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Profit Without Pain

An Exchange Traded Funds Trading Guide

eBook by

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PROFIT WITHOUT PAIN – ETF Trading Guide

Chapter 1
ETF TRADING

I was talking recently with a US friend, author and trader, Greg Morris. He runs a 1.2 billion dollar fund which is ranked in the top 3% of fund performers in 2008. That is a positive return, beating both the S&P 500 index and generating profits. The core components of his investment strategy is index trading and ETF (Exchange Traded Funds) trading. As in the US, the ETFs are produced by the iShares group. The range of ETFs in the US is much greater than in Australia and Asia, but some broad principles remain. Ten years ago ETF trading was in its infancy and used for sector trading. Greg Morris, and others, have taken this a step further by using ETFs to capture global diversity.

Personally I use ETFs in my superannuation retirement fund because they reduce individual risk and replace it with a lower systemic risk. In all market conditions they tap directly into the dividend stream. The extension of the strategy is to trade foreign market performance and use this to diversify risk globally from a single security group. This has only recently become possible in Australia with an expansion of the ETF offerings beyond the StreetTracks STW ETF covering the XJO. This is now called the SPDR series.

What follows is not an advertisement for ETFs, but I find that many people are completely unaware of these instruments. I have yet to meet a financial advisor who knows about them even though they have the capacity of significantly outperforming many other suggestions for super fund instruments.

An ETF "shadows" or replicates, the performance of a particular market, index, or sector. They're baskets of stocks that - like mutual funds - enable you to buy or sell a portfolio of securities in a single purchase. Unlike mutual funds, however, you can trade ETFs just as you would an individual stock. You can buy and sell them at intraday prices. This is a liquid market. In the US you can buy ETF options and sell them "short." These features are not available in the Australian or Asia market and they limit some strategies.

The ETF offers investors a diversified way to play economic sectors, global financial trends, market events and other so-called "special situations." For individual investors, ETFs are the amongst most-innovative, and most-powerful investment instrument to hit the financial markets in the last 5 years. CFDs are a trader's instrument and an important innovation. ETFs are an active investor's instrument.

There are four key benefits with ETFs:

- Offer a risk/reward profile that's much better than either individual stocks or other types of mutual funds can offer.
- Provide a way to make investment that often is otherwise be out of reach.
- Give you terrific diversification and liquidity, offering significant safety.
- Tap into dividends of all index stocks

ETF trading – Strategy advantage 1 – Risk reward profile

If you want to succeed as an investor/trader then it's important to understand that it's not the stock that you buy, but the sector that you play that is important. While the resources sector has enjoyed a bull run, there are many individual resource stocks that have either underperformed the sector, or moved opposite to the sector rise.

Study after study supports this observation. More than 50% of any gain an investor realises in an individual stock is due to the sector it's in, not the stock itself.
Indeed, because they are so well focused ETFs allow you to play the sector, theme, or global trend that will generate most of your gain.

What's more, since they are a type of "fund," the ETF offers risk diversification that individual stocks could never offer. If you identify a great global trend to play for a profit, but pick the wrong stock you could actually incur major losses, despite having chosen a winning trend. The individual stocks may be subject to an earnings disappointment, a liability lawsuit or a financial crisis. The sector is immune from these individual problems.

ETF trading – Strategy advantage 2 – Capture "unavailable" profits

I follow many markets, and more so as a result of my work with CNBC Asia. Often I come across opportunities in individual stocks. In 2007 our analysis of Taiwan suggested this was a good long-term investment opportunity. We found great looking chart which also had a good fundamental background. This Taiwan company, Han Hai Precision Industry, manufactures all three of the hot new video game consoles that dominate the $10 billion worldwide video-gaming market and the new Apple iPhone. It sounds like a great investment but Hon Hai cannot be traded via Australia. I would have to open an account in Taiwan and the problems are not worth the trouble for a single company trade. It's also not available via CFD.

We did find another investment that held a big stake in Hon Hai - along with dozens of other Taiwanese companies with the same kind of potential. It was the ETF called the iShares MSCI Taiwan Index ETF. Hon Hai's Taiwanese shares were the fund's largest holding. Buying the ETF provided a way to capture profits that were essentially unavailable to us by any other means. As a bonus, it also provides exposure to the performance of the entire market.

ETF trading – Strategy advantage 3 - Diversification

ETFs, because of their built-in diversification, are automatically safer to own than individual shares. With individual stocks, it's possible to buy into the right trend - and still not make any money, because you bought the wrong stock. It's possible to have one stock in a hot sector crash and burn because of problems unique to that company.

That will never happen with an ETF. Because they are actually a diversified fund, if you pick the hot sector or hot market, then you pick up the profits that go with it. You never get burnt just because one stock failed.

The structure of the ETF means that as stocks are dropped from the index they are also dropped from the ETF. As stocks are added to the index, then they are added to the ETF. The ETF simply always trades with the leading stocks in the market that make up the index. The survivor bias works in your favor.

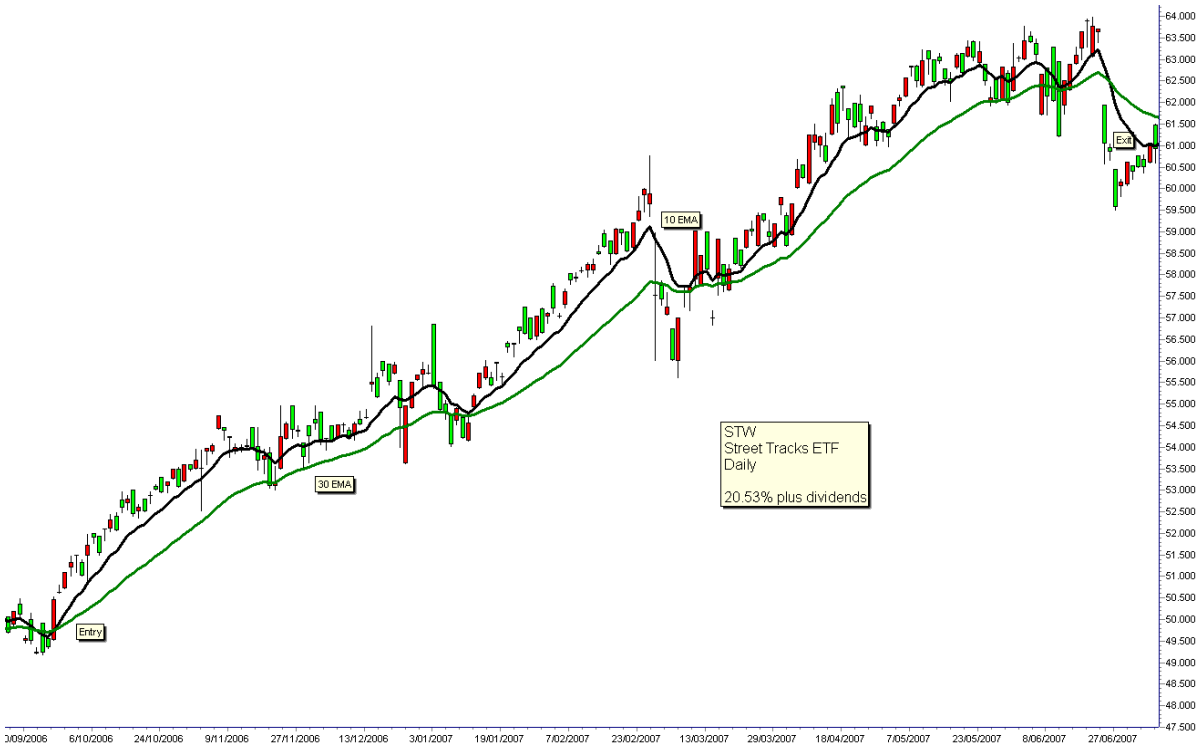
ETF trading – Strategy advantage 4 – Dividends plus

The ETF also pays the accumulated dividends paid by each of the stocks in the index. This generates a steady income stream in addition to any capital gain.

ETF trading – Strategy advantage 5– Forget stock selection

In the US market there is an extensive range of ETFs to select from. The range is more limited in the Australian market. Additionally these are only traded from the long side. US traders use the ETF to move from hot sector to hot sector. These are the methods used in the US. We apply the same strategy, but shift between countries rather than industry sectors.

This is not active trading. The objective is not to capture the very start or the end of a trend. An ETF is not suitable for trading an index rally, or longer rallies. The key disadvantage of the ETF is that it offers no leverage. It replicates the movement of the market. The only additional benefit comes from the dividend distribution.



Even still, this is a useful investment trading instrument. The chart shows a simple ETF strategy using STW which is an ETF on the XJO. An entry into the XJO ETF in September 2006 near $50.61 followed by an exit near $61.00 in June, 2007 delivered a capital gain of 20.53%. It also delivered all of the dividend payments made by all XJO companies during the period.

Using the same moving average crossover approach and entry is signaled near $59.67 in August 2007, with an exit in November near $63.48. This delivers a 6.4% return. Obviously there are ways to fine tune and improve on the very simple moving average crossover approach shown here. The objective in this example is to show how the broad trends in the market can be effectively traded without the need to select individual stocks.

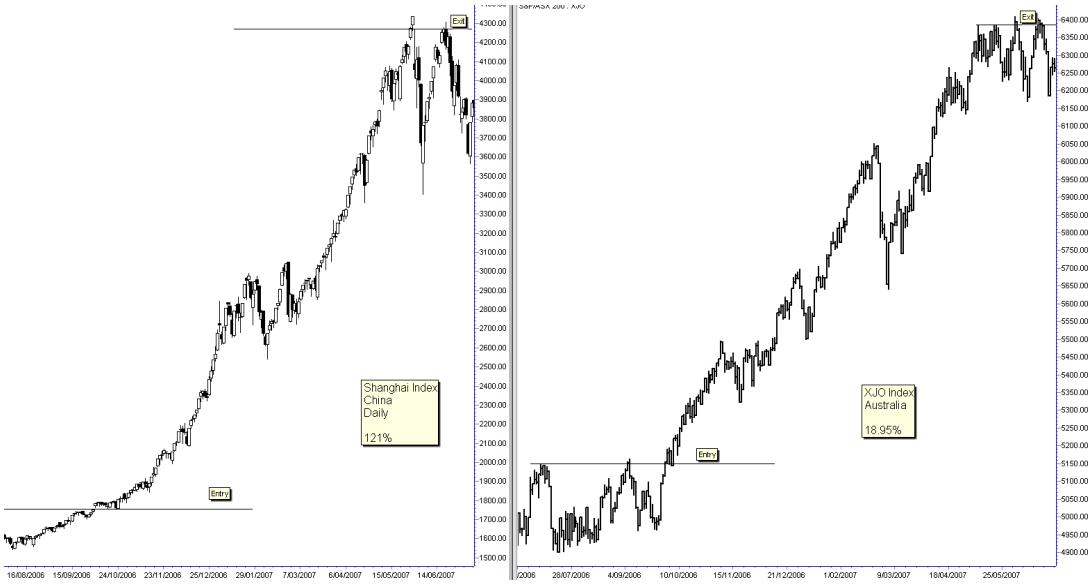
ETF trading – Strategy advantage 6 – Global diversification

At the moment world markets are moving largely in lockstep with each other as the American created sub-prime slime seeps into the world financial system. In due course this will pass and we will see a return of divergence in the behaviour of the markets. Some will go up, while others move sideways. Some will retreat while others trend upwards. The objective in this strategy is to move from one strongly performing market to another. The cost of movement is limited to simple brokerage fees. There are no serious financial disadvantages imposed by a ‘redemption’ of funds, nor is there any waiting time. There may be taxation consequences depending on individual circumstances.

This is diversification on a global scale made possible by trading a single series of instruments. However, financial markets do tend to be tied together so this strategy is not the most effective for ETF trading.

ETF trading – Strategy advantage 7 – Hot markets

We had to laugh when the then Prime Minister John Howard said the ‘brakes were off growth’. It reflected a very narrow view of the world and our competitors. The brakes were truly off growth in China, Vietnam, India and other world markets. ETF trading allows traders to switch into high performing markets easily. When the world is coupled in a rising market then the ETF structure allows traders to move between the best performing global economies, locking in performance and dividends.



The chart, again made up of indexes, shows how this selection process is applied. This flags a future strategy implementation as the recovery develops.

ETF LIMITATIONS

The ETF market in Australia has several limitations. They include:

- Essentially you cannot trade short
- Liquidity and trading activity can be low. However generally there is not a problem in executing orders. Time is not a significant issue, so limited liquidity is not a large problem.
- ETFs do not offer leverage. If the market moves up 25% then the ETF value will move up 25%.
- ETFs will duplicate the returns from the market. These are no worse, or no better, than the market. This is also a key advantage of ETFs when compared with fund managers who routinely fail to meet the index benchmark in rising market, and who routinely lose more than the benchmark in a falling market.

CFDs are a bonus for traders. ETFs are a future bonus for investment trading.

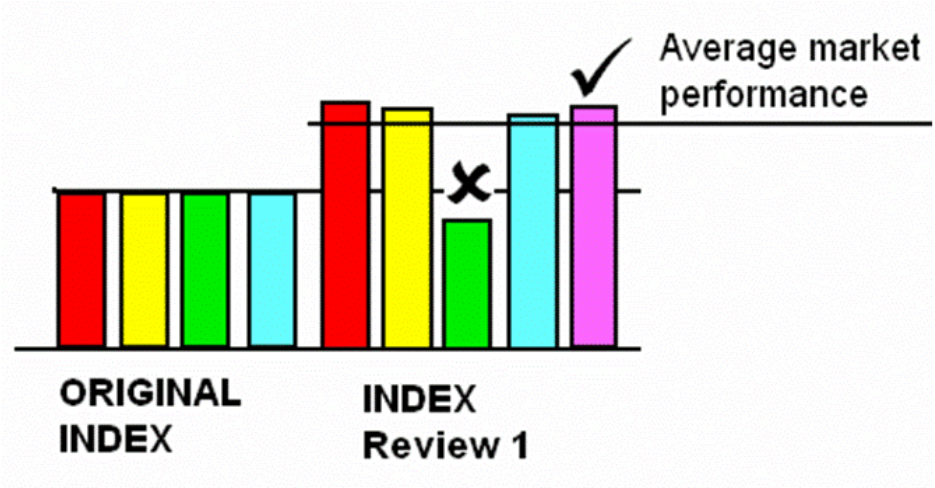
A full list of ETFs is available from your exchange web site. A full list is also available from MasterData - http://www.masterdata.com/

Chapter 2
ETF AND SURVIVOR BIAS

The Exchange Traded Fund is able to turn a market myth into reality. The most common myth is the idea that the market always goes up. Analysts and commentators trot out a chart display going back to 1850 to show the market in a consistently rising trend. The large falls in 1930, 1987, 2001 and more recently 2008, seem to disappear in this ever-rising trend. The idea of constantly rising market is a compelling and attractive myth. This myth fails to distinguish between the behaviour of the market index used to measure market performance, and the market itself.

Understanding why this is a myth is an important step in understanding the role an ETF plays in investing and trading strategies. An ETF uses index survivor bias to our advantage.

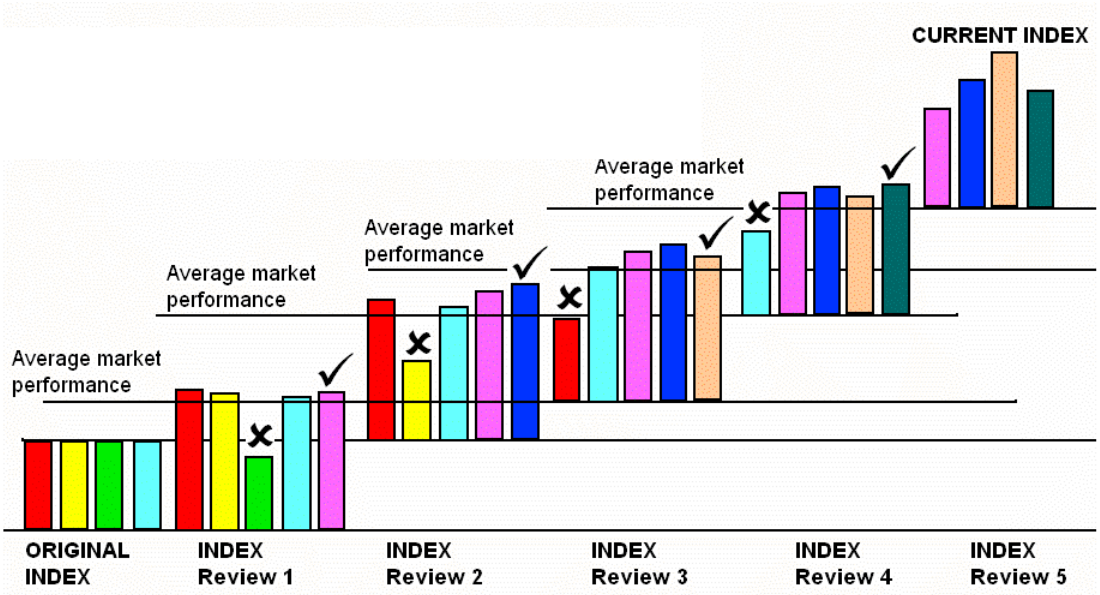
Survivor bias lies at the core of every index – and the ever-rising trend. We start with a sample index with four stocks. They are red, yellow, green and light blue. The original index is constructed as the result of careful research. The objective is to locate the largest stocks by capitalisation and the most important of the blue chip stocks. This is an index by invitation only. Constructing and maintaining the index is now big business because many fund managers are required to use the index as a benchmark. Many are required to allocate all, or most of their capital to index listed stocks. Constructing and maintaining any index is complex work, but they all have a common feature at heart.



Every index is re-calibrated, or adjusted, at regular intervals. The S&P ASX 200 Index is re-calibrated every 3 months. As the full name suggests, the index is managed by Standard and Poor. At the end of every 3 months they assess the stocks that are included in the original index. They delete index stocks that are under-performing the index, or market benchmark. In this example, the green stock is dropped from the index in Index Review 1. This leaves an S&P ASX 200 index with only 199 stocks, so a new stock must be added to the index. In this example, the pink stock is added. The Index Review 1 is now a slightly different index from the Original Index.

The ‘surviving’ stocks are red, yellow and light blue. These retained stocks are survivors and they add an inevitable upward bias to the index. The ‘losing’ green stock is dropped from the index and replaced with a ‘winning’ purple stock. This extra winner also adds a rising bias to the index.

