

# A SHORT GUIDE TO PASSIVE, INDEX AND ETF INVESTING



## Background

In this note we provide an overview of the group of investment vehicle types termed “passive”, “index”, or “Exchange Traded Funds (ETFs)”. These are often lumped together in media reporting, and while they have some features in common, there are several important differences that it is important for investors to understand.

This paper does not discuss the arguments for and against active versus passive funds management, but explains the key consequences of adopting a passive, indexed approach, whether that is implemented via a managed fund, an ETF or a derivatives-based structure. Once an investor has made the decision to allocate funds to passive investment vehicles, with the intention of simply tracking the performance of an underlying market index, there is a second decision needed as to what form of passive vehicle is desired. This decision depends on goals, risk tolerance and cost efficiency.

The rise of passive investing has been one of the great structural shifts in financial markets over recent years. Passive managed funds (index funds) have seen significant inflows since 2010. However, in percentage terms it has been ETFs that have seen the most explosive growth. Because passive managed funds and market-index tracking ETFs are both low-cost investment options, and have become more widespread in the last decade, fund managers have begun offering these vehicles as simple, fee-efficient investment solutions. In order to simplify their message, managers don't always explicitly

spell out the exact nature of the passive investment vehicle being offered, with the result that some investors may not appreciate their funds are invested in an index-tracking ETF rather than a passively-managed conventional mutual fund.

The debate around active versus passive funds has evolved and matured recently. The discussion has shifted away from arguing which is superior and instead, the general consensus is that each approach has its strengths and the two methods can often be used together in a complementary fashion. This consensus can be seen in how major fund managers choose to manage money. Some of the largest passive fund managers in the world who account for over 80% of all funds under management (FUM) in passive strategies (Vanguard, BlackRock, State Street and UBS) all offer a host of actively-managed products as well. At AMP Capital, we offer both passively-managed funds for cost-sensitive investors and also a large number of actively-managed funds, many of which utilise adapted passive management strategies within certain asset classes, where opportunities to outperform the market index may be fewer.

## Index Funds

An index fund is a form of passive investing with a portfolio constructed to match or track the components of a market index. Index fund managers don't try to beat the market; rather, their goal is to replicate the performance of a market index as closely as possible. The key advantage for investors is broad market exposure with low operating expenses and low portfolio turnover. Costs are kept lower than actively-managed funds because any trading activity is solely focused on maintaining index weights.

The index fund manager holds the securities (shares, bonds, currencies, commodities, etc) in the same proportions as the headline index being tracked, for example the MSCI All Country World ex-Tobacco Index which the AMP Capital has chosen for the All Country Global Shares Index Fund. In addition to the securities within the index, the fund will hold a small cash allocation to facilitate rebalancing transactions and provide liquidity. However, such a fund is obliged to be as 'fully invested' as possible in the market it is tracking. Otherwise, a performance variation would open up between the underlying index and the index fund's performance.

Note that index fund managers cannot allow significant 'tracking differences' to arise between the fund and the index, because once they occur, there is no way of recovering performance. If a fund is passive, it is unable to disproportionately re-allocate between assets or choose exposures to compensate for any performance difference. It must rebalance, but cannot 'catch up' with the index if it is lagging.

Investors should also bear in mind that the passive investment philosophy rules out the fund manager taking an active view on the timing of deployment of new cash into the fund based on market conditions or outlook. Within the parameters set by the fund's rules, the manager must simply be as fully invested in the underlying index as cashflows allow, without seeking favourable entry or exit points.

## Enhanced Index Funds

Within the constraints above (index tracking and cash deployment), recent years have seen developments towards adding certain clearly defined and limited performance features to the 'vanilla' index fund structure. Chief among these new models are the enhanced index funds types, which deploy quantitative screens to tilt the fund's exposure slightly away from the underlying market index. This will be done to stress certain desirable factors, like better dividend yields, or to avoid over-valued securities. Because a conventional index investment vehicle must buy shares in exact proportionality to their weights in the market index, it has no opportunity to express preferences within the underlying market. However, enhanced index funds – which are sometimes called 'smart beta' funds – are able to build in features that scale up exposure to securities with the desired characteristics and scale down holdings of inferior index components.

