MERCER WEBCAST

WHAT ARE MY OPTIONS? EQUITIES: LIMITED UPSIDE, SIGNIFICANT DOWNSIDE?

20 March 2018

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SPEAKERS TODAY

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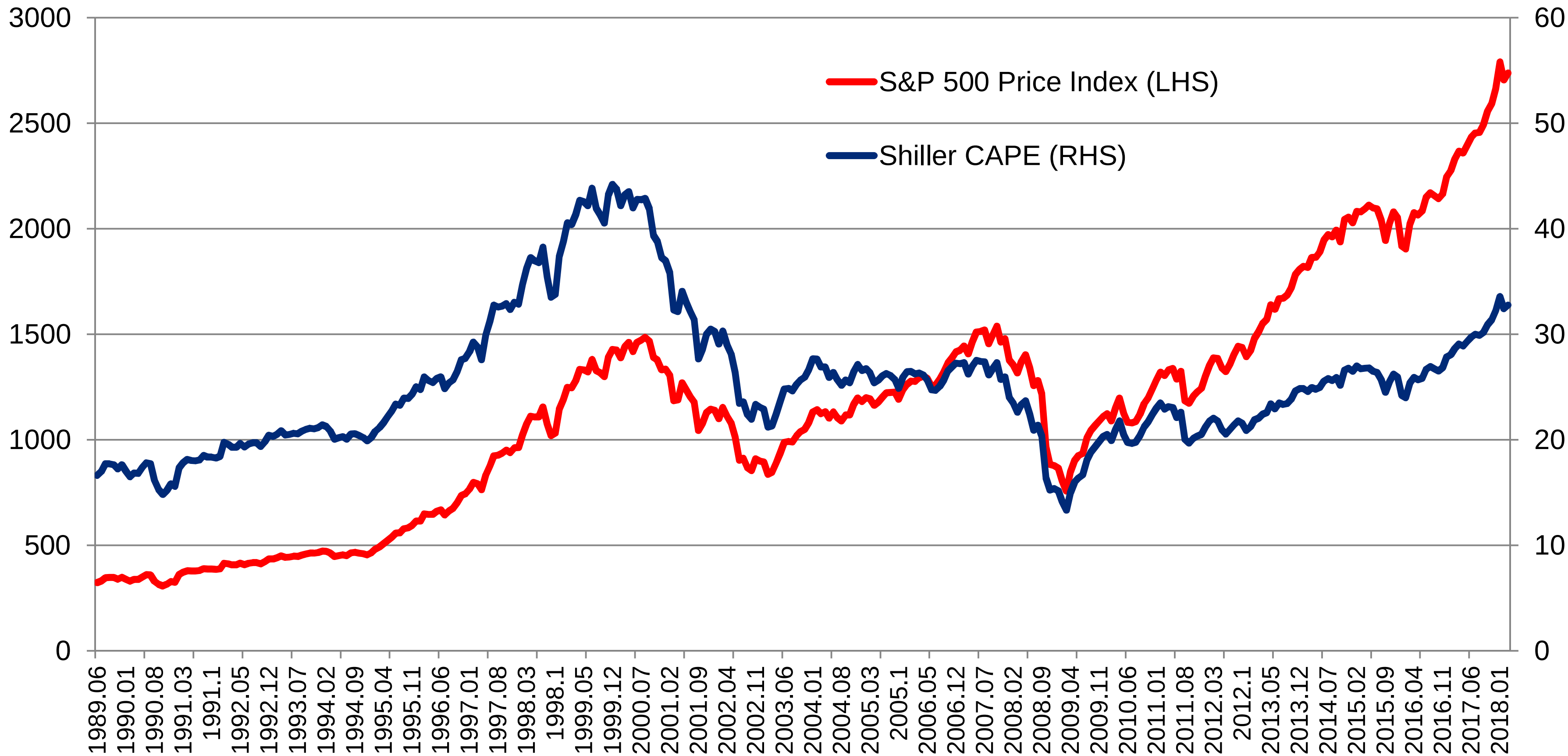
AGENDA

1. Why should you protect your equities now?
2. How can you do this?
3. Static or dynamic strategies?
4. Case studies

WHY NOW?

- Equity markets have performed strongly since their low point in March 2009
- Markets are in the “quite expensive” to “very expensive” range under most valuation metrics

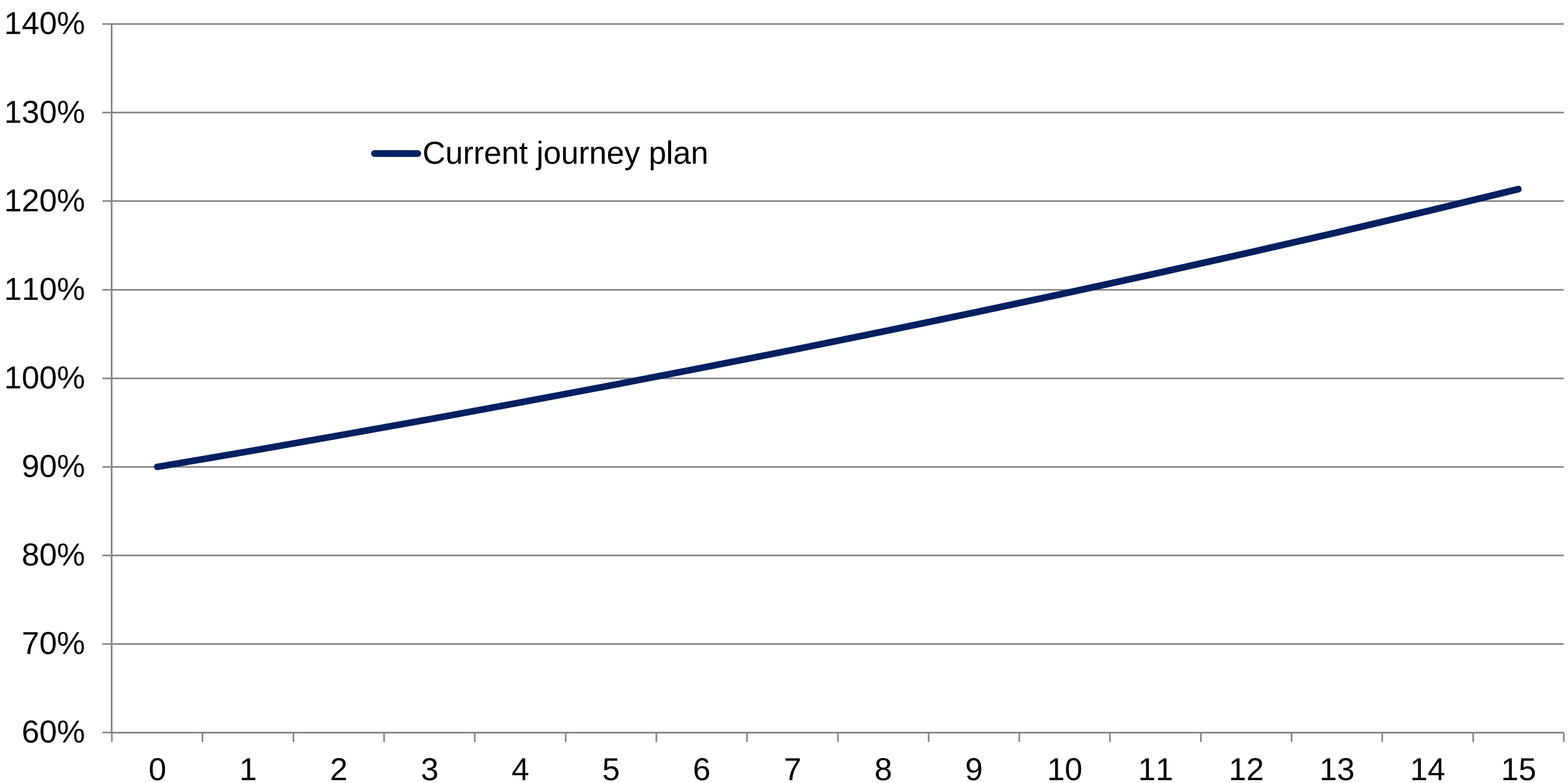


Source: R Shiller / Yale University, S&P (to 8.3.2018)

BUT AREN'T WE LONG-TERM INVESTORS?

