

Half Yearly Investor Report

Magellan High Conviction Fund | December 2015



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I am delighted to write to you as an investor in the Magellan High Conviction Fund (the 'Fund') for the 6 months ended 31 December 2015.

Over the past 6 and 12 month periods, the Fund returned 4.6% and 13.6%, in Australian dollar terms after fees. Since its inception on 1 July 2013, it has returned 20.8% per annum. We feel strongly that people cannot retire on "relative investment returns"; only by generating investment returns that exceed the rate of inflation (ideally by a satisfactory margin) will investors increase their wealth. As such, we are happy to be judged by the Fund's absolute returns over time.

Beware of Quantitative Tightening

We have written in recent investor updates ('The Great Compression' in August 2014 and 'The Great Disagreement' in April 2015) about the risks associated with the massive compression of risk premia¹ in markets over the past few years and the potential for these risk premia to unwind as the US Federal Reserve (the 'Fed') normalises interest rates. The Fed's decision to raise US interest rates by 25bps in December was a first step along the path of interest rate normalisation.

In our view, the current risk pricing environment for high quality assets is quite extraordinary in a historical context. Pricing for sovereign credit, high quality corporate and financial credit and other high quality defensive assets is at, or near, record highs at present. The pricing of high quality assets reflects prevailing environment of ultra-low policy rates and massive Quantitative Easing (QE) programmes over the past eight years by the G4 central banks (Fed, the Bank of England (BOE), the Bank of Japan (BOJ) and the European Central Bank (ECB)) and the accumulation of foreign

¹The return spread, or margin, investors expect to earn over the "risk free rate", which is typically the yield on 10-year sovereign bonds

exchange reserves by China, Saudi Arabia and Switzerland, which have had policies to peg their currencies to either the US Dollar or the Euro. We refer to these collectively as the G7 Central Banks.

The G7 Central Banks have bought around US\$10 trillion of sovereign bonds and other high grade credit/assets over the past eight years. This represents approximately 70% of the total increase in government debt by the US, Euro nations, the UK and Japan over this period.

This buying activity by the G7 Central Banks has had a major influence on sovereign bond yields around the world:

- Yields on 10-year US treasuries have fallen from around 4.4% (five year average prior to 2008) to around 2.2%
- Yields on 10-year UK gilts have fallen from around 4.7% (five year average prior to 2008) to around 1.8%
- Yields on 10-year German bunds have fallen from around 3.9% (five year average prior to 2008) to around 0.5%
- Yields on 10-year Australian bonds have fallen from around 5.6% (five year average prior to 2008) to around 2.7% and
- Two-year sovereign bond yields in numerous European countries (Germany, France, Spain, Italy, Belgium, Switzerland and the Netherlands) are currently or were recently negative.

The pricing of sovereign credit reflects more than the current subdued economic outlook. In our view, buying activity by the G7 Central Banks has not only distorted the pricing of sovereign credit but has affected the pricing of all risk assets. Asset purchases by the G7 Central Banks affect asset pricing in the following ways:

- The first effect is to push up prices of sovereign bonds which are being purchased by the central banks, thus lowering yields
- The second effect is to push up the price of high grade non-sovereign domestic credit as investors become attracted to their higher yields, relative to sovereign bonds
- The third effect is to push down the currency of the nation which has implemented QE. This occurs as investors reach for yield abroad, requiring investors to sell local currency and buy foreign currency
- As the central banks continue to pump liquidity, the cascading search for yield continues until all assets eventually get repriced upwards, including equities, credit and commodities.

This is what happened over the past eight years as displaced sovereign bond investors were effectively forced into higher risk assets. As more and more liquidity was pumped into the system, investors were pushed out along the risk spectrum and bought emerging market assets, commodities and high yield debt.

The following chart (figure 1) sets out the 1-year forward price/earnings multiple of the major consumer staples companies in the US and Europe over the past 10 years. The chart indicates

that major consumer staples companies are currently trading at around 20 times forward earnings, which is materially above the historical average.

The question we all need to ask ourselves is whether asset prices predominantly reflect the current economic reality of lower growth and inflation, or are they being significantly distorted by the extraordinary monetary policy (including asset buying) and foreign exchange policies of the G7 Central Banks?

