



Elston CPD
Investing with ETFs

September 2020

CPD Credits

This **Webinar** counts as 1 hour unstructured CPD if completed without the Test.

By completing the Test, the **Webinar+Test** counts as 1.5 hours structured CPD.

CPD Module Components	Unstructured	Structured
Attending/Viewing Webinar	60 minutes	60 minutes
Completing CPD Test		30 minutes
TOTAL	1 hour	1.5 hours

Objective & Learning Outcomes

Objective

The objective of this CPD module is to understand how to evaluate index-tracking ETFs.

Learning Outcomes

By completing, this CPD module, you should be able to:

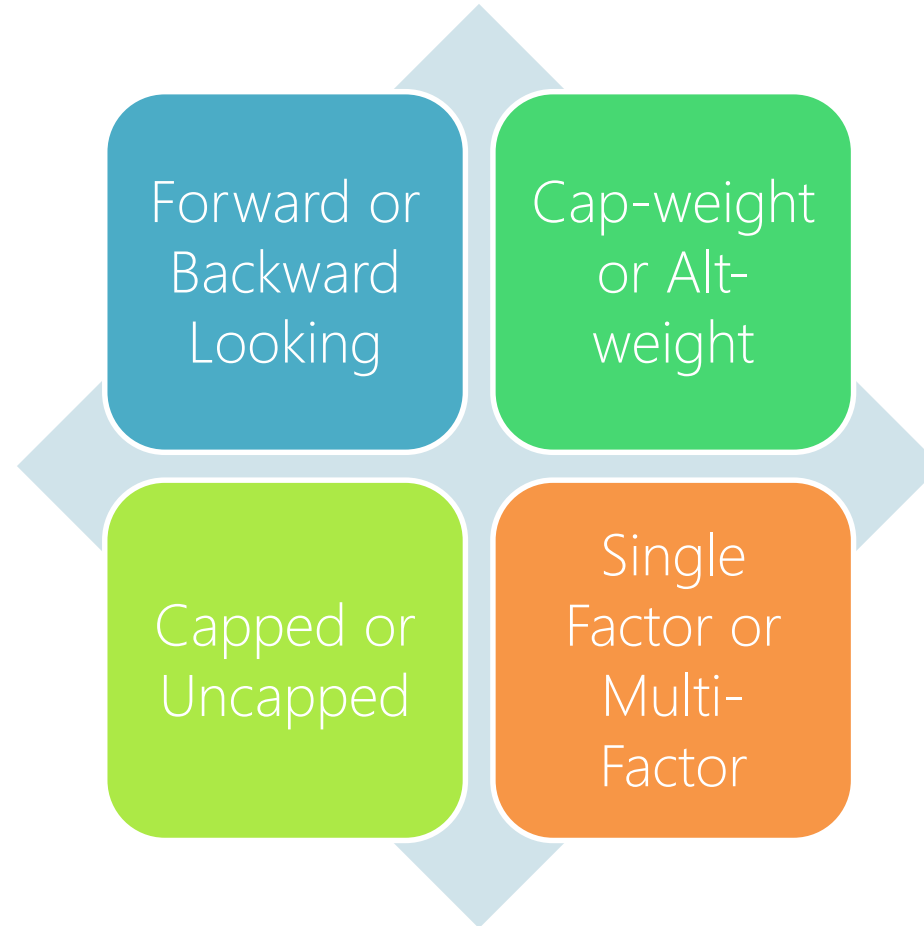
- A. Contrast and evaluate the different methodological approaches to index construction
- B. Understand how to evaluate ETFs performance relative to their respective indices
- C. Summarise key due diligence considerations when selecting an ETF

There are three Learning Outcomes for this Objective. Each Learning Outcome is broken down into three Learning Outcome Statements ("LOS")

Learning Outcomes

- A. Contrast and evaluate the different methodological approaches to index construction
- B. Understand how to evaluate ETFs performance relative to their respective indices
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LOS.A1. Identify key index construction techniques



