

PART OF THE ALPHA REAL CAPITAL FAMILY OF COMPANIES

- FTSE 100 FDEW - INTRODUCTION AND OVERVIEW

FOR PROFESSIONAL ADVISER USE ONLY
- NOT FOR USE WITH CLIENTS -

Introducing the Alpha Real Capital family of companies ('Alpha') ... TEMPO STRUCTURED COMPANIES



KEY ALPHA STATISTICS:

Headquartered in London, Alpha Real Capital was founded in 2005 as an international, co-investing, investment management and wealth management solutions business:

(as at 31 Mar 2020)

- Alpha Real Capital LLP sits at the heart of the Alpha Real Capital family of companies ('Alpha'), which benefit from materially common ultimate beneficial ownership

£4.0bn **AUM**

The 'Alpha way' is to identify specialist teams with expertise in areas of strategic focus and interest and to support these teams to deliver best-in-class investor solutions:

A 130+ professional team operates across the UK, Europe and Asia, focusing on 4 core areas: i) real estate investment management; ii) long income and index-linked income; iii) infrastructure, social impact and renewable energy; and iv) wealth management solutions

- Alpha teams benefit from centralised resources, including: financial; operational; compliance; research; marketing; business development and capital-raising

130+

... and from Alpha's fundamental interest to 'do the right things'

Professional team

The 'Alpha DNA' is evident across the Alpha range of funds, products and services:

- Alpha aims to offer attractive risk / return profile investments for investors, with exemplary support and service for business partners, professional advisers and investors

Core areas

Alpha engages with institutional investors, professional investors (including family offices. UHNW and HNW private investors) and professionally advised retail investors:

- on the retail side. Alpha operates through TIME Investments and Tempo Structured Products

Contents ...



A brief introduction to and overview of smart beta:

- alternatives and complements to both passive and active fund management
- founded upon academic research and evidence: designed to meet specific investor interests
- recognising rules, factor exposures and potential issues embedded implicitly in market capitalisation weighting
- highlighting the difference between incontrovertible market benchmarks and optimal passive investments
- the rise and rise of interest in and use of smart beta: global and exponential
- the main smart beta rules / factors which have emerged
- equal weighting: the straightforward attributes and potential merits | what the index providers say
- where structured products come in: implementation challenges of equal weighting for mutual funds and ETFs

The FTSE 100 FDEW:

- a FTSE Russell index: developed to provide the potential for improved structured product terms
- understanding the 'EW' (equal weight) and 'FD' (fixed dividend): which operate in tandem
- plain English investor-facing information and professional adviser collateral input and materials
- comprehensive and granular performance analysis: including comparison to the FTSE 100
- understanding the features, rules, factor exposures: including potential issues / performance risks
- use within diversified and balanced portfolios
- access and visibility

Smart beta: a rules-based, factor-driven 'third way' ...



- Smart beta refers to indexes which have a rules-based, factor-driven methodology, as alternatives and complements (a key point of balance) to indexes based on market capitalisation methodology:
 - noting that while market capitalisation weighted indexes simply reflect the market as a whole, as a benchmark,
 market capitalisation weighting effectively embeds some implicit rules / factor exposures for passive investors
 - smart beta (sometimes referred to as 'enhanced passive', 'alternative beta' or 'factor investing') blurs the binary lines between market capitalisation weighted passive and actively managed mutual funds, offering a 'third way'

Founded upon academic research and evidence ...



- The ascent of passive investing is founded upon (or linked to*) academic research and evidence, the principles of which extend to smart beta:
 - 1. Modern Portfolio Theory ('MPT'): Markowitz (1952):
 - diversify portfolios across equities, bonds, commodities ('the only free lunch is diversification')
 - 2. Capital Asset Pricing Model ('CAPM'): Treynor (1961/62), Sharpe (1964), Lintner (1965), Mossin (1966):
 - two types of risk: specific risk (company specific) / market risk (market specific)
 - 3. Efficient Market Hypothesis ('EMH'): Fama (1970):
 - markets are efficient
 - everything is in the price: all potential influences
 - the only thing that can move prices is unknown information
 - consistently beating markets is impossible
 - ... * note the timeline: the EMH is often part of the rationale supporting the case for passive investing, but the creation / inception of market capitalisation indexes pre-dates the academic studies re EMH

Smart beta: meeting investor perspectives and interests ...



 Smart beta is founded on advancing academic research and understanding of stock markets and modern index construction capabilities, with an aim of meeting a number of investor interests:

1. From a passive / 'beta' perspective:

- there is increasing acceptance of the academic research and evidence behind passive investing, the principles of which also extend to smart beta investing
- there is increasing understanding that market capitalisation index methodology effectively / implicitly embeds some features / rules / factors which can be seen as potential issues for passive investors:
 - ... and that indexation / passive investing doesn't start and stop with just market capitalisation weighting

2. From an active / 'alpha' perspective:

- there is increasing recognition that 'factors' (as opposed to fund manager skill) can drive active fund management 'alpha'
- there is increasing understanding that some of these factors can be isolated, replicated and accessed more efficiently, effectively and reliably through passive smart beta indexes

3. From a cost perspective:

- there is increasing focus on cost: particularly in a potentially low returns investment environment

Rules / factors / issues implicit in market capitalisation weighting ... TEMPO STRUCTURED TO PRODUCTS

- Market capitalisation weighted indexes reflect the market as a whole, as 'market benchmarks': the merits of which are widely recognised, evidenced and accepted:
 - however, it is important to recognise that market capitalisation weighted indexes implicitly embed some features
 / rules / factor exposures and potential issues as 'passive investments', which investors need to consider:
 - 1. Market capitalisation weighted indexes can lead to concentration risk, at a stock and sector level:
 - for example, in the FTSE 100, the top company may typically account for as much as c.5-10%, the top 5 companies for c.20-30% and the top 10 companies for c.35-50% of the index
 - academia evidences the importance of diversification: and grandma (aka common sense) also always suggested that it simply isn't a good idea to have too many of your eggs in one basket
 - 2. Market capitalisation weighted indexes can 'underweight' the smaller companies:
 - for example, in the FTSE 100, while all the companies are considered large, the bottom company may account for as little as c.0.1% and the bottom 10 companies for just c.2.5 3.5% of the index:
 - ... notably, more than 70 companies are typically weighted at less than 1% in the FTSE 100
 - academia identifies the 'small companies effect': historically, small companies have outperformed medium and large companies, over the long term (in smart beta terminology, this is considered the 'size' factor)
 - 3. Market capitalisation weighted indexes embed a 'buy high / sell low', 'momentum' approach, as a rule:
 - market capitalisation weighted indexes increase the weighting in companies as their share prices increase and decrease the weighting in companies as their share prices decrease (i.e. an element of the 'momentum' factor)
 - some investors may consider this approach / rule to be at odds with a fundamental aim of 'buying low / selling high' when investing in the stock market (i.e. an element of the 'value' factor)

Market capitalisation reflects the market as a whole and its beta ...



- Despite highlighting the rules / factor exposures and potential issues embedded implicitly in market capitalisation weighted indexes, market capitalisation weighted indexes rationally and incontrovertibly represent the market as a whole, as 'market benchmarks' and the 'beta' of the market:
 - any decision to invest any other way is a 'tilt' away from the natural construction and beta of the market as a whole: hence smart beta phraseology: e.g., 'alternative beta', 'strategic beta', 'factor investing', 'factor tilts', etc.
- Further, despite highlighting the rules / factor exposures and potential issues which are embedded implicitly in market capitalisation weighted indexes for investors, it should also be recognised that:
 - concentration, as opposed to diversification, may benefit index performance, if the performance of the companies which an index is concentrated in are driving the market's performance (a good example of this can be seen in the US S&P 500 in 2020, which was largely driven by the 'FAANG' stocks)
 - a focus on larger capitalisation companies and less exposure to smaller capitalisation companies in an index may benefit performance, risk / volatility, liquidity, costs, etc.
 - and 'buying high / selling low', as an element of the 'momentum' rule may help drive index performance
- However, while market capitalisation weighted indexes rationally and incontrovertibly represent the market as a whole as market benchmarks, it does not automatically or necessarily follow that market capitalisation weighted indexes are also the optimal - or only - way to invest passively in the market:
 - stock market indexes and passive investing did not start and certainly do not stop with market capitalisation weighted indexes
 - it's interesting to think about and understand when and why stock market indexes were conceived and why market capitalisation weighting became the market benchmarks: and to consider these points ...

The history of market indexes and market capitalistion weighting ... TEMPO STRUCTURED TO THE HISTORY OF THE PRODUCTS

- To understand when and why market capitalisation weighting became market benchmarks and also the default index methodology for passive investors - it is helpful to look at the history of indexes:
 - 1. Charles Dow, the editor of the Wall Street Journal, devised and first calculated the price weighted Dow Jones Industrial Average ('DJIA') in 1896:
 - keeping things simple a century ago, Dow simply took a basket of large US stocks and weighted them by price
 - the problem with this methodology was (and still is) that a stock priced at \$50 is weighted at twice that of a stock priced at \$25 ... regardless of any fundamentals (such as market capitalisation) or investment merit
 - 2. Standard & Poor's conceived the S&P 500 in 1923, but its market capitalisation weighted approach took form in 1957 (note that timeline anomaly: pre academic studies into and consideration of EMH):
 - the aim was also simple, to reflect the market as whole and the experience of investors in the market as a collective: the index evolved was market capitalisation weighted, based on the straightforward and perfectly rational calculation of the number of shares in issue for each company in the index multiplied by their price
 - similar to the DJIA, this methodology results in a stock with a market cap of \$50bln being weighted at twice that of a stock with a market capitalisation of \$25bln ... regardless of any other fundamentals or investment merit
 - 3. In the UK, the FT 30 (originally known as the FN30) was established in 1935, on an equally weighted basis, while the market capitalisation FTSE All-Share dates back to 1962 and the FTSE 100 to 1984
 - 4. MSCI (formerly Morgan Stanley Capital International) introduced the MSCI World index in 1969, as a market capitalisation weighted index for global stocks (c.1,600 large and mid cap, across 23 countries)

Is market capitalisation weighting the optimal passive investment ... TEMPO STRUCTURED PRODUCTS

- Market capitalisation weighted indexes were conceived as ways to publish information for the market as a whole: providing a representation of the returns of shareholders in the market, as a whole:
 - all free float shares of companies in an index, multiplied by their price = the value of the market
 - market capitalisation weighted indexes rationally and incontrovertibly represent the market as benchmarks
- However, market capitalisation weighted indexes were never conceived or designed as ways to invest in the market or expected to become passive investment strategies for investors to seek to replicate:
 - arguably, despite their merits, market capitalisation weighted indexes became the default index methodology for passive investors as an accident of history: they came first / existed and there were no alternatives / choices
 - the fact is that market capitalisation weighted indexes were conceived before advanced academic studies of stock markets / investing (e.g., EMH) and before advanced / modern index construction capabilities
- Advancing academic research and understanding regarding investing in markets and modern index construction capabilities mean that there are now various alternatives and complements to market capitalisation indexes as ways to invest passively in the market, in diversified and balanced portfolios:
 - it's interesting to consider what might have happened back in the 1950s 1970s had there been the academic research and understanding of the stock market, different ways to invest in it and better index capabilities:
 - ... conceivably, what might have happened in the past, is what is happening now ...
 - it's also interesting to imagine how market capitalisation weighted index methodology might be presented and regarded if it was presented as a smart beta proposition ...

Imagine the pitch for market capitalisation weighting ...