We believe, as central bank asset purchases diminish over the coming years, there is potential for material price declines in some assets. We refer to this reversal as Quantitative Tightening (QT).

It is likely that we have seen the first "canary in the coal mine" of QT. Over the last 12 months, we have seen a change in the foreign exchange policies of China, Saudi Arabia and Switzerland:

- China has commenced selling foreign exchange reserves in response to capital outflows and a slowing economy (China's foreign exchange reserves have fallen approximately US\$500 billion over the past 12 months)
- Saudi Arabia's foreign exchange reserves have shrunk by around US\$100 billion over the past 12 months, in response to its ballooning budget deficit due to the collapse in the oil price

- - 10Yr Average 1Yr Forward PE of 16.9x



Figure 1: Source: Thomson Reuters and Magellan Asset Management Limited

1Yr Forward PE

• On 15 January 2015, Switzerland ended pegging the Swiss franc to the Euro, which has ended the policy of accumulating foreign exchange reserves by the Swiss National Bank.

This has resulted in a progressive decrease in monthly bond buying activity by the G7 Central Banks over the last two years. Having around peaked at US\$200 billion per month in 2H 2013, G7 Central Bank bond buying fell to approximately US\$150 billion in 1H 2014, US\$75 billion per month in 1H 2015, and most recently US\$50 billion per month in 2H 2015. The reduction in the buying activity of the G7 Central Banks has coincided with a material repricing of the riskiest assets in the world:

- Major emerging markets (outside of China) have experienced major falls in their currencies. In the year to 31 December, the Brazilian real has fallen 33%, the Russian rouble has fallen 16%, the Turkish lira has fallen 20%, and the Mexican peso has fallen 14% against the US dollar.
- US CCC corporate (junk) bond credit spreads increased by approximately 670 bps in the year to 31 December, and junk bond funds likely had their first annual loss since the global credit crisis. These funds are also experiencing significant outflows, with the Third Avenue Focused Credit Fund freezing redemptions in December 2015.
- Major industrial commodities (iron ore, coal, copper, zinc) have been in free fall.

We do not believe that China, Saudi Arabia or Switzerland are about to change course and commence accumulating foreign exchange reserves again in the near future. The likelihood of a material rebound in emerging markets, junk bonds or industrial

commodities is also low, in our view.

Notwithstanding the dramatic repricing of some riskier assets seen recently, prices of developed world sovereign bonds, high grade credit and high quality defensive equities remain at, or near, 20-year highs. We believe a key reason for this is the continued massive asset purchasing programmes by the ECB and BOJ (approximately US\$120 billion per month) and the fact that the Fed and BOE have not vet commenced programmes to shrink their balance sheets.

While investors are expecting that the Fed will gradually increase the Fed Funds rate over the next few years, the futures market is currently pricing US 10-year Treasury yields at only 3.1% in 2025, compared with the current yield of around 2.2-2.3%. This would be a low 10-year Treasury yield by recent historical standards and we believe that the market's expectations for such a low yield to prevail in 10 years' time reflects anchoring bias to current rates (that are distorted by the aforementioned policies) rather than our view of the more likely outcome of US 10-year Treasury yields in the range of 4-5%. This suggests a reasonably large range of outcomes (from 3-5%) and the bookends are likely to have very divergent for investors. consequences Where the market lands in this range will depend in part on the asset accumulation or divestment strategies of the G7 Central Banks.

In order to assess the possible outcomes, it is necessary to understand the steps central banks will take to tighten monetary policy following QE:

- Step 1 is to cease asset purchases; the Fed ceased its asset purchases in October 2014.
- Step 2 is to increase the cash rate; the Fed commenced

lifting the Fed Funds rate on 16 December 2015.

• Step 3 is to shrink the central bank's balance sheet; this is likely to start by ceasing reinvestments of maturing bonds.

While the market is myopically focussed on the speed and direction of the cash rate, we believe the impact on the "flow of liquidity" via steps 1 and 3 is probably more important to the ultimate level of long term interest rates and, hence, asset values overall. We believe that it is likely that the Fed and BOE will commence shrinking their balance sheets, via ceasing their reinvestment policies, over the next three years, as they continue to gradually tighten monetary policy. We estimate that ceasing reinvestment policies will tighten global liquidity initially by around US\$240-US\$400 billion annum (US\$20-33 billion per month).

As demand for bonds weakens, this will place upward pressure on longer-term bond yields.

The real elephants in the room are what the ECB and BOJ will do over the next three years. Together, the ECB and BOJ are currently purchasing approximately US\$1.4 trillion of bonds and other assets (approximately annum US\$120 billion per month). Our base case scenario is that the BOJ will continue its asset purchasing programme almost indefinitely, as sensible policy options are no longer available, and the ECB will cease its asset purchase programme within the next three years as the European and global economic outlook stabilises.

We regard the following three events as the "essential trinity" of QT:

1. the reversal of the foreign exchange reserve accumulations by China, Saudi Arabia and Switzerland;

- 2. the cessation of reinvestments by the Fed and the BOE; and
- 3. the end of asset purchases by the ECB

When these three events occur, cumulative net purchases by the G7 central banks should fall further. Already having fallen from a peak of roughly US\$200 billion per month in 2H 2013 to US\$50 billion per month in 2H 2015, these net purchases could become net sales in the next three years. This could result in materially higher long-term bond rates than the market is currently expecting. and а repricing downwards of assets globally.

While investors appear solely focused on the Fed, in our view the most significant issue to weigh is the actions of the ECB over the next three years. The ECB is likely to be the biggest swing factor in the level of net purchases by the G7 Central Banks and therefore where longer-term bond rates and asset prices may be headed.

If the ECB continues its QE programme for the next 3-5 years then it is likely long term bond rates will remain lower (probably line with current market expectations), even if the Fed and the BOE commence a programme to tighten monetary policy and shrink their balance sheets. If the ECB ceases its QE programme this will result in a material change in the aggregate demand for sovereign bonds. Combined with the likely tightening by the Fed and the BOE, this would likely lead to materially higher bond yields than the market is currently anticipating (probably 10 year US Treasuries yields of around 4-5%).

What the ECB does will depend on economic developments in Europe and globally over the next three years. Our base case outlook for the next three years assumes a continued recovery in the United States with modestly rising inflation, a continued slowdown in China (but not a financial crisis or hard landing), and an improvement in the economic outlook for Europe. In these circumstances we believe it is likely that the ECB will take the first steps towards monetary tightening by ceasing its QE programme at some point in the next three years.

Of course, there are outlook scenarios where the global and European economies deteriorate and the ECB continues to extend its asset purchases, supressing global bond yields and supporting higher asset prices (particularly for high quality assets). However, the situation is fluid and no one knows what will transpire. It is our view that there is greater than a 50% probability that markets are mispricing the medium-term outlook for bond yields. It is prudent to remain cautious on asset prices in this environment.

Portfolio Summary

On 31 December 2015, the Fund held investments in 12 companies (compared to 12 at 30 June 2015). The top 5 investments represented 48.5% of the Fund, while they represented 48.2% at 30 June 2015.

Over the six months to 31 December 2015, the top two contributors held over the entire period, in Australian dollar terms, were Microsoft (+4.0%) and

Lowe's (+1.9%) while the bottom two contributors were Tesco (-1.9%) and Lloyds (-1.1%).

The following table sets out some key statistics for the Fund's portfolio as at 31 December 2015.

Average market capitalisation (US\$ billion)	163
Average daily liquidity (US\$ million)	1,048
Number of companies	12
Concentration of top 5 Investments (%)	48.5
PE – 1 year forward ²	16.0x
Average return on equity (%) ²	24.6
Beta ²	0.86

²Magellan Asset Management Limited estimates

Macroeconomic Commentary

Our views on the world's largest economic zones have evolved modestly since my last investor letter (June 2015). China's growth continues to slow, with risks centred on the property market and shadow banking system. The United States' economic recovery continues, and growth in the Eurozone is improving but remains modest. The prospect of "Abenomics" solving Japan's intractable problems appears as uncertain as ever. Finally, emerging markets and commodities-linked economies face a period of heightened uncertainty as China slows and the Fed moves towards normalising interest rates.

Figure 2: Source: Magellan Asset Mangement Limited

Magellan High Conviction Fund – Top 5 holdings as at 31 December 2015 (%)		
Microsoft Corp	Information Technology	14.9
Visa Inc	Information Technology	10.0
Intel Corp	Information Technology	8.5
Lowe's Co Inc	Consumer Discretionary	8.3
Apple Inc	Information Technology	6.8

United States

A range of economic indicators show that the US economy continues to recover, albeit with some headwinds.

The household sector is buoyed strengthening labour by markets, rising house prices, falling commodity prices and low interest rates. Households approximately US\$900 a year better off from lower oil prices. Average weekly earnings increased by 2.0% over the year to November 2015 and the number of people employed is now 149 million, 2.8 million more than the previous peak in November 2007. The household sector is supporting a growing corporate sector via higher goods and services consumption. This includes a significant pick up in housing starts to 1.2 million per year in November 2015, up from less than 0.5 million in April 2009. Indeed, as household formation increases we expect housing starts to grow further to at least 1.3-1.4 million per annum, this being our estimate of normalised demand. The improvements in the household and corporate sectors are flowing through to the banking sector, with total loans and leases outstanding increasing by 8.5% per annum and, notably, commercial and industrial loans increasing by 11.5% over the year.

Meanwhile. the government sector's drag on the economy abated. Indeed federal spending government modestly contribute to growth in the next few years as a result of the recently passed Bipartisan Budget Act. The Congressional Budget Office previously forecast the federal deficit to remain fairly stable at 2-2.5% of GDP over the next few years.

Although the US economy is facing some headwinds at the

moment, most are likely to be transitory. Headwinds include the impact of recent US dollar strength and a weaker global economy on trade-exposed industries, energy-related capital investment declines, and weakness in industries and regions reliant on oil and gas investment.

Despite the appreciation of the real trade-weighted US dollar, US wages remain highly competitive and energy costs very low compared to global peers, and household consumption is likely to be boosted by lower prices of imports. In addition, the US is a predominantly domestically-driven economy, with a relatively low reliance on exports (which account for approximately 13% of GDP).

We expect consumption growth to strengthen as the US labour market continues to recover. Tighter labour markets will lead to faster growth in real wages and potentially lower profit margins for businesses without pricing power. Meanwhile, considerable scope remains for further job creation due to the prevalence of underemployment and the cyclically depressed participation rate. The 'U6' unemployment rate, which includes part time workers who want a full time job and those marginally attached to the labour force, has been falling steadily since the crisis but remains elevated at 9.9%³. The U6 has fallen to 8% or lower in previous cycles. Furthermore, the proportion of 25-54 year olds in the labour force has fallen from iust over 83% before the crisis, to under 81% as at November 2015.

Several transitory factors have been keeping inflation below the Fed's 2% target. However, as the oil price bottoms out, the US dollar stabilises, and the labour market continues to tighten,

and growth inflation pressures are likely to normalise. This will require the Fed to tighten monetary policy, probably more so than the market is expecting. In 2004, core PCE inflation returned to the Fed's 2% target by June, having ended 2003 at just 1.4%. This was around the same time as the U6 unemployment rate dropped below 10% and the Fed started increasing interest rates. The continued fall in the U6 may be one of the reasons the Fed decided to increase the Fed Funds rate in December and they are now "reasonably confident" that inflation will return to target over the medium term.

We consider that the US economy will continue along its path of a steady and solid recovery over the next few years, barring unforeseen events.

Eurozone

Real GDP growth in the Eurozone has improved but remains modest (around 1.6% p.a. in aggregate since September 2014). The periphery economies of Spain and Ireland are bouncing back with growth of 3.4% and 6.8% p.a. respectively, following deep recessions. Meanwhile, Greece's economy has stagnated. The Eurozone as a whole is likely to continue benefitting from a weaker currency, a stronger US economy, lower oil prices, and an improvement in borrowing conditions and credit flows in an environment of ultra-low interest rates. However, the pace of Eurozone growth is likely to remain modest for the foreseeable future as high levels of government debt, political and economic impediments, and an emerging markets slowdown hold back the economy.

In December, the ECB announced the extension of its QE programme (€60 billion per month) by six months to March 2017, or until "a

sustained adjustment in the path of inflation" is achieved towards the ECB's target of just below 2% inflation. Public debt securities eligible for purchase by the ECB were expanded to include regional and local government debt. The ECB also announced a further cut in the deposit rate to -0.3%, to encourage banks to lend rather than hold reserves at the ECB. Eurozone core inflation remains low but fairly stable around 0.9% p.a., despite the dramatic fall in the price of oil and other commodities over the past year or so.

Labour markets are gradually in the recovering Eurozone although considerable slack still remains. Aggregate employment increased 2.7 million to 151 million from June 2013 to September 2015, but remains below the pre-GFC peak of 154.4 million. Meanwhile, the aggregate unemployment rate has fallen from 12.1% in May 2013 to 10.7% in October 2015. Over the past year the unemployment rate has fallen in Germany, Portugal, Ireland, Greece, Italy and Spain, while it has risen in France.

difficult policy choices facing governments, as well as the long period of recessionary environments and accompanying high levels of unemployment, have supported the rise of Eurosceptic political parties in a number of Eurozone countries. These parties often threaten an exit from the Eurozone (and a dispensing of the euro as currency) and/or debt defaults, which could spark renewed uncertainty in sovereign debt markets. Recent tensions related to the Syrian refugee crisis and the strong performance of Podemos at the Spanish general election highlight the ongoing political risks to Eurozone stability.

The combined effects of high government debt, private sector debt levels and unfavourable demographics are likely to present ongoing headwinds for growth.

The Eurozone remains vulnerable to major shocks, such as an escalation of the Russia/Ukraine crisis, the election of Eurosceptic parties, a hard landing in China or a disorderly unwinding of QE in the US. Each of these scenarios could trigger a dramatic uplift in periphery Eurozone sovereign bond yields and would heavily test the resolve and mandate of the ECB.

China

We remain concerned about the short to medium-term economic outlook for China, principally due to risks in its property market and shadow banking system. Weakness in China is starting to flow through to asset markets around the world, particularly commodity and currency markets.

China's rapid economic growth recent years has been unsustainable. When demand for Chinese manufacturing exports deteriorated in the global financial crisis (GFC), a creditfuelled domestic investment boom took over. Almost half of China's credit growth since the GFC (or around 50% of GDP) may have gone towards financing property market activity, resulting in a massive oversupply.

We believe that there may be approximately three to four years of excess housing supply in China, comparable to recent property booms in the US, Spain and Ireland. According to the China Household Finance Survey, 22% of urban housing in China is vacant. Meanwhile vacant floor space on developers' books has increased by over 500% since 2007.

The potential implications of China's property oversupply are serious. Real estate and related industries account for 20-25% of China's GDP, while the housing sector directly represents approximately 10% of GDP (approximately 50% more than a comparative US measure pre 2007). Fiscal positions are particularly vulnerable, local governments, who have relied on land sales for 35-40% of revenues. A large contraction in China's sector property construction would cause a major slowdown in the economy and perhaps even a recession.

The oversupply in China's housing market has started to feed through to other linked sectors, and a range of indicators suggest that China's economy is slowing somewhat more quickly official figures imply. Weakness is most apparent in the industrial space (43% of GDP), a large portion of which is linked property. National house prices grew 0.9% in the year to November 2015, with strong price growth in Tier 1 cities masking weakness in lower tier cities. Meanwhile urban housing completions are down 6% for the year to November 2015. The evidence of a slowing business sector includes electricity consumption growth of 0.6% over the year to November 2015, compared to 8% per annum in 2012 and 2013. Steel and cement production have also slowed significantly (or are contracting).

Furthermore, import suggest that domestic demand in China is weak, while slowing export growth could be due to a weak global economy and/ competitiveness problems associated with an appreciating renminbi and rising wages. However, Chinese trade data should be treated with caution as it can be volatile and may be affected by illicit capital flows disguised as trade flows.

Since 2010 China is estimated to have directly contributed around a quarter of total global economic

growth, despite its economy only representing around 13% of world GDP. We are cautious about the prospect of adverse knockon effects, including currency movements, linked to changing economic fortunes in China. A number of commodity exporters such as Russia, Brazil, Australia and Canada have experienced material depreciations in their currencies against the US dollar as commodity prices have fallen. In some cases these economies may also be vulnerable to the unwinding of commodities-linked domestic credit booms.

The outlook for the Chinese renminbi, which has appreciated around 50% on a real tradeweighted basis since 2005, is uncertain and difficult to predict. Domestic economic weakness has led to an intensification of capital outflows from China, and forced the People's Bank of China (PBOC) to sell foreign currency reserves to keep the renminbi's managedpeg to the US dollar intact. As countries cannot simultaneously have a fixed exchange rate, an open capital account and operate independent monetary policy – a concept known as the 'impossible trinity' - China faces some difficult policy choices. On the one hand the PBOC may want the renminbi to depreciate to provide support to domestic industry and to enable the PBOC to more aggressively cut interest rates, while on the other hand, a strong renminbi, effectively pegged to the USD, may be strategically important from a geopolitical perspective. We believe a large depreciation of the RMB is unlikely as it would force other emerging market economies into competitive depreciations which counterproductive. would be August devaluation the RMB was probably driven by the Chinese government's desire to repatriate foreign exchange reserves for domestic stimulus purposes, rather than

competitiveness reasons, in our view.

The good news is that the Chinese authorities are aware of the problems within China's economy and appear to be taking steps to slow credit growth and manage the housing market correction. Furthermore, almost all of China's debt is held domestically, which makes it easier for the government to manage large-scale defaults as it did in the late 1990s. The difference this time is that much of the credit growth has occurred in the poorly-regulated shadow banking system, and it could prove more challenging for the government to bail out this part of the financial system. Although the Chinese government has substantial resources at its disposal, there remains a "fat tail" risk of a sharp slowdown in growth, or a recession, if the returns on incremental spending and investment are sufficiently low.

Stock Stories - Top 5



Microsoft is the largest software vendor globally, with over US\$90 billion in annual sales. While best known for its consumeroriented businesses, including Windows, Xbox, and Bing, the majority of its earnings are attributable to software products sold to businesses, including its Office productivity suite (~45% of earnings), and data center products (~35% of earnings). In aggregate, we estimate that ~80% of Microsoft's earnings are sourced from business customers.

Microsoft's business-focused software is strategically advantaged large and entrenched:

Productivity software

Microsoft Office has over 90% market share of productivity globally, software having withstood competition from vendors of alternative products for decades. Microsoft is now offering annual subscriptions for Office 365 on all platforms (Windows, iOS and Android), delivered via the cloud, which enables new functionality such as cloud storage and collaboration, and is easier to deploy, attracting new users.

• Data center software

Microsoft's data center software products benefit from structural barriers to entry and switching costs. For example, an established ecosystem of third-party applications has formed around Microsoft's incumbent Windows Server operating system and its SQL Server database software. Its data center software products tend to form part of the plumbing of enterprise software systems, rendering them difficult replace, with material inherent transition risk.

• Cloud infrastructure

Microsoft has built a hyperscale public cloud, Azure, second only to Amazon's AWS, designed to offer Microsoft's existing customers a more manageable pathway to the cloud than competitors' solutions.

• Windows operating system
The Windows operating system remains critical to businesses' operations globally with four million business-focused Windows applications developed for PCs over 30 years.

The characteristics of Microsoft's smaller consumer business are less attractive, though it is making progress restructuring its business. Consumer Windows operating system license revenue is falling, consistent with contractions in the broader PC market, owing to cannibalization by new form-factors and a

lengthening PC replacement cycle. Microsoft is executing its stated strategy of increasingly monetising consumer Windows indirectly through peripheral services such as the app store, content, gaming, and search advertising.

In summary, Microsoft's entrenched enterprise software business, and improvements in its relatively smaller consumer businesses, are expected to drive long-term revenue and earnings growth, and significant shareholder returns.



Visa Inc. owns the world's the largest global payments network. As at 30 June 2015, there were over 2.4 billion Visa credit and debit cards issued to customers by 14,300 financial institutions, on which there were over US\$7.3 trillion of transactions in the previous year. Visa cards were accepted at more than 36 million merchant locations, as well as 8 million mobile points of acceptance.

Visa Inc. was demutualised by its former bank owners, except for the Western European business, and listed on the stock exchange in 2008 for around US\$19 billion. In October 2015, Visa Inc. also announced its intention to purchase the Western European business from Western European banks for a maximum price of €21.2 billion.