1

- Starting funding level 90%
- Gilts + 2.5% target return: 40% equities, 20% alternatives, 40% fixed income



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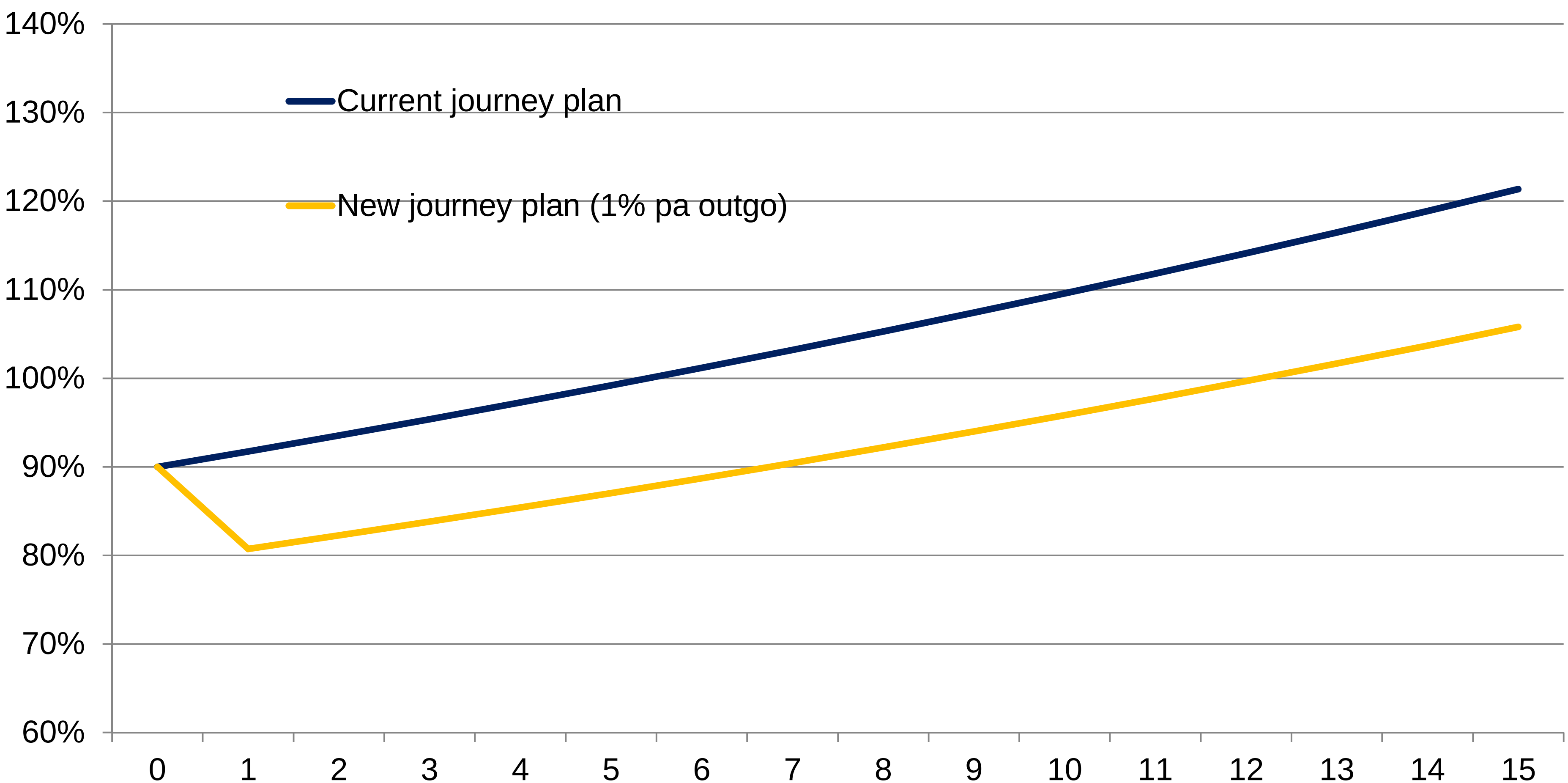

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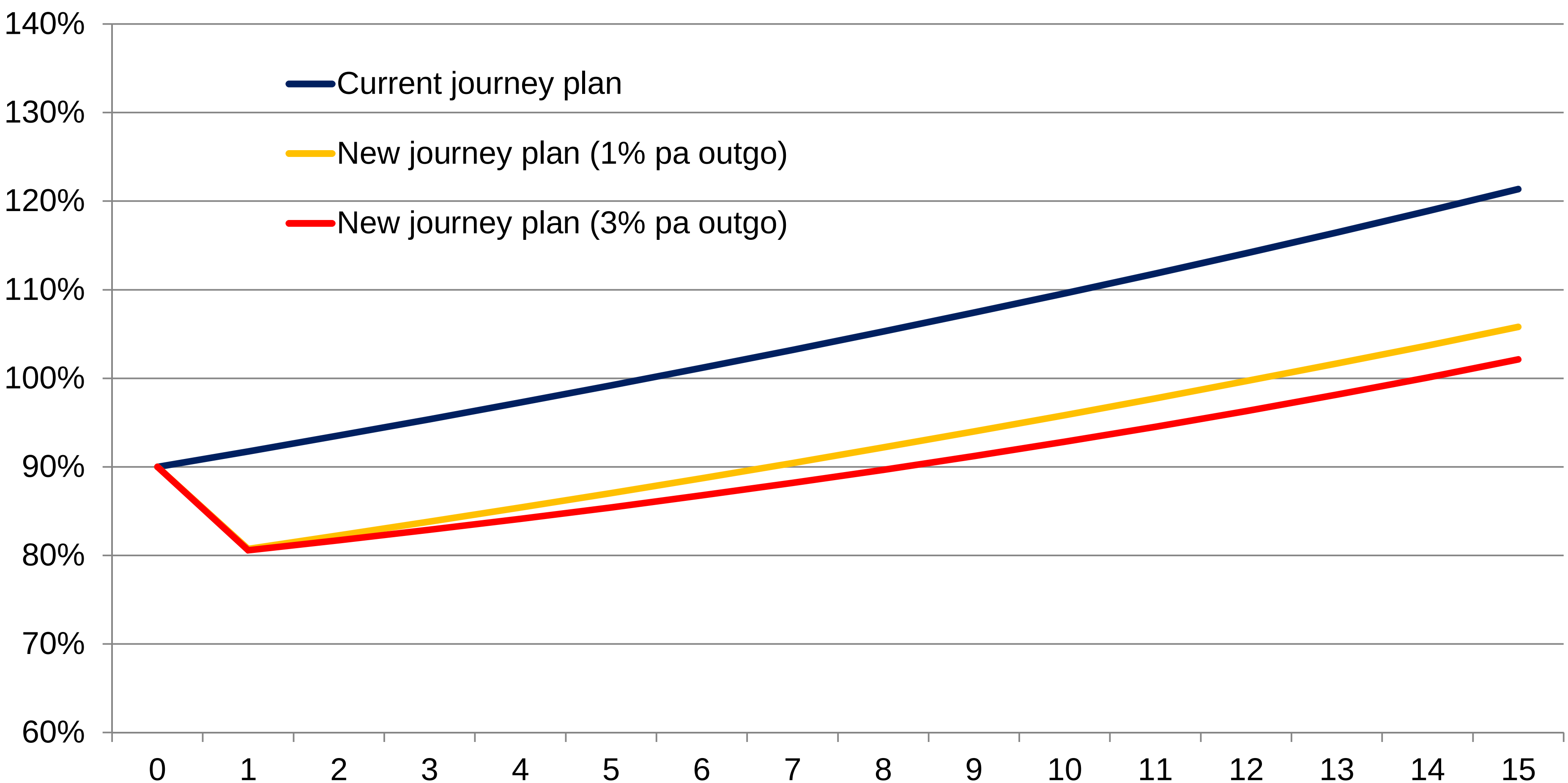

