



DEMYSTIFYING LEVERAGED AND INVERSE-LEVERAGED EXCHANGE TRADED FUNDS

- Leveraged, inverse and inverse-leveraged ETFs (or LETFs, as we'll more conveniently refer to them in this commentary) generally aim to return multiples of the daily return to the relevant benchmark index. Given that directive—specific multiples of *daily* returns—long-term performance of LETFs generally does not work out to that same multiple of benchmark returns, mostly due to the effect of the compounding of those daily returns.
- That lack of a direct long-term relationship, while perhaps not a 'feature' of LETFs, almost certainly is not a flaw, when the products are being implemented by investors who understand the LETF mechanics.
- Yet, to our knowledge, most of the research on LETFs focuses on the buy-and-hold properties of these products. It's an easy 'gotcha' moment for the folks making the criticisms, but it reflects more a lack of comprehension on the part of the critic than it does any deficiency on the part of the LETFs.
- This month, we provide a thorough description of leveraged and inverse-leveraged ETFs, illustrating the mechanics of the daily rebalancing features as well as the established features of their buy-and-hold properties. These products are often misunderstood in the financial press and by investors. Thus, we present this commentary not as advocates or apologists for these products, but for the sake of providing a fair and balanced discussion of their mechanics.
- In a subsequent volume, we will summarize the investment committee's recent research into leveraged and inverse ETFs, focusing on the role of rebalancing costs, counter-party risk and benchmark-tracking performance.

Since the tremendously successful launch of the first Exchange Traded Fund (ETF), State Street's SPY on January 22, 1993, the ETF product space has grown to encompass many different products. Traditional ETFs track traditional index exposures using buy-and-hold portfolios consisting of direct investment in the securities underlying the benchmark index. More recent innovations include a group of funds designed to provide leveraged, inverse and inverse-leveraged exposures to benchmark indexes, typically via the use of financial derivatives. Similar only in that they share the ETF structure, leveraged products are clearly distinct from traditional ETFs in their intended use (read: practical application).

Traditional ETFs provide investors low cost and liquid vehicles for gaining passive exposures to specific asset classes. Of particular benefit have been retail investors, who previously might have found it difficult or even impossible to gain access to many asset classes (non-U.S. stocks and bonds, as examples). Given that passive focus on particular asset classes, traditional ETFs provide investors with what are, objectively speaking, the building blocks of well diversified portfolios.

That's not necessarily true for leveraged products, given the peculiarities of their return dynamics. Take the examples of these two leveraged and inverse-leveraged ETFs: Direxion's Financial Bull and Bear 3x Shares (tickers FAS and FAZ). These funds seek to provide daily returns of +3 times and -3 times, respectively, the daily returns to the Russell 1000 Financial Services Index. It is important to highlight that the funds aim to return multiples of the **daily** return to the benchmark index. And for that reason, as we'll explain, these products are not necessarily suitable for many investors—long-term, buy-and-hold portfolios, in particular—unless the investor not only properly understands, but also properly accounts for the return dynamics of these products.

Given that context, it's not surprising, really, that leveraged ETFs and inverse-leveraged (collectively LETFs) have been much maligned by regulators and the financial press since they began to appear a few years ago. As we'll explain in a bit, leveraged ETFs don't normally "do what they're supposed to do" in the minds of those critical of them. But that's generally because their "supposed to do's" are off base. LETFs are not meant to replicate at some multiple the longer-term returns of the asset classes they represent. Happenstance if they do. Again, they seek to replicate daily returns at some multiple. And the resulting path, as we'll show in a bit, may not look much like that of the underlying index.

Thus, there remains the danger that investors may not distinguish between traditional ETFs and leveraged ETFs, failing to realize that these are different products with meaningfully different properties. And fears from ETF providers, users and onlookers, alike, remain that misuse of LETFs might lead to a tarnishing of the established and still well trusted ETF 'brand.' With this month's commentary, we seek to ensure that our readers understand the mechanics of the LETFs and our use of them in several of our portfolios.

