

## IN THE NEWS

The 3rd Annual Inside Smart Beta Conference aims to keep attendees informed and ahead of the curve. Smart investors are seeking an edge as the debate about the overcrowding of factors reaches a tipping point. Astor Investment Management's Deepika Sharma\* is slated to speak on this and more in [How to Identify, Avoid & Profit from Crowded Factor Trades](#).

Ahead of the conference, Sharma explains why looking at the economic cycle is vital to smart-beta investing and why we still have a long way to go before we reach capacity in these innovative strategies.

**Inside ETFs:** [Would you walk us through a little bit of Astor's approach to asset management and your firm's thoughts on smart-beta or factor investing?](#)

**Sharma:** Absolutely. At Astor, we believe in the predictive ability of economic fundamentals. We call it the Astor Economic Index, which we use for asset allocation.

The Astor Economic Index aggregates trends in economic fundamental data, looking at coincident and leading indicators to determine where the economy is now, and where it is headed. We put the biggest loading into the macro factor or the business cycle risk factor to determine our ratio of stocks and bonds, and how to direct asset allocation for the next six to nine months.

**Inside ETFs:** [Does Astor distinguish between factors and smart beta?](#)

**Sharma:** The way that most investors understand smart beta is that it's a "new" way to invest in equity markets. We disagree, which is why we often use the term "factors" rather than "smart beta."

When we say "factors," we cover broad and persistent drivers of performance across asset classes that have been used by active managers for decades. These factors—value, carry, momentum, volatility, etc.—work in other asset classes like fixed income, currencies and commodities as well, and often overlap with smart-beta strategies.

The perception of what smart beta is will change as there is more information and more products that are looking at factors or smart-beta strategies outside of equity markets.

**Inside ETFs:** [When we talk about smart-beta factors, they're typically long-term solutions. Astor employs a tactical approach to investing. How do the two approaches work together?](#)

**Sharma:** We try to look at factors using the same principles we use for asset allocation, which is an economic regime and risk perspective.

We implement that perspective through the Astor Economic Index, and we would rather use the dynamic rather than a tactical trading approach; that is, we can change exposure when economic conditions warrant, not just for the sake of trading. And we can apply the same philosophy of not timing stocks to avoid timing factors.

And by "timing," I mean making short-term shifts on a month-to-month basis. So you're not going from 100% value to 100% momentum strategy in a month or a quarter. What we've found is that people who try to do that, and those who try to chase performance and buy

popular factors, usually end up getting burned by that kind of strategy.

We've come to the conclusion that, just as timing stocks doesn't significantly impact your bottom line if you're a long-term investor—asset allocation does—timing factors will not either, and will just add to your transaction costs.

So, it's better to tilt than time. We tilt by overweighting or underweighting a certain factor depending on whether we're in a growing economy or we observe signs of weakness, whether or not investors have a high-risk appetite, etc.

**Inside ETFs:** [That makes sense, and it sounds like there are times to make changes, but not just at the drop of a hat.](#)

**Sharma:** Yes, there are times you'd rather be in a defensive- or in a factor-focused ETF, like quality or minimum volatility. This is why, just as we use our economic and risk indicators to determine when to get defensive in asset allocation, we use the same approach for factor rotation; that is, when to move from a factor that gives you return appreciation to one that offers downside protection.

**Inside ETFs:** [I recently saw some research where Astor was talking a little bit about a short-term approach to factors versus a long-term approach to smart beta. Why can the diversification work in the short term, but it's not ideal for the long-term investor when it comes to factor-based investing?](#)

**Sharma:** The main reason is that timing or performance chasing hasn't worked for investors in the short term when it comes to selecting which factor or smart-beta ETF is the best bet for the next month or quarter.

Let's take a step back: When we talk about smart beta or factor selection, there are two ways to do that. One is by picking one side of value versus growth, or large-cap versus small-cap. We know that value has historically done better than growth. But there are periods when growth beat value by as much as 11.4% in one year.

Another way is that you look at the universe of smart-beta ETFs and ask, is this a good time to be in momentum? Or is it a good time to be in minimum volatility, or a good time to be in value?

In any of those cases, recent research has shown it's extremely challenging to select and time which factor will outperform either next month or quarter. You can do this by picking the best-performing factor from last month, but how do you predict when the performance will reverse?

Or you can use a valuation-based measure such as P/E or P/Book, which we don't like, because it further overweights value. You may even get good results on a backtest, but does your backtest accurately measure transaction costs and market impact?

It's also naive to assume the same conditions that were true in the last decade or so will continue to hold today or in the future. That's why it's a good idea to start with a diversified approach.