- It's interesting and thought provoking to imagine how market capitalisation weighted index methodology might be presented and regarded if it was presented as a smart beta proposition:
 - imagine that you are a professional adviser / investor happily using an equal weight version of the FTSE 100
 - FTSE Russell contact you, explaining that they are launching a market capitalisation weighted FTSE 100
 - they provide you with detailed input and discuss the academic evidence, highlighting that implementing market capitalisation weighting as a rules-based index methodology, as an alternative to equal weighting, will result in:
 - ... stock (and potentially sector) concentration: despite academia evidencing the merits of diversification
 - ... underweighting the smaller companies: despite academia identifying that small companies historically outperform large companies, i.e. the small companies effect
 - ... increasing the weighting in companies when their share prices rise and decreasing the weighting in companies when their share prices go down, i.e., buying high and selling low
 - ... oh, and best point last, they highlight that historical analysis shows that market capitalisation weighting the FTSE 100 means that, more times than not, it may underperform the elegantly simple equal weight version
 - they can, however, now draw attention to EMH: markets are efficient; everything is in the price; the only thing that can move prices is unknown information; consistently beating markets is impossible:
 - ... you, however, may counter that while it is, of course, interesting to consider the principles of EMH, there is no information value to knowing everything is in the price: it doesn't lead to the ability to actually forecast anything about future performance ... and that, arguably, points to the agnostic case for equal weighting

The rise and rise of interest in and use of smart beta ...



The rise and rise of interest in and use of smart beta has been global and exponential	Investors in smart beta include sovereign wealth funds, institutions, pension funds and retail investors
In the US, smart beta interest and use was initially led by retail investors	In Europe, smart beta interest and use was initially led by institutional investors
Investors see smart beta as a viable alternative and complement to both passive index and actively managed funds	Funds flowing into smart beta include new monies and monies moving from both passive index and actively managed funds
A significant percentage of institutional investors already include smart beta in portfolios	A significant percentage of institutional investors anticipate increasing smart beta in portfolios
Major asset managers such as BlackRock, Vanguard and State Street dominate global smart beta AUM	Smart beta AUM globally surpassed \$1tn in December 2017

^{*} Source: State Street Global investors: 'Beyond Active and Passive' Survey of Institutional Investors in Europe and North America

The main smart beta rules and factors which have emerged ...



- Smart beta refers to an almost countless number of rules and factors (300+*):
 - many smart beta rules / factors are technical and specialist
 - a small number of widely recognised smart beta rules and factors have emerged

EQUAL WEIGHT / SIZE

The same companies as the market capitalisation index: but equally weighted

DIVIDENDS

Companies selected on the basis of high dividends, stability and growth of dividends, etc.

VOLATILITY

Companies selected on the basis of low historical volatility / beta

QUALITY

Companies selected on the basis of strong balance sheets, profit margin, etc.

MOMENTUM

Companies selected on the basis of strong recent / current (3-12 mths) performance

STYLE

Companies selected on the basis of style characteristics, such as 'value' / 'growth'

^{*} Source: FTfm Smart Beta: What's in a Name, Nov 17

Focusing on equal weighting ...



- Equal weighting is generally considered to be the most obvious and simple / straightforward alternative to market capitalisation weighting methodology of an index
- The features, rules and factor exposures explicit in equally weighted indexes can effectively reverse features, rules and factor exposures embedded implicitly in market capitalisation weighted indexes:
 - 1. concentration risk at company (and potentially sector) level is exchanged for diversification:
 - ... for example, in the FTSE 100, 100 x 1% weights means the top 10 companies account for 10% in total
 - **2.** the exposure to smaller companies in an index, which may be considered 'underweight', are equalised:
 - ... for example, in the FTSE 100, 100 x 1% weights means the bottom 10 companies account for 10% in total (as per the top 10): in the FTSE 100, over 70 companies may increase weighting when equally weighted
 - **3.** periodic rebalancing to maintain equal weighting embeds a 'buy low / sell high' approach, as a rule:
 - ... in contrast to market capitalisation weighting, which does the opposite
- Many mainstream index providers recognise the academic and real-world merits of equal weighting and offer both market capitalisation and equally weighted methodology options on the main indexes:
 - ... for example: FTSE 100; S&P 500; MSCI World; EuroSTOXX 50

Equal weighting in the words of: FTSE Russell ...



FTSE Russell says the following regarding equal weight index methodology:

- 'FTSE Russell smart beta surveys reveal that interest in smart beta amongst asset owners has been driven both by risk considerations (such as a wish to reduce index-level risk or to improve levels of index diversification) and a desire to enhance return through exposure to factor risk premia'
- 'equal-weighted indexes are one of the earliest examples of 'smart beta' indexes'
- 'they have long been popular for their ability to diversify the mega-cap dominance inherent in cap-weighted indexes'
- 'likewise, rebalancing to equal-weight causes the index to increase the weight of stocks that have recently declined and decrease the weight of stocks that have recently risen: this contrarian trading pattern ('buy low, sell high') is a key component of the equal-weighting methodology'
- 'equal weight index strategies are undergoing a rise in popularity'
- 'roughly half of US financial advisers surveyed by FTSE Russell in 2015 either use or are very likely to use an equal weight investment approach: as of December 2016, there are approximately 100 globally-listed ETFs with \$21.7 billion in assets that track a variation of an equal weight index'

(as at 31 Dec 2020, ETFGI data shows XY ETFs with \$XY.Z billion based on equal weight indexes)

Equal weighting in the words of: S&P ...



S&P says the following regarding equal weight index methodology:

- 'weighting an index by companies' market caps is a natural approach the market itself is cap weighted so the index return and the market return should match'
- 'the tech boom-bust proved that on the way up cap weighting can be a strong momentum performer on the way down after the market turns, the index is often over-weighted in the stocks with the most to lose'
- 'S&P began exploring other ways to weight indices'
- 'in January 2003, S&P launched an equal weighted version of the S&P 500. Rather than weighting stocks by market value, the index weights each stock equally'
- 'compared to the standard S&P 500, the equal weight version over weights the smaller stocks and under weights the larger ones'
- 'from January 2003 to May 2019, the equal weight S&P 500 returned 9.2% per year compared to 7.3% per year for the cap-weighted version'

Equal weighting in the words of: MSCI ...



MSCI says the following regarding equal weight methodology:

- 'for over 35 years, MSCI has constructed the most widely used international equity indexes for institutional investors'
- 'in calculating its international equity indexes, MSCI employs market capitalisation weighting where each constituent in the index is weighted by its free float-adjusted market capitalisation'
- 'over time, investors have expressed a desire for index providers to additionally provide indexes based on alternative weighting schemes'
- 'the MSCI equal weighted indexes offer an alternative to market capitalisation weighted indexes'
- 'equal weighting is a simple idea an investor holds the same dollar value in each stock, representing an equal part of the value of the portfolio'
- 'equally-weighted indexes are some of the oldest and best-known factor strategies that have aimed to identify specific characteristics of stocks generating excess return'
- 'simply put, MSCI Equal Weighted Indexes avoid concentrating too much of the portfolio into a few large stocks'
- 'the result: over the Dec 2000 to mid-2015 period, equal-weighted versions of MSCI flagship indexes, such as the MSCI USA Equal Weight, delivered significantly higher returns than their cap weighted counterparts'

Equal weighting in the words of: Research Affiliates ...



Research Affiliates says the following regarding equal weight methodology:

- 'for over 40 years, our industry has relied on ... the capitalisation weighted market portfolio for asset allocation, for market representation and for our default core equity investments'
- 'market capitalisation remains immensely popular as the incumbent and theoretically efficient choice, despite doubts about whether its core theoretical underpinnings (EMH and CAPM) are precisely correct'
- 'when investors construct portfolios that weight companies proportional to capitalisation, they inherently overweight overpriced stocks and underweight the underpriced stocks'
- 'it's no longer clear that market capitalisation weighting is the only legitimate benchmark or core portfolio choice: in fact, institutional investors can choose from a wide array of alternative beta strategies, including equal weight, minimum variance and economic size, to name a few'
- 'these alternatives have generally offered better returns or lower volatility, or both, when compared with cap weight'
- 'equal weighting was the basis for the first index futures, has the longest history of the index alternatives, and provides an interesting counterpoint to cap weight'
- 'equal weight assumes that the aggregate investor universe has zero ability to forecast anything'
- 'equal weight has the longest track record of added value'
- 'for practitioners, the elegant simplicity of an equally weighted portfolio is compromised by implementation issues ... still, absent trading costs and any view on forecasting return or risk, equal weighting has considerable appeal on a risk / return basis'

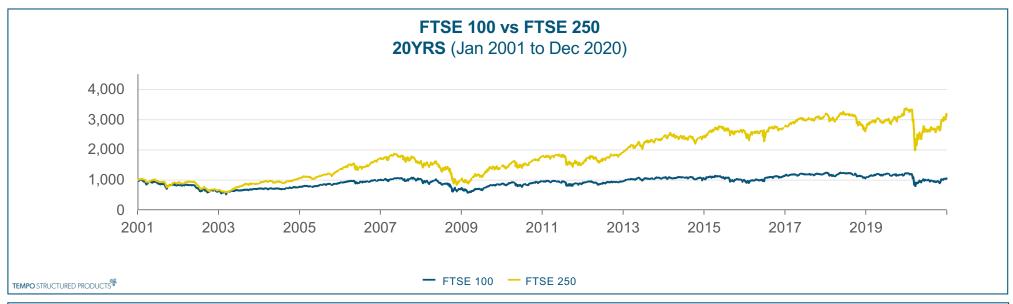
Touching on some of the academia ...

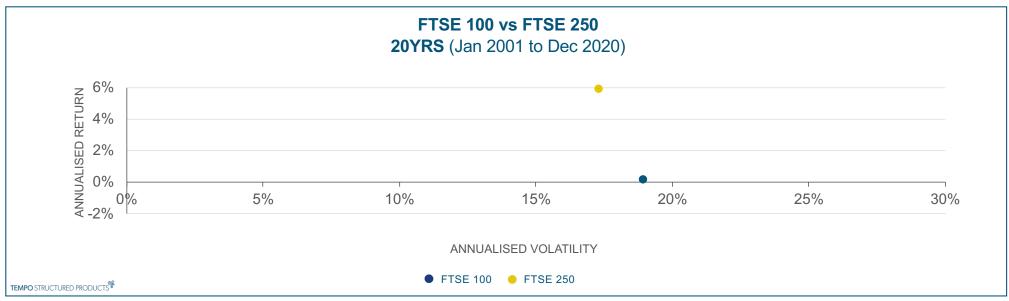


- Extensive academia highlights two factors which can contribute positively to portfolio performance, which may benefit from equal weighting:
 - equal weighting can capture outperformance potential that is associated with both 'size' and 'value' factors
 - 1. The 'size' factor: equal weighting increases exposure to the smaller companies in an index:
 - academia identifies that small companies have historically outperformed medium and large companies, over the longer term (even the major stocks in the world today were smaller companies at some point in the past)
 - the higher return premium of small companies is usually associated with increased risk and volatility: and less information, less certainty, lack of liquidity, etc.
 - academic research re the size factor: Banz (1980); Keim (1982); Fama and French (1992)
 - the 'size factor / small companies effect' most specifically applies to small companies: notably, smaller companies in the FTSE 100 are still considered large (and on p18 we highlight the performance of medium sized 'Mid 250' companies compared to the FTSE 100): despite being relatively smaller companies, compared to the 'mega-cap' end of the FTSE 100, these companies are not small in the academic sense: however, the increased risk and volatility of large and medium size companies may be less than for small companies
 - 2. The 'value' factor: re-balancing imposes a 'buy low / sell high' rule, which captures elements of value:
 - in the last decade, value investing has been out of favour, while growth stocks have driven the performance of certain stock market indexes: however, academia identifies the potential merits of value investing
 - academic research re the value factor: Basu (1977); Rosenberg, Reid and Lanstein (1985); De Bondt and Thaler (1987); Fama and French (1992)

Real world: smaller companies (the 'size' factor) premium ...