INNEALTA'S USE OF LEVERAGED ETFS

Leveraged, inverse and inverse-leveraged ETFs are of interest to the Innealta investment committee for at least three reasons. First, several of our strategies, the Opportunity strategies, utilize leveraged ETFs as a means to 'free up' capital to be deployed opportunistically to enhance portfolio returns (we'll explain what that means in a bit). Additionally, the team actively monitors opportunities for our clients and from time to time considers utilizing ETFs offering short, and possibly leveraged short, exposure to certain asset classes. For example we frequently receive questions pertaining to how we will react should benchmark interest rates begin to rise in some unexpectedly rapid manner. Although we do not foresee a dramatic shift in the term structure in the near future, and even though we believe such a move is unlikely to happen in onerously quick fashion, we keep handy potential responses in preparation. One potential tactical move may entail shortening the duration of our fixed income portfolio, or even possibly entering positions offering short exposures (negative duration) as a way of adding speculative exposures to fixed income securities. Third, to best serve our clients, we aim to remain

knowledge leaders in the ETF product space. Such efforts include the production of innovative research testing the performance of the available products.

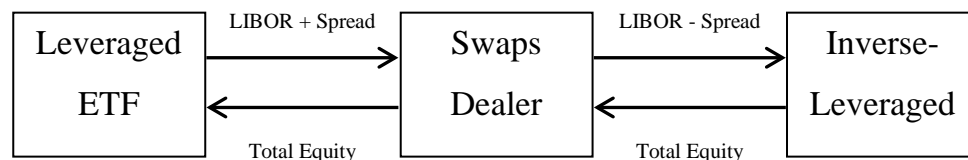
THE MECHANICS OF LEVERAGED ETFs

To illustrate the mechanics of leveraged ETFs, we consider a hypothetical fund promising 3 times the daily returns to the S&P 500. If the fund has a nominal \$100 under management on Day 1, in order to attain 3 times the daily exposure, the fund needs effectively \$300 of exposure to the S&P 500. Clearly this is impossible through traditional methods since the fund has only \$100 of capital. The leveraged exposure is possible through the use of derivative contracts, such as futures contracts and total return swap agreements. The vast majority of leveraged and inverse-leveraged ETFs use total return swap agreements to obtain leveraged exposures.

Note that an alternative means for obtaining leverage is through margin borrowing. Given restrictions on margin balances, it is not possible to obtain a 3 times exposure using margin loans. A fraction of leveraged funds combine direct investment in the benchmark securities with derivative positions.

The following exhibit illustrates a simple total return swap between the hypothetical ETF and the counterparty, most likely a swaps dealer. The two parties enter into the swaps agreement on a specified notional principal, \$100 in this example. There are no cash flows that take place up front, or at the time the two parties enter into the agreement. The parties agree to exchange cash flows at an agreed upon frequency, quarterly or semiannually. In this example, the swap dealer agrees to make payments based on the total return of the equity index, here the S&P 500 index. In exchange, the ETF agrees to make payments equal to the interest rate LIBOR plus a spread.

Exhibit 1: Illustration of total return swap usage by leveraged and inverse-leveraged ETFs.



Note that the periodicity, traditionally quarterly or semi-annually, of the total return swap illustrated in Exhibit 1 does not match that of the LETFs' target to provide multiples of the *daily* return. The fund, therefore, must rebalance its exposure frequently in order to maintain the target leverage multiple on a daily basis. To illustrate the need to rebalance, consider the potential scenario where the index returns +2% on the day after the fund establishes the swap position providing \$300 of exposure. After the 2% return, the total value of fund assets, assuming for now there are no frictions or costs, reflects the \$100 of initial capital plus \$6 gain from marking to market the 2% return to the \$300 swap exposure, totaling \$106. The fund needs to enter into additional swap agreements in order to restore the target leverage multiple of 3. Recall the swap notional principal from the previous day is \$300. When fund assets increase to \$106, however, the manager needs a total of \$318 exposure. Thus, the fund needs to "rebalance," or adjust their total exposure by entering into additional swaps where they make payments of LIBOR + Spread and receive payments linked to the equity index return.