In real terms we could say the green stock in the original index represented Centro Properties. When Centro collapsed in 2008 from $10.00 to $0.05 it was dropped from the S&P ASX 200 index. It was replaced with another better performing stock.



The extended diagram of the sample 4 stock index shows how survivor bias compounds over time. At every index review point the under performing stocks are dropped and stronger performing stocks are added. The Current Index on the right side does not include any of the stocks in the Original index on the left side. Despite this complete change in the membership of the index, the index is still treated as if it is a single unchanged entity. Whilst it is true the concept of the index is unchanging it is important to remember that the membership of the index is always changing to select retrospective winners.

This is survivor bias. It explains why Caterpillar Corp is a member of the unchanging DOW Jones Index which has a continuous history that started long before Caterpillar Corp started business. It explains why the index always rises.

Advantage 1 – Limits specific stock risk

As an investor or trader we want to enjoy the benefits of a rising market and index. We can achieve this when we buy a sound blue chip stock in the hope it will generally match the rise in the market index. This exposes us to specific stock risk which cannot be ignored. The demise of Merrill Lynch, Citi Bank and Bear Stearns is a painful reminder that blue chip is not forever. The collapse of Centro Properties and Bendigo Gold, both once members of the S&P ASX 200 index, is further reminder of the problems of selecting a stock and using it as a method to match the performance of the market index.

Extract of percentage weighting S&P 500 ETF

5.47%	EXXON MOBIL CORP
2.30%	PROCTER&GAMB LE CO
2.17%	AT&T INC
2.15%	JOHNSON&JOHN SON
1.98%	CHEVRON CORP
1.85%	MICROSOFT CORP
1.79%	GENERAL ELECTRIC CO
1.69%	INTL BUSINESS MACHINES CORP
1.49%	WAL-MART STORES INC
1.45%	PFIZER INC

The ETF eliminates specific stock risk because the ETF bundles all the stocks included in the index into a single traded instrument.

Advantage 2 - Consolidation

Attempting to duplicate the index in our own portfolio is a time consuming task. Continuing with the S&P ASX 200 example, this would require the investors to hold all 200 stocks, and in the exact proportion in which they are weighted in the S&P ASX 200 index. This is a time consuming and difficult task. It also has a problem of size. Taking even a $1,000 position in each of 200 stocks requires a $200,000 investment. This is not for the faint hearted, or for investor with the average portfolio size of $35,000.

The ETF consolidates this tracking, and proportional weighting, into a single instrument.

Advantage 3 – Survivor bias benefits

The investor is often limited to buying 3 or 4 stocks in the index and hoping these will duplicate the broad performance of the market or the index. He hopes the index heavy weights will serve as a proxy for the index performance. Bad luck if he selected Bear Stearns, or Centro Proprieties, or Northern Rock.

It is not correct to say the market always rises. It is correct to say the market index always rises. The ETF tracks the index and delivers the benefits of survivor bias. The ETF, in the long term, delivers the benefits of the long term index chart with a consistently rising trend. The ETF gives truth to the market myth that the market always rises by understanding that it is only the Index that always rises.

Chapter 3
ETF STRATEGY INTRODUCTION

Every market upturn and downturn brings with it new trading instruments. The speculation tool before the market collapse in 2001 was the covered warrant. We still have them, but the warrant market is a shadow of its former self. The speculative tool for 2007-2008 was the CFD. It remains to be seen if these will continue to exist as a liquid trading tool in years to come.

Looking forward into 2009 and beyond, we look for the new trading instruments that will develop. Our analysis suggests that the Exchange Traded Fund (ETF) will become increasingly important in a portfolio. This is not primarily designed as a trading instrument, but there are trading methods which can be applied which enhance the performance of the ETF.

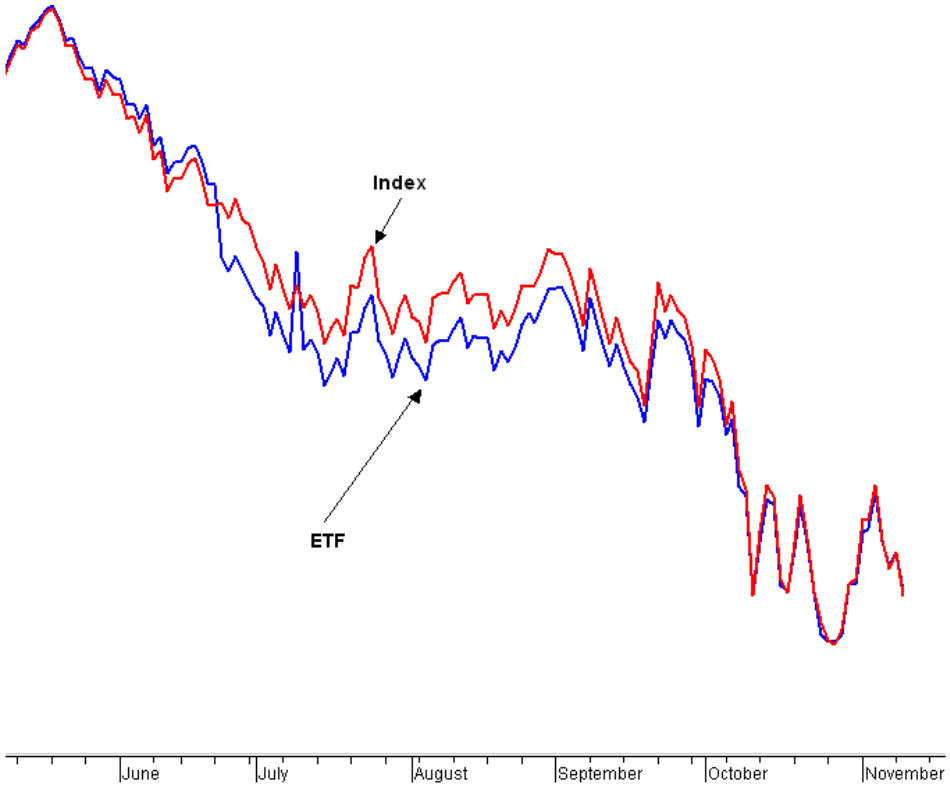
Fund Name	ASX Code	Composition
iShares S&P Asia 50 Index Fund	IAA	50 stocks in Hong Kong, Korea, Taiwan and Singa
iShares MSCI BRIC Index Fund	IBK	Reflects the performance of publicly traded securit Brazil, Russia, India and China
iShares MSCI Japan	IJP	Reflects the performance of the Japanese equity r
iShares MSCI Emerging Markets	IEM	Leading companies in 22 emerging countries anc industry sectors
iShares S&P Global 100	IOO	100 large transnational companies with minimum capitalisation of US$5bn
iShares S&P 500	IVV	US large-cap stocks across a range of industries
iShares S&P Midcap 400	IJH	US stocks capitalised at US$1bn to US$4bn
iShares S&P Smallcap 600	IJR	US stocks capitalised at US$300m to US$400m
iShares MSCI EAFE	IVE	Reflects European, Australasian and Far East ma performance
iShares S&P Europe 350	IEU	350 stocks in 17 European markets and 10 indus sectors
iShares FTSE/Xinhua China 25	IZZ	Reflects the leading 25 companies in the fast-gro China market
iShares MSCI Hong Kong	IHK	Representative of the Hong Kong market
iShares MSCI South Korea	IKO	Reflects the main South Korea market
iShares MSCI Singapore	ISG	Tracks the Singapore market
iShares MSCI Taiwan	ITW	Reflects the performance of leading Taiwan-base companies
iShares Russell 2000	IRU	US small-cap stocks

	Live Quotes from SGX
e	ABF SG BOND ETF
	CIMBFTASEAN40 100US$
	DaiwaFTShariaJ100US$
▲	GLD 10US$
▲	IS MSCI INDIA 100US$
	Lyxor APEX50 10US$
▲	Lyxor Asia 10US$
▲	Lyxor China H 10US$
	Lyxor Cmdty 10US$
▲	Lyxor HangSeng 10US$
▲	Lyxor India Nifty 10
▼	Lyxor Japan 10US$
▼	Lyxor Korea 10US$
▼	Lyxor Malaysia 10US$
▲	Lyxor MS India 10US$
▲	Lyxor Taiwan 10US$
▼	Lyxor Thailand 10US$
	LyxorCRBNonEng 10US$
e ▼	STI ETF

	US CROSS-LISTED ETFs
	Live Quotes from SGX
e	DIAMONDS 10US$
e	IS DJ USTECH 10US$
e	IS MSCI SIN 100US$
e	IS S&P500 10US$
e	SPDRS 10US$

In Australia we currently have access to 15 ETF products, many listed through the iShares structure or the StreetTracks structure. In Singapore we currently have access to 24 ETF products, many listed through the iShares or Lyxor structure or the StreetTracks structure. ETFs have been around for decades, so why do we think they will become increasingly important?

An ETF is an un-leveraged derivative. It trades on the exchange in the same way as an ordinary share. Although it is a derivative, there is no contract expiry or time decay. The objective of the instrument is to track the performance of the underlying index. This tracking is achieved in the background with the ETF manager actively buying, selling and hedging the underlying stocks so the ETF closely tracks the performance of the index.



It's not an exact tracking, but is very close. In Australia, Citigroup and Susquehanna have been appointed as Market Makers in the iShares listed on ASX. The Market Makers are required to make two-sided markets in the iShares within the maximum spread and the minimum quantity specified by the exchange. Additionally, a list of the stocks held in each ETF is published daily on the iShares website.

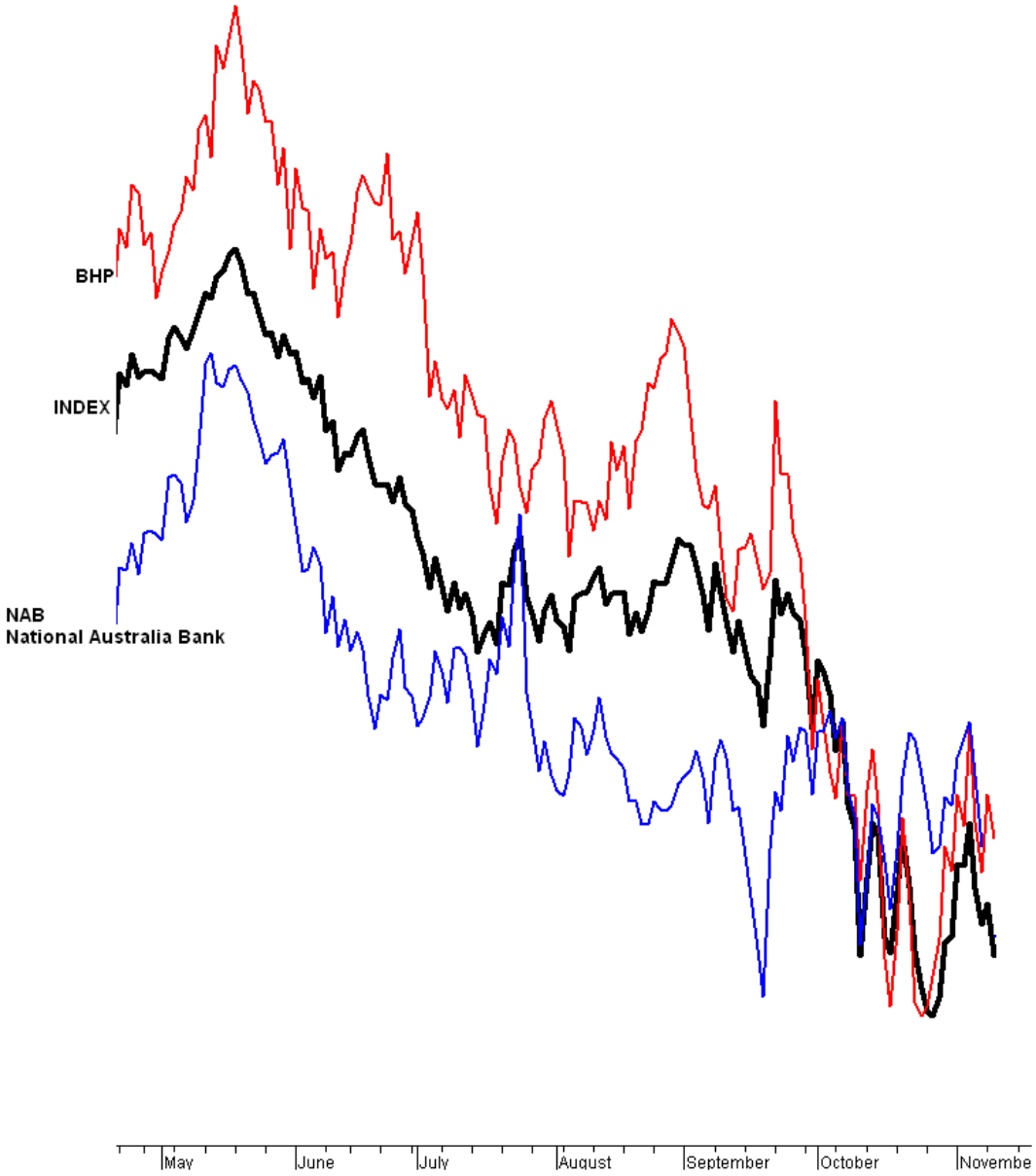
When everybody wants Alpha performance – performance that is better than the underlying market performance – then why settle for beta performance – matching the gain or loss in the market?

There are 3 parts to this answer.

- Matching market performance is a better result than that achieved by 95% of fund and investment mangers. In a bull market 95% of managers deliver lower returns than that of the market. In a bear market, 95% of fund mangers lose more than the market fall. When their management fees are added, the performance results are even worse.
- The myth that the market always rises is only true when trading an ETF. The composition of most indexes changes regularly. The XJO index components are adjusted every quarter. Underperforming stocks are dropped. Outperforming stocks are added. The index is only every made up of winners, and in this sense the market (index) always rises.

You could track this index performance if you buy every stock within the index. However you need to buy and sell regularly to keep your portfolio components exactly the same as the index. Apart from cost, time and effort, there is a significant taxation and brokerage impact. The ETF does all this work, and presents a single instrument with a single buy or sell price set by the market.

The 'market always rises' myth is further distorted by the belief that this strategy can be implemented via single stock. The thinking suggests that if you buy a 'quality' stock then it will also always rise in the long term. In reality the influences on the price behaviour of an individual stock are always different to the influences on the group of stocks that make up the index. They may outperform, or underperform.



We use the ETF to obtain alpha performance. This is made possible because the ETF delivers all of the dividends paid by the underlying stocks that make up the index. If we use the ETF which tracks the XJO 200 index then we have to track 400 dividend payments a year. The ETF consolidates these payments into two ETF dividend payment periods. Effectively you get the dividend payment for each of the stocks in the index, but at two defined payment periods. The payment of collective dividends means the ETF outperforms the underlying index.

ETF analysis leads to 16 analysis and selection strategies. They are:

- Dividend hop – 3 strategies
- Swiss roll – 3 strategies
- Yield trading – 3 strategies
- Beta beaters– 2 strategies
- International – 3 strategies
- Arbitrage – 2 strategies

We use five trade management strategies for profit lock in ETF trading. They are:

- Accumulation
- Capital profit
- Currency boost
- Cost averaging
- Currency lock

Chapter 4
ETF STRATEGY – DIVIDEND HOP

ETFs offer a different method for trading markets. They reduce risk as they are beta neutral for the index they track. They generally match the exact performance of the underlying index. They offer steady reward via the distribution of consolidated dividends delivered by each of the stocks in the underlying index.

In this chapter we examine the strategy construction for the dividend hop. There are 3 sub-strategies. They are:

Strategy 1

Dividend trading – Index ETF

Strategy 2

Dividend hop – Multi index ETF

Strategy 3

Dividend hop - ETF sector index

This is designed as a trading method to skim, or lift, the dividends payable on all the stocks that make up the underlying index. In a rising market it delivers a capital return and a dividend return. In a falling market the risk is greater because the strategy may incur a capital loss.

Initiation of the strategy will depend on the direction and nature of the trend prior to the entry and exit point. The ideal situation is a rising trend or at worst, a sideways trend. This ensures that the risk to capital is reduced, and the dividend yield is captured completely.

ETF dividends have five interesting features. They are:

- The first is that the ETF gathers all the dividends paid at different times during the year by each of the underlying companies in the index. These dividends are consolidated into a single payment made twice a year. In some instances, with international ETFs, the payments are made every quarter.
- The second feature impacts on trend behaviour when the ETF goes ex-dividend. Unlike trading in the underlying company, for instance a large bank, there is no significant price reaction when the stock goes ex-dividend. If we trade a dividend in an individual stock then the risk is a substantial price drop – and a capital loss – when the stock goes ex-dividend. This behaviour is made worse in a bear market where the price fall following the ex-dividend date can be substantial. This more than wipes out the value of the dividend. When the ETF goes ex-dividend this is usually a very small impact in price. The pre-existing trend continues to prevail. If this trend is up, or sideways, it means there is less risk in terms of a reduction of capital.
- The third feature is that the performance of the index, and hence the ETF, is not dependant upon the performance of an individual company. This means that the existing trend behaviour of the market is more powerful than the individual behaviour of any stocks as it goes ex-dividend. As the ETF ex-dividend dates do not coincide with any particular individual event, there is a reduced impact on trend behaviour due to the ETF going ex-dividend. The market simply does not care and takes no notice. With an individual stock, the market does care, and it reacts accordingly.

- The fourth feature is essential for many of the trading strategies in these notes. Buying and selling an ETF incurs the normal brokerage rate. I pay $33.00 for every ETF trade. Unlike managed funds, there are no exit fees or penalties and the ETF is traded under the same conditions as an ordinary stock.
- The ETF exists in a made market. The market maker must stand in the market in the absence of any other trades and the degree of spread is limited by regulation. An ETF chart may look 'spotty' but this does not limit the ability to trade the ETF.

Dividend stripping is the strategy of buying a stock a few days prior to the dividend date, then selling it as soon as it goes ex-dividend. The objective is to simply take the dividend. In many countries this method is subjected to an additional level of taxation. The implementation of dividend stripping-style strategies must always take this taxation impact into account.

