

# The Australian ETF Guide

**HOW TO INVEST MORE CHEAPLY  
SIMPLY AND EFFECTIVELY  
USING EXCHANGE TRADED  
FUNDS (ETFs)**

**DAVID BASSANESE**



## **The Australian ETF Guide:**

*How to invest more cheaply simply  
and effectively using exchange traded funds (ETFs)*

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*I would like to acknowledge the help and support of my colleagues at BetaShares Capital for making this book possible, and especially that of Ilan Israelstam and Anton Allen for diligently reviewing early drafts.*

*That said, any remaining errors or omissions are my responsibility. I also note that this book was written in my personal capacity, and the opinions expressed here are my own and do not necessarily reflect those of BetaShares Capital Ltd.*



# About the Author



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The first edition of this book was released in 2014 while David was working at *The Australian Financial Review*. In view of the rapid changes in the ETF industry in recent years, it was considered worthwhile producing this timely 2016 update.



# What readers said about the First Edition

"David's book let me know I was on the right track. I now see ETFs not as a blunt instrument, but rather a finely tuned product. David explains comprehensively their multitude of uses and opportunities they offer. There are gems of knowledge on virtually every page! David also explores and explains the stock market far more comprehensively than just explaining ETFs and his explanations will be useful for a long time to come."

***Christopher, Sydney NSW***

"This book is a must read for investors looking at diversifying into ETFs. For those already investing, it has a coverage and depth which will add to current knowledge and will provide a check against their strategies. For those who don't know David Bassanese's research the book will be a revelation. For those who do, it is a confirmation of his professionalism. I thoroughly recommend it to all interested in ETF investments."

***James, Brisbane QLD***

"As an investor in shares and property, I found I was sadly lacking in knowledge about ETF's – snippets in the papers and blogs not

really providing enough depth. David's book has well and truly 'lifted the fog' – it is well written, concise, detailed enough without being too technical, and a great source of knowledge on the subject. I can move forward now on using ETFs more confidently in my investment decisions. Highly recommended"

***Paul, Melbourne VIC***

"I found the ETF book extremely informative and I have already made some initial investments."

***Gordon, Adelaide SA***

# **Advice Warning**

The information provided in this report should not be considered as either personal or general financial product advice. The report provides broad economic, financial, and asset allocation information only. Any portfolios that might be shown are for illustrative or educational purposes only. The author recommends that you conduct your own research and/or speak to a licensed financial advisor before finalising any investment decisions.

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# Introduction: Why ETFs are an investor's best friend

With the wreckage of the burst American dotcom bubble and the sub-prime mortgage crisis just behind us, you could be forgiven for thinking that most financial market products these days are designed simply to fleece unsuspecting investors.

But, over the past decade, one product has emerged from fairly humble beginnings to shake up the established finance world. Initially intended only as a product for large institutional fund managers, it has been strongly embraced by retail investors.

The leading US investment magazine, *Barron's*, went so far as to argue that these products "probably rank as the most successful financial product of the past two decades."

And in an ironic twist, those who were the intended beneficiaries from this product's introduction – professional fund managers – are now having their cosy world threatened by the product's growing popularity among retail investors.

What is the product? We are talking about *exchange traded funds*, or "ETFs" for short.

At its heart, an ETF is nothing more than an index fund that trades on the stock market, and can be bought and sold just like an ordinary share. An ETF that tracks America's S&P 500 index, for example, is designed to rise or fall each day in line with the US S&P 500 market index, before fees and expenses. It should also pay dividends in line with that of the index each and every year.

ETFs can track the performance of selected equity, bond, or commodity indices, such as the S&P/ASX 200 Australian equity index, America's S&P 500 equity index, China's stock market, the MSCI Emerging Markets Equity Index, or even the gold price.

Simple right? As we'll see, ETFs have other attractive features for investors, especially compared with traditional managed funds that often don't try too hard to beat their benchmark index and can be very expensive. Indeed, especially for self-managed super funds (SMSFs), these relatively cheap and easy to understand investment products may be especially important. I'd go so far as to suggest that ETFs can be the SMSF investor's best friend!

As we'll see, ETFs allow investors to develop their own highly diversified core investment portfolio for a fraction of the price charged by active fund managers. There are also a wide variety of ETFs that enable investors to tactically tilt their portfolio toward certain asset classes or investment themes should they so desire.

However, ETFs are not without pitfalls. At face value, ETFs look simple, but their underlying structure – and as we'll see that of other ETF-like products - can be complicated, and present their own unique set of risks and challenges that investors need to be aware of. There are certain key issues that worry investors when it comes to ETFs. This book will explore these concerns, some of which are more valid than others. Rest assured: we'll equip you with the key strategies you'll need to use ETFs easily and safely in your portfolio.

This remainder of this book is divided into 4 easy steps.

**Step 1** aims to highlight the importance of better investment options in the face of the growing challenges of saving adequately

for retirement. We're all growing older and living longer, while at the same time, returns on traditional "safe" retirement investments have dwindled. That means the cost and effectiveness of our investment options matter even more – we can't take the future for granted.

**Step 2** "looks under the hood" of ETFs in particular. It will help you familiarise yourself with what ETFs are exactly and how they can be properly bought and sold on the Australian Securities Exchange (ASX), just like an ordinary company share. This step will also introduce you to the myriad benefits ETFs offer investors and will hopefully allay some common misperceptions about their risks.

**Step 3** then introduces the vast and growing range of ETFs currently available in Australia. Products are now offered which cover every major asset class, such as equities, bonds, commodities, and currencies – but also include a range of specific investment strategies.

Finally, **Step 4** outlines a range of ETF trading and investment strategies, such as how to use ETFs to build a cheap and highly diversified strategic asset allocation portfolio, and/or tactically invest in favoured industry sectors, geographic areas, or other investment themes.

Let's start at the beginning with **Step 1**. Welcome to the wonderful world of ETFs!



# STEP 1

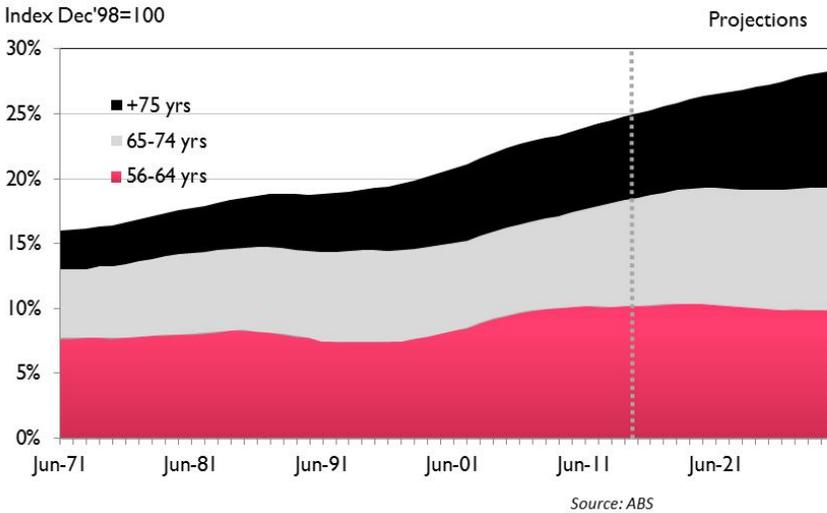
Appreciating the  
importance of good  
investments



## WE'RE GETTING OLDER AND LIVING LONGER

At the crux of Australia's looming retirement investment challenge is the fact that, as in most of the developed world, our population is getting older, and we're living longer. According to the Australian Bureau of Statistics' latest estimates, the share of the population aged 55-years or older has almost doubled in the past 40 years, from 17% in June 1971 to 26.5% in June 2015<sup>1</sup>.

### Elderly Population Share



What's more, the ABS projects this share will rise to approximately 30% over the next 20 years<sup>2</sup>.

