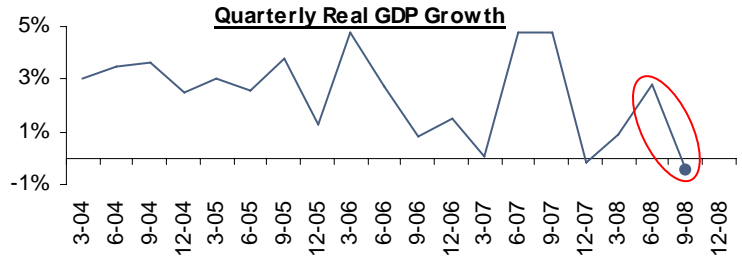
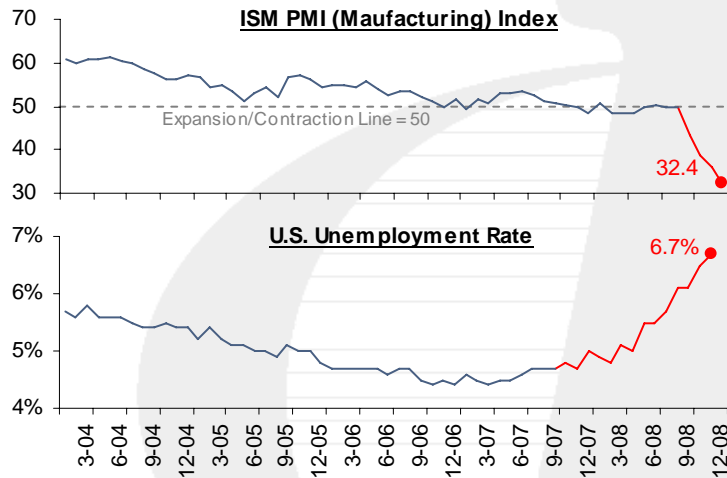


# MARKET Recap

## The Economy: "Tough Times, Easy Money"

The US economy contracted in real terms by 0.5% in the third quarter, as recessionary conditions seeped into more indicators. Unsurprisingly, declines in personal consumption expenditures, residential fixed investment, and equipment & software drove the decline.

Conditions grew much worse in the fourth quarter; while space limits prevent us from listing all of the bad news, we will focus on the sharp decline in manufacturing activity as measured by the Institute for Supply Management's PMI Index, which in December registered its lowest value since June 1980. This compound indicator of manufacturing activity

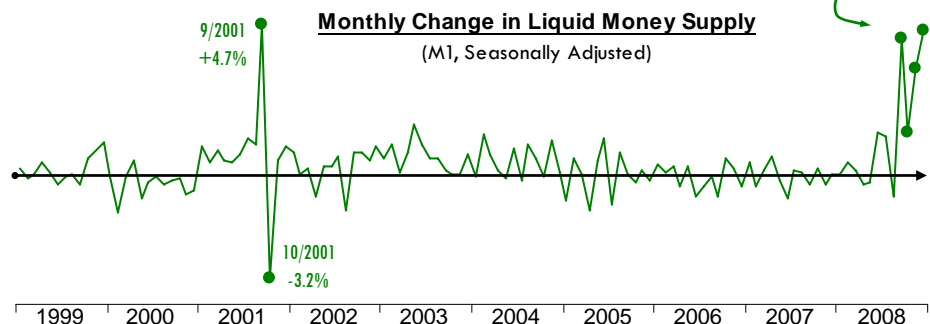


is calibrated such that levels of 50 or lower indicate contraction in the manufacturing sector, while levels of 41.1 or lower indicate contraction in the general economy. Unemployment continued to edge upward and broadened well beyond the beleaguered financial sector. Job losses are both the most painful symptom of recession and a key factor which tends to prolong downturns.