There is considerable debate about whether such funds are successful over longer investment horizons, and the jury is still out until a full market cycle has taken its course (ie including a 'bear' as well as the current 'bull' phase). However, the concept of sharpening the focus of an index fund while retaining its advantages of low cost and automated security selection process has been very appealing and the segment is experiencing rapid growth. As a consequence, many exchange traded funds (see below) are now including enhanced index features. The proportion of asset owners investing in enhanced index factor-based strategies globally has almost doubled over the past three years, from 26% in 2015 to 48% this year<sup>1</sup>.

## Passive or “Index Tracker” ETFs

Passive ETFs are vehicles that also track an entire index or sector, but this tracking is “delivered” to investors bundled into a single security. Investors can buy and sell the ETF throughout the trading day, just like individual stocks and other securities on a major exchange. This provides them with flexibility to execute a buy and hold strategy without the aid of an actively-managed fund.

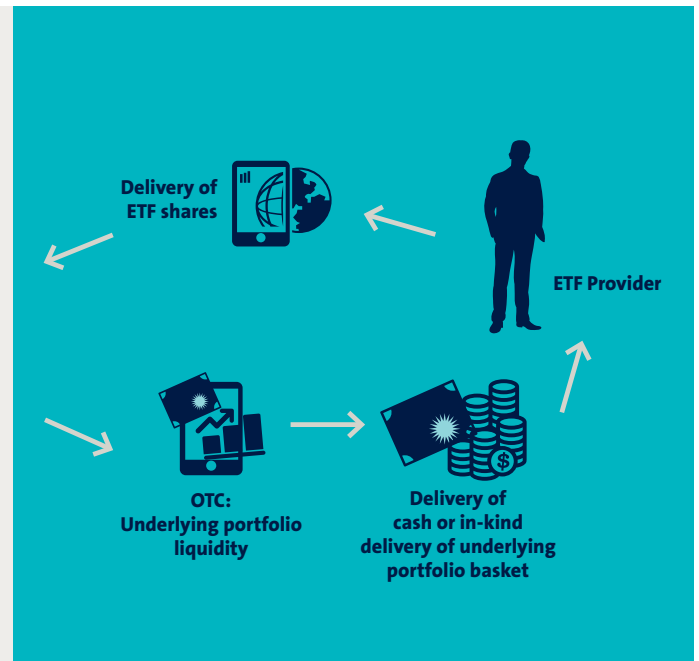
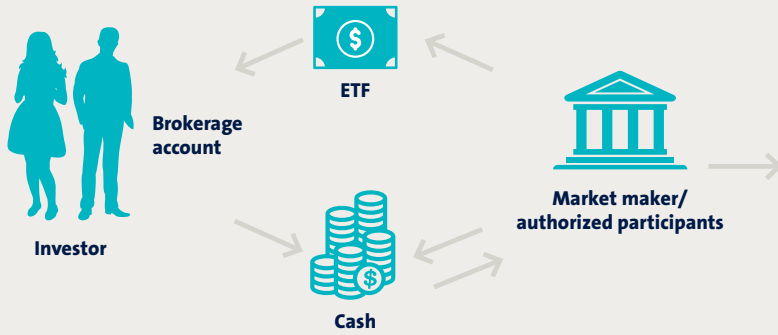
From an investor's point of view, an ETF may behave almost indistinguishably from a traditional index fund holding the same asset exposures, and this has enhanced their popularity. However, there are distinctions between the two, as summarised below.