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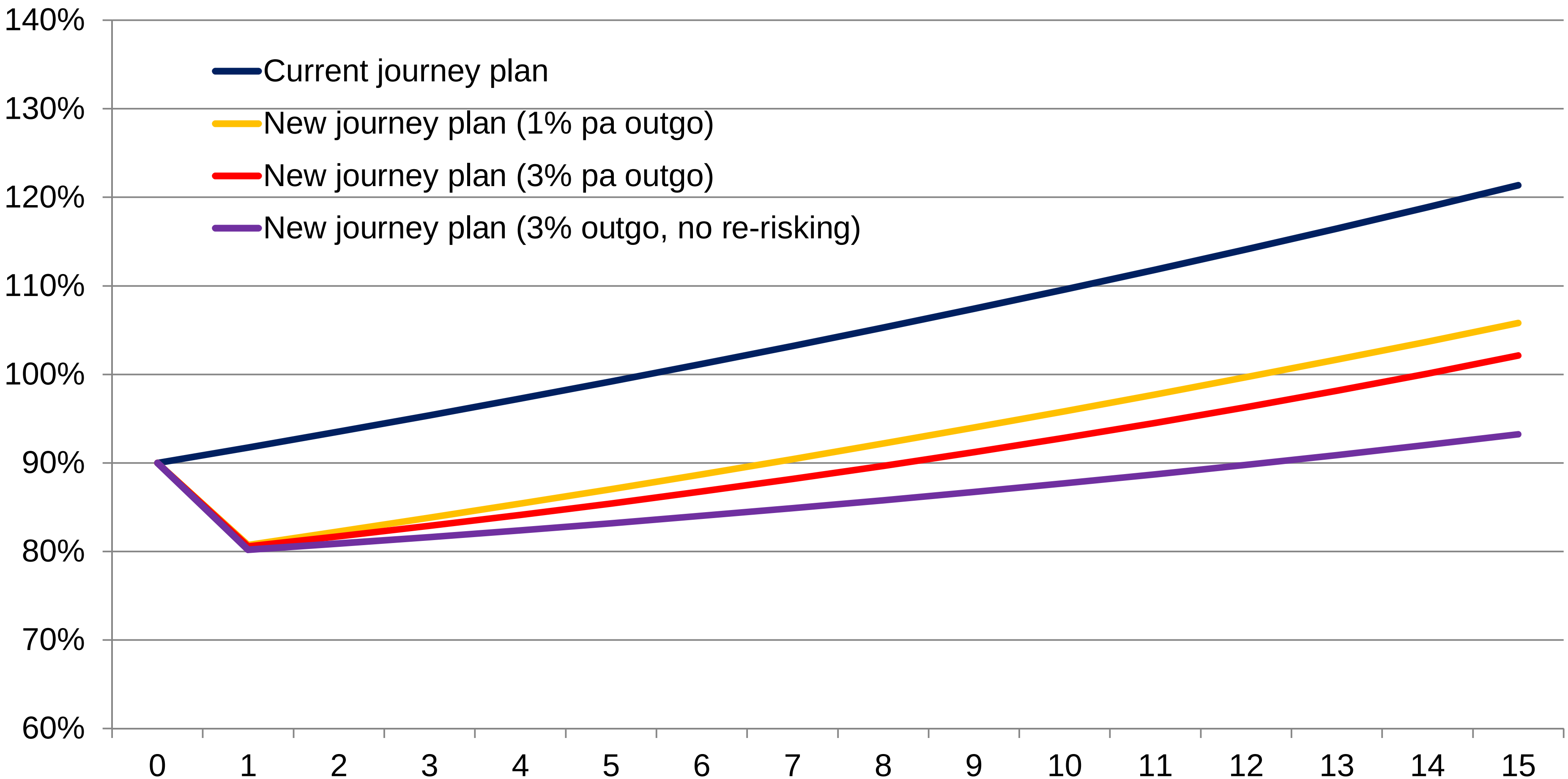
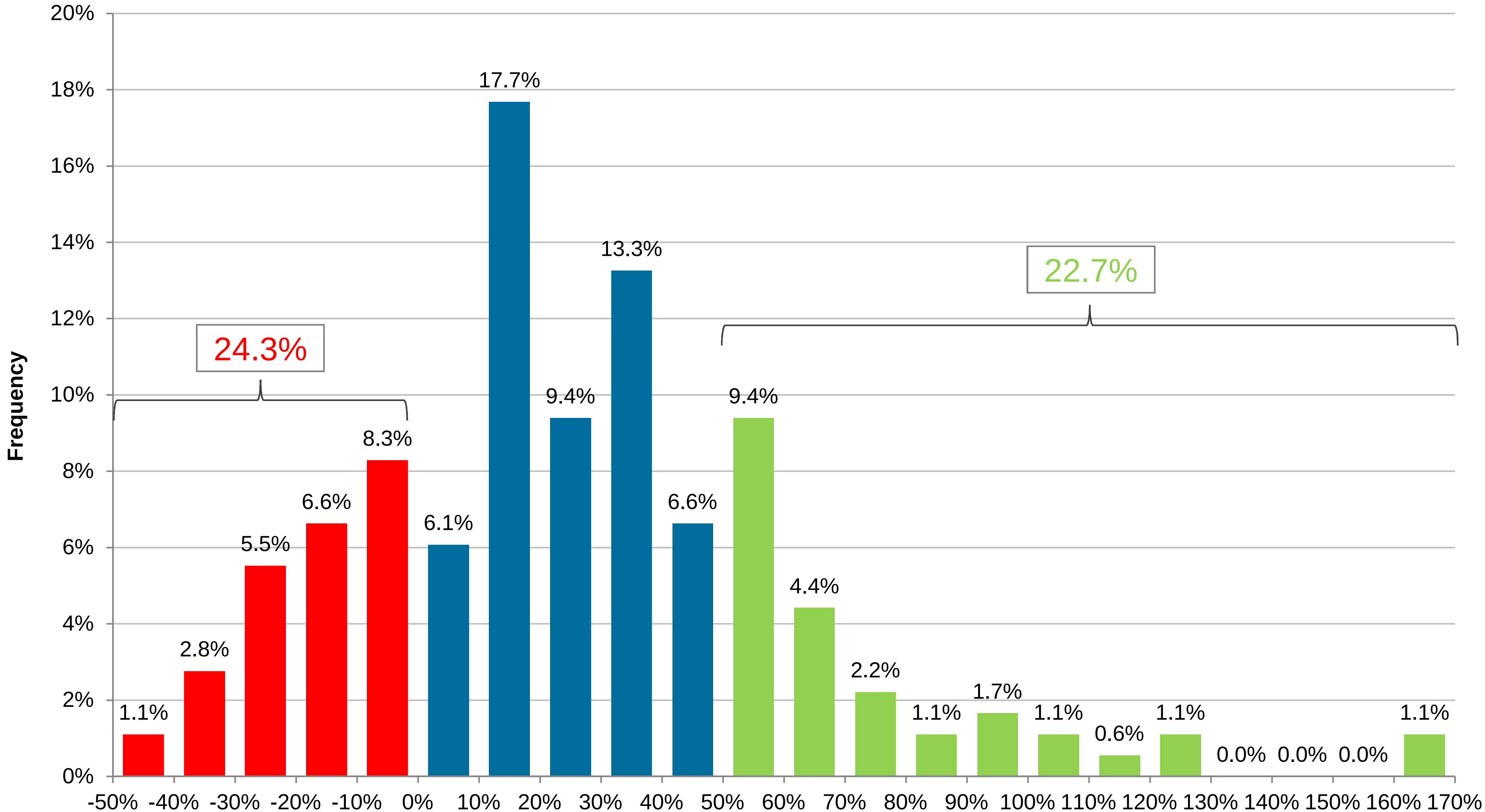