The Federal Reserve responded to September's "credit crunch" by flooding the banking system with liquidity. Sharp increases in M1 are a typical response to short-term liquidity crises (M1 measures the most liquid portion of the money stock – currency and checkable deposits). Note the impact of Fed intervention after the 9/11/01 terrorist attacks, when there was a brief threat of financial panic; note also how quickly the action was reversed once order was restored. Prior to 9/01, only once had monthly M1 spiked more than 2% (2.7% in 12/86).

Observing policy since September 2008, one would believe a severe liquidity crisis is still underway. M1 rose four months in a row, by an astounding total of 14.2%. Fed lending was accompanied by quantitative easing and a reduction in the Fed Funds rate to below 0.25%. Our view is that the liquidity crisis was largely addressed in September when, for a brief period of time, perfectly credit-worthy borrowers (by any standard) had difficulty obtaining financing. What remains after the liquidity crisis is altogether different – a "solvency crisis" for which we are skeptical that cheap and easy credit is a solution. Creditworthy borrowers can now obtain credit; however, the market has fundamentally changed the notion of what constitutes creditworthiness. Lending standards are now more in line with historical norms, but some businesses and people are caught with inadequate income to service onerous past debt levels. Using the public balance sheet to extend "bridge loans" only makes sense if you believe productivity will return to pre-2008 levels driven by high leverage; otherwise, you merely prolong the workout process to the borrower's detriment (building a bridge to nowhere).

| M1 through 12/22/08 |                |
|---------------------|----------------|
| Sept                | + 4.3%         |
| Oct                 | + 1.3%         |
| Nov                 | + 3.4%         |
| Dec                 | + 4.5%         |
| <b>Cumulative</b>   | <b>+ 14.2%</b> |



Many investors have, shortsightedly, dropped their guard against inflation. Combined with fiscal stimulus which is politically much more difficult to reverse, the ultimate result of recent monetary policy will likely be inflationary. The real test for the Fed and the new administration lies ahead in how they respond to and manage "re-flation".

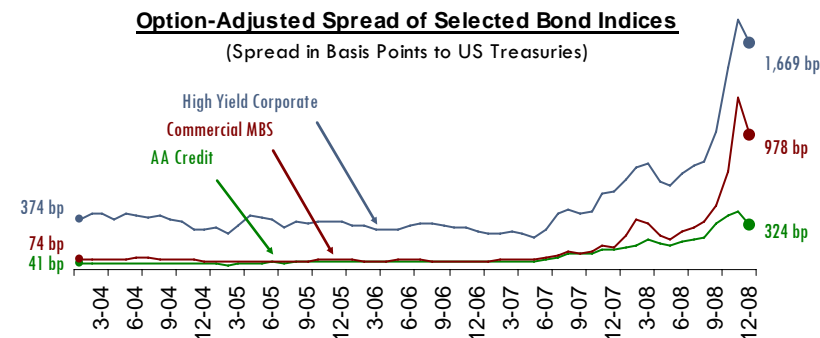
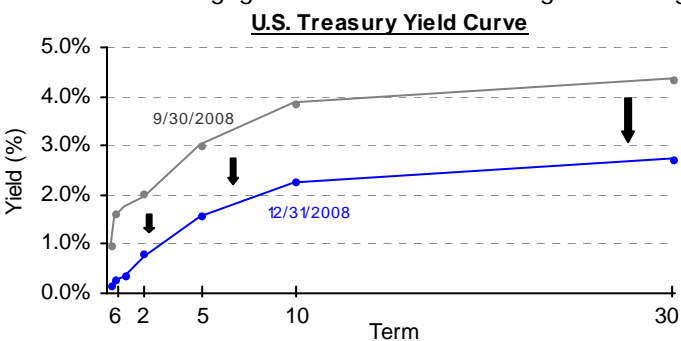
## The U.S. Bond Market

Treasury rates fell sharply across the yield curve in response to Fed easing and flight from poorly-performing equity markets. Within the fixed income world, investors continued to flee credit risk in a truly dramatic fashion. Spreads on typical investment-grade (AA) corporate bonds widened to around 430 basis points in late October in the intermediate-term range, and to about 350 basis points on the long end of the curve, then fell by quarter-end back to September levels. Modestly positive total returns were achieved on AA corporates.