### Key differences between tracker investment vehicles

BASIS FOR COMPARISON	EXCHANGE TRADED FUND (ETF)	INDEX FUND
Meaning	A fund tracking indexes that is tradable as a single entity	An investment fund aiming to replicate the performance of a benchmark index
What is it?	A form of index fund	A form of mutual /managed fund
Availability	On exchanges directly or through funds managers	Units may be purchased in a lump sum or at regular intervals through funds managers
Pricing	Throughout the trading day	At the end of the trading day
Basis of pricing	Demand and supply on market	Net Asset Value (NAV) of the underlying assets
Flexibility (market/sector)	High	Medium
Liquidity	Subject to underlying security liquidity and intermediaries	Daily through transactions implemented through the fund manager
Transaction fees	Can be medium-high	Generally low
Underlying assets	Can be synthetic or physical	Physical underlying assets only is the norm
Weighting of Index	Most are market capitalisation weighted, but can also be price, fundamental and equally weighed	Tracks market capitalisation-based index weights

<sup>1</sup> Source: FTSE Russell, Smart beta: 2017 global survey findings from asset owners

## The ETF Share Creation Process



## Less-apparent ETF risks

The ability to trade an entire market index with an ETF as if it were an individual security creates a temptation to trade, which can encourage potentially damaging investing behaviors, such as poor market timing. Frequent trading increases fund expenses, which is in contrast to the low-cost indexing philosophy best suited to buy and hold investors.

The founder of Vanguard Investments and pioneer of indexing, Jack Bogle, has his doubts about ETFs, although Vanguard offers a large selection of such funds, some of which are re-packaged for distribution in New Zealand by local institutions. Bogle warns that the popularity of ETFs is largely attributed to marketing by the financial industry, and that their popularity may not be directly correlated to their practicality. Bogle recommends that retail investors use traditional index funds in place of ETFs, for reasons of both efficiency and risk-minimisation.

The efficiency argument is based on the differing typical investor in index funds and ETFs. Because financial institutions and frequent traders are the main ETF holders, the turnover recorded by ETFs is typically much higher than for the equivalent traditional index fund. ETFs account for nearly half the trading in US stocks, according to Bogle. The dollar volume of trading in the 100 largest ETFs totalled US\$13 trillion in 2016, almost equal to the \$14 trillion in stock trades for the 100 largest US corporations. But since the market capitalisation of those ETFs was US\$1.6 trillion, compared to the \$12.8 trillion market capitalisation of the corporate stocks, the ETFs' turnover was around 800%, compared to about 120% in the stock market. Bogle has stated that the implications of this rapid trading – call it speculation – have yet to be fully examined. Normally, high turnover implies a higher cost load, where trading

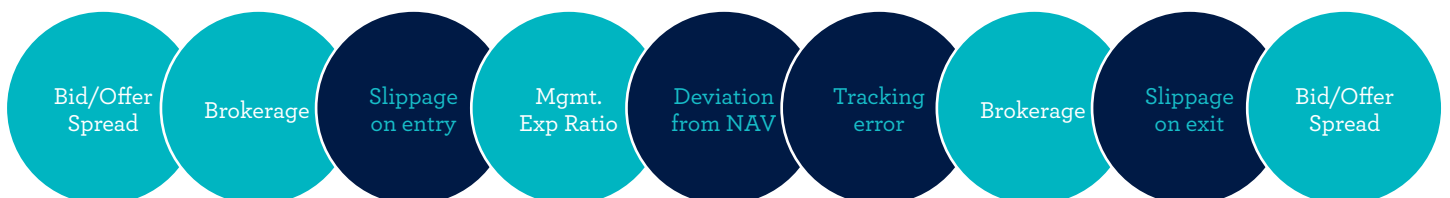
expenses must be offset by gains made from correct market positioning or leverage, which seem to contradict the logic of passive investing.

### Liquidity risk in disrupted markets

Some commentators have noted a risk that market makers could step away from providing liquidity by the creation and redemption of ETF units during times of intense market stress. This 'evaporation of liquidity' is also likely to be accompanied by large-scale selling of the underlying securities, so it is difficult to disentangle the extent to which ETFs would be disproportionately affected. Periods of sharp market volatility in early 2018, early 2016 and late 2011 have, however, generally seen ETFs hold up well, with only very specialised or leveraged funds running into difficulties.