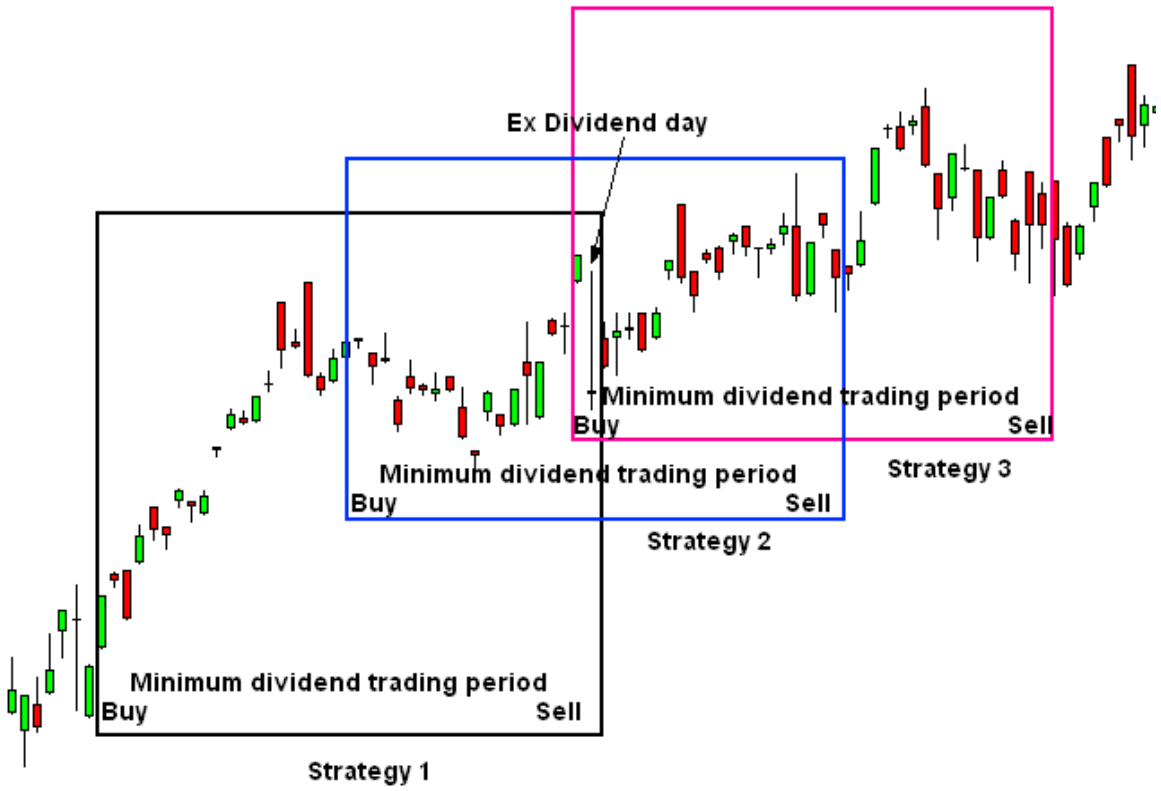
Strategy 1 - Dividend trading – Index ETF

This strategy is designed to reduce risk and collect the dividend. It is an income stream model. The risk is reduced by the trending behaviour of the ETF and the underlying index. Remember, the ex-dividend date does not have a dramatic impact on the underlying trend or price, so capital risk is reduced.

This is more effective than trading dividends in individual shares. If we tried to track the individual stocks in the XJO 200 index then we have to track 400 dividend payments a year. The consolidation of dividend payments into 2 dividends by the ETF reduces the complexity of trading. Dividend dates are around June 24 and December 21 each year.

In this example we use a 40 trading day holding period. Trades completed inside the 40 day period incur a penalty tax because the 40 day period includes the ex-dividend date. Depending on a jurisdiction, the minimum holding period may be larger or smaller.

Trading a single ETF dividend period



There are three potential entry points. They are shown on the chart extracts. The first enters around 40 day prior to the ex-dividend date and exits on the day of ex-dividend. This is a very defensive strategy. If the Index begins to trend downwards the trade can be abandoned with minimum capital loss. The dividend payment is lost, but capital is preserved. Exit immediately after ex-dividend is a strategy applied to individual stocks because the ex-dividend behaviour can be dramatic. There is a lower probability of this with the ETF.

The second entry point is balanced either side of the ex-dividend day. The purpose is to ride an existing trend, but this strategy does not assume the rising trend will continue for an indefinite period after the ex-dividend date. This strategy has moderate risk because trending behaviour before the ex-dividend date is captured and this behaviour does not have to continue for an extended period after the ex-dividend date.

The third entry point is to enter just prior to the ex-dividend day and hold the ETF for the required minimum period. The advantage of this entry is that the pre-existing trend is well established and there is a high probability it will continue. This is the strategy with the highest risk because it relies entirely on future trend continuation.

This type of dividend collection adds alpha to the ETF. The ETF capital performance has a beta of 1. If the market increases 20%, then the capital value of the ETF also increases 20%. Alpha is a measure of out performance of the market. This is achieved by harvesting the dividends.

Strategy 2 - Dividend hop – Multi index ETF

This strategy approach uses the methods applied to trading a single ETF, but it creates a calendar spread using the trading of international listed ETFs. This is dividend hopping, moving from one dividend payment period to another. The objective is to reap an income return, rather than a capital return. When the strategy is applied it is important o remember the limitations created by any minimum holding periods.

	Dividend	Dividend	Dividend	Dividend	Dividend
ijp	27/12/2007		26/06/2008		27/12/2008
iem	27/12/2007		26/06/2008		27/12/2008
ioo	27/12/2007		26/06/2008		27/12/2008
ive	27/12/2007		26/06/2008		27/12/2008
izz	27/12/2007		26/06/2008		27/12/2008
ihk	27/12/2007		26/06/2008		27/12/2008
iko	27/12/2007		26/06/2008		27/12/2008
isg	27/12/2007		26/06/2008		27/12/2008
itw	27/12/2007		26/06/2008		27/12/2008
stw	21/12/2007		24/06/2008		21/12/2008
iw	27/12/2007	26/03/2008	26/06/2008	26/09/2008	27/12/2008
ijh	27/12/2007	26/03/2008	26/06/2008	26/09/2008	27/12/2008
ijr	27/12/2007	26/03/2008	26/06/2008	26/09/2008	27/12/2008
iru	27/12/2007	26/03/2008	26/06/2008	26/09/2008	27/12/2008

The spreadsheet extract shows the ex-dividend dates for 14 ETFs. In this particular market the majority of dividend dates are December 27 and June 26. The last four ETFS are US based, and they have four dividend distributions a year.

Implementation of the strategy starts with an assessment of the dividend yield that applies to each of the ETFs. This is most difficult in period 1, period 3 and period 5, as there are 14 ETFs that go ex-dividend on the same date. The objective is to identify the ETF with the highest dividend yield. This type of information is aggregated in the www.ishares.com website, or by independent providers such as www.XTF.com .

For the purposes of this example, we will assume that the Hang Seng Index ETF trading as IHK has the highest dividend yield for the period 1. It also has the best trend behaviour and meets the conditions for entry that we would apply if we were trading a single ETF as discussed in strategy 1. The trade is entered and exited outside of the minimum required holding period. It captures capital gain and a dividend bonus.

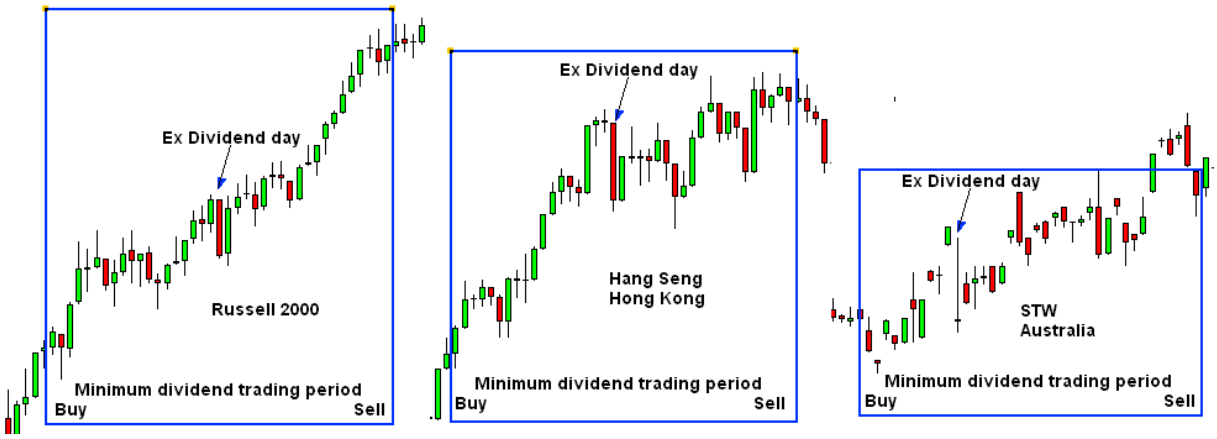
Period 1	Period 2	Period 3	Period 4	Period 5
27/12/2007	26/03/2008	26/06/2008	26/09/2008	27/12/2008
IHK	IRU	STW	IW	IJP
Hong Kong	USA	Australia	USA	Japan

Moving out of December we go to the next ETF dividend period in March. This applies to the ETFs covering the US market. Of these, in this example, the IRU ETF which covers the Russell 2000 Index has the best dividend yield and trading characteristics. This dividend trading strategy 'hops' to the next most profitable ETF from a dividend yield perspective.

In the third period the trade hops to the StreetTracks ETF, STW which covers the Australian market. The fourth period sees a hop to IVV which captures the dividend return from the S&P 500. The fifth period hops to the dividend yield from Japan.

Each trade captures the ETF price activity and capital gain, and the dividend yield from the most successful individual ETF. These four trades capture capital gain and dividend yield generated by the underlying markets. These trades are all done in a single currency. The S&P ETF is quoted in Australian dollars on the Australian stock exchange, and in Singapore dollars on the Singapore stock exchange. Yield calculations are based on a single currency.

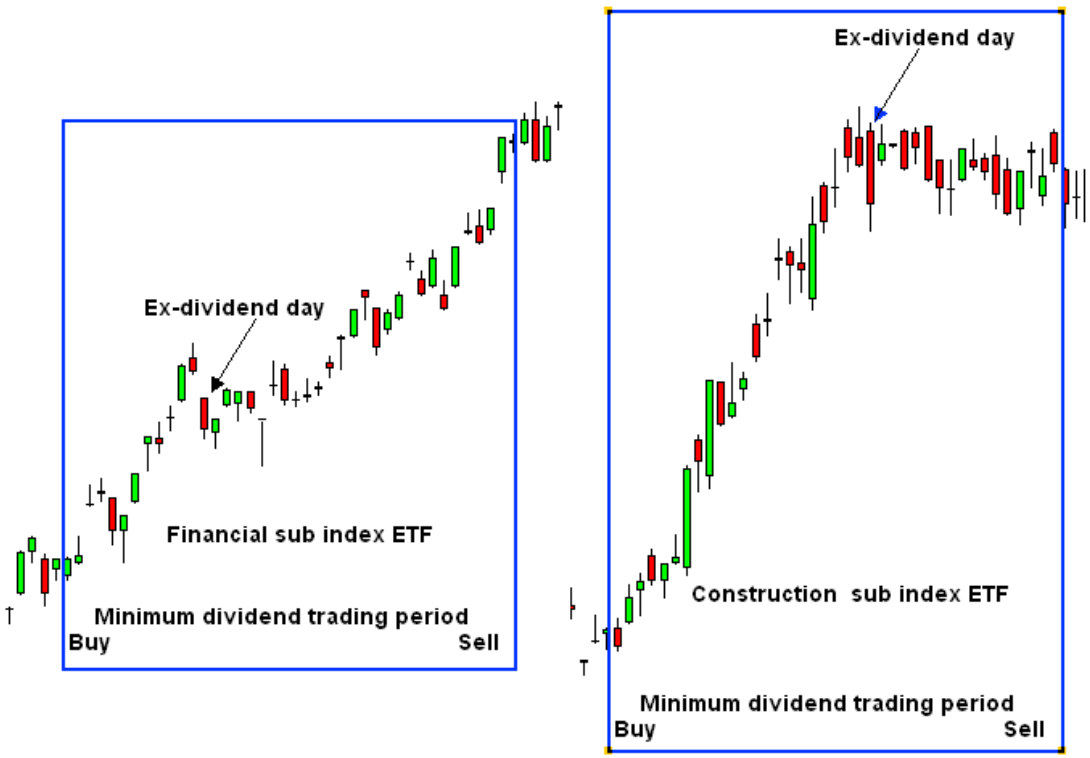
Trading multiple international index ETF dividend periods



Strategy 3 - Dividend hop - ETF sector index

This strategy is simply an application of the international Index strategy applied to ETFs covering individual subsectors in either your home market, or the international market. The key concept is the same – it's a calendar spread designed to move into and out of trades as each successive dividend is declared and distributed. The strategy takes the dividends from the top performing sector for each period.

Trading sub-index ETF dividend periods



This is not a calendar spread. All the sub-index ETFs go ex-dividend at the same time. When each dividend period is due, an assessment is made to locate the best yield in the sub-index ETFs. This is the same strategy as applied to trading an individual ETF index, but the selection choice is wider. This captures sector alpha when compared to market index beta. Outperforming sectors will often also deliver capital gain and well as dividend income.

Our ETF strategy objective is to use the ETF to obtain alpha performance. The ETF provides a low risk and steady reward model for investment. The risk is the same as the market risk. The reward is also the same as the market and after the volatility of 2008; many investors will look on this as a favourable combination in 2009. The objective in the trading strategies is to retain the low risk profile of the ETF but increase the reward component.

Chapter 5
ETF STRATEGY – SWISS ROLL

In this chapter we examine the strategy construction for the Swiss roll strategy. There are 3 sub-strategies. They are:

Strategy 1

Swiss roll – ETF index, multi country

Strategy 2

Swiss roll – Sector index ETF

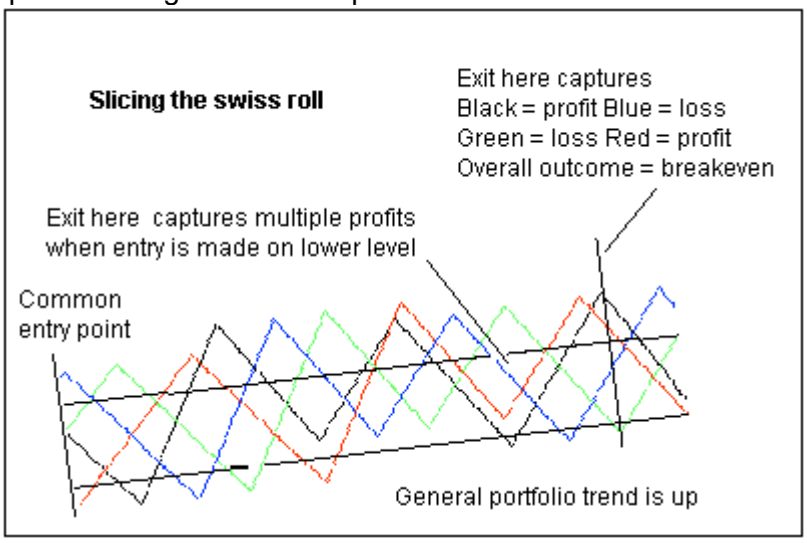
Strategy 3

Swiss roll with jam

The Dividend Hop strategy was a calendar based switch between ETFs. The Swiss roll strategy uses a similar approach, but it is based on performance switching that is not time based. A Swiss roll is a type of sponge cake baked in a very shallow rectangular baking tray, and then filled, often with jam, rolled up, and served in circular slices. It is also called an egg roll, a chocolate log or a jam roll. There is one essential question we want to answer in this trading approach; "How can we slice the roll in a way that collects the most 'jam'?" Or, more correctly, how can we time trade entry and exit to collect the most benefit from our exposure to a variety of ETFs.

This is ETF approach is derived from a portfolio management solution, so it's useful to consider the foundations. Annual portfolio reviews focus on weeding out the poor performers in the portfolio. This magnifies the loss in a portfolio, and reduces the impact of profits. Poor performing stocks should be cut as soon as they fall behind rather than when they have reached the bottom. Additionally, because these reviews are done annually, or semi-annually, they take a vertical slice through the risk profile of the portfolio at a single point in time. This does not allow the investors to take full advantage of the profits that have been available in the previous 6 or 12 months.

The Swiss roll approach recognises that in any portfolio some stocks will be performing better than others at any given point in time. This performance often moves in long waves, reaching towards the top of trends and then falling to the bottom. Any vertical cross section captures both good and bad performance.



The Swiss roll approach cuts the risk profile horizontally at multiple time points rather than vertically at a single time points. The result is that profits are captured fully from each stock in the portfolio. Losses are cut quickly and have a reduced impact on destroying portfolio performance. Entry into new positions is based on trend breaks, or trend continuation and candidates are selected from a reserve pool of potential candidates which have desirable features such as high dividend yields.

The Swiss roll approach retains the integrity of the portfolio and its general risk profile while collecting profits and cutting losses. The method that can be applied using individual stocks can also be applied using a collection of ETFs.

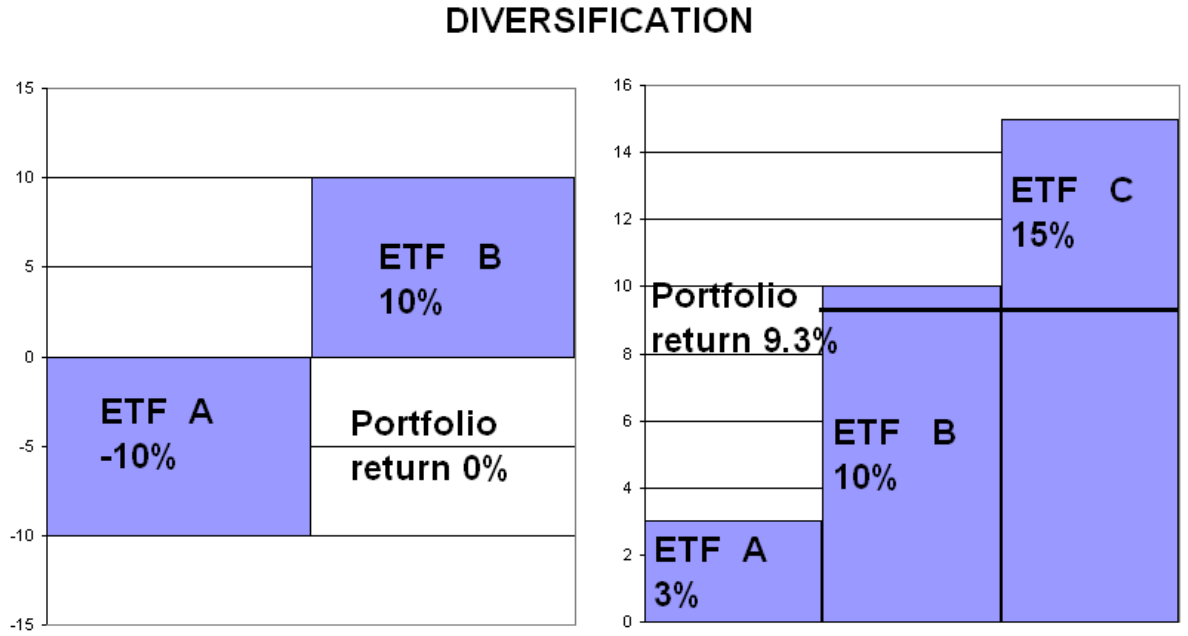
This is active investment management. It is a trading approach applied in slow motion with positions being held open for months or years.