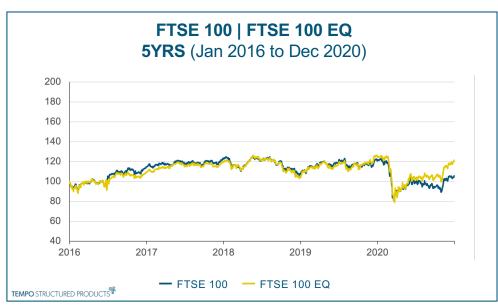
Real world: 'buy low / sell high' (an element of the 'value' factor) ... TEMPO STRUCTURED CONTROLLED CONTROLLE





FTSE 100: comparing market captalisation and equal weighting ... TEMPO PRODUCTS











FTSE 100: comparing market captalisation and equal weighting ...



Year-on-Year performance comparison (total return):

- throughout this presentation, colour highlights better or worse performance: if the metric for equal weighting is better, this is show in green / if the metric for market capitalisation weighting is better, this is shown in red

	YEAR-ON-YEAR PERFORMANCE (TOTAL RETURN)										
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
FTSE 100	12.6%	-2.2%	10.0%	18.7%	0.7%	-1.3%	19.1%	11.9%	-8.7%	17.3%	-11.5%
FTSE 100 EQ	21.3%	-7.3%	17.9%	19.8%	4.5%	3.0%	12.6%	13.2%	-9.0%	23.1%	-2.2%

- as can be seen, more often than not equal weighting the FTSE 100 resulted in outperformance compared to market capitalisation weighting: 8 out of the last 11 calendar years

Volatility and drawdown:

		VOLA	DRAWDOWN		
	1YR	3YRS	5YRS	10YRS	10YRS
FTSE 100	29.0%	19.6%	13.6%		-34.2%
FTSE 100 EQ	29.8%	21.1%	15.6%		-37.2%

- as can be seen, equal weighting resulted in higher volatility and greater maximum drawdown (in Q1 2020, at the outbreak of the Covid-19 pandemic) than the market capitalisation weighted FTSE 100

Where do structured products come in ...



- The merits and potential benefits of equally weighted indexes are clear, so where are all the equally weighted index mutual funds and ETFs:
 - there are implementation issues / obstacles for mutual funds and ETFs in equal weighting
 - the increased weighting and trading in smaller companies, including as a result of regular rebalancing to maintain the equal weighting, can present liquidity, trading costs and tracking error challenges
- However, structured products are based on contracts, issued by banks, with product returns calculated based upon the level / performance of an index, without investing directly into the stocks in the index:
 - issuing banks may arrange to hedge themselves against the legal obligation to deliver the returns stated, but they do not necessarily replicate the index, or need to do so in the way that a typical passive fund or ETF does
 - structured products do not, therefore, face and suffer the liquidity challenges, turnover costs or tracking error issues of mutual funds and ETEs
 - structured products can therefore employ and exploit academically evidenced smart beta strategies, including equal weighting, in ways (and with risk / return profiles) which typical passive funds and ETFs cannot



FTSE 100 FDEW

FTSE 100 FIXED DIVIDEND EQUAL WEIGHT CUSTOM INDEX

A FTSE RUSSELL INDEX

FTSE 100 FDEW: introduction ...



- The FTSE 100 Fixed Dividend Equal Weight Custom Index ('FTSE 100 FDEW') is a FTSE Russell index:
 - it was launched by FTSE Russell in March 2017 (with simulated data to 2001), with a starting level of 1,000
 - it comprises the same 100 stocks as the FTSE 100, uses the same methodology re quarterly reviews and constituents, and adheres to the same FTSE Russell FTSE UK Index Series Ground Rules as the FTSE 100
 - as its name suggests, it differs to the FTSE 100 in two important ways:
 - ... **the** 'FD': the FTSE 100 FDEW is based on a total return index, including dividends paid by the companies: however, a fixed dividend of 50 points per year is deducted when FTSE Russell work out the index level
 - ... the 'EW': the 100 companies in the FTSE 100 FDEW are all equally weighted, at 1% by FTSE Russell, instead of being weighted according to their market capitalisation
- The FTSE 100 FDEW was developed by FTSE Russell, in collaboration with Societe Generale, which has an exclusive license with FTSE Russell / Tempo have agreed exclusivity for our plans in the UK:
 - the FTSE 100 FDEW was developed in order to address an issue which investment banks may encounter when structured products are linked to the FTSE 100, with the aim of improving product terms for investors
 - improved structured product terms which can be achieved through use of the FTSE 100 FDEW can include:
 - ... lower end of term barrier levels
 - ... lower conditions for positive returns to be generated
 - ... higher potential returns









	FTSE 100	FTSE 100 FDEW	
Index provider	FTSE RUSSELL FTSE RUSSELL		
Exchange	LSE	LSE	
Bloomberg ticker	UKX	UKXFD	
Constituent stocks	The 100 largest stocks listed on the LSE, by market capitalisation	The 100 largest stocks listed on the LSE, by market capitalisation	
Weighting	Market capitalisation weighting	Equal weighting	
Review	Quarterly	Quarterly	
Rebalancing	N/A	Quarterly	
Dividends	Not included in the price return index	index Included in the index, with a fixed dividend deduction in the calculation of the daily level	

Let's start with the 'EW': equal weighting ...



- As we know, the equal weighting of the FTSE 100 FDEW:
 - decreases stock (and potentially sector) concentration risk and improves diversification
 - increases exposure to the smaller companies in the index:
 - ... in fact, equal weighting of the FTSE 100 FDEW increases exposure to over 70 companies which are weighted at less than 1% in the market capitalisation weighted FTSE 100 (as at 31 Dec 2020)
 - imposes a 'buy low / sell high' rule and value element in the index methodology, through regular rebalancing
 - ... it is important to understand the points made regarding the features, rules, factor exposures and potential issues which are embedded implicitly in market capitalisation weighted indexes and the features, rules, factors and potential issues which are explicit in equal weighting methodology, which mean that the FTSE 100 FDEW will perform differently to the market capitalisation weighted FTSE 100: performance might be higher or lower, which should be expected

The 'EW': increases stock (and usually sector) diversification ... TEMPO STRUCTURED TEMPO STRUCTURED TO TE



FTSE 100 rank	Sector	FTSE 100 weight
1	Pers. and h'hold goods	6.19%
2	Pharmaceuticals	5.16%
3	Banks	4.14%
4	Basic resources	3.66%
5	Pharmaceuticals	3.61%
6	Food and beverage	3.61%
7	Pers. and h'hold goods	3.33%
8	Oil and gas	2.86%
9	Oil and gas	2.78%
10	Oil and gas	2.50%
11	Pers. and h'hold goods	2.50%
12	Basic resources	2.18%
13	Insurance	1.89%
14	Media	1.86%
15	Basic resources	1.77%
16	Telecommunications	1.74%
17	Financial services	1.70%
18	Basic resources	1.67%
19	Utilities	1.63%
20	Travel and leisure	1.42%
21	Banks	1.38%
22	Industrial goods and services	1.37%
23	Banks	1.37%
24	Travel and leisure	1.30%
25	Construction and materials	1.29%

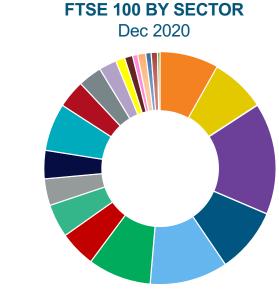
FTSE 100 rank	Sector	FTSE 100 weight
26	Retail	1.22%
27	Financial services	1.09%
28	Indust. goods and services	1.07%
29	Food and beverage	0.96%
30	Financial services	0.94%
31	Retail	0.92%
32	Insurance	0.85%
33	Indust. goods and services	0.84%
34	Utilities	0.84%
35	Indust. goods and services	0.83%
36	Banks	0.79%
37	Pers. and h'hold goods	0.78%
38	Basic resources	0.76%
39	Health care	0.71%
40	Telecommunications	0.70%
41	Insurance	0.69%
42	Pers. and h'hold goods	0.66%
43	Real estate	0.61%
44	Financial services	0.60%
45	Media	0.53%
46	Indust. goods and services	0.51%
47	Retail	0.51%
48	Indust. goods and services	0.50%
49	Indust. goods and services	0.50%
50	Technology	0.49%

FTSE 100 rank	Sector	FTSE 100 weight
51	Chemicals	0.49%
52	Indust. goods and services	0.49%
53	Indust. goods and services	0.48%
54	Pers. and h'hold goods	0.47%
55	Food and beverage	0.46%
56	Indust. goods and services	0.46%
57	Insurance	0.46%
58	Travel and leisure	0.46%
59	Retail	0.45%
60	Basic resources	0.45%
61	Precious metals and mining	0.45%
62	Indust. goods and services	0.45%
63	Media	0.44%
64	Indust. goods and services	0.44%
65	Precious metals and mining	0.43%
66	Travel and leisure	0.43%
67	Financial services	0.41%
68	Pers. and h'hold goods	0.39%
69	Financial services	0.39%
70	Insurance	0.38%
71	Insurance	0.38%
72	Basic resources	0.37%
73	Pers. and h'hold goods	0.37%
74	Consumer discretionary	0.36%
75	Technology	0.34%

FTSE 100 rank	Sector	FTSE 100 weight
76	Travel and leisure	0.34%
77	Financial services	0.33%
78	Utilities	0.33%
79	Financial services	0.33%
80	Pers. and h'hold goods	0.32%
81	Indust. goods and services	0.32%
82	Pers. and h'hold goods	0.32%
83	Pharmaceuticals	0.31%
84	Media	0.31%
85	Retail	0.31%
86	Media	0.30%
87	Technology	0.30%
88	Utilities	0.29%
89	Financial services	0.29%
90	Pers. and h'hold goods	0.28%
91	Financial services	0.28%
92	Indust. goods and services	0.28%
93	Media	0.27%
94	Indust. goods and services	0.27%
95	Financial services	0.27%
96	Retail	0.27%
97	Real estate	0.27%
98	Chemicals	0.25%
99	Real estate	0.24%
100	Retail	0.23%
101	Utilities	0.22%

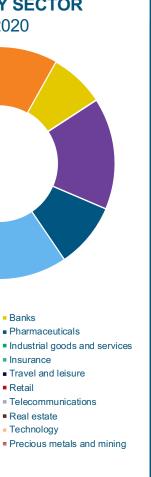
The 'EW': increases stock (and potentially sector) diversification ... TEMPO PRODUCTS



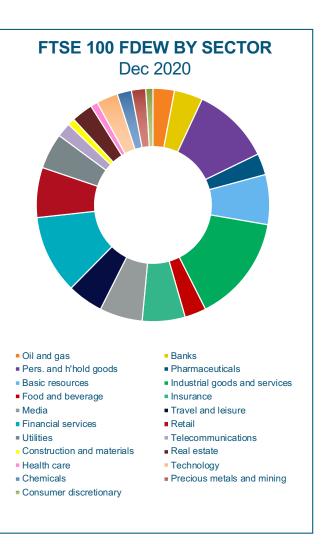


- Oil and gas
- Pers. and h'hold goods
- Basic resources
- Food and beverage
- Media
- Financial services
- Utilities
- Construction and materials
- Health care
- Chemicals
- Consumer discretionary

TEMPO STRUCTURED PRODUCTS



FTSE 100	SECTOR	FTSE 100 FDEW
8.14%	Oil and gas	2.97%
7.68%	Banks	3.96%
15.61%	Personal and household goods	10.89%
9.08%	Pharmaceuticals	2.97%
10.86%	Basic resources	6.93%
8.80%	Industrial goods and services	14.85%
5.04%	Food and beverage	2.97%
4.64%	Insurance	5.94%
3.72%	Media	5.94%
3.94%	Travel and leisure	4.95%
6.63%	Financial services	10.89%
3.89%	Retail	6.93%
3.31%	Utilities	4.95%
2.44%	Telecommunications	1.98%
1.29%	Construction and materials	0.99%
1.12%	Real estate	2.97%
0.71%	Health care	0.99%
1.13%	Technology	2.97%
0.75%	Chemicals	1.98%
0.87%	Precious metals and mining	1.98%
0.36%	Consumer discretionary	0.99%