This was not the case, however, for riskier assets. High-yield spreads exploded, approaching 2,000 basis points in mid-December before easing back a bit by month-end. Perhaps more significantly, commercial mortgage-backed securities caught the bug

their residential counterparts experienced in Q3; CMBS now trades at spreads more consistent with junk bonds than secured claims on commercial real estate. It is difficult to determine at this point how much of this dislocation is due to a general negative reaction to all securitized debt products, and how much is due to the market's anticipation of falling commercial real estate values due to recession. Forced selling by hedge funds to meet redemption requests certainly added fuel to the fire. Losses on CMBS adds pressure to banks and insurers, and places more solvency pressure on stable value products commonly used in 401(k) and other defined contribution plans.

| Bond Indices - Total Return |         |         |
|-----------------------------|---------|---------|
|                             | 4Q08    | 2008    |
| BarCap Aggregate            | 4.58%   | 5.24%   |
| BarCap Intern. Gov't        | 6.16%   | 10.43%  |
| BarCap Long Gov't           | 17.92%  | 22.69%  |
| BarCap Intern. Credit       | 2.00%   | -2.76%  |
| BarCap Long Credit          | 8.16%   | -3.92%  |
| BarCap High Yield           | -17.88% | -26.16% |



While default rates will most certainly increase as recessionary conditions persist, spreads in the 1,500 – 2,000 bp range imply truly exceptional default rates with recovery rates of virtually nil. If in fact some of the drivers behind spread expansion are transitory (panic, forced selling, etc.), current credit spreads present very attractive opportunities for investors with an appetite for risk. Volatility within the fixed income markets remains very high. Therefore, short-term timing decisions are particularly risky.

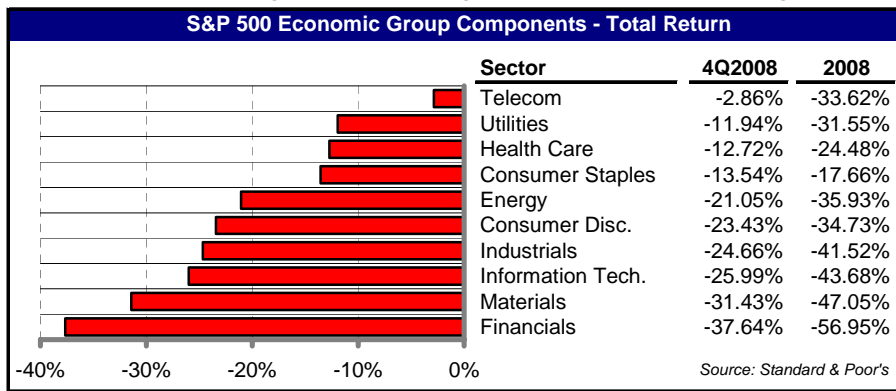
## The U.S. Stock Market

The fourth quarter closed what was, to many investors, the worst year ever experienced. All major indices posted negative returns that were well into double digits. Broad market indices were down significantly for another quarter with the Dow closing 2008 at 8,776, down 19% (2,074 points) for the quarter and down 34% (4,488 points) for the year. The Dow's 2008 close was down 38% from its all-time high of 14,165 reached on October 9, 2007. The NASDAQ closed the quarter at 1,577 down 1075 points for the year, which on a percentage basis was its worst performance in its 37-year history.

