Important trends gathering behind four technology sector themes could lead to a strong earnings growth and stock returns in 2011 and 2012:

1. **Renewed IT spending:** Rates of IT spending are doubling from the past decade’s average levels and the dollars are going into areas that directly support revenue generation and business expansion.

2. **Always on, always connected:** Devices like smartphones and tablets to enable businesses and consumers to access the worldwide web 24x7 are becoming universal standards.

3. **Global economic recovery** is making for an extremely favorable climate for large-scale capital expenditures.

4. **Benign valuations:** The negative bias prevailing among tech analysts leaves room for upside revisions to sales and earnings estimates. The valuation of companies with higher growth rates within the sector, in particular, still has room for gains.

**Renewed IT Spending**

Technology spending declined precipitously in the aftermath of the 1990s tech boom. Much of the retreat represented a backlash from the early internet spending splurge and over-zealous Y2K preparations. IT budgets froze. Many promising technologies in networking and storage struggled to gain traction. A whole class of venture-capital-backed companies collapsed as demand dried up and once-reliable exit routes, such as the IPO market, shut down. When money freed up in 2006–2007, Chief Information Officers turned to outsourcing and consulting firms to integrate the patchwork tech fixes that were the consequence of under-investment. The overall spend level went up marginally, but the net benefit to the organization and the end user didn’t expand by much.

In 2011, by way of contrast, it looks like IT spending is going to grow by 9% to 10% over 2010 (Exhibit 1, next page). The list of companies likely to boost budgets significantly in 2011 is much broader than in 2009-2010, when it consisted primarily of companies integrating systems in the wake of the large and complex mergers following the financial crisis. We are seeing signs today that companies in manufacturing, health care, media and pharmaceuticals are embracing internet-based cloud computing that will enable their workforces to drive sales growth, develop new products and services, and improve the efficiency of the corporation.
The Tech Tide of 2011

Exhibit 1: Tech Turnaround—Tech Spending and Revenue Trends Decisively Reversed Course in 2010

Source: Bloomberg, Companies, Commerce/BEA, ISI.
* Current dollars, SAAR
** 78 I.T. companies

We think these companies will concentrate their expenditures in the growth areas of the tech space. Virtualization, WAN optimization, tablet computing, enterprise wireless and software as a service: the components of cloud infrastructure are the types of technologies we favor. Indeed, the emergence of the cloud involves an expansive value chain that provides many avenues of investment in semiconductor manufacturing, storage, service providers and networking.

Always On, Always Connected

Whether or not the rollout of smartphones—phones with a superior processor and app capabilities—and tablets are causing consumers and business enterprises to question the value of PCs and Notebooks, they have certainly led to explosive growth in the new categories. New models pop up daily to take advantage of rich feature sets and multimedia capabilities. In a sector with a history of revolutionary innovation touching off explosive demand, this is unlike any other phenomenon we have seen in our careers. Several companies have gone public in recent months to participate in the tablet/smartphone ecosystem, and we expect many more.

In the most recent quarter, Apple, the runaway leader in smartphones and tablets, sold more than 16 million iPhones and seven million iPads despite news reports that upgraded versions of both devices were coming soon and a major carrier was going to be added to the network. Morgan Stanley projects that Apple could ship as many as 40 million iPads and 100 million iPhones in 2011. We think Apple could surpass both of those numbers.

This unprecedented reception has attracted a number of competitors to the tablet space capable of supplying an additional three to five million tablets for consumers uninterested in the Apple ecosystem or its halo effect. In fact, we believe smartphone penetration could reach past 25% this year and tablet penetration approach 8% to 10%. These dynamics will have a major impact on media consumption, social networking, e-commerce, mobile payments and collaboration. We have spent a lot of time identifying the likely winners that have succeeded in erecting competitive moats and losers that have fallen out of date in their product strategy.

Global Economic Recovery

Above and beyond the technology revolution, the sector has the broad economy working in its favor. Until last year, there had been no meaningful capital expenditure acceleration since 2007 (Exhibit 2). Back then, companies at the tail end of a capital deployment cycle were trying to prolong it by applying dollars previously allocated to capex toward share buybacks and M&A. As the cycle came to an end, capex cratered. Companies, facing the threat of depression and insolvency, hoarded cash instead.