Extending the example, when the index returns are negative, the fund assets decline, requiring the fund to reduce their exposure (left hand side of Exhibit 1), or else their exposure will exceed the target multiple. To illustrate, consider the scenario of -2% returns to the index when the fund's assets are \$100 and the fund has \$300 exposure to the index. In this case, the value of the assets will decline to 94, reflecting a \$6 mark-to-

market loss on the swaps against the previous day's \$100 fund value. In order to maintain a constant leverage multiple, the fund needs \$282 exposure, requiring it to reduce exposure from the \$300 established the previous day.

The mechanics of the inverse-leveraged funds are similar to the (positive) leveraged funds, the only notable difference being that the fund takes the opposite "leg" of the total return swap, meaning they receive payments based on LIBOR + Spread and make payments based on the equity index return. Interestingly, the direction of the rebalance trades is identical to that of the leveraged fund. To illustrate, consider the first example where the index returned +2%. In that example, the leveraged fund targeting 3 times the daily return increased their exposure from \$300 to \$318. Extending this example to consider the inverse leverage fund targeting -3 times the daily return, this fund establishes \$300 exposure for every \$100 of fund assets. Since they will take the opposite position in the swap, a +2% return to the index results in \$6 loss on the swap position, resulting in the fund assets declining to 94. The fund therefore needs to reduce their short exposure to 282 (i.e. enter into offsetting long exposure) to bring the leverage multiple back in line.

UNDER FIRE

Leveraged and inverse-leveraged ETFs have been the subject of much regulatory scrutiny since their emergence. It seems there are three main arguments set forth, including the following, which we will summarize and evaluate individually below:

- Leveraged and inverse-leveraged ETFs are volatile, risky investments not suitable for the majority of investors, particularly retail investors. In addition, these products entail significant counter-party risk not well understood by the majority or retail investors
- Leveraged and inverse-leveraged ETFs are appropriate as short-term speculative or hedging vehicles, but have undesirable long-term, buy-and-hold return properties
- Leveraged and inverse-leveraged ETFs may exacerbate market volatility since their daily hedging activities are always in the same direction as the daily index return

Suitability

Portfolio leverage amplifies returns, increasing portfolio volatility (read: risk). Typically, investors obtain leverage through margin borrowing facilities or by trading derivatives contracts, such as listed options contracts. In each case, an investor must clear certain hurdles before pursuing these strategies. In the case of margin loans, the investor must make application for a margin account and a borrowing facility from a broker. Should an investor wish to trade options, the investor must seek clearance from a broker. Clearance is typically granted for incrementally risky trading privileges based on the investor's demonstrated knowledge and capacity to bear the risks of their trading strategies.

Given the hurdles necessary for many investors to establish leverage through margin accounts or transact in exchange-traded options contracts, it is no surprise that regulators would be cautious about the ease with which all investors may utilize LETFs. As these products are exchange traded and publicly registered, all investors may trade them with the same ease as shares of Intel or Microsoft, circumventing the hurdles to obtaining other forms of leverage or short exposures.

Clearly, these products have the potential to be deleterious to wealth when misused, as is likely to happen for investors who misunderstand their properties. It's a concern that applies to all financial products. Some form of investor education similar to the requirements to establish a margin account and trade options seem reasonable.

As we discuss next, beyond understanding the impact of leverage or leveraged short exposures, it is important for investors to understand the buy-and-hold return properties of these funds, which relate directly to the funds' daily leverage adjustments. As we will highlight, periodic rebalancing is necessary to avoid any potentially negative effects from buy-and-hold return properties.

Undesirable Buy and Hold Returns

We begin with a simple illustration of the asymmetry of compounding returns. Let's assume an investment has a one-day return of -10%, followed by a one-day return of +10% on the subsequent day. What is the average return over those two days? Ask 100 folks this question, including even undergraduate students majoring in Finance, and typically nearly 99 of those 100 will reply, "0%." This response, although correct, is somewhat misleading since our hypothetical investment would have lost value over this holding period!

To illustrate, assume our hypothetical investor invested \$100 and experienced consecutive daily returns of -10% and +10%. After the first day, the investment's value is: $\$100 \times (1 - 10\%) = \90 . After the second day, the value is: $\$90 \times (1 + 10\%) = \99 . Over the two day holding period, the investor realized a -1% return on their \$100 investment, which seems much less desirable than the 0% return many expected! What happened?