Strategy 1 – Swiss Roll – ETF index, multi country

This strategy is based on the observation that markets move in displaced synchronisation. This is most easily seen when we compare the Shanghai market with the Australian market. The Shanghai market collapse began in October 2007. The Australian market collapse began in January 2008. On a global basis the behaviour of markets is similar, but the market is characterised by leader and laggard behaviour. Some markets are rising while other markets are falling. The time differences may be limited. The Shanghai and Australian differences developed over three months and leave a limited window of opportunity.

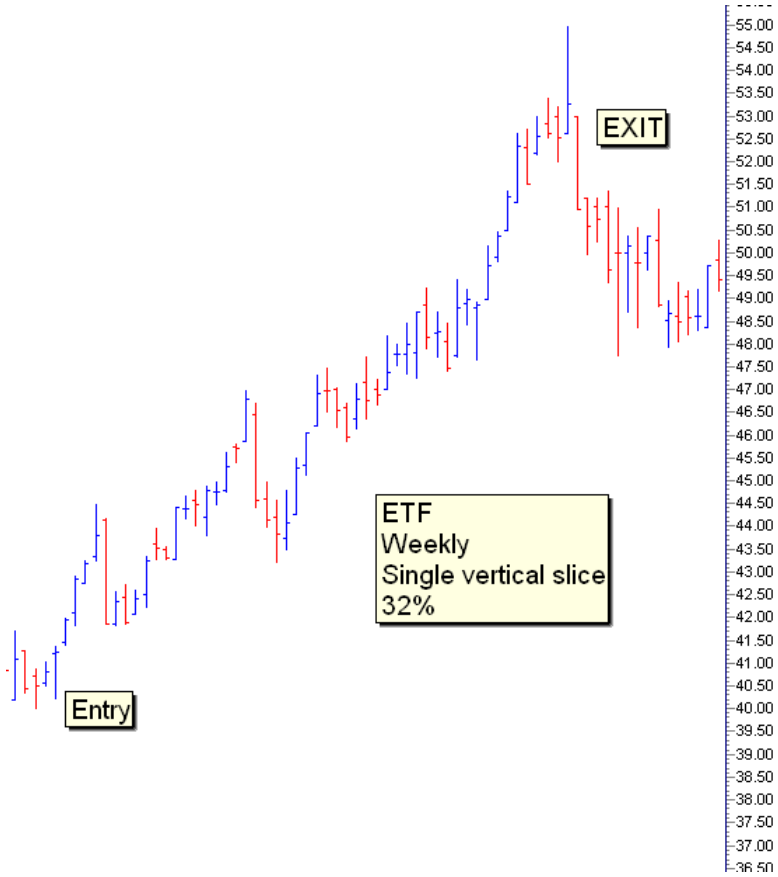
A classic approach to ETF trading suggests that buying a single ETF provides greater protection because the ETF automatically includes a level of diversification that is not easily available using other methods. A single ETF gives the trader exposure to all the 200 stocks in the Australian index, or to the 500 stocks in the S&P. Classic thinking believes this spread of stock provides diversity, and hence a reduced level of risk.

This thinking is extended further, and it is suggested that when the trader increases the number of ETFs held, then the risk is further diversified. A trader with ETFs covering the Japanese, Hong Kong, S&P and Australian indexes has a greater diversity than a trader who holds just an S&P 500 ETF.



This may be correct if we assume a diversity of directional behaviour but unless actively managed, the net result may deliver unexpectedly low returns. Indiscriminate holding of a diversified country Index ETF may mean that the gains in one market are offset by the losses in another.

When markets are universally rising this diversification may deliver less than optimal returns. The diagram shows three rising markets. The superior return is 15%, but the portfolio return is 9.3% because the superior return is diminished by the under performing ETF with a 3% return. Diversity can provide an average return, but when traded with a Swiss Roll approach, diversity can provide an enhanced return. The objective is to delete the losers, or low performers, and capture the winners.



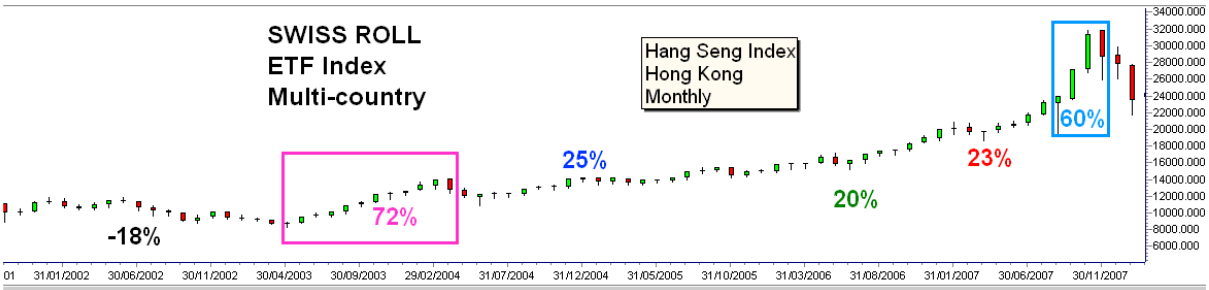
The foundation of this ETF strategy is to capture the capital appreciation between the entry and exit points in the trade. In this sense it is no different from a trade in an ordinary stock and similar analysis methods can be applied. The difference in trading the ETF is the relative stability of the ETF and the diversification of risk when compared to exposure to a single stock.

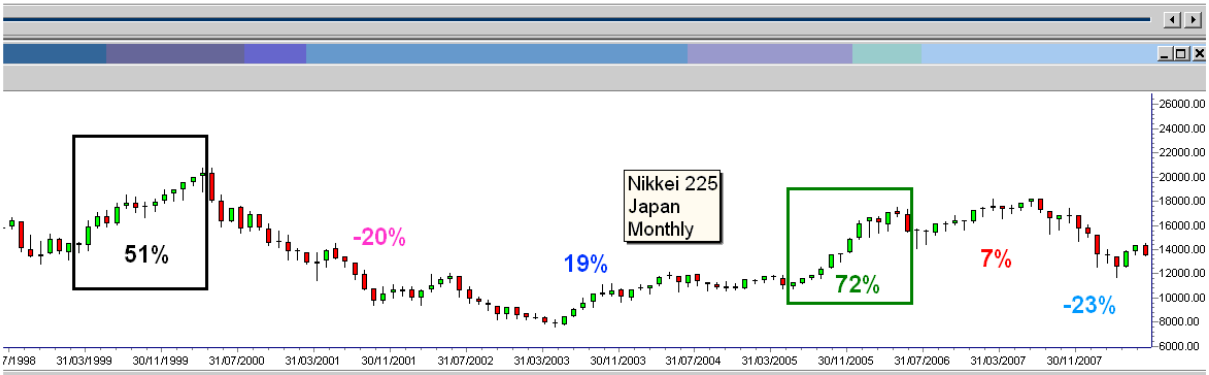
The window of opportunity is widened when we also consider the rate of growth. Although each market may be rising, they are rising at different rates. The Swiss Roll strategy attempts to capture the capital appreciation from the market with the highest velocity within the specified time period. The difference between the Australian ETF and the Japanese ETF over the same time period illustrates the underlying principal.

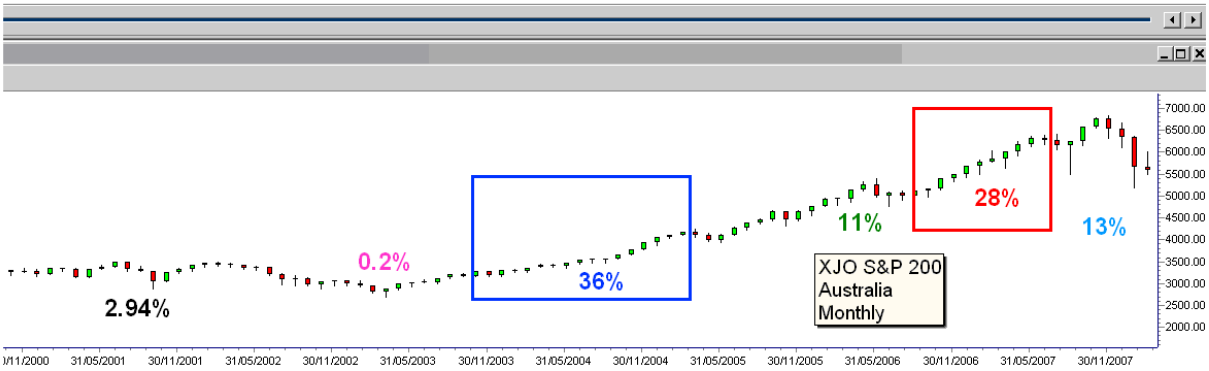
The objective is to slice the performance across Index ETFs in a way that captures the best capital growth from each segment. The timing of the slice, and the duration of the slice has a significant impact on the results. This strategy collects the raw capital gains from ETF exposure.

The chart has been created with the perfect vision of hindsight, but it is designed to illustrate the trading principle. First, markets do not move together. Second, markets move at different speeds. Third, traders improve returns by switching ETFs to the index that is outperforming in the selected period. Identifying this potential outperformance rests on a number of technical indicator analysis methods.

The coloured box shows the period of each trade. The colour coded figures show the comparative returns from each market for the same period.







Entry and exit points may be based on momentum indicators. The RSI applied to a weekly chart shows how this measure of momentum and sentiment changes can be used to select entry and exit points. The Nikkei extract shows how RSI analysis, support and resistance analysis, and trend line analysis is applied to identify trade entry and exit points. Index analysis can be simpler, or more complex, but the objective is to identify the preferred entry conditions for trade execution using an ETF. The objective is to identify increasing momentum and use this as an entry signal. When momentum begins to decline, the trade is closed and the search begins for a momentum entry signal being generated in another ETF.

Although the chart extract shows an almost immediate exit and entry condition, it is more common for several weeks to elapse between closing one position and opening another. The Swiss Rolls strategy is not based on continuous exposure to a variety of markets. This is selected exposure to capture the best performance.

Momentum entry and exit signals must also be combined with an assessment of the velocity of the rise. A fast rise in a mature market may deliver a 2% return. A fast rise in an emerging market may deliver a 13% gain. The Swiss Roll strategy trades the fast gain. The objective is to capture the behaviour – momentum – of the ETF and the velocity – percentage change.

This strategy is designed to diversify reward by capturing the best behaviour across multiple markets and time frames. It is capital growth model. The risk is reduced by the diverse timing of the trending behaviour of the ETFs and the underlying indexes. The risk is not reduced by diversity of markets.

Strategy 2 – Swiss roll – Sector index ETF

This strategy is a single market extension of the multi markets strategy discussed above. In every market there are leading sectors and laggard sectors. Switching to the leaders and switching amongst the leaders can provide a higher level of capital gain.

One advantage of this sector ETF index strategy is that it is usually applied to a single home market. The trader has a greater knowledge of the performance of each sector and this may improve the ability to time the entry and exit points.

Strategy 3 – Swiss roll with jam

This strategy really adds extra jam and can be applied as an additional timing factor to either of the base Swiss roll strategies. If the selected trade exposure period also includes a dividend distribution point then the capital gains from the trade are enhanced. However, entering a trade early, or leaving a trade late based on the dividend payment is not always a profitable strategy. Although the ETF usually does not respond abnormally to an ex-dividend day, the market as a whole may show a negative response during a dividend reporting season. This has a broader impact on the index, and hence the ETF, so there is a risk to capital. This risk may be further increased by local dividend trading rules that may require a trade to be held open for a specified number of days to avoid a taxation penalty.

Catching the dividend with the Swiss Roll strategy is a bonus if it does not interfere with the essential timing aspects of this underlying strategy.

Chapter 6
ETF STRATEGY – BEATING BETA

The Beta beater ETF strategy has 2 sub-strategies. They are:

Strategy 1

Capital gain – Multi index ETF

Strategy 2

Capital gain – Multi sector

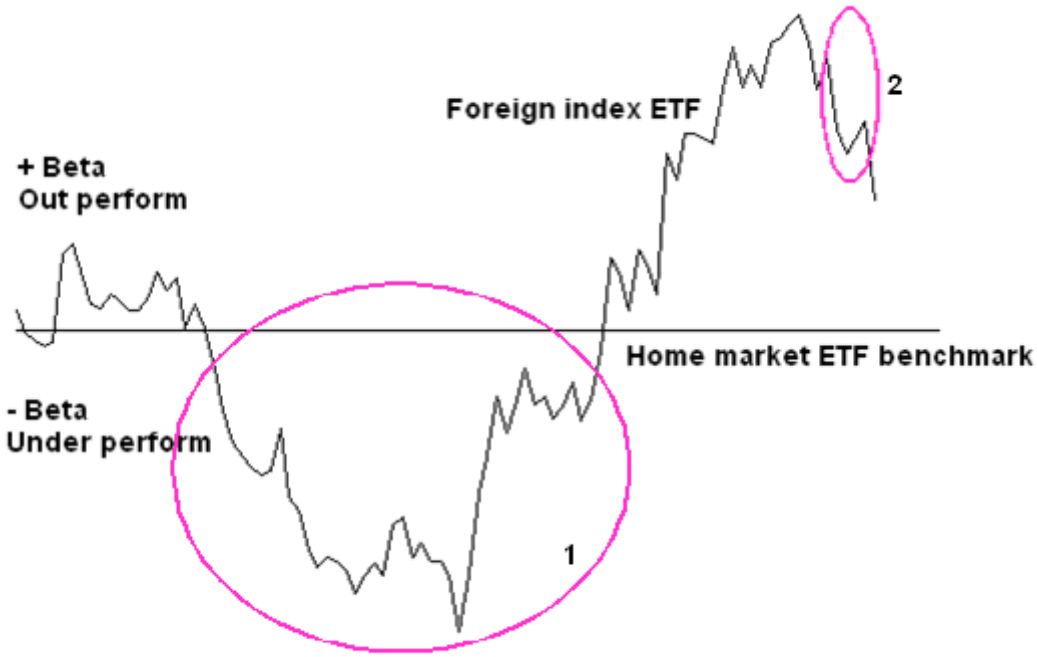
The objective of this group of strategies is to identify the ETF that is outperforming your selected benchmark. The benchmark may be provided by another ETF, by a favourite blue chip stock, by the cash rate, or any other asset class you wish to use as a benchmark. The objective is to maximize capital gains.

Although the market always rises – in the long run – there are times when particular markets move more quickly than others. To get extra performance out of the ETF exposure it is useful to switch between ETFs to capture developing and actual outperformance. In this discussion we look just at raw out-performance without taking into account dividends. The same assessment methods can be used, factoring in dividends and using an accumulation index as a benchmark, or as a comparison.

The chart display uses a base line against which beta over performance or under performance is measured. The base line always remains horizontal and tracks the changes in behaviour of the benchmark. The performance of the comparison ETF is essentially shown as a beta measure on a percentage scale. The chart display shows the variation from beta or the benchmark.

Strategy 1 – Capital gain – Multi-index ETF

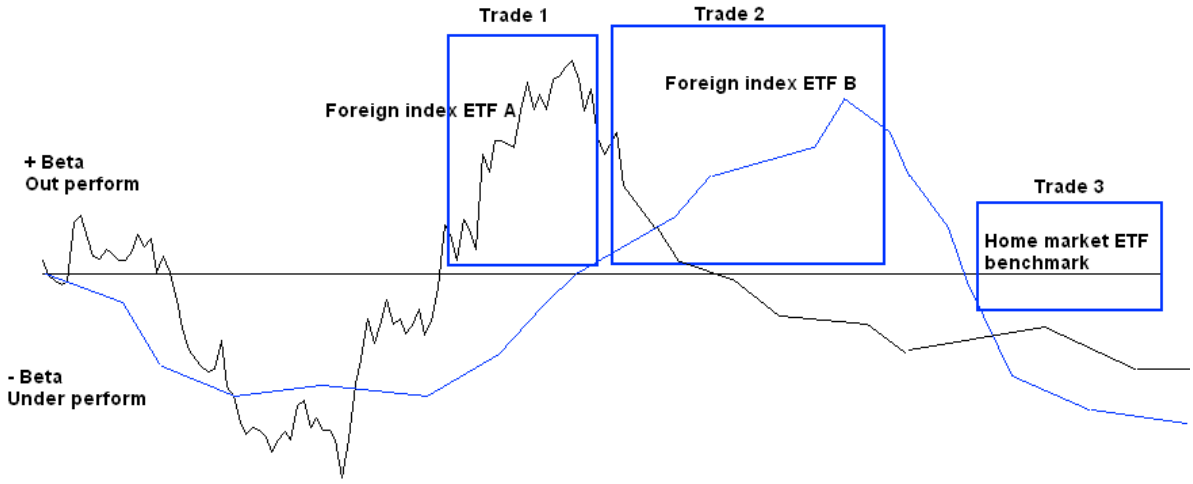
The objective of this chart display is to simply allow you to quickly decide which ETFs are performing better than the ETF for your home market. This analysis is not designed to find the best performing market.



The strategy is to locate the period where one market is providing a better return than that available from your home market. At its simplest the trader compares his home market with a single ETF over a foreign index. In the chart display below the trader would remain in his home market ETF in area 1 while the foreign index ETF underperformed. As the foreign index ETF moves into area 2, the trader may decide to switch ETF holdings to the foreign index ETF because it delivered a higher rate of capital gain.

Area 1 suggests a problem. The direction of beta performance has changed. Although it is still a higher beta than the home market ETF, this trade is losing its competitive advantage. This change may develop because the foreign market is falling. It may change because the home market is rising and so reducing the comparative advantage of the foreign market. The most important response is to close the ETF trade to lock in the capital appreciation profits. Once exited, the trader returns to the benchmark ETF and waits for a new better than beta trend to develop.