Banks

Insurance

■ Real estate

Technology

Retail

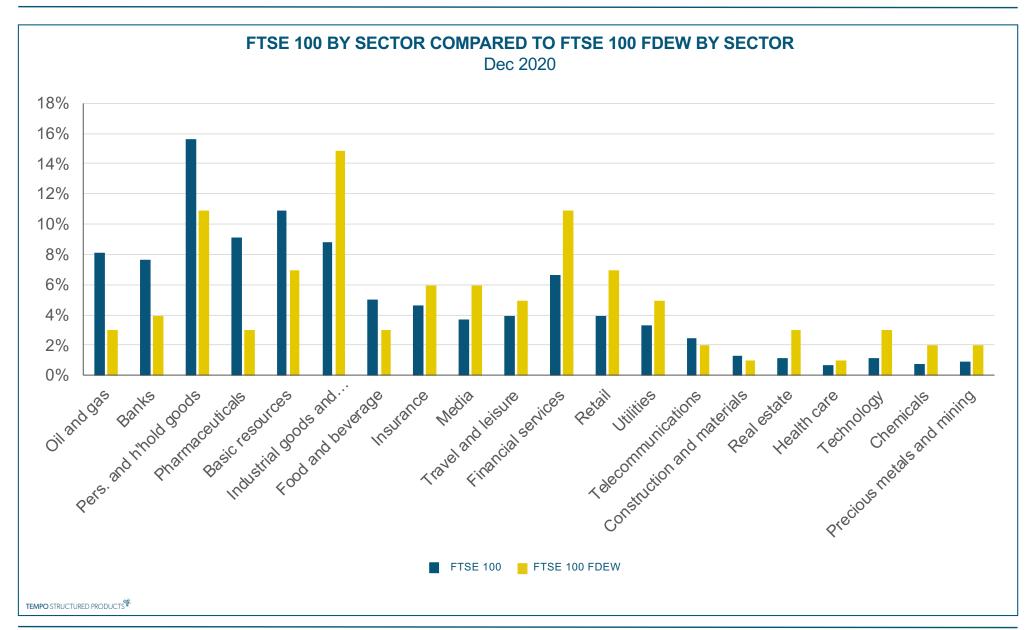
Pharmaceuticals

■ Travel and leisure

■ Telecommunications

The 'EW': increases stock (and potentially sector) diversification ... TEMPO STRUCTURED PRODUCTS





The 'EW': imposes a 'buy low / sell high' rule ...



The FTSE 100 FDEW is rebalanced every quarter by FTSE Russell:

- if a company's share price has gone up, and its market capitalisation and weighting have increased above 1%,
 the weighting in the company is reduced back down to 1%
- if a company's share price has gone down, and its market capitalisation and weighting have decreased below 1%, the weighting in the company is increased back up to 1%
 - ... the rebalancing embeds a 'buy low / sell high', 'value' rule in the methodology of the FTSE 100 FDEW (the opposite of the 'buy high / sell low', 'momentum' rule embedded in the FTSE 100)

Why the 'FD': the rationale for the fixed dividend approach ...



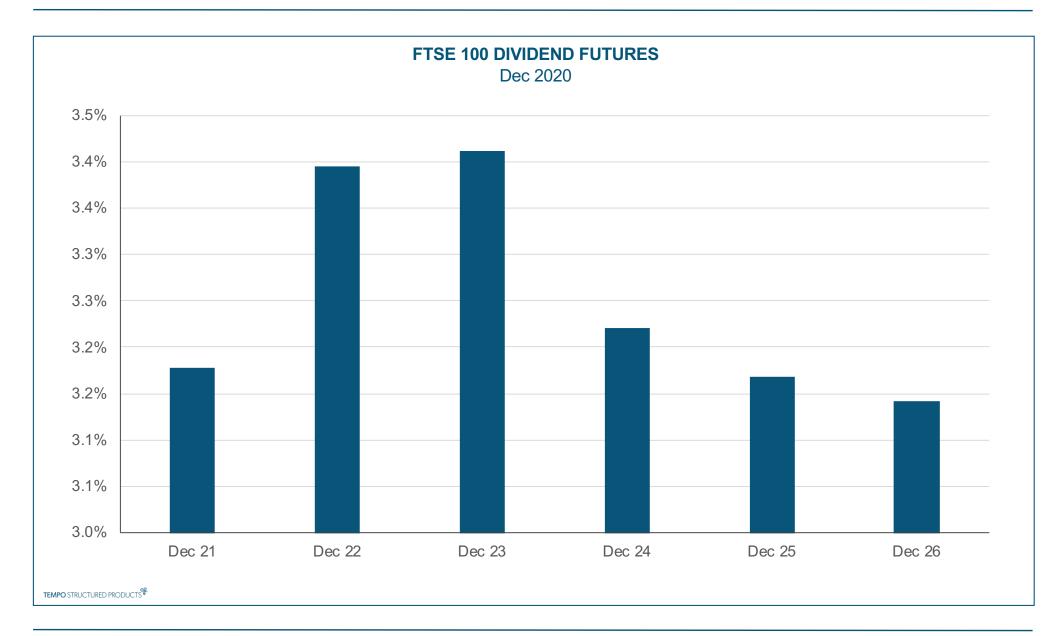
- The FTSE 100 is a price return index:
 - dividends paid by the constituent companies are **not** included in its calculation
- The FTSE 100 FDEW is based on a total return index:
 - dividends paid by the constituent companies **are** included in its calculation: however, a fixed dividend of 50 points per year is deducted in the calculation of its daily level
- The total return / fixed dividend approach of the FTSE 100 FDEW addresses an issue which banks may encounter when structured products link to the FTSE 100, with the aim of improving product terms:
 - when products link to the price return FTSE 100, banks may seek to hedge the dividends which are not accounted for within the index, which they can do by selling dividend futures in the futures market
 - however, future dividend levels are unknown and uncertain and the futures market typically discounts the levels that it can see and expects, particularly in the longer term
 - in addition, dividend futures are not very liquid and structured product issuers create a supply / demand imbalance: many investment banks are natural sellers, while there are few natural buyers
 - as a result, 'implied' dividend levels seen in the dividend futures market are often lower than 'realised' dividend levels actually paid by companies
 - this 'discounting cost', linked to the need for banks to hedge through the futures market, can negatively impact the terms of structured products linked to the FTSE 100
 - the fixed dividend of the FTSE 100 FDEW is designed to address this issue, avoiding the discounting costs of the futures market and removing the hedging uncertainty, allowing issuers to improve product terms



- notes re structured products and dividends ...
- it is worth highlighting that investors in structured products do not usually benefit directly from dividends paid by companies which make up a stock market index which a structured product links to
- this is because stock market indexes are usually 'price return' indexes, which do not account for dividends
- however, the FTSE 100 FDEW incudes dividends, with a fixed dividend of 50 points per year deducted when FTSE Russell calculate the daily level
- while dividends which companies may pay are not guaranteed, they can be an important part of the total return which investors in the stock market or mutual funds or ETFs investing in these companies may benefit from
- dividends may increase investors' returns in a rising market and provide some return in scenarios where the market, including price return indexes, moves sideways, or in a falling market, offsetting some capital losses
- in this respect, not accounting for dividends could be considered an indirect cost of investing in the stock market via a structured product
- however, it should also be understood that the investment banks issuing structured products will effectively use
 the value of the dividends when they arrange the features of the investments which make up the structured
 product, including providing the potential for positive returns to be generated without requiring the stock market
 index to rise and offering a defined level of protection should the stock market index fall
- so, it can also be seen that investors in structured products benefit indirectly from the dividends paid by the companies in a stock market index which a structured product is linked to and that dividends are an important element of the economics / mathematics of the building blocks of structured products

Dividend futures: implied levels discount actual dividend levels ... TEMPO PRODUCTS





The material impact on structured product terms: an example ...



- Use of fixed dividend indexes is increasing: in Europe, EUR 12.6 billion was invested in fixed dividend index products over 2019 2020, market share increasing from c.6.6% in 2019 to c.10.9% in 2020
- Improved structured product terms through use of the FTSE 100 FDEW can include: lower end of term barrier levels; lower conditions for positive returns to be generated; higher potential returns:

AN EXAMPLE: 'ATM' KICK-OUT PRODUCT TERMS						
Investment term	tment term 10 years					
Kick-Out frequency	annual					
Kick-Out level	at or above100% of start level ('atm')					
Index link	FTSE 100	FTSE 100 FDEW				
Barrier level and type	60-65% of start level (allowing a 35-40% fall): end of term 45% of start level (allowing a 55% fall): end of term					
Potential return	7.0%	13.4%				

- barrier level and return numbers for FTSE 100 products are the average levels for products, as at 11 Jan 21*
- please see page 55 for important points regarding comparing different structured products / indexes:
 - ... it is important that advisers and investors carefully consider the current level of the FTSE 100 FDEW, the level of its fixed dividend and the outlook for its future level: our plans are designed for investors who have a positive view of the future level of the FTSE 100 FDEW, over the medium to long term

Understanding the 'FD' in the FTSE 100 FDEW ...



- The fixed dividend which helps investment banks improve structured product terms:
 - however, it is important to understand the implications of a fixed dividend
- The FTSE 100 FDEW index was launched by FTSE Russell in March 2017, with a level of 1000 points, meaning that 50 points was equivalent to 5% when it was launched:
 - if the level of the FTSE 100 FDEW is higher, for example, 1250 points, the 50 points fixed dividend is equivalent to 4%
 - however, if the level of the FTSE 100 FDEW is lower, for example 750 points, the 50 points fixed dividend is equivalent to 6.66% and at 600 points equivalent to 8.33%
- It is important to understand that while the fixed dividend helps investment banks improve structured product terms, at times when the fixed dividend of 50 points is higher than the level of dividends being paid by companies in the FTSE 100 FDEW (which is increasingly likely the further that the level of the FTSE 100 FDEW is below its start level of 1000 points, and during periods when companies reduce, suspend or cut their dividends), this would be likely to reduce the level of the FTSE 100 FDEW:
 - the impact of the fixed dividend could be significant, if the differential between the level of the fixed dividend and the index dividend level is significant, for even a short time, or if any differential persisted for a long time
 - ... this could create a 'dividend drag' on the level and performance of the FTSE 100 FDEW
 - ... as at 31 Dec 2020, the level of the FTSE 100 FDEW was 971 points / the 50 points fixed dividend was equivalent to 5.65% (calculated as a 12 mth ave*) and the dividend yield of the FTSE 100, equally weighted (also calculated as a 12 mth ave*), was 2.91% p.a.: at these levels, the fixed dividend reduces the level of the FTSE 100 FDEW by 2.74% p.a., compared to the FTSE 100 on an equally weighted basis

Understanding that the 'FD' and the 'EW' operate in tandem ...

