.com
+44 (0) 7766 686 345

Would you like to not worry about these questions?

"What investing style should I use?"

"Which shares should I buy?"

"Is the bull market ending?"

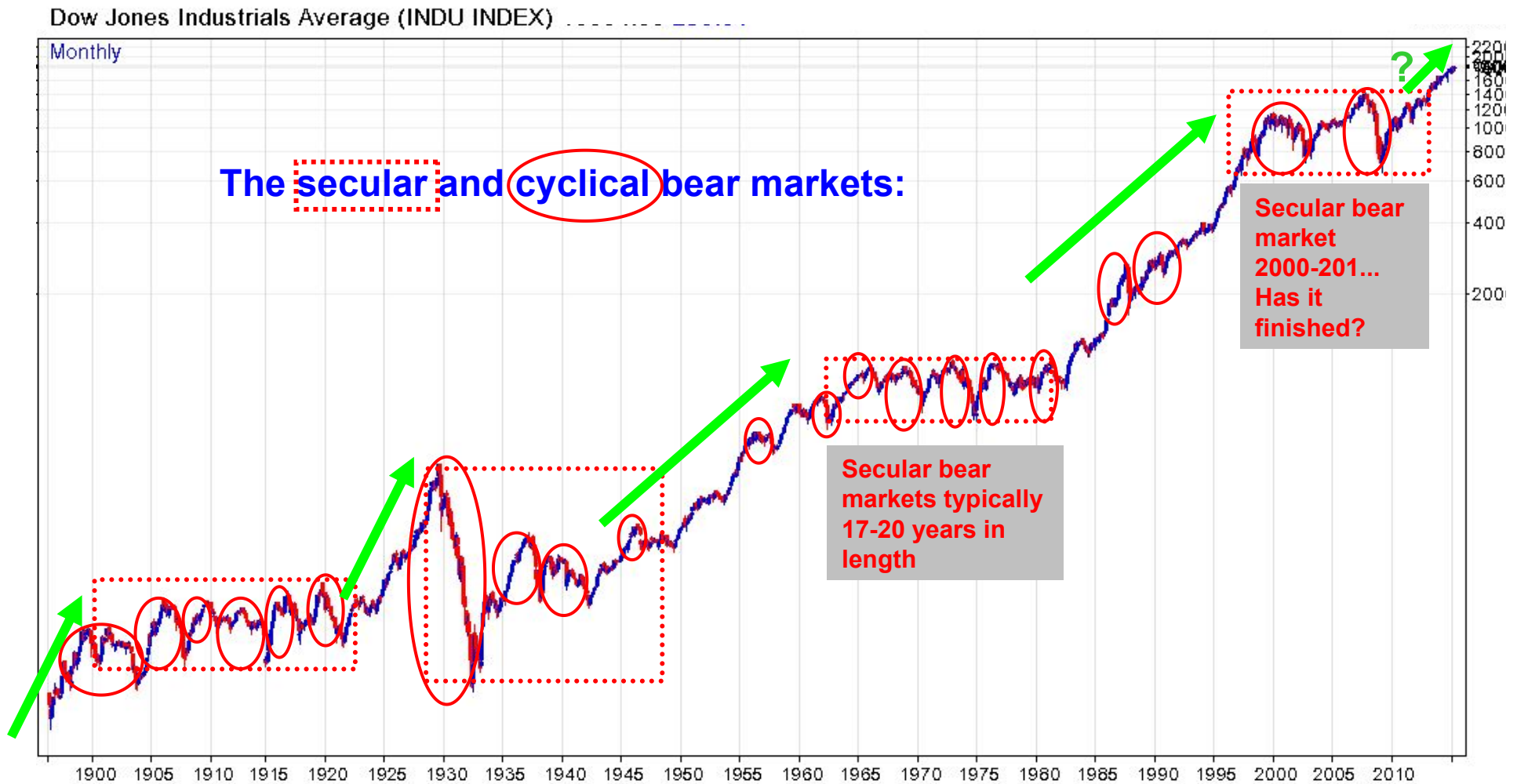
"Time to buy gold?"

"This bond bubble, when will it burst?"

"Will interest rates go up - and what will it do to the share market?"

"How can I keep my fees low?"

Large draw-downs will happen several times in your life with Buy and Hold



Note the size of the bear markets

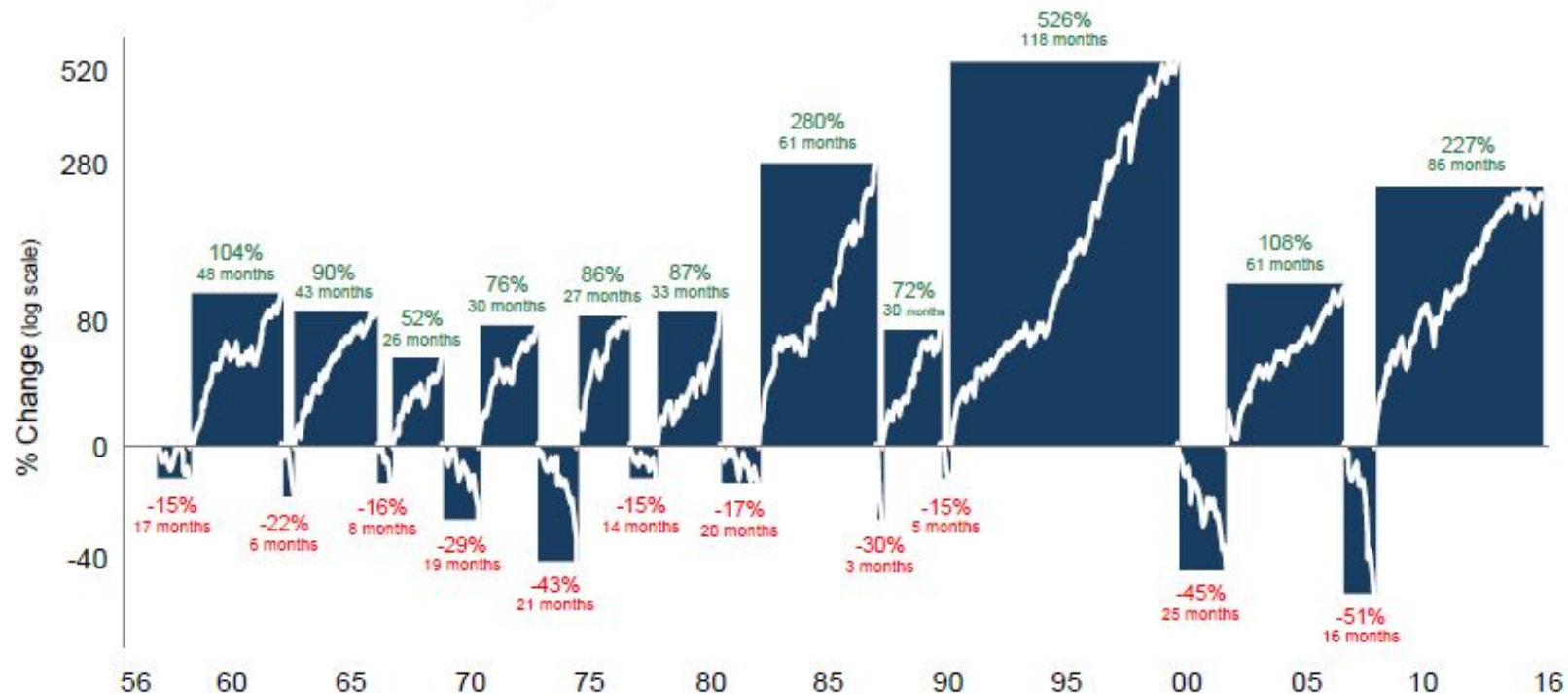
Bull & Bear Markets

Bull & Bear Facts*

Average gain in bull market: +155%
 Average length of bull market: 51 months
 Average loss in bear market: -27%
 Average length of bear market: 14 months

* Based on data since 1956. See page 2 for more details.