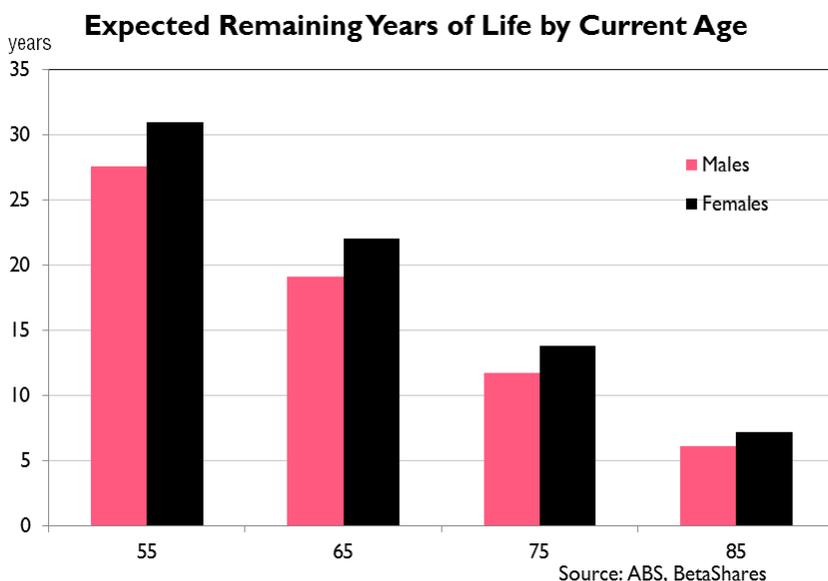
In terms of sheer numbers, there are already 6.3 million Australians aged 55 years or more, who are therefore either in or starting to

<sup>1</sup> Australian Bureau of Statistics, *Demographic Statistics*, June 2015. Cat. No.3101.0.

<sup>2</sup> Australian Bureau of Statistics, *Population Projections 2012-2101*, Cat. No. 3222.0

ponder retirement. This number is projected to grow to 8.6 million by June 2030. As of today, there are already 3.6 million Australians aged 65 years or older, with this number projected to grow to 5.6 million by June 2030.

We're also living longer. The average life expectancy for newborn children has increased by approximately 10 years over the past 40 years – to 80 years for males, and 84 years for females. As of today, the approximate average life expectancy for those aged 55 years is another 30 years, and for those aged 65 years, it is another 20 years.

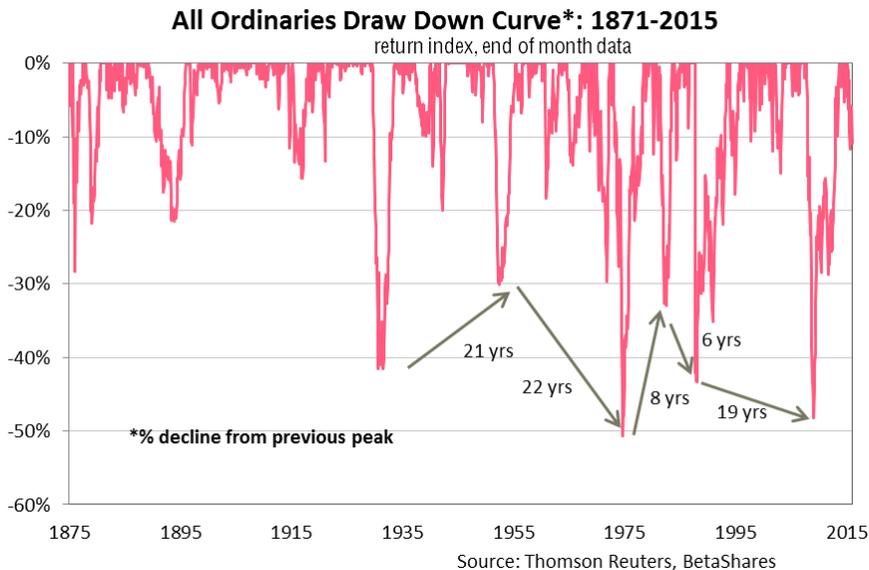


## ***ACHIEVING RELIABLE INVESTMENT RETURNS REMAINS DIFFICULT***

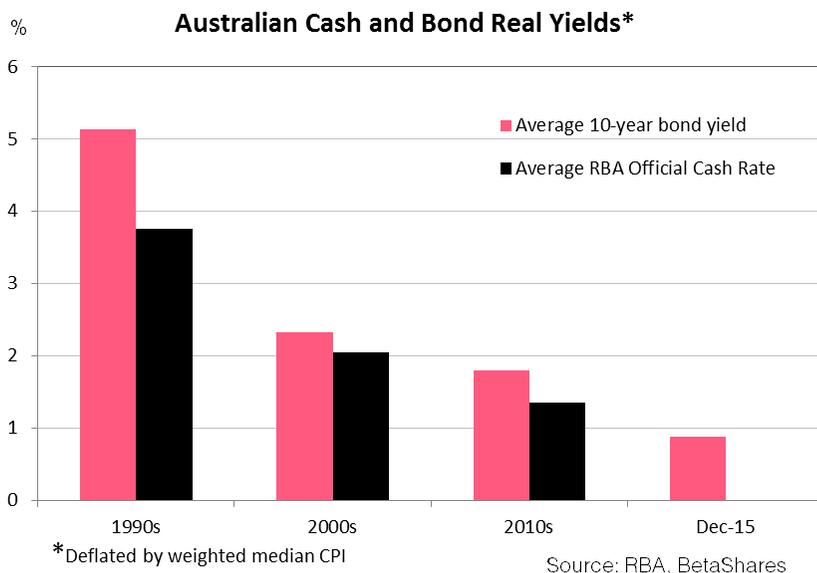
The sobering reality for those facing retirement is that risk markets remain just as volatile as ever. Indeed, history suggests the Australian equity market can suffer a 30-50% total return decline at least once every 10-20 years. The great crash of 2008 – which likely

still lingers in many reader's memories – was one of the worst on record. And this was a period in which the Australian economy avoided a recession!

Based on current life expectancy estimates, therefore, those entering retirement can expect to face at least one more gut-wrenching market decline in their lifetime.



Of course, those nearing retirement can avoid these risks by seeking the safety of less volatile asset classes, such as cash and bonds. But here's the problem: returns from safer assets have collapsed in recent years. The real (inflation-adjusted) returns provided by cash have fallen from just under 4% as recently as the 1990s, to just under 2% this decade. The real yield on long-term government bonds – which provides the basis for most fixed income funds – has declined from around 5% in the 1990s to only 2% this decade. This means investors need to sacrifice a lot more in forgone returns to reduce portfolio volatility.



As of December 2015, underlying inflation was running at around 2% - equal to the RBA's official cash rate, implying a zero *real* cash rate. Australian 10-year government bonds yields were only 2.85%, implying a real bond yield of just under 1%.

What's more, with many expecting long-term interest rates to rise slightly in coming years (to around long-term average levels), the medium-term return on bonds bought today is likely to be even lower than today's low yields - due to expected capital losses. Depending on how high interest rates eventually rise, bonds are not currently the safe haven that many asset allocation strategies typically assume.

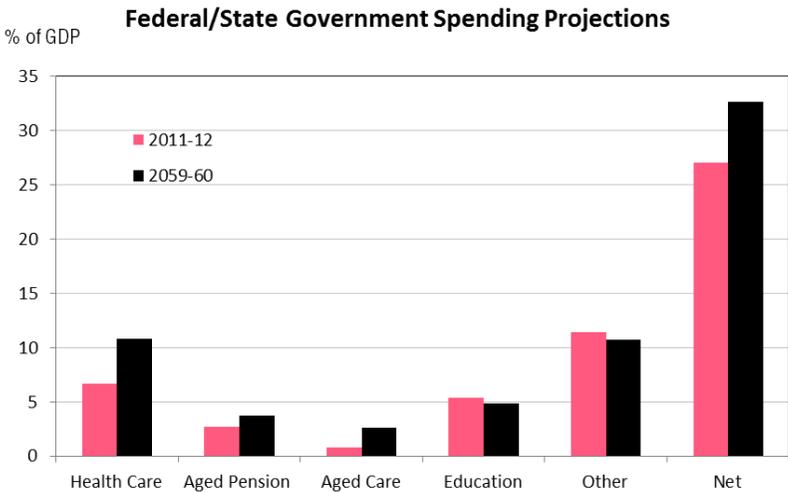
### ***PENSIONS AND SUPER CONCESSIONS COULD BE CUT***

Not only is our ability to provide for our retirement being challenged by our lengthening life span (which, of course, is a good thing!), and troublesome trends in investment markets, but the

safety net of publically provided pensions and the generosity of super concessions could also be vulnerable to future government policy changes.

