Maslow's Hammer

An ETF Screener for Portfolio Managers.

Mark Yamada
President & CEO,
PUR Investing Inc.

"Give a small boy a hammer and he will find that everything he encounters needs pounding."
Abraham Kaplan, 1963

Abraham Maslow refined and popularized this idea: "if all you have is a hammer, everything looks like a nail". Such was the case when my colleagues and I began working with exchange traded funds (ETFs) in 2001. The financial services industry's most important tool, the mutual fund, shaped how every retail investment product and problem was viewed and analyzed, ETFs were no exception.

It didn't matter much back then because there were so few ETFs, 100 in the United States and just ten in Canada, so sorting them wasn't an issue. Portfolio construction was also pretty simple. We created an array of portfolios using "top down" construction. ETFs were generally groups of securities, so "bottom up" starting with stock selection, wasn't an option. We systematically developed asset mixes in a very conventional way; 80% equity, 20% bonds, 60:40, 50:50... and allowed for regional preferences like all Canadian, all U.S., all global, global no U.S. etc.. By the time we accounted for registered and taxable variations there were over 1,200 possible discreet portfolio mandates. Even by today's standards this sounds complex but if systems are built around the client, it is relatively easy to mass customize portfolios.

PŮR INVESTING INC.

By 2006, when a core team of us established PŮR Investing Inc. to provide better solutions for individual investors, there were about 600 ETFs and exchange traded notes (ETNs) globally. Today there are over 3,100 exchange traded products (ETPs) encompassing ETFs and ETNs with over 225 in Canada alone.

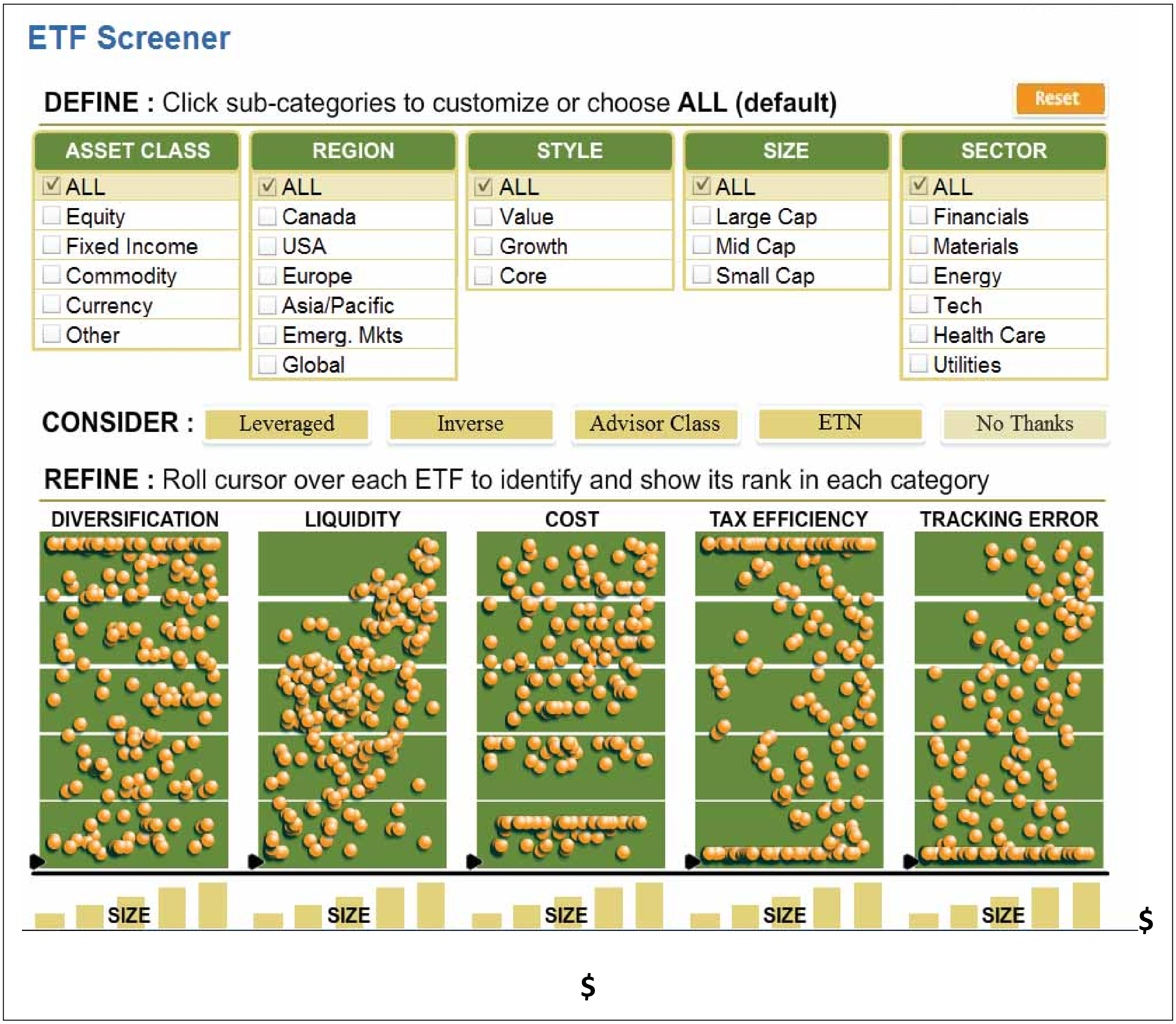
Not only did the number of products expand, but so did our understanding of unique relationships between elements of ETFs. We significantly improved portfolio construction as a result. But we needed to organize ETFs to better arrange and analyse information to use the exceptional characteristics of these efficient risk vehicles. Traditional mutual fund screeners couldn't help us, so we built our own.