This example illustrates the difference between the arithmetic and geometric average returns. The arithmetic average return is simply the sum of periodic returns divided by the number of observations. In the case of this example, the arithmetic average return is 0%. This is the way we typically think of averaging.

The arithmetic average, however, is not an accurate representation of actual investor experience. For this reason, investment returns should be reported as geometric average returns, which more accurately depict actual investor experience. The geometric average daily return is computed as:

$$\bar{r} = \left[\prod_{t=1}^N (1 + r_t) \right]^{1/N} - 1. \quad (1)$$

In the case of this example, the geometric average return is: $[(1-10\%) \times (1+10\%)]^{0.5} - 1 = -0.5\%$. Given that the investment lost 1% over the two-day holding period, the geometric average return of -0.5% per day seems to be a more accurate representation of actual investor experience compared to the arithmetic average return of 0%.

It turns out that the difference between the arithmetic and geometric average return is driven by the volatility of the returns. Specifically, the arithmetic average return is always greater than the geometric average, and the magnitude of that difference is proportional to the return variance, as depicted by the following equation:

$$\bar{r}_{geometric} \approx \bar{r}_{arithmetic} - \sigma^2 / 2, \quad (2)$$

where σ^2 is the return variance. It is clear from the above equation that the difference between the geometric average return and the arithmetic average return is directly proportional to the return variance. Leveraged ETFs, which maintain constant daily leverage multiples, increase the return volatility relative to the benchmark factor exponentially based on the leverage factor. A fund providing +3 or -3 times exposure will have return *variance* that is 9 times that of the target exposure. Correspondingly, funds providing +2 or -2 times exposure have variances 4 times that of the target.

Equation (2) illustrates clearly that traditional buy-and-hold strategies are not appropriate for LETFs. This property stems directly from the funds' daily adjustment of their exposure to maintain constant leverage. The Innealta investment committee is, of course, acutely aware of the importance of the daily adjustment. It is for this reason that in the Opportunity funds, we monitor closely the portfolio weights, actively rebalancing to make

sure we maintain close to the desired allocations, taking as much advantage of daily volatility as opportunities present.

To illustrate further the buy-and-hold return properties of LETFs, we present a detailed example of the Direxion Financial Bull and Bear Shares. Recall that the FAS, which is the Bull Fund, aims to provide +3 times the daily returns to the Russell 1000 Financial Services Index. The mirror fund, the FAZ, is the Bear Fund and targets -3 times the daily returns to the same index.

Exhibit 2 presents annual returns, tracking errors, and the index return standard deviation for the Bull (FAS) Fund. The fund inception date is November 6, 2008, thus the statistics for 2008 are abbreviated to cover only the relevant portion of the year. The first two columns present the annualized returns to the benchmark index and the hypothetical returns had the fund achieved its goal of returning +3 times the daily returns to the benchmark index. Note that it is immediately clear that the hypothetical returns are NOT equal to 3 times the annual index return. In fact, they are always less than three times the index returns. This is due to the fact that maintaining the constant leverage multiple erodes the buy-and-hold returns, as illustrated in Equation (2) above. Note the dramatic difference during the year 2009 during which the Russell 1000 Financial Services Index returned nearly 16%, but the annual compounded return to 3 times the daily index returns is an abysmal -46.4%. This is somewhat shocking at first glance. Many market participants and regulators conclude this as damning evidence, suggesting these products suffer from irredeemable flaws.

Exhibit 2: Annual returns and statistics, Direxion Financials Bull Fund (FAS)

	Russell 1000 Financials Index Return	Daily Leveraged Benchmark Index Return	FAS Actual Annual Return	FAS Cumulative Annual Tracking Error	R1000 Index Standard Deviation
2008 ¹	-11.7%	-56.6%	-54.8%	1.8%	100%
2009	15.9%	-46.4%	-42.4%	4.0%	60%
2010	8.2%	5.9%	7.5%	1.7%	25%
2011	-16.3%	-57.3%	-55.9%	1.4%	32%
2012 ²	10.0%	26.7%	28.8%	2.1%	19%

¹Fund inception date 11/06/2008. ²Through 06/29/2012. SOURCE: Thomson Reuters and Bloomberg

Appropriate uses for such funds clearly do not include passive buy-and-hold strategies. The “volatility” drag does not pertain to very short (daily) holding periods, and does not eliminate the potential usefulness of these products for specific purposes, such as short-term hedging or speculative vehicles. Of course, the vast majority of retail investors have no such need to trade leveraged exposures for short-term hedging or speculative purposes, suggesting in this context these products are suitable only for relatively sophisticated investors.