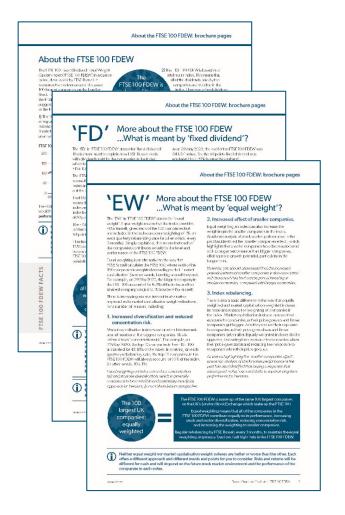


- Notably, if a fixed dividend was applied to the FTSE 100, if the fixed dividend is higher than the dividend level of the index, it would create an instant drag on the level and performance of the index:
 - however, in the FTSE 100 FDEW, the 'FD' operates in tandem with the 'EW'
 - while the 'FD' of the FTSE 100 FDEW is set at level which can exceed the dividend level of the index (which optimises the terms of structured products), creating a potential drag, the 'EW' may serve as a counterbalance
 - we are extremely clear about both the 'FD' and the 'EW' in our investor-facing plan documents, using plain English, and in the collateral materials, input and support which we provide for professional advisers

Our investor-facing and professional adviser information ...



Investor-facing plan brochures



Professional adviser 'at a glance' input

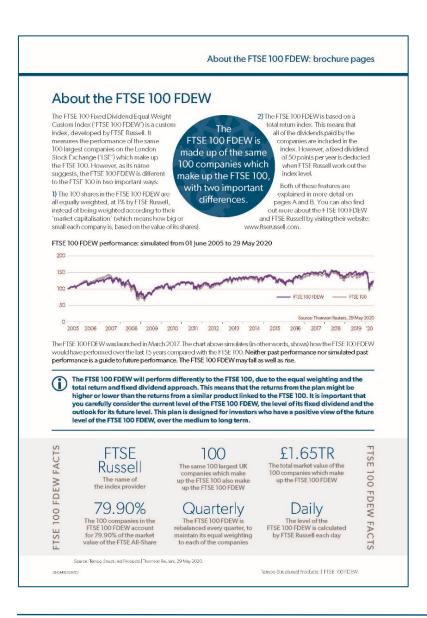


Professional adviser resource library



About the FTSE 100 FDEW: including the target market ...





Plan brochure 'info point': About the FTSE 100 FDEW:

- The FTSE 100 FDEW will perform differently to the FTSE 100, due to the equal weighting and the total return and fixed dividend approach. This means that the returns from the plan might be higher or lower than the returns from a similar product linked to the FTSE 100. It is important that you carefully consider the current level of the FTSE 100 FDEW, the level of its fixed dividend and the outlook for its future level. This plan is designed for investors who have a positive view of the future level of the FTSE 100 FDEW, over the medium to long term.

'FD': What is meant by 'fixed dividend' ...



About the FTSE 100 FDEW: brochure pages

'FD' More about the FTSE 100 FDEW ...What is meant by 'fixed dividend'?

The "FD" in "FTSE 100 FDEW" stands for "fixed dividend". This is a term used to explain how FTSE Russell deals with dividends paid by the companies in the index, which is different to the way that this is done for the FTSE 100.

The FTSE 100 is known as a 'price return' index. This means that any dividends paid by the companies in the index are not included by FTSE Russell when they work out the index level.

The FTSE 100 FDEW is based on a "total return" index. This means that any dividends paid by the companies in the index are included by FTSE Russell when they work out the index level. I lowever, FTSE Russell deducts a fixed dividend of 50 points per year, when working out the index level.

The FTSE 100 FDEW index was launched by FTSE Russell in March 2017, with a level of 1000 points, meaning that 50 points was equivalent to 5% when it was launched.

If the level of the FTSE 100 FDEW is higher, for example, 1250 points, the 50 points fixed dividend would be equivalent to 4%. However, if the level of the FTSE 100 FDEW is lower, for example 750 points, the 50 points fixed dividend would be equivalent to 6.66%.

As at 26 Feb 2021, the level of the FTSE 100 FDEW was 966.27 points. So, the 50 points fixed dividend was equivalent to 5.17%. As at the same date, the dividend yield of the FTSE 100. on an equality weighted basis.

was 2.97% per year. At this level for the FTSE 100 FDEW and this yield level for the FTSE 100, the fixed dividend reduces the level of the FTSE 100 FDEW by 2.2% per year, compared to the FTSE 100 on an equally weighted basis (source: "Thomson Reuters).

If the level of the FTSE 100 FDEW was to fall in the future, for example to 600 points, the 50 points fixed dividend would be equivalent to 8.33%.

The fixed dividend approach of the FTSE 100 FDEW is designed to deal with an issue which is created by dividends not being included in the FTSE 100, which can affect the terms of structured products that are linked to it. As a result, certain types of structured product which are linked to the FTSE 100 FDEW can offer potentially improved terms (for example: lower end of term barrier levels; lower conditions for potential returns to be generated; and / or higher potential returns (or investors, compared to similar products linked to the FTSE 100.

However, at times when the fixed dividend of 50 points is higher than the level of dividends being paid by companies in the FISE 100 FDEW (which is increasingly likely the further that the level of the FISE 100 FDEW is below its start level of 1000 points, and during periods when companies reduce, suspend or cut their dividends), this would be likely to reduce the level of 100 FDEW.

Includes all dividends: with a fixed dividend deducted



The FTSE 100 FDEW includes all dividends paid by the companies in the index. A fixed dividend of 50 points per year is deducted when FTSE Russell work out the index level.

This helps increase the terms of structured products linked to the FTSE 100 FDEW - but reduces the level of the index.

The fixed dividend approach of the FTSE 100 FDEW is different to the approach of the FTSE 100, where dividends are not included. While the fixed dividend approach may improve the terms of structured products, it can affect the level of the FTSE 100 FDEW negatively, when the fixed dividend of 50 points is more than the average level of dividends paid by the companies in the FTSE 100 FDEW. The impact may be significant during certain conditions for the stock market, such as at times when: the FTSE 100 FDEW is below its starting level, of 1,000 points; the UK stock market moves sideways or falls; companies in the FTSE 100 FDEW reduce the level of dividends which they pay, particularly if such conditions are significant, for even a short time, or persist for a long time.



It is important that you carefully consider the current level of the FTSE 100 FDEW, the level of its fixed dividend and the outlook for its future level. This plan is designed for investors who have a positive view of the future level of the FTSE 100 FDEW, over the medium to long term.

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Tempo Structured Products | FTSE 100 FDEW A

Plan brochure 'info point': About the 'FD':

- The fixed dividend approach of the FTSE 100 FDEW is different to the approach of the FTSE 100, where dividends are not included. While the fixed dividend approach may improve the terms of structured products, it can affect the level of the FTSE 100 FDEW negatively, when the fixed dividend of 50 points is more than the average level of dividends paid by the companies in the FTSE 100 FDEW. The impact may be significant during certain conditions for the stock market, such as at times when: the FTSE 100 FDEW is below its starting level, of 1,000 points; the UK stock market moves sideways or falls; companies in the FTSE 100 FDEW reduce the level of dividends which they pay, particularly if such conditions are significant, for even a short time, or persist for a long time.
- It is important that you carefully consider the current level of the FTSE 100 FDEW, the level of its fixed dividend and the outlook for its future level. This plan is designed for investors who have a positive view of the future level of the FTSE 100 FDEW, over the medium to long term.

'EW': What is meant by 'equal weight' ...



About the FTSE 100 FDEW: brochure pages

* More about the FTSE 100 FDEW ... What is meant by 'equal weight'?

The "TW" in "TTS FIOD FDFW" stands for 'equal weight'. Equal weight means that the index provider, FTSE Russell, gives each of the IOD companies that are included in the index an equal weighting of T%, on each quarterly rebalancing date (in other words, every 3 months). Simply explained, this means that each of the companies contributes equally to the level and performance of the FTSE IOD FDEW.

Equal weighting is an alternative to the way that FTSE Russell calculates the FTSE T00, where each of the 100 companies is weighted according to their 'market capitalisation' (in other words, how big or small they are) for example, on 29 May 2020, the biggest company in the FTSE 100 accounted for 6.8% of the index and the smallest company was just 0.1% (source: FTSE Russell).

There is increasing investor interest in alternative approaches to market capitalisation weighted indexes, for a number of reasons, including:

Increased diversification and reduced concentration risk.

Market capitalisation indexes can create a bias towards a small number of the biggest companies. This is referred to as "concentration risk". For example, on 29 May 2020, the top 10 companies in the FTST 100 accounted for 43.81% of the index. In contrast, on each quarterly rebalancing date, the top 10 companies in the FTST 100 FDFW will always account for 10% of the index fin other words, $10 \times 19\%$.

Equal weighting on index con reduce concentration itsk and increase diversification, which is generally considered to be a sensible and potentially beneficial approach for investors, from a risk-and-return perspective

2. Increased effect of smaller companies.

Equal weighting an index can also increase the weighting in the smaller companies in the index. Academic analysis of stock market performance in the past has identified the "smaller companies effect", which lightlights that smaller companies have been associated with stronger performance than bigger companies, offering more growth potential, particularly in the longer term.

However, you should understand that the increased potential returns of smaller companies is also associated with increased risks that can be part of investing in smaller companies, compared with bigger companies.

Index rebalancing.

There is also a basic difference in the way that equally weighted and market capitalisation weighted indexes increase and reduce the weighting of companies in the index. Market capitalisation indexes increase their exposure to companies as their price goes up and those companies as their price goes down and those companies as their price goes down and those companies as their price goes down and those companies of smalle. Equally weighted indexes do the opposite, increasing their exposure to companies when their price goes down and reducing their exposure to companies when their price goes up.

As well as highlighting the 'smaller companies effect', academic analysis of stock market performance in the past has also identified that buying companies that reflect good 'value' can contribute to superior long-term performance for investors.



The FTSE 100 FDEW is made up of the same 100 largest companies on the UK's London Stock Exchange which make up the FTSE 100.

Equal weighting means that all of the companies in the FTSE 100 FDEW contribute equally to its performance, increasing stock and sector diversification, reducing concentration risk, and increasing the weighting to smaller companies.

Regular rebalancing by FTSE Russell, every 3 months, to maintain the equa weighting, imposes a 'buy low /sell high' rule in the FTSE 100 FDEW.



Neither equal weight nor market capitalisation weight indexes are better or worse than the other. Each offers a different approach and different merits and points for you to consider. Risks and returns will be different for each and will depend on the future stock market environment and the performance of the companies in each index.

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Tempo Structured Products | FTSE 100 FDEW | B

Plan brochure 'info point': About the 'EW':

 Neither equal weight nor market capitalisation weight indexes are better or worse than the other. Each offers a different approach and different merits and points for you to consider. Risks and returns will be different for each and will depend on the future stock market environment and the performance of the companies in each index.

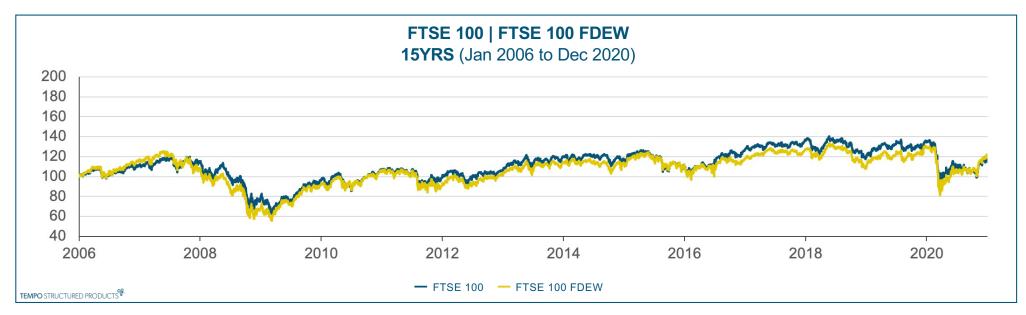
Comprehensive and granular performance analysis ...