LOS.A1. Identify key index construction techniques

Each index methodology discloses certain index construction techniques which have a material impact on the securities and weightings of those securities included within an index rules. Key index construction techniques include:

- **Forward- or backward- looking:** when evaluating a security for inclusion in an index against a key criterion, e.g. ranked on dividend, is the data used an estimate (forward-looking) or historic (backward-looking).
- **Cap-weight or alt-weight:** when allocating a weighting of a security for inclusion in an index, should the weighting be determined by market capitalisation (“cap-weight”), or alternatively weighted by some other factor (e.g. dividend, book value, volatility ranking) (“alt-weight”).
- **Capped or uncapped:** when allocating weightings of eligible securities within an index, should those weightings be capped (at security level or sector level) or uncapped (no constraints). Capped weightings can help avoid any unintended biases.
- **Single factor or multi-factor:** when including securities in an index, should this be based on one factor alone (e.g. dividend income), or a number of factors (e.g. dividend income and the security’s volatility)

LOS.A2. Outline the impact of methodology on performance

Forward or
Backward Looking

- Hard to evaluate performance impact

Cap-weight or Alt-
weight

- Cap-weight creates bias towards Size

Capped or
Uncapped

- Uncapped create bias to Size of current largest geographies, sectors or securities

Single Factor or
Multi-Factor

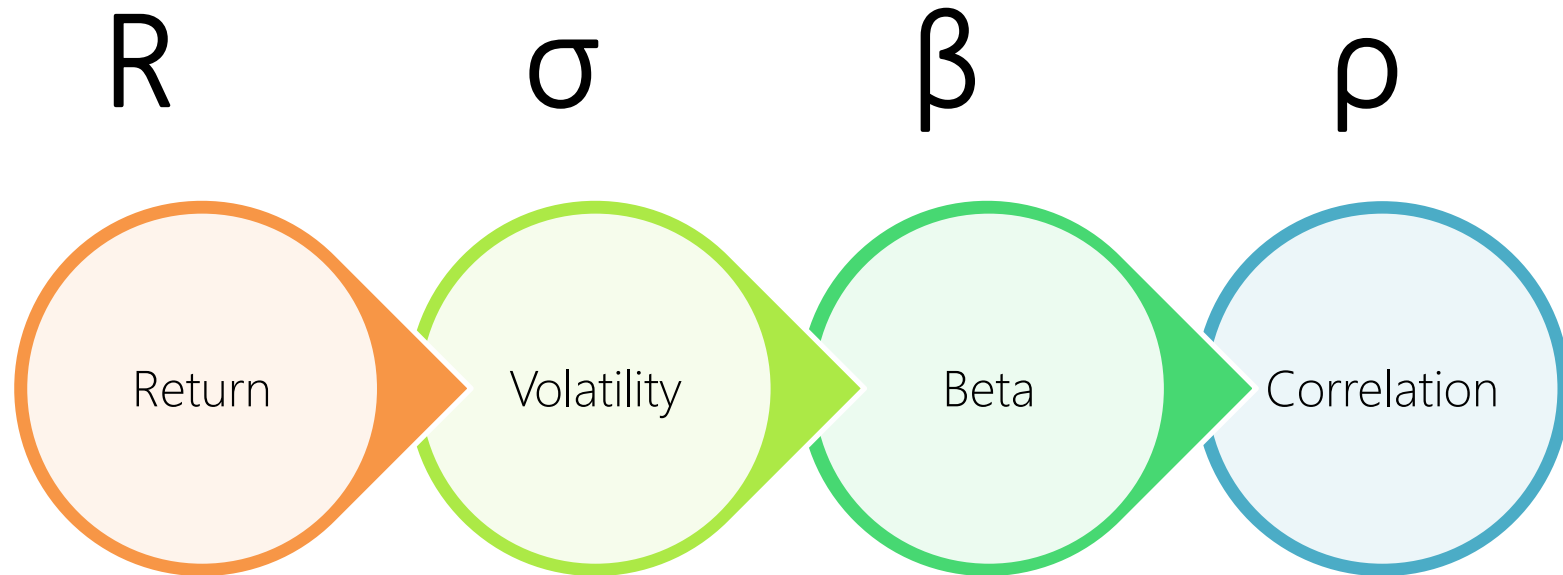
- Choice has material impact on performance

LOS.A2. Outline the impact of methodology on performance

Different index methodologies result in different performance characteristics and inherent biases.