The alternative is to apply the same analysis to compare multiple foreign index ETFs. This requires more active monitoring and active trading. The objective is to switch from one ETF as it loses momentum and enter another ETF as it begins to develop momentum and deliver a higher beta return.



In the chart example the trader trades the foreign index ATF A as the beta performance lifts above the home market benchmark. As this performance declines he looks for an ETF with a developing better rate of performance. Trade 2 switches to foreign index ETF B. As it declines, he closes the trade.

This is not an automatic switch from one trade to another. After the exit from trade 3 the trader may remain out of the market until a new opportunity develops. If all the tracked markets begin to under perform the home market ETF benchmark then the trader opens a new trade in the home market ETF.

There is one important danger is the application of this analysis. The home market ETF benchmark is not an absolute return line. The home market performance is expressed as a horizontal line as it measures a benchmark market performance. In a rising market this line will be horizontal. In a falling market the line remains horizontal. Markets that have lost 30% when compared to the home market loss of 60% will show beta outperformance. It simply means the rate of loss is less than that in the home market. The application of this strategy should always be assessed against the positive performance of the market ETF benchmark.

The objective in this strategy is to search for ETFs which deliver superior positive returns to those found in the home market. There will be times when it is the home market that delivers superior returns.

Strategy 2 – Capital gain – Multi sector

This strategy is a single market extension of the multi markets strategy discussed above. The benchmark is usually the broad market index – the Nikkei 225, the S&P 500, the STI or the XJO 200 index. This is shown as a horizontal line. The beta performance of the sub-sector ETFs are plotted against the benchmark line. As with the multi-index strategy, the objective is to switch between sector ETFs as momentum slows in one and begins in another. This switching delivers a superior capital return to beat the beta benchmark performance of the benchmark index.

Chapter 7
ETF STRATEGY – INTERNATIONAL

The international ETF strategy has 3 sub-strategies. They are:

Strategy 1

Capital gain – Multi index ETF

Strategy 2

Beta gain – Multi index ETF

Strategy 3

Currency gain – Multi index ETF display

The focus in this group of strategies is on international diversification. The first two strategies are extensions of strategies discussed in earlier notes, so we cover them briefly to show how they are implemented with international ETFs. Diversity on an international basis provides superior portfolio performance.

Diversity has a good side and a bad side. The bad side is when diversity is used as a compensatory tool. At the core of the thinking about diversity is the idea of efficient markets and the investor's inability to beat the market. Diversity is the father of CAPM – Capital Asset Pricing Model – which is used to dilute risk. Diversity means selecting a group of stocks and recognising that you have about a 50% chance of being right. This develops a market neutral return. The performance of the good stocks balances out the performance of the bad stocks so the net return is about the same as the market (we already achieve this market return result by using an ETF).

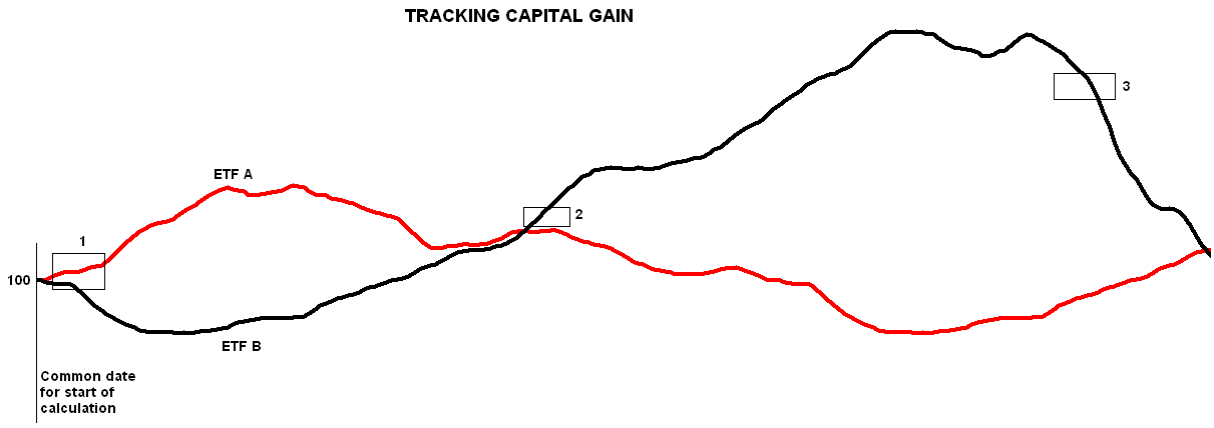
Hedge funds in their original concepts were called absolute return funds and their objective was to match the return from market performance plus a premium. In a bear market their objective was to deliver positive returns.

Now the term hedge fund has become debased and is used to describe funds which use a mixture of long and short tactics to achieve about market return. They suggest that the diversity of long and short positions keeps them at a market neutral level. They add value with management to outperform the index returns.

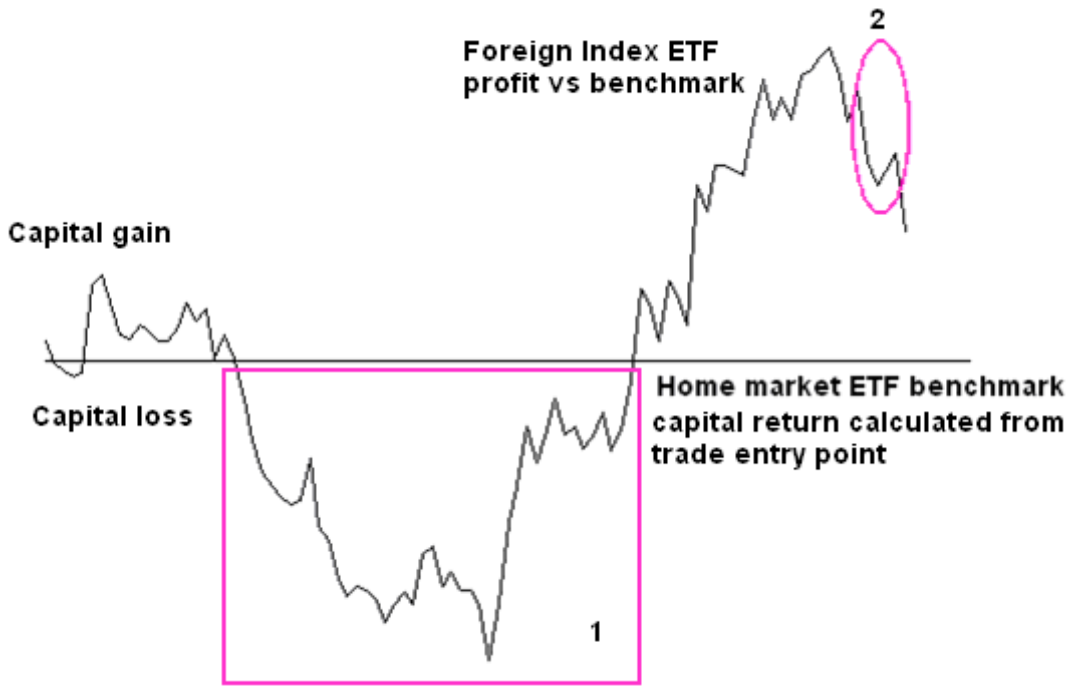
The good side of diversity is when it is used to locate different types of opportunity so that weakness in one area does not develop into weakness in all areas. In stock trading we look for diversity of volatility behaviour. In ETF trading we look for diversity of performance between markets. This can be based on capital gain, or on capturing those markets which are out performing our local benchmark.

The third strategy factor is currency movements. Exchange rate volatility in the last quarter of 2008 highlighted these issues in an extreme way. Some currency moves were in the order of 30%. This represents a fundamental shift in the economics of return calculation without any shift in the physical performance of the underlying ETF. These currency movements delivered a gain, or a loss and the third strategy looks at ways to utilise this in ETF trading.

Strategy 1 – Capital gain – Multi-international index ETF



The objective is to decide which ETFs are delivering a better capital gain than the ETF for your home market. This analysis is not designed to find the best performing market. The strategy is to locate the period where one market is providing a better capital return than that available from your home market. The trader compares his home market with a single ETF over a foreign index.



The comparison can be achieved by plotting the capital gain component for each of the ETFs. This includes the raw gain from price changes, and includes the extra gain from dividend payments. Note this calculation is not the trading price for each ETF. The chart is constructed by selecting a common nominated entry point and date. For convenience the start calculation is 100. The level of profit, or loss, from each index ETF is calculated from the start date on a daily basis. This is not a percentage return on capital. This is the raw profit figure. The result is two lines, each showing the level of capital gain achieved by the competing ETFs. The ETF with the superior capital gain is the preferred trading candidate. This is a record of profitability. It is not a record of the trending activity of the index which was the important behaviour being tracked in the beta beaters strategy. The chart display can look similar, but different aspects of performance are being measured.

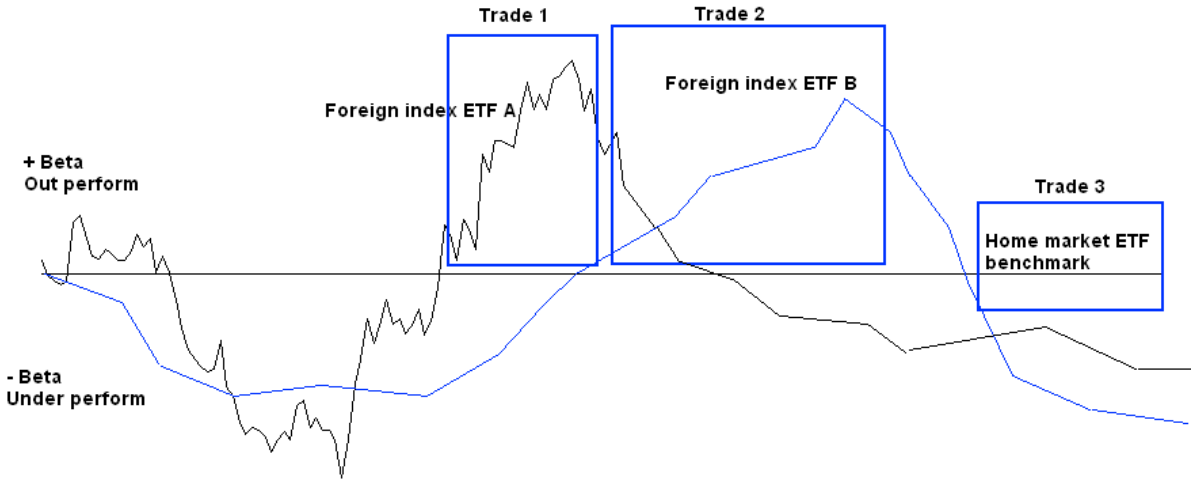
Entry is made in area 1 and ETF A is selected. The exit is taken in Area 2 and a new position entered because the rate of capital gain from ETF B is now greater than the gain from ETF A. The trade is closed in area 3 because the rate of capital gain declines. This chart display measures only capital return.

Alternatively, the home market capital gain can be shown as a horizontal base line. In the chart display the trader would remain in his home market ETF in area 1 while the foreign index ETF underperformed. As the foreign index ETF moves into area 2, the trader may decide to switch ETF holdings to the foreign index ETF because it delivered a higher rate of capital gain. The trader exits in area 1 to lock in the capital gain.

The objective in this strategy is to search for ETFs which deliver superior positive capital returns to those found in the home market. There will be times when it is the home market that delivers superior returns.

Strategy 2 – Beta gain – Multi-international index ETF

The strategy is an extension of the first strategy, but beta performance is used to select entry and exit points. The strategy is the same as discussed in Beta beaters, so we repeat a short summary here. The objective is to switch from one ETF as it loses momentum and enter another ETF as it begins to develop momentum and deliver a higher beta return.



In the chart example the trader trades the foreign index ETF A as the beta performance lifts above the home market benchmark. As this performance declines he looks for an ETF with a developing better rate of performance. Trade 2 switches to foreign index ETF B. As it declines, he closes the trade.

The home market ETF benchmark is not an absolute return line. In a rising market this line will be horizontal. In a falling market the line remains horizontal. Markets that have lost 30% when compared to the home market loss of 60% will show beta outperformance. It simply means the rate of loss is less than that in the home market. The application of this strategy should always be assessed against the positive performance of the market ETF benchmark.

Strategy 3 - Currency gain – Multi index ETF display

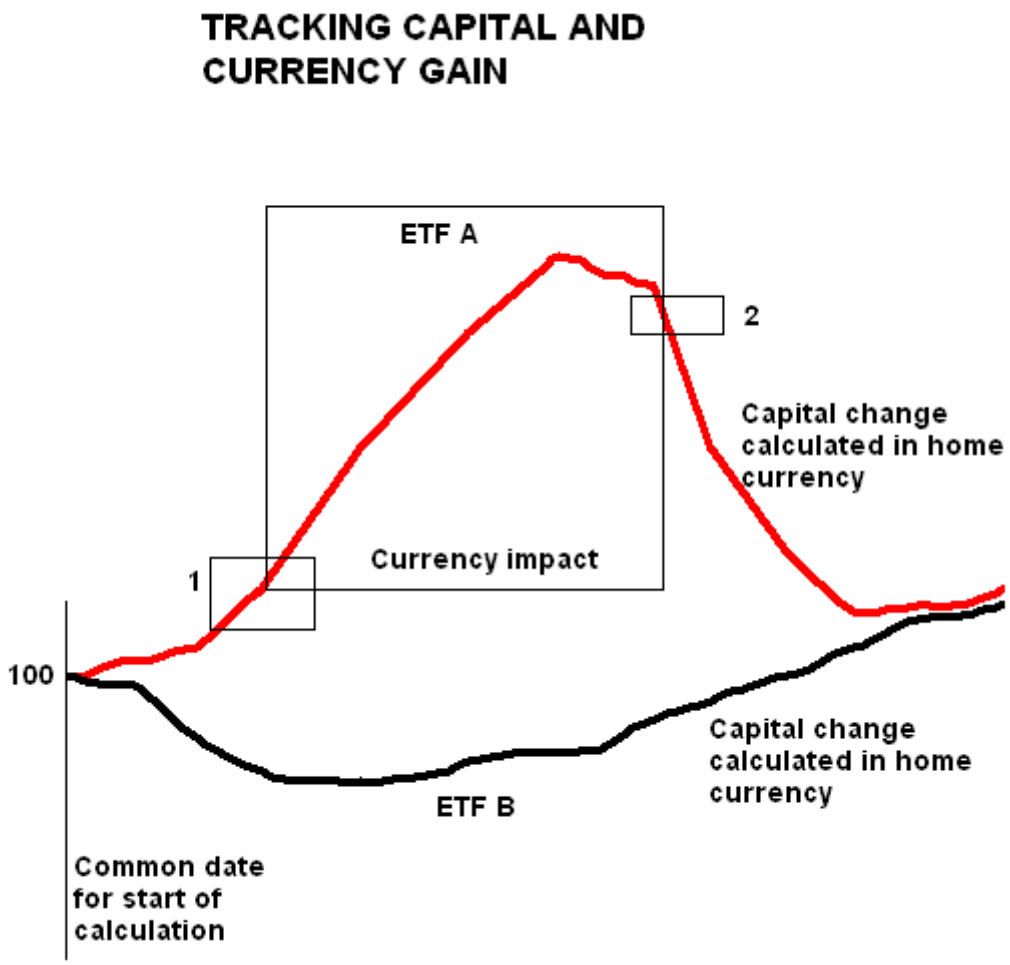
Trading international index ETFs exposes the trader to currency movements in two ways. The first is when the trader uses a foreign brokerage to trade the ETF. Traders may use a broker in their home country to trade their home ETF, but use a US broker to trade US ETFs. Changes in currency rates affect the return from the trade.

The second exposure to currency impact comes from the calculation of dividends and this is the most important impact because it affects all traders. The dividend payment for a US ETF is calculated in US$ and then converted to the home currency of the ETF. If I use iShares S&P 500 ETF listed in Australia then the US dividend payment will be calculated in $AUD. This currency impact must be factored into any calculation of capital gain from the trade.

Additionally the calculation of the value of an Australian listed ETF for the S&P 500 will also experience some impact from currency movements. This currency impact is tracked using the capital gain calculations – which include dividend payments. The capital gain calculations are made in your home currency. The chart display, as shown, is a single currency calculation.

When the AUD$ was trading at almost parity with the $US, a US$1,000 dividend payment from the S&P 500 ETF was worth about AUD$995. When the AUD$ retreated, the US$1,000 payments is converted into an AUD$1,350 payment due entirely to changes in exchange rates.

Conversely, when the AUD$ was strong a SING$1,000 dividend from the Singapore Index ETF was transferred at around AUD$800. Currency changes meant that at one stage in the last quarter of 2008, the SING$1,000 dividend was transferred as AUD$1,150.



The foreign index ETF may be traded in your home currency, but the dividend payments are calculated in a foreign currency and then converted to your home currency. This exchange rate conversion distorts the capital gain calculation as shown on the chart. The area of the currency or exchange rate impact is shown. It dramatically increases the capital return from ETF A and defines a superior trading period. The rapid decline in capital gain is also driven by changes in the exchange rate, and not dramatic changes in the value of the index being tracked by the ETF.

Exchange rate changes impact on capital gain independently of changes in the underlying index. The index can remain flat, trading sideways, but changes in exchange rates will impact on the level of capital return despite the lack of change in the underlying index.

International ETFs offers diversity of return and exposure to different levels of volatility and to markets at different points in trending development. The internal trading strategies discussed here recognise the impact of exchange rates. This can be used to enhance the return from an ETF trade. Understanding the impact of currency and exchange rate movements can also allow the ETF trader to avoid an unexpected capital loss.

The objective is to decide which ETFs are delivering a better capital gain, as measured by your home currency. This analysis is not designed to find the best performing market based on percentage returns.

Chapter 8
ETF STRATEGY – YIELD TRADING

The yield trading ETF strategy has 3 sub-strategies. They are:

Strategy 1

Yield - Index ETF

Strategy 2

Yield – Multi ETF sector index

Strategy 3

Yield – Multi index ETF

ETFs reduce risk as they are beta neutral for the index they track. They offer diversity of stock holdings in a single easily traded instrument. They generally match the exact performance of the underlying index. They offer steady reward via the distribution of consolidated dividends delivered by each of the stocks in the underlying index.

Calculating and using yield has one very important trap. The yield tables printed in investment magazines and financial media are misleading in one very important sense. The yield calculations are correct, but they are based on the current, or recent, underlying price and the most recent historical dividend payment. The yield calculation brings together two different price factors – the current market price and an historical dividend payment.