S&P 500 Index to April 2016



Source: Mackenzie Investments (Bloomberg: month-end data points as at April 30, 2016; total return, local currency)

Recovery from capital loss.

If you are down 50% you need to gain 100% just to break even.

The average bull market gains 155% !!!

% Loss of Capital	Gain required to break even
5%	5.3%
10%	11.1%
20%	25%
40%	66.7%
50%	100%
60%	150%

My definition of a truly useful 'lazy portfolio'

1. Lazy: Requires little monitoring, ideally only once or twice a year
2. Mechanical: Non-discretionary, very simple rules
3. Safe: [Maximum monthly draw-downs in single digits](#)
4. Rewarding: Average annual gains similar or better than the overall market, preferably with high consistency in returns year to year
5. Diversified: Using minimum number of holdings
6. Cheap: Low transaction costs

**None of the published methods achieve all these,
so I am developing better methods.**

Contents of presentation

1. Comparison of several Lazy Portfolio performances
(USA data but indicative of likely UK equivalents)
2. Introducing 4 low draw-down UK portfolios

Disclaimer

The financial literature may contain conflicting performance data for each investment strategy.

Whenever possible, data has been made comparable by using the same back-testing package, available at PortfolioVisualiser.com

However, that system has limitations. Some back-tests had to be done manually. The slides note this.

I cannot guarantee the data is strictly comparable with that obtained through [PortfolioVisualiser](http://PortfolioVisualiser.com).

Future results cannot be guaranteed to be similar to historical results.

Portfolio Visualiser website

<https://www.portfoliovisualizer.com/>

Many of the back-tests have used the above website backtest facility.

Please note their comment on accuracy of historical data:

"Historical data for annual asset class returns is not 100% reliable and authoritative sources often differ on exact returns for a particular investment. Typical differences for historical asset class returns based on the data source are below 50 basis points."

Lazy Portfolios compared

60:40 Shares:Bonds

Bill Bernstein No Brainer

David Swenson Yale Portfolio

Mebane Faber Ivy Portfolio

Bill Schultheis Coffee House

Harry Browne's Permanent Portfolio

Note that most contain three broad asset categories: stocks, bonds, and real assets.

The classic 60% equities, 40% bonds

Eoin Treacy, June 10, 2016

"The risk of litigation for financial advisors means the majority of investors are presented with what might be described as a plain vanilla 60/40 bonds to equities blend for their portfolios. Depending on whether the investor is categorised as conservative or risk tolerant that basic formula might be altered somewhat but the long-term nature of the strategy means the majority of clients will be invested in the model portfolio. I saw this first hand when I was at Bloomberg in the early 2000s."

The 60:40 portfolio (USA)

CAGR 10.6%; worst year -13.2%

Portfolio Analysis Results (1985 - 2015) [Link](#) [Print](#) [Download](#)

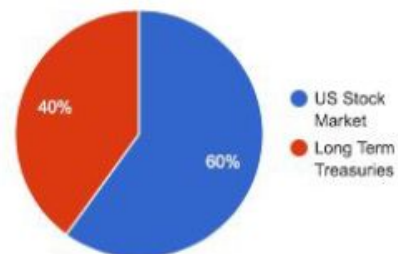
Portfolio Return [Annual Returns](#) [Rolling Returns](#)

Portfolio Allocations

Portfolio 1

Asset Class	Allocation
US Stock Market	60.00%
Long Term Treasuries	40.00%

[Save asset allocation »](#)

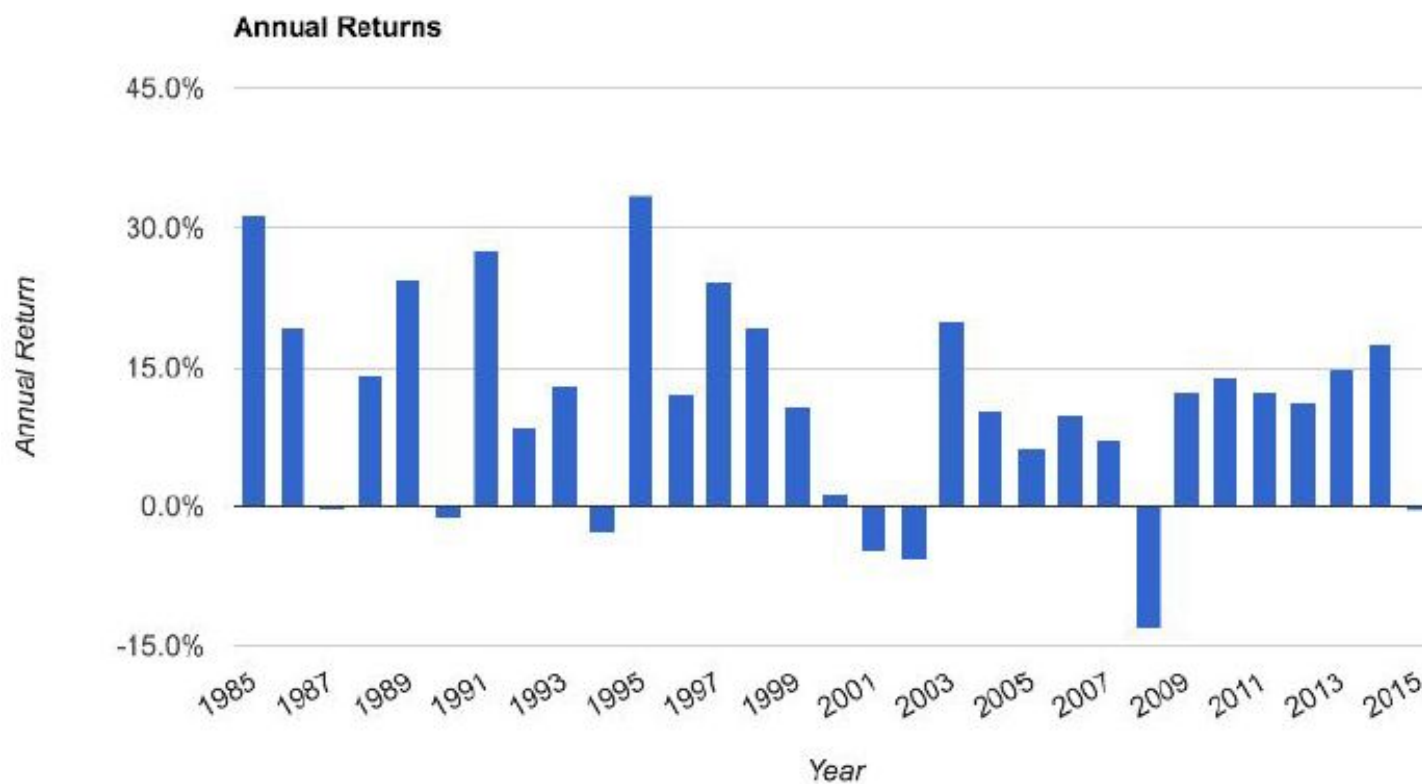


Portfolio Returns

#	Initial Balance	Final Balance	CAGR	Std.Dev.	Best Year	Worst Year	Max. Drawdown	Sharpe Ratio	Sortino Ratio	US Mkt Correlation	Intl Mkt Correlation
1	\$10,000	\$228,784 <i>i</i>	10.62% <i>i</i>	11.13%	33.52%	-13.22%	-13.22% <i>i</i>	0.70	1.82	0.90	0.59

