



January 2018

Investment Insights from Silicon Valley

www.allianztechnologytrust.com

Walter Price

Lead Manager, Allianz Technology Trust. With over 40 years of experience of investing in technology companies, Walter Price has witnessed the evolution of the technology sector from the birth of the personal computer to the arrival of the internet and now the shift to cloud computing. Based in San Francisco, giving him close proximity to many of the world's most innovative companies, he heads up the Global Technology Team which manages US\$4 billion* in assets.

*Source: Allianz Global Investors GmbH.

Looking back at the year in technology

Optically, in 2017, markets glided higher, but there was much going on beneath the surface, and a significant gap between favoured and non-favoured sectors. Technology fell firmly into the first camp. The Nasdaq rose almost 30% over the course of 2017 and this strength was widely shared, with most underlying technology sectors participating in the growth.

Technology companies have had earnings on their side. In a year where investors were worried about interest rate hikes and geopolitical uncertainty, they took an increasingly forensic focus on how companies were doing, and technology companies – which were making strong earnings progress – found favour. The median earnings growth for companies in our portfolio has been over 50% since the start of 2017.

The year ended with notably different sentiment towards the technology sector. At the start of the year, uncertainty on global economic strength, the prospects for tax cuts in the US, and doubts about the new US administration had weighed on the sector, but by the year-end, with synchronised global growth and almost all economies making progress, it was (and continues to be) a different environment for technology companies.

Perversely, we believe this is where the problems may arise. We see 'false hope' in a number of sectors: revolutions may not come as quickly as people believe. This means some companies may have trouble sustaining the growth rates that have propelled them to date. We are prepared for a tougher year in 2018.

Winners and losers in 2017

Amid a benign climate for technology, semiconductors were a notable area of strength. At the start of the year, supply and demand came into balance and this supported pricing through the year. The sector also saw new sources of demand emerging from areas such as driverless car technology. For companies such as Micron, earnings were around twice market expectations.

There were also clear winners from increasing corporate confidence as the global economic situation improved. Amazon, Microsoft and Salesforce.com were all beneficiaries of companies' new propensity to spend. Payments group Square, which supports payment systems for small businesses, also saw its business expand significantly during the year.

If investors were in any doubt, 2017 also showed that technology innovation was not confined to US

This is no recommendation or solicitation to buy or sell any particular security. A ranking, a rating or an award provides no indicator of future performance and is not constant over time.



companies. Asian technology soared during the year, particularly Chinese internet companies such as Alibaba. The growth of Chinese ecommerce is now outpacing that of the rest of the world.

A review of the year would not be complete without mentioning the clear, and worrying (in stock market terms), winner - Bitcoin and the other cryptocurrencies. To our mind, the trend looks extremely unstable. Market participants are buying with the aim of selling at a higher price, rather than looking at the value of the underlying business. This is leading to some clear excesses in the market. However, for the time being, investors continue to chase the trend.

The market was looking for growth, which meant that those companies where earnings were weak, or even simply unexciting, were left behind. Security companies were a notable laggard, in spite of some high profile security breaches during the year. The importance of security is not diminished, but many of the higher profile security companies have been transitioning their business model from selling hardware and licenses to a subscription service where customers pay fees. In the long-term, this should be a more sustainable business model, but execution has not always been good, and it has created volatility in earnings.

2017 – key themes

Automating manufacturing: Automating factory production became a necessity in 2017. Higher wages in previously 'low cost' manufacturing centres such as China has forced automation on companies in order to keep costs low and retain competitiveness. Equally, with US companies under pressure to 're-shore' manufacturing, robots are a means to combat higher labour costs. We took our first steps into robotics companies during 2017.

New industries are emerging that require greater use of robotics. For example, driverless cars need new precision cutting tools. Factories need to be built to support new manufacturing processes, and companies are increasingly aware that these will need to be run more efficiently and humans cannot do it alone. Ecommerce is also creating demand. Warehouses need to be managed effectively to support fulfilment obligations.

Climate change: Although the US administration may be backing away from emissions targets, other governments around the world have continued to put in place more stringent emissions requirements. Ultimately, electric cars remain one of the key ways to meet these emissions targets. This creates a whole new eco-system – from new factories required to make batteries, to new engineering processes and this continued to create opportunities for investors at each stage.

Consumer technology: 2017 saw a new iPhone, with a range of new features. Perhaps the most important was the introduction of facial recognition technology. Users can now identify themselves using a sophisticated scanning system. Faces are far more easy to recognise and difficult to counterfeit. This was also the year where artificial intelligence made its way into consumer technology, with the increasing penetration of Amazon Echo and its equivalent.