MSCI WORLD 3-YEAR HISTORICAL RETURNS

1



Source: Mercer, Thomson Reuters Datastream, price index, 31 December 1969 – 31 December 2017 (performance in USD)

EQUITY RISK MANAGEMENT TECHNIQUES

2

Do not hedge

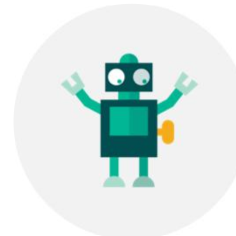
"Scale back equities"
"Diversify into other asset classes"

Asset based solution

"Tail risk hedge funds"

Static hedging

"Equity option structure implemented for a fixed period of time"

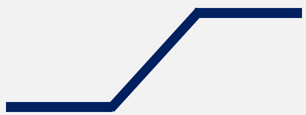
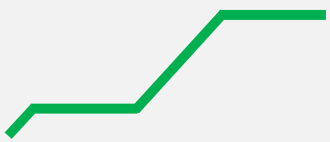


Dynamic hedging

"Equity option structure implemented on a rolling basis"

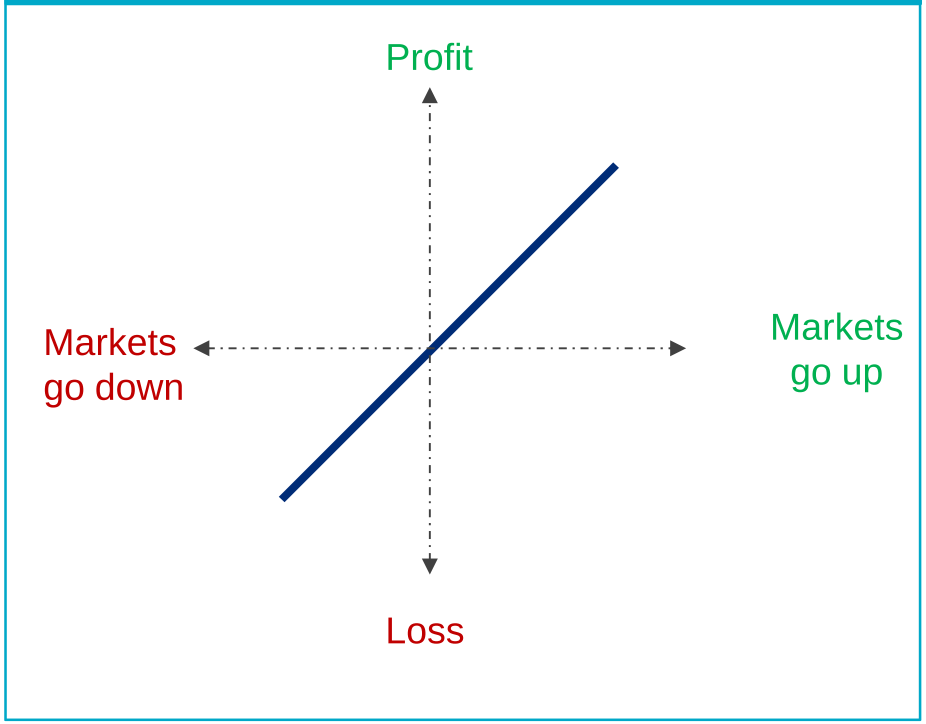
EQUITY PROTECTION STRUCTURES

2

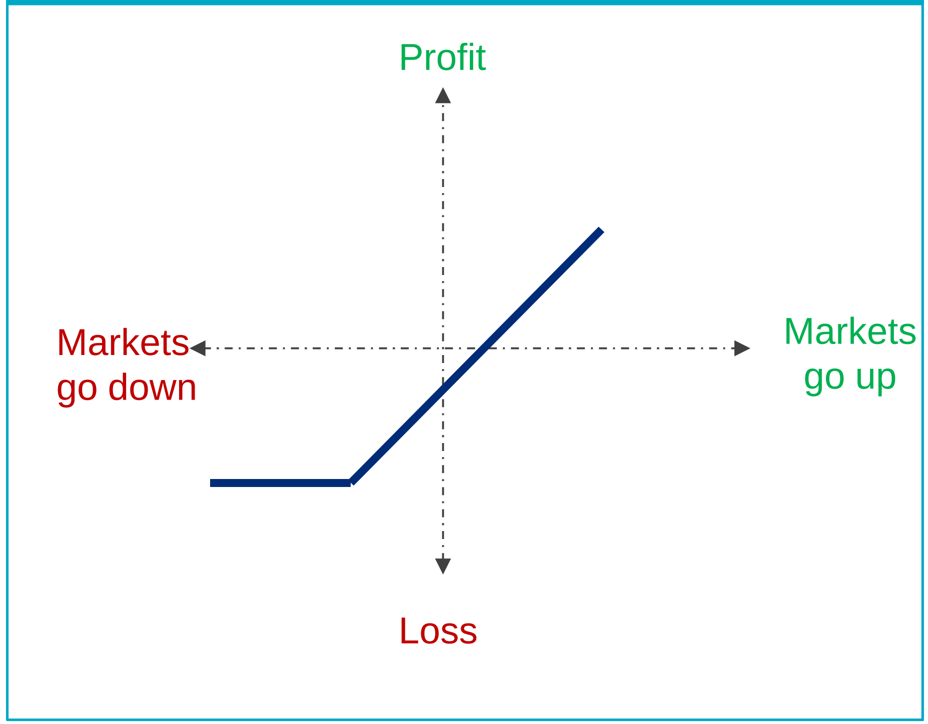
STRUCTURE	WHAT IS IT?
 DOWNSIDE PROTECTION	Purchase a “put” contract to protect against all market falls of e.g. 10%, over the next year. Simple structure that requires an upfront premium that is paid for from the portfolio (and reduces return).
 COLLAR PROTECTION	Purchase a put contract to protect against downside losses, and sell upside beyond a certain point using a call contract. By choosing the thresholds for protection and selling upside, a nil premium can be achieved.
 SPREAD PROTECTION	Purchase a put contract but then unwind the protection to provide limited protection against downside losses. Combined with selling upside, a nil premium can be achieved.