The 60:40 portfolio (USA)

CAGR 10.6%; worst year -13.2%



Bill Bernstein No Brainer (USA)

CAGR 10.0%; worst year -28.0%

Portfolio Analysis Results (1985 - 2015) [Link](#) [Print](#) [Download](#)

Portfolio Return

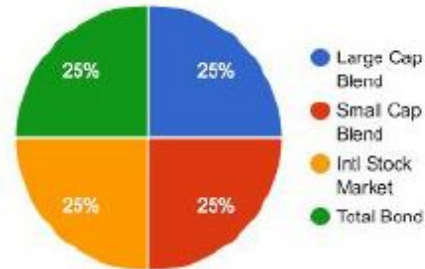
Annual Returns

Rolling Returns

Portfolio Allocations

Portfolio 1

Asset Class	Allocation
Large Cap Blend	25.00%
Small Cap Blend	25.00%
Intl Stock Market	25.00%
Total Bond	25.00%



[Save asset allocation »](#)

Portfolio Returns

#	Initial Balance	Final Balance	CAGR	Std.Dev.	Best Year	Worst Year	Max. Drawdown	Sharpe Ratio	Sortino Ratio	US Mkt Correlation	Intl Mkt Correlation
1	\$10,000	\$193,622 ⓘ	10.03% ⓘ	13.90%	35.25%	-28.04%	-28.04% ⓘ	0.54	1.04	0.93	0.87

David Swensen Yale Portfolio (USA)

CAGR 10.5%; worst year -24.4%

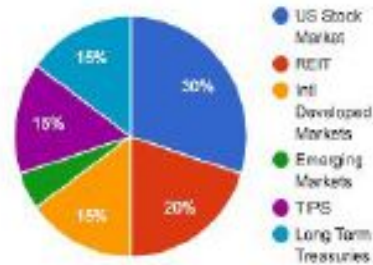
Portfolio Analysis Results (1985 - 2015) [Link](#) [Print](#) [Download](#)

Portfolio Return Annual Returns Rolling Returns

Portfolio Allocations

Portfolio 1

Asset Class	Allocation
US Stock Market	30.00%
REIT	20.00%
Intl Developed Markets	15.00%
Emerging Markets	5.00%
TIPS	15.00%
Long Term Treasuries	15.00%



[Save asset allocation »](#)

Portfolio Returns

#	Initial Balance	Final Balance	CAGR	Std.Dev.	Best Year	Worst Year	Max. Drawdown	Sharpe Ratio	Sortino Ratio	US Mkt Correlation	Intl Mkt Correlation
1	\$10,000	\$229,296 ⓘ	10.63% ⓘ	11.85%	30.91%	-24.40%	-24.40% ⓘ	0.66	1.36	0.86	0.85

Mebane Faber Ivy Portfolio (USA)

CAGR 9.73%; worst year -31.29%

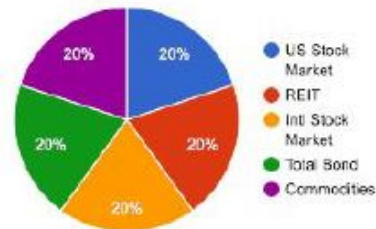
Portfolio Analysis Results (1985 - 2015) [Link](#) [Print](#) [Download](#)

Portfolio Return Annual Returns Rolling Returns

Portfolio Allocations

Portfolio 1

Asset Class	Allocation
US Stock Market	20.00%
REIT	20.00%
Intl Stock Market	20.00%
Total Bond	20.00%
Commodities	20.00%



[Save asset allocation »](#)

Portfolio Returns

#	Initial Balance	Final Balance	CAGR	Std.Dev.	Best Year	Worst Year	Max. Drawdown	Sharpe Ratio	Sortino Ratio	US Mkt Correlation	Intl Mkt Correlation
1	\$10,000	\$178,020 1	9.73% 1	12.23%	28.56%	-31.29%	-31.29% 1	0.58	1.06	0.79	0.82

Bill Schultheis Coffee House (USA)

CAGR 9.7%; worst year -20.2%

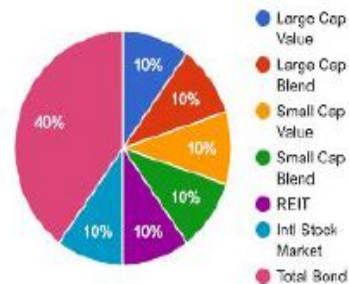
Portfolio Analysis Results (1985 - 2015) [Link](#) [Print](#) [Download](#)

Portfolio Return Annual Returns Rolling Returns

Portfolio Allocations

Portfolio 1

Asset Class	Allocation
Large Cap Value	10.00%
Large Cap Blend	10.00%
Small Cap Value	10.00%
Small Cap Blend	10.00%
REIT	10.00%
Int'l Stock Market	10.00%
Total Bond	40.00%



[Save asset allocation »](#)

Portfolio Returns

#	Initial Balance	Final Balance	CAGR	Std.Dev.	Best Year	Worst Year	Max. Drawdown	Sharpe Ratio	Sortino Ratio	US Mkt Correlation	Int'l Mkt Correlation
1	\$10,000	\$177,337	9.72%	10.56%	28.81%	-20.21%	-20.21%	0.64	1.36	0.89	0.75

Harry Browne's Permanent Portfolio (USA)

CAGR 30 yrs, 7.36%; worst year **-2.98%**

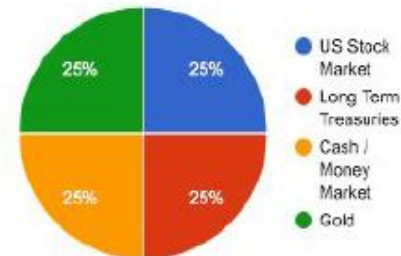
Portfolio Analysis Results (1985 - 2015) [Link](#) [Print](#) [Download](#)

Portfolio Return Annual Returns Rolling Returns

Portfolio Allocations

Portfolio 1

Asset Class	Allocation
US Stock Market	25.00%
Long Term Treasuries	25.00%
Cash / Money Market	25.00%
Gold	25.00%



[Save asset allocation »](#)