Mutual Fund Holders Can Only Guess About Risk

An industry dominated by mutual funds simply plugged ETFs into the same screeners; a good example of Maslow's Hammer! The Morningstar Style Box™, a cornerstone of mutual fund analysis, was extended to include ETFs. Style (value/growth/blend) and capitalization (small/mid/large) are interesting because they simplify screening and have broad recognition within the industry, however other measurable and arguably more valuable characteristics should be included. The transparency of ETFs makes analysis of actual holdings possible. Most mutual funds report their holdings quarterly, so positions are often three months stale before unit-holders see them. As a result, mutual fund holders can only guess about the risk to which they are exposed. Because index holdings are known, ETF diversification is known. Diversification is the primary tool for controlling risk for most institutional portfolio managers, advisors and investors, so having this information is a material boon to informed decision making.

A Screener For Investors

Most screeners are geared to trading. We designed the version of the PŮR Screener, adopted by the TMX Money site **www.tmxmoney.com/en/sector_profiles/exchange_traded_funds/screener.html** for investors (see below). Trading-oriented tools prominently display historical performance, biggest percentage movers, highest volume etc. Investors should not care about historical performance at all. They know that past performance is no indication of future performance. Trading information is available elsewhere on the TMX Money site for those who need it.



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DEFINE
We included Asset Class, Region, Style, Size, and Sector to help mutual fund refugees start to navigate the ETF world with familiar terms. These categories are also useful for finding specific ETFs that might provide something different for an existing portfolio or for quick sorting. Click "Equity", "Canada" to see the list focus.

CONSIDER
You may want to deselect specialty ETFs that are Leveraged, Inverse, Advisor Class, or ETNs (with credit risk). These take specialty knowledge or have a different purpose. Click No Thanks to deselect.

REFINE
As your selection narrows, notice that the dots start to disappear. Each dot represents an ETF's position in each of the five factors discussed below. Roll your cursor over one to see it, it's MER and how it ranks in the other areas. Click on it and get more information. We wanted to know which ETFs had the largest dollar value outstanding so we placed those towards the right side of each box. Looking for the highest ranked in each category? Click and hold the small black slider arrow (on the left side of each box). Slide up to focus your search.

Most important considerations
We focus on five primary elements in screening ETFs, diversification, liquidity, cost, tax efficiency and tracking error. The two most important are cost and diversification. You never know where markets are going or what returns will be in the future, but you know what you will pay. In a world of uncertainty, what you know is a good place to start.

COST
ETFs are less expensive than mutual funds. But why are some ETFs more expensive than others? Here is an example of two ETFs based on the S&P/TSX 60; iShares XIU (0.17%) and Horizon BetaPro HXT (0.07%). In this case both ETFs attempt to replicate the performance of the S&P/TSX 60 index of Canadian stocks. The difference is in the way they do it. XIUs fully replicate the index by buying the exact holdings in the exact weighting of the index. HXTs use futures to replicate the index's performance. Both have advantages and disadvantages. HXTs bear credit risk from the future's contract, (a disadvantage), but they completely avoid any income or capital gains until the swap is rolled (and even then there are mechanisms to dampen or defer the impact) and that is good from a tax standpoint. An added advantage is that HXT can deliver their strategy at a lower MER as a result. Which to choose? Institutional investors may be less comfortable assuming credit risk, don't care as much about tax efficiency (XIUs are reasonably tax efficient already) and may want the flexibility to take delivery of underlying securities as part of other strategies and will prefer the XIU. Individual investors in taxable accounts will like the tax efficiency of the HXT and the 0.07% MER is hard to resist even when there is some credit risk. We use both for client portfolios.

DIVERSIFICATION
A well diversified ETF is one than minimizes the investor's exposure to any one holding. In the DIVERSIFICATION box on the screener, we rank all TMX-traded ETFs based on how diversified they are. This is important to Investors because some ETFs, like iShares Capped Information Technology ETF (XIT) with only five holdings are quite concentrated compared with iShares Russell 2000 (XSU) with 2,000 holdings. Caveat. This category does NOT tell you whether a particular ETF is most diversifying or whether adding it to YOUR portfolio will increase the whole portfolio's level of diversification or not. This capability is part of the portfolio construction tool available only to professionals (for now).

LIQUIDITY
The ability to trade at a specified price is important in managing costs. Large differences between bid and asked prices impacts returns. Being able to trade large positions is important for institutional or large investors but is less important for individuals. We consider bid-asked spreads and trading volume equally in determining the LIQUIDITY of an ETF. The most liquid are at the top of the box. ETFs have a mechanism through designated brokers that makes them unique. While reported volume may be small or even non-existent, designated brokers can create or retire units to meet demand on either side of a trade. In other words ETFs are far more liquid than trading volume alone may suggest.

TAX EFFICIENCY
Taxable investors benefit if income and capital gains distributions are kept to a minimum. Not only are tax liabilities minimized, but more money is allowed to compound for the investor. We use distributions as the guide to TAX EFFICIENCY; lower distributions are higher in the box.

TRACKING ERROR
After working to identify an index for investment, it would be frustrating if the ETF couldn't follow it very well. We compare the value of all assets in an index to the value of the corresponding ETF. Perfect tracking would be a zero difference and would be towards the top of the box.

List ETFs
There is an orange button at the lower right corner of the page that will allow you to list the ETFs selected. We ranked them by COST (lowest at the top) but you can rank them by any factor by clicking on the category at the top of each column.

You are ready to build a portfolio armed with ETF-specific information. We'll discuss some different approaches to portfolio construction in future articles. In the interim for more information, go to the PŮR Investing Inc. website **www.purinvesting.com.**

When looking for ETF information beware of Maslow's hammer. ETFs offer so much more than mutual funds that the tools need to reflect this new value. If mutual fund companies, banks or sales people try to pound you with their hammer, bring out your big shiny new ETF screw driver and give it to them! That would be a change!

Mark Yamada, President & CEO, PUR Investing Inc.
myamada@purinvesting.com

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