- The FTSE 100 FDEW was launched in March 2017:
 - live performance data is available since this date
 - simulated performance data is available before this date, back to 2001
- It is important to understand and expect that the FTSE 100 FDEW Index will perform differently to the FTSE 100, due to the equal weighting and the total return / fixed dividend approach:
 - both the FTSE 100 FDEW and FTSE 100 perform as expected, based on understanding the respective features, rules and factor exposures embedded either implicitly or explicitly in their methodology
 - comprehensive and granular analysis of past performance highlights historically comparable performance, including sharpe ratios, volatility and correlation, over the long term
 - careful consideration of the FTSE 100 FDEW and FTSE 100 highlights the attributes and potential merits of both: and the potential merits of using structured products linked to both, in diversified and balanced portfolios

Historical performance comparison and analysis ...





	1YR		3YRS		5YRS		10YRS		15YRS	
	CUM	ANN	CUM	ANN	CUM	ANN	CUM	ANN	CUM	ANN
FTSE 100	-15.04%	-15.04%	-15.96%	-5.63%	3.50%	0.69%	9.50%	0.91%	14.98%	0.93%
FTSE 100 FDEW	-8.37%	-8.37%	-6.20%	-2.11%	7.70%	1.50%	13.98%	1.32%	19.32%	1.18%

	VOLATILITY (ANNUALISED)				SHARPE RATIO			
	1YR	5YRS	10YRS	15YRS	1YR	5YRS	10YRS	15YRS
FTSE 100	29.55%	17.36%	16.39%	18.85%	-0.51	0.04	0.06	0.05
FTSE 100 FDEW	30.23%	18.01%	17.11%	19.80%	-0.28	0.08	0.08	0.06

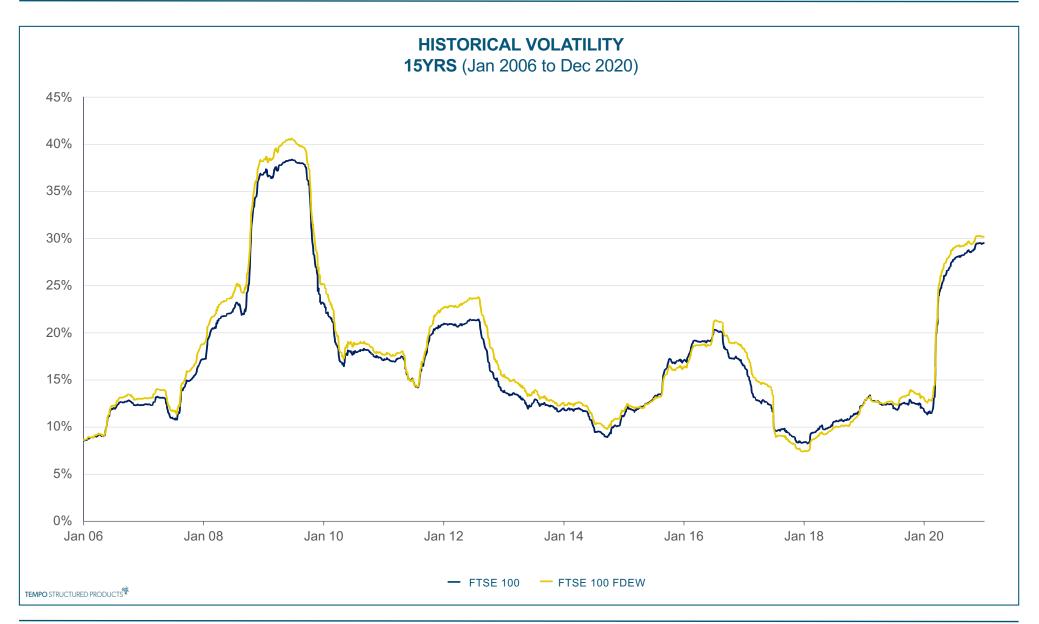
Historical performance comparison and analysis ...



	FTSE	100	VEAD	FTSE	100 FDEW	
DIFFE	RENCE	PERFORMANCE	YEAR	PERFORMANCE	DIFFERENCE	
		-15.04%	2020	-8.37%	+6.67%	2020
		12.00%	2019	17.13%	+5.13%	2019
2018 🛑	+0.93%	-12.03%	2018	-12.96%		
		7.63%	2017	7.83%	+0.20%	2017
2016 🛑	+7.83%	14.43%	2016	6.60%		
		-4.93%	2015	-2.22%	+2.71%	2015
		-2.71%	2014	-0.94%	+1.77%	2014
2013 🛑	+1.11%	14.43%	2013	13.32%		
		5.84%	2012	10.73%	+4.89%	2012
2011 🛑	+7.25%	-5.55%	2011	-12.80%		
		9.00%	2010	13.96%	+4.96%	2010
		22.07%	2009	34.27%	+12.20%	2009
2008 🛑	+5.58%	-31.33%	2008	-36.90%		
2007 🛑	+10.01%	3.80%	2007	-6.22%		
		10.71%	2006	15.80%	+5.09%	2006
		16.71%	2005	17.36%	+0.65%	2005
		7.54%	2004	9.40%	+1.86%	2004
2003 🛑	+1.99%	13.62%	2003	11.63%		
2002 🛑	+2.10%	-24.48%	2002	-26.58%		
2001 🛑	+6.14%	-16.15%	2001	-22.29%		
9 / 20	YEARS				11 / 20 Y	EARS

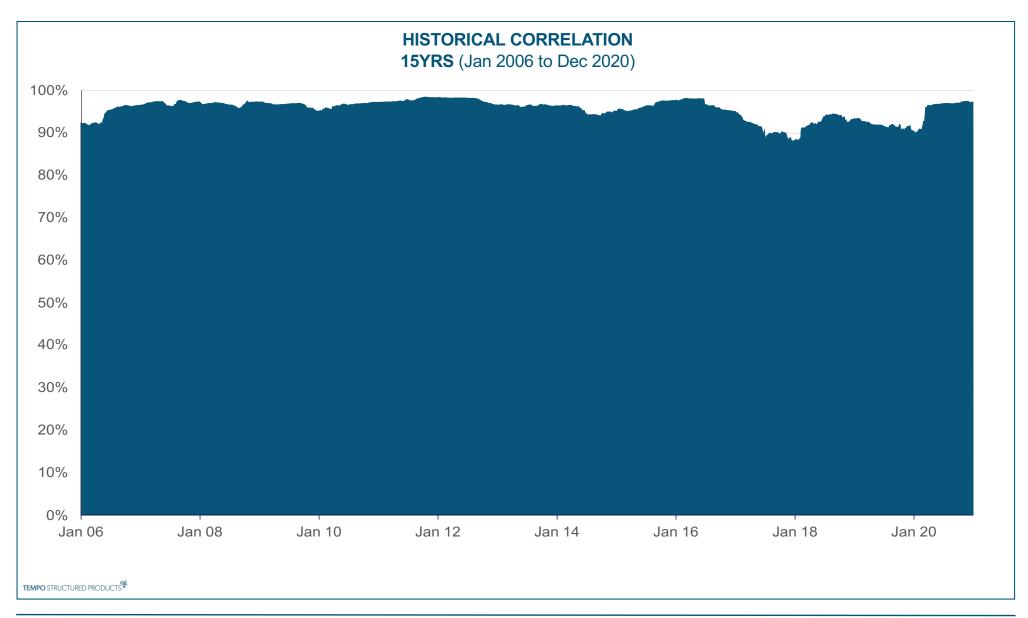
Historical volatility: comparable ...





Historical correlation: comparable ...

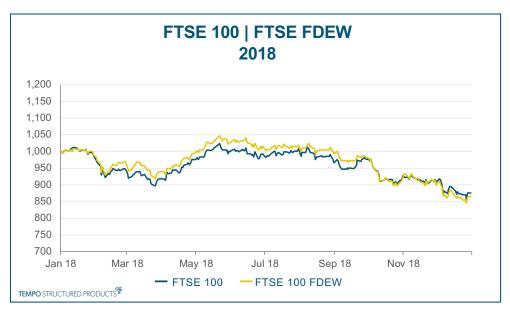


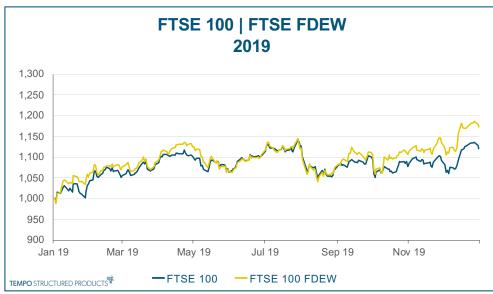


Performance analysis: since live (01 Mar 2017), annual ...





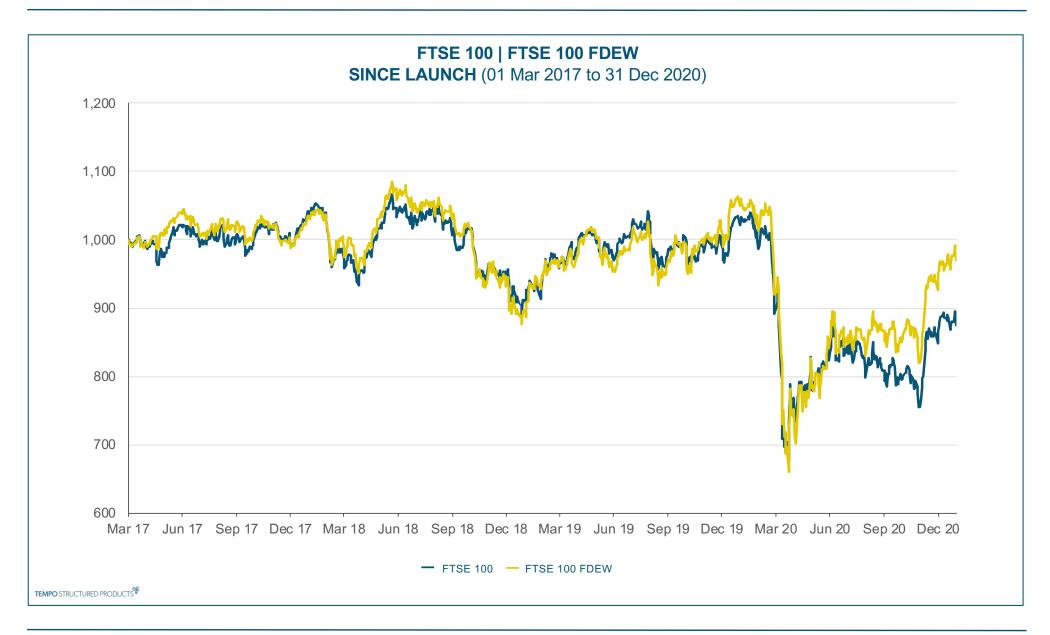




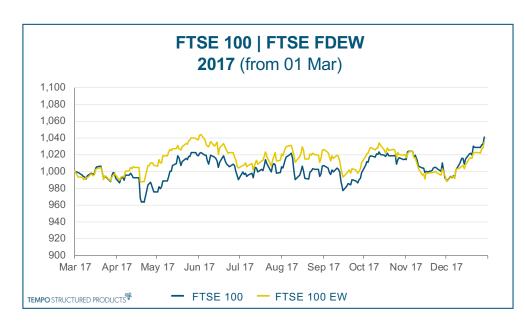


Performance analysis: since live (01 Mar 17)







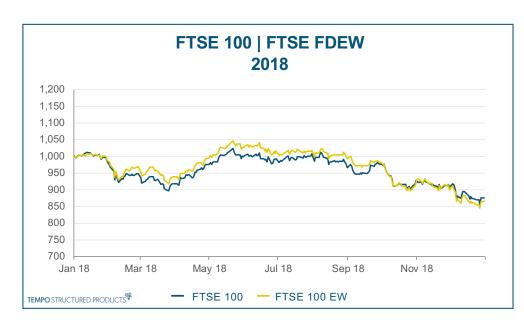


FTSE 100 FDEW		FD as a %		
Start level (01 Mar 17)	1000.00	5.00%		
End level (29 Dec 17)	1,035.42	4.83%		
Daily high (02 Jun 17)	1,044.48	4.79%		
Daily Low (18 Apr 17)	987.06	5.07%		
No. of days > 1000 pts	165			
No. of days < 1000 pts	50			
Average level	1,013.08	4.94%		