An example of this is seen with the collapsed property group Centro. Based on the current price of $0.10 the dividend yield is around 88%. This is very attractive if Centro was purchased at $0.10, but the yield figure is inaccurate if Centro was purchased at $1.20. These yield tables are useful for making selection and entry decisions. They are not useful for tracking the yield performance of your existing holdings.

Yield tables are used for entry decisions. Yield tables are not used for trade management decisions. Comparative yield figures for ***open*** positions should be based on the ***original*** entry price. In the discussion below we use a single common entry point to compare yields and make decisions. When the performance of a trade is being evaluated the same chart display should be used. The start point is the original entry point and price. This will give genuine yield, as distinct from the current yield shown in the financial tables and based on today's price and not on your entry price.

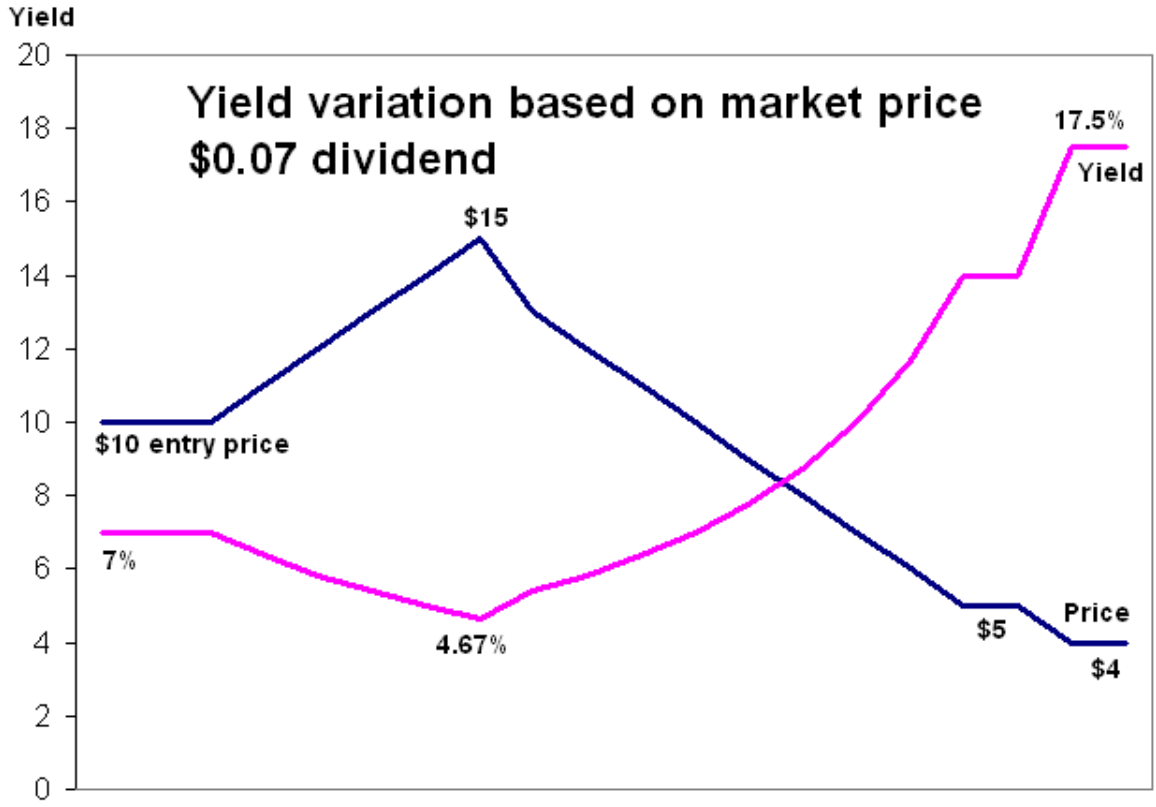
However, this genuine yield must be compared with the current yield delivered by competing products at today's entry price. The objective is to determine if the yield offered by ETF B is superior to the yield offered by ETF A and this is determined by comparing the yield based on the original and the proposed entry points. The strategy is best applied in the period leading up to dividend distributions. Remember the yield is only crystallised with the dividend distribution.

These yield strategies can be used in two ways. The first is to combine yield with capital growth. This identifies the ETF is in an uptrend and combines this with the best yield result. The second strategy simply looks at yield as the only return factor when the market is moving sideways or falling at a reduced rate. This is similar to the dividend hop strategy discussed earlier.

Strategy 1 – Yield - Index ETF

The objective is to calculate the genuine yield from the ETF trade. This is a straightforward calculation that starts with the original entry price in the trade. In this example the dividend is $0.70 based on an entry price of $10.00. This is a yield of 7%.

The chart shows the variation on the yield calculation as the price moves above and below $10.00. When the ETF is trading at $15 the $0.07 dividend yield is not attractive. When the ETF is trading at $4 to yield is an attractive 17.5%. However, the yield remains at 7% if the ETF was originally purchased at $10. When holding the ETF an assessment must be made of the trade-off between an increase in the yield vs. a decrease in the capital value of the ETF position.



The essential conclusion is that the current yield is only relevant if this yield is calculated on your current entry price. The yield you receive from the ETF will be calculated on the original $10 entry price. The only way to capture the 17.5% yield is to take a new position in the ETF at $4.

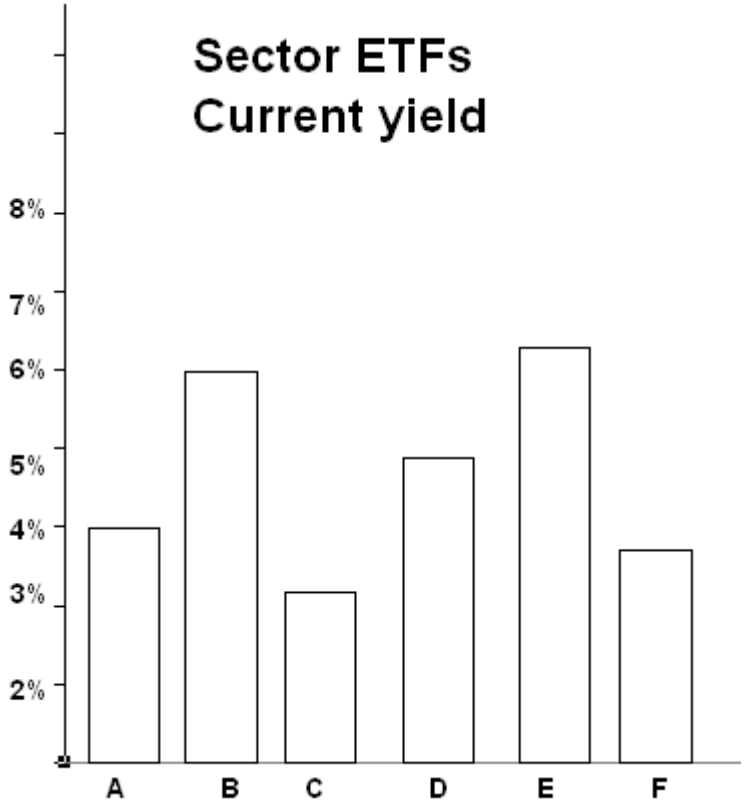
The foundation of this ETF yield strategy is to enter the ETF when the yield is at its highest and when you believe the trend has a high probability of turning up. This entry point delivers both a high yield and a capital gain.

Investors who are looking to maximise yield returns and who are less worried about their capital position use multiple entry points in an ETF to maximise the benefit of low prices and higher yields.

The advantage of an ETF in this yield trading strategy is that the level of dividend return is amortised across all stocks in the index. By definition, this will always be the strongest performing stocks offering the highest raw rate of dividend payment. In a bear market the dividend payments will fall and this can have a significant impact on individual stocks. When these falls are aggregated into a single ETF the impact of the falls is reduced. They are also counterbalanced by better companies within the index that are able to maintain their dividend payout.

Strategy 2 – Yield – Multi ETF sector index

The strategy is an extension of the first strategy. The objective is to locate the best yielding sector ETF. This is more suited to short term trading where the objective is to deploy capital for a limited period and achieve the best return possible. The base comparison chart is drawn from the current yield tables. It should compare the most recent level of dividend payout with the current, or intended, entry price. These results can be ranked in a simple bar chart display. Sector indexes B and E are the most effective candidates for this strategy.

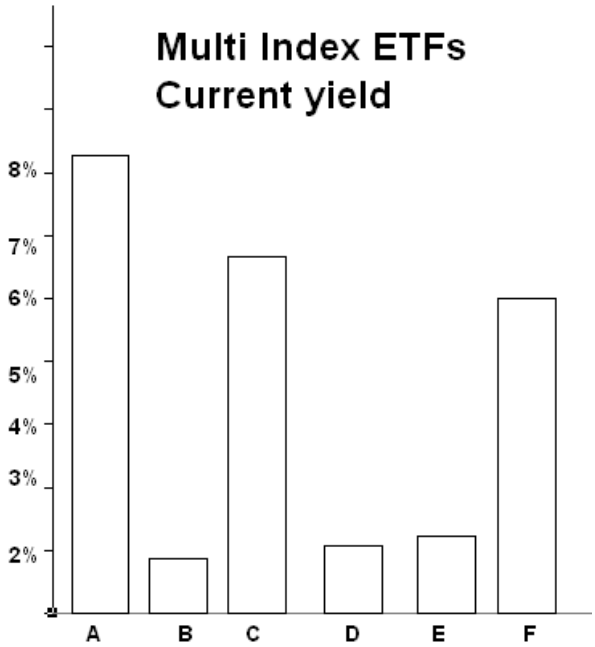


However, selection should not be based on yield alone. The direction of trend is also important. A falling trend will deliver a capital loss when the trade is closed. Any yield return must be greater than the capital loss to make this strategy effective.

A sector index that is moving sideways provides a return on capital from the yield alone. A sector index that is trending upwards provides both a capital return and a yield return.

Strategy 3 - Yield – Multi index ETF

Strategy 2 is easily applied to multi-index trading has some important differences. The yield tables show a much greater variation than the multi-sector ETF yield tables. This is a consequence of the differences in market behaviour between emerging economies and developed economies.



The yield for emerging economies, such as B, D and E, will always be lower because the rate of price change for the ETF is higher. China had a growth rate of 12% and a market trend that showed a 50% plus increase. This rapid capital gain reduces the value of the yield.

In contrast, yields from more developed economies where market growth is comparatively slower delivers a higher yield. This is shown with A, C and F. Trend direction and speed are significant considerations when trading index ETFs for yield.

All of the ETF yield trading strategies are assessed using the original entry price to make the yield calculation. When opening a new ETF position the current yield tables provide a valid starting point for the assessment of competing opportunities. Yield cannot be considered independently of trend direction and its impact on capital.

Chapter 9
ETF MANAGEMENT STRATEGY – ARBITRAGE

In this final strategy chapter, we will examine arbitrage trading strategies. There are 2 sub-strategies. They are:

Strategy 1

Currency arbitrage – Multi index ETF

Strategy 2

Simple arbitrage – Multi index ETF

Arbitrage is when you buy a security on one market trading floor and then immediately sell it in another market trading floor. This is most common with Currency, or FOREX markets. It takes advantage of different prices in the same locations for different goods. The most famous arbitrage trades were done by Nick Leeson, the trader who brought down Barings bank. He traded Nikkei futures in Singapore. The contract was co-listed in Tokyo so he could buy in Singapore and simultaneously sell in Tokyo. This was possible because the futures contract was fungible. A fungible instrument means it can be exchanged in different locations. The same shares were being sold in two different countries or exchange locations. An American ADR (American Depositary Receipt) for 10,000 Rio Tinto shares cannot be swapped for 10,000 Rio Tinto shares traded on the Australian Stock Exchange. The ADR is not-fungible.

In the previous notes we discussed the currency lock management strategy. This management strategy can be reversed and turned into an analysis and trading strategy. True simple arbitrage – trading the same instrument in different locations at the same time – cannot be applied with ETF trading at the moment. A de-facto currency arbitrage strategy can be applied and this makes it appropriate to discuss this strategy after the notes on the currency lock forward management.

Strategy 1 – Currency arbitrage – Multi index ETF

This strategy is available to traders who use a foreign broker to buy a foreign listed ETF. We use the S&P 500 Index ETF as an example. This instrument is listed as IVV in Australia and also as IVV in America. The instruments are created and managed by iShares, but they are two separate and independent instruments. They are not fungible. This means I cannot buy 200 of the US S&P 500 IVV ETF in America and then sell them in Australia.

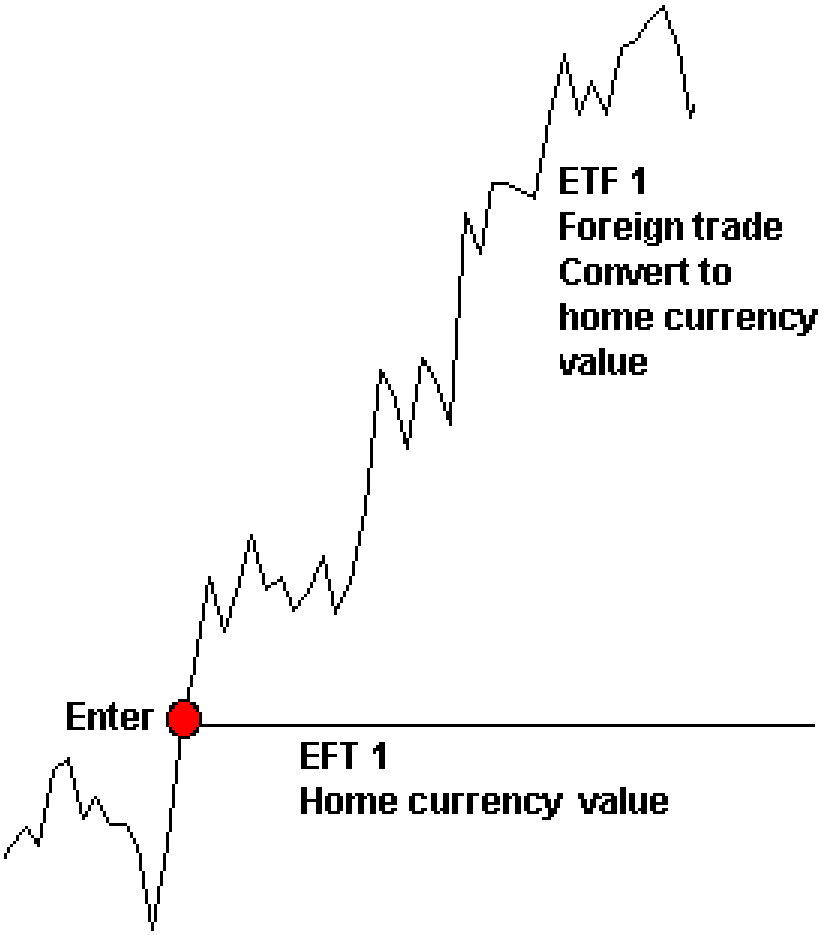
However, the trader with an account with a US brokerage can buy the US S&P 500 Index ETF. The performance of the ETF will be the same as the performance on the ETF in Australia but the calculations of capital gain, or loss, will be made in US dollars. The difference in currency is crystallised when the ETF position is closed.

The foreign ETF position benefits in 4 ways. They are:

- The change in the underlying index
- The additional growth inherent in the currency exchange rate
- Changes in the exchange rate, preferably those which add value
- The addition of dividends with a currency benefit

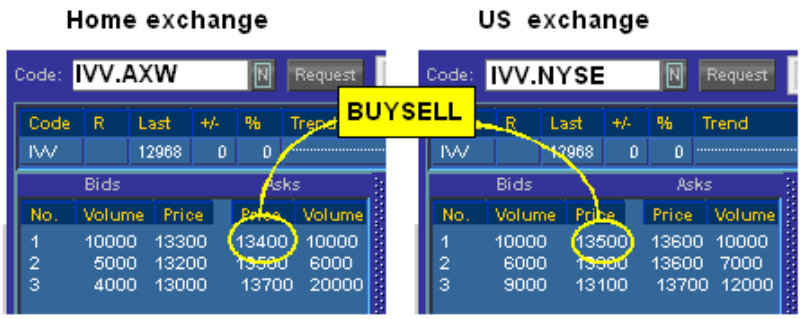
This strategy can be applied to hedge against future currency movements. The value of the position is tracked by converting current ETF value in US$ to the home currency value.

This is a financial, or currency arbitrage strategy. It can be further refined by switching between the US listed US S&P 500 IVV ETF and the local listed S&P 500 IVV ETF if the exchange rate erodes the value of the position. This remains a currency arbitrage because the base instrument - S&P 500 IVV ETF – is not fungible.



Strategy 2 – Simple arbitrage – Multi index ETF

At some time in the future there is the possibility that the ETFs issued by a single provider will become fungible. Under these conditions traders can take advantage of small price inefficiencies, buying in one market and selling in another. These arbitrage opportunities are usually small in terms of the price spread, and they disappear quickly. One of the important functions of arbitrage traders is to improve the efficiency of the market by bringing disparate prices together.



Price shown in US$
0.75% return

The screen shot shows an example of how an arbitrage situation may look. The US S&P 500 IVV ETF is trading at $135.00/$136.00 in New York. On your home exchange it is trading at $133.00/$134.00. You buy 2,500 shares in your home country for $134.00 for a cost of $335,000. You immediately sell the same quantity of shares in New York at $135.00. The return is $337,500. This is a profit of $2,500 or 0.75%.

The percentage return is small and this is typical of arbitrage trades. The benefits of arbitrage come from trading size where a 0.75% return translates into perhaps $25,000.

Chapter 10
ETF MANAGEMENT STRATEGY – CAPITAL AND CURRENCY

In previous chapters we have discussed ETF trading strategies. In the remaining chapters we shift our attention to 5 management strategies. These strategies are not focused on entry points and conditions. They are strategies designed to monitor and maximise gains from existing ETF positions.