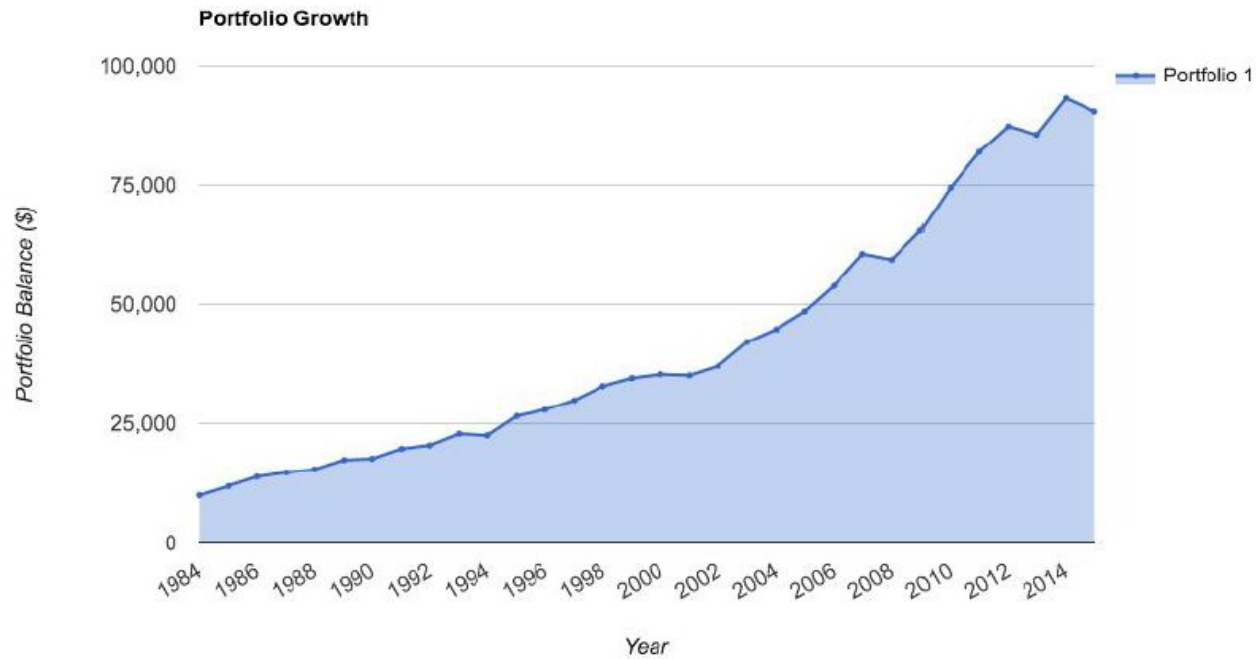
Portfolio Returns

#	Initial Balance	Final Balance	CAGR	Std.Dev.	Best Year	Worst Year	Max. Drawdown	Sharpe Ratio	Sortino Ratio	US Mkt Correlation	Intl Mkt Correlation
1	\$10,000	\$90,389 ⓘ	7.36% ⓘ	5.98%	18.90%	-2.98%	-2.98% ⓘ	0.66	1.90	0.57	0.64

Permanent Portfolio USA capital growth curve

Portfolio Returns

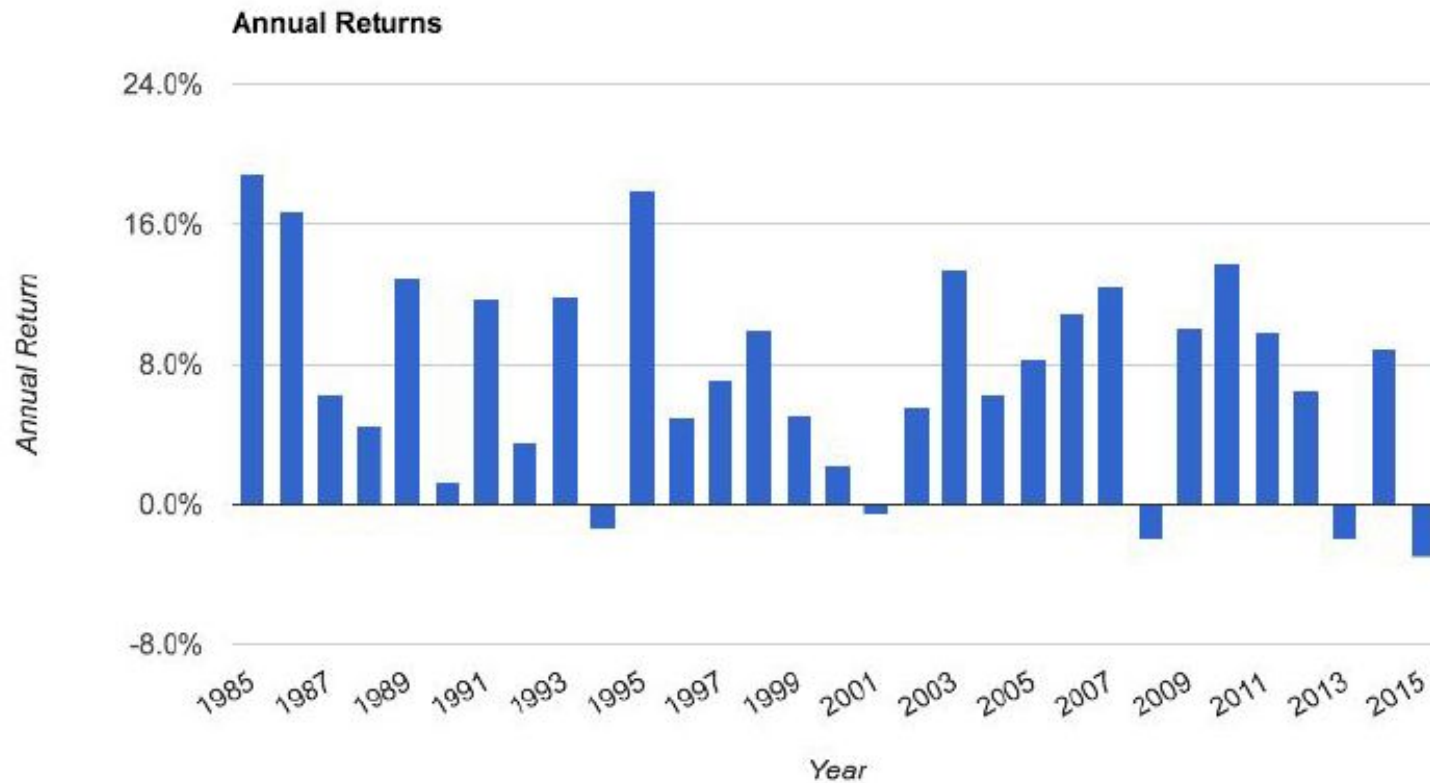
#	Initial Balance	Final Balance	CAGR	Std.Dev.	Best Year	Worst Year	Max. Drawdown	Sharpe Ratio	Sortino Ratio	US Mkt Correlation	Intl Mkt Correlation
1	\$10,000	\$90,389 ⓘ	7.36% ⓘ	5.98%	18.90%	-2.98%	-2.98% ⓘ	0.66	1.90	0.57	0.64



Permanent Portfolio USA

Annual returns 1985-2015.

Only 5 (small) losses in 30 years



Published data for USA

Permanent Portfolio performance

(N.B. Differs slightly from PV calculations)

<http://www.myplaniq.com/articles/20160126-portfolio-management-long-term-harry-brownes-permanent-portfolio-performance/>

As of 12/31/2015:

Very small drawdowns

1970	4.10%	1980	22.10%	1990	-0.70%	2000	2.70%	2010	11.92%
1971	13.40%	1981	-6.20%	1991	11.50%	2001	-1.00%	2011	8.16%
1972	18.70%	1982	23.30%	1992	4.00%	2002	7.20%	2012	5.5%
1973	10.60%	1983	4.30%	1993	12.60%	2003	13.76%	2013	-3.8%
1974	12.30%	1984	1.10%	1994	-2.40%	2004	6.64%	2014	7.6%
1975	3.70%	1985	20.10%	1995	16.60%	2005	8.01%	2015	-4.5%
1976	10.10%	1986	21.70%	1996	5.20%	2006	10.80%		
1977	5.20%	1987	5.30%	1997	6.70%	2007	11.94%		
1978	15.00%	1988	3.60%	1998	7.40%	2008	-2.03%		
1979	36.70%	1989	14.80%	1999	4.70%	2009	9.64%		
Cumulative	328.62%		272.57%		186.24%		190.27%		
Annual	12.63%		10.55%		6.42%		6.64%	Since 1970	8.35%

...but angst over recent performance

The highlighted portion is from Browne's book (page 81) and the rest is from MyPlanIQ's [Harry Browne Permanent Portfolio](#). Notice there is some discrepancy for performance between 2000 to 2002. This is because in MyPlanIQ's portfolio, Vanguard funds and Gold ETF (GLD) are used while in Browne's calculation, he uses the following:

Stock results are for an S&P 500 Index mutual fund, including reinvestment of dividends.