Due to pressure on tax revenues and weak recent economic growth, the Australian Federal Government is still running a large budget deficit – which is proving difficult to reduce. In the longer-term, pressure on the budget will grow as our ageing population generates increased pension and health care costs. Population ageing also means fewer workers will be left to pay the taxes necessary to fund these public benefits.

According to Federal Treasury projections, Government spending on pensions will rise from 2.7% to 3.7% of gross domestic product (GDP) over the next 50 years, an increase of approximately \$16 billion in today’s dollars. Spending on health care will rise even more – from 4.1% to 7.0% of the economy. There will also be increased spending on aged care and disability support at the State Government level.



Source: Productivity Commission

All total, the net increase in Federal and State government spending commitments due to the population ageing (i.e. even *after* adjusting for some cuts in spending on education) is equal to 5.8% of GDP, or \$93 billion in today's dollars – an increase which must be met each and every year.

Give this ageing demographic outlook, the Government's ability to provide pensions and other retirement concessions in coming decades will be challenged. The pension benefits that current retirees enjoy could well be cut back in coming years, as might the still considerable tax benefits associated with savings through superannuation.

### ***RUNNING AN SMSF CAN BE COSTLY AND COMPLEX***

Rightly or wrongly, more and more Australians are choosing to invest for retirement through self-managed super funds (SMSFs).

In the past decade alone, the share of superannuation assets managed by SMSFs has increased from 20% to 30% - surpassing the share of assets managed by either retail or industry funds. As of June 2015, the Australian Tax Office estimates that there were 557,000 SMSFs with just over 1 million members, who collectively hold \$590 billion in assets.

Controlling one's own destiny is fair enough. SMSFs are attractive in part because of the relatively greater investment flexibility they offer. Small businesses, for example, can own business assets – including their commercial premises – through their SMSF and obtain concessional tax benefits. It's also still possible for SMSFs to

undertake limited recourse borrowing<sup>3</sup> to purchase other assets – residential properties are particularly popular in this regard.

Given how fund managers lost significant amounts of money during the global financial crisis, many investors appear to have decided they can do better on their own – and possibly save on investment management fees in the process.

That said, running an SMSF does present numerous challenges. It involves more administrative effort than simply giving your money to a retail or industry superannuated fund to invest on your behalf.

A study conducted for the Australian Securities and Investments Commission (ASIC) by Rice Warner Actuaries<sup>4</sup> found that, on average, SMSFs which outsourced all administration costs (which is a fairer comparison to retail and industry super funds that also do that for you) faced total costs in 2013 of approximately \$4,500. This amount did not vary greatly with fund size.

As seen in the chart below, as retail and industry super funds typically charge a fixed percentage of funds under management, they tend to have lower costs for fund balances up to around \$300,000. Industry super funds, however, were cheaper still, and tended to have lower costs for all fund balances as high as \$500,000.

This means that relatively small SMSFs face onerously high costs (to run their funds) as a percentage of their funds. If your fund is only \$50,000, for example, and your running costs are \$5000 – then you

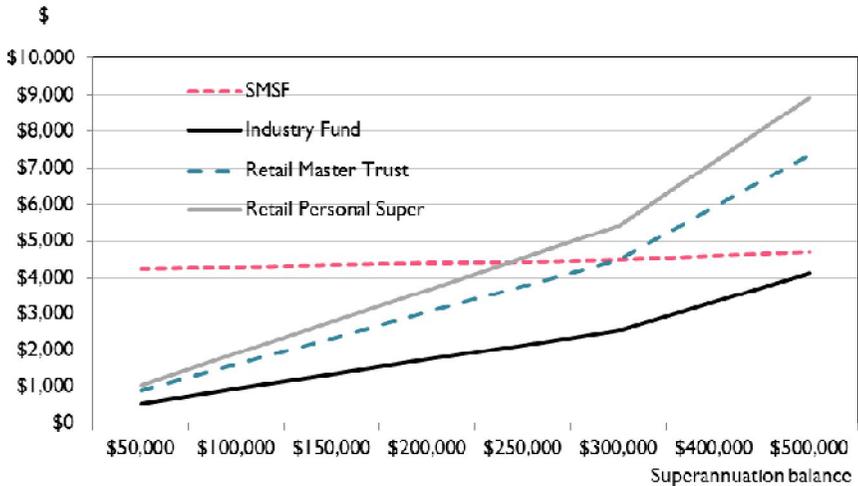
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<sup>3</sup> In the event of loan default, lenders only have claim to those SMSF assets purchased with the borrowed funds.

<sup>4</sup> *Costs of Operating SMSFs*, Rice Warner Actuaries, May 2013.

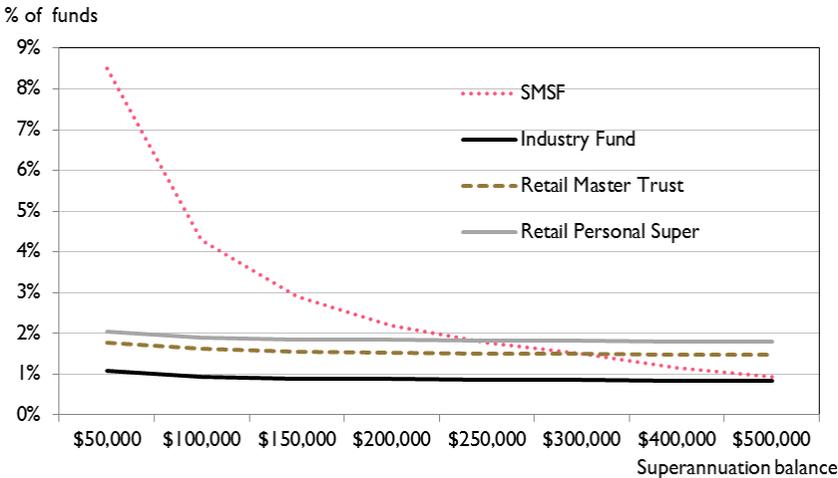
are paying management fees equal to 10% of your fund each and every year! Your investment returns would have to be pretty spectacular to get ahead after giving up almost 10% of your SMSF fund each year simply to pay fees.

### Superannuation Administrative/Investment Costs



Against this, as seen in the chart below, many industry super funds will charge only around 1% of your funds each year to run your super – including providing accounting and investment advice. As an SMSF, even if you invested in direct shares only, and only paid \$2000 a year to run your fund (half the average), you'd still need at least \$200,000 in funds under management for your management fee to not exceed the 1% charged by a typical industry super fund.

## Superannuation Administrative/Investment Costs



Sadly, evidence suggests many Australians don't make these comparisons. Indeed, according to data from the Australian Tax Office's 2013-14 SMSF Statistical Overview Report, approximately 65% of SMSF members had balances of less than \$500,000. Average operating expense ratios for balances below this size were at least 2%, and for the almost 10% of SMSF members with a balance of less than \$50,000, operating expenses averaged 10%!

It's no surprise that in recent years at least, the smaller the SMSF fund, the poorer the return. According to the ATO, the average annual return in the five years period ending in 2013-14 for SMSF funds with less than \$50,000 in assets was *minus* 13.1 percent. On the other hand, those with more than \$2 million in assets enjoyed an average gain of 8.6%.