Visa provides a network that "switches" payment information between cardholders' banks and merchants' banks around the globe. It charges the banks fees, being small percentages of the value of transactions. Importantly, Visa does not extend credit to cardholders, with those facilities

being extended by banks, which generate interest revenues as well absorb credit-loss costs.

Visa is privileged member of a select group of global payment networks, alongside MasterCard, American Express and PayPal. Indeed, PayPal is the only new global successful payment network since the launch of MasterCard in the 1960s. It is extremely difficult to establish a payments network, because there needs to be simultaneous acceptance of the network by both consumers and merchants. This requires mass awareness, simplicity of payment, technology ubiquity, fulfilment of arduous customer and merchant servicing needs, as well as strict regulatory requirements.

In a decades-long global trend, the means of payment continues to shift from cash and cheque towards electronic payments. This is being driven by various factors, including convenience, necessity as commerce shifts to online and public policy. This trend has a long way to go. The number of cash payments in many developed economies still comprises more than 50% of transactions and in developing countries more than 90% of transactions. This trend supports growth rates in electronic payments which are a multiple of nominal GDP growth.

Competition in the payments sector is increasing, with the big players of the technology sector seekina to their capabilities in the mobile Pay, payment space. Apple Pay, and Android Samsung Pay are all offering mobile and in-app payment facilities via their mobile handsets and through over 1,000 applications. Microsoft and Facebook also have plans to develop their own payment methods. These companies do not have direct payments relationships with

consumers and merchants, rather these payment capabilities piggyback the existing payments infrastructure of the payment networks (including Visa), banks and merchants. Indeed, higher growth in mobile payments, encouraged by the technology sector, actually increases the usage of Visa's network.

Visa is a highly scalable business with continued strong growth prospects as electronic payments take share away from cash and cheques. Visa's position as the largest payments network in a privileged industry is evidenced by consistently reporting operating margins in excess of 60% and EPS growth of almost 20% over the last 4 years.



Intel is the world's largest designer and manufacturer of computer processors with over \$US55 billion in annual sales. Intel's technology leadership and architectural ownership have entrenched the company as the dominant global provider of processors for PCs and servers. Its processors are shipped with over 80% of PCs and over 90% of servers worldwide.

Intel holds technology and manufacturing leadership

The processor is the "brain" of a computer, and is a primary determinant of the computer's performance and capability. Shrinking the features inside a processor enables it to achieve higher performance with more power efficiency, and at a lower production cost. But achieving this shrink is highly complex and is

becoming more so – the features on Intel's current generation of processors are several thousand times narrower than the width of a human hair. Over the years, Intel has maintained a 2-3 year technical lead over its competitors, supporting its market dominance, and making it difficult for competitors to close its lead.

One of the major risks for Intel is that at some point it will no longer be able to economically shrink transistors and maintain its lead. We consider this unlikely in the medium term.

Architectural dominance favours Intel in PCs and servers, but hinders it in mobile devices

Intel's proprietary x86 computer architecture is the dominant PC and server architecture, with a large ecosystem of software applications having been developed for it across multiple operating systems. For example, there are over four million Windows applications which either work only on or work best on Intel processors. Rewriting applications for other architectures is costly, and with limited audience given that almost all PCs and servers run on x86 processors.

The x86 architecture has a very small share of the smartphone and tablet market. This is the result of Intel historically focusing too much on compute performance, at the detriment of power efficiency. This misstep enabled the growth and ecosystem of a competing architecture known as ARM, making meaningful penetration of these markets unlikely for Intel.

The PC market is mature but likely to be relatively stable over the long run

Macro headwinds, share loss to tablet devices, and a lengthening PC replacement cycle has reduced global PC demand in recent years. Notwithstanding this, the rise of tablets has abated dramatically. and the installed base of PCs has been relatively stable, especially among business users. Although users have been holding onto their PCs for longer, ultimately replacements cannot be deferred indefinitely without sacrificing productivity and functionality. While the PC market is unlikely to be the major growth driver for Intel, we do not view it as being under secular decline.