EQUITY OPTIONS – IN DETAIL (1/2)

Equities only



Equities + Put option

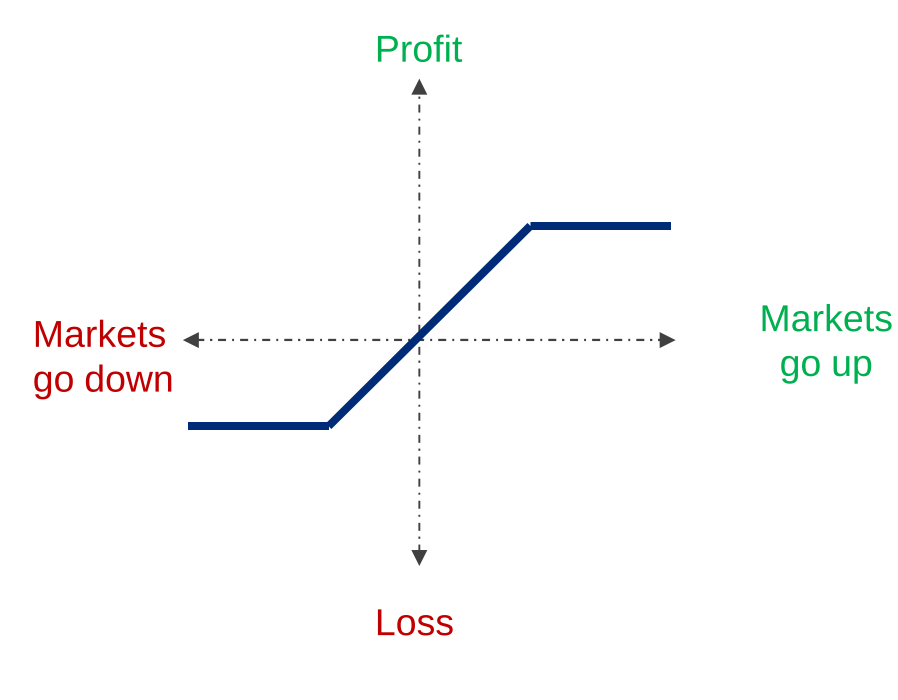


S&P 500 put	1 year	2 year
90% strike	3.0%	5.2%
75% strike	1.2%	2.4%

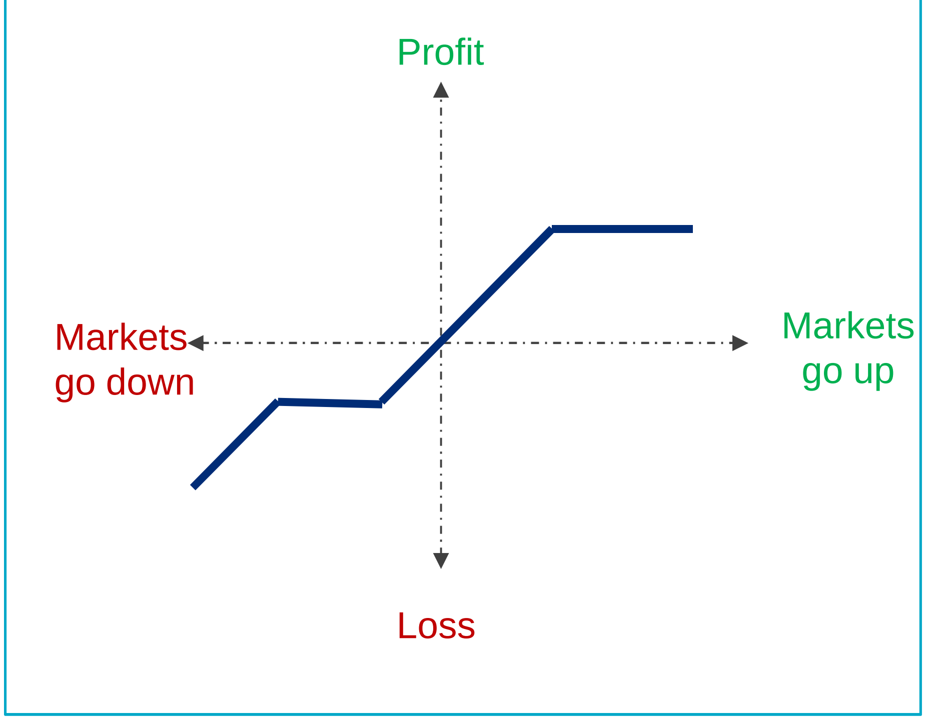
Source: Bank indicative pricing as at 12 March 2018

EQUITY OPTIONS – IN DETAIL (2/2)

Equities + Collar



Equities + Put spread collar



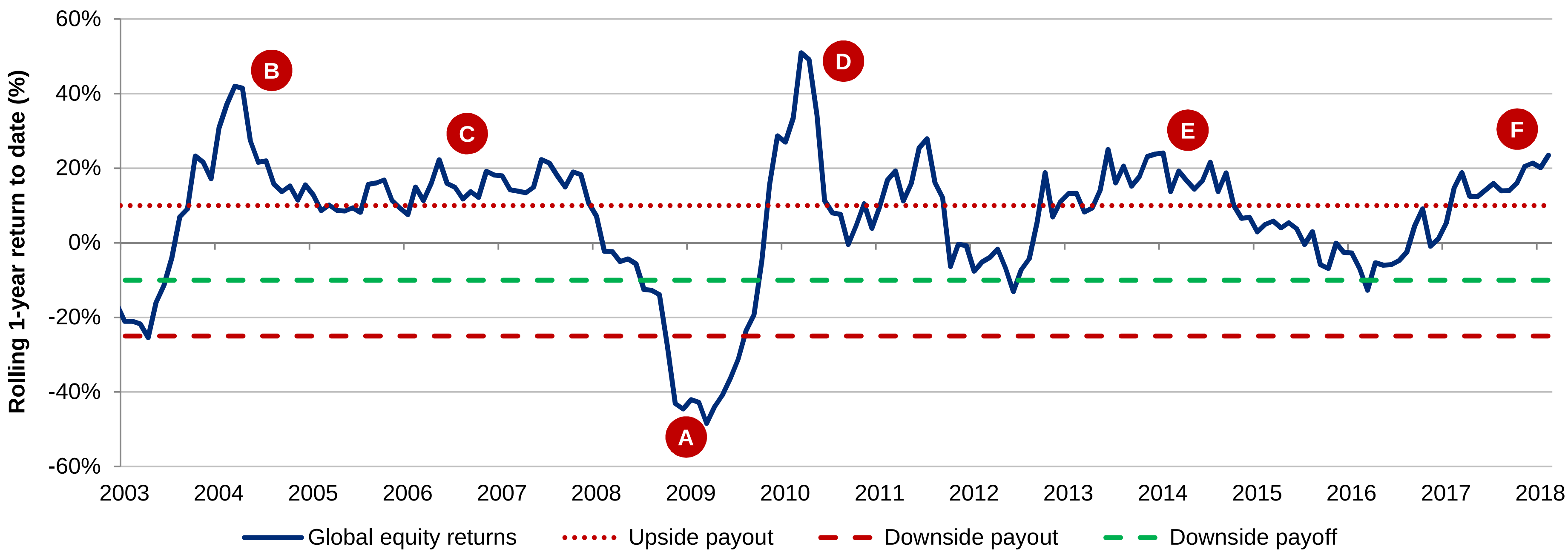
S&P 500 collar	1 year	2 year
90% strike	106.7%	110.1%
75% strike	112.4%	118.1%