<b>SMSF Size, Costs &amp; Performance Review</b>			
<b>Fund size</b>	<b>% of SMSF members*</b>	<b>Operating Expense Ratio**</b>	<b>Return on Assets**</b>
> \$0-\$50k	8.6%	10.0%	-13.1%
>\$50k-\$100k	9.7%	5.0%	-4.1%
>\$100k-\$200k	16.9%	3.7%	0.2%
>\$200k-\$500k	30.6%	1.9%	4.0%
>\$500k-\$1m	19.3%	1.0%	6.1%
>\$1m-\$2m	10.4%	0.7%	7.2%
>\$2m	4.6%	0.4%	8.6%

Source: ATO \*2013-14 \*\*Average for 5-yrs to 2013-14.

Note over this period, industry and retail super funds regulated by the Australian Prudential Regulation Authority (APRA) enjoyed an average annual return on assets of 8.7% - compared with an average across all SMSFs of 7.2%. As we'll see below, SMSFs tend to be cash heavy – which allowed them to outperform the average industry or retail super fund return during the global financial crisis. However, this has also meant that they've tended to underperform during the post-GFC equity market rebound.

Of course, there are ways to save costs when running an SMSF. For starters, many SMSFs prefer to directly invest in shares, effectively avoiding fund management fees which can typically take another 1 to 2% from your returns each year.

Evidence also suggests that a large number of SMSF investors are making their own investment decisions, without the help of a

financial advisor. According to an industry survey, as of June 2014, approximately 59% of SMSFs are investing without the aid of a financial advisor<sup>5</sup>. Although this saves money, it leaves the responsibility for making sound investment decisions squarely in the hands of SMSF trustees.

Unlike simply leaving your money in a superannuation fund, running an SMSF requires deciding where and how to investment your money yourself – either alone or with the aid of a financial advisor.

In fact, each SMSF is required by the Australian Tax Office to formally document an *Investment Strategy*, detailing how the money is to be invested and why. The document must show that the SMSF trustee has taken into account the risk associated with certain investments, and that they are appropriately considering fund members' financial circumstances and objectives. The strategy must also show that the diversification benefits of investing across numerous different asset classes have been considered – a fund that invests in a single asset (such as a small business premises) could be seen as overly concentrated. The document must also demonstrate that the SMSF is invested in sufficiently liquid assets to pay cash expenses (such as accounting and auditing fees) as they arise.

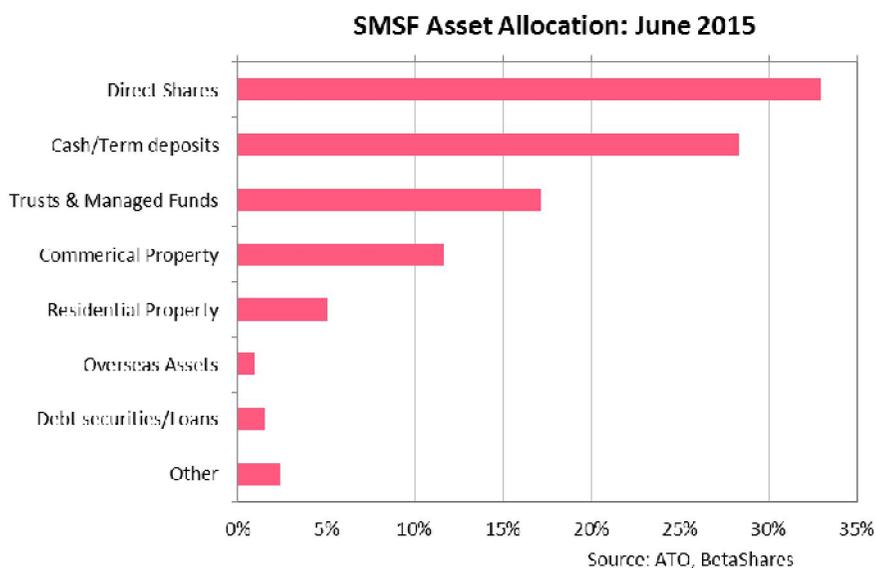
It's not obvious that all SMSFs are meeting these requirements. Evidence from the Australian Tax Office, for example, suggests the average SMSF fund has a relatively heavy exposure to low-yield cash products, offset by a relatively high exposure to much more volatile individual Australian company shares. While low risk, cash

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<sup>5</sup> Investment Trends Self-Managed Super Fund Planner Report 2014.

can be a major drag on investment performance. This would not usually be appropriate for younger investors who are still in their capital accumulation phase.

By investing in individual Australian stocks (rather than, say unlisted managed funds, exchange traded funds, or LICs), investors may not be sufficiently diversified against company-specific risks. Indeed, another survey suggested that approximately half of SMSFs used no more than 10 stocks for their Australian share allocation<sup>6</sup>.



According to the ATO's survey, SMSFs have a large exposure to commercial property – which likely reflects the tax benefits for small businesses that place their business premises in a SMSF. At the same time, SMSF exposure to international investments is very

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<sup>6</sup> Multiport June 2013 survey into Australian SMSFs.

limited. All this raises the question of whether SMSF portfolios are appropriately diversified.

Meanwhile, residential property still accounts for less than 5% of SMSF assets. However, this figure has grown strongly in recent years - doubling from 2008 to \$21.7 billion in June 2015. Reflecting an easing in borrowing restrictions, limited recourse borrowing has surged from \$2.5 billion in June 2012, to \$15.6 billion by June 2015.

The Reserve Bank has expressed concerns that some SMSFs may be getting carried away with property investment and overpaying – which could hurt long-run returns. More broadly, investors should be reminded that over the long-term property prices are unlikely to exceed household income growth, or approximately 4 to 5 percent per year. As we'll see later, this is half the likely return from Australian equities.

In searching for better yields than what is available from cash or bank deposits, SMSFs have also been big buyers of hybrid securities issued by banks which – while high yield – still offer a lower likely total long-run return than bank shares (as they miss out on capital growth), though arguably without much risk reduction.

Most recently issued bank hybrids can be converted into equity capital by regulators – exposing investors to loss – should banks get into financial difficulty and need more equity on their balance sheet. While investors in bank equity will lose out first should a bank get into financial difficulties, investors in hybrids may not be far behind.

To the extent that a large chunk of retirement funds are invested into one's business premises or a handful of Australian stocks, SMSF investors are exposed to major downturns in the commercial property market and/or the market value of certain stocks.

At the other extreme, those seeking safety through a large exposure to cash are sacrificing returns - which then raises the risk of not having enough money to fund a decent retirement.

While running a SMSF offers investors greater flexibility in how to invest money, it is not without considerable costs - caution is still required to ensure that hard-earned retirement money is not squandered.

### ***MANY INVESTORS STILL DON'T USE ETFs***

Many SMSF investors and financial planners are avid ETF users. Indeed, according to the latest BetaShares/Investment Trends Survey, there were more than 200,000 ETF investors in late 2015 – a ten-fold increase over the mere 20,000 ETF investors in 2008. Of these, 83,000 – or 41% were SMSF investors – up from only 10,000 SMSF ETF investors in 2008.

What's more, approximately 44% of financial planners say they now recommend ETFs to their clients, which is up from only 15% as recently as 2008. By late 2015, ETF funds under management amounted to approximately \$20 billion.

So far so good, but given the needs of local investors and given international trends, there still appears to be a lot of untapped demand that could and should be filled in coming years.

After all, the total number of ETF investors still accounted for only roughly 3% of the 6.5 million adult Australians that the ASX<sup>7</sup> estimates own some listed investment. These numbers also imply that almost 85% of the more than half a million SMSFs across the country had not yet invested in ETFs.

As of late 2015, 56% of financial planners were still not recommending ETFs to their clients - the latest survey, however, did suggest a further 20% were planning to start recommending ETTs in 2016.

At \$20 billion, moreover, ETFS still account for only around 1.3% of the \$1.5 trillion market capitalisation of the Australian stock exchange – compared with approximately 3% and 7.5% of the Canadian and United States share market capitalization, respectively.

Of course, one of the hurdles to more rapid take-up of ETFs in Australia is better investor education. Until recently, it has not been in the interest of the largely commission-dependant financial planning industry to recommend products (like ETFs) that pay no up-front or trailing commission.

