## Is TECH back?

The Nasdaq peaked in Mar 2000, almost 12 years ago. For the longest time, observers have been fond of comparing the Nasdaq with the Nikkei, which peaked in Dec 1989. And for quite a while now, the Nasdaq index post-Mar 2000 has mirrored the movements of the Nikkei post-Dec 1989.

However, as can be seen from the attached chart, Nasdaq's mirroring of the Nikkei broke down in 3Q, 2010. Since then, a sharp divergence in behaviour can be seen. The white line is Nasdaq and green line is Nikkei, with the time axis adjusted so that the two peaks co-incide.



What is more interesting is Nasdaq (2916 at close of 8 Feb, 2012) has now convincingly broken through the two post-Mar 2000 peaks of 2859 on 31 Oct 2007 and 2874 on 29 Apr 2011.

What is interesting about Nasdaq stocks is their valuations. Here's a quick comparison of Nasdaq valuation metrics, then and now.

Nasdaq Composite Valuation Metrics	31 Dec, 1999	31 Dec, 2011
PE	151.7	22.3
Price/Book	6.7	2.6
Price/Cash Flow	33.2	10.1
Dividend Yield (%)	0.1	1.1
EV/EBITDA	23.3	10.4
Price/Sales	4.8	1.7

The PE ratio of Nasdaq 12 years ago was 7x richer. In fact, PERs were so high, I recall that analysts had turned to justifying all their TMT (Technology, Media and Telecom – how many people remember this term, "TMT sector"??) stocks by quoting the EV/EBITDA ratios as the numbers were more palatable!

But on an EV/EBITDA basis, it was 2.5x richer back then compared to the present. It was the same for price/book ratio.

And back then, hardly any company in the TMT world paid dividends. In the eyes of investors, it was neither respectable nor desirable! Today, Nasdaq stocks are not only cash rich, many pay dividends. Overall, the dividend yield is 11x higher than it was 12 years ago.

Although overall dividend yields are low on an absolute basis, many of the leading companies (outside the Internet sector) pay decent levels of dividends. Among the 50 biggest stocks on Nasdaq, there are companies with decent dividend yields like Microsoft (2.6%), Intel (3.1%), Amgen (2.2%), Texas Instruments (2%), Viacom (2%), Automatic Data (2.9%), CME Group (3.2%), Applied Materials (2.5%) and CA (3.7%).

Apple, the biggest company in the world by market capitalisation (bigger than Microsoft and Google put together!) has yet to pay a dividend, but with nearly \$100 billion in liquid assets, one would imagine that it can deliver an excellent payout if it embarks on a dividend policy.

OK, so we agree that Nasdaq has very different characteristics from 12 years ago. But are there any catalysts that can take Nasdaq back to its all time high 5049?

It's an intriguing question and one could speculate endlessly on possibilities such as:

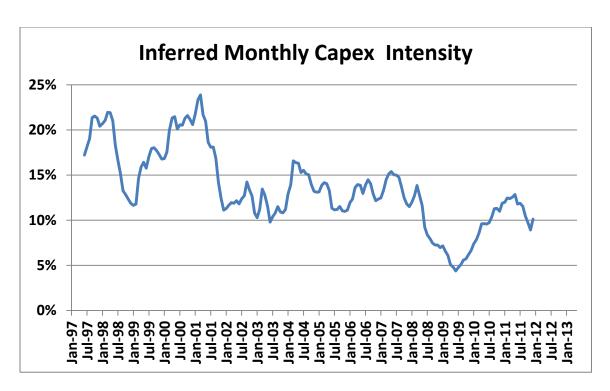
- a. Smartphone penetration
- b. Tablet penetration
- c. Cloud computing services
- d. Corporate IT spending cycle
- e. IPv6
- f. Rise in purchasing power of large populations in China, India, Latin America and Africa. (These 4 regions have a combined population of over 4 billion in contrast to traditional centres of consumption North America, Europe and Japan with fewer than 800 million.)
- g. Etc, etc....

Is the supply chain ready for a tech boom, should there be one?

Every electronic gadget has semiconductors at the heart of its hardware. I decided to look at the history of semiconductor supply as measured by the ratio of the industry's capital expenditure to its revenue. This ratio is known as capital intensity or capex intensity. The higher this number, the more aggressively the industry is spending on capacity and vice versa.

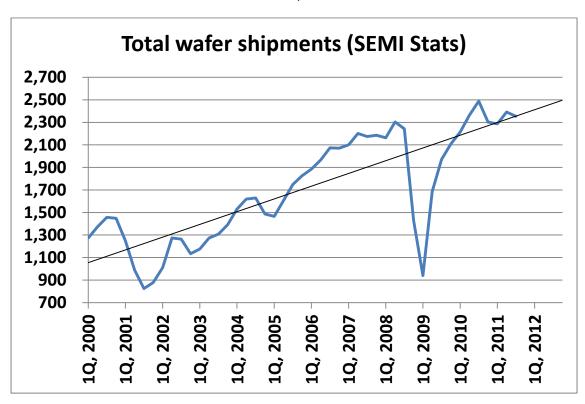
Anyone can put together a proxy for this ratio by using data that is publicly available from the Semiconductor Industry Association (SIA) and the Semiconductor Equipment and Materials International (SEMI).

A chart of this ratio is shown on the next page.



It is immediately obvious that if one ignores the effects of the 2008 Global Financial Crisis, capital intensity is around the lowest it's ever been! In other words, the post-2008 rebound didn't really produce much of a spike in capital spending, relative to the industry revenue.

And yet, the relentless demand for electronic gadgets has created a very steady increase in demand for semiconductors as measured in millions of square inches. See the next chart.



If demand growth is still in line with long term trends but capex intensity remains stubbornly close to historical lows, could the industry be setting itself up for a bottleneck point?

And if this is true right at the top of the food chain i.e. semiconductor wafer factories, could the same be true all the way downstream in the supply chain of the electronics industry?

After all, electronics manufacturing, over the past 12 years, has become a very undesirable industry to work or invest in. Engineers graduating from the best universities are far more attracted to finance, software and internet related companies. Unfortunately, manufacturing is now often the last resort career for engineers!

Perhaps, rather than obsess about Eurozone problems, China hard landing, etc, we should be asking the question, is TECH back?