S&P 500 put spread collar	1 year	2 year
90/75 strike	109.9%	117.0%

Source: Bank indicative pricing as at 12 March 2018

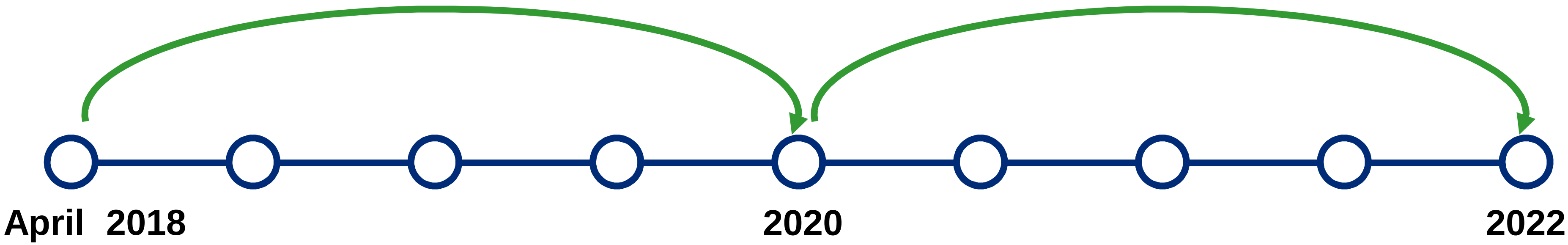
HISTORICAL ANALYSIS – 1 YEAR RETURNS

The chart below shows the historical return on the MSCI World price index for **rolling 1 year periods** from 2003 to 2018.

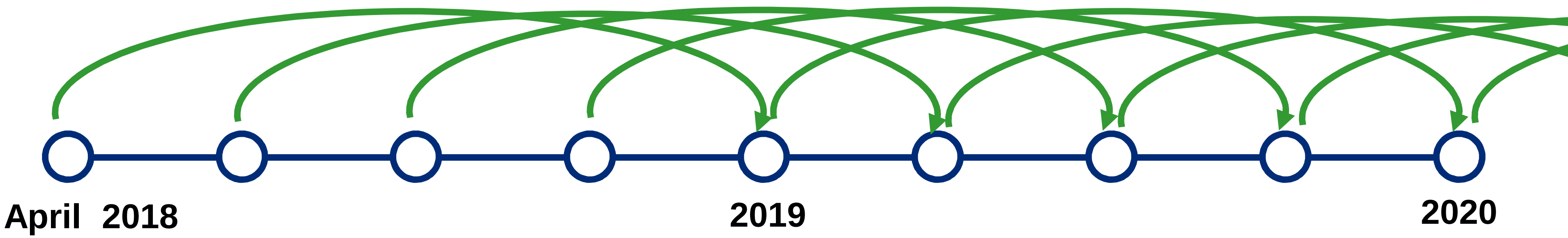


IMPROVEMENT 1: ROLLING PROTECTION

Static

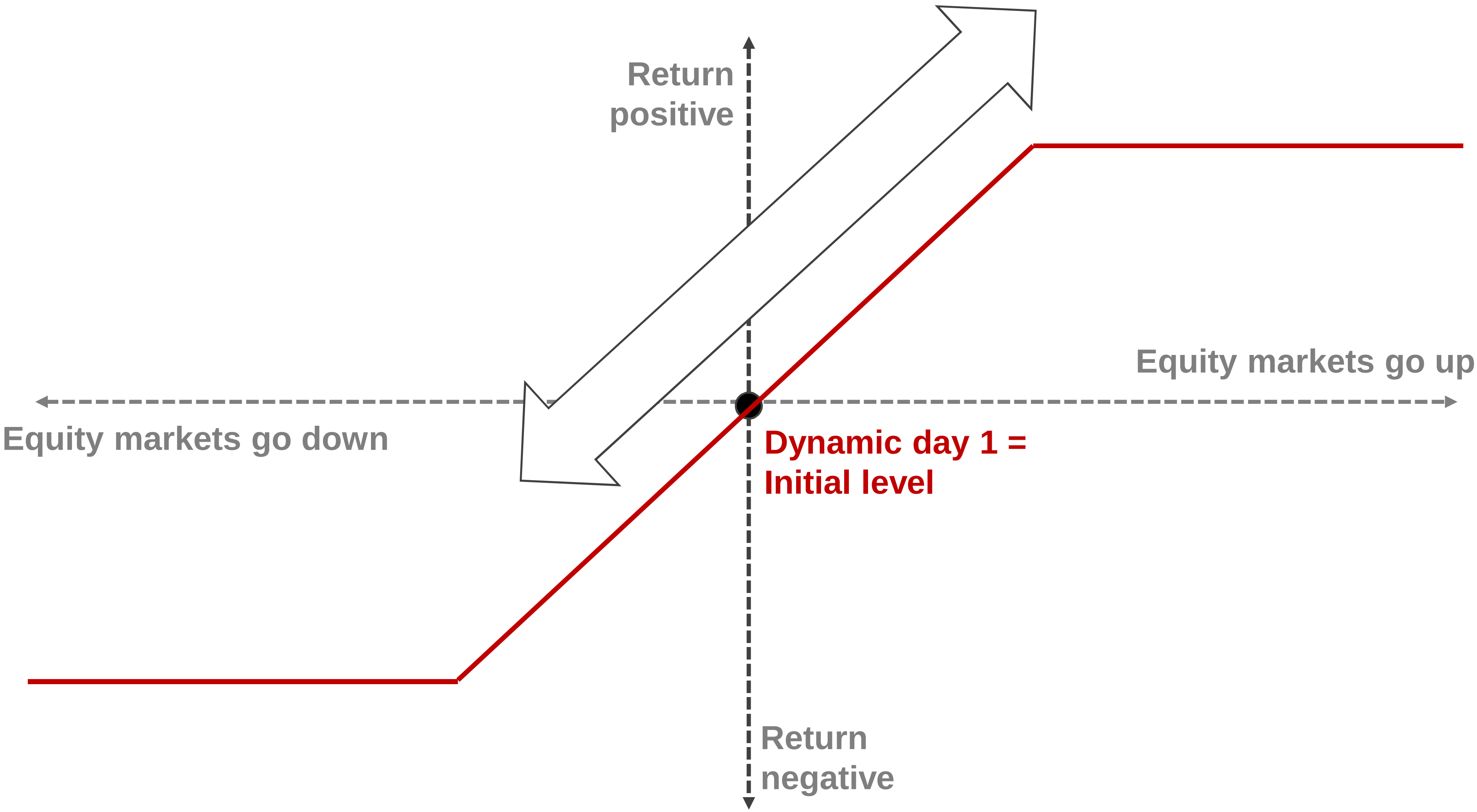


Rolling structure (eg quarterly)