Similarly, it has also not been in the interests of many in the entrenched funds management industry – which has enjoyed lucrative management fees for often questionable performance – to embrace a product (like ETFs) which often only claim to match market performance, but at a far lower cost. The following section aims to fill some of these gaps in investor knowledge.

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<sup>7</sup> ASX *Share Ownership Study* 2014.

## 17 The Australian ETF Guide

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As we'll see, while some care is still required when investing in ETFs, ETFs also promise many benefits that (sadly) too many Australians are still not aware of.



# STEP 2:

Understanding what ETFs  
are and how to use them



## WHAT AM I INVESTING IN? THE THREE KEY FEATURES OF AN ETF

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There are three key features to understand about the typical exchange traded fund, or ETF.

For starters, they are *traded on an exchange*, meaning they can be bought or sold on the Australian Securities Exchange (ASX) just like an ordinary company share – such as the Commonwealth Bank (CBA) or BHP-Billiton (BHP). Each ETF has its own unique ASX code that can be used to enter trades via an online or phone broker.

To buy the BetaShares FTSE RAFI Australia 200 ETF, for example, you just enter its code, “QOZ,” into your online broker website or quote this code to your stockbroker, choose how many units you wish to buy, and decide whether you will enter a “market price” or a “limit price” order – just as you would for any individual company share.

We'll discuss the specifics of buying ETFs through the ASX later in this book.

Second, ETFs are *managed funds* – they pool money from investors and use the proceeds to buy other financial securities or assets, like shares or bonds. In this sense, ETFs are just like any (unlisted) managed fund that is available from the likes of AMP Capital, Macquarie, or BT Funds Management – only you don't need to fill out complicated forms and mail off cheques to buy fund units. Instead, you buy directly on the ASX.

In fact, ETFs in this sense are like listed investment companies (LICs), which are other investment funds that can also be bought

and sold through the ASX. However, ETFs have a unique structure that offers certain advantages over LICs.

The typical ETF, moreover, is an exchange-traded managed *index* fund – which means that it only tries to match the performance of an investment index (such as the S&P/ASX 200 index of the top 200 Australian companies weighted by market capitalisation), rather than try to beat it. In this sense, ETFs are *passive* investments – that can track any number of investment benchmarks covering the local or international equity markets, commodities, cash or bonds.

As we'll see, all these features give ETFs numerous advantages. By trading on the ASX during the day, they are liquid. As a managed fund, they also offer convenient diversification. And by being typically indexed or passive in nature, they are transparent and enjoy low management fees – not to mention tax efficiency by having low turnover.

All that said, it's really the unique structure of ETFs that sets them apart from other exchange-traded or unlisted, active or passive, managed funds. As a result, this structure is worth exploring and understanding in detail.

## **ETF'S UNIQUE STRUCTURE**

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This may get a little tricky, but stay with me, because what follows is important to understanding ETFs.

As noted, the key feature to appreciate about ETFs is their unique structure. Traditional managed funds take in money from investors and use the proceeds to buy investments in the market. This means that when many investors in the fund decide to sell, the manager

needs to sell some stock to raise cash to meet the redemptions - triggering capital gains taxes for all fund investors.

This traditional approach also means that those funds that choose to list on the market - listed investment companies (LICs) - often trade at prices that don't necessarily reflect the underlying net asset value (NAV) of the investments they hold.

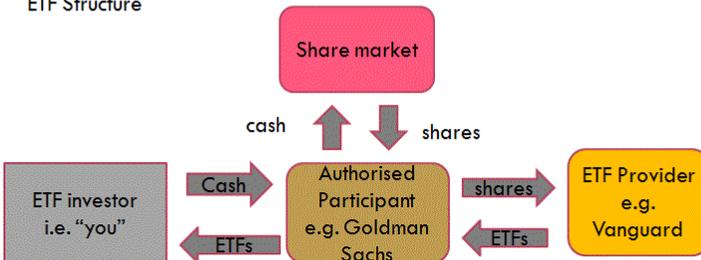
Why? The supply of LIC units readily available on the ASX does not automatically adjust to reflect demand – which would help keep LIC prices close to the underlying net asset value of the shares, bonds, or commodities they invest in. If there is a large sell down in a LIC on a given day, for example, the only way the market will clear is by a large enough price drop to lure in new buyers – and this price may well be below the LIC's NAV.

## Managed Funds vs. ETF

Traditional Managed Fund Structure



ETF Structure



As a result, many LICs may often trade at up to 10%-20% or more below their net-asset value.

ETFs, on the other hand, are so-called “open-ended” funds, meaning supply can adjust to demand swings *throughout* the trading day. How so? Each ETF trading on the ASX has one or more dedicated professional traders or market makers (known as authorised participants or “APs”) that are employed to make units available for sale or purchase through the trading day. And, uniquely to ETFs, APs have an ability to add to or withdraw from the supply of ETF units by trading directly with the ETF issuer (such as, with BetaShares) at the ETF’s net asset value. LIC’s don’t have this ability.

As a result, should investor ETF demand exceed what is currently available, the APs can simply create more units (issued by the ETF issuer) to meet demand. This is done by buying the underlying assets on the market and bundling them into parcels that match the composition of a specific index or asset class the ETF aims to track (i.e., all 200 stocks in the S&P/ASX 200 index). These parcels are then delivered to the ETF provider who, in exchange, issues the AP with ETF shares which can be on sold on the open market.

Similarly, APs can also soak up supply by buying ETF units on the market and effectively selling them back to the ETF provider at its NAV.

Due to competition between ETF market makers – and their potential to make ‘arbitrage profits’ in trading ETFs – this process also means the best bid and offer prices quoted for an ETF will typically be close to its NAV.

To see why, consider what would happen if an ETF’s current offer price (i.e. the price at which you could buy it on the exchange) was well above the NAV of its underlying securities portfolio. In this case, an ETF market maker could buy up parcels of the underlying

securities and exchange them for ETF units with the ETF provider, and the ETF units could then be sold on the market at a profit. This process would continue until the ETF's prices were bid down (and the price of the underlying securities bid up) until this arbitrage profit opportunity was eliminated.

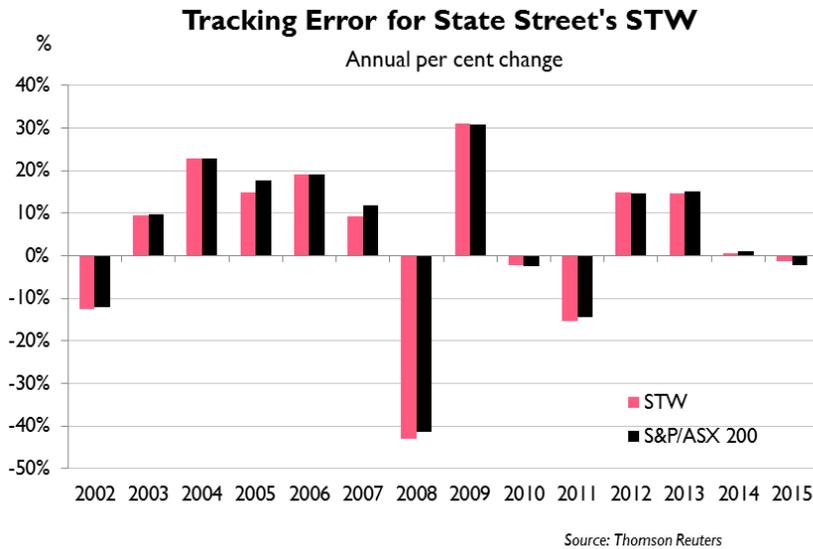
Similarly, if the ETF's offer price was well below the NAV of its underlying securities, the ETF market maker could then buy ETF units on the market and exchange them with the ETF provider for parcels of the underlying securities, which could then be sold on the market at a profit. Again, this process would continue until the price of the ETF was better aligned with the NAV of the underlying securities.