	Start level	End level	Performance	Volatility	Sharpe ratio	Drawdown
FTSE 100	7,382.90	7,687.77	4.13%	8.56%	0.48	-4.40%
FTSE 100 FDEW	1,000.00	1,035.42	3.54%	7.68%	0.46	-5.42%

	FTSE 100 level	FTSE 100 yield % (12 mth ave)	FTSE 100 EQ yield % (12 mth ave)	FTSE 100 FDEW level	50 PTS FD as % (prevailing)	50 PTS FD as % (10 mth ave)	Yield diff. between EQ / FDEW
01 Mar 17	7,382.90	4.18%	2.01%	1,000.00	5.00%	-	-
31 Dec 17	7,687.77	3.99%	3.06%	1,035.42	4.83%	4.94%	-1.88%



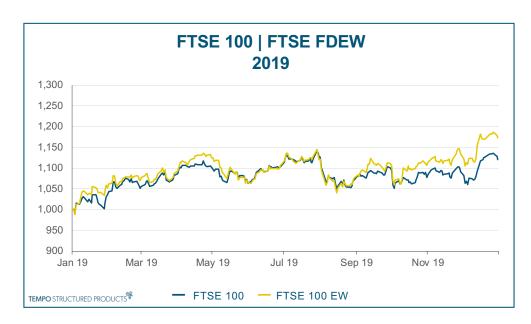


FTSE 100 FDEW		FD as a %		
Start level (02 Jan 18)	1,030.60	4.85%		
End level (31 Dec 18)	897.05	5.57%		
Daily high (22 May 18)	1,085.38	4.61%		
Daily Low (27 Dec 18)	876.29	5.71%		
No. of days > 1000 pts	148			
No. of days < 1000 pts	105			
Average level	1,005.19 4.97%			

	Start level	End level	Performance	Volatility	Sharpe ratio	Drawdown
FTSE 100	7,648.10	6,728.13	-12.03%	12.73%	-0.94	-16.41%
FTSE 100 FDEW	1,030.60	897.05	-12.96%	12.59%	-1.03	-19.26%

	FTSE 100 level	FTSE 100 yield % (12 mth ave)	FTSE 100 EQ yield % (12 mth ave)	FTSE 100 FDEW level	50 PTS FD as % (prevailing)	50 PTS FD as % (12 mth ave)	Yield diff. between EQ / FDEW
02 Jan 18	7,648.10	3.99%	3.06%	1,030.60	4.85%	4.94%	-1.88%
31 Dec 18	6,728.13	4.15%	2.93%	897.05	5.57%	4.97%	-2.04%



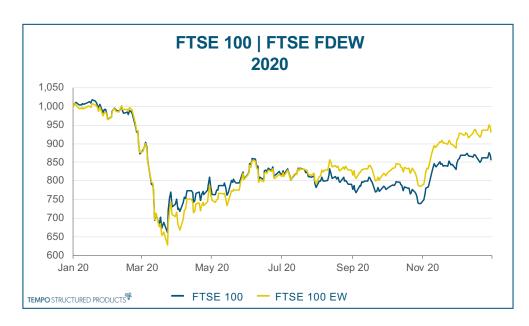


FTSE 100 FDEW		FD as a %		
Start level (02 Jan 19)	896.96	5.57%		
End level (31 Dec 19)	1050.60	4.76%		
Daily high (27 Dec 19)	1063.81	4.70%		
Daily Low (03 Jan 19)	886.26	5.64%		
No. of days > 1000 pts	71			
No. of days < 1000 pts	181			
Average level	982.19 5.09%			

	Start level	End level	Performance	Volatility	Sharpe ratio	Drawdown
FTSE 100	6,734.23	7,542.44	12.00%	11.77%	1.02	-8.06%
FTSE 100 FDEW	896.96	1050.60	17.13%	13.05%	1.31	-9.06%

	FTSE 100 level	FTSE 100 yield % (12 mth ave)	FTSE 100 EQ yield % (12 mth ave)	FTSE 100 FDEW level	50 PTS FD as % (prevailing)	50 PTS FD as % (12 mth ave)	Yield diff. between EQ / FDEW
02 Jan 19	6,734.23	4.15%	2.93%	896.96	5.57%	4.97%	-2.04%
31 Dec 19	7,542.44	4.52%	3.97%	1,050.60	4.76%	5.09%	-1.12%





FTSE 100 FDEW	FD as a %			
Start level (02 Jan 20)	1,059.43	4.72%		
End level (31 Dec 20)	970.79	5.15%		
Daily high (02 Jan 20)	1059.43	4.72%		
Daily Low (23 Mar 20)	660.16	7.57%		
No. of days > 1000 pts	37			
No. of days < 1000 pts	216			
Average level	884.21	5.65%		

	Start level End level		Performance Volatility		Sharpe ratio	Drawdown
FTSE 100	7,604.30	6,460.52	-15.04%	29.55%	-0.51	-34.93%
FTSE 100 FDEW	1,059.43	970.79	-8.37%	30.23%	-0.28	-37.69%

	FTSE 100 level	FTSE 100 yield % (12 mth ave)	FTSE 100 EQ yield % (12 mth ave)	FTSE 100 FDEW level	50 PTS FD as % (prevailing)	50 PTS FD as % (12 mth ave)	Yield diff. between EQ / FDEW
02 Jan 20	7,604.30	4.52%	3.97%	1,059.43	4.72%	5.09%	-1.12%
31 Dec 20	6,460.52	3.63%	2.91%	970.79	5.15%	5.65%	-2.74%

A closer look at 2020: the test of time / Covid-19 pandemic ...



- 2020 and Covid-19 presented an opportunity to observe the FTSE 100 FDEW, particularly in respect of the fixed dividend, through one of the most challenging environments for UK dividends:
 - widespread reductions, suspensions or cancellations of dividends by UK companies were seen, in GBP cash terms: 53 current or former FTSE 100 companies cut, deferred or cancelled c.£37bln of dividend payments*
 - however, lower dividend payment levels in GBP terms were (and often are) hand-in-hand with lower market index levels ... and the 12-month yield for the FTSE 100 remained relatively high:

	FTSE 100 level	FTSE 100 yield % (12 mth ave)	FTSE 100 EQ yield % (12 mth ave)	FTSE 100 FDEW level	50 PTS FD as % (prevailing)	50 PTS FD as % (12 mth ave)	Yield diff. between EQ / FDEW
02 JAN 20	7604	4.52%	3.97%	1059	4.72%	5.09%	-1.12%
23 MAR 20	4993	4.77%	3.95%	660	7.58%	5.10%	-1.15%
30 JUN 20	6169	4.10%	3.17%	852	5.86%	5.40%	-2.23%
30 SEP 20	5866	3.83%	3.02%	850	5.88%	5.59%	-2.57%
31 DEC 20	6461	3.63%	2.91%	971	5.15%	5.65%	-2.74%

Please see notes on the following page explaining the yield calculation and issues with regard to comparing historic dividend yield levels and prevailing index levels

- the Covid-19 crisis low (23 March) saw a FTSE 100 FDEW lowest level of 660: at this lowest level, the prevailing 50 points fixed dividend deduction was equivalent to 7.58% (and a 12-month average of 5.1%)
- the starting point of the FTSE 100 FDEW is a total return index, including all dividends, and the 12-month yield of the FTSE 100 EQ (equally weighted) at that point was 3.95%
- it is important to consider the ongoing impact that Covid-19 may have on UK companies and dividends

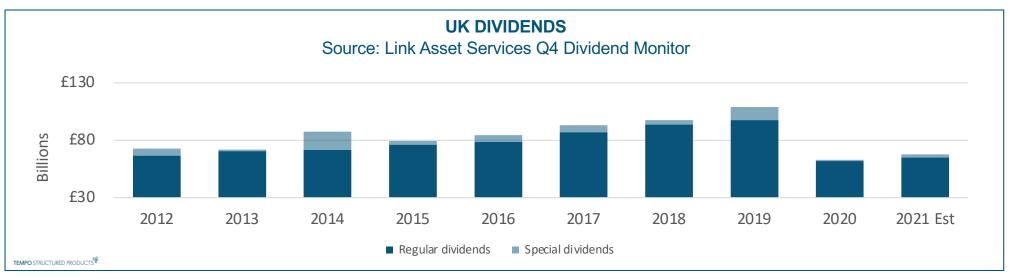


- notes re dividend yield ...

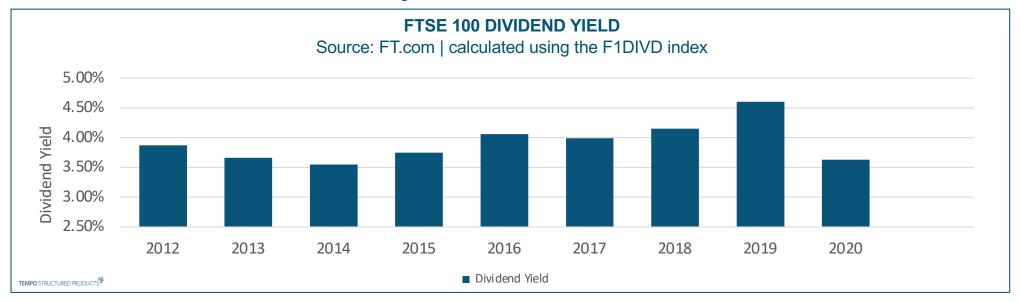
- there is understandable interest to compare historic dividend yield levels for the FTSE100, UKXEQ and the FTSE 100 FDEW, however there are different ways that index yields can be calculated and references to prevailing index levels can be misleading (other than for the fixed dividend calculation of the FTSE 100 FDEW)
- the most simple approach to published index yields is to use the 12-month trailing (historic) yield and divide by the prevailing index level (as at 31 Dec 2020, the published yield for the FTSE 100 was 3.77%): however, this is not representative of the actual yield an investor in the index would have received over the 12 months
- the actual yield an investor in the index would have received over 12 months should be computed as the cash value of dividend payments over 12 months divided by the index level over 12 months (on this basis, we can show the yield for the FTSE 100 as at 30 Dec 2020 as 3.63%)
- simply summing cash dividend payments over the past 12 months and dividing by the prevailing level is not representative of the average yield an investor in the index would have received over the 12 months
- the cash value of dividends is more important, particularly when markets are volatile and if dividends are changing in cash terms: especially if forecast future dividends may be below trailing (historic) levels
- the yield we have shown for the FTSE 100 is taken from the FTSE 100 Dividend Index ('F1DIVD'), designed for ICE by FTSE International to measure the cumulative value of ordinary cash dividends declared by the index constituents, calculated on the ex-dividend (XD) date and expressed in terms of index points
- while the different ways that index yield are calculated may be considered academic, we have used the F1DVD yield to better reflect the actual dividend yield that an investor in the FTSE 100 would experience over a 12 month period and to show the yield differential between the FTSE 100, FTSE 100 EQ and FTSE 100 FDEW
- the 20 year average yield for the FTSE100 is c.3.5%, however closer inspection reveals that the yield between 1998 and 2002 was comparably low (c.2% in 2000) and comparably high in 2018 and 2019 (c.4.5% in 2019)

Covid-19 impact on UK company dividends: potentially ongoing ... TEMPO



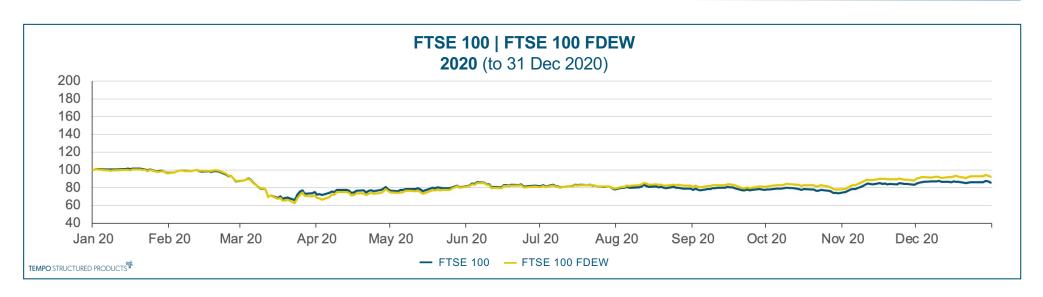


Note: the 2021 estimated dividends level is based on the average of the best / worst estimates detailed in Link's Q4 Dividend Monitor.



A closer look at 2020: the test of time / Covid-19 pandemic ...





	2020	DRAWDOWN	RECOVERY				SHARPE
		17 JANUARY TO 23 MARCH	3-MONTHS SINCE LOW	6-MONTHS SINCE LOW	SINCE LOW TO 31 DEC	VOLATILITY	RATIO
FTSE 100	-15.04%	-34.93%	+26.56%	+18.13%	+29.37%	29.55%	-0.51
FTSE 100 FDEW	-8.37%	-37.63%	+32.11%	+28.28%	+47.05%	30.23%	-0.28

- The drawdown of the FTSE 100 FDEW was greater / worse than the FTSE 100 during the outbreak of Covid-19: however, from the low of 23 March, through Q2 and Q3, the FTSE 100 FDEW recovery was materially stronger than the FTSE 100, despite the challenging backdrop for UK company dividends:
 - it is important to consider the ongoing impact that Covid-19 may have on UK companies and dividends and to understand the potential for dividend drag in the level and performance of the FTSE 100 FDEW

The merits of both index methodologies ...



- The merits of market capitalisation weighted indexes, both as market benchmarks and for passive investors, are widely recognised, evidenced and accepted:
 - this presentation is not challenging the merits of market capitalisation weighted indexes or structured products which link to market capitalisation weighted indexes, including the FTSE 100:
 - ... this presentation highlights features, rules, factor exposures and potential issues which are embedded / implicit in market capitalisation weighting index methodology, including the FTSE 100
 - this presentation highlights the merits of equal weighting indexes, the rationale for the fixed dividend feature which is part of the FTSE 100 FDEW, and of structured products which link to the FTSE 100 FDEW:
 - ... this presentation highlights features, rules, factor exposures and potential issues which are explicit in equal weighting index methodology and in the fixed dividend feature of the FTSE 100 FDEW
 - there are merits in the features, rules, factor exposures and issues / risks embedded, either implicitly or explicitly, in the methodology of both market capitalisation and equally weighted indexes:
 - ... and in structured products linked to both types of index, including the FTSE 100 and FTSE 100 FDEW

The FTSE 100 FDEW will perform differently to the FTSE 100 ...



- This presentation presents an introduction to and overview of the FTSE 100 FDEW, explaining the 'FD' and 'EW' features, highlighting the improved terms which can be achieved through structured products linked to the FTSE 100 FDEW, and comparing the performance of the FTSE 100 FDEW to the FTSE 100:
 - this presentation includes comprehensive and granular past performance information and analysis
 - however, past performance is not a guide to the future: it should be understood that the FTSE 100 FDEW will perform differently to the FTSE 100, due to the equal weighting and fixed dividend approach
 - this presentation highlights that the FTSE 100 FDEW can outperform the FTSE 100: it should be understood
 that the FTSE 100 FDEW can and will also underperform the FTSE 100 this should be expected
 - the features, implicit rules, factor exposures and potential issues embedded / implicit in the market capitalisation weighted FTSE 100, including company (and potentially sector) concentration, as opposed to diversification, more exposure to the larger companies and less exposure to the smaller companies in the index, and 'buying high / selling low' as a 'momentum' rule: can and will contribute to periods of outperformance relative to equal weighting this should be expected
 - different index performance could mean that products linked to the FTSE 100 FDEW with lower end of term barrier levels breach their barriers, when products linked to the FTSE 100 with higher barrier levels might not
 - different index performance could mean that products linked to the FTSE 100 FDEW with lower conditions to generate positive returns might not generate those returns, when products linked to the FTSE 100 with higher conditions to generate returns might do so
 - the level of returns from plans linked to the FTSE 100 FDEW might be higher or lower than the level of returns from similar products linked to the FTSE 100

Thinking about 'potential product drag' vs 'potential index drag' ...



- When comparing products linked to the FTSE 100 FDEW to products linked to the FTSE 100, it's interesting to consider and think about 'potential product drag' as well as 'potential index drag':
 - 'potential product drag' refers to worse terms (such as any or all of: higher end of term barrier levels; higher conditions for positive returns to be generated; and lower potential returns) for structured products which are linked to the FTSE 100, compared to structured products which are linked to the FTSE 100 FDEW:
 - ... for example, the potential product drag of a kick-out product linked to the FTSE 100 offering 7% p.a. versus a comparable product linked to the FTSE 100 FDEW offering 12% p.a. would be 5% p.a. (focusing only on the return), i.e., 15% at Y3, 25% at Y5 and 50% over a 10-year investment term
 - 'potential index drag' refers to the possibility that the FTSE 100 FDEW may underperform the FTSE 100 in relative terms, over the investment term of a structured product:
 - ... for example, the potential index drag of the FTSE 100 FDEW underperforming the FTSE 100 by, say, 3% p.a., because of either or both of the FD and / or the EW, would be 9% at Y3, 15% at Y5 and 30% over a 10-year investment term

Thinking about 'potential product drag' vs 'potential index drag' ...



- Notably, professional advisers using structured products with their clients want optimal structured product performance and risk / return profiles, within diversified and balanced portfolios:
 - not, necessarily, optimal relative index performance
 - if both the FTSE 100 FDEW and the FTSE 100 do what is required over the investment term of structured products linked to them, in order to deliver the stated terms of the products, even if the FTSE 100 FDEW underperforms the FTSE 100, relatively, the potential index drag / relative underperformance will be irrelevant:
 - ... but the potential product drag will impact investor returns in absolute terms
 - however, in other scenarios, for example, if the FTSE 100 falls by, say, 30%, and the FTSE100 FDEW falls by 60%, the FTSE 100 linked products may return capital invested but the FTSE 100 FDEW linked products may deliver a significant loss of capital, impacting investor returns in absolute terms:
 - ... and the potential product drag will be irrelevant
- In scenarios where both indexes do what is required to deliver the terms of products, potential product drag will impact investor returns in absolute terms:
 - ... as the analysis and comparison of the FTSE 100 FDEW and FTSE 100 highlights, the FTSE 100 FDEW was developed to provide a comparable index, with improved terms for investors in structured products
 - ... it is important that advisers and investors carefully consider the current level of the FTSE 100 FDEW, the level of its fixed dividend and the outlook for its future level: our plans are designed for investors who have a positive view of the future level of the FTSE 100 FDEW, over the medium to long term

Advocating diversification across different structured products ...



- Different structured products present different headline terms to consider, including:
 - the financial strength / credit risk of the issuer / counterparty
 - the level of end of term barriers; the conditions for returns to be generated; the level of potential returns
 - the index, indexes or stocks which products are linked to
- Different structured products also present different points and features to consider, including:
 - the operational strength and processes of the plan manager, including their governance processes and administration and custody arrangements
 - the level of charges, including any potential intra-term charges (e.g. for partial withdrawals, transfers, valuations, etc.) and liquidity / secondary market access
 - the level of support and service provided to professional advisers and investors
- Different structured products, offering different headline terms and different points and features, may present and have different potential merits for professional advisers and investors to consider:
 - professional advisers should seek to appropriately diversify client portfolios, including different plan managers,
 different issuers / counterparties; different underlying indexes; and different product points and features

Access and visibility ...



- Professional advisers and investors can readily find the FTSE 100 FDEW at the touch of a button, through FT.com, to see its daily level - and to compare performance with the FTSE 100:
 - https://markets.ft.com/data/indices/tearsheet/summary?s=GPSOC002:FSI
 - use the 'comparison' button to add the FTSE 100 and FTSE 350 to the chart (you need to add two indexes) and select different time periods, such as 6 months, 1 year, 3 years, etc.
 - FT.com give the FTSE 100 FDEW a 'symbol', which is: GPSOC002:FSI ... if opening the FT.com use this symbol to find the FTSE 100 FDEW (and add to charts as explained above, 2 indexes need to be added)
- In addition, the Tempo website carries a 'ticker' at the top of every page, displaying the daily level of both the FTSE 100 FDEW and the FTSE 100, and the FT.com link:
 - https://tempo-sp.com
 - our resources page for professional advisers also carries a link to the FT.com:
 - https://tempo-sp.com/adviser-resources/about-the-ftse-100-fdew
- It can also be accessed via other portals such as Bloomberg and Thomson Reuters:
 - ticker: UKXFD

Conclusion ...



- Smart beta offers rules-based, factor-driven indexes as alternatives and complements to active and passive funds, including market capitalisation weighted indexes
- The FTSE 100 FDEW is a FTSE Russell index, developed in collaboration with Societe Generale, who have an exclusive license with FTSE Russell / Tempo have agreed exclusivity for our plans in the UK:
 - the FTSE 100 FDEW comprises the same 100 companies as the FTSE 100, uses the same methodology re quarterly reviews / constituents, adhering to the same FTSE UK Index Series Ground Rules as the FTSE 100
 - as its name suggests, the FTSE 100 FDEW differs to the FTSE 100 in two important ways:
 - ... the 'FD' (i.e. the total return / fixed dividend) and the 'EW' (i.e. the equal weighting)
 - the FTSE 100 FDEW was developed in order to address an issue which investment banks may encounter when structured products are linked to the FTSE 100, with the aim of improving product terms for investors
 - improved structured product terms achieved through use of the FTSE 100 FDEW can include: lower end of term barrier levels; lower conditions for positive returns to be generated; and / or higher potential returns
- It is important to understand and expect that the FTSE 100 FDEW Index will perform differently to the FTSE 100, due to the equal weighting and the total return and fixed dividend approach:
 - both the FTSE 100 FDEW and FTSE 100 perform as expected, based on understanding the respective features, rules and factor exposures embedded either implicitly or explicitly in their methodology
 - comprehensive and granular analysis of past performance highlights historically comparable performance, including sharpe ratios, volatility and correlation, over the long term
 - careful consideration of the FTSE 100 FDEW and FTSE 100 highlights the attributes and potential merits of both: and the potential merits of using structured products linked to both, in diversified and balanced portfolios

Important notice



- It should always be understood that:
 - structured products are not suitable for everyone
 - past performance is not a reliable indicator of or guide to future performance and should not be relied upon,
 particularly in isolation
 - the value of investments and the income from them can go down as well as up
 - the value of structured products may be affected by the price of their underlying investments
 - the potential returns of a structured product and the repayment of money invested in a structured product depend on the financial stability of the issuer and counterparty
 - capital is at risk and investors could lose some or all of their capital
- The 'Important risks' section of our website highlights the key and other risks of structured products, in addition to explaining important information for professional advisers who wish to access the current products area of our website and who may use our structured product plans with their clients:
 - www.tempo-sp.com/home/important-risks
- Professional advisers should access and read the relevant plan documents relating to any structured product plan of interest, in particular: the plan brochure; 'if / then ...' summary; plan application pack, including, the terms and conditions of the plan; and the issuer's securities prospectus, final terms sheet and key information document ('KID'), before making a recommendation to their clients
- Professional advisers should not invest in, or advise their clients to invest in, any investment product unless they and their clients understand them, in particular the relevant risks

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