Market volatility seemed to feed on itself, rising to unprecedented levels in the fourth quarter. The VIX (which measures market expectation of 30-day volatility conveyed by S&P 500 index option prices) peaked at levels almost double previous highs (recorded in 1998 and 2002). During the fourth quarter, the Dow had 50 days (out of 65) of triple-digit fluctuations, with 7 days of fluctuations in excess of

| Stock Indices - Total Return |         |         |                        |         |         |
|------------------------------|---------|---------|------------------------|---------|---------|
|                              | 4Q08    | 2008    |                        | 4Q2008  | 2008    |
| <b>Largecap Stocks</b>       |         |         | <b>Midcap Stocks</b>   |         |         |
| S&P 500                      | -21.94% | -37.00% | S&P Midcap 400         | -25.55% | -36.23% |
| Russell 1000                 | -22.48% | -37.60% | Russell Midcap         | -27.27% | -41.46% |
| Growth                       | -22.79% | -38.44% | Growth                 | -27.36% | -44.32% |
| Value                        | -22.18% | -36.85% | Value                  | -27.19% | -38.44% |
| <b>Broad Markets</b>         |         |         | <b>Smallcap Stocks</b> |         |         |
| NASDAQ Comp.                 | -24.37% | -39.98% | S&P Smallcap 600       | -25.17% | -31.07% |
| DJ Wilshire 5000             | -22.85% | -37.23% | Russell 2000           | -26.12% | -33.79% |
|                              |         |         | Growth                 | -27.45% | -38.54% |
|                              |         |         | Value                  | -24.89% | -28.92% |

500 points. The Dow also saw some of the most dramatic intra-day volatility ever with 5 days of intraday swings of over 850 points in 2008, and the largest intraday swing in history, 1019 points, occurring on October 10th. Witnessing these swings raises the inevitable question: Will this elevated volatility have a permanent impact on stock valuations or will they come back? Inherent in the value of any stock is a market risk premium. Elevated levels of uncertainty lead investors to demand higher market risk premiums, which in turn result in declines in stock values across the board. But even if the markets settle, leverage has had a significant impact on earnings and valuations, and there has been a significant removal of leverage from our economy that may be permanent.



By the close of the fourth quarter, Wall Street analysts, appearing to acknowledge we are operating in a changed world, abandoned all expectations for a near-term rebound in corporate earnings. As recently as October 1st, analysts were forecasting a 46.7% increase in earnings over 4Q 2007. But according to the December 26th Thomson Reuters Director's Report (a daily analysis of earnings trends for companies

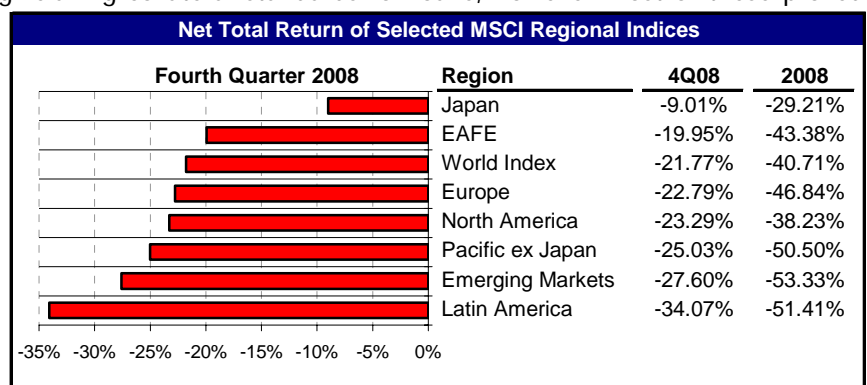
comprising the benchmark U.S. equity index), earnings for S&P 500 companies were forecast to decline in the final three months of 2008 by 0.9% from a year earlier. Further, in the final week of December the report was pointing to declining earnings through the second quarter of 2009. Analysts presumed for much of the year that 4Q 2008 profits would easily beat those in 4Q 2007 when the first major wave of losses from the housing market's crash hit the financial sector.