An associated risk, which operates over a much shorter timeframe (typically one day) is the occasional computer-algorithmic 'flash crash' phenomenon. These occur because many international automated trading systems use ETFs as their key tool for accessing market returns at low cost and maximum flexibility. However, at times the algorithms that send the buy and sell instructions to securities exchanges can all attempt to trade in the same direction at the same time, causing a 'flash crash' when the underlying price may drop sharply in the absence of willing buyers. At such times, the Net Asset Value (NAV) of the index funds may be widely different to the quoted price of the equivalent ETF. However, so far market history has shown market makers willing to enter markets where pricing is misaligned and stabilise them as they present arbitrage opportunities.

## End-to-End Explicit and Implicit costs





## Checklist of ETF must-haves

**ETF provider credibility** – The fund provider should ideally be well-established, large and diversified enough to absorb any issues with redemptions etc. A track record of ETF development and of resilience to volatile market periods is ideal, although not all providers will have been in existence at the time of the Global Financial Crisis (GFC). It adds to confidence if the FUM in a given ETF does not make up an excessively large share of the provider's total FUM in all asset types and investment vehicles.

**Fund size and scale** – A commonly recognised asset level at which an ETF becomes sustainable is US\$50 million, a level not matched by almost half of today's ETFs. Greater assets under management can also enhance a fund's liquidity. US\$500 million is a credible minimum threshold for a broad market fund.

**Reasonable management costs/total expense ratio** – Because ETFs offer efficiency and cost advantages through passive market exposure, check that the management fee is comparable to other similar providers, and that there are no significant additional expenses involved in holding the ETF. Generally, more specialised strategies will be more expensive but the ETF expense ratio should still be substantially below an active fund management fee. Redemption fees are a potential negative to check, if they are disproportionate.

**Liquidity** – The ease with which investors can enter and exit the ETF is crucial. As with all listed securities, a narrow bid-ask spread indicates a ready and liquid market, and a median daily volume of above US\$10 million indicates trading the ETF will be efficient.

**Special ETF liquidity factors** – Due to their unique in-kind creation/redemption process, an ETF's own liquidity actually reflects the liquidity of the underlying securities. Therefore, if the ETF holds thinly-traded securities, market makers may have trouble sourcing them during times of market stress. Less liquid ETFs can result in increased trading costs or limited ability to trade in volatile markets.

**Index weighting method** – Is the index to be tracked by the ETF market cap-weighted, or is it selected by other criteria? Most indices are market cap-weighted, but alternatives include price weighted, fundamentally weighted and equally weighted indices. This is important because disparate index weighting methodologies can lead to differences in performance and risk/return characteristics among seemingly similar indexes.

**Independence of underlying index from the ETF issuer** – This facilitates scrutiny and makes it much likelier that other ETF issuing-managers will use the index for their own funds. Scale bestows credibility in the underlying index, and makes fund closure less likely.

**Index transparency, with daily pricing** – It is important that the index tracked is easily monitored, to check ETF performance and detect early discrepancies that may expose structural flaws in the product.

**Tradability** – Check that there are no material impediments to the ETF's unit creation or redemption process. An example would be if an ETF is abnormally illiquid or trades at a wide bid-ask spread, the redemption by a large unit holder may cause a share price impact on the securities tracked by the ETF. A wide difference between an ETF's price and its Net Tangible Assets (NTA) value may impair its unit creation/redemption process.

**Physical versus synthetic basis** – A minority of ETFs do not hold the underlying securities on behalf of the fund, but engage in a swap to receive the return of the index in exchange for paying a specified return to counterparty. These ETF's are termed 'synthetic' or 'un-backed', in contrast to physical ETFs which hold the securities underlying the index being tracked.

**Hedging** – If the ETF is deploying futures to hedge an international asset's return into New Zealand dollars, the hedging strategy should be passive (to neutralise currency movements on returns) rather than dynamic (to express an investment view on the exchange rate).

