

ETF DYNAMICS



The US Securities and Exchange Commission (SEC) Requires the following legal notices:

ETF Dynamics, LLC does not advise its clients or any other person whether or not to buy or sell or take positions in securities. Further, we do not receive any form of payment or other compensation for publishing information, news, research or any other material concerning any securities on our site or publish any information on our site or publications that is intended to affect or influence the value of securities. ETF Dynamics, LLC suggests that the client/member test all information and trading methodologies provided at our site and in our publications through paper trading or some other form of testing. You therefore acknowledge and agree that all investment decisions you may make, including decisions that take into account or rely on any information provided or made available by ETF Dynamics, LLC are yours and yours alone and are made solely at your own risk. We are not registered as a broker, broker-dealer, investment adviser, agent or representative of the U.S. Securities and Exchange Commission, or any similar authority. We do not teach or recommend to any client their financial suitability to trade equities. We make and offer no analysis or advice regarding your individual financial suitability to trade equities as a day trader or otherwise. We are not responsible for what any client does based on our opinions. You also agree to bear complete responsibility for your investment research and decisions and acknowledge that ETF Dynamics, LLC has not and will not make any specific recommendations or give advice to you or any of its clients upon which they should rely.

ETF Dynamics, LLC does not represent or warrant the accuracy, completeness or timeliness of any statements made or information, data or content provided on or through the site or in any notifications or publications distributed by ETF Dynamics, LLC or by any client or other third party or user of the site. All clients should understand that the results of a particular period will not necessarily be indicative of results in future periods. Past performance results obtained by ETF Dynamics, LLC do not guarantee similar future results. All information contained in any training program is for instructional purposes only. You acknowledge and agree that ETF Dynamics, LLC, its owners, affiliates and assignees, make no representation of any kind that your trading activities will result in profits and, likewise, we cannot guarantee that you will not lose some or all of your money. You acknowledge and agree that all trading decisions must be determined by you alone or by you and your qualified licensed broker. The risk of loss in trading equities can be substantial. You should therefore carefully consider whether such trading is suitable for you in light of your individual financial condition.

ETF Dynamics, LLC's past performance figures are based on a simulated account. No actual trading was necessarily done or attempted. The purpose of the past performance is not to reflect what we or any of our members have done, but to track what each issue did on the day it was posted according to our daily entry/exit points listed. Since many potential factors including, but not limited to; market conditions, brokerage service, buying power, trading skills, and stock availability will vary from trader to trader, individual results may vary. No representation is being made that any account will or should achieve profits or losses similar to those shown. Past performance is not indicative of future results.

TABLE OF CONTENTS

What are ETFs?	Page 3
Understanding Leveraged ETFs	Page 4
ETFs versus ETNs	Page 6
Advantages of Trading ETFs	Page 7
Pitfalls of Trading Leveraged ETFs	Page 8
Our Criteria for Selecting ETFs	Page 9
The Hottest ETF Sectors for 2023	Page 10
A Divergence Strategy for ETFs	Page 17
Stop Loss and Exit Strategy	Page 29
ETF Resources	Page 38

What Are ETFs?

Exchange Traded Funds, or ETFs, are investment funds that trade in real time on a stock exchange. They are generally made up of a basket of stocks for an underlying index or sector. There are also ETFs for commodities, currencies, and bonds. ETFs trade on the major indexes just as any individual company stock would.

The vast majority of retail brokers, both traditional and on-line, offer access to ETFs. The investor/trader places an order for a specific ETF in the same way any other stock order is placed. Commissions at the vast majority of brokers are the exact same as they would be for an individual stock such as AAPL (Apple common stock) or MSFT (Microsoft common stock). ETFs can also be traded in retirement accounts such as IRAs and 401Ks.

The major difference between trading ETFs and individual stocks at most brokers is that leveraged ETFs may have more stringent margin requirements. The higher the leverage is for an ETF, the less margin an investor is typically allowed to use to purchase that ETF. Some brokers may have additional regulations for leveraged ETFs, so please check with your broker to find out their specific restrictions.

The popularity of Exchange Traded Funds, or ETFs, has grown dramatically in recent years. At the end of 2016, over thirty percent of total daily market volume was generated by ETFs. More than 1,700 ETF products are currently trading, encompassing major indexes, individual sectors, overseas markets, commodities, currencies, and bonds.

Twenty years ago, only a handful of what are now referred to as ETFs existed. The original index tracking stocks, known as “SPDRs,” were launched in 1993. These instruments were designed to track the percentage returns of the major indexes, and included the SPY for the S&P 500 and the DIA for the Dow Jones Industrial Average.

The big change for the ETF market came in 2006 when the SEC approved active management of ETFs. This allowed ETF managers to use derivatives to gain leverage in ETFs, and rebalance the instruments used for that leverage on a regular basis.

The world of ETFs has opened the door to markets, sectors, and commodities that retail investors might not otherwise have access to. Leveraged ETFs present the opportunity for greater returns over a short period of time.

In addition to “bull” ETFs that follow the price movement of an index, “inverse” or “bear” ETFs are designed to move in the opposite direction of the index. These instruments allow short exposure in retirement accounts that prohibit “short” sales of stocks. By taking a “long” position in a “bear” ETF, the investor is the equivalent of being “short” the underlying index. The inverse ETF should rise if that index declines.

Understanding Leveraged ETFs

Leveraged ETFs have become increasingly popular in recent years. Many of these ETFs are highly liquid, fast moving, and offer the potential for substantial gains. They can also result in substantial losses for a number of reasons that we'll examine throughout this eBook.

Leveraged ETFs operate in a considerably different manner than conventional, unleveraged Exchange Traded Funds. These differences need to be carefully understood by investors.

Leveraged ETFs are designed to double (2x) or triple (3x) the **daily moves** of the underlying index. This is a critical point to understand since over a period of more than one day, a leveraged ETF could return more or less than the underlying index.

Over a long period of time, this has a compounding effect that can either improve gains or magnify losses more than the 2x or 3x rate that an investor would expect. This is due to daily rebalancing which is required to maintain the fund's goal of daily returns of 2x or 3x the movement of the underlying index.

To illustrate this point, we'll look at the performance of Russell 2000 ETFs over a four year period. The first column is the IWM, the unleveraged ETF for the Russell 2000 which tracks the underlying index almost perfectly. The second column shows what 3x leverage should return based on the percentage change in the IWM. The next column shows the returns over the same period of time for the TNA, the triple leveraged "bull" ETF for the index. The final column shows the returns of the TZA, the triple leveraged "bear" ETF for the Russell 2000. As an inverse ETF, the TZA should rise when the Russell 2000 declines.

	IWM	3X	TNA	TZA
2011	-4.44%	-13.32%	-38.10%	-43.46%
2012	16.69%	50.07%	42.63%	-49.90%
2013	38.69%	116.07%	146.48%	-68.58%
2014	5.04%	15.12%	5.20%	-29.29%

In 2011, the Russell 2000 lost 4.44% for the year. While the 3x loss should have resulted in a decline of 13.32%, the TNA actually lost 38.10%. At the same time, the triple leveraged TZA bear ETF lost 43.46% for the year instead of rising 13.32% as would be expected if it had properly tracked the index with inverse 3x leverage over a long period of time.

In 2012, the TNA failed to gain the 3x 50.07% of the IWM, instead rising only 42.63% for the year. But in 2013, the TNA rose far more than the 116.07% that a 3x return should have brought. In both of those years, the bear TZA fell less than 3x the amount of the Russell 2000.

In 2014, the TNA rose essentially the same percentage amount as the index, ending the year well short of a 3x return. The TZA lost almost twice what the inverse 3x amount should have been over that same period of time.

Even on a daily basis, there can be a noticeable discrepancy between what a leveraged ETF should return based on the move of the underlying index and what the actual return is. Supply and demand in the open market can play a role in this. It's not uncommon to see a 3x ETF gain more than the expected daily return on a day with a strong directional move in the underlying index.