Predictably with consumer spending particularly hard hit by job losses, falling home prices and tightening credit conditions, profits in the consumer discretionary sector (including auto makers) are forecast to fall 54% from last year. By contrast, companies in the consumer staples sector are estimated to show a 5% increase in earnings from 4Q 2007, according to Thomson Reuters. Health-care companies and utilities are expected to show modest profits as well, up 6% and 4% respectively. The remaining sectors (energy, industrials, materials, technology and telecommunications) are expected to post double-digit declines from the 2007 fourth quarter, with the biggest forecast drop in the materials sector which has been severely impacted by the drop-off in commodity prices and demand. Finally, analysts remain uncertain about the financial sector, which posted a loss a year ago and has continued to suffer from fallout in the credit markets.

## Overseas Markets

Trying times continued in the international markets during the final quarter of the year. The quarter was characterized by an unprecedented show of cooperation by central banks lowering interest rates in response to the growing credit crisis and buying up illiquid assets to bolster confidence in, and provide liquidity to, the markets. There were also other steps taken to attempt to stem the bleeding, including relaxing collateral standards for loans, however most of these proved ineffective in combating the structural issues facing the markets. Double-digit losses were the norm with most of the world's developed and emerging markets down in excess of 20%.

European governments changed their tune regarding the need for a U.S. style bail-out for their banks early in the quarter. Interbank lending spreads widened significantly, demonstrating that financial institutions remained deeply concerned about lending to one another. Jean-Claude Trichet, the president of the European Central Bank and a staunch inflation fighter, capitulated in response to the crisis with the ECB lowering interest rates by 175 basis points over the course of the quarter. The ECB (read Trichet) has been much more reluctant to lower interest rates as policy makers initially saw the mortgage meltdown as a uniquely U.S. problem with only minimal effects in Europe. That stance changed early in the quarter as money markets froze up around the world and major corporations and banks across Europe began to stagnate from their inability to engage in even routine financial transactions. Interestingly, the interest rate cut in October was the first reduction during Trichet's tenure.



Japan emerged as less of a sore spot during the quarter with the MSCI Japan Index down only 9% versus over 20% for most other developed markets. Having already been through a crisis of confidence and liquidity during the '90's, Japan's experience appears to have the country better positioned to weather the current storm. After holding interest rates steady in September the Bank of Japan cautioned that growth is likely to be sluggish as the credit crunch crimps overseas demand. When central banks around the world cut their benchmark lending rates by a half-percentage point on Oct. 8 in a coordinated effort to ease global credit conditions, the BOJ refrained from cutting but stated that it supported the actions taken by other central banks. The BOJ stands ready to return to its quantitative easing policy, using money supply rather than interest rate cuts to stimulate economic growth, which officially ended in 2006. It signaled as much when it relaxed its acceptable collateral standards in December, allowing BBB-rated corporate debt or higher as collateral, effectively loosening its previous qualifying standard of A-rated paper or higher. The central bank also said it would provide unlimited funds collateralized by corporate debt at interest rates equal to its overnight call rate of 0.3%.

China joined the developed markets announcing a stimulus package valued at about 4 trillion yuan (\$586 billion) that would focus on increasing domestic demand by loosening credit conditions, allowing for tax cuts and creating massive infrastructure projects. Third quarter GDP grew by 9% – this rate was less than expected and marked the fifth straight quarter of declining growth. The IMF reduced its 2009 GDP growth estimate for China to 8.5% from a prior forecast of 9.3%. The severity of the global slowdown could be seen in the decline in China's exports in November, down for the first time in more than seven years. Exports fell 2.2% year-over-year after rising nearly 20% in October. Wholesale inflation climbed 2% in November from a year earlier, easing from a 6.6% rise in October, according to data from the National Bureau of Statistics. Consensus estimates were for a 4.5% increase. The more rapid than expected decline fueled deflationary concerns and increased the prospects for further monetary easing. Crude-oil prices appeared to account for a large part of the decline, falling 14.7% for the year. The MSCI China Index was down 10.75% for the quarter.