This approach is not ideal in the long term, because a static diversified factor portfolio can sometimes suffer quick and massive drawdowns. The best example is momentum. During adverse downturns, you can get a negative drawdown in a short period. As an example, during the three-month period of March through May 2009, you lost years' worth of gains from a long/short momentum strategy.

So during those periods of drawdowns, when these factors fall out of favor, your portfolio can really get beat up. You want to avoid those periods where you're choking your portfolio and wiping away the long-term gains. You need to be nimble, but not to the point of chasing performance.

What our research has shown is that performance among factors varies based on dramatic changes in economic and market conditions. You want to avoid the momentum factor when the economy is weak and market volatility is high. That's when you're better off in the minimum-volatility ETFs, which provide a buffer in bear markets. Economic and market trends that really matter don't change month-to-month, but when they do, you have to be ready to identify those trends and shift your factor exposure quickly.

**Inside ETFs:** Let's shift focus to your upcoming session at our Inside Smart Beta conference. One of the hot topics you hear about right now is the crowding of factor trades: Does Astor believe that factor or smart-beta trades are getting crowded? If so, how can investors tell if a trade is getting crowded?

**Sharma:** That's something we hear a lot about from our clients. There's a lot of research around that too. I would distinguish between crowding versus a different concern that's lack of capacity in these ETFs.

The way I think of crowding is, when a smart-beta ETF becomes very popular, there's a lot of asset flow going into that ETF, which can be short-term, and going to dissipate, leading to a temporary drawdown.

And this kind of short-term movement or crowding shouldn't be relevant for anybody who's a long-term investor. That kind of crowding is not going to erode your smart-beta alpha or factor premium.

The caveat is that this may not hold true if you see that the crowding into the smart-beta ETFs being replicated on the active side too.

If you're seeing flows into smart-beta ETFs only because investors are replacing their factor exposure with ETFs, but active managers are not also crowding into those factors, then you're OK. Active managers are twice the size of passive in U.S. equity assets. So factor crowding driven by active managers is a greater cause for concern.

A great metric to measure whether there's crowding in the factors is not looking at smart-beta ETF flows, but looking at the aggregate factor ownership of active managers: Are they placing collective bets into a single factor or strategy that can move the market?

The second part is—and I think that question comes up, but is less important right now—is the question of capacity, where assets under management of smart-beta ETFs gets so high that the market impact and the transaction costs can nullify the smart-beta premium. I don't think we're there yet in terms of AUM. But it's a question we'll have to come back to in the next three to five years.

Momentum might be one of the first to see capacity becoming a problem, being a high-turnover strategy. Lower-turnover strategies like value and quality have much more capacity to sustain their risk premium.

**Inside ETFs:** Is there a place for a contrarian factor investor, or a contrarian factor strategy, in the marketplace? Or do the factors just not work that way?

**Sharma:** That's a great question. We done extensive research into various factor strategies, including contrarian and mean-reversion. There's something there, as it makes sense to buy a factor when it's beaten down, trusting the rationale of long-term alpha in that factor. So, any short-term degradation will be followed by a recovery.

But you also have to understand the drivers behind the factor in question. Look at a factor like minimum volatility. Minimum volatility exists because of a behavioral anomaly; that is, the behavior of long-only active equity managers trying to target high returns.

These managers want to beat their benchmarks but are constrained by how much they can leverage. So they're attracted to a high-return stock that also happens to be a high-risk stock.

This leaves low-volatility securities on the table, resulting in the minimum-volatility premium. But if more active managers start moving into low-volatility stocks or min-vol ETFs, this is going to erode the factor, because its source, or driver, is getting taken away.

So you have to understand what's driving the factor to outperform, whether it's behavioral or market structure, or whether it's low-interest rates and muted equity market volatility and what's happening to those drivers, to know to what extent a contrarian or mean-reversion approach will work.

**Inside ETFs:** It sounds like, to some extent, it'd be hard to go against a factor that's producing returns.

**Sharma:** It's difficult, but sometimes you have to. So, when you typically look at going contrarian, say as an equity investor, or you're using valuation for individual stocks, you're not just going to say, "The valuation is too high. Let me get out of this sector, or company." You'll also look at where the high valuation is coming from. Is it coming from multiple expansion? Or is it coming from earnings growth?