- **Cap-weight or alt-weight:** cap-weighted approaches create an inherent bias to size and greater similarity to traditional reference indices. Alt-weighted approaches will emphasise that chosen weighting characteristic. The weighting approach taken will have a material impact on performance.
- **Single factor or multi-factor:** selection of a single factor (e.g. income) or combination of factors (e.g. income, quality and volatility) will have a material impact on performance characteristics.
- **Capped or uncapped:** the use of capping can screen out sector and/or geographic biases. This can help reduce impact on performance from security selection/idiosyncratic factors. Capping security, sector or geographical exposure will have a material impact on performance.
- **forward- or backward- looking:** the impact of using forward or backward looking factor data will have an impact on performance but is difficult to assess

LOS.A3. Summarise key index comparison metrics



LOS.A3. Summarise key index comparison metrics

Outline different evaluation metrics for assessing similarity or difference between indices.

- **Total return:** the cumulative or annualised total return of an index is the simplest measure of evaluation
- **Volatility:** by plotting annualised total return against volatility, for a given time-frame, enables comparison of Risk-Adjusted Returns.
- **Beta:** beta can be used to measure the risk of one index relative to another.
- **Correlation:** correlation can be used to measure the relationship between the performance of one index relative to an other.
- Similar total returns or risk-adjusted returns implies similarity by result.
- High beta/high correlation implies similarity by relationship.

Learning Outcomes

- A. Contrast and evaluate the different methodological approaches to index construction
- B. Understand how to evaluate ETFs performance relative to their respective indices**
- C. Summarise key due diligence considerations when selecting an ETF

LOS.B1. Describe the key measures of replication quality

Tracking
Difference

- The difference in return between an ETF and its index

Tracking
Error

- The annualised volatility of the difference in the daily return between an ETF and its index

LOS.B1. Describe the key measures of replication quality

The key measures for the replication quality of an ETF relative to the index it tracks are

Tracking Difference: the difference in annualised returns

- Tracking Difference is defined as the difference between annualised performance of an ETF (based on its official Net Asset Value (NAV)) and that of the index it tracks, over a given period. A lower difference is better.

Tracking Error: the volatility of excess returns

- Tracking Error is an indicator of relative risk and corresponds to the annualised volatility of the daily return difference between the ETF and the index it tracks, over a given period. A lower tracking error is better.

LOS.B2. Describe more complex measures of replication quality

Hurst
Exponent

- Long-term persistence of excess returns

Kurtosis

- Range of extreme excess returns

LOS.B2. Describe more complex measures of replication quality

Additional, more complex measures for replication quality include:

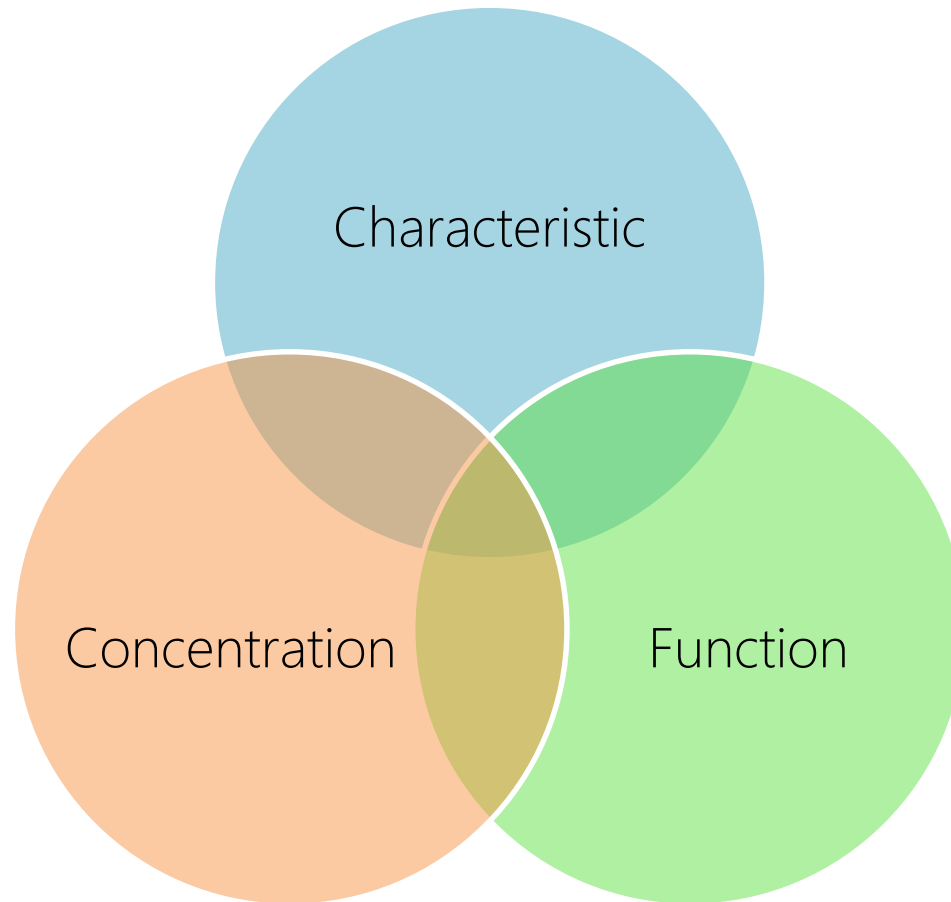
Hurst Exponent: Long-term persistence of excess returns

- This indicator captures the degree of long-term autocorrelation in excess returns of an ETF. The higher the Hurst coefficient, the higher the likelihood that past excess returns will be followed by similar excess returns. A score >0.50 is better.

Kurtosis: Range of extreme excess returns

- The range or width of extreme excess returns, or (excess) kurtosis of daily return difference between the ETF and its corresponding tracked index, quantifies tail weight of excess returns distribution. High kurtosis means infrequent extreme return deviations are observed on the ETF with respect to its benchmark index. A lower score is better.

LOS.B3. Discuss the importance of qualitative assessment



LOS.B3. Discuss the importance of qualitative assessment

Qualitative assessment is essential to link back performance to portfolio objectives. Questions could include:

1. Characteristic: Which performance characteristics are the primary objective: income yield, total return, or volatility?
2. Concentration: What level of concentration risk to a security, sector or factor is acceptable to achieve such performance?
3. Function: Should the selected index behave similarly (complement) or differently (diversify) relative to the exposure it is replacing or supplementing?

Learning Outcomes

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LOS.C1. Outline due diligence criteria regarding structure

Legal Structure



Approvals

Domicile

Replication

Underlying

LOS.C1. Outline due diligence criteria regarding structure

Key due diligence criteria relating to structure include:

Legal Structure	e.g. OEIC, SICAV or ICVC
Approvals	e.g. UK Distributor and HMRC Reporting Status
Domicile	e.g. Ireland or Luxembourg
Replication	e.g. Full or Sampled replication of the index
Underlying exposure	e.g. Physical (owns assets) or Synthetic (swap-based/derivative contracts)

LOS.C2. Outline due diligence criteria regarding liquidity and trading

Internal & external liquidity

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graph TD; A[Internal & external liquidity] --> B[Flows]; B --> C[Base currency]; C --> D[Trading currency]; D --> E[Currency hedging]
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Flows