Direxion, an issuer of many popular leveraged ETFs, issues the following warning on their website regarding the Exchange Traded Funds they operate:

“These funds are intended for use only by sophisticated investors who:

- understand and accept substantial losses in short periods of time;*
- understand the unique nature and performance characteristics of funds which seek leveraged daily investment results; and*
- have time to manage positions frequently to respond to changing market conditions and fund performance*

These funds are not intended for use by conservative investors who:

- cannot tolerate substantial or even complete losses in short periods of time;*
- are unfamiliar with the unique nature and performance characteristics of funds that seek leveraged daily investment results;*
- are unable to manage a portfolio actively and make changes as market conditions and fund performance dictate.”*

The end result is that most leveraged ETFs are designed as short term trading instruments as opposed to long term investment vehicles. Positions in leveraged ETFs should always be monitored on a daily basis. If you're new to the ETF market, please be aware of the risks and realities of trading leveraged ETFs.

ETFs versus ETNs

In addition to ETFs, many indexes, sectors, or commodities also have ETNs, or Exchange Traded Notes. ETNs trade in the same manner as ETFs, but are different in structure. ETNs are issued as senior debt notes, while ETFs represent equity positions in the underlying index, sector, or commodity.

ETNs track their underlying indexes minus an annual expense of 75 basis points per year. Unlike ETFs, there are very few tracking errors with ETNs. Like ETFs, there are leveraged and inverse ETNs.

ETNs possess credit risk, so if the issuer goes bankrupt, the investor may not receive the return he or she expected. An ETF, on the other hand, has virtually no credit risk, but there is tracking risk involved with holding an ETF. As we examined in the previous section, there is a possibility that the ETF returns will greatly differ from the underlying index. From a short term trading perspective, however, there is very little difference between an ETF and ETN.

Popular ETNs include the VXX which tracks the S&P 500 Volatility Index, the DJP for the Dow Jones-UBS Commodity Index, the DGP, a 2x leveraged gold ETN, and the INP which tracks the MSCI India Index.

Depending on your individual tax bracket, ETNs may be taxed differently than ETFs. You can read more about the differences between ETFs and ETNs in this article from Investopedia. Please note that we are in no way associated with Investopedia and provide this article only as a courtesy to our clients.

[Exchange Traded Notes by Investopedia](#)

Advantages of Trading ETFs

If you don't currently trade ETFs, there are many advantages to adding them to your trading portfolio. The first is that ETFs provide exposure to a broad range of indexes, sectors, and commodities for the same cost as trading stocks. The range of leverage available in today's ETFs allows investors to select a trading product based on individual risk tolerance as well as investment goals.

For the long term investor, ETFs provide access to foreign market indexes for the same price as buying a stock listed on US exchanges. Prior to the introduction of ETFs, overseas mutual funds with expensive management fees were really the only way to invest in foreign markets.

ETFs also allow access to commodities, currencies, and bonds without having to add an additional trading platform, account, or special charting service. ETFs have made virtually any investment instrument available in today's markets accessible to the retail trader through their existing brokerage account.

In the case of many ETFs, the stability of an underlying index won't be as affected by news as an individual stock can be. Individual company equities are prone to sudden large gaps based on news. When that news is negative, the gap down in an individual stock can be substantial. However, although the ETF for a major index may fall if a component has bad news, the rest of the index can buffer the loss, even in leveraged ETFs. It's also important to note that ETFs cannot be halted due to news in the way an individual company stock can be.

One of the greatest advantages to trading ETFs is that they allow "short" exposure in retirement accounts that otherwise don't allow "short" sells. By taking a long position in an inverse ETF, the investor should profit from that "bear" position if the underlying market falls.

ETFs allow investors to utilize margin for long term investments in commodities. For example, if an investor wants a long term position in gold, a gold ETF can be purchased on account margin without having the cash expense of buying physical gold.

When compared to other leveraged instruments such as options or futures, ETFs have very low costs associated with their trading. Most retail brokers charge a flat fee for unlimited shares of an ETF that is the exact same as the commission would be for any other stock.

The increased popularity of ETFs has resulted in highly liquid trading instruments. Leveraged ETFs provide the potential for substantial intraday and short term price movement with consistent volume and limited slippage. Although the risk is greater with leveraged ETFs, so is the potential return on a short term basis.

Pitfalls of Trading Leveraged ETFs

While there are many good reasons to trade ETFs, there are a few pitfalls that investors should be aware of. As we previously discussed, there is always the risk that leveraged ETFs won't track their underlying index with the expected returns.

Many leveraged ETFs can have large opening gaps in either direction. This is especially true of ETFs for overseas markets, currencies, and commodities that can see substantial price movement while US equity indexes are closed. Many overseas markets are actively trading while the US indexes are closed, and the amount of their session change will be priced into the ETF at the open of trading in the US.

Currency, commodity, and bond ETFs can also make substantial overnight moves based on foreign trading. Commodity futures open for trading several hours before the US equity indexes and often see large moves before US equity indexes open. Because of leverage, the size of the gaps in these ETFs can be greatly magnified. This presents substantial overnight risk in many leveraged ETFs that investors should always be aware of.

Seasonality can be an issue with certain ETFs. Agriculture ETFs are prone to seasonal volume, as are many other commodity or sector ETFs. Before actively trading an ETF, it's a good idea to research the underlying market and potential seasonal trading patterns. Lower liquidity due to seasonality can result in slippage that can have a negative impact on gains and magnify losses.

In addition to seasonality, certain sectors may come "in and out of play" due to specific news or geopolitical events. Many currency ETFs have been prone to large moves due to financial events in Europe in recent years, but then declined in volume and price movement as those issues become resolved.

Investors should also be aware that there is "no bottom" in ETFs. For example, during a strong bull market, an inverse ETF for an index may decline until it's only a few dollars in price. When this occurs, ETF issuers often conduct "reverse stock splits" on the ETFs to create a higher price. If an investor purchases 100 shares of an ETF at 5.00 per share and a one for ten "reverse split" is enacted, after the split, the investor will have only 10 shares at a price of 50.00 per share. While the number of shares owned is lower, the value of the investment remains the same on the day of the reverse split. These reverse "splits" are done to keep the price of ETFs in a price range attractive to institutions and most investors. However, if the price substantially declines again after a reverse split, the entire position can essentially be wiped out.

It should be noted that some ETFs pay monthly or quarterly dividends. Always check to see if an ETF you purchase pays a dividend and the date of the dividend payment. Since the price of the ETF will be lowered the amount of the dividend payment after the "x-date" of the dividend, a stop loss order may need to be adjusted to accommodate for the adjustment in the ETF's price post dividend.

Our Criteria for Selecting ETFs

The criteria we use for selecting ETFs to trade will vary depending on whether we're looking for a long term investment or short term trading opportunities. Regardless of which, the first thing to examine is how well an ETF tracks its underlying index.

Major index tracking stocks like the SPY, DIA, QQQ, and IWM will track their underlying indexes almost perfectly. This is also true of major unleveraged commodity ETFs such as the USO for oil, GLD for gold, and SLV for silver. But in the world of leveraged ETFs, and even some unleveraged, this isn't always the case. Before actively trading an ETF, we suggest making a quick comparison of short term returns compared to the underlying index.

We prefer ETFs that have proven market longevity. ETFs that have been trading for several years with consistent volume generally do a very good job of tracking their underlying index in the short term. Several new ETFs are introduced to the markets virtually every month, while others are cancelled. Generally speaking, the longer an ETF has been trading, the more consistent its volume and price movement are.

Liquidity is a major point to consider, especially in leveraged ETFs. Large spreads in a low volume leveraged ETF can create slippage that either cuts into gains or magnifies losses. We look for highly liquid ETFs that have displayed consistent volume over a long period of time.