The continued distress felt in developed global markets along with the severe deflation of commodities have combined to crush performance in Latin America. In Argentina, the quarter began with the announcement that the government planned to nationalize about \$30 billion dollars in private pension funds. There is growing concern that the government sees the pension funds as an alternative revenue stream replacing declining revenue from exports of soybeans in particular, a major source of income that has been severely impacted by the global slowdown. Soybeans have lost almost 50% of their value since hitting record-highs in July. Analysts have estimated that the fall in soybean prices could cost \$6 billion in export related revenues. The MSCI Argentina Index was down 43.8% for the quarter. In Brazil, the government has injected \$164 billion since the start of the financial crisis focusing on a reduction in bank technical deposits, interventions in the currency exchange market to contain the US dollar, elimination of taxes, and credit lines for corporations and consumers. All of the focus has been to protect the real which had lost an estimated 32% of its value versus the dollar through the last week of December. The MSCI Brazil Index was down 37.2% for the quarter.

## Focus On: *Index Funds*

Index funds are often seen as one of the simplest forms of investing since there is no active management. What kind of due diligence could a passively managed fund really require? Isn't the manager just duplicating a benchmark index? However, as with other deceptively "simple" investments (like stable value funds), investors are well-served by gaining a thorough understanding of the underlying workings of the fund. In fact, when you lift the hood of an index fund, you may find out that all passive management is not the same and there is really more going on than meets the eye.

While the objective of an index fund is pretty basic (i.e., duplicate the performance of an index of a specific financial market regardless of market conditions), the composition of the fund, or more precisely, the way management chooses to mimic the index, can be surprisingly complex. In its most basic form, the fund manager simply replicates the index, buying all of the underlying securities in the same proportion in which they are represented in the index. But this strategy only works for indices that have a manageable number of readily purchasable holdings, like the S&P 500. Some indices by their very nature can not be easily replicated. Imagine trying to buy or sell a few shares of

### Largest Index Managers

| Rank | Manager                           | Total       |
|------|-----------------------------------|-------------|
| 1    | Barclays Global Investors         | \$1,830,585 |
| 2    | State Street Global Advisors      | \$1,668,463 |
| 3    | Vanguard Group                    | \$639,073   |
| 4    | Northern Trust Global Investments | \$276,711   |
| 5    | Bank of New York Mellon           | \$163,964   |
| 6    | TIAA-CREF                         | \$93,963    |
| 7    | BlackRock                         | \$93,160    |
| 8    | Prudential Financial              | \$82,506    |
| 9    | Goldman Sachs                     | \$80,632    |
| 10   | Geode Capital Mgmt.               | \$72,087    |
| 11   | T. Rowe Price                     | \$46,638    |
| 12   | PIMCO                             | \$29,605    |
| 13   | Lehman Brothers                   | \$26,082    |
| 14   | JPMorgan Asset Mgmt.              | \$22,680    |
| 15   | Charles Schwab                    | \$21,384    |

Total worldwide assets under internal indexed management, in U.S. millions, as of June 30, 2008.  
Source: Pensions & Investments

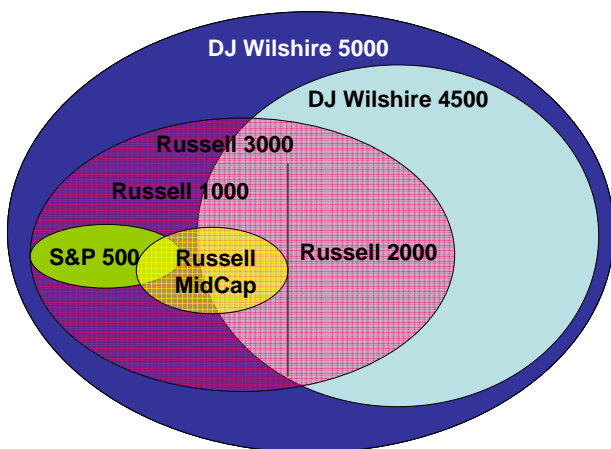
each of the stocks in the Wilshire 5000 or each of the bonds in the Barclays Capital (formerly Lehman) Aggregate. Not all of the securities may be available in the market, and transaction costs would destroy the fund's returns! In cases like this, the fund manager will usually use *sampling*, where only a representative sample of the index holdings makes up the index fund. Management will seek to duplicate key characteristics of the benchmark index such as sector weightings or, in the case of a bond index, duration and credit quality.

