

## Don't Miss the Forest for the Trees: Opportunity in Cloud Computing

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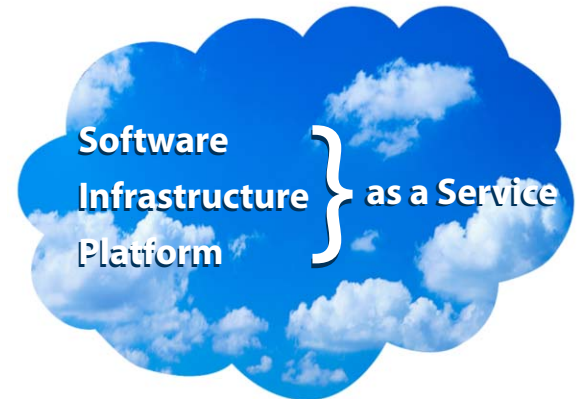
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One of the most difficult behavioral challenges faced by investors is the tendency to focus too much attention on issues that are placed directly before them, for instance, by media coverage or personal experience, while ignoring other important data. This can lead investors to make decisions without properly assessing the overall opportunities and risks associated with a given investment. There are few times when this myopic focus is more prevalent than during an election year, amidst many months of hand-wringing and incessant poll watching. Thus, in the wake of our most recent elections, investors are faced with the temptation to place too much emphasis on how its results will impact certain companies or industries, while ignoring other factors that will likely have a much greater impact on long-term performance. As the saying goes, it's easy to miss the forest for the trees.

And so, for this newsletter, we will avoid the temptation to analyze how the recent elections may impact certain industries, such as managed health care or aerospace & defense, and instead turn our attention to a theme whose long-term growth is less dependent on the shape of future government policies, in our opinion, and more tied to the innovation and entrepreneurialism of the underlying businesses; namely, cloud computing. Investors may gain exposure to this theme through the First Trust ISE Cloud Computing Index Fund (SKYY).

### What is Cloud Computing?

Following the bursting of the "dot-com" bubble at the beginning of the last decade, investors have rightly grown more skeptical of investment themes associated with catchy buzz words. So it's easy to see why some might have initially dismissed "cloud computing" as another fad, without fully considering its investment merit. While it's somewhat challenging to provide a concise definition of cloud computing, as a growing number of sub-categories have recently sprung forth, the theme is generally tied together by the overarching premise that software, infrastructure, and platform can be effectively and efficiently delivered as a service via broadband-high-speed internet access. As such, this model effectively displaces the traditional model of locally installed software, computing power, and storage.



### Control, Productivity, Efficiency, and Scale

The benefits of the cloud computing theme, which make it such a formidable and disruptive trend, can be summarized in terms of control, productivity, efficiency, and scale.

As for control, this advantage can be illustrated in the case of software companies which now provide cloud-based applications, rather than supplying a CD-ROM to users for download. Of course, a serious problem with delivering a CD-ROM is that after its contents are downloaded onto the computer of a licensed user, it can easily be passed along to another, potentially unlicensed user. According to a study conducted by the Business Software Alliance, 57% of the world's computer users admit that they use unlicensed software, with a commercial value totaling \$63.4 billion in 2011. On the other hand, companies delivering software applications that are installed at a remote location, and delivered via the internet, have much greater control, thus barring access to unlicensed users.

Another benefit of cloud computing is the potential for improved productivity that may result from outsourcing certain IT functions. Many businesses expend the majority of their IT budgets on the maintenance of in-house enterprise systems. Those companies that shift the burden of maintaining some or all of their storage and computing power to a cloud provider may then redirect the efforts of their IT departments to using technology in order to create value for the company, not simply maintaining the status quo.

Past performance is not a guarantee of future results and there is no assurance that the above mentioned events or improvements will continue.