There is a context in which buy-and-hold positions in these funds make sense, although such scenarios are better referred to as “buy-and-rebalance” as opposed to “buy-and-hold.” The price decay resulting from the “volatility effect” illustrated above stems from the maintenance of daily leverage multiples. An investor may ameliorate the volatility effect by rebalancing their own holdings daily. This strategy simply involves the purchase of additional shares when the price declines and the sale of shares following price increases. The rebalance triggers in the Innealta Opportunity Funds are designed to facilitate exactly such strategy, taking into account transactions costs.

The next columns in Exhibit 2 present the actual annualized return to shares of FAS, assuming an investor reinvests all distributions. The Fund’s annual tracking error is defined as the Fund’s return minus the benchmark return, where the benchmark return is the daily compounded return to the leverage multiple times the benchmark index return described above. Given that the annual expense ratio is approximately 0.95%, we might expect an average tracking error of -0.95%. We see that in fact, for each year from 2008 to 2012, FAS

actually produces a positive tracking error, suggesting the fund outperforms the target benchmark by approximately 2% per year. The source of this return is not immediately clear, and will be the subject of the team's research efforts, as well as other results across the LETF universe.

Exhibit 3 presents similar analysis for the mirror fund, the Bear Fund (FAZ), which targets -3 times the daily return to the Russell 1000 Financial Services Index. Since the FAZ tracks the same index as the FAS, the first column containing returns to the benchmark index are identical. However, since the FAZ targets -3 times the daily return, the daily leveraged benchmark index differs meaningfully from that of the FAS.

Since the FAZ targets -3 times the daily return, one may expect that during years when the benchmark index declines (see 2008 and 2011), a buy-and-hold position in the FAZ would have at least positive returns. In fact, as the third column indicates, had the fund achieved exactly its objective of -3 times the daily return each day, in those years the returns would be -40% and -8%, respectively. At first glance, this is surprising. However, again, this is the "volatility effect." In fact, the fourth column presents the FAZ actual annual realized return, the next column presents the tracking error, which indicates that the FAZ overall performed fairly well at providing the target exposure. Recall that fund expenses of -0.95% suggest the average annual tracking error should approximately equal -0.95% absent all other costs and frictions. With one exception, which is 2011 when the tracking error was close to -8%, the FAZ has replicated closely the annual returns to the leveraged benchmark.

Exhibit 3: Annual returns and statistics, Direxion Financials Bear Fund (FAZ)

Year	Russell 1000 Financials Index Return	Daily Leveraged Benchmark Index Return	FAZ Actual Annual Return	FAZ Cumulative Annual Tracking Error	R1000 Index Standard Deviation
2008 ¹	-11.7%	-40.1%	-42.5%	-2.5%	100%
2009	15.9%	-93.5%	-94.3%	-0.8%	60%
2010	8.2%	-44.9%	-48.8%	-3.9%	25%
2011	-16.3%	-8.2%	-16.1%	-7.8%	32%
2012 ²	10.0%	-32.1%	-34.9%	-2.8%	19%

¹Fund inception date 11/06/2008. ²Through 06/29/2012. SOURCE: Thomson Reuters and Bloomberg

Potentially Volatility Inducing

As illustrated above, LETFs require daily (minimally very frequent) rebalancing, since they seek returns that are multiples of the daily index returns. Most interestingly, the direction of these rebalance trades are always the same for both the leveraged and the inverse-leveraged funds. Further, the rebalance trades are typically executed at or near the close of trading, which fosters the conjecture that the execution of potentially large trades in a short time window at or near the close of trading may result in large price impacts. Since the daily rebalancing needs involve adding long exposure on days where the index returns are positive and reducing exposure when index returns are negative, these trades have the potential to exacerbate the size of the daily directional move. Note that the funds themselves typically transact in the derivatives market. This may lead one to question why the rebalance trades would impact the underlying securities. The swaps dealer on the other side of the transaction is unlikely able to net their entire exposure and are likely to trade in the underlying securities to offset this risk. It is these "re-hedging" trades of the swap dealer that are hypothesized to ultimately impact the prices of the underlying securities.

Cheng and Madhavan find supporting evidence of the hypothesis that daily rebalancing trades by leveraged and inverse-leveraged ETFs exacerbate daily returns.¹ However, one must be careful when interpreting this evidence, as there is an endogenous relation between order flow and prices. Further, financial economists are

¹ Cheng and Madhavan (2010), Journal of Alternative Investments.

not surprised that order flow has a causal impact on prices—that is the very foundation of market efficiency where prices are determined as agents learn through the information revealed through order flow.

We find the volatility-inducing hypothesis to be unconvincing for two reasons. First, the magnitudes of the rebalance trades are a small portion of daily trading volume. One recent estimate places the total assets under management at LETFs at approximately \$32 billion. The daily rebalancing needs are a fraction of this amount. For example, in the examples presented above, the rebalance needs are equivalent to less than 20% of fund assets on a highly volatile day during which the index returns 2%. Given these two estimates, a reasonable upper bound on the daily trading is \$5.75 billion. According to the NYSE Factbook, the average daily dollar volume on the NYSE alone typically exceeds \$40 billion.² NASDAQ daily dollar volume is of similar magnitude at roughly \$42 billion.³ These statistics suggest that even on a high volume day, the rebalance needs across all leveraged and inverse-leveraged ETFs constitute a small fraction of daily dollar volume in U.S. equity markets.

Second, given a basic understanding of LETF mechanics, the daily hedging activities are highly predictable. Given the presence of other, highly sophisticated, traders the market will anticipate the daily trading activities and prepare accordingly for the anticipated liquidity needs of these funds. In other words, if others know these funds will come to market late in the day demanding liquidity, they have the incentive to profit from front-running these trades. The net effect should be that the market reaction is less than were these trades unexpected.

SUMMARY

Leveraged and inverse-leveraged ETFs constitute a recent innovation in the ETF space. Departing from “traditional ETFs,” these innovative products stand apart for their use of derivatives contracts to create leveraged exposures, or leveraged short exposure, to a benchmark index. These products are frequently misunderstood by investors and financial professionals, alike. This first installment of a two-part commentary is aimed at providing a fair and balanced depiction of the mechanics and return properties of these Funds. This is an important aim for us at Innealta as we utilize the leveraged products in our Opportunity Funds and from time to time may otherwise desire to act opportunistically in adding leveraged long or short exposures to certain asset classes. In a subsequent commentary, we will present a portion of the Investment team’s ongoing research evaluating the performance of these very relevant products.

² http://www.nyxdata.com/nysedata/asp/factbook/viewer_edition.asp?mode=table&key=3141&category=3

³ <https://www.nasdaqtrader.com/Trader.aspx?id=DailyMarketSummary>

ENVIRONMENT AND POSITIONING

The prior calendar year in review presented a host of challenges to equity market investors. Various sources of market distress ranged from the most pressing, which included the escalating severity of sovereign solvency in Europe and potential geopolitical crises in the Middle East, to matters less near-term dire, but potentially more disconcerting over the long-term. Fine examples of the latter were the evolution of the internal drivers of China's macroeconomic growth and America's devolving solvency and political discourse.

In an otherwise 'normal' environment one might have expected that investor reaction to these forces would have held back equity market performance. But these are no normal times, in our view, not least when one considers the beyond-extraordinary measures that central banks around the world, the U.S. Federal Reserve in particular, have taken to support macroeconomic growth-oriented goals. In their views, these efforts have been warranted by the severe compression in macroeconomic activity caused by the credit crisis of 2008 and the slow...at best...resumption of growth since. The effect of these endeavors, per our reckoning, is that equity markets found greater favor than might otherwise have been expected.