IMPROVEMENT 2: DYNAMIC PROTECTION

3



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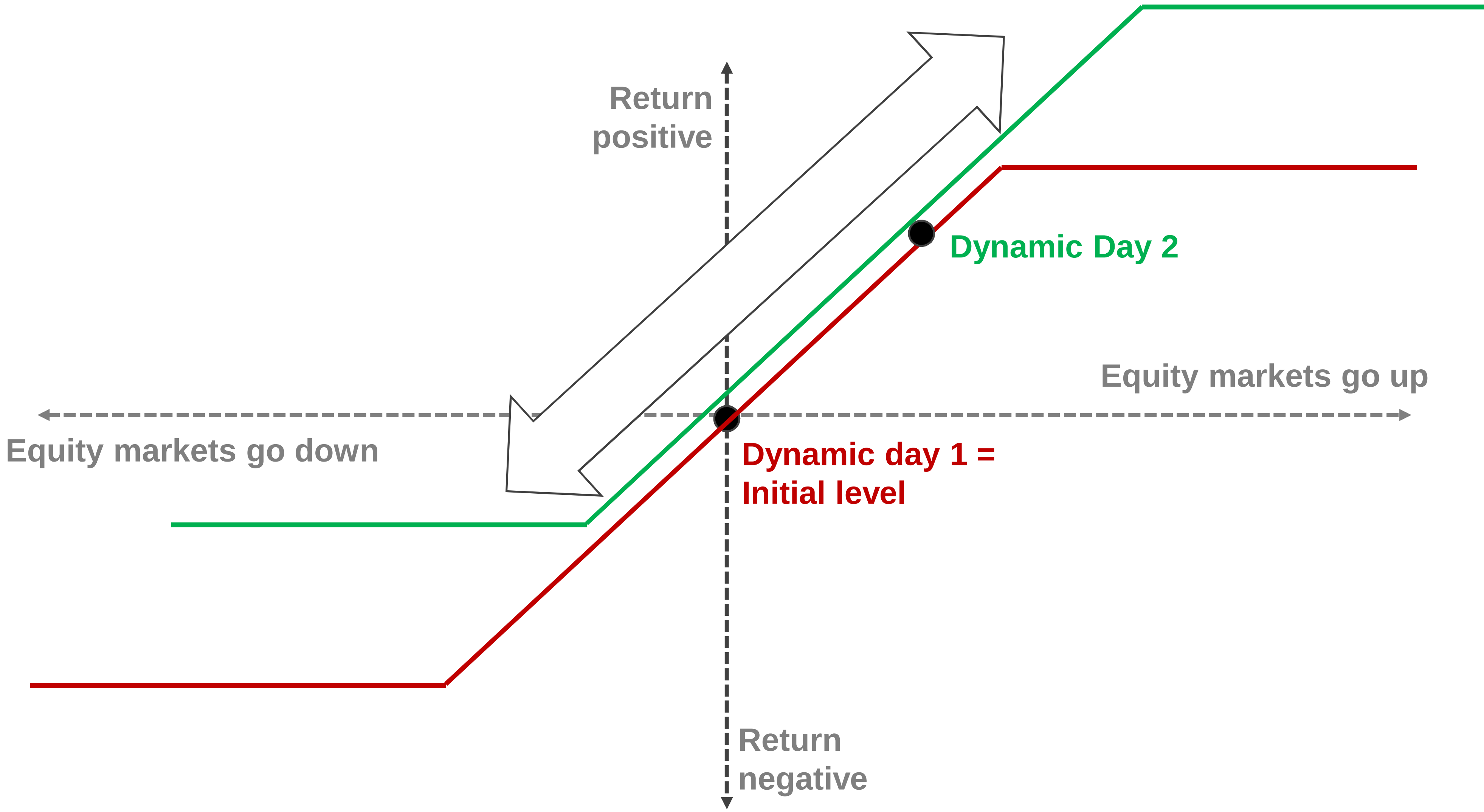

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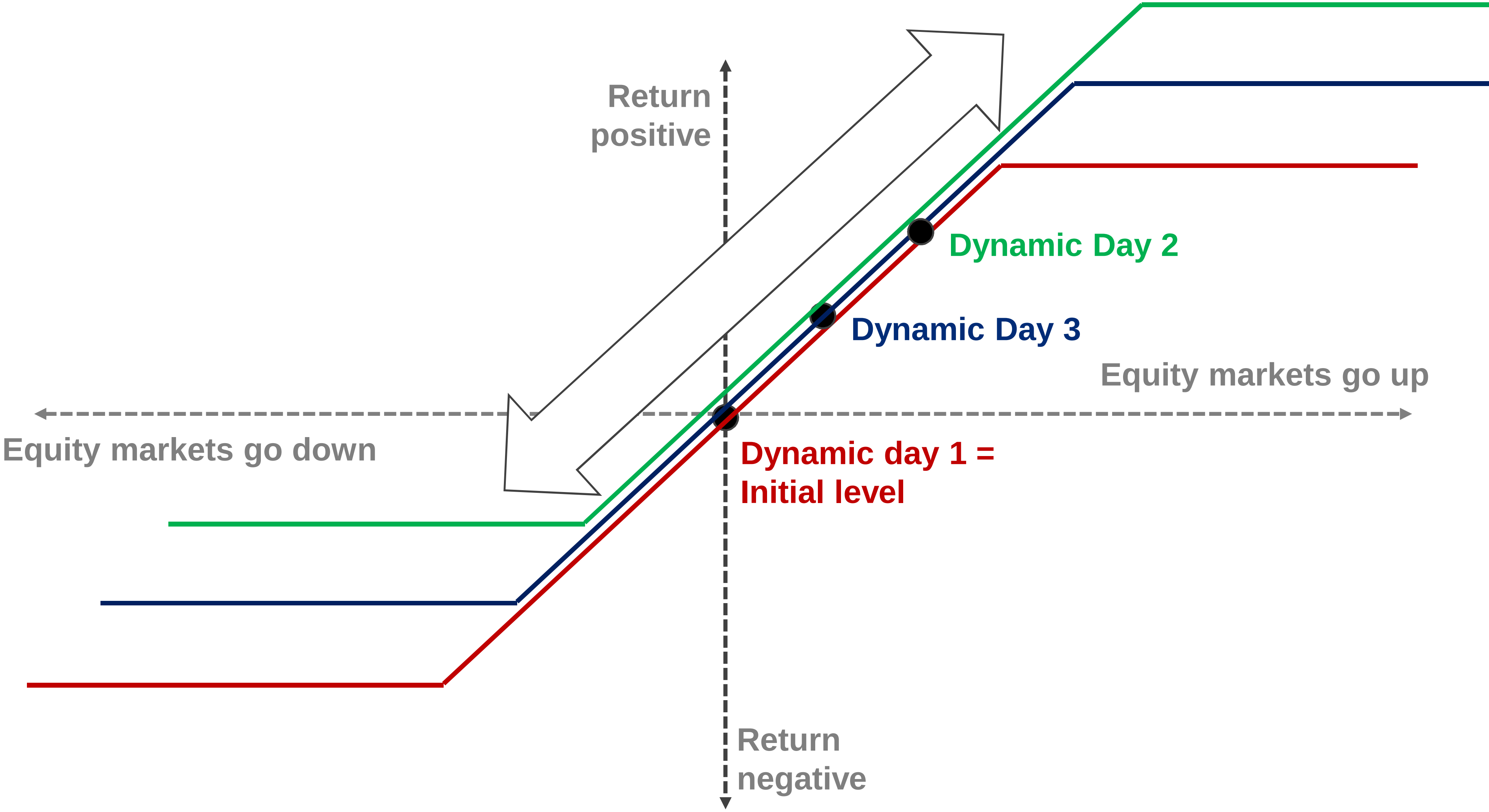
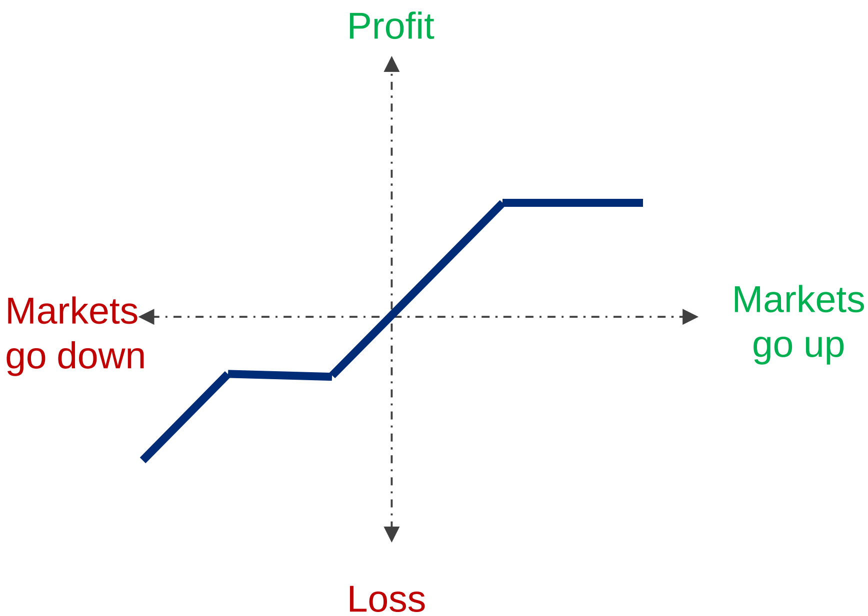