If you're planning on actively trading ETFs on a short term basis as opposed to longer term investments, we recommend looking for consistent intraday price movement with the majority of the daily move not all in gaps. Many overseas ETFs will have the majority of their daily price movement in the morning gap since the actual underlying market has its trading hours when US equity indexes are closed. While this may not matter to a long term investor, it means a short term trader can be left with very little intraday price movement.

We prefer trading ETFs that aren't heavily impacted by seasonality. We want to see consistent volume throughout the trading year. We also believe that the more familiar we become with a specific trading instrument, the more we understand the trading patterns of those instruments.

The Hottest ETF Sectors for 2023

Semiconductors

Primary ETF (unleveraged): SMH
Leveraged ETFs: 2x USD (bull) and 2x SSG (bear)
3x SOXL (bull) and 3x SOXS (bear)

One of the hardest hit sectors in 2022 was semiconductors, but a strong recovery began late in the year. Few sectors have as much growth potential as this one in 2023. The explosion in artificial intelligence, cloud computing, and gradually improving PC sales should all be driving forces behind a rebound in 2023. The SMH has strong support levels at 235.00, 220.00, and 210.00. If resistance at 255.00 is cleared, SMH could see a powerful uptrend and be one of the top performers of the year.



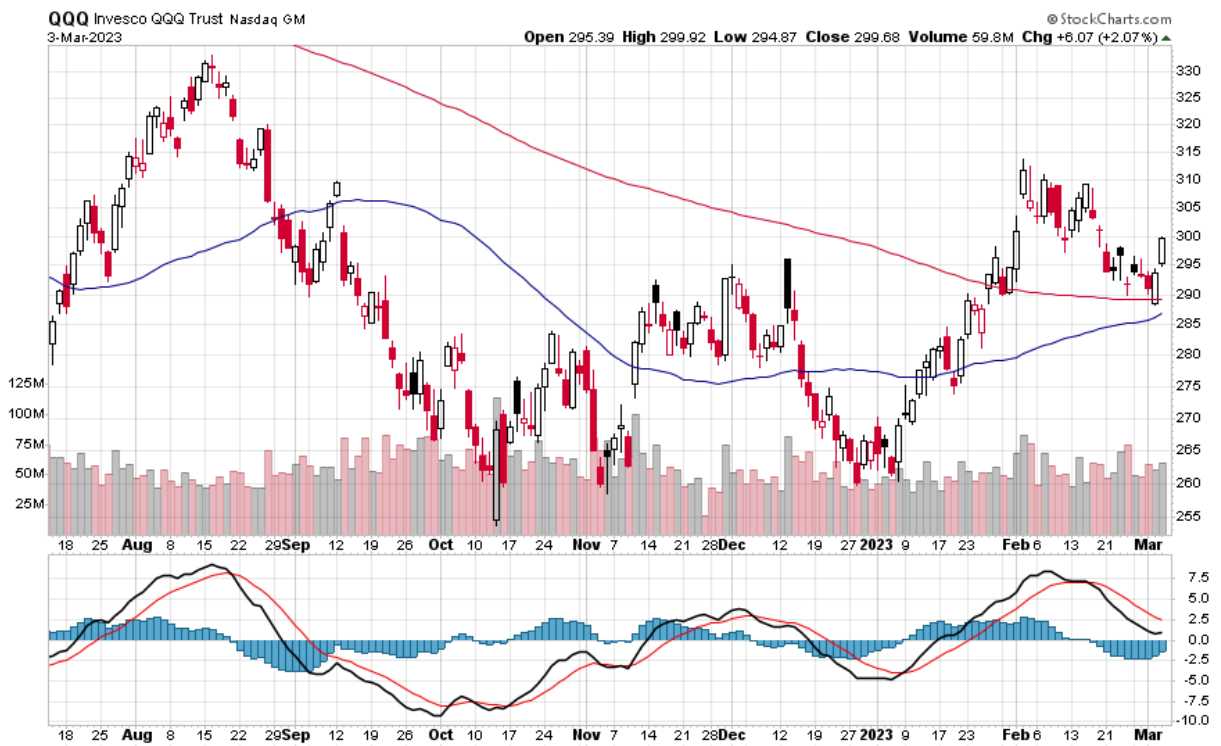
Nasdaq 100

Primary ETF (unleveraged): QQQ

Unleveraged inverse (bear) ETF: PSQ

Leveraged ETFs:
2x QLD (bull) and 2x QID (bear)
3x TQQQ (bull) and 3x SQQQ (bear)

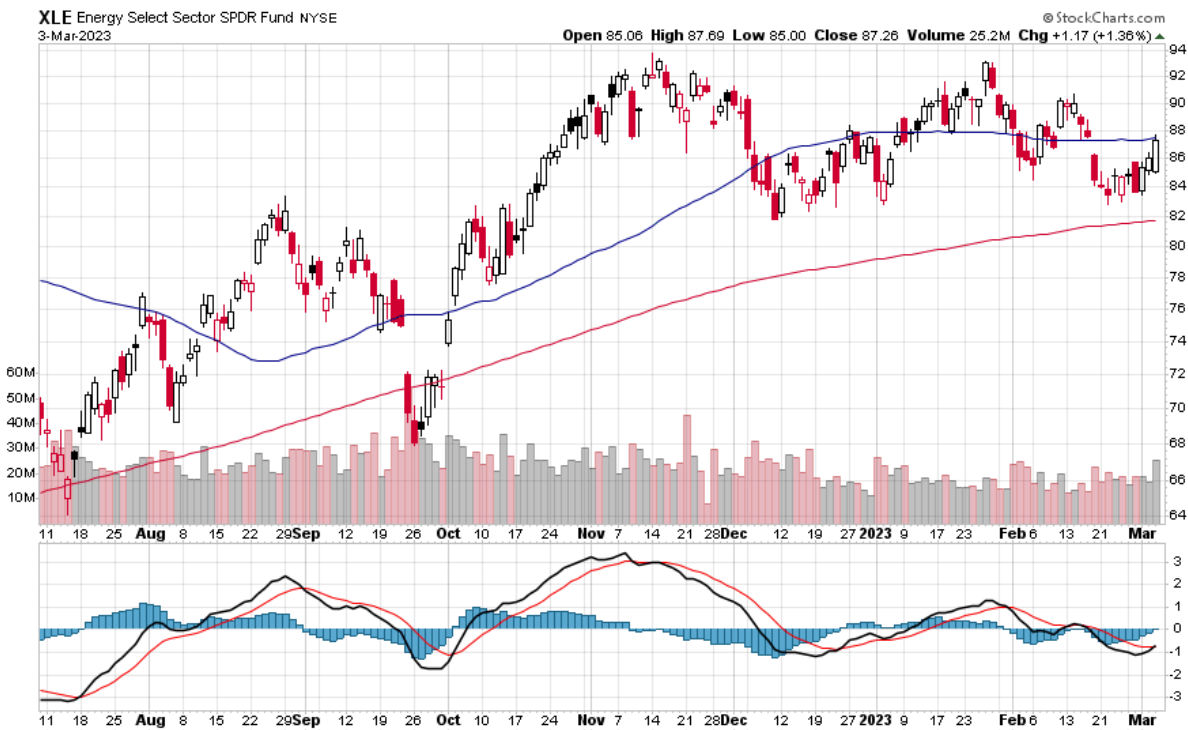
The Nasdaq 100 was one of the worst performing indexes in 2022, lead by dramatic losses in the semiconductor industry. Technology has been a leader in growth for the past decade, and should remain a growth leader as the global transition to a digital economy continues. There will undoubtedly be bumps along the road throughout 2023, but this ETF represents a broad mix of the highest growth potential technologies. 290.00 and 260.00 represent important support levels, while 312.00 and 332.00 are resistance levels to watch. If the U.S. can avoid recession in 2023, the upside potential for this index is significant.



Energy Sector

Primary ETF (unleveraged): XLE
Leveraged ETFs: 3x ERX (bull) and 3x ERY (bear)

The energy sector was a bright spot for the markets in 2022. OPEC has shown that it wants to keep oil prices stable by announcing a series of production cuts. The ongoing war in Ukraine will also continue to have a positive impact on energy prices. Unless the economy falls into a prolonged recession, energy consumption should remain high. Former resistance at 83.00 is now an important support level for the XLE, while a move over resistance at 94.00 could result in a sustained move higher.