Bond results are for a 30-year T-bond, including interest received.

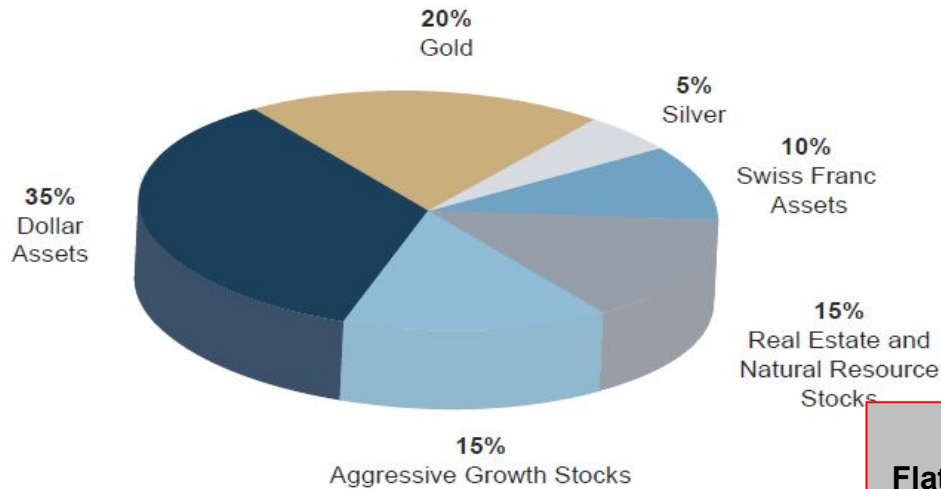
Gold results are for American Eagle 1-ounce coins.

Cash results are for Treasury bills, assuming a 1-year bill was bought at start of each year.

Cash in MyPlanIQ's [Harry Browne Permanent Portfolio](#) is modeled using 3 month Treasury bill's returns.

In the USA there is a 'Permanent Portfolio' listed fund (PRPFX)

Target Allocation by Asset Class



Assets held are only loosely based on the original PP.

Performance vs S&P 500 since 1980s-90s: Under-performed
2000-2010: Out-performed
2001-2015: Under-performed

Performance:
Flat over past 5 years

PRPFX: 6.04%. DD -13.09%
PermPort: 7.49%. DD -2.98%

AVERAGE ANNUAL TOTAL RETURNS (for the periods ended March 31, 2016)

	Year-To-Date	1 Year	3 Years	5 Years	10 Years	15 Years	Since Inception December 1, 1982
Return Before Taxes	7.55%	-.58%	-.97%	.54%	5.27%	7.96%	6.04%
Return After Taxes on Distributions	7.55%	-2.12%	-2.86%	-.71%	4.51%	7.27%	5.39%
Return After Taxes on Distributions and Sale of Permanent Portfolio Shares	4.28%	.82%	-.80%	.41%	4.19%	6.57%	5.00%
<i>Citigroup 3-Month U.S. Treasury Bill Index</i>	.05%	.08%	.05%	.06%	1.07%	1.43%	4.00%
<i>Standard & Poor's 500 Composite Stock Index</i>	1.35%	1.78%	11.82%	11.58%	7.01%	5.99%	11.18%

Permanent Portfolio

UK performance

- There is no listed PP fund in the UK for investors in £££.
- Performance figures have been published
- The PP in £££ and UK assets has performed as well as in USA, possibly better.

Published data for hypothetical UK Permanent Portfolio

Phil Oakley, MoneyWeek 10/9/2013

<http://moneyweek.com/build-a-buy-and-forget-portfolio/>

What does that mean in practical terms? Well, the Permanent Portfolio only lost money in two of the 30 years, with the biggest annual loss being 2.53% in 2001. Remember this is during a period when the British market saw epic crashes in 1987, 2001, and 2008. And between 2003 and 2012 (as shown below right), a permanent portfolio has not only involved less risk than stocks alone, but also higher returns.

1983-2012	Annual returns	Risk (SD)
Permanent Portfolio	8.34%	5.01%
British stockmarket	12.53%	16.3%

Of course, short-term performance can be very variable. And so far, 2013 has been a poor year for the Permanent Portfolio. Interest rates on cash are tiny and bond and gold prices have fallen sharply. However, that rather proves the point – this is a ‘buy-and-forget’ portfolio, not one to tinker with every other day.

2003-2012	Annual returns	Risk (SD)
Permanent Portfolio	8.35%	3.34%
British stockmarket	6.8%	16.6%

Backtest of UK PP

- using FTSE 250 instead of FTSE 100

Why use FTSE 250?

Because FTSE 250 has out-performed FTSE 100

And FTSE is more representative of the UK economy

Data:

FTSE 250 started in 1992 but data is available back to January 1986

FTSE 250 has massively out-performed the FTSE 100 over past 30 years

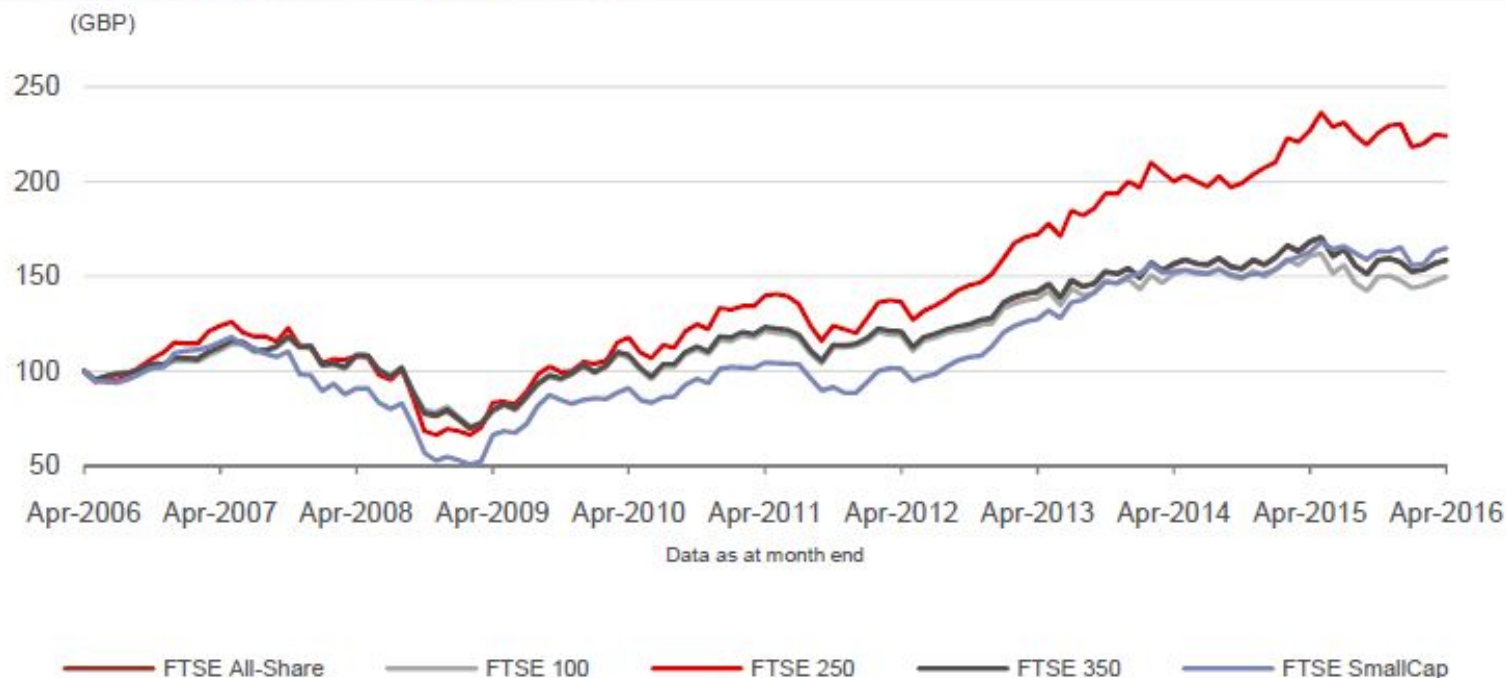
Since 1986

FTSE 100 has increased 367%

FTSE 250 has increased 1052%.

Data from FTSE.com shows out-performance of FTSE 250 (red line) compared with FTSE 100, FTSE All Share and FTSE 350

10-Year Performance - Total Return



UK Permanent Portfolio with FTSE 250, not FTSE 100

Note the very low 'worst year' figures

Years	CAGR	Worst year	Real return (% gain above inflation)
1986-2015	8.1%	-3.7% (1990) Only 3 losing years in 30 (-2.2, -3.7, -0.7)	5.0%
2006-2015	6.8%	-0.7% (2013)	5.1%
2011-2015	3.2%	-0.7% (2013)	1.9%

Same drop in performance as USA PP

How to implement an International Permanent Portfolio

Beats the market, and 60:40, with lower volatility!

<http://www.telegraph.co.uk/investing/shares/investment-strategies-compared---which-offers-the-highest-15-yea/>

MODEL PORTFOLIOS - A 15 YEAR RECORD



Details

25pc global shares, 25pc gold, 25pc bonds, 25pc cash

Aviva International Index tracker: 25%; S&P GSCI Gold Spot: 25%;
Scottish Widows Overseas Fixed Interest tracker: 25%; cash on deposit: 25%

Performance and risk score comparison				
Portfolio	One year return	Return since global financial crisis	15 year return	FE risk score
60pc global equities, 40pc bonds	16.9pc	86.7pc	103.7pc	66
90pc global equities, 10pc gilts	10.1pc	95.3pc	101.7pc	81
100pc aggressive equities	6.6pc	83.8pc	132.5pc	93
25pc global equity, 25pc gold, 25pc bonds, 25pc cash	22.7pc	82.2pc	164.8pc	65

Source: Whitechurch Securities/FE Trustnet

Best overall. At 15-years, it had outperformed the aggressive equity portfolio by more than 30%.

- In the early 2000s, while the other three portfolios fell, it avoided losses and then delivered strong, steady growth from 2005 to 2013, taking a huge lead. The other three caught up substantially in 2013 and 2014 however as the 25pc split portfolio fell, but **it accelerated ahead again during 2016's turmoil.**
- Over 15 years it had the second highest maximum gain, the smallest maximum drawdown (the loss that would be suffered buying at the highest point and selling at the lowest) and the lowest volatility score.

What did we learn?

60:40 portfolio looks as good as all the complicated systems.

- 60:40 disadvantage? It's drawdowns are still quite high.

The Permanent Portfolio may be teaching us how to reduce drawdowns

- PP advantage: drawdowns are by far the lowest due largely to gold.
- PP disadvantage: average returns are still quite low
- PP disadvantage: low dividend payouts with 25% cash and 25% gold

What happens if we combine these, by adding gold to the 60:40 portfolio

- back-testing indicates that simply moving 20% from equities to gold gives lower drawdowns.

Assets in classic 60:40 versus 40:40:20 backtest (USA data)

Portfolio Analysis Results (1985 - 2015) [Link](#) [Print](#) [Download](#)

Portfolio Return

Annual Returns

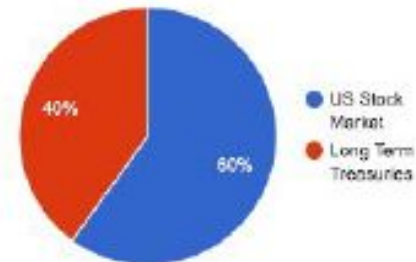
Rolling Returns

Portfolio Allocations

Portfolio 1

Asset Class	Allocation
US Stock Market	60.00%
Long Term Treasuries	40.00%

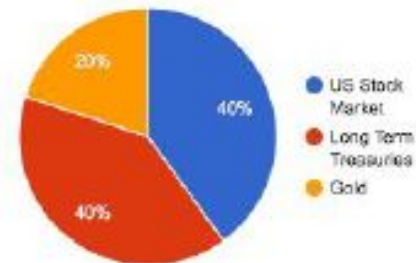
[Save asset allocation »](#)



Portfolio 2

Asset Class	Allocation
US Stock Market	40.00%
Long Term Treasuries	40.00%
Gold	20.00%

[Save asset allocation »](#)