Data centres are supporting the next wave of computing growth

Data centre facilities centralise compute and storage capacity, and facilitate the flow, processing and housing of large quantities of data. There are secular tailwinds driving the growth of data centres, including the rise of public cloud services (e.g. Google and Facebook), and the growth in mobile devices and highperformance computing. With the enormous demands placed on data centres, operators seek to maximise their performanceto-cost ratios, which only the adoption of leading-edge processors can provide. Intel's performance lead makes it the primary server architecture of all major cloud and data centre providers.

Evolutions in process technology have created mounting complexity for manufacturers like Intel, and will continue to do so in future. In spite of this, Intel continues to maintain process leadership over its competitors, supporting its market dominance in the PC and server markets. We expect PCs to retain their relevance as productivity tools, and believe secular tailwinds in data centres will accommodate future growth.



Lowe's is the world's second largest home improvement retailer with 1,840 stores (including 74 Orchard Supply branded stores) and US\$56 billion in sales. Lowe's remains a US centric business despite selected international expansion into Canada and Mexico.

In 2015, Lowe's (and home improvement leader Home Depot) generated sales growth rates in its US business over twice as high as other US retailers (ex-gas). These are remarkable numbers given the size of the enterprise.

The US is now in its fifth year of a housing recovery. While most housing indicators have now had a significant bounce since 2011 and are well above cyclical lows, we expect a longer housing cycle, with further upside in home prices, housing churn and most importantly, growth in remodelling market spend.

America's ageing housing stock (~130 million homes) is also seen as a source of growth in home improvement retailing. With the average house age at 38 years (compared to 32 years in 2005), there is a growing pool of homes requiring repairs and maintenance. Alternatively, home owners are undertaking remodelling or renovation for structural (maintenance) or aesthetic reasons.

In summary, the earnings risk with Lowe's remains to the upside with market share gains emerging as a potential greater source of leverage.



Apple's growth has been driven as a consumer hardware vendor. There are few if any examples of consumer hardware vendors that have endured over the long term. Apple is morphing into an operating system platform and services company with sales of devices largely becoming a subscription payment to access the platform and services. There are essentially only two mobile operating system platforms (iOS and Android) and we view it is highly unlikely that a third major operating system will emerge in the foreseeable future. This means any new phone devices will need to be developed to work on these two operating systems. Apple displays several attractive investment characteristics:

• Increasingly annuitylike revenues

iPhone sales are effectively becoming a subscription payment to access the Apple ecosystem and services. As the installed base of iPhone users has grown, Apple's dependence on winning new users has diminished. We expect replacement of phone devices to existing users will represent the significant majority of iPhone revenues going forward and is essentially becoming an annuity stream. An iPhone user replaces their phone every 2 years or so on average.

• Low commoditization risk Our previous concerns around commoditization and margin pressure driven by greater price transparency and Android's improvements have reduced.

- » Despite what we consider to be broad functional equivalence between the iPhone and hightier Android phones, the iPhone has continued to grow volumes and increase average prices at high margins. In 2015, following the release of large screened iPhones and the more expensive iPhone 6 Plus, volumes increased by 37% and average selling prices increased by 10%, while Apple's aggregate gross margin rose. This displayed little evidence of price sensitivity among its users.
- » We believe iPhone's premium positioning, and controlled iOS ecosystem and services will continue to insulate Apple from the commoditization experienced by Nokia, Blackberry and other once successful high-tier phone companies.

Monetising services

Along with Windows and Android, Apple's iOS is one of the major global digital platforms, with iOS dominating the highest-spending consumer demographic. This position provides Apple with immense opportunity to monetise services like iTunes, music, video and Apple Pay (payments).

New devices

We believe there remains opportunity for Apple to launch new devices (such as Apple Watch, Apple TV, Apple Car?) and services such as HealthKit (health wearables) and HomeKit (connected home) that are fully integrated within their iOS ecosystem.

At the current share price, we consider Apple to be an attractive investment based on the sustainability of the iOS platform, iPhone sales and margins. Apple's share price moves with short term sentiment on upcoming quarterly iPhone volumes (which are inherently volatile), creating an attractive investment entry point recently.

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Hamish Douglass

Chief Executive Officer, Chief Investment Officer and Lead Portfolio Manager

20 January 2016

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