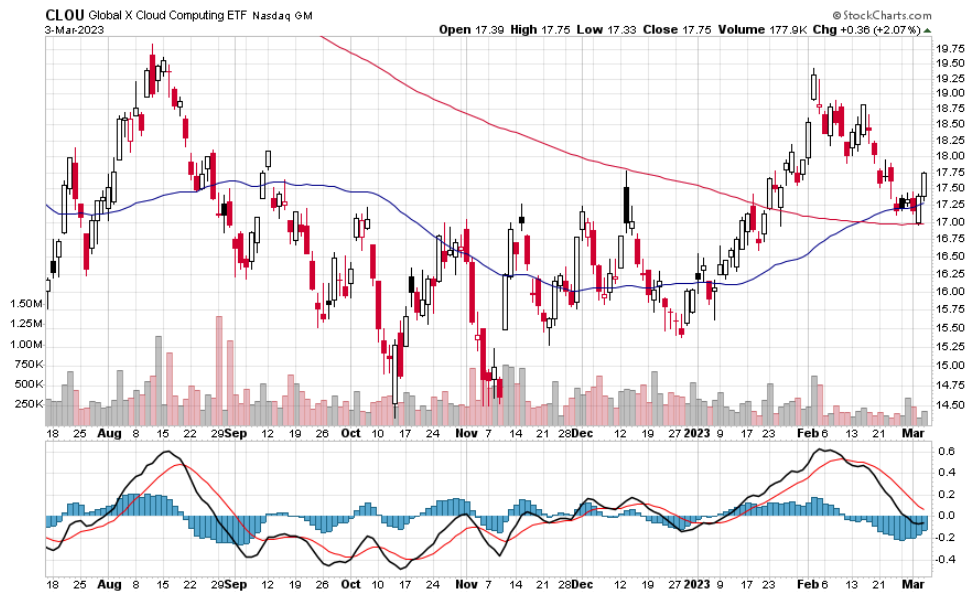
Cloud Computing

Primary ETF (unleveraged): CLOU

Unleveraged inverse (bear) ETF: None

Leveraged ETFs: 2x CLDL (bull) and 2x CLDS (bear)

Cloud computing is one of the highest growth potential areas in the tech industry. The cloud computing market is expected to triple this decade, rising from \$484 billion in 2022 to \$1.5 trillion by 2030. CLOU's holdings include several major players in cloud computing like Microsoft and IBM, but also includes less well-known companies involved in cloud and edge computing, infrastructure, hardware, software, and security. The ETF also has holdings in service companies that offer and take advantage of cloud computing, such as Netflix, Paycom, and Salesforce. The bear market in technology during 2022 hit this sub-sector harder than many, yet companies continue to see strong growth in their cloud computing divisions. As the economy and markets recover, this could be a leading ETF for several years.



Biotechnology

Primary ETF (unleveraged): IBB

Unleveraged inverse (bear) ETF: LABS

Leveraged ETFs:
2x BIB (bull) and 2x BIS (bear)
3x LABU (bull) and 3x LABD (bear)

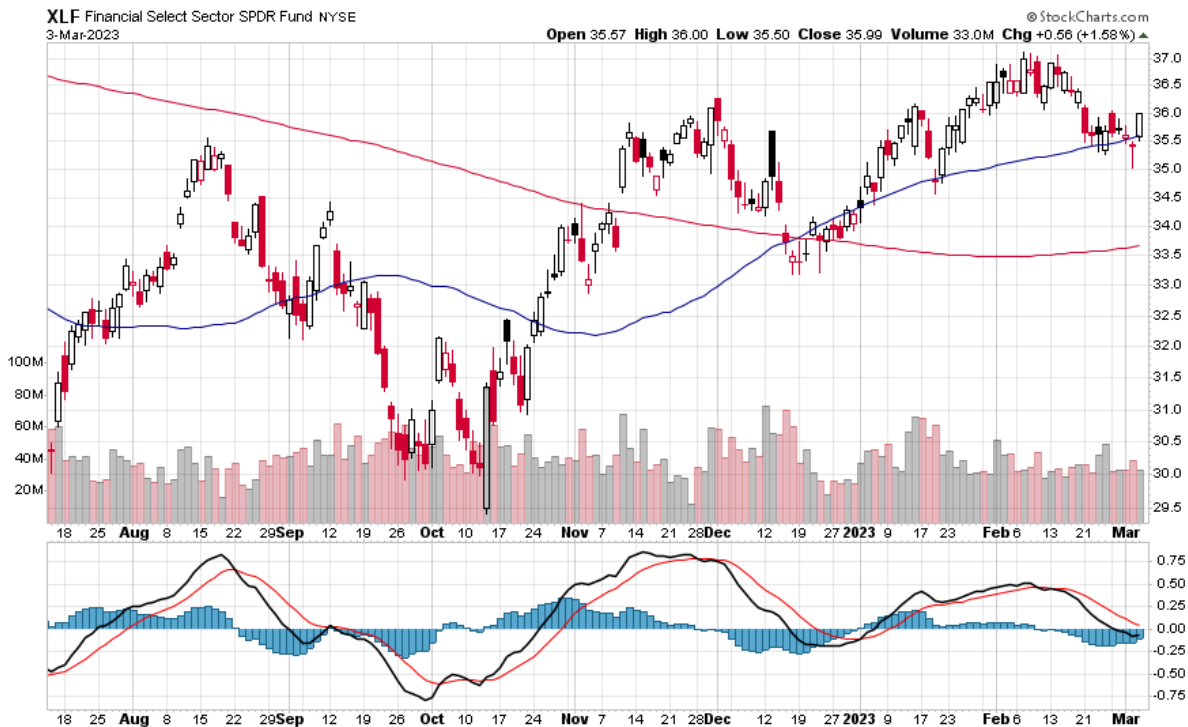
Biotechnology held up better than the S&P 500 during the 2022 bear market, and is historically considered a defensive sector during a recession. Inflation has cut into many pharmaceutical company's margins, while higher interest rates have temporarily increased research expenses. Once inflation cools and the Fed backs off on interest rate increases, the biotechnology sector should again become a market leader. IBB has historical support levels at 126.00 and 116.00. Major resistance lies at 138.00. If that level is broken in 2023, a powerful new uptrend could follow.



Financial Sector

Primary ETF (unleveraged): XLF
Unleveraged inverse (bear) ETF: SEF
Leveraged ETFs: 2x UYG (bull) and SKF (bear)
3x FAS (bull) and 3x FAZ (bear)

Higher interest rates typically means more income for big banks, and we've already seen evidence of that with recent bank earnings reports. Investment banks and brokerages weighed heavily on the sector in 2022 due to decreased investment gains and trading activity. As the markets gradually recover, that will change. XLF has historical support at 35.00 and 33.00. A move over recent resistance at 37.00 could lead to a sustained uptrend.