Base currency

Trading currency

Currency hedging

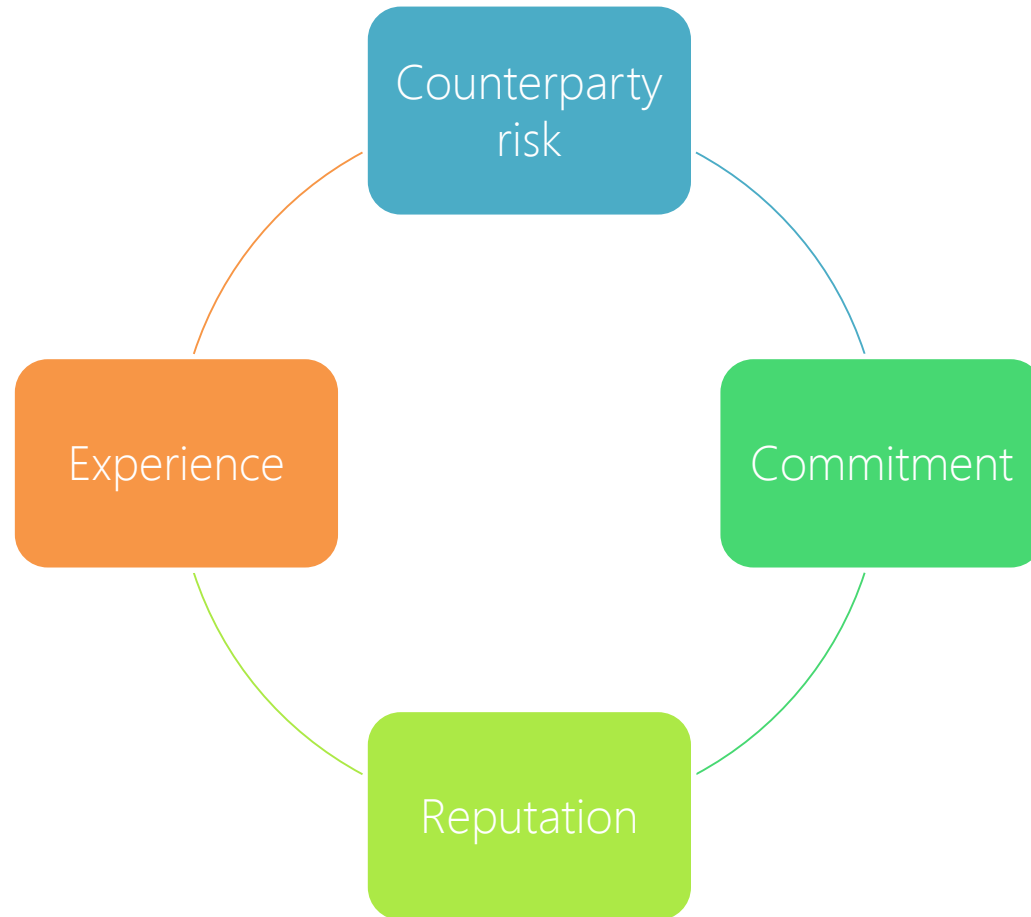
LOS.C2. Outline due diligence criteria regarding liquidity and trading

Key due diligence criteria relating to liquidity and trading include:

Internal liquidity	Liquidity of underlying holdings
External liquidity	Level and range of bid-ask spread
Flows	Gross/net flows and AUM of each fund
Base currency	Base currency of the ETF
Trading currency	Trading currency of the ETF or share classes
Hedged/Unhedged	Whether returns are unhedged or hedged into a currency

Note: an ETF with a trading currency different to its base currency does not mean that the returns are hedged to that trading currency. They are just expressed in that trading currency. Trading currency makes dealing and reporting more straightforward for investors using that currency.

LOS.C3. Outline qualitative due diligence criteria



LOS.C3. Outline qualitative due diligence criteria

Key qualitative due diligence criteria also apply:

Counterparty risk	Particularly for synthetic ETFs
Commitment	To a particular ETF range or product set
Reputation	Quality of managers and team
Experience	Experience in ETF manufacture and management

Complete the Test

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