

Annual Investor Report 2017

MFG Asset Management Global Low Carbon Strategy

Dear investor,

I am pleased to write to you as an investor in new MFG Asset Management Global Low Carbon Strategy, which commenced on 30 September 2016. The strategy extends the capabilities and processes of our proven 10-year-old Global Strategy to incorporate a thoughtful proprietary solution that delivers a portfolio with substantially lower carbon risk than global markets. The strategy also considers a broad spectrum of environmental, social and governance issues as part of its investment approach as stipulated in our environmental, social and governance policy.

The strategy's three investment objectives are straightforward. First, the strategy is managed to protect capital in adverse markets. Second, we aim (not guarantee) to produce absolute returns of a minimum of 9% per annum, before fees, through the business cycle. Third, the carbon intensity of the strategy is substantially lower than global markets, with intensity currently capped at one-third that of the MSCI World Index.

On the third objective, it is our view that longer-term investors should consider carbon a risk that pervades their overall exposures that should be measured and managed. Ultimately, investors will need to consider whether or not they are adequately compensated for carbon risks within their portfolios, from stranded asset risks, regulatory changes, changing consumer preferences and the discontinuities that may occur from disruptive innovation. The Strategy considers globally agreed climate goals within its design. It excludes companies that have elevated levels of carbon intensity and those whose businesses are inextricably linked to carbon.

Portfolio strategy

The strategy adopts a long-term investment approach by investing in outstanding companies at attractive prices within a low-carbon portfolio framework, while exercising a deep understanding of the macro environment to manage risk and identify opportunities. We perceive outstanding companies to be those that have enduring competitive advantages that allow them to sustainably earn returns on capital that are materially above their cost of capital. The strategy provides investors with access to a concentrated portfolio of 30 to 50 companies with a minimum market capitalisation of US\$5 billion.

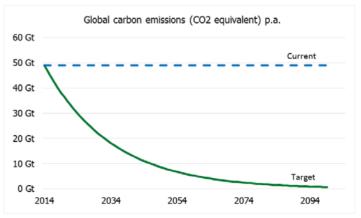
Investing sensibly towards a low-carbon world

At the end of 2015, officials from 195 countries gathered for a UN-sponsored conference in Paris and achieved something rare for such a forum. They came to an agreement on an issue of immense substance, perhaps the most crucial issue confronting the world over coming decades. That issue was climate change.

The so-called Paris Agreement seeks to halt the buildup of greenhouse gas emissions to dangerous levels. The participating countries in the French capital agreed to limit temperature increases, preserve forests, share the costs fairly (meaning developed countries bear more in proportion) and to be transparent in their emissions and efforts to mitigate climate change.

The key accord was the ambition to set a global limit to the rise in temperature caused by greenhouse gas emissions. The countries agreed to hold "the increase in the global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels". For perspective, the average global temperature rose about 0.8°C from 1880 to 2012 and is now at all-time recorded highs.¹

Chart 1: The Paris Agreement's long-term goal, 80% cut in emissions by 2050.



Note: Target assumes Intergovernmental Panel on Climate Change carbon budget with 50% probability of limiting global temperature increases to 2° C, and constant global emissions from 2011 to 2014. Source: Intergovernmental Panel on Climate Change.

 $^{^1}$ United Nations. "Climate change" on the global issue website. http://www.un.org/en/sections/issues-depth/climate-change/index.html

And now the US is pulling out of the Paris Agreement, which came into force in 2016 and has been ratified by nearly 150 countries. On June 1, President Donald Trump announced the US would withdraw from the agreement that he painted as a "self-inflicted major economic wound".² The pull-out follows Trump's decisions to unwind environmental protections that discouraged coal production.

"The Stone Age came to an end not for lack of stones, and the oil age will come to an end not because we have a lack of oil."

Sheikh Yamani, former Saudi Oil Minister The Telegraph, 25 June 2000

While the US withdrawal from the Paris Agreement is a setback, Trump's decision, ironically, served to highlight how much momentum is behind the shift to a low-carbon world. Leaders in Europe, Asia and elsewhere re-committed to tackling global warming. So too did leaders in US states such as California, New York and Washington and cities including Atlanta, Los Angeles and Salt Lake City.3 CEOs in charge of the biggest US companies such as Apple, General Electric and Hewlett-Packard did likewise, as did those in charge of energy companies including ExxonMobil. This momentum appears unstoppable and it will become increasingly risky for investors to presume the world's future carbon dependency will look like that of the past 150 years. After all, as former Saudi oil minister Sheik Yamani warned in 2000: "The Stone Age came to an end not for lack of stones, and the oil age will come to an end not because of a lack of oil."

The Paris Agreement, to be sure, contains loopholes that could hamper its success. The goals are not legally binding, countries can follow their own paths to achieve the global goal and some countries are still to ratify the pact. (Syria and Nicaragua are not part of the agreement – Nicaragua, to be fair, because it says the agreement is too weak.) There will be other setbacks towards a low-carbon future. Australia abandoning a carbon price in 2014 was one such reverse. Fossil-fuel vested interests will fight back. While many people agree with the great body of climate scientists that humans are responsible for climate change, they are unwilling to pay a price to combat the threat. The opposition to mitigate manmade climate change, however, will likely ebb with every disclosure of the damage that greenhouse gases do to the atmosphere and after every unusual weather event, which appear to be growing in frequency and severity, as predicted by climate scientists' modelling. The pressure is such that the shift towards a low-carbon world is unrelenting. So too is the momentum behind low-carbon investing.

Multiple drivers towards a low-carbon world

While the Paris Agreement was a turning point towards a global low-carbon economy, it is just one of many steps being taken by governments of all levels, businesses, non-government bodies, investors and individuals the world over to combat climate change.

And, most importantly, technological innovation underpins

the inexorable shift towards a low-carbon economy. Does it matter what a politician or a TV presenter thinks about climate change if renewable energy becomes a cheaper generation source than fossil fuels or if electric cars are cheaper to buy, run and have better performance than a car powered by a combustion engine?

Governments are instrumental

The media often overstates the importance of one actor in global matters, understating the cumulative importance of many and disparate actors of all sizes around the globe. And so it has been with Trump, a climate change sceptic. None of the other signatories to the Paris Agreement, or the many states and municipalities around the world (including the US) have changed their climate policies since Trump won the election on 8 November 2016.

Indeed, China's National Energy Administration announced its 13th Five Year Plan on Energy Development in January 2017. The plan targets half of all new electricity generation capacity to be renewables and nuclear through to 2020. It will invest more than US\$360 billion per annum in renewables by 2020 and aims to create 13 million jobs. By 2020, it is targeting installed capacity of more than 210 gigawatts for wind and more than 110 gigawatts for solar. To put this into perspective, that's the same generation capacity as 160 large-sized coal power stations. In 2016, China became the nation with the largest installed photovoltaic solar capacity at 77 gigawatts, doubling the capacity of 2015. Nonetheless, China faces emission challenges with significant overcapacity in electricity generation while still commissioning two new coal-fired power stations per week.

Governments at all levels are doing the same. Georgetown in Texas, which has a population of only about 47,000, recently signed a 20-year utility contract with SunEdison, a multinational utility, to provide it with 100% renewable power. SunEdison sources solar energy for day consumption and wind energy for the evening. The town has a monopoly on electricity supply and its staff found that renewables energy was cheaper than fossil fuels, even in Texas. The interim city manager observed: "We didn't do this to save the world – we did this to get a competitive rate and reduce the risk for our consumers." This, from a conservative town in a conservative US state, where rational economics trumped ideology.

Finally, notwithstanding failure in Australia, many governments are imposing a carbon 'price', either via taxes or permits whose prices' are market set. The aim is to capture the wider costs associated with carbon and let businesses work out the most efficient way to absorb the associated carbon price. These policy actions are underway in more than 40 countries and 20 regions. Inevitably, these price actions will affect the prices of goods and services, with some businesses winning and others losing.

Businesses are taking part

Many companies recognise that reducing their greenhouse gas emissions is a strategic imperative to i) align their brands with consumer expectations, ii) reduce exposure to climate risks, iii) reduce exposure to evolving regulatory and legal risks and iv) remain in step with low-carbon innovations. All these

² The White House. "Statement by President Trump on the Paris Climate Accord." 1 June 2017. https://www.whitehouse.gov/the-press-office/2017/06/01/statement-president-trump-paris-climate-accord. The New York Times. "Bucking Trump, these cities, states and companies commit to Paris Accord." 1 June 2017. https://www.nytimes.com/2017/06/01/climate/american-cities-climate-standards.html

imperatives are good for long-term shareholders.

As part of the RE100 (or 100% renewable energy) initiative by the non-profit Climate Group⁵, so far 90 global companies including Facebook, Johnson & Johnson, Tata Motors and Unilever have committed to only use renewable energy. One is Nestlé, which in the 10 years to 2015 slashed greenhouse gas emissions by 39% per tonne of product manufactured. For the 10 years ending 2020, Nestlé aims to reduce such emissions when manufacturing by another 35% per tonne of product.

Coca-Cola intends to reduce by 2020 the carbon footprint of 'the drink in your hand' by 25% versus 2010 levels by amending manufacturing, packaging, storage and distribution processes. Already the soft-drink maker has sold 8.7 billion recyclable PET bottles made from renewable plant-based materials (known as PlantBottles) across more than 25 countries.

Microsoft, an RE100 company, can claim that it has been carbon neutral since 2012. About 44% of electricity for the company's data centres came from renewable sources in 2016. Microsoft intends to lift this percentage to 50% by the end of 2018. As well, the software giant is installing advanced cooling techniques in data centres that lower energy consumption by 20% to 30%.

Businesses are also dealing with evolving regulatory and legal obligations, which will increase focus on reducing carbon intensity. The G20, for example, is sponsoring efforts to address the lack of transparency on climate-risk disclosure by companies, which was impeding investment analysis.

The result later this year is expected to be an internationally agreed, but voluntary, framework for businesses to assess their carbon footprint, so that investors, lenders and insurers can make better assessments. Separately, directors are being advised in countries such as Australia that board members who fail to consider and disclose climate risks may be liable for breaching fiduciary obligations. In the UK, pension funds now need to consider climate change risks when investing.

"Does it matter what a politician or a TV presenter thinks about climate change if renewable energy becomes a cheaper generation source than fossil fuels or if electric cars are cheaper to buy, run and have better performance than a car powered by a combustion engine?"

Household pressure underpins movement

Then there is the contribution from households. People are buying more fuel-efficient cars, installing solar panels, buying white goods with the most energy-efficient ratings and using light-emitting diode and/or compact fluorescent lamp lightbulbs. The pace of adoption of more efficient or cleaner items quickens as the cost reduces with volumes and further innovation. As Georgetown shows, this also flows through to the purchase of renewable energy as it becomes more

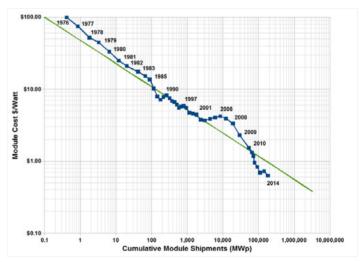
economical than fossil-fuel-generated energy, rather than solely out of concern for the environment. The result in the US is that household demand for electricity and natural gas has levelled out and demand for petroleum products is dropping while renewables power is rapidly rising, albeit from a low level. Most of all, households are using their power at the ballot box, shopping aisle and investment discretion to urge governments, businesses and investors to curb use of fossil fuels and encourage renewable sources of energy.

The dispassionate force of technology

The use of coal, crude oil and natural gas for energy grew rapidly from the 1850s, 1920s and 1950s respectively. Their innate characteristics fuelled world economic growth, including their low cost, abundance and chemistry (energy density, stability, transportability, etc.) However, exponential progress in various technologies in recent decades means that fossil fuels face more competition from renewable energy, purely on economic cost-benefit grounds.

Solar-power technologies, for instance, have seen enormous advances. Crystalline silicon photovoltaic cell prices have plunged from US\$77 a watt in 1977 to about 35 cents nowadays. Analogous to Moore's Law for silicon chips, photovoltaic cells benefit from Swanson's Law, which states: "The price of solar photovoltaic modules tends to drop 20% for every doubling of cumulative shipped volume."

Chart 2: Swanson's Law.



Source: J.Doyne Farmer, François Lafond "How predictable is progress?". Oxford Martin

Wind power has undergone a similar productivity burst. Wind-generated power costs have plummeted from close to US\$600 per megawatt-hour in the early 1980s to under US\$50 on the same basis nowadays. Indeed, for a short period on 15 May 2016, Germany was 95% powered by renewables due to elevated winds in the north of the country, up from a usual contribution of one-third.

While new renewables power-generation costs have fallen below those of fossil fuels in many instances, there remain two key challenges: i) transmitting power into the grid, and ii) storage for when the sun isn't shining or wind isn't blowing. Examples on the first challenge include Germany and China. Germany is facing challenges transmitting wind power generated in the north to the industrial south. China

 $^{^4}$ The Guardian 29 March 2015, "Texas city opts for 100% renewable energy – to save cash, not the planet". 5 To view the RE100 list of signatories, go to http://re100.org/companies

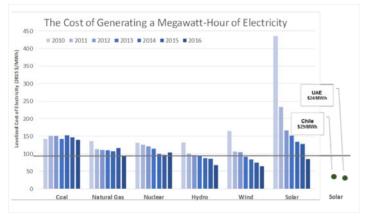
wasted some 15% of wind power generated in 2016 because of inefficiency in connecting to the grid. Nations will need to significantly upgrade transmission infrastructure to benefit from distant, as well as localised, generation of renewable power.

The second challenge is being solved by technological innovation, as battery prices have fallen by about 15% per annum over a decade and energy density has increased 400% from 2008 to 2015.6 Most renewables power, however, still relies on the existence of fossil-fuel-powered base load and peak load power, which is essential to guarantee power availability when needed.

Importantly, the impact of battery innovation extends to the transportation sector, as batteries can now power cars to a range of more than 300 kilometres (186 miles). Shifting the world's vehicle fleet to battery-powered vehicles would significantly reduce carbon emissions, considering that globally around one-third of energy consumed comes from crude oil, the vast bulk of which is used to power transport.

The benefits of technological innovation are clearly manifest in Chart 3, which shows the plummeting costs of delivering solar and wind power, to well below that of fossil fuels and nuclear. Last year was a seminal one in that new solar plant contracts in the United Arab Emirates and Chile attracted bids costing about half that of coal. These bids likely reflected the sun-blessed locations for this new supply and the factoring in of further declines in the cost of solar equipment. Such is the future low-carbon world.

Chart 3:



Source: US Energy Information Administration – Annual Energy Outlook 2017.

Notes: Chart shows advanced coal with carbon capture and storage, advanced combined cycle natural gas with carbon capture and storage, hydroelectric, advanced nuclear, solar photovoltaic and onshore wind.

Portfolio review

The past nine months were a buoyant time for global stocks. They rose to record highs as US companies posted higherthan-expected earnings, the internet mega-caps rallied on their bright prospects, the shock victory of Donald Trump in the US presidential elections fanned optimism that his progrowth policies would revitalise the US economy, the Federal Reserve signalled US monetary policy would only be tightened at a gradual pace, deflation eased as a concern for the world economy, the eurozone economy improved, mainstream parties held off populists in the European elections, the likelihood that China's economy, financial system or currency

might trigger an upheaval receded and emerging countries overall expanded. The MSCI World Net Total Return Index rose 12.7% in US dollars over the nine months to June 30.

Portfolio performance

The MFG Asset Management Global Low Carbon strategy recorded a positive return of 11.16% (gross) in US dollars for the nine months to June 30 (10.50% net).

At a stock level, the largest contributors to performance included the investments in Apple (which contributed (+1.21%), McDonald's (+1.04%) and American Express (+0.96%).

Apple rose 29%8 over the nine months when it became the first US company to record a market value above US\$800 billion. Most of Apple's price gain occurred in the March and June quarters after the company released better-than-expected updates that showed iPhone popularity remains high with number of iPhone users growing at double-digit rates, the installed base of iPhones continuing to grow and the services and nascent wearables businesses growing at a quick pace. McDonald's gained 35% after same-store sales growth beat expectations due in no small part to growth in the US where the company's more-focused execution is winning customers. American Express added 33% after delivering earnings growth beyond guidance.

The stocks that lagged included investments in Target (which detracted 0.53%), Kroger (-0.39%) and CVS Health (-0.32%).

Target declined 22% over the nine months. The poor performance was due to a share price fall of 26.5% in the March quarter following the release of the company's fourthquarter earnings that showed a drop in comparative sales and the company lowered earnings expectations due to price investment initiatives that will lower margins to contend with a more competitive retail environment. Kroger fell 21% over the period following a 10% reduction in earnings guidance flagging lower margins on price investments in an increasingly competitive environment. Amazon's purchase of Whole Foods in June prompted a broad decline across US retailers, as markets considered the growing threat of Amazon on retailers' shares and margins. CVS Health fell 8.2% over the nine months (mainly due to an even bigger drop in November) amid a decline in same-store sales and after warning that network changes would result in the loss of script sales in its pharmacy segment.

The strategy has held close to 15% cash since it commenced on 30 September 2016, the vast bulk being held in US dollars. This cash is being held to achieve the risk characteristics sought for the strategy and should be thought of as a very low-risk holding that complements the higher market-risk investments in financial and technology stocks, among others. The elevated cash holding reflects our view that many very highquality equities, that come with lower market risk, have been expensive for several years. We believe these high-quality equities are expensive, relative to their long-term valuations, because they are being treated as bond-proxies by some investors seeking yield in a world where the most influential central banks have run extraordinarily accommodative monetary policy that resulted in very low interest rates. It is our view that these monetary-policy settings will unwind over the next few years, with the likely impact being negative for

⁶ International Energy Agency/US Department of Energy (2016), Nykvist & Nilsson (2015). ⁷ Levelised costs is a measure of overall competitiveness representing per-KWh cost (in discounted real dollars) of building and operating a generating plant over an assumed financial life. Clearly, this involves a range of assumptions including capital and maintenance costs, as well as fuel costs.

⁸ Movements in stock prices are in local currency.

the stock prices of these high-quality equities. Therefore, in the near term, we believe the cash holding is preferable to holdings in high-quality equities that are at significant risk of suffering share price falls as central banks move to normalise monetary policy. Ordinarily, you can expect the strategy to have minimal holdings in cash and be fully invested in equities.

Portfolio positioning

Notwithstanding the uncertainty surrounding stock markets, we are confident about the long-term outlook for the investments in our portfolio and the portfolio's risk profile. An observer would note the prevalence of US-domiciled stocks in our portfolio and may conclude it to be a US-centric portfolio and, therefore, primarily a view on share markets in the US or the US economy. This is a simplistic view and not how we view the portfolio. At 30 June 2017, our portfolio comprised 23 multinational businesses (17 companies listed in the US and six listed outside the US), nine US domestic businesses, two UK businesses and cash in US dollars. As explained earlier, we hold the cash in US dollars for defensive purposes. The 23 multinational businesses represent 56.8% of the portfolio at 30 June 2017 and can be broken down as follows:

- Multinational digital-platform businesses and software businesses representