

TODD HOARE
GLOBAL EQUITIES SPECIALIST

Technology—are we in bubble territory?

Over the past few years, investors have crowded into technology-related investments under the guise of many investment philosophies—scarce revenue growth, business disruptors, defensive earnings, oligopolistic market structures, as well as low volatility. This year alone, demand for technology stocks has seen Facebook, Apple, Amazon, Microsoft and Google add USD 600 billion to their market cap...more than the combined GDPs of Hong Kong and South Africa.

Current valuations make the investment decision from a valuation perspective much more difficult—and as the Dot Com bubble proved, great businesses purchased at the wrong price are bad investments. In this article, we look at technology mega-caps in the US (as opposed to a broader definition of Information Technology), and put their earnings into context to evaluate whether we feel current valuations are justified.

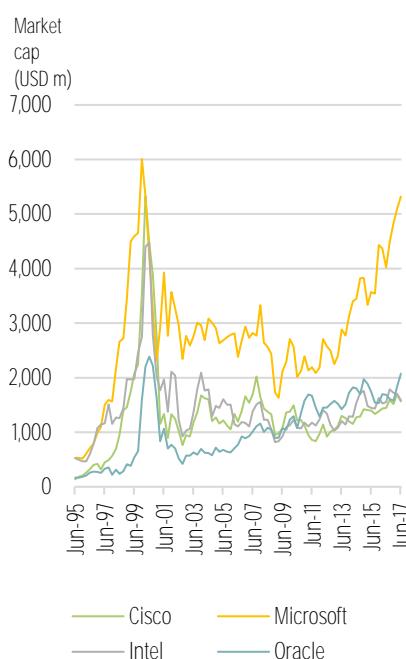
Technology in an historical context

It's now more than two decades since then-Federal Reserve Chairman, Alan Greenspan, gave a seemingly innocuous speech outlining *The challenge of Central Banking in a Democratic Society*. It took 3,346 words before he said the phrase that became synonymous with the Dot Com bubble: "How do we know when irrational exuberance has unduly escalated asset values, which then become subject to unexpected and prolonged contractions as they have in Japan over the past decade?"

The problem with bubbles is that stocks can always become more expensive. In fact, the Nasdaq rallied a further 300% in the three years following Greenspan's speech...and it would take an additional two and a half years before stocks returned to the same level they were at when Greenspan first issued his warning on valuations.

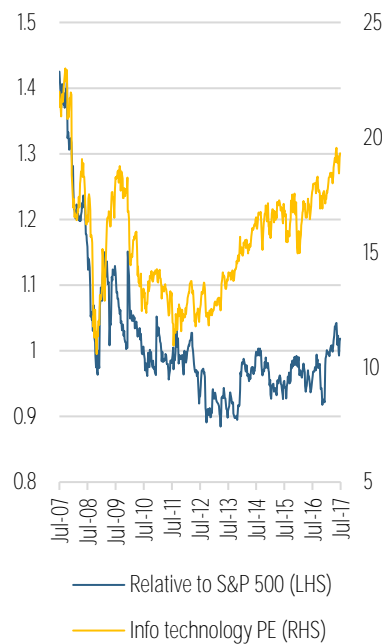
There are clearly differences between the current environment and the Dot Com bubble. Primarily, in 2000, many companies generated little to no revenue or profits. Now, technology leaders are built on more solid ground, with strong free cash flows, strong balance sheets, consistent earnings growth and established business models. Nonetheless, some 17 years on, the biggest technology companies of the Dot Com boom (Microsoft, Cisco, Intel and Oracle) still have market caps below their 2000 peak—6%, 70%, 67% and 18% respectively. Furthermore, these were not 'concept' stocks. In 2000, Microsoft generated USD 9 billion in net profit, Cisco generated USD 3 billion, Intel USD 10 billion, and Oracle USD 2.5 billion.

Market caps are still below their peaks in 2000



Source: Bloomberg.

Absolute versus relative technology valuations



Source: Bloomberg.

To put this into perspective, Facebook and Amazon, who have market caps similar to that of Microsoft during the Dot Com boom, currently have net profits of around USD 10 billion and USD 2.5 billion respectively.

Where are valuations now?

The information technology sector in the US currently trades at around 18x one-year forward price/earnings (PE) ratio, with the mega-caps more expensive at ~25x (market-cap weighted). To put this in context with the broader market, the S&P 500 index trades at a forward PE ratio of around 18x, which in itself is broadly considered expensive. In addition, the sector trades at a significant premium to its five and 10-year averages of 14.8x and 14.4x respectively. In fact, the sector exhibits the largest discrepancy between current valuations and its five and 10-year averages among all sectors within the S&P 500 index.

While this article focuses on mega-cap technology stocks, it's important to recognise the significant variation in technology valuations. Facebook, which trades at a one-year forward PE ratio of 25x for 22% earnings per share (EPS) growth, is a vastly different investment decision to Netflix at 80x for 75% EPS growth (as both are to Cisco at 13x for 2% EPS growth). Although both Facebook and Netflix trade at similar price to earnings growth multiples, the 'multiple' risk for any slippage in earnings momentum is significantly greater for Netflix than it is for Facebook.

To be clear, Netflix is a well-established business that has a history of strong subscriber growth. However, at 80x calendar year 2018 earnings, the share price leaves itself very vulnerable to either a change in sentiment towards valuation multiples and/or a re-calibration of potential growth rates. Neither are easy to forecast, and investors must be conscious of the downside risk as much as the upside. In 2000, Microsoft was a terrific company, trading at 70x, and generating USD 9 billion of earnings having just grown EPS by 130%...and its share price still fell by around 65%.

But are we in bubble territory?

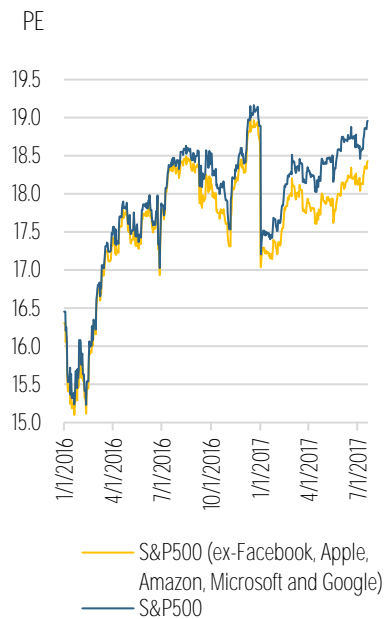
While these numbers suggest that technology is expensive, it is a long way from traditional 'bubble' territory given that the mega-caps traded at more than 60x earnings during the Dot Com boom. And contrary to popular belief, mega-cap technology is not the culprit for the market being expensive—removing Facebook, Amazon, Apple, Microsoft and Google from the S&P 500 index would do little to lower the overall market PE (around 0.6 of a PE point).

Can the bull market continue?

If the bull market of the late 1990s taught investors anything, it is that "bubbles" can inflate beyond historical benchmarks and violate traditional valuation paradigms. To this extent, yes, the bull market in technology can continue. However, it has already been a strong performer, and we suggest that investors adopt a more patient approach and wait for attractive entry points. By no means confined to technology, later stage bull markets typically exhibit several characteristics that should serve as cautionary:

- **A narrowing of breadth in performance**, with market leadership dominated by a particular thematic or group of stocks. If we look at the performance of the S&P 500 index since the end of 2014, the performance differential excluding Facebook, Apple, Amazon, Microsoft and Google is only ~4%. More recently, however, this has been magnified with this subset of technology names accounting for around 26% of the S&P 500 index total return year to date. More broadly, the information technology sector has accounted for around 38% of the S&P 500 index's year to date return.
- **Sector composition**—During the early 1980s, as the price of oil spiked, the energy sector composition of the S&P 500 index peaked at around 26%. During the 2000 Dot Com bubble, information technology peaked at 32%, and during the Global Financial Crisis, financials reached 22% of total market cap. At present, Information Technology, the largest S&P 500 sector, represents 22%—this is below its 2000 peak, but still approaching previous sector peaks.

Facebook, Apple, Amazon, Microsoft and Google are not a meaningful driver of high PEs



Source: Bloomberg.

Earnings may be resilient—but they won't be immune

There is a widespread belief that technology earnings are 'defensive'. A common mistake when top-line growth is scarce, is to confuse revenue growth with revenue that is insensitive to an economic downturn. Mathematically, Information Technology is cyclical, not defensive. For example, the Semiconductor and Hardware sub-sectors are amongst the sectors that are the most highly correlated to the ISM New Orders Survey. Additionally, the beta of technology investment to GDP growth is more than two, which underpins its economic sensitivity. The purpose of this article isn't to call a peak in earnings, but to put technology earnings in a context with which we can then evaluate valuations.

In summary

Technology stocks deserve to be, and should be, core holdings in investment portfolios as it remains one of our most preferred investment exposures globally. The structural tailwinds associated with a myriad of disrupting technologies make the companies that own them likely to outperform over time.

We do not suggest that mega-cap technology stocks (as we have narrowly defined it) are in bubble territory. However, valuations are elevated compared to more recent history, and concentration of ownership is high.

In addition, some misguided notions of the sector's characteristics (i.e. low volatility, economically insensitive) should give investors ample reason to reassess their exposures relative to their risk profile. At a minimum, it's important to closely analyse what you're paying for these businesses, and not confuse that with buying undoubtedly good businesses at any price. As such, we recommend investors adopt a patient approach to investing, and look for better entry points into the sector.

IMPORTANT NOTE

This document has been prepared by Crestone Wealth Management Limited (ABN 50 005 311 937, AFS Licence No. 231127) (**Crestone Wealth Management**). The information contained in this document is of a general nature and is provided for information purposes only. It is not intended to constitute advice, nor to influence a person in making a decision in relation to any financial product. To the extent that advice is provided in this document, it is general advice only and has been prepared without taking into account your objectives, financial situation or needs (your **Personal Circumstances**). Before acting on any such general advice, we recommend that you obtain professional advice and consider the appropriateness of the advice having regard to your Personal Circumstances. If the advice relates to the acquisition, or possible acquisition of a financial product, you should obtain and consider a Product Disclosure Statement (**PDS**) or other disclosure document relating to the financial product before making any decision about whether to acquire it.

Although the information and opinions contained in this document are based on sources we believe to be reliable, to the extent permitted by law, Crestone Wealth Management and its associated entities do not warrant, represent or guarantee, expressly or impliedly, that the information contained in this document is accurate, complete, reliable or current. The information is subject to change without notice and we are under no obligation to update it. Past performance is not a reliable indicator of future performance. If you intend to rely on the information, you should independently verify and assess the accuracy and completeness and obtain professional advice regarding its suitability for your Personal Circumstances.

Crestone Wealth Management, its associated entities, and any of its or their officers, employees and agents (**Crestone Group**) may receive commissions and distribution fees relating to any financial products referred to in this document. The Crestone Group may also hold, or have held, interests in any such financial products and may at any time make purchases or sales in them as principal or agent. The Crestone Group may have, or may have had in the past, a relationship with the issuers of financial products referred to in this document. To the extent possible, the Crestone Group accepts no liability for any loss or damage relating to any use or reliance on the information in this document.

This document has been authorised for distribution in Australia only. It is intended for the use of Crestone Wealth Management clients and may not be distributed or reproduced without consent.

© Crestone Wealth Management Limited 2017.