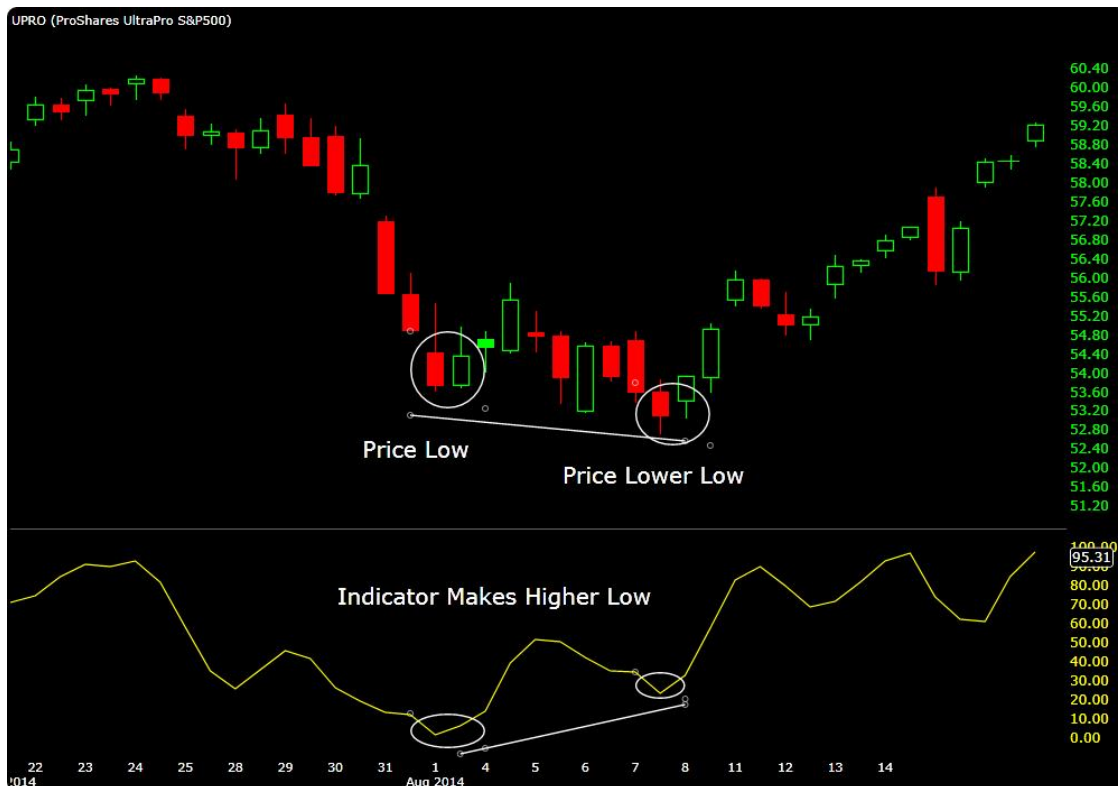


A Divergence Strategy for ETFs

At ETF Dynamics, we develop and trade divergence strategies. Divergence is a popular form of technical analysis based on the principle of divergences forming between price and technical indicators. We trade several types of divergence, including basic, hidden, and compound. For the purpose of this strategy, we will focus on basic divergence, also called regular divergence.

Basic divergence is a method of identifying short term trend reversals as well as trend continuation moves following a consolidation. A basic divergence occurs when a technical indicator does the opposite of what price does, creating a divergence between price and the indicator.

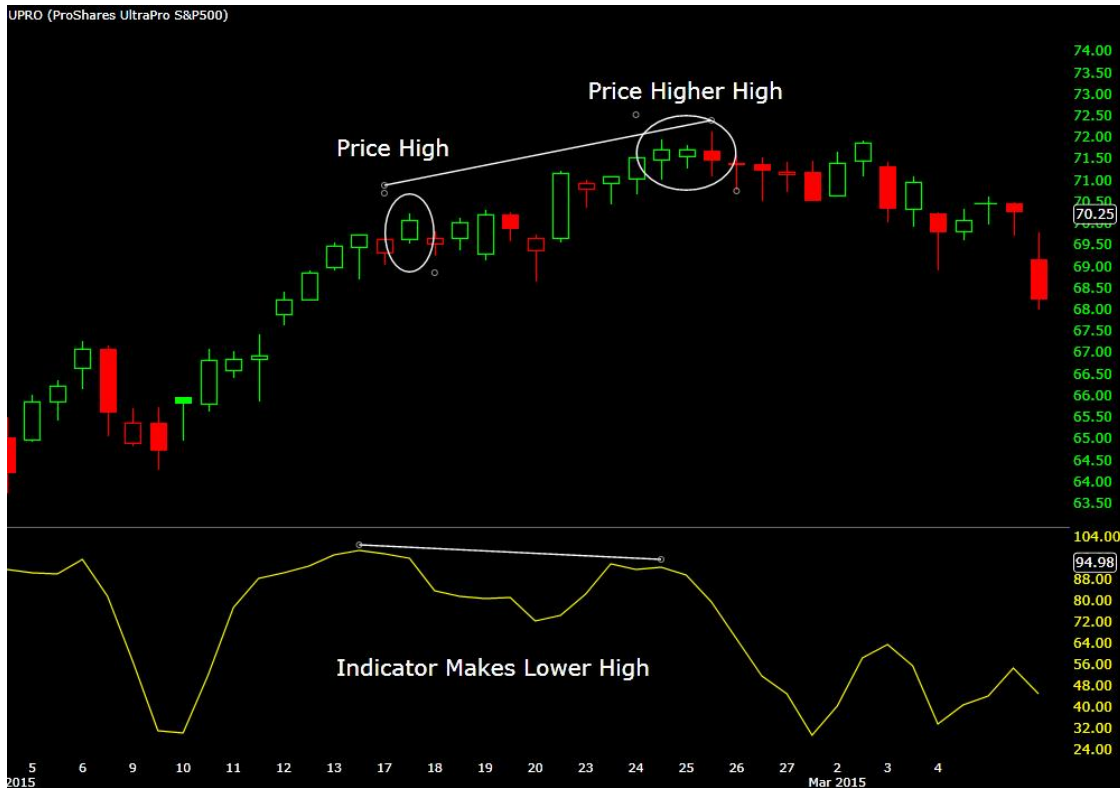
If price makes a low followed by a lower low, but technical indicators make a higher low at the second price low, then a bullish divergence has developed between price and the indicator. This divergence would signal a possible reversal from a short term down trend and an opportunity to go long the market. The following picture illustrates this principal:



Please note that for a bullish divergence to develop, price could also make a double bottom instead of a lower low. In that case, the two price lows would be essentially the

same, but the indicator would still make a higher low.

For a potential short signal to develop, price would make a high followed by a higher high (or double top). At the second price high, technical indicators would make a lower high, signaling a possible decline in price. The picture below shows a bearish divergence with price making a higher high while a technical indicator makes a lower high.



When looking for price highs and lows, we always want to see a minimum of four candles between the two price points. If there are fewer than four candles between the price points, we may simply be looking at noise in a choppy market. The price points should be well defined with enough space between them that they signify important price pivots. It's also important to note that indicator highs and lows may lag or lead the actual price highs and lows by one candle, which is perfectly acceptable. Price highs and lows are sometimes rounded, occurring over several candles, so indicator high and low points won't always match price highs and lows to the exact candle.

Chart Set-up

To outline this divergence strategy, we'll use the UPRO, the triple leveraged bull ETF for the S&P 500. We'll use a candlestick chart set in a 4 hour (240 minute) time frame. This is an excellent time frame to capture significant market moves for two day to two week holds in leveraged ETFs. The strategy works equally as well on daily charts, although there will be fewer trades set-ups.

The first candle of the day will be the shorter of the two candles since there are only six and a half hours in a regular trading session. The first candle of the day will end at noon Eastern time, while the second candle will close at 4:00 pm Eastern time, the regular session close. Most charting platforms default to this setting when selecting 240 minute candles.

We'll use two technical indicators to recognize divergence, one for momentum and the other for trend. We'll also employ "price overlay" indicators to show an implied trading range as well as where key price pivots are likely to occur. These same overlay indicators are useful in placing initial stop loss orders as well as maintaining a trailing stop if the trade moves in the direction of the signal. The next section will outline how to use these indicators for the stop strategy.

The first three indicators we add to our chart are the "price overlay" indicators. This means they will be on top of the price candlestick section of the chart. Two indicators are Exponential Moving Averages (EMAs) set at 20 and 50. In the chart picture below, the 20 EMA is yellow, while the 50 EMA is light blue.