It's the same analysis for factors too. If the right valuation can be justified—because it's coming from the back of economic growth and earnings growth—that's a good reason to continue to be in that factor. But if it can't be justified, there may be some dispersion you can take advantage of. \*\*

\*Deepika Sharma, CFA, is a Portfolio Manager and Managing Director of Investments at Astor Investment Management. As a member of the firm's Investment Committee, she assists with the management of Astor's multi-asset strategies while holding responsibility for the research and development of current and forthcoming strategies. She previously worked on the Fixed Income Proprietary Trading Desk at Nomura, as well as in macro-strategy at Roubini Global Economics. Ms. Sharma began her career as an Analyst on the Structured Credit desk at Lehman Brothers. Ms. Sharma currently serves as a Director on the Board of the New York Society of Security Analysts (NYSSA) and was recognized with the NYSSA Young Investment Professional Award in 2015. Ms. Sharma holds a Masters in International Finance from Columbia University and is a CFA charterholder.

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# RECENT ARTICLES

## FED OUTLOOK H2 2017

### THE LAST ACT OF THE QUANTITATIVE EASING PLAY

If the global financial crisis was a play, the Fed is getting ready to begin the last act. This fall, the extraordinary support given to the US economy likely will begin to unwind. Such a significant move raises the question: What is the outlook for the Fed for the rest of the year and into 2018? In large part, of course, it depends on the evolution of the US economy. But by closely reading Fed statements, we can see the broad outlines already. It seems likely that the Fed's balance sheet will be substantially higher and interest rates substantially lower than would have been considered normal before the crisis.

### HOW WE GOT HERE

Ten years ago this summer, two Bear Stearns hedge funds failed. These were telltale signs of the imbalances that dominated the US financial markets, whose unwinding would lead to the global financial crisis. Twinned with the bursting of the housing bubble, the financial crisis plunged the US into the worst downturn since the great recession. The Fed started cutting interest rates in September 2007; rates reached 0.25 in December 2008.

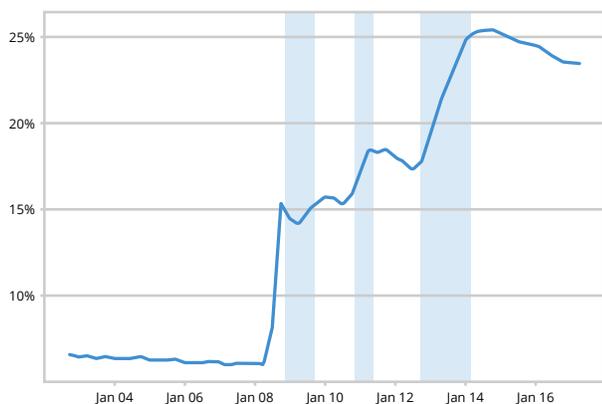
The Treasury and the Fed enacted an alphabet soup of special programs (TARP, TALF) to buy assets and shore up this or that bulkhead in the leaky boat the financial system had become. But what about the broader economy?

At the time, it was widely thought that short-term rates could not get below zero, the so-called Zero Lower Bound. As the effects of the global financial crisis have lingered around the world, we have learned that, unfortunately, modestly negative interest rates are in fact possible.

But in 2008 the Fed was not ready conceptually to impose negative interest rates on the US. That left them with an economy crying out for help, but their preferred tool already fully employed. In other words, the Fed had already floored the gas pedal, but still needed to add power. What to do?

They settled on the related concepts of large-scale asset purchases combined with forward guidance on the level of interest rates. Forward guidance relates to language from the official FOMC statements and speeches about the need to maintain a highly accommodative stance for an extended period of time. Paired with this were large-scale asset purchases known as Quantitative Easing (QE). The Fed expanded its balance sheet dramatically as can be seen in the chart below.

Total assets of all Federal Reserve banks as percentage of GDP  
Periods of Quantitative Easing in blue.



Source: Board of Governors of the Federal Reserve System, Bureau of Economic Analysis, Astor calculations

This shows the size of the Fed's balance sheet as a fraction of GDP. Before the crisis (marked in pink), the Fed had a much smaller balance sheet as a percentage of yearly output than it does today. The substantial expansion in the balance sheet occurred when we were years into the recovery.

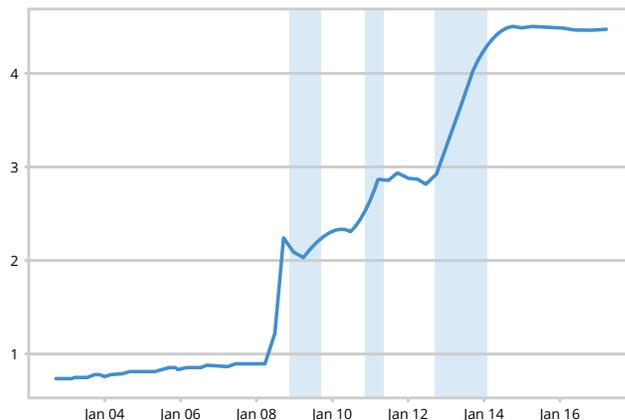
### WHERE IS THE BALANCE SHEET GOING?