We use five trade management strategies for profit lock in ETF trading. They are:

- Accumulation
- Capital profit
- Currency boost
- Cost averaging
- Currency lock

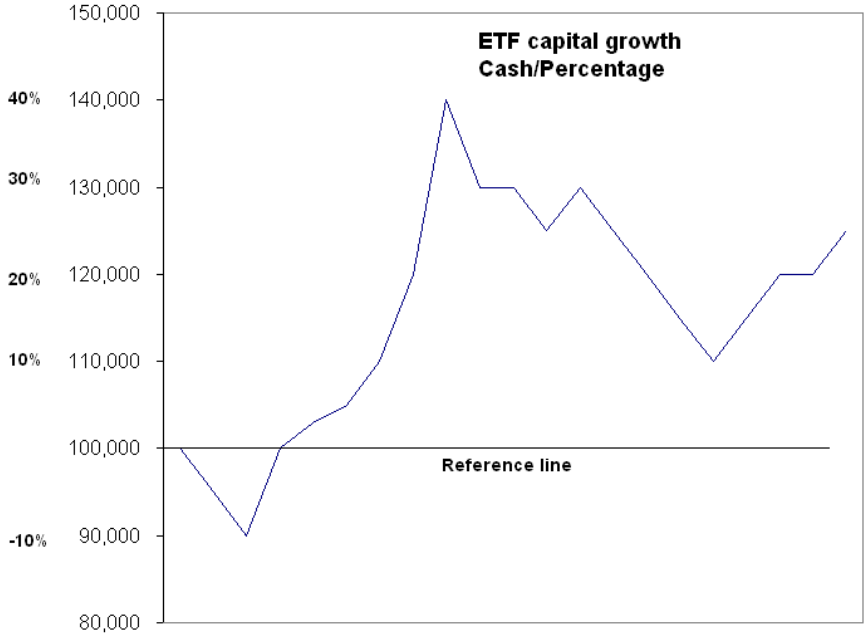
We start with the Capital profit, Accumulation and Currency boost strategies. The objective is to develop a better understanding of the performance of the ETF position. This also allows the performance of several ETF positions to be easily and validly compared.

There are three factors which need to be included in comparing ETF performance. They are:

- The capital growth of the position.
- The capital and income growth of the position
- This growth expressed in terms of a single currency.

We prefer to chart these as a financial record of performance. This means the starting point for the calculations is the day the trade is opened. It is the subsequent financial performance of the trade that is charted rather than the price activity of the ETF.

Strategy 1 – Capital profit

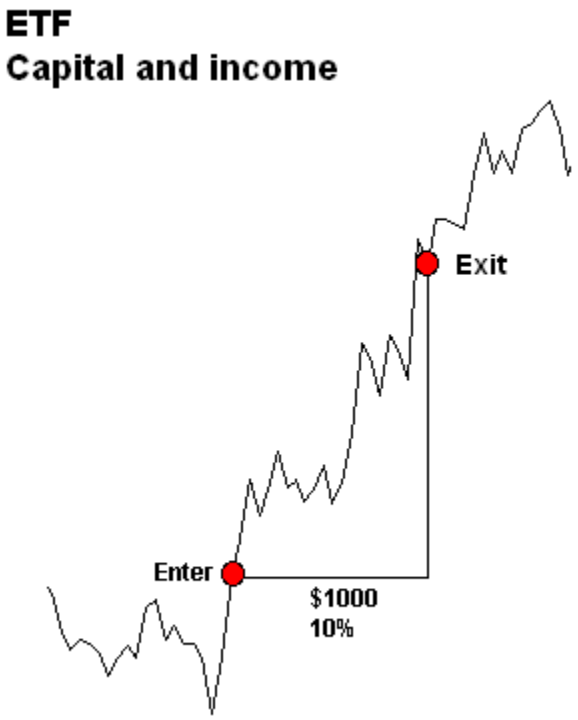


The capital growth of a position is calculated on a marked to market basis and is charted on a spreadsheet. Marked to market shows the value of the position, based on the closing price of each day. Superficially it looks the same as a line chart of the ETF, but in this case it measures the growth in capital. Typically the chart starts from a zero line which is the value of the original position. The marked to market value can be calculated every day, once a week, or once a month. This chart plots the capital growth on a quarterly basis.

The spreadsheet starts with the initial position size. In this example we use $100,000 as the total position size when the ETF trade is entered. The development of the position can be calculated in cash terms, or as a percentage increase. In this example an increase in the value of the position by $10,000 is the same as a 10% increase in position value. The type of management message remains the same. We believe a percentage calculation is a more effective management and comparison tool.

Strategy 2 - Accumulation

Capital growth is enhanced with income and it is the dividend income stream that is most significant in an ETF strategy. The aggregation of dividend income may be used to offset fluctuations in the capital value of the position. In assessing the performance of a position it is important to include the derived income.



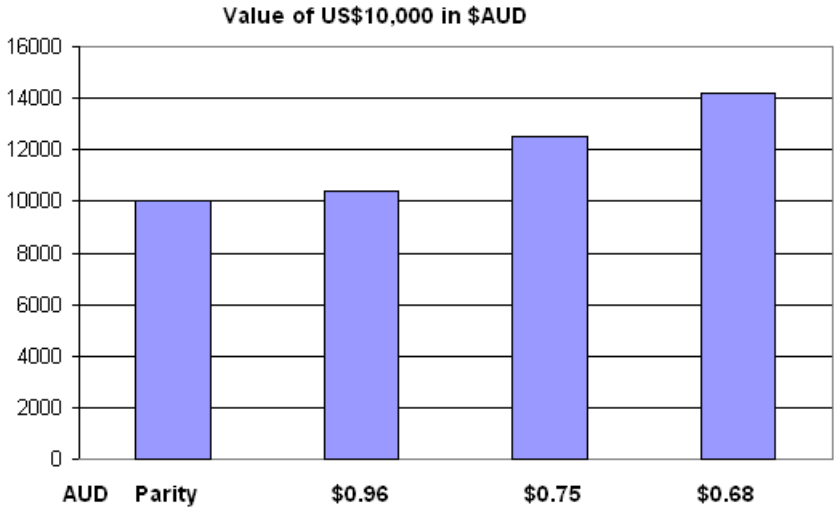
The objective is to clearly establish the current accumulated value of both capital and income. The relevant question is: “If I sell now how much capital return do I get and how much dividend income do I receive?” The answer is calculated as a percentage return on capital in the original position.

Traders may decide to shoot for short term combined returns of 10%. This type of calculation is most suited to traders who are pursuing dividend trading strategies. However, it is also useful calculation for investors who are concerned with a fall in the market value of the ETF.

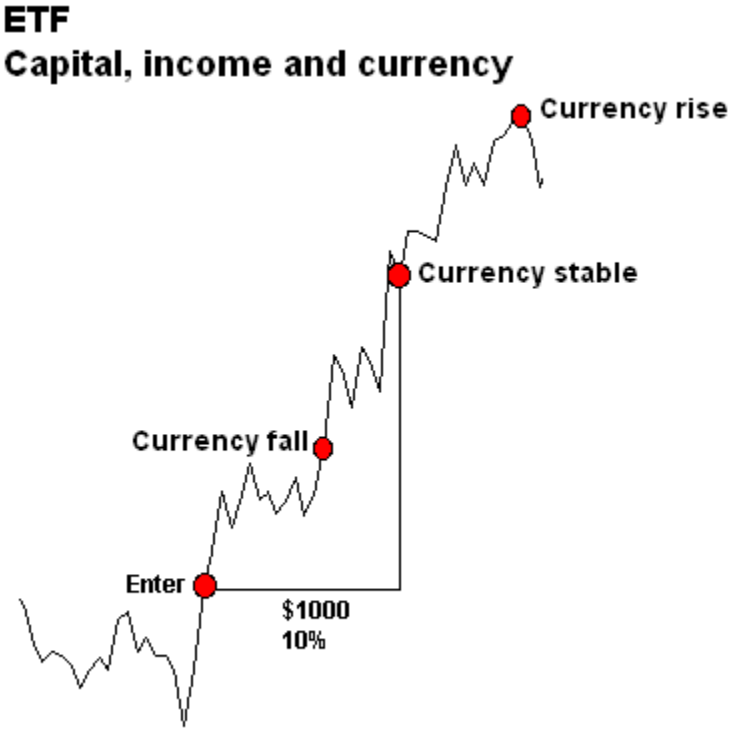
Accurately tracking the accumulated impact of dividend income is an important tool in managing and comparing the performance of ETF positions. This is a return on capital calculation.

Strategy 3 – Currency boost

The above calculations are easily completed when using a single ETF in a home currency. When the ETF is traded in the home currency, but the dividends are paid in a second currency, the calculation becomes a little more complicated – and important. 2008 saw massive currency movements, with changes of 25% or more. The currency movement has no impact on the price of the ETF because the ETF is listed on your home exchange. The value of the dividend or ETF income will change depending on currency movements.



The spreadsheet shows the value of a US$10,000 dividend payment in terms of Australia dollars at a variety of recent exchange rates. A low Australian dollar gives a boost to income returns from ETFs where dividends are calculated in a foreign currency. Of course the opposite also applies, and the value of the dividend can decline with currency movements.



The impact on the return chart is shown. If the currency is stable, a 10% exit is taken in the mid range of the chart. If the currency falls, the 10% return target is achieved at a lower level. If the currency rises, the exit point to achieve a 10% return also rises. In a situation of falling currency value there is an advantage in trading an ETF where the income is calculated in a different currency.

We have discussed these methods of comparing performance as a means of improving the management of ETF positions. These analysis methods can be applied to positions in multiple ETFs to determine which positions are the best performers. The true financial position of the ETF may not be apparent until currency factors are taken into consideration. In times of currency weakness there are advantages in trading an overseas ETF even if the rate of capital appreciation is slower than comparative ETFs in the home country. The rate of currency change currently far exceeds market performance, and this adds an important way to boost income returns from the ETF.

Chapter 11
ETF MANAGEMENT STRATEGY – ZERO AND DOLLAR COST AVERAGING

Zero cost averaging strategy is an essential long term investment management strategy using ETFs. As a general rule, the market always rises. It does so because the structure of the index deletes all stocks which are underperforming the market. This survivor bias ensures that the index consistently rises, and that falls in the market tend to be less than the underlying broader market. Winners in a bear market are those stocks that fall the least, and this selection continues to provide a bullish survivor bias to the index behaviour.

The commonly advocated dollar cost averaging strategy is the idea that the investor buys the same dollar value of the ETF at selected chronological intervals. Every quarter the investor buys $10,000 of the ETF. In a strong market this buys a smaller position size, in a weak market this buys a larger size. Over time the cost of entry is 'averaged.' This is a time weighted strategy.

The dollar cost averaging strategy relies on a balance of rises and falls to achieve an entry 'cost average'. Where the construction of the index limits the downside, except in exceptional market conditions, there is not a great advantage in using the dollar cost a averaging approach.

The zero cost averaging approach uses the rise in capital value to reduce the risk to capital. The strategy recovers capital in favourable markets and re-commits capital when markets are weak. The objective is to reduce risk by reducing capital exposure but preserving the capital gain.

Strategy 1 – Cost averaging approaches

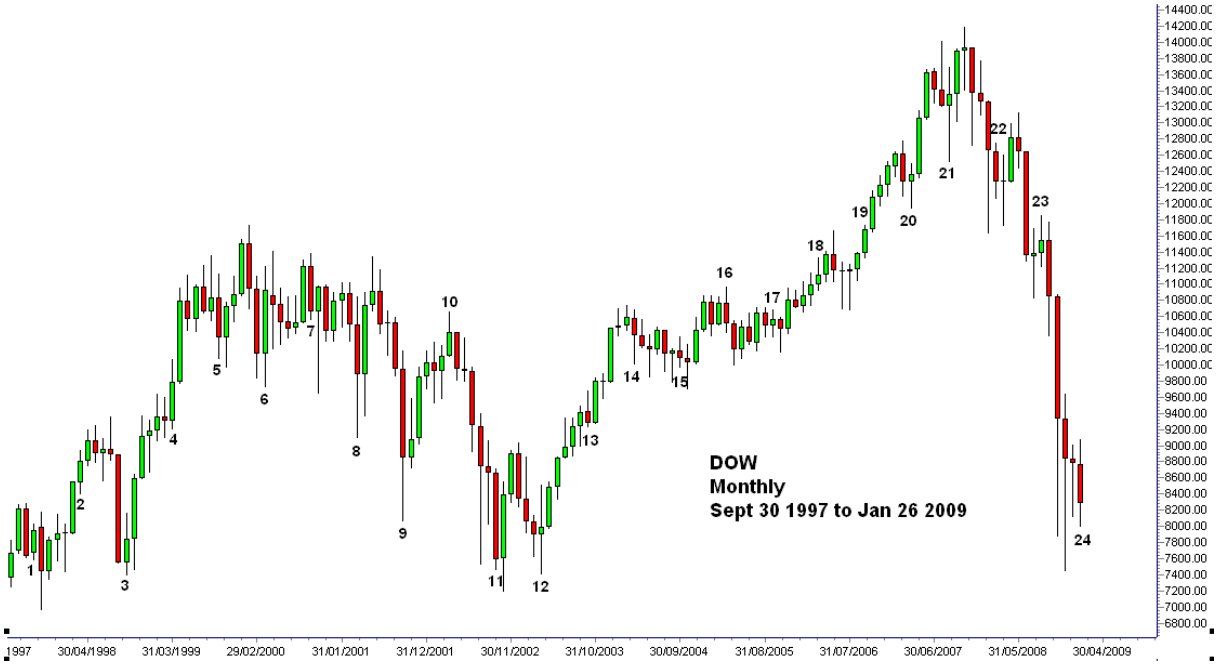
Zero cost averaging is a money management strategy. The strategy works in a rising market. Traders sell a number of shares from their position sufficient to recover the original capital outlay for the position. If the position cost $10,000 to establish, the trader sells $10,000 worth of shares when the price increases by a defined percentage, or a sell signal is generated. This strategy is most successful when the number of shares sold to recover capital is less than half the original position. From a practical point of view, the trader now has his original capital back. The remaining shares in the position cannot revert to a $0.00 value unless the stock is suspended or delisted. This position will always show some profit, even if the stock price falls. The open position is difficult to factor into an accounting report, so it is shown at a nominal value of $0.01 in a portfolio summary. Zero cost averaging is an effective way to make capital work with low risk.

Dollar cost averaging is an investment strategy frequently recommended by fund managers. It encourages people to add the same amount of cash each month to a portfolio, a fund, or an individual stock. By doing this the investor is supposed to overcome the difficulties of timing the market. In good times his cash buys less, and in bad times it buys more. The dollar cost of each purchase is averaged out. Although appealing, this strategy carries unforeseen risk as market volatility has a severe impact on the profitability depending on timing. Regular payments are time based, even though the timing is independent of market activity. Investors lucky enough to select the low days fairly consistently can do well. Select the high days - a matter of chance - and the final results are not good. Timed entry at random points without a stop loss strategy turns investments into brokerage commissions.

Both strategies have infinite investment horizons. Neither of these strategies identifies a point when the investor will stop investing. At any selected point the strategy can be marked-to-market and evaluated. In the discussion of these strategies it is assumed there is not generally an intention to fully close all positions and abandon the strategy. In reality the investor must 'cash out' at some stage to satisfy retirement considerations.

Dollar cost averaging

To illustrate this strategy we use the DOW, starting Sept 30, 1997 as the base study for this and treat this as an ETF. A new entry is made every six months at the closing price for the month. If the DOW is trading at 7800 we treat the entry price as $780. Each new position is added to the value of $10,000. This is the commonly recommended cost averaging approach. Intuitively we believe this should be a profitable strategy.



At the lowest entry at point 11 the entry price is $760 and this buys a position size of 13.16. At the entry peak price of $1337 at point 21 the strategy buys a position size of 7.8. The marked-to-market calculation at this point 21 shows a total accumulated position size of 214.08. This is a total expenditure of $210,000.00. When this is valued at the traded price of $1337 the value is $286,226.02. This is a profit of $76,226.05. These raw figures do not take into account brokerage fees, nor the payment of dividends. A $76,226.05 profit sounds OK, but it must be remembered this is a 10 year profit.

This represents a 36.3% return on capital. The low to high capital increase for the same period, from $760 to $1337 is 75.92%. Even at the most favourable exit point, the peak at $1337, the dollar cost averaging strategy **UNDERPERFORMS** the bull market by a substantial amount.

When the most recent January figures are used for the calculations, the results are very much worse. Total expenditure is $240,000. The total number of accumulated positions is 242.79. Each was purchased for a market value of $10,000. Using the last close price of $830, the total current value of the portfolio is $201,513.21. This is a **LOSS** of $38,486.79. This is a return on capital of MINUS 16.04%. This loss is despite the fact that the net market result with an entry at 7950 and the current close at 8300 is a 4.4% gain.

The Dollar Cost Averaging conclusions are clear. They are:

- Dollar cost averaging results are very time dependant. The regular date you select for entry, end of the quarter, has a significant impact on the final result. Dollar cost averaging is a timing strategy, even though it is claimed not to be. (See additional results at the end of this article.)
- Dollar cost averaging significantly under performs the market in bull market conditions.
- Dollar cost averaging may perform better than the market in a bear market, but this will depend on the initial entry point.
- This is not a method to lock in capital gains, or to preserve capital.

Zero cost averaging

Dollar cost averaging is made to sound attractive because the focus is on the raw dollar returns. The zero cost averaging results are different. To keep the examples easily comparable we make some artificial assumptions. The objective is to compare the principles of the two strategies. For the zero cost averaging chart we use the same starting point, entry value and position size as the dollar cost averaging example.

We apply a count back line and use this as the entry and exit trigger. A monthly close above or below the CBL line is the trigger. For simplicity we use the exact value of the CBL as the entry or exit point. Trades are only from the long side as this is the only available strategy for many ETFs.

The zero cost averaging strategy makes 3 trades during this 12 year period. The first trade is from $795 to $840. It delivers a 5.67% profit. When the exit signal is delivered the trade is partially closed. All of the original capital is removed or rescued from the trade. Enough shares are sold to recover the original $10,000 used to enter the original position.

All that remains in the market is the profit.

Here are the essential advantages of this zero cost average strategy.

- The capital is fully protected from future market risk because it is out of the market
- The profit can never disappear, or move into negative territory. The residual position is pure profit. For accounting purposes it can be valued at an entry price of $0.01. This profit can only disappear if the stock, or the index, stops trading.
- The essence of the zero cost averaging strategy is the removal of capital risk, and the locking-in of return.

The second trade is from $940 to $1,000. Position size remains at $10,000 in value. The recovered capital from the first trade is used to open the second position. When the trade is closed this original capital is again recovered, or rescued. The residual left in the market is $640. This is a 6.4% return on capital.

The third trade is entered at $910 and closed at $1255. This generates a $3,792.45 profit. This is a return of 37.93% on capital.

These figures are aggregated. Total return for the three trades is $4,999.65. The total capital used in the trades is $10,000. At the close of each trade, the original capital of $10,000 was recovered. No new capital is added to this trading series. The return on the capital of $10,000 is 49.9%.