**Securities lending** – Many ETFs will enhance their returns by lending the underlying securities out to short sellers or other market participants. While this introduces some counterparty risk, the providers usually require full collateral on lend securities. Ensure the provider's securities-lending policies, which are disclosed in the ETFs regulatory documentation, are acceptable and consistent with investment guidelines and restrictions.

### Anatomy of a PIE from a tax perspective

Another consideration in selecting a passive investment vehicle is the type of structure in which the investments are accessed and the tax regime these are required to follow. This is particularly important as many investors will be seeking exposure to offshore securities, typically via a global equities strategy. New Zealand investors have a wide array of Australian Unit and New Zealand PIEs (portfolio investment entities) to choose from, and the complexities around tax treatment are often misunderstood, not to mention littered with jargon!

AMP Capital structures its range of index funds as New Zealand multi-rate PIEs to provide the end investor with transparency and confidence that they are receiving the best potential return after tax is taken into consideration. The following section provides some clarity on the treatment of tax within a multi-rate PIE structure.

#### Disclaimer

The comments below are general in nature and do not constitute tax advice from AMP Capital Investors (New Zealand) Limited, and should not be construed as tax advice. Tax legislation and rates of tax are subject to change and any change could have an impact on a PIEs return and investors. The impact of taxation may vary depending on your individual circumstances. It is important to seek professional taxation advice before you invest or deal with your investment in any way, as the taxation treatment of your investment will be specific to your circumstances and to the nature of your investment.

### What is a PIE?

A multi-rate PIE is generally a widely-held investment fund that has elected to apply the portfolio investment entities rules for tax purposes only.

In order for multi-rate PIEs to tax investor's allocated taxable income at the appropriate rate, each investor needs to supply the correct tax rate (PIR) and IRD number at all times. An investor's PIR can be 28%, 17.5%, 10.5% or 0%, subject to satisfying various conditions. If an investor does not notify a PIE of their PIR, or provide their IRD number, then the default PIR rate of 28% will apply.

For more information about PIRs and to determine your correct PIR rate please refer to the IRD website [www.ird.govt.nz/toii/pir/](http://www.ird.govt.nz/toii/pir/) or contact a professional tax adviser.

### How is PIE tax calculated?

A multi-rate PIE calculates each investor's tax liability (or refund) by applying their PIR to their share of attributed PIE taxable income or (loss). An investor's tax liability is reduced by their share of any tax credits received by a PIE. A multi-rate PIE deducts any final tax liability and pays it to the Inland Revenue for the investor or obtains a refund from them. Note that where an investor has a 0% PIR, then a PIE will not have any tax liability in respect of attributed PIE taxable income.

### Tax credits

Tax credits for foreign withholding tax and imputation credits are attributed to each investor, and used to reduce an investor's tax liability in a multi-rate PIE.

Foreign countries may impose a withholding tax on income, e.g. dividends sourced from their jurisdiction which is paid to a non-resident recipient, and this may be available as a tax credit in New Zealand. Imputation credits are attached to dividends paid from New Zealand resident companies to their shareholders.

Where an investor has a 0% PIR the tax credits will be allocated to the investor to be credited against tax payable in your own tax returns.

### When is tax deducted?

For multi-rate PIEs there is no requirement to account for PIE tax from any distributions paid. However, managers can do so at their discretion. PIE tax can also be deducted from partial redemptions made during the year, at the Managers discretion.

Investor's PIE tax position must be calculated on 31st March of each year and paid. Investors units in a multi-rate PIE are adjusted each year i.e. reduced or increased to reflect the PIE tax paid or (refund) received on their behalf by the PIE.

### What's the potential benefit for investors?

Multi-rate PIE funds provide some investors with a benefit over holding assets (or investments) directly. Multi-rate PIEs pay tax on allocated taxable income to investors at their relevant PIR which is currently capped at 28%. Investors in a multi-rate PIE with a marginal tax rate of 33% who select the 28% PIR will therefore obtain an advantage due to their PIR being capped at 28%.