But regardless of the tactics employed, when sampling is used the fund's composition necessarily deviates from that of its benchmark, and the fund manager is tasked with figuring out a way to compensate for this discrepancy so that fund performance mimics the benchmark index as closely as possible. He or she must assess which differences are tolerable (and ultimately will have little impact on performance) and which characteristics are critical to performance – as well as the best way to achieve similarity with the benchmark index. All this leads to some very active decision-making in funds referred to as “passively managed.” Just as investors in actively-managed funds should understand the strategy and tactics employed to try to beat the market, investors in index funds should understand the strategy and tactics employed to try to duplicate the market (or a portion of it).

### Tracking Error – Facing Reality

The challenge for an index manager can be summed up simply: they must duplicate a theoretical construct in the real world. Every difference between an index and an index fund that tracks it can have an impact on fund performance, causing it to diverge from that of the index. *Tracking error* is the measure (in basis points) of how much a fund's returns deviate from its benchmark index. Large inconsistencies between the return of an index fund and its benchmark can be a cause for concern, perhaps indicating poor fund construction or some other problem. But sometimes, they are easily explainable. Either way, following an index fund's tracking error and understanding the reasons for it are two important steps in the due diligence process.

Tracking error is normally related directly to expenses and indirect costs. These costs can be divided into two broad categories: fund operation and transactions. The associated costs of running a fund (e.g., management fees, basic administration, marketing, etc.) detract from performance relative to the benchmark. Foreign index funds can face an even greater challenge than their domestic counterparts on the expense front. Trading fees and taxes specific to certain markets (e.g., a stamp tax in the U.K.) will add to expense. So the extent to which an index has significant holdings in a country with high fees and/or taxes can be a driver of tracking error in the funds that use it as a benchmark.



**Major U.S. Equity Indices** – Without careful consideration, it is easy to end up with an overlapping index fund strategy.

The main cause of transaction-related tracking error is cashflow and its management. Changes to an index happen instantaneously since, as a theoretical construct, no actual investment occurs. This is not the case with an index fund. Management must invest flows as they are received, and re-deploy capital as changes to the index occur. The resulting timing difference is an indirect cost that can have an impact on the fund's performance. In addition, to manage deposit and withdrawal activity in the fund and avoid extensive trading, most managers hold some of the fund assets in cash. The benchmark index, of course, never has a cash component. Fund managers will generally try to “equitize” cash by holding futures of the benchmark index, if available. Some indices have a more established futures market than others. For example, some fund managers feel there is insufficient liquidity in the EAFE futures market to use them for cash management purposes, so they use a basket of CFTC (Commodity Futures Trading Commission) approved futures to invest cash flows. While these futures do an excellent job of tracking the performance of the stocks in the underlying countries, the lack of CFTC-approved futures in certain countries (like Switzerland which makes up almost 7% of the EAFE index) will result in marginal tracking error.

Another transactional cause of tracking error is the fair value process used by foreign index funds. Most U.S. domiciled international funds are priced at 4:00 p.m. ET (when the U.S. markets close) to reduce the possibility of being arbitrated. This is 5 to 12 hours after the Asian and European markets have closed. The process can cause the fund return to differ from the benchmark index return on any particular day. The difference can be positive or negative over any given period with the fund getting “lucky” or “unlucky” depending on which particular period you are measuring.