COMPARISON OF APPROACHES

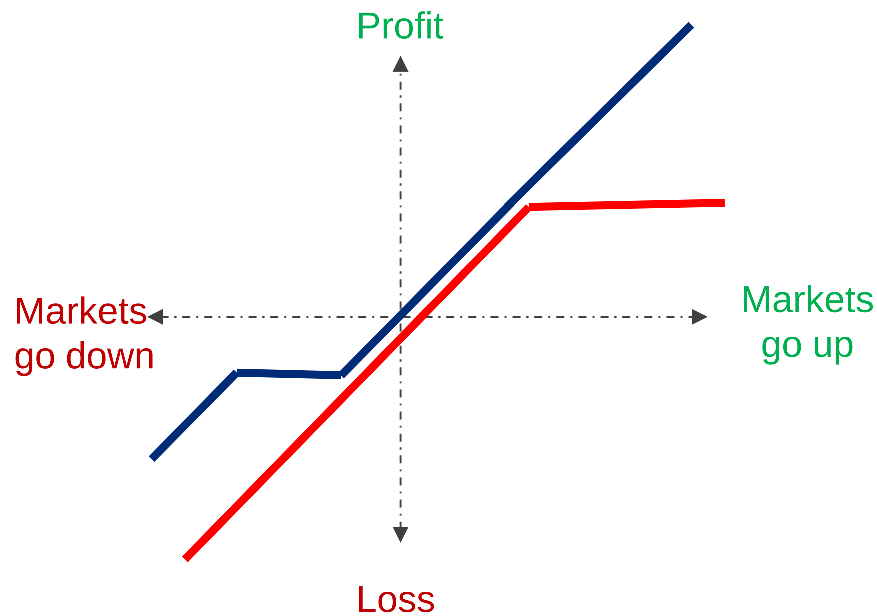
Feature	Do nothing	Static hedging	Dynamic hedging
Nature of strategy	No protection	Overall structure set at outset	Based on a simple set of rules
Certainty over protecting recovery plan	Low	High	Medium
Period of protection	None	Fixed	On-going
Financing of protection	None	Sell upside over fixed period	Sell upside over rolling periods
Upside participation	Unlimited	Limited to cap	Higher than static
Potential regret risk	Lowest	Highest	Low/medium
Complexity	Low	Medium	Medium/high
Return drag	Zero	Some, due to cap	Impact of caps reduced
Transaction costs	Zero	Lower	Higher

EXAMPLE DYNAMIC STRATEGIES

Equities + Put spread collar (dynamic)



Equities + Put spread collar (inc swaption)



S&P 500 put spread collar	1 year	2 year
90/70 strike (premium)	2.2%	3.3%
Monthly calls at 103%	3.8%	7.6%
Monthly calls at 104%	2.0%	4.0%

Swaption (sell rates upside)	1 year	2 year
Current rates + 50bps	1.9%	4.1%
Current rates + 75bps	1.0%	2.8%

Source: Bank indicative pricing as at 12 March 2018

Source: Bloomberg as at 13 March 2018

DESIGNING AN EQUITY PROTECTION STRATEGY

How much downside protection?

How much upside is required?

Maturity of underlying protection

What proportion of equities to protect?

What equity regions do we protect?

Practical issues – fees, transaction costs, liquidity & counterparty risk

CASE STUDIES

4

- The choice between a static or dynamic equity protection strategy will depend on the scheme's objectives.

Static hedging

Equities have performed strongly over the last few years and as a result schemes have made significant gains on their equity holdings.

Schemes may have an upcoming actuarial valuation and want to lock in these equity gains throughout the valuation period.

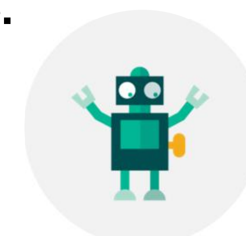
In this scenario, a static equity option structure may be desirable.

Dynamic hedging

Schemes may wish to hold equities to meet expected return targets.

However, they may be concerned that equity markets could fall at some point over the next, say, 3-5 years.

In this case, a dynamic equity hedging strategy may be desirable to maintain expected returns while mitigating downside risk over the cycle.



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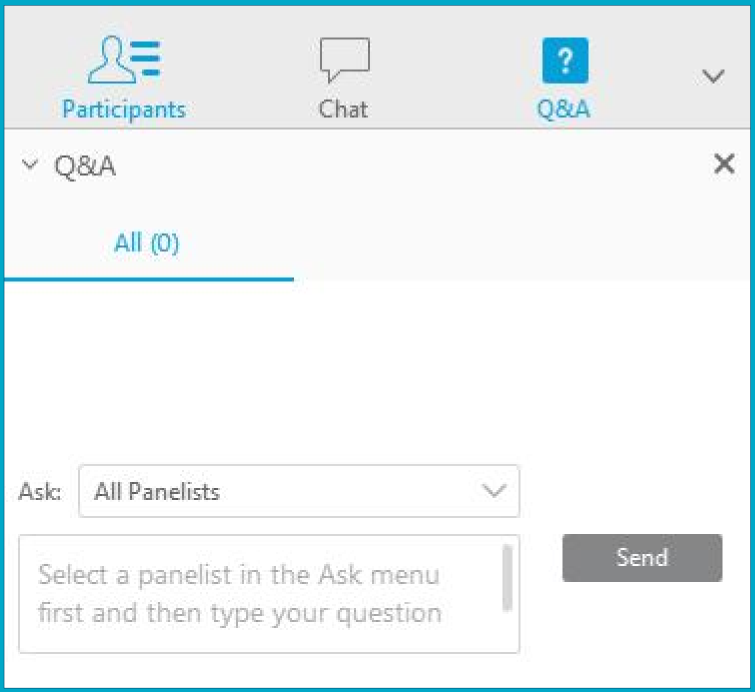
To submit a question while in full screen mode, use the Q&A button o the floating panel, at the top of your screen.



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TOMORROW
TODAY