We'll also add a Keltner Channel, shown in magenta below. However, WE ALTER one input to the Keltner Channel to better identify trading ranges for leveraged ETFs. The input called "number of ATRs" that is usually a default setting of 1.5 will be changed to 2.5. Some charting platforms may call this input something different, but it will usually default to a setting of 1.5. That's the number that should be changed to 2.5. The second input for the Keltner Channel, usually called "periods" or "length," should be set at 20. This is probably the default setting in most charting platforms. If your charting platform has an "average type" input for the Keltner Channel, it should be set to "simple."

We are ONLY interested in the outer bands of the Keltner Channel, not the mid-line. The mid-line is a 20 period simple moving average, but we'll use our 20 EMA in its place. We set our Keltner Channel mid-line to transparent to avoid screen clutter. If your charting platform doesn't include a transparent setting, you can change the color of the mid-line to match the background color which will essentially make it disappear.



The next indicator we add will be a Stochastic. We'll place this in the first panel below price. Unfortunately, Stochastic types and inputs vary across different charting platforms. In most cases, we will use a "slow Stochastic." In Think or Swim, we use the "Stochastic Fast." If your charting platform only offers a single Stochastic indicator, it's most likely a slow Stochastic.

We are ONLY interested in one of the two indicator lines from the Stochastic. In the slow Stochastic, we will focus on the Slow K (also called %K) line. The other line (Slow D or %D) can be set to invisible or made the same color as the background of your chart so that it disappears. We also don't use the overbought/oversold lines so those can be removed as well. In Think or Swim or any platform that only has a fast Stochastic, we only use the Fast D. We will turn off the Fast K as well as the Overbought/Oversold lines.

The names of inputs to the Stochastic vary depending upon which charting platform you use. In essence, we use a Stochastic setting of "5, 3." This is a much more active setting for the Stochastic than its default setting.

The following are examples of different charting platforms and how to properly set the Stochastic inputs for those platforms:

Think or Swim

Use the Study "Stochastic Fast"

Use "Fast D"

K Period 5

D Period 3

Price h = high

Turn off "show plot" for Fast K, Overbought, and Oversold.

Tradestation

Use the “Slow Stochastic”

Use “Slow K”

Stochastic Length: 5

Smoothing Length 1: 3

Smoothing Length 2: 3

Smoothing Type: 1

Change “Slow D” to the same color as the background to make it invisible, and do the same with the overbought and oversold lines.

FreeStockCharts.com

Use “Stochastics”

Period = 5

%K = 3

Average Type = Simple

Remove the %D, Oversold, and Overbought from the chart.

Metastock

Use “Stochastic Oscillator”

%K

Time periods: 5

Smoothing: 3

%D

Time Periods: 3

Method: Simple

Style: Invisible

The final indicator we'll add to our chart is a MACD Histogram. If your charting platform doesn't specifically offer the MACD Histogram as a stand alone indicator, you can use the histogram from the standard MACD. In all charting platforms, the default settings for the MACD are the same: 12, 26, 9. We will change those inputs to 9, 20, 9 which are slightly more active settings. When properly configured, your chart should look like the following picture. Make sure your indicators match ours by selecting the same date range (May, 2015 to August, 2015) on your chart:



When we look at the chart picture above, we want to point out a few important points. The first is how well the Keltner Channel identifies the trading range over several months. It is very rare to see price move outside the Keltner Channel for more than a few candles at these settings.

The second item to take note of is how the 20 EMA and 50 EMA often show areas of consolidation and support. The picture above shows a relatively range bound market. In a trending market, the 20 EMA and 50 EMA show areas of expected price pivots during the trend in virtually any time-frame.

To illustrate this principle, we'll look at a UPRO daily chart during a strong uptrend that lasted several months. Notice that on three occasions early in the trend, the 50 EMA provided a support area during retracements. As the trend gained momentum, the 20 EMA provided an area of support for price pivots. As you'll see in the next section on stop management, these two moving averages give us a method of trailing our stop as well as an anticipated area to look for trade signals to occur during a strong trend.

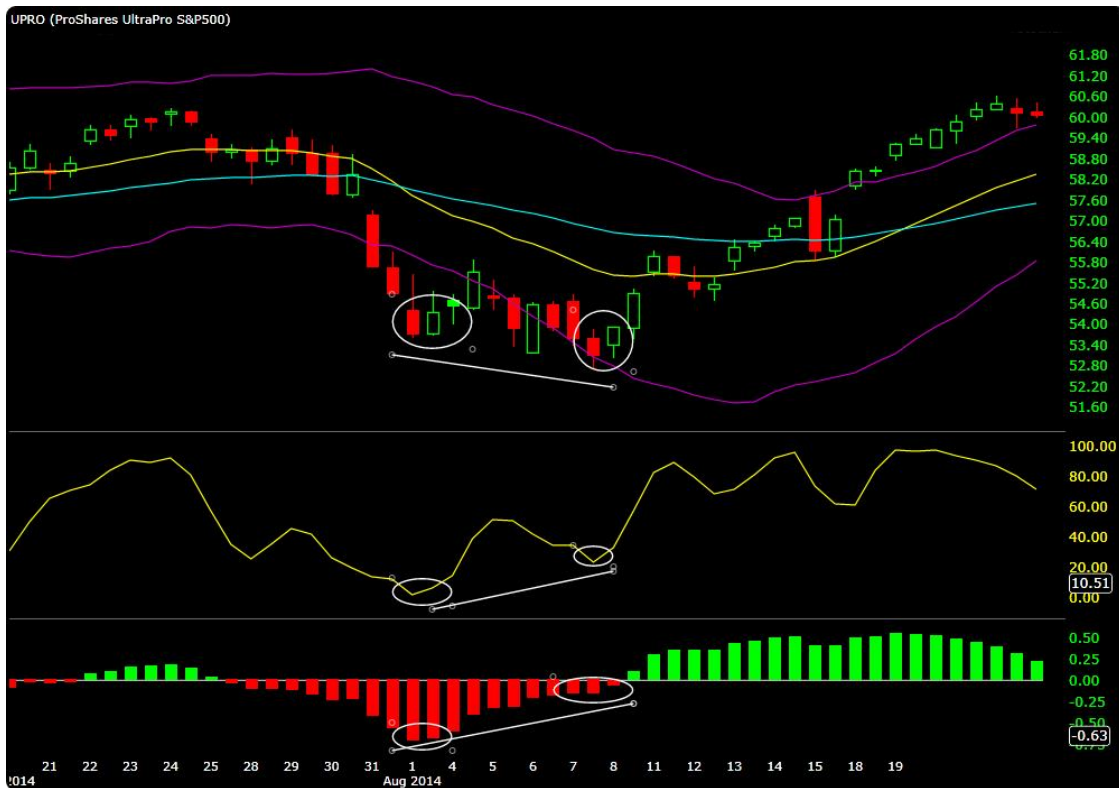


If you have any questions regarding your chart set up, please feel free to email us at:

<mailto:info@etfdynamics.com>

Basic Divergence Trade Set-Ups

The first trade set-up we'll look at is a basic divergence for a long trade, called a bullish divergence. When price makes a lower low, we want to see BOTH the Stochastic and MACD Histogram make a higher low. In the example below, when price makes its lower low, you can clearly see the bullish divergence in the Stochastic and the MACD Histogram as they both make higher lows. We also want to point out the position of price relative to the Keltner Channel. On both price lows, price moves outside the lower band of the Keltner Channel. As we pointed out earlier, it's rare at these settings to see price stay outside the Keltner Channel for more than a few candles. A bullish divergence forming in the lower end of the implied trading range, meaning the lower band of the Keltner Channel, creates a high probability trade set-up. At the very least, we expect to see a bounce into the area between the 20 EMA and 50 EMA.



Let's take a closer look at this same trade set-up so we can discuss trade entry. We want to see the Stochastic hook up in the direction of our trade, thus completing the bullish divergence. At the same time, we want to see a green candle to indicate that momentum is with the direction of our trade. In the picture below, we've circled the green candle and placed a green arrow above the Stochastic to show the sharp angle up in the indicator.