The revolution in TV: At the beginning of 2017, the forecast for growth in digital advertising was in clear conflict with the forecast for TV growth. Something had to give, and it turned out to be TV growth. The weakness in the television sector was exacerbated by an increase in video in social media feeds, such as those on Facebook.

At the same time, consumers continued to move away from bundled services and towards the subscription or on-demand model. The established entertainment groups are still struggling to formulate their response to the change. The impact on the TV advertising market is likely to accelerate in 2018, and many will need to come up with a speedy solution, or see their business eroded.

Looking forward - 2018

Retail reversal: We believe investors will be focused on the implications of rising interest rates, rising labour costs in China and, in the US, tax cuts. However, we believe 2017 may have created false hope in certain sectors, with investors extrapolating trends some way into the future. The path may not be as smooth as they expect.

For example, retail stocks have seen poor performance, and Amazon has been a significant contributor to that weakness. However, we are starting to see a change in sentiment. Amazon has started to talk about 'omni-channel' commerce - providing options where people can order and pick up in store. At the same time, we see companies such as Walmart re-emerging, with same-store revenues stabilising. We believe this trend may gain momentum in 2018.

The move to the cloud: Among the strongest trends should be the continued move to the cloud. 'On-premise' solutions look increasingly expensive and slow in comparison to cloud services. Artificial intelligence is best done in the cloud, as it needs a lot of data. As we see it, companies will be left with little option but to move – those who retain an 'on-premises' solution are at a significant competitive disadvantage to those businesses that have moved.

Apple and the mega-cycle: Apple draws mixed opinions. There are those who believe it is on the cusp of a megacycle and those

who believe it is post-growth. The idea of a faster replacement cycle is, on reflection, not likely. Prices are high, and the new technology is not as compelling as it was.

The security sector: 2017 was a difficult year, and there have been fears that the security sector will shrink as a result of cloud computing, but we see this as unlikely. The economics of stealing knowledge are improving, not least because hackers can get their ransom in Bitcoin. The technology is also becoming more sophisticated. This is likely to keep demand for security services relatively high.

Electric cars: Concern remains over whether electric cars will appeal to consumers in sufficient quantities in the short term and whether manufacturers can meet expectations. We believe the concern is false. Global warming is a real and persistent problem. Reducing pollution is a political priority around the world, particularly in China and converting to electric cars would significantly reduce pollution levels. As battery life improves, we see a major increase in demand. This trend should persist in 2018.

Investing involves risk. The value of an investment and the income from it may fall as well as rise and investors may not get back the full amount invested. Competition among technology companies may result in aggressive pricing of their products and services, which may affect the profitability of the companies in which the Trust invests. In addition, because of the rapid pace of technological development, products or services developed by these companies may become rapidly obsolete or have relatively short product cycles. This may have the effect of making the Trust's returns more volatile than the returns of a fund that does not invest in similarly related companies. Past performance is not a reliable indicator of future results. The value of an investment and the income from it may fall as well as rise and investors may not get back the full amount invested. The views and opinions expressed herein, which are subject to change without notice, are those of the issuer and/or its affiliated companies at the time of publication. The data used is derived from various sources, and assumed to be correct and reliable, but it has not been independently verified; its accuracy or completeness is not guaranteed and no liability is assumed for any direct or consequential losses arising from its use, unless caused by gross negligence or wilful misconduct. A security mentioned as example above will not necessarily be comprised in the portfolio by the time this document is disclosed or at any other subsequent date. This is a marketing communication issued by Allianz Global Investors GmbH, an investment company with limited liability incorporated in Germany, with its registered office at Bockenheimer Landstrasse 42/44, D-60323 Frankfurt/M. Allianz Global Investors GmbH is registered with the local court of

Frankfurt/M under HRB 9340 and is authorised and regulated by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin). Allianz Global Investors GmbH has established a branch in the United Kingdom, Allianz Global Investors GmbH, UK Branch, which is subject to limited regulation by the Financial Conduct Authority (www.fca.org.uk). This communication has not been prepared in accordance with legal requirements designed to ensure the impartiality of investment (strategy) recommendations and is not subject to any prohibition on dealing before publication of such recommendations. Allianz Technology Trust PLC is incorporated in England and Wales. (Company registration no. 3117355). Registered Office: 199 Bishopsgate, London, EC2M 3TY.

Please note that we can only offer information and are unable to provide investment advice. You should contact your financial adviser before making any investment decision.