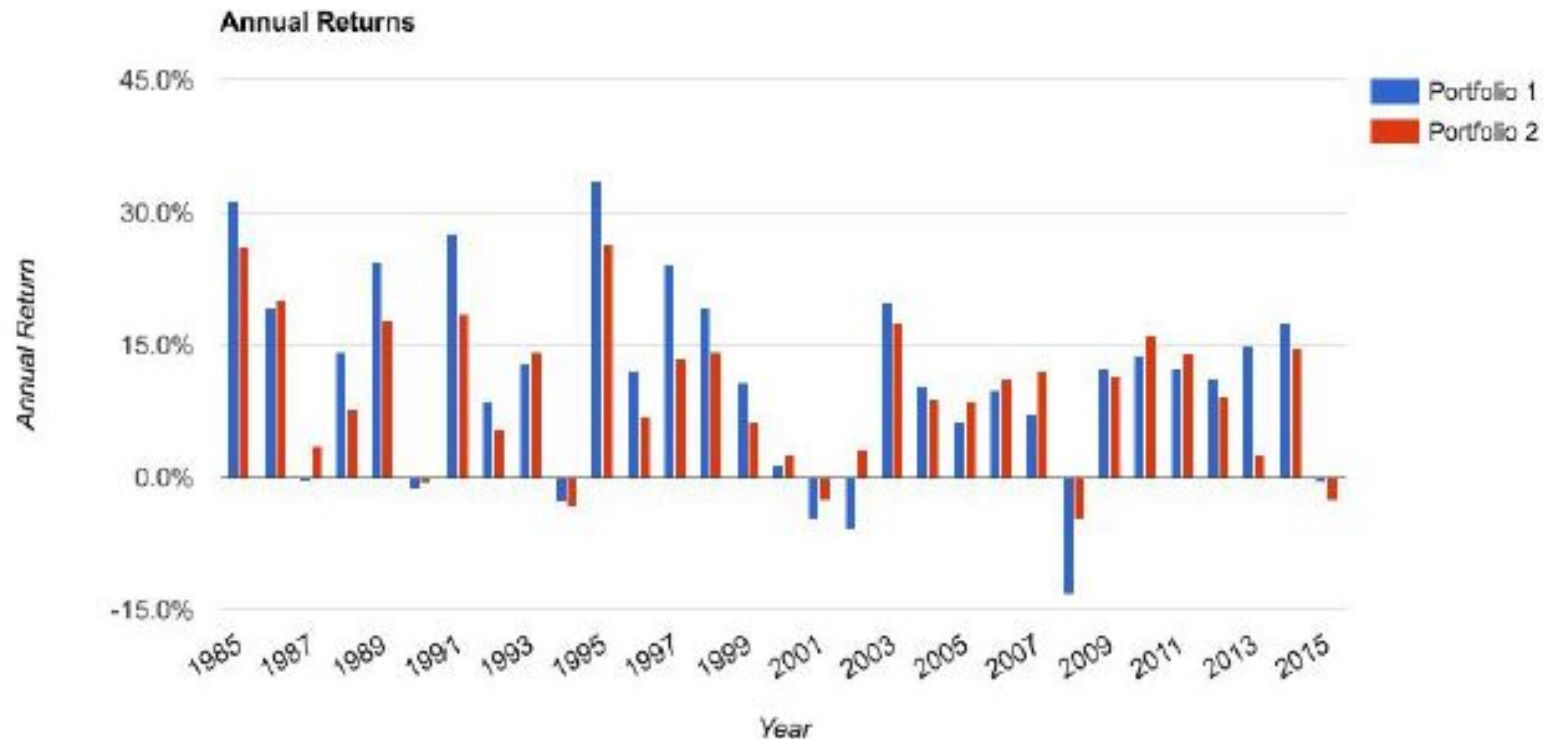


60:40 versus 40:40:20 backtest

40:40:20 gives slightly lower returns,
but much smaller drawdowns. (USA data).

Portfolio Returns

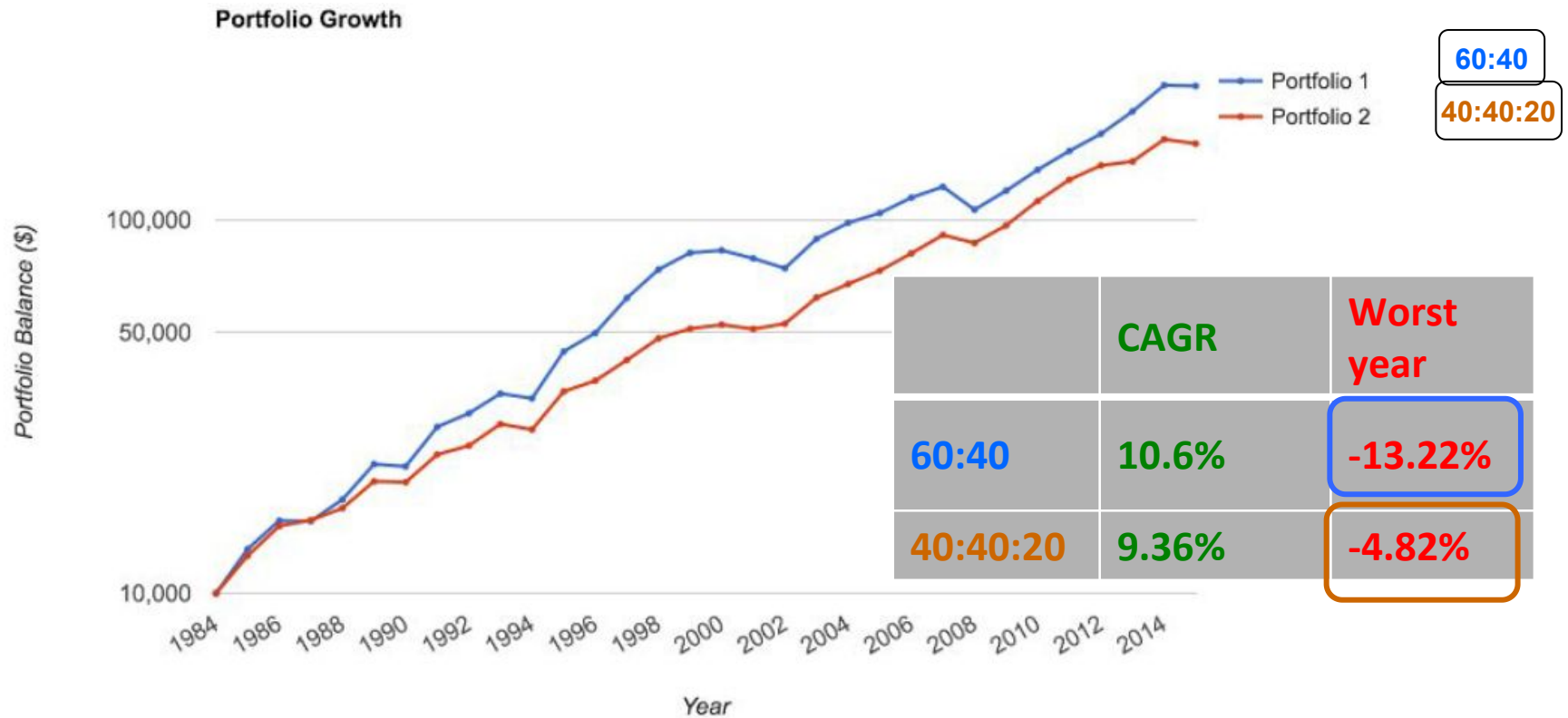
#	Initial Balance	Final Balance	CAGR	Std.Dev.	Best Year	Worst Year	Max. Drawdown	Sharpe Ratio	Sortino Ratio	US Mkt Correlation	Intl Mkt Correlation
1	\$10,000	\$228,784	10.62%	11.13%	33.52%	-13.22%	-13.22%	0.70	1.82	0.90	0.59
2	\$10,000	\$160,248	9.36%	8.24%	26.48%	-4.82%	-4.82%	0.75	2.24	0.71	0.62



Capital Growth curve

60:40 versus 40:40:20

(USA data, 30 years)



Can it be improved even more?

How about using the seasonal effect ('sell in May')?

Many publications indicate its use improves returns and lowers drawdowns.

- costly to implement in large portfolios, may erode the advantages, but not a problem with just 2 or 3 holdings.

Welcome to the 'Seasonal Portfolios'.

Contents of presentation

1. Comparison of several Lazy Portfolio performances

2. Introducing 4 low draw-down portfolios

UK data from now onwards

i) Seasonal FTSE 250

ii) 60:40 Equities:Bonds + 'sell in May'

iii) 40:40:20 Equities:Bonds:Gold + 'sell in May'

iv) 25:25:25:25 Equities:Bonds:Gold:Cash
(Permanent Portfolio UK)

Seasonal Portfolios

Key features

1. Capitalise on the well-known seasonal effect 'sell in May'

- Increases returns AND reduces drawdowns.
- Is it real or just data mining?

"Across the 37 markets studied, the outperformance in the winter months was about 10 percentage points higher than in the summer months" and "exists in three out of four years and does not depend on specific industries, countries, or months".

Joachim Klement

2. During the historically weak summer season, equities are sold and proceeds held as cash ie sell FTSE 250 tracker / fund on April 30 and repurchase on November 1 each year.

3. Totally non-discretionary, mechanical, no subjective views of the market.

Seasonal Portfolio 1

FTSE 250 alone (total return, includes dividends)

Sell end April, repurchase Nov 1 each year

	Years	CAGR (Cumulative Annual Growth Rate)	Worst year
FTSE 250 'sell in May'	1986-2015	12.1%	-9.5%
	2006-2015	11.3%	-2.3%
	2011-2015	10.2%	no losses
For comparison FTSE 250 'buy and hold' (no 'sell in May')	1986-2015	11.7%	-38.2%
	2006-2015	10.0%	-38.2%
	2011-2015	10.6%	-10.1%

FTSE 250 'sell in May' capital growth curve vs FTSE 250 buy and hold, from 1986 (Modelled on Portfolio Visualiser software)



Seasonal Portfolio 2

60% FTSE 250, 40% gilts

'Sell in May' and move FTSE250 60% to cash until October 31

Years	CAGR	Worst year	Real return (% gain above inflation)
1986-2015 ('Buy and Hold' benchmark)* <small>*annual rebalancing</small>	11.3%	-18.1%	8.1%
1986-2015	11.2%	-5.9% (Only 2 losing years in 30, 1990, 1994)	8%
1996-2015	10.5%	no losses	7.8%
2006-2015	9.6%	no losses	6.7%
2011-2015	10.1%	no losses	7.5%

Seasonal Portfolio 2

60% FTSE 250, 40% gilts

'Sell in May' and move FTSE250 60% **to gilts** until October 31

Years	CAGR	Worst year	Real return (% gain above inflation)
1986-2015 ('Buy and Hold' benchmark)* <small>*annual rebalancing</small>	11.3%	-18.1%	8.1%
1986-2015	13.2%	-3.9% (Only 2 losing years in 30, 1990, 1994)	10%
1996-2015	12.5%	no losses	9.8%
2006-2015	11.6%	no losses	8.7%
2011-2015	12.1%	no losses	9.5%

Seasonal Portfolio 2

60% FTSE 250, 40% gilts

'Sell in May' and move FTSE250 60% to gilts u

Years	CAGR	Worst year	
1986-2015 ('Buy and Hold' benchmark)* <small>*annual rebalancing</small>	11.3%	-18.1% (5 losing years)	
1986-2015	13.2%	-3.9% (Only 2 losing years in 30, 1990, 1994)	10%
1996-2015	12.5%	no losses	9.8%
2006-2015	11.6%	no losses	8.7%
2011-2015	12.1%	no losses	9.5%

Key message
Seasonal 'sell in May'
version of the classic
60:40 portfolio
gives double
digit returns with
only 1/3 the drawdown

Seasonal Portfolio 2

60% FTSE 250, 40% gilts

'Sell in May' and move FTSE250 60% to gilts until October 31

Years	CAGR	Worst year	Real return (% gain above inflation)
1986-2015 ('Buy and Hold' benchmark)* <small>*annual rebalancing</small>	11.3%		8.1%
1986-2015	11.2%	-5.9% (Only 2 losing years in 30, 1990, 1994)	10%
1996-2015	12.5%	no losses	9.8%
2006-2015	11.6%	no losses	8.7%
2011-2015	12.1%	no losses	9.5%

Key message
Retirees could
withdraw >4%
and grow capital
in real terms.

Seasonal Portfolio 3

40% FTSE 250, 40% gilts, 20% gold

'Sell in May' and move FTSE250 40% to cash until October 31

Years	CAGR	Worst year	Real return (% gain above inflation)
1986-2015	9.7%	-7.7% (1990)	6.6%
1996-2015	9.5%	-2.0% (2013)	6.6%
2006-2015	9.5%	-2.0% (2013)	6.7%
2011-2015	7.3%	-2.0% (2013)	4.8%

Seasonal Portfolio 3

40% FTSE 250, 40% gilts, 20% gold

'Sell in May' and move FTSE250 40% **to gilts** until October 31

Years	CAGR	Worst year	Real return (% gain above inflation)
1986-2015	11.7%	-5.7% (1990)	8.6%
1996-2015	11.5%	no losses	8.6%
2006-2015	11.5%	no losses	8.7%
2011-2015	9.3%	no losses	6.8%

If you want to boost it even more!!!

Gold Royalty company FNV has gone up
while gold was in 2012-15 bear phase



Comparison of the UK 'lazy portfolios'

CAGR = Cumulative Annual Gain Rate

Number of assets held	Portfolio	1986-2015 CAGR Worst year	1996-2015 CAGR Worst year	2006-2015 CAGR Worst year	2011-2015 CAGR Worst year
1	Seasonal Portfolio 1 100% FTSE 250 'sell in May'	12.1% -9.5%	11.8% -3.6%	11.3% -2.3%	10.2% no losses in 5yrs
2	Seasonal Portfolio 2 60% FTSE250: 40% Bonds ('Seasonal 60:40') (vs no 'Sell in May')	11.2% -5.9% 2 losses in 30 yrs 11.3% -18.1%	12.5% no losses in 20 yrs	11.6% no losses in 10 yrs 9.47% -18.1%	12.1% no losses in 5yrs
3	Seasonal Portfolio 3 40% FTSE250: 40% Bonds: 20% Gold	11.7% -5.7%	11.5% no losses in 20 yrs	11.5% no losses in 10 yrs	9.3% no losses in 5yrs
4	Permanent Portfolio UK 25% FTSE250: 25% Bonds: 25% Gold: 25% Cash	8.1% -3.7%	5% -0.7%	6.8% -0.7%	3.2% -0.7%

Warning: Be very wary of what you read about performance of portfolios.

Fees can be more important.

Quote from Mebane Faber book 'Global Asset Allocation'.

We took the best performing strategy, El-Erian, and compared it to the worst, the Permanent Portfolio. (Note we are just using real absolute returns and not risk adjusted where Permanent would rank much higher.)

What if someone was able to predict the best-performing strategy in 1973 and then decided to implement it via the average mutual fund? We also looked at the effect if someone decided to use a financial advisor who then invested client assets in the average mutual fund. Predicting the best asset allocation, but implementing it via the average mutual fund would push returns down to roughly even with the Permanent Portfolio. If you added advisory fees on top of that, it had the effect of transforming the **BEST** performing asset allocation into lower than the **WORST**. Think about that for a second. Fees are far more important than your asset allocation decision!

Key point: Lazy portfolios minimise fees

Conclusions

Seasonal Portfolios look attractive for retirement (and before).

- low effort; attention required only twice a year
- can beat the market
- double digit average returns are possible
- low volatility
- low fees
- beat inflation by several %
- in retirement may allow withdrawal of 4-5%
and growth of capital invested to stay ahead of inflation

**Past performance is no guarantee for the future,
but I am using the seasonal effect!**

Q & A

Seasonal portfolios

Performance during the Brexit shock

Date	FTSE250	Newton long	gilt	Gold (GBP)
23/06/2016	17333	472		844.7
08/07/2016	16177	525		1054.8
	-1156			210.1
Asset gain in 2 weeks	-6.60%	11.20%		24.90%
Permanent Portfolio: gain in 2 weeks 23-6-16 to 8-7-16				Total gain in 2 weeks
Permanent Portfolio	-1.65	2.8	6.23	7.38%
Seasonal Portfolios: gains in 2 weeks 23-6-16 to 8-7-16				Total gain in 2 weeks
FTSE250 Seasonal	0	0	0	0
60:40 Seasonal	0	4.48	0	4.48% (or 8.96%)*
40:40:20 Seasonal	-2.64	4.48	4.98	6.82% (or 13.94%)*

* if switched in May totally to gilts