The bottom line on tracking error in index funds is that it will occur. While it may decrease as a fund achieves scale, it is the inevitable result of running an index fund. The challenge to investors is to ascertain if tracking error is reasonable (based on an understanding of management's strategy and tactics) and acceptable.

## Unpleasant Surprises

Challenged to decrease tracking error or even exceed benchmark performance, some index funds have resorted to tactics specifically designed to enhance returns (versus to replicate the benchmark), such as securities lending. Securities lending is the short-term loan of securities for a fee, usually to a counterparty that wants to engage in short selling. At one time, the chief risk in securities lending to an index fund was *counterparty risk*, the risk that the borrower would default on the agreement. This risk has been mitigated by agreements with strict collateral requirements. Now borrowers provide collateral, such as cash or government securities, of value equal to or greater than the loaned securities. The collateral is marked to market and settled on a daily basis based on changes in the value of the loaned securities. If the borrower fails to provide additional collateral, the lender simply seizes the collateral and buys replacement securities at the market.

Recently, however, another risk in securities lending was highlighted: *collateral risk*. While the borrower must provide and maintain the agreed-upon level of collateral, the lender must ultimately return the collateral with interest. Of course the lender expects to be able to generate a return on the collateral that exceeds the promised interest level (a spread, which is shared with the investment manager or prime broker), but this requires taking on some risk. Lenders are incented to take on more and more risk to attract borrowers and maximize spread profit. But if a lender experiences a loss or default on the collateral investment, the lender bears the cost of that loss. This translates directly to a loss in the net asset value of the index fund.

This can be a particularly unpleasant reality for defined contribution plan sponsors and participants. Usually neither collateral from securities lending programs nor the associated investment of it are detailed in a fund holdings report or other reporting, so it is very difficult to monitor the level of risk taken on the collateral. An unexpected loss in an index fund will almost certainly trigger questions, calls, and dissatisfaction – a headache, at the very least, to any plan sponsor.

## A Few Considerations for Plan Sponsors

While many defined contribution plans offer an S&P 500 index fund, few offer participants the ability to implement an entire indexed strategy. As plan sponsors look for new ways to allow participants to customize their allocation strategy, adding a complete roster of index funds is a way to give participants, who either do not believe in the value of active management or are simply looking for the lowest cost investments, access to funds they will appreciate most. There are, however, some points about index funds plan sponsors should consider as they expand their fund line-up.

First off, not all strategies are “index-able.” In some cases, the market is too new (e.g., some emerging markets). In other cases, the strategy itself is problematic (e.g., high yield bonds). Covering as much of the investible market as possible with as few funds as possible at a low cost may exclude some asset classes.

Plan sponsors may also want to consider what would happen in the event they decide to replace an index fund in their line-up. Index managers are more likely than active managers to want to make in-kind transfers for large distributions. This is convenient in a move to a fund with the same benchmark and strategy. Both the outgoing and incoming funds are likely to have comparable holdings and weightings, so a transfer of securities instead of cash saves transactions fees and does not throw off either fund's asset allocation. However, if the outgoing and incoming funds employ different strategies, the new manager is likely to accept only securities in the new fund's benchmark index and only in proportion to that index. Anything else would need to be liquidated, and the process would likely necessitate the retention of a transition manager (at additional cost to the plan).

Finally, scale matters in all aspects when it comes to index funds. The size of the plan will determine the range of index products (and the associated costs) available to a plan. Large plans will have access to more products at lower costs. The size of the index fund itself will impact tracking error. As net assets increase, transaction costs and other expenses become less proportionally to the fund, becoming less of a drag on relative performance.

Index funds may be passively managed, but that doesn't mean plan sponsors should be passive investors. As basic as they are, there are many components about index funds that can surprise investors without a closer look. A solid due diligence process will help plan sponsors (or any investor) understand what to expect and when to be concerned.