In addition to enhancing productivity, cloud computing may also enable businesses to use resources more efficiently. As we approach the holidays, an example involving the Monday after Thanksgiving, known as Cyber Monday, may help illustrate this point. Over the last decade, Cyber Monday has become the internet retailer's equivalent to Black Friday; a one day super-sale offering the lowest prices of the year. Web traffic grows exponentially on this day, as compared to the rest of the year. In the past, retailers were forced to purchase enough capacity to meet peak demand for Cyber Monday, despite the fact that they knew it would be underutilized for the rest of the year. Today, however, internet retailers may effectively rent space from cloud providers, allowing them to quickly increase or decrease capacity to match demand. In so doing, companies can utilize resources much more efficiently, without requiring outsized, inefficient capital investments.

Along with increased capacity for web traffic, certain cloud providers also enhance the ability of companies to analyze enormous amounts of data that may be gleaned from web traffic. This enables retailers to more effectively customize advertising and to offer deals targeted for specific consumers, increasing the success rate of these offers.

## ETF Characteristics

The fund lists and principally trades its shares on The NASDAQ Stock Market LLC.

The fund's return may not match the return of the ISE Cloud Computing™ Index. The fund may not be fully invested at times. Securities held by the fund will generally not be bought or sold in response to market fluctuations.

Investors buying or selling fund shares on the secondary market may incur customary brokerage commissions. Market prices may differ to some degree from the net asset value of the shares. Investors who sell fund shares may receive less than the share's net asset value. Shares may be sold throughout the day on the exchange through any brokerage account. However, unlike mutual funds, shares may only be redeemed directly from the fund by authorized participants, in very large creation/redemption units.

## RISKS

The fund's shares will change in value, and you could lose money by investing in the fund. One of the principal risks of investing in the fund is market risk. Market risk is the risk that a particular stock owned by the fund, fund shares or stocks in general may fall in value.

The fund may invest in small capitalization and mid capitalization companies. Such companies may experience greater price volatility than larger, more established companies.

The fund is concentrated in stocks of companies in the technology sector. You should be aware that an investment in a portfolio which is concentrated in a particular sector involves additional risks, including limited diversification. The companies engaged in the technology sector are subject to fierce competition, high research and development costs, and their products and services may be subject to rapid obsolescence.

## A Disruptive Innovation

While many of the advantages of cloud computing provide a net benefit to consumers, as well as the overall economy, they also provide a disruptive challenge to many incumbent technology companies. For example, as the cloud-based model leads to more efficient utilization of servers, fewer servers may be required to deliver the same results. As a result, incumbent technology companies must adapt to cloud computing, not simply to fuel future growth opportunities, but to ward off challenges to their existing cash flows.

Investors seeking exposure to the higher growth segment of the technology sector may wish to allocate funds to the First Trust ISE Cloud Computing Index Fund (SKYY) rather than a broad technology sector fund. This fund provides exposure to 42 companies that are actively involved in the cloud computing industry.

As with any new innovation, cloud computing companies face their own specific risks and challenges. These include security, risk management, and compliance, among others. Additionally, many CIOs have initially been hesitant to incorporate cloud computing into their business models, preferring to wait for more widespread adoption. But as these risks and concerns are addressed, and consumers become more comfortable with the idea of cloud computing, the advantages afforded by this disruptive business model, in terms of control, productivity, efficiency, and scale, may prove to be too great to ignore.

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Technology company stocks, especially those which are Internet-related, may experience extreme price and volume fluctuations that are often unrelated to their operating performance.

The fund invests in securities of companies engaged in the cloud computing industry, including companies that provide remote computation, software, data access and storage services. The risks related to investing in such companies include interruptions or delays in service, security breaches involving sensitive, confidential information managed and transmitted by cloud computing companies, and regulations that may limit or otherwise affect the operations of such companies.

The fund is classified as "non-diversified." A non-diversified fund generally may invest a larger percentage of its assets in the securities of a smaller number of issuers. As a result, the fund may be more susceptible to the risks associated with these particular companies, or to a single economic, political or regulatory occurrence affecting these companies.

***You should consider the fund's investment objectives, risks, and charges and expenses carefully before investing. Contact First Trust Portfolios L.P. at 1-800-621-1675 or visit [www.ftportfolios.com](http://www.ftportfolios.com) to obtain a prospectus or summary prospectus which contains this and other information about the fund. The prospectus or summary prospectus should be read carefully before investing.***

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