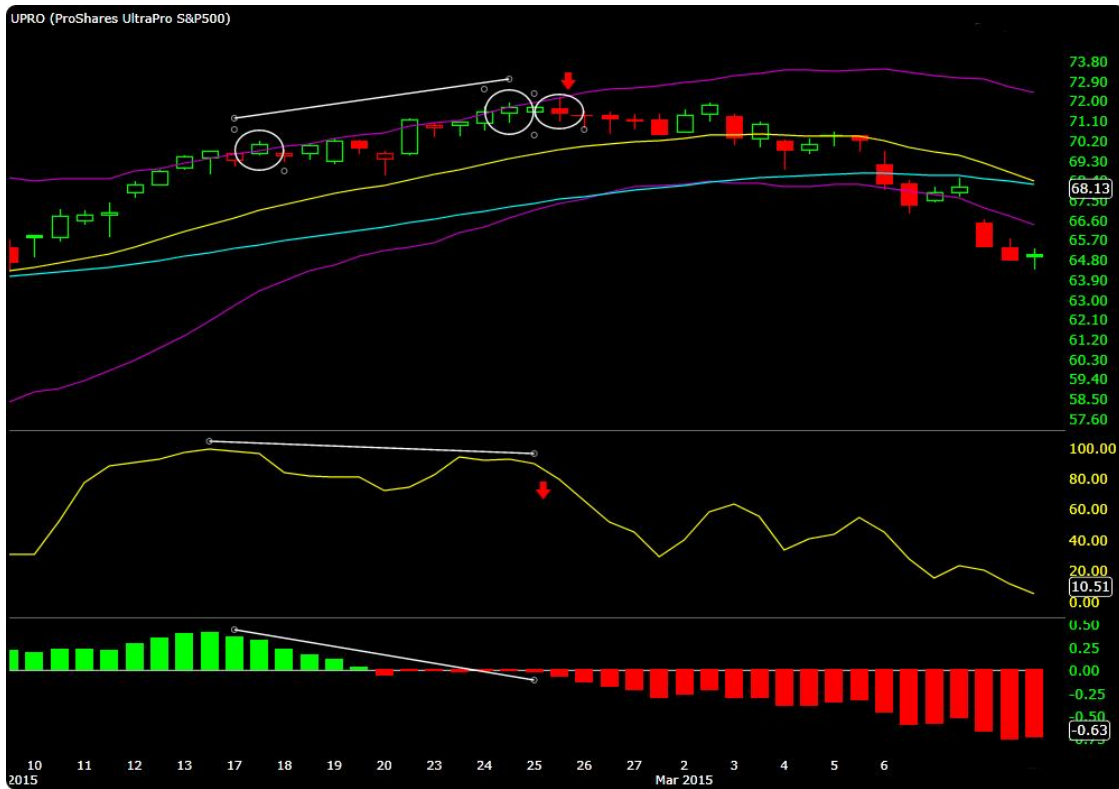


We enter the trade at the conclusion of the green candle that's circled. In the case of this trade, it occurred at noon Eastern time. It's important to note that the Stochastic began angling up on the prior candle, but that candle was red, so for a long signal, we do not take entry until we see a green candle. It's not uncommon for the Stochastic at this setting to begin angling up on a red candle, then turn up even more sharply on the green candle. If the Stochastic had turned back down on the green candle, we would NOT take entry into the trade. We want to see the Stochastic hooking up with a green candle to complete the bullish divergence and signal entry into the trade.

To recap our rule set for a basic divergence entry into a long trade:

- Price makes a lower low (or double bottom) with at least 4 candles separating the two price lows.
- A “bullish divergence”, meaning a higher low in both the Stochastic and the MACD Histogram develops.
- We enter the trade at the conclusion of a green candle with the Stochastic hooking up.
- Although it's not required for the trade set up, the highest probability basic divergence trades will either be at the outer band of the Keltner Channel, or around the area between the 20 EMA and 50 EMA. Basic divergences around the EMA's often develop after a consolidation during a strong trend.

The trade set-up for a basic divergence short signal, or bearish divergence, is essentially the opposite of a long. Price makes a higher high (or double top) as both the Stochastic and MACD Histogram make a lower high. In the trade example below, the two price highs occur on moves through the upper band of the Keltner Channel. As was the case with the long set-up we looked at, this indicates a high probability area for a valid bearish divergence.



At the second price high, we see the Stochastic hook down sharply with a red candle. This is our signal for entry into the trade, and we enter at the close of the circled red candle with the down arrow above it. Note that this price top is slightly rounded. The Stochastic was flat for several green candles until it finally turned down with a red candle. Also, please note that we do not enter trades on “doji’s.” If the Stochastic hooks on a doji, we wait to see what the next candle is and make sure the Stochastic continues to hook in the direction of our trade.

Our rule set for basic divergence entry into a short trade:

- Price makes a higher high (or double top) with at least 4 candles separating the two price highs.
- A “bearish divergence”, meaning a lower high in both the Stochastic and the MACD Histogram develops.
- We enter the trade at the conclusion of a red candle with the Stochastic hooking down.

Triple Divergence

In addition to basic divergence trades, we look for what is known as triple divergence. This occurs after a basic divergence trade when a third price point is made at the same time a second divergence forms in technical indicators. The chart picture below shows a triple divergence trade set-up for a long.



In the picture above, we see that price essentially makes a triple bottom, although the second and third price lows are slightly lower than the first. What's important to understand in this trade set-up is the divergences in the indicators. The second indicator points in the Stochastic and MACD Histogram are clearly higher than the first. Note that the third indicator point in the Stochastic and MACD Histogram is HIGHER than the first point, but slightly lower than the second point. That is perfectly acceptable. In triple divergence, we don't care about the relationship between the second and third indicator points. We only care that BOTH the second point and third point are higher than the first point. The third point can be higher or lower than the second point but it MUST be higher than the first point for a valid triple divergence.

Although this triple divergence continued to consolidate for a few days after entry, the trade soon moved up strongly. In the next section, we'll examine how we place our initial stop.

When looking for triple divergence for a short trade, it's basically the opposite of the

criteria for a long. We want to see a price high followed by two additional price highs (or a triple top). At the second and third price highs, we want both technical indicators to form points that are lower than the indicator point at the first price high. As is the case with triple divergence long trades, the relationship between the second and third indicator points is irrelevant. All that matters is that both the second and third indicator points are both lower than the first.

IMPORTANT NOTE: Since ETFs trade in pairs, meaning there is a “bull” and “bear” ETF, we could ignore short signals on the bull ETF and simply look for long signals on the bear ETF. For example, the SPXU is the triple leveraged inverse “bear” ETF for the S&P 500. Instead of looking at short signals on the UPRO and then entering the SPXU, we could just look for long signals on the SPXU. However, we prefer to see a short signal form on the “bull” ETF and then simply take a long entry into the bear ETF for several reasons.

In general, volume is higher and more consistent in “bull” ETFs than it is in “bear” ETFs. Consistent volume produces more accurate signals in technical indicators. There are times when the “bear” ETF may set up a long signal, but a short signal does not form in the “bull” ETF. We will not take that trade. To avoid uncertainty in situations like this, and to ensure we’re getting the most accurate divergence signals possible, we prefer to always take our trade signals from the “bull” ETF.

We like to use a long in the “bear” ETF as opposed to taking a short in the “bull” ETF for several reasons. First, by going long a “bear” ETF, we never have to worry about shares not being available for a short “borrow” on the “bull” ETF. The “bear” ETF will also often rise slightly more than the “bull” ETF declines, so we get a little more out of the trade by being in the “bear” ETF. In retirement accounts, short sales are typically not allowed, so the only option for a short signal is to go long the “bear” ETF.

Once we’re long the “bear” ETF, initial stops and stop management are all done from the chart for the “bear” ETF using the same principles we’ll outline in the next section.

Stop Loss and Exit Strategy

Our goal with every trade is to maximize profit by staying with the trade as long as momentum remains in our direction, while also minimizing risk as quickly as we can. This is especially important with leveraged ETFs that could fail to track the movement of the index over a long period of time, or could gap against us due to leverage.