In some circumstances an investor's personal marginal tax rate could be lower than your PIR. In this event investing through a PIE may not be appropriate.

### Foreign investment fund rules

The Foreign Investment Fund (FIF) rules apply to offshore investments (some exceptions apply) held by PIEs. The FDR (Fair Dividend Rate) method applies to such shares, except for shares in certain Australian resident companies listed on an approved ASX index and certain "non-ordinary" shares, which are instead subject to the CV (Comparative Value) method.

Under the FDR method, a PIE that hold foreign shares are deemed to derive taxable income equal to 5% of the market value of the shares, calculated on a daily basis and weighted over the income year. Dividends received on such shares are not taxable and profits and losses from the disposal of such shares are not taxable or deductible.

Where the CV method is applied, changes in the value of an investment over the income year (including those due to foreign exchange movements) are included in the Fund's income, together with amounts received during the income year from holding or disposing of the investment. Realised gains and losses made on the disposal of shares in New Zealand and certain Australian resident companies are not taxable or deductible for a PIE. Dividends received from such shares will form part of the taxable income of a PIE.

## Important considerations for investors

- > PIE distributions are excluded income in the hands of investor's and thus they do not form part of an investor's income which is subject to tax.
- > PIE income does not need to be returned by investors where they have notified a multi-rate PIE of a PIR that is correct and it is greater than 0%. The tax paid on allocated PIE taxable income for investors will generally be a final tax.
- > Where an investor has a 0% PIR, then a multi-rate PIE will not calculate or deduct any tax liability for their allocated PIE taxable income. The investor will need to include their allocated PIE taxable income or (loss) in their own tax return along with any tax credits.
- > Where an investor
  - has selected a PIR which is too low or failed to notify that a PIR has increased, or
  - is a trustee that elects 10.5% or 17.5% PR, or
  - has recently become a New Zealand tax resident and has chosen to disregard foreign income earned before becoming a New Zealand resident in determining their PIR
- > They will need to include their allocated PIE taxable income or (loss) and any tax paid by the PIE in their tax return and pay tax on that income at their marginal tax rate.
- > Where an investor has advised a PIR that is higher than their applicable rate, they will be unable to claim back the excess tax.

## Jargon buster

Some key terms to be aware of when considering the tax treatment of PIEs.

CV	Comparative Value – a methodology for calculating the income from offshore investments, under the FIF rules.
Distributions	Distributions are transfers of cash from a PIE to its investors and can be made up of income and capital. A manager of a PIE fund can choose whether a PIE makes distributions.
FDR	Fair Dividend Rate – a methodology for calculating the income from offshore investments under the FIF rules.
FIF	Foreign Investment Fund (FIF) rules is a regime under the Tax Act that determines how offshore investment income is calculated.
PIE	Portfolio investment entity - a tax regime that applies to widely held investment funds which meet the requirements and elect in. PIE rules allow investment funds to calculate tax using the tax rate (PIRs) selected by each investor.
PIE year	A PIE year generally runs from 1 April to 31 March.
PIR	Prescribed investor rate - the tax rate a PIE uses to tax an investor's allocated share of taxable income. An investor's PIR is based on their taxable income (e.g. income from salary, wages and any additional sources of income that would include in an income tax return) in the two years preceding the current tax year, the income attributed from any PIE and their tax residency. Can be 28%, 17.5%, 10.5% or 0%.
Taxable income	A PIE's profit or (loss) for the year calculated using the applicable tax rules set out in the Tax Act. The taxable income or (loss) is notionally attributed among investor's in a PIE based on their holdings or investment level. An investor's share of the taxable income or (loss) of a PIE is called attributed PIE taxable income or (loss).
Tax Act	The Income Tax Act 2007 - the primary Act that determines the tax rules of New Zealand.

## CONTACT DETAILS

If you would like to know more about how AMP Capital can help you, please visit [www.ampcapital.com](http://www.ampcapital.com)

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