To offer some credit, targeting a presumed 'wealth effect' engendered by equity market gains was a stated goal of Federal Reserve Chairman Ben Bernanke. However, we're not alone in our questioning of the macroeconomic impact of equity market gains—we think any impact is at best negligible. Even more, we wonder (often aloud in our monthly commentaries) whether the near-term 'benefits' of these efforts justify what we believe will be incommensurately grand longer-term costs. Top of mind is the market dislocation we expect to be seen in fixed income and equity markets as the Federal Reserve begins to unload the colossal sum of Treasury securities it has amassed on its balance sheet (\$3+ trillion and counting). Federal Reserve support of the economy must at some point come to an end. The longer we wait, though, the more abrupt the shutoff will have to be and the more impactful on market order it's likely to prove.

We wonder what shall happen to core macroeconomic growth once the Federal Reserve shuts off the spigot (or, perhaps better, closes the hatch and lands the helicopter). Witness the markets twitch this week when Fed minutes suggested that time is coming nearer.

Even more, recent Fed work has been as much about guiding market behavior as it has been about supporting runaway federal deficits. Those unprecedented deficits already once have nearly brought the U.S. government to a standstill—the Great Debt Ceiling Debate of 2011—imparting no minor amount of fear in equity market participants that the U.S. Government would soon begin to find less ample support for its growing need for debt financing. The 'resolution' to the debate was a rather brutish threat of sequestration and tax-cut-cessation that few at the time thought would prove likely. Unfortunately, we've seen very little action against those deficits since that time, as Democrats newly emboldened by an Obama election win have hardened their stances against benefit cuts and for tax increases. With those on the other side of the aisle naturally digging in their own heels, we've the expectation that nothing long-term salient in regard to fixes to our growing fiscal predicament will come before the year end.

Take the year-end 'fiscal cliff' negotiation. One might imagine our dismay when markets rocketed higher after the turn of the calendar. Really? The only salient item upon which the group agreed was that they would continue to disagree for another few months. As is its nature, in our view, Washington offered a very temporary fix that will lead us to very similar discussion a few steps down the road with nothing in terms of progress to show for the passage of time or path.

Sorry...they did agree to raise taxes and somehow increase spending. Quite the opposite of what the world needs now. As a nation, we must eventually work to reverse our course of growing deficits, lest we face a crisis now so

obvious in Europe. Depending on the severity of the reversal, we should expect to face austerity-induced macroeconomic pressures that are almost for sure to negatively impact equity fundamentals, even though much-needed thrift would make for progress in supporting the government's longer-term solvency. What's so interesting (sad, really...) about recent political-*cum*-market discourse is the rampant fear of falling off the fiscal cliff. Even as folks began to understand that the cliff was really more of a slope, there was terror on the floors in regard to the potential impact on GDP. At least, that's what folks were saying on the TV; seems we saw little of that terror showing up in market performance. But isn't that impending required austerity going to look a lot like the fiscal cliff/slope anyway? At some point, those fears will have to give way to rational acceptance of the fact that withdrawal of unnatural support for (some would rather say impediments to) the natural mechanics of the U.S. economy (and the European...if not soon also the Chinese...economies) will almost assuredly result in dampened expectations for growth. Those weakened outlooks, in turn, will likely prove very obvious in equity market fundamentals and the valuation investors fix upon them.

Looking forward...

The waves of fervor for U.S. equities last year (and for the past five years, for that matter) have been surprising, so lightly supported they have been in our view from a fundamental standpoint. Sure there have been supporting forces at work...the Central Banks of the world...but those forces are well suspect in their abilities to engender sustainable long-term macroeconomic health. The folly of the rush into equities is proved by what so far have been near inevitable floes back out. The same has been true in global equity markets, with particular volatility seen among emerging markets.

The year so far already is proving more of the same. More so, even. We'll expect the trend toward increased volatility to continue as Washington seeks to avoid going off now multiple cliffs (deadlines for sequestration and the debt ceiling, as well as pressure to finalize the national budget). With the normal fancy of a year-end goal now gone, we think progress might prove even more halting. And that's assuming we'll be able to see some manner of agreement arise at all. More reason to keep parachutes handy...