TRADE MANAGEMENT IS CRITICAL FOR SUCCESS WITH LEVERAGED ETFs!

Never enter a trade without a stop strategy in place.

The first element to keeping risk at a minimum is an initial stop loss setting. We prefer to use dynamic indicators for stop settings as opposed to a simple percentage basis. The fact is, markets change. We want to have the flexibility to change with them during periods of increased or decreased volatility. We use a combination of the most recent price high or low, and either the outer bands of the Keltner Channel, or the 20 and 50 period EMA's to determine where to place our initial stop loss. The position of price in relationship to these indicators when a trade signal occurs determines which indicator we use.

We always use a stop loss when we enter a position, and a stop order will be in place as long as we're in a trade. The typical initial stop loss setting is between 4% and 7% of entry price for triple leveraged ETFs. This is a very reasonable initial setting considering the 3x leverage.

We'll look again at the first divergence trade from the previous section. The entry price at the close of the green candle was 53.93. For our initial stop loss, we first look at most recent price low. In addition, we look at the position of the outer band of the Keltner Channel since price was in that area when the trade signal occurred. Our initial stop loss setting is below the most recent price low and far enough below the outer band of the Keltner Channel to allow room for a brief intraday move outside the band. The short, horizontal line shows where we place the stop after entry, in this case at 51.90, representing an initial stop loss of less than 4% for a triple leveraged ETF.



Once the trade is moving our direction, we make a series of stop adjustments based on the relationship of price to the two moving averages. Once price moves strongly over the 20 EMA, we'll adjust our stop to roughly halfway between the lower band of the Keltner Channel and the 20 EMA. In this case, the first stop adjustment takes us to the break even level. Unless there's a large gap against us, we've essentially removed risk from the trade.



In the next chart picture, we see that after a brief consolidation, price continues to move higher until it touches the upper band of the Keltner Channel. At this point, we'll adjust the stop into profit by placing it slightly under where the 20 EMA is. We make this adjustment as soon as price moves into the upper quarter of the Keltner Channel. Any time price moves past the halfway point between the 20 EMA and the upper band of the Keltner Channel (the upper quarter), we will use slightly below the 20 EMA as our stop setting.

The reason we use slightly under the 20 EMA (usually about 1% of price, meaning on a 50.00 ETF we'd place the stop about .50 cents below the 20 EMA) is to protect against brief "pokes" below the 20 EMA. During a consolidation, it's not uncommon to see an intraday test of the 20 EMA as support. We often see a "tail" on a candle that briefly trades below the 20 EMA on an intraday basis but recaptures the EMA prior to the close. We never want to be so tight with our stop that we get taken out of a trade prior to a big move in our direction.



After a retracement to the 20 EMA, price makes a strong move up. The strength of this move is evident in how long price stays outside the upper band of the Keltner Channel. Each day that price continues to rise, we slide our stop farther into profit by “trailing” it just under the 20 EMA. During a strong move up like this, it’s not uncommon to see a mild retracement to the 20 EMA prior to another move up. Our goal is to stay in the trade if this occurs while also protecting as much profit as possible via our trailing stop.



As price begins to fall back inside the Keltner Channel, a bearish divergence forms between price and the indicators. We consider this an exit signal but will not take a short signal yet for two reasons. First, when we see a very strong move of this nature, highlighted by a long period of time outside the Keltner Channel, we do not take the first divergence against the trend. The first divergence against a trend of this strength has a very low probability of winning.

The second reason is when the divergence forms, as shown in the picture below, there is very little definition in the two price highs. Price has essentially made one steady rise without a valid first price high, retracement, and move back up into a second price high. We consider this a “messy” divergence set up and prefer to avoid signals of this nature. However, although we will not take a short signal here, we do consider this a valid exit signal from our long position when price falls back inside the upper band of the Keltner Channel at the same time we see a bearish divergence in the indicators.



We exit the trade at 61.08 from our original entry at 53.93 for a short term gain of 13.25%. With an initial stop of less than 4%, this trade resulted in a over a 3 to 1 reward to risk ratio. In general, we always try to achieve at least a 2.5 to 1 reward to risk ratio, meaning the average of our winning trades will be 2.5 times greater than the average of our losing trades.

For another example of how we place our initial stop, we'll look again at the triple divergence long trade from the previous section. For our original stop loss setting, we look at the most recent price low and the position of the lower band of the Keltner Channel since price was close to that band when the trade signal occurred. We place our stop below the most recent price low and slightly below the lower band of the Keltner Channel. In this case, our stop is at 57.90 from an entry of 62.33. This represents slightly over a 7% stop loss which is the maximum amount we will ever use for a stop loss. If either or both of the most recent price low and lower band of the Keltner Channel required a stop loss of greater than 7%, we would simply use a 7% setting.



Once in the trade, price retraces again but stays above the lower band of the Keltner Channel and well above our initial stop. As soon as price moves up strongly over both EMA's, we adjust our stop position to slightly under the 20 EMA. In this case, our first adjustment takes us to the break even level. When price continues to move higher, we gradually move our stop up into profit using slightly below the 20 EMA as we did in the first trade example.

Here are a few general rules we use for initial stop placement. As we saw in the two examples above, if the trade signal occurs with the two price lows at, near, or below the lower band of the Keltner Channel, our stop will be slightly below the outer band of the Keltner as well as the most recent price low.

If the trade signal occurs with the two price lows higher than the half-way point between the lower band of the Keltner Channel and the 20 EMA but below the two EMA's, we will set the initial stop about 1% below the most recent price low, but not below the lower band of the Keltner Channel if that would result in a stop loss of more than 7%. To demonstrate this, we'll look at a triple divergence from a TNA daily chart below. We also want to point out in this trade set up how a basic divergence formed between price and the Stochastic at the second indicator point, but the MACD Histogram did not confirm that divergence. For that reason, we do not consider the first basic divergence trade valid and we do not enter the trade. When the triple divergence forms in the Stochastic, the MACD Histogram DID confirm the divergence. That validates the triple divergence trade.



If the trade signal occurs with the two price lows at or above the 20 and 50 EMA's, we will us slightly below the most recent price low and slightly below the lower of the two EMA's. To demonstrate this stop placement, we'll look at an EDC daily chart. This type of set-up is most likely to occur on daily charts, and not in the 240 minute time frame.



Regardless of where our original stop is placed, once price moves strongly over the two EMA's, we use slightly below the 20 EMA as our trailing stop position.

One last note regarding exits. A bearish divergence will not always develop to signal an exit from a trade. If price moves above the upper band of the Keltner Channel and falls back inside on three separate occasions, we will always exit the trade on the third return inside the Keltner Channel. At that point, the trend has become overextended and will more than likely return to the 20 EMA for a consolidation.

In the case of a short signal, a reminder that we would take the trade by going long the inverse "bear" ETF. That means our stop strategy would work exactly the same for the "bear" ETF as it does for the "bull" ETF.

ETF Resources

If you're interested in more information about ETFs as well as resources for researching the broad range of ETF products available, we recommend the following websites. Please note that we are in no way affiliated with any of these companies and provide these links as a courtesy to our clients.

General ETF Information:

ETF Database	http://etfdb.com/
Investopedia	http://www.investopedia.com/terms/e/etf.asp
Stock Encyclopedia	http://etf.stock-encyclopedia.com/
Morningstar	http://www.morningstar.com/etfs.html

Major ETF and ETN Issuers:

Direxion	http://www.direxioninvestments.com/
Proshares	http://www.proshares.com/
Velocity Shares	http://www.velocityshares.com/
Barclay's Ipath	http://www.ipathetn.com/US/16/en/home.app

If you're interested in divergence trading for ETFs and stocks, our premium divergence course is only \$37.00 for a limited time. You can learn more about the course which includes an in-depth eBook and training videos by visiting:

[The ETF Profit Accelerator](#)