The return on capital from this strategy is superior to the dollar cost averaging strategy. The raw capital return in this example is less than that delivered from the peak return with dollar cost averaging. The return in this example is higher than the January 2008 marked to market return for dollar cost averaging with its negative $38,486.79 result.

The return on capital benefits from the zero cost averaging strategy can be multiplied by adding positions in the rising trend. The Hope, Confidence, Certainty entry strategies discussed in previous newsletters can be applied to pyramid into developing trends. At the nominated exit point, all positions are closed to rescue capital. Only profits remain in the market. The essential feature of this zero cost averaging strategy is the preservation of capital by eliminating the downside market risk. Only profits are exposed to downside market risk, and although they can be reduced, the profit is never entirely eliminated.

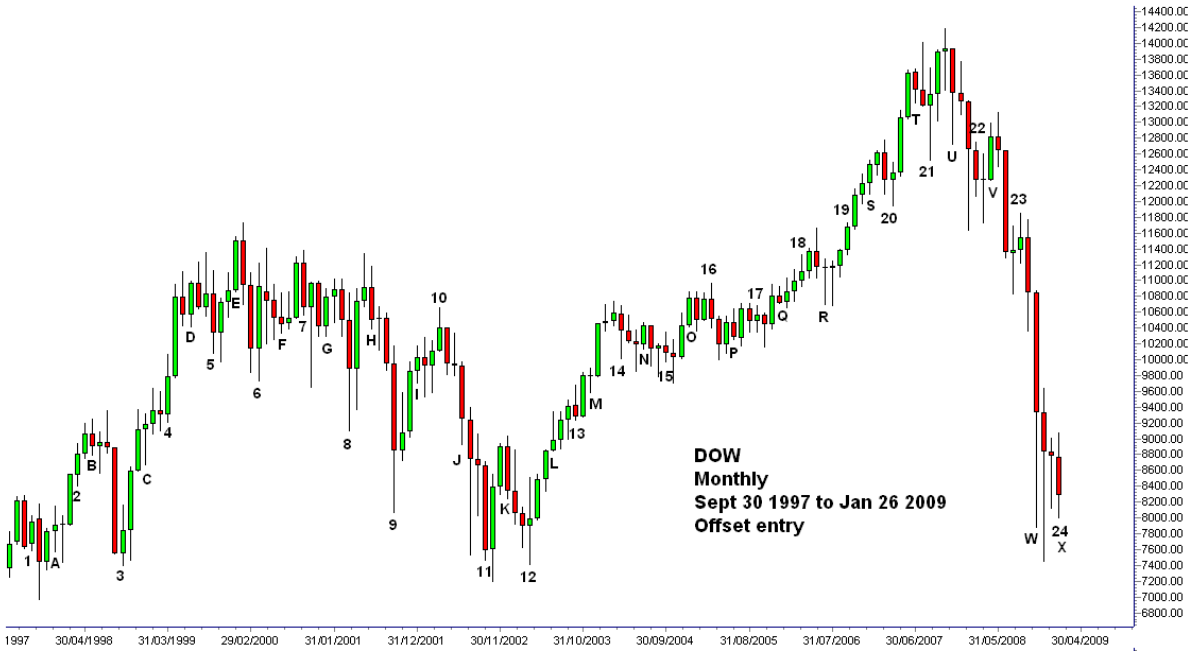
Traders who use other methods to enter and exit near the bottom and the top of trends and sub trends, as discussed in previous articles, can also apply the zero cost averaging strategy. The strategy gives greater flexibility, better capital gain, and significantly reduces capital risk.

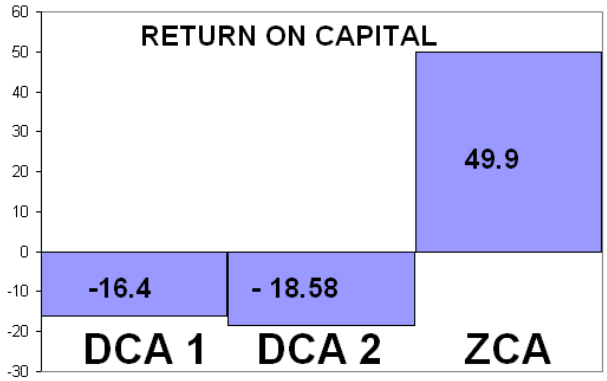
The zero cost averaging strategy is useful for investors who want to build essentially cost free multiple positions in a single ETF. Because these positions consist only of trading profits the investor is able to collect a continuous low risk dividend from the market at any time while preserving his capital. All money management strategies have taxation consequences. We have not considered these impacts because the individual taxation regimes vary amongst readers and often depend on the quality of taxation advice. Understand which money management strategy is most likely to deliver the results you want for your trading and then ask your accountant to develop appropriate tax strategies which assist you in achieving your goals.

The primary purpose in these notes is to highlight the problems with the dollar cost averaging strategy when applied to ETF trading and investing. Active management of ETF positions, using strategies such as zero cost averaging, have the capacity to provide superior returns to those from the essentially buy and hold dollar cost averaging strategy.

ADDITIONAL

Here is a summary of the dollar cost averaging approach when the entry strategy is shifted by 3 months. Each entry is now between the original entry points. We show these new entries as points A, B etc.





Total expenditure for the period is the same - $240,000. The marked to market value on January 26 is $195,406.77. This is a loss of $44,593.23 or 18.58% of capital. Compare this to the previous dollar cost averaging entry which used a starting period 3 months earlier. The loss for the period is $38,486.79, or 16.04% of capital. This is a $6,106.44 difference in performance.

The peak value of the portfolio is at $1340. The peak profit is $63,916.48. This is a 31.9% return on capital. Compare this to the peak profit from the earlier entry point. This was $76,226.02, or 36.3% return on capital. The time of the entry makes a difference of $12,309.54.

The dollar cost averaging is a timing strategy. The time of the initial entry, and the selected period of each subsequent entry does have a significant impact of the level of success of this strategy.

Chapter 12
ETF MANAGEMENT STRATEGY – CURRENCY LOCKS

Trading a fast moving overseas emerging market sounds appealing but it carries with it a currency risk. Trading an established overseas market, such as the US or the UK also caries an additional currency risk. This one of the reasons why many people are reluctant to trade directly overseas even though Microsoft may continue to be particularly appealing as an investment prospect.

Currency risk was highlighted in 2008 with exceptional volatility in currency markets. The spreadsheet extract shows the impact of these currency movements between a relatively stable currency and a more volatile currency. The stable currency is the Chinese Yuan which trades in a narrow band. The unstable currency is the Australian dollar. The table shows the impact on an investment of $100,000 Australian dollars in China. In Australian dollar terms the value decreases by 11.87% and increases by 30.6%. These changes are large enough to warrant developing a separate currency trading strategy.

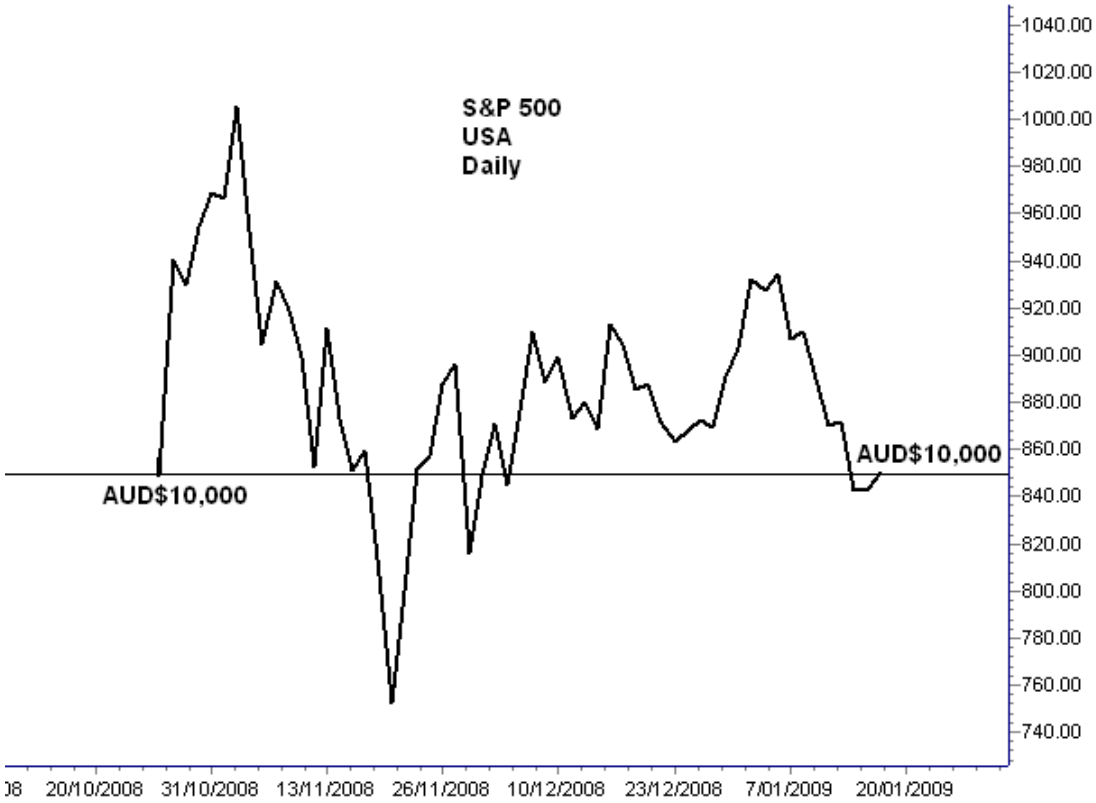
	RMB/AUD	AUD$	Change
1/01/2006	5.907	$ 100,000.00	$ -
1/10/2007	6.702	$ 88,133.69	-$ 7,405.88
1/11/2008	4.523	$ 130,599.05	$22,032.49

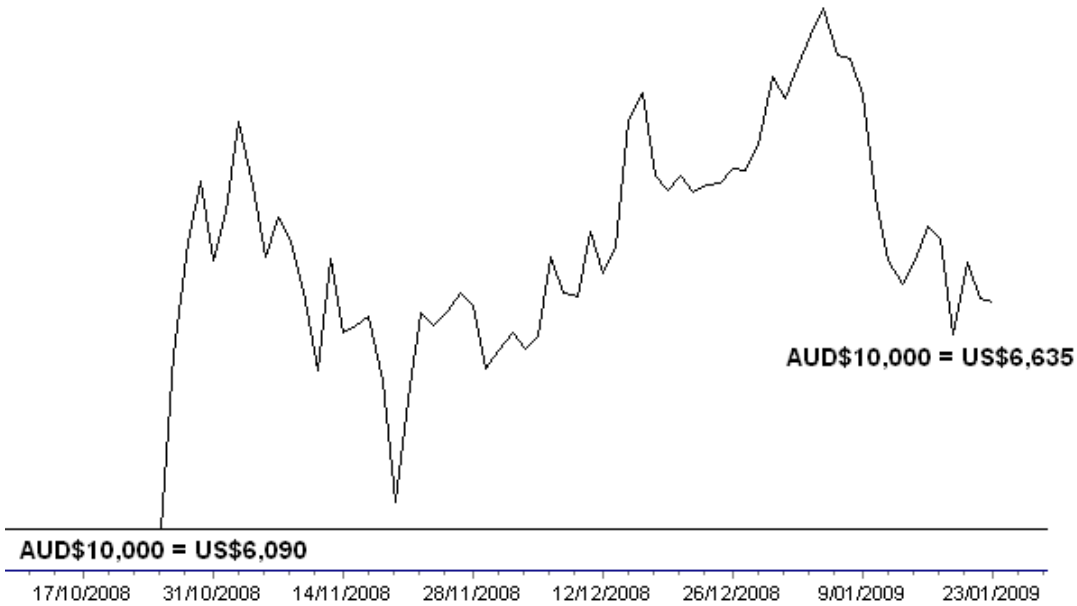
The significant problem is the impact of currency volatility on foreign stock positions. With a falling currency relative to the currency of the foreign investment, the foreign stock position must first overcome the drag of currency change before it can generate a genuine capital return. This added burden makes investing in foreign markets less attractive and adds an extra layer of risk.

Currency lock forward

The ETF provides an opportunity to set a currency lock when trading a foreign ETF. We use the S&P 500 Index ETF as an example. This is listed as IVV in Australia and also as IVV in America. They are created and managed by iShares, but they are two separate and independent instruments. They are not fungible. This means I cannot buy 200 of the US S&P 500 IVV ETF in America and then sell them in Australia. The IVV ETF cannot be exchanged between separate markets, even though they are the same instrument. Think of this in the same way as the 'regionalisation' of DVDs. A DVD purchased in Singapore will not play in an Australian DVD player. The movie title is the same, but the DVD disks are not fungible – transferable.

This non-fungibility limits some trading strategies, but it has an important advantage. It allows an effective currency lock when the trader buys an ETF. This eliminates the currency risk – and reward. The S&P 500 US Index is quoted in Australia dollars when it is traded as IVV on the Australian stock exchange. The base capital used in the trade when the position is opened is protected from currency fluctuations.





The chart display shows the advantage and disadvantage. The upper chart shows the impact in Australian dollar terms of the S&P 500 performance based on an entry on October 27, 2008. The entry cost was AUD$10,000. Come January 16, 2009 the value of the position is AUD$10,000.

The lower chart shows the value of the position if the ETF had been valued in US$. On October 27, 2008, the position was opened with AUD$10,000. This purchased a US$6,090 position. Come January 16, 2009, the position, in US$ terms, is valued at US$6,635. This is an 8.95% return on the capital used in the original position even though the S&P 500 market index return is zero. In this example, the trader is at a disadvantage because the currency lock.

When a foreign index ETF is purchased in your home currency the currency risk, and reward, is eliminated. The position is exposed only to the changes in the underlying market. This is effectively a currency lock.

ETF SUMMARY

An ETF "shadows" or replicates, the performance of a particular market, index, or sector. They enable you to buy or sell a portfolio of securities in a single purchase. You can trade ETFs just as you would an individual stock. You can buy and sell them at intraday prices. This is a liquid market.

The table below lists each of the iShares and describes the composition of the iShare fund:

Fund Name	ASX Code	Composition
iShares S&P Asia 50 Index Fund	IAA	50 stocks in Hong Kong, Korea, Taiwan and Singapore
iShares MSCI BRIC Index Fund	IBK	Reflects the performance of publicly traded securities in Brazil, Russia, India and China
iShares MSCI Japan	IJP	Reflects the performance of the Japanese equity market
iShares MSCI Emerging Markets	IEM	Leading companies in 22 emerging countries and 10 industry sectors
iShares S&P Global 100	IOO	100 large transnational companies with minimum capitalisation of US$5bn
iShares S&P 500	IVV	US large-cap stocks across a range of industries
iShares S&P Midcap 400	IJH	US stocks capitalised at US$1bn to US$4bn
iShares S&P Smallcap 600	IJR	US stocks capitalised at US$300m to US$400m
iShares MSCI EAFE	IVE	Reflects European, Australasian and Far East market's performance
iShares S&P Europe 350	IEU	350 stocks in 17 European markets and 10 industry sectors
iShares FTSE/Xinhua China 25	IZZ	Reflects the leading 25 companies in the fast-growing China market
iShares MSCI Hong Kong	IHK	Representative of the Hong Kong market
iShares MSCI South Korea	IKO	Reflects the main South Korea market
iShares MSCI Singapore	ISG	Tracks the Singapore market
iShares MSCI Taiwan	ITW	Reflects the performance of leading Taiwan-based companies
iShares Russell 2000	IRU	US small-cap stocks

The ETF offers investors a diversified way to play economic sectors, global financial trends, market events and other so-called "special situations". For individual investors, ETFs are the amongst most innovative and most powerful investment instruments to hit the financial markets in the last 5 years. CFDs are a trader's instrument and an important innovation. ETFs are an active investor's instrument.

There are four key benefits with ETFs. They:

- Offer a risk/reward profile that's much better than either individual stocks or other types of mutual funds can offer.
- Provide a way to make investment that often is otherwise be out of reach.
- Give you terrific diversification and liquidity, offering significant safety.
- Tap into dividends of all index stocks

	Live Quotes from SGX
e	ABF SG BOND ETF
	CIMBFTASEAN40 100US$
	DaiwaFTShariaJ100US$
	▲ GLD 10US$
	▲ IS MSCI INDIA 100US$
	Lyxor APEX50 10US$
	▲ Lyxor Asia 10US$
	▲ Lyxor China H 10US$
	Lyxor Cmdty 10US$
	▲ Lyxor HangSeng 10US$
	▲ Lyxor India Nifty 10
	▼ Lyxor Japan 10US$
	▼ Lyxor Korea 10US$

	▼ Lyxor Malaysia 10US$
	▲ Lyxor MS India 10US$
	▲ Lyxor Taiwan 10US$
	▼ Lyxor Thailand 10US$
	LyxorCRBNonEng 10US$
e	▼ STI ETF

US CROSS-LISTED ETFs	
	Live Quotes from SGX
e	DIAMONDS 10US$
e	IS DJ USTECH 10US$
e	IS MSCI SIN 100US$
e	IS S&P500 10US$
e	SPDRS 10US$

When everybody wants Alpha performance – performance that is better than the underlying market performance – then why settle for beta performance – matching the gain or loss in the market?

There are 3 parts to this answer.

- Matching market performance is a better result than that achieved by 95% of fund and investment mangers.
- The myth that the market always rises is only true when trading an ETF.
- We use the ETF to obtain alpha performance. The payment of collective dividends means the ETF outperforms the underlying index.

In the past 12 chapters we have discussed analysis, selection and trade management strategies for ETF. This included 16 analysis and selection strategies. They are:

- Dividend hop – 3 strategies
- Swiss roll – 3 strategies
- Yield trading – 3 strategies
- Beta beaters– 2 strategies
- International – 3 strategies
- Arbitrage – 2 strategies

We discussed five trade management strategies for profit lock in ETF trading. They are:

- Accumulation
- Capital profit
- Currency boost
- Cost averaging
- Currency lock

The ETF provides a low risk and steady reward model for investment. The risk is the same as the market risk. The reward is also the same as the market and after the volatility of 2008, many investors will look on this as a favourable combination in 2009 and beyond. The objective in the trading strategies we have discussed is to retain the low risk profile of the ETF but increase the reward component.

A full list of ETFs is available from your exchange website. A full list is also available from MasterData. http://www.masterdata.com/

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