It has been our preference, in light of the above, to maintain a defensive stance in the fixed income space. Not that we've stood still in our fixed income allocations, though. Readers may recall that we made several rather large shifts in the fixed income portfolio last year, including a shift away from U.S. Treasuries in favor of U.S. Corporates, in turn followed by a shift from U.S. exposures to fundamental and currency (via non-dollar-denominated fixed income ETFs) exposures outside the U.S. and the U.S. dollar. Though we think sustained increases in interest rates are still well off, the Investment Committee will remain every bit as mindful of the various exposures to risk within the fixed income portfolio and will continue to alter allocations there to take advantage of segments made available via new ETF introductions in an effort to balance prospective income and capital returns with expected total-portfolio risk.

With nary a true resolution to Europe's debt woes in sight, increasing tension in the Middle East and further bungling of America's balance sheet still top of mind as we head into the New Year, we expect to retain a similarly defensive stance, at least in the near term. Readers should know, though, that the Innealta Investment Committee remains ever mindful of the trust that you have placed in us and the opportunities that such turbulent times can present. We offer our many thanks for that trust and welcome the ability to continue serving your investment needs in 2013.

IMPORTANT INFORMATION

The information provided comes from independent sources believed reliable, but accuracy is not guaranteed and has not been independently verified. The security information, portfolio management and tactical decision process are opinions of Innealta Capital (Innealta), a division of AFAM Capital, Inc. and the performance results of such recommendations are subject to risks and uncertainties. For more information about AFAM Capital, Inc. please visit afamcapital.com. Past performance is not a guarantee of future results.

Any investment is subject to risk. Exchange traded funds (ETFs) are subject to risks similar to those of stocks, such as market risk, and investors that have their funds invested in accordance with the portfolios may experience losses. Additionally, fixed income (bond) ETFs are subject to interest rate risk which is the risk that debt securities in a portfolio will decline in value because of increases in market interest rates. The value of an investment and the return on invested capital will fluctuate over time and, when sold or redeemed, may be worth less than its original cost. This material is not intended as and should not be used to provide investment advice and is not an offer to sell a security or a solicitation or an offer, or a recommendation, to buy a security. Investors should consult with an investment advisor to determine the appropriate investment vehicle. Investment decisions should be made based on the investor's specific financial needs and objectives, goals, time horizon and risk tolerance. All opinions and views constitute our judgments as of the date of writing and are subject to change at any time without notice.

Sector ETFs, such as Real Estate Investment Trusts ("REITs") are subject to industry concentration risk, which is the chance that stocks comprising the sector ETF will decline due to adverse developments in the respective industry.

The use of leverage (borrowed capital) by an exchange-traded fund increases the risk to the fund. The more a fund invests in leveraged instruments, the more the leverage will magnify gains or losses on those investments.

Country/Regional risk is the chance that world events such as political upheaval or natural disaster will adversely affect the value of securities issued by companies in foreign countries or regions. Country/Regional risk is especially high in emerging markets.

Emerging markets risk is that chance that stocks of companies located in emerging markets will be substantially more volatile, and substantially less liquid, than the stocks of companies located in more developed foreign markets.

Securities rated below investment grade, commonly referred to as "junk bonds", may involve greater risks than securities in higher rating categories. Junk bonds are regarded as speculative in nature, involve greater risk of default by the issuing entity, and may be subject to greater market fluctuations than higher rated fixed income securities.

Diversification does not protect against loss in declining markets.

Registration of an investment adviser does not imply any certain level of skill or training.

AFAM Capital, Inc. is an Investment Adviser, registered with the Securities & Exchange Commission and notice filed in the State of California and various other states. For more information, please visit alfrank.com. Registration as an investment advisor does not imply any certain level of skill or training.

Innealta is an asset manager specializing in the active management of portfolios of Exchange Traded Funds. Innealta's competitive advantage is its quantitative investment strategy driven by a proprietary econometric model created by Dr. Gerald Buetow, Innealta's Chief Investment Officer. The firm's products include Tactical ETF Portfolios, a U.S. Sector Rotation Portfolio and a Country Rotation Portfolio. Innealta aims to beat appropriate benchmark performance by tactically managing portfolios utilizing a proprietary econometric model. By harnessing the benefits of ETFs, Innealta is able to provide investors with exposure to multiple asset classes and investment styles in highly liquid, low cost portfolios.

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