For investors, this structure generates two key benefits. For starters, it means there are no capital gains tax liabilities generated for remaining investors when one group decides to sell out of the fund. That's because when the ETF provider gives back underlying securities to the AP in exchange for redeemed ETF units it is regarded as an "in-specie" transfer of assets that does not generate capital gains.

The second important benefit is that this structure means that ETF market prices should track the NAV of the underlying securities or assets (i.e. shares, bonds, or commodities) quite closely. If the S&P/ASX 200 index rose 5 per cent in a week, for example, then an ETF which tracks this index would rise by virtually the same amount (before any fees and expenses).

The chart below shows that the difference in one year returns from the STW ETF (an ETF which aims to track the S&P/ASX 200 Index) and the S&P/ASX 200 benchmark is usually within one tenth of a percentage point.

The same thing can't be said for LICs. If the market value of the shares they own rose 5% in a week, there's no guarantee the LIC's market price would rise to a similar degree. Instead, as noted above, many LICs often trade at substantial discounts or premiums to net asset value.



Aside from this unique structure, the other advantages of ETFs are similar to those of index investment funds: transparency, simplicity, and relative cheapness – often without sacrificing investment returns.

## OTHER ETF BENEFITS

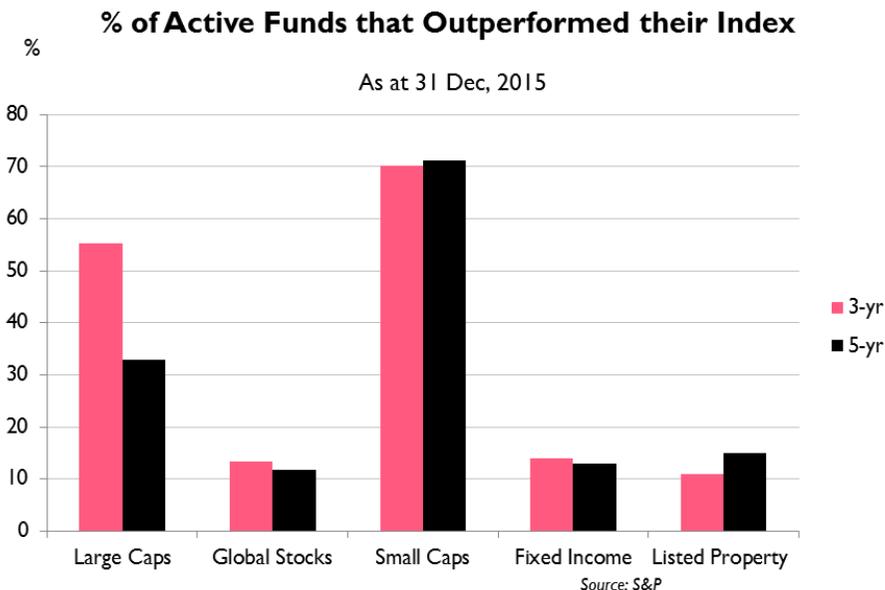
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Let's explore these additional ETF benefits in more detail.

## COST

As passively managed funds, ETFs tend to be cost-effective – especially compared with the multitude of actively managed funds – either unlisted or listed - that try to "beat" their respective investment benchmarks over time. Paying more for higher returns is fair enough, but finding an active fund manager that consistently beats the market is not always easy. According to annual surveys conducted by Mercer Research, Australian equity fund managers have, on average, beaten the market by only approximately 1% per year, which is barely enough to cover the typical management fee.

Regular surveys by Standard and Poor's, moreover, find that the vast majority of actively managed Australian funds usually fail to beat their respective investment benchmarks over a several year period. In the 5-years ending in 2015, for example, 67% of actively managed Australian large cap equity funds failed to beat their benchmark.



The exception appears to be small cap funds, which likely reflects the fact that information about the multitude of small listed firms is less widely known in the market - and less likely to be quickly reflected in market prices. For well-known large cap stocks - and fixed income - the market could, however, be considered close to truly "efficient," meaning that all relevant information is quickly reflected in market prices and virtually no group of investors can consistently beat the market.

It also doesn't help active fund managers to outperform when they own such a large share of the market. According to ownership data from the Australian Financial Accounts, household direct holdings of listed shares account for less than 20% of market capitalisation, meaning local and international fund managers *each* own approximately 40% of the market. In the fixed income area, virtually all outstanding government and corporate bonds are held by fund managers, rather than directly by households.

Since fund managers "are" essentially the market, it's impossible for everybody to beat everybody else all the time.

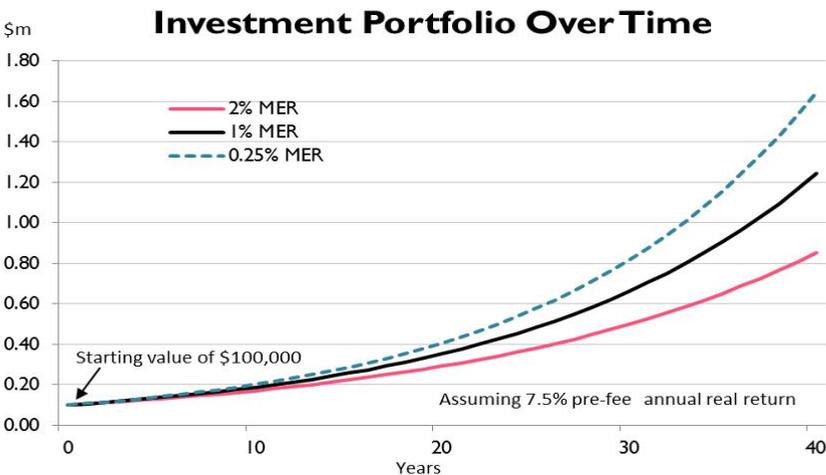
By not hiring expensive analysts and stock pickers in an attempt to beat the market, ETFs are usually much cheaper to run than actively managed retail funds - and charge lower fees accordingly. ETF management fees are usually less than 1%, and often less than 0.5%, compared with an average of approximately 1.5 to 2.5% for many actively managed retail funds.

As with ordinary shares, there is share trading brokerage involved in buying and selling ETFs on the ASX. But ETF providers don't charge entry or exit fees, and there are no trailing commissions paid to financial planners that might recommend them to their clients. Of course, ETFs bought through a financial planner and then held

on the planner’s investment “platform” might still attract platform fees, not to mention investment management fees that might be charged by the planner. These, however, are not costs charged by the ETF – rather they are charged by the planning service being used.

It remains the case that if your bought ETFs and simply held them long-term in a share trading account, no holding fees – other than those management costs charged by the ETF provider —would be payable for owning these products. The ASX is effectively a free investment platform! Even for purely passive investors, the saving on management fees from ETF investing could mean that their investment nest eggs would be considerably larger in 10 to 40 years than would otherwise be the case.

For example, let’s assume that the long-run after-inflation return from the Australian stock market is around 7.5% per year. As seen in the chart below, this means that a \$100,000 investment portfolio that paid a 2% management fee would grow at 5.5% per year, reaching just over \$800,000 in today’s dollars in 40 years. Not bad.



But, if the investor could shave that management fee to 1%, then the portfolio after 40 years would be worth just over \$1.2 million in today's dollars, or approximately 50% more. And if the investor could shave the management fee to a mere 0.25%, the portfolio would be worth a whopping \$1.6 million, or twice as much as with a 2% management fee.

In other words, for a \$100,000 starting investment, the difference between a fund that charges 2% and one that charges 0.25% is worth a staggering \$800,000 in today's dollars over a 40 year period. It's one of the best kept secrets in the Australian financial markets.

### ***DIVERSIFICATION***

Many ETFs, like typical managed funds, offer the benefit of easy diversification. Buying only one company share means that investors have a considerable risk tied up in the fortunes of one company. To diversify this risk, investors might instead buy a collection of different company shares in different industry sectors – such as the Commonwealth Bank, BHP-Billiton, Woolworths, and Westfield.

However, to get *real* diversification – so that one's portfolio rises and falls in line with the broader market – might require the purchase of at least 10 to 15 large cap companies. That involves a lot of paper work, not to mention some expertise to ensure that you have a broadly diverse range of company shares. You also have to watch your shares carefully in case any one company falls on hard times and its value starts to plummet.

That's where managed funds come in. Through buying a managed fund, investors get exposure to a broader range of company shares

in a single purchase. As an index managed fund, ETFs offer this diversification and the benefit of less paperwork. The only difference from an unlisted index fund is that ETFs are traded on the ASX. As a result, they can be easily bought and sold on the ASX like a company share, instead of having to fill out forms and send cheques to a fund manager.

The SPDR S&P/ASX 200 ETF (ASX Code STW), for example, allows investors to get exposure to Australia's top 200 stocks in one transaction, without having to juggle the investments – and the paper work – of many different stocks.

## **LIQUIDITY**

Unlike an unlisted managed fund, ETFs also offer the flexibility and liquidity of a listed stock. Investors can access all or part of their ETF investments relatively easily by simply selling them back to the market through either their online or phone broker. In this regard, ETFs are similar to listed investment companies, or LICs.

## **FAIR VALUE**

As noted above, unlike LICs, ETF market makers are able to effectively buy and sell ETFs *each trading day* at their respective NAV with the relevant ETF provider so as to keep supply and demand for units in alignment. That means ETFs usually trade at close to their fair value NAV, whereas LICs can often trade at substantial premiums or discounts to NAV.

## ***ASSET BACKING SECURITY***

ETFs are effectively “IOUs” – pieces of paper which promise their owners returns in line with a certain investment benchmark. Investors are also able to sell back these ETFs in exchange for the cash equivalent to the market value of the index or asset class being tracked.

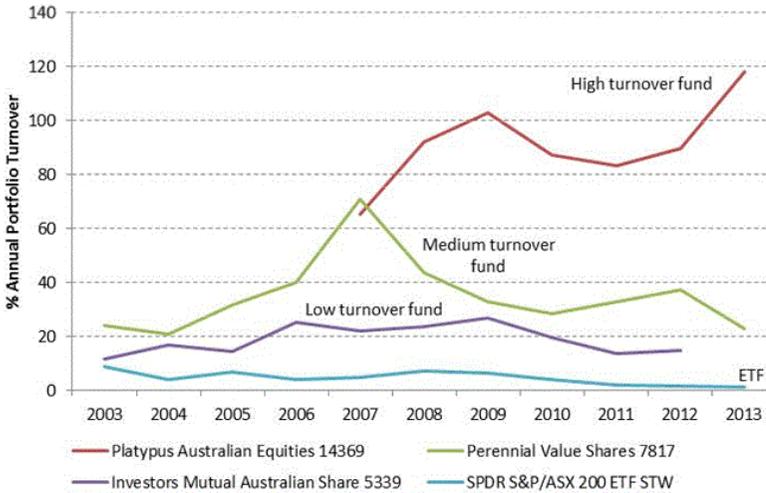
But, what happens if the ETF provider goes bust? Do investors have any means to get their money back? Put simply, the answer is a resounding yes!

ETF providers use the funds invested in them to buy the underlying securities that make up the index they seek to track. These securities, in turn, are held in trust for investors – typically by an independent 3<sup>rd</sup> party custodian – in an account separated from the ETF provider’s balance sheet. This means that if anything goes wrong with the ETF provider (like insolvency), the assets owned by the Fund are separate, and can either continue to be managed on behalf of investors once a replacement manager is appointed or, in the event the Fund is wound up, the assets are sold and the cash proceeds then duly returned to investors. What’s more, other ETF-like structures provide other forms of investor protection.

## ***TAX ADVANTAGES***

ETFs also offer tax advantages. As seen in the chart below, ETFs that act like traditional index funds usually have much lower stock turnover than many actively managed funds. As a result, they create less capital gains tax liability for investors within the current financial year.

## Portfolio Turnover Rates



Source: Mercer

In the search for that elusive “hot stock,” active managers turn over a significant portion of their portfolio – generating capital gains tax payable for investors on every profitable sale.

As noted above, a second tax benefit is that ETFs are uniquely structured so that investor redemptions create *reduced tax liabilities* for the remaining investors compared with typical managed funds.

If an investor decides to sell out of a large traditionally constructed managed fund, the fund will need to sell part of its portfolio to meet the cash repayment - triggering a capital gains event for the fund and all its investors for the financial year.

An investor selling down their ETF holding, by contrast, does not necessarily trigger any sale of underlying securities by the ETF provider. Small sales by ETF investors will likely be met out of the trading inventory of ETF units held by APs, as part of day-to-day market trading. If a large investor sells down their ETF holdings, however, it could be facilitated by an AP buying those ETF units for

cash and redeeming them for underlying securities held by the ETF provider. The AP could then sell those securities back into the market and recoup their cash.

It is important that this transfer of securities from the ETF provider to the AP is usually done to minimise the capital gains tax obligations for remaining ETF fund investors. This is because the ETF provider is allowed under tax office legislation to identify and allocate much of the capital gains tax liability arising from the sale of these securities to the AP. APs don't mind, since they are considered professional traders and can't benefit from tax concessions on capital gains taxes. APs actually pay no capital gains tax, since all gains on investments are treated as ordinary income and taxed as such in the year in which the gains are made.

Some traditional managed funds also have rules to allocate the capital gains associated with single large investor redemptions to the redeeming investor. However, this is not feasible for smaller redemptions. So in periods when there are lots of small redemptions (e.g., during market crashes), the tax advantage of the ETF structure over that of traditional managed funds is evident.

The generally greater ability of ETFs to protect the remaining investors from capital gains liability arising from redemptions by other investors can become especially important during market downturns – when investor redemptions, large and small, tend to be relatively high. During the global financial crisis, for example, many investors found that they were hit not only with reduced returns, but also with realised capital gains tax liabilities, due to the need for their funds to sell securities to meet the cash requirement of redeeming investors.

## **TRANSPARENCY**

ETFs are also highly transparent. Investors can see the underlying stocks, bonds, or commodities in which the fund is invested – simply by referring to the ETF provider’s website. That is often not the case for stocks held by active fund managers, where disclosure is often only made annually, bi-annually, or quarterly. As the ASX-traded funds market evolves, however, and more actively managed funds are placed on the market the frequency with which underlying investments can be reviewed will likely become more restricted.

Only recently, Magellan Financial Group brought to the market actively managed funds that are similarly structured to an ETF, such that market prices should track the fund NAV reasonably closely – unlike in traditional LICs. That said, so as to protect its investment strategies, Magellan is only required to disclose which investments are in the ASX-traded fund on a quarterly basis (and with a several weeks delay).

However, for ETFs, investors can see exactly what the fund is invested in on a *daily* basis.

## **SURVIVORSHIP BIAS**

Unlike the strategy of holding a handful of stocks yourself over the long-term, an underappreciated benefit of passively managed funds, like ETFs, is that they can benefit from survivorship bias. ETFs that track a capitalisation-weighted index of stocks, for example, automatically cut stocks losing significant market value (dropping out of their index), and include stocks gaining market value and entering the index. In this way, although still largely

passive in nature, the ETF is effectively cutting poorly performing stocks over time, and replacing them with up and comers making it into the “big league.”

## **ETF CONCERNS/TRADING TIPS**

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We now know what ETFs are and understand some of their advantages. The next step is to know their risks and complicating factors, as well as the correct way to buy them on the market.

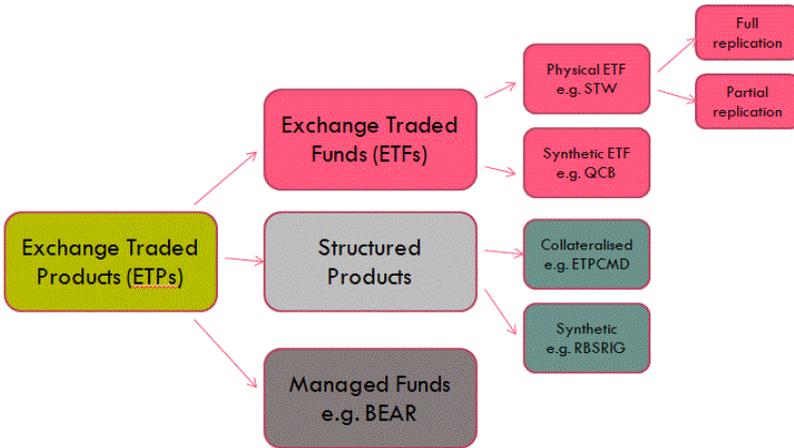
### ***ETFs, ETPs, ETCs, AND EXCHANGE TRADED MANAGED FUND***

The first issue is to appreciate that there are numerous variations on the typical ETF structure, each offering their own unique risks and benefits. Some exchange-traded investment products may look and sound like an ETF, but are structured differently – so it’s a case of buyers being clear on exactly what they are buying.

To protect investors from confusion, the Australian Securities and Investments Commission (ASIC) has set strict labelling guidelines on ETF-type products traded on the Australian Securities Exchange (ASX).

At the broadest level, we have exchange traded products (ETPs), which encompass classic exchange traded funds (ETFs), as well as *structured products* and *managed funds*.

# Exchange Trade Products



## ETFs

ETFs are the easiest and most transparent products to understand. They remain, by far, the most popular ETP product in Australia. ETFs must be run as a managed investment scheme (MIS), and involve collective ownership of a pool of assets held in trust by ETF providers on behalf of investors.

ETFs can be physical or synthetic. *Physical ETFs* are by far the most common in Australia, and seek to match index returns by owning the underlying physical securities (i.e., company shares or bonds) that make up an index – either fully (full replication) or by a representative sample (optimal replication). A physical ETF that sought to match the returns of the S&P/ASX 200 equity index, for example, would own all 200 Australian listed company stocks that are part of the index in proportion to each stock's market capitalisation weight.

*Synthetic ETFs*, by contrast, are usually created when it is not possible for the fund manager to physically own the underlying asset it is offering exposure to. In these cases, synthetic Australian ETFs place some or all of their funds in cash and contract a third party (i.e., an investment bank trading unit) to vary this cash holding in line with returns from the specific investment index over time. For example, if an index rose 5% in one day, the cash balance held for the ETF would increase 5% - in parallel, it would be reduced 5% if the index fell that amount.

This is accomplished by a contractual agreement between the two parties (known as a “swap”) in exchange for a negotiated fee.

Synthetic ETFs are most popular when trying to track commodities that cannot be held and stored physically. For example, a commodity ETF which is seeking to track the performance of crude oil can obviously not physically hold barrels of oil!

Instead, the ETF may seek to match the return performance of a futures contract linked to the commodity’s spot price, and to engage a third party to deliver returns in line with this futures contract over time.

Since they rely, at least partially, on derivatives to achieve investment performance, synthetic ETFs have greater “counterparty” risk than physical ETFs – i.e., there is some risk of not getting all your money back if the contracted third party goes broke. However, as we’ll see, it’s important not to overstate this risk as the media and other uninformed parties often do, as these ETFs are still 100% cash backed (meaning investors have claim to this cash in a stress event). They also have special investor protections set out by the ASX.

## ***Structured Products***

The second type of exchange traded product is called a *structured product*. These products, similar to an ETF, can also offer index-like returns. They are similar to synthetic ETFs since they may also rely on contractual arrangements (derivatives) to achieve investment performance.

However, unlike synthetic ETFs, structured products do not need to be run as a managed investment scheme or MIS, which pools all investor funds. Instead, a structured product constitutes a direct derivative contractual agreement between the end-investor (you) and the structured product provider. In other words, rather than the investor necessarily having an interest in a specific set of assets, they rely on the contractual obligation of the structured product provider to provide returns that match changes in a specified index.

There are two types of structured products. “Collateralised” structured products must provide 100% asset backing, usually in the form of a cash account, which is revalued daily to reflect changes in the index being tracked. That means should anything go wrong, the investor should at least be able to re-claim the cash underpinning the investment deal. In this regard, they are structured somewhat similarly to synthetic ETFs described above.

By contrast, a “synthetic” structured product does not need to provide cash backing. With this product, investors must rely on the continuing credit-worthiness of the provider to ensure that they get the value of their investment back. Accordingly, a synthetic structured product entails greater counterparty risk than a collateralised structured product.

Structured product providers are required to label their products as either collateralised or synthetic. However, adding to potential confusion, structured products can also be described as either exchange traded commodities (ETCs) or notes (ETNs). These sound like ETFs, but, as should be apparent, their structure is decidedly different. Investors who may be concerned about the risks involved in structured products and are interested in investing in commodities should make sure that they “read the label” carefully, and seek out ETF structures if they are available.

### ***Managed Funds***

The third type of exchange traded products are called managed funds. These products are structure similarly to ETFs, described above, in that they contain the same investor protections. A product is labelled an exchange traded “managed fund” when the product provider is not tracking a published index – usually because the investment strategy is not easily amenable to being ‘indexed.’ Exchange-traded managed funds run the spectrum between products that involve a low level of manager discretion and are essentially rules based (for example, products that offer short exposure to the Australian market) all the way through to truly ‘actively managed’ exchange traded products. These types of products can be identified, as they are required to have “(managed fund)” at the end of their name.

It should be evident that each product type carries its own risks and benefits. Synthetic ETFs and structured products are not necessarily bad, since they often provide the only means of gaining exposure to certain markets, like commodities, and may be entirely cash backed.

It's important, however, that investors know exactly what type of product they are buying.

Physical ETFs are the oldest and most transparent ETP structure, and still dominate the Australian landscape. As a result, much of the following discussion will focus on physical ETFs, though we'll also consider other ETP structures that investors should be aware of as the need arises.

## **TRACKING ERROR**

Tracking error occurs when the net asset value (NAV) of an ETF fails to match the performance of its relevant investment benchmark. For example, if the S&P/ASX 200 index rose 10% over a quarter, yet the ETF's NAV rose only 5%, investors would suffer a fairly sizable tracking error of a negative 5%. Large tracking errors add to investment risk and uncertainty, and would undermine the claim of the ETFs to perform better than LICs in tracking NAV over time.

The degree of tracking error depends in part on the liquidity of the underlying investments in the benchmark, and the methods that the ETF provider uses in tracking the benchmark.

As noted above, physical ETFs seek to match a specific index return by owning the underlying physical securities that make up the index – such as, company shares, commodities, or government bonds. *Full replication* physical ETFs do this by owning every security in the index, in proportion to their respective share of the index. As a result, tracking error for full replication physical ETFs is typically very low.

BetaShares NASDAQ 100 ETF (NDQ), for example, has demonstrated a very low tracking error of around 0.1% to 0.5% p.a., on average.

Where full physical replication of an index is complicated by the sheer number of different securities in the index (such as, the MSCI World Index which has close to 2000 constituents), ETF providers often use *partial or "optimised" replication*, where they own a representative sample of securities within the index – so that the index is still reasonably closely followed without excessive trading costs. In these cases, the ETF provider tries to balance the relative costs of tracking error versus trading costs.

As of the end of 2015, *all* ETFs covering the Australian equity or bond market were full-replication ETFs, whereas some international ETFs (such as, those for emerging markets) used partial replication. Along with equity and bond ETFs, the most popular gold bullion products are also full replication physical ETFs, since they are backed by actual gold bullion holdings held in major vaults around the world. Also, the large cash ETF on the ASX (ASX code: AAA) is a physically replicated product that owns actual cash in the bank.

On the whole, the good news is that large, professional ETF providers that use physical replication techniques do a good job of keeping tracking error relatively low – they're able to track relevant investment benchmarks even when they engage in only partial replication.

Another way that ETFs can track the index is via *synthetic replication* – which, involves the ETF provider holding cash in return for the returns of the underlying index they are seeking to track. The mechanism for this is a derivative contract with a third party bank,