At last, in the latter part of 2010, corporate revenues began exceeding estimates. Historically such revenue increases coincide with increases in spending on corporate IT. Today, faced with a backlog of capital improvements and forced to keep pace with major technological advances, companies have a reason and, with the cash they accumulated in hard times, the resources to spend. The capex trend is something that we feel

Exhibit 2: Out of the Valley—Capex Picture Has Brightened Considerably Over the Past Year


1 Source: AAPL 10Q1/19/11
will provide a formidable boost for technology stocks for a long time, as multi-year investments in multi-year projects come onstream to protect market share, grow revenue and open new markets (Exhibit 3).

In the U.S., stimulus measures lend further support to the growth thesis. The federal government is extending the R&D tax credit. Many technology companies have lobbied for the extension, and it figures to have a large effect on the industry. We are starting to see corporate managements in the tech sector itself undertake major long-term investments. In the case of the semiconductor industry, Intel is confronting an onslaught of challenges around its lack of a tablet processor. Rather than try to buy its way out of trouble, the firm decided to spend $9 billion on new plants to produce faster, more reliable and power-efficient chips for this new end market. The budget was about 40% above what analysts forecast. It has forced other players like advanced technology leader Taiwan Semiconductor to “raise their game” and spend similar amounts to maintain their advantage. We view these wars as interesting inflection points in which to invest and have taken meaningful positions in semiconductor capital equipment companies in our growth portfolios.

The capex cycle is coming back in telecom as well, where AT&T and Verizon have been improving network quality to try to win over—and retain—subscribers. As AT&T has lost exclusivity of the iconic iPhone in the U.S., it has focused capital expenditure on relieving the congestion at the middle of its network, which has slowed data usage. And while AT&T is seeking to upgrade its network and call quality, Verizon is coping with the challenge of maintaining quality, as devices like the iPhone and iPad join its wireless airwaves. To stay ahead on the treadmill of ever increasing mobile traffic, it will have to invest greater amounts in its mobile network, both to uphold its reputation and to realize the full potential of revenues in the future. We have looked at many ways to profit from this trend and have found opportunities in makers of software, components and large systems.

**Benign Valuations**

As the calendar turned to 2011, more than a few managers expressed concerns over the expensive valuations of technology stocks (Exhibit 4). We noted a trace of regret in their comments, especially among those who missed out on tech’s recent surge in which the names with strong operating momentum went on to become market leaders. The decision to avoid those stocks stemmed from two main reasons. First, market leadership in 2010 tilted toward small and mid-sized stocks, as opposed to the traditional large cap companies (Exhibit 5). Second, the price-to-earnings multiple on many of the tech stocks was higher than the market, which had just come out of a very depressed period. Characteristically, the
relief rally that accompanied the first stages of recovery rewarded the low quality/low multiple stocks that managed to pull back from the brink.

When the economic expansion started to accelerate in the second quarter, however, we saw a separation from the pack in the growth stocks we invest in (Exhibit 6). The technology stocks with above-average increases in revenues and earnings advanced by more than 25% in 2010. We believe the multiple expansion achieved by these companies could well persist, since conditions are in place to permit these companies can build on their exceptional gains (Exhibit 7). The news from companies reporting fourth quarter earnings and offering 2011 guidance supports this thesis. Revenues and margins—two keys to sustained outperformance in the future—both experienced upward revisions.

Catching the Floodtide

We feel we are entering into a lengthy outperformance phase for technology propelled by four vital factors: a recovering global economy, cash-rich businesses that can no longer put off capital expenditures if they wish to participate in the recovery, still-reasonable stock valuations relative to history and, important as anything else, a revolutionary change in technology itself, as an ever more interconnected world transitions to cloud computing.

These rising tides do not figure to lift all boats equally, of course. But we believe managers experienced through cycles of tech boom and bust, backed by ample “on the ground” research, should be able to sort through the opportunities and identify those most likely to ride the favorable currents.