While the Fed has not added to its balance sheet since 2014, it has been reinvesting the interest and principal payments received to maintain the balance sheet at a steady level. Direct additions to the balance sheet as a tool of monetary policy are fairly new in the US, and, in our view, the Fed is not completely sure how allowing the assets to run off will affect the economy. Hence, the long wait to begin to unwind until the Fed was fairly assured that growth is robust.

In my view, someday soon, likely this year, they will cease reinvesting all principal and interest payments and instead reinvest only the amounts that exceed a sliding cap. The cap will start at \$10 billion a month, so in the first month the Fed will reinvest whatever the principal payments are, less the \$10 billion they are going to allow to roll off. The cap will rise quarterly to \$50 billion.

Given those numbers, the Fed's balance sheet will shrink by about \$300 billion in the first year and \$600 billion in subsequent years. These are large numbers, but the chart below shows that the Fed's balance sheet went from about \$0.8 trillion to about \$4.5 trillion today. But where will the balance sheet settle? In our view, it will likely be much larger than a linear extrapolation from the old line. Former Fed Chair Ben Bernanke has cited several reasons why the balance sheet may need to be around \$2.5 trillion by the middle of the next decade.

Total assets of all Federal Reserve banks in Trillions USD  
Periods of Quantitative Easing in blue.



Source: Board of Governors of the Federal Reserve System, Bureau of Economic Analysis, Astor calculations

I hope that the FOMC members, so voluble on so many topics, see fit to talk in detail about where they see the balance sheet stabilizing. Be that as it may, the pace of reduction and the guesses about the end-state imply that the Fed will allow the balance sheet to shrink gradually for about five years.

The Fed's normalization statement pointed out that while it expects to use the federal funds rate to fight any recessions, the FOMC may restart reinvestment in the event of substantial interest rate cuts. If that occurs, that statement may serve as a signaling mechanism much like QE did. That is, some part of the effectiveness of QE was as a form of forward guidance. Basically, the Fed told the market that it would

not raise rates while it was buying bonds in the open market, and it promised to buy bonds for a certain period of time. That gave the market the assurance that the Fed would not raise rates for at least the length of QE. Going forward, if the Fed were to restart reinvestment, it may serve a similar psychological purpose.

I do not expect sharp or substantial increases in bond yields as the result of the end of reinvestment. Various estimates put the effects of QE at about 100-200 basis points in the very short term, perhaps dissipating somewhat over time. As we will see in the next section, the US has plenty of reasons for low short-term rates. Combine that with low and steady inflation expectations, and there is good reason to think that long-term rates are mainly low for “natural” reasons. Witness, too, the sedate bond market since Fed Chairman Janet Yellen put balance sheet normalization on the agenda in her June 14th press conference.

## WHERE WILL SHORT TERM INTEREST RATES TOP OUT?

In the twenty years ended 2007, Fed funds averaged 4.85%. Absent a sustained rise in inflation, I do not expect rates will reach that level over the next five years. Even after the Fed has reduced its balance sheet, rates will likely remain low. The US trend growth rate is believed to have shrunk to about 2% per year. This estimate is nicely illustrated by the FOMC’s poll of its own voting members who expect longer run growth to be in the range of 1.8-2.0%. By way of comparison, GDP annual growth averaged about 3% in the 20 years ending in 2007.

The expectation for lower average growth in the years ahead is due to low productivity growth and the aging demographic. The productivity slowdown is not entirely understood, so it is possible that a productivity acceleration could mean a pick-up in growth in years ahead. For now, though, it seems that the slower trend growth will contribute to interest rates being lower in the years ahead than we might have expected. Another factor is also demographics—namely increased life expectancy in the US. A longer life tends to increase savings, which then increases the supply of funds destined for the fixed income market.

Both supply and demand for interest rates suggest that they will remain low in the future. Again, we can look at the FOMC’s poll of its own members who see short-term interest rates around 3% in the long run. Of course, the Fed may need to raise rates above that level to respond to bouts of inflation, but with inflation missing for so long, it seems unlikely right now.

## CONCLUSIONS

The Fed’s normalization of its balance sheet is intended to be a dull affair. As long as no recession intervenes, in my view the Fed will also continue to raise interest rates over the next few years I expect short-term interest rates to top out at very low levels compared to the period ending 2007. It would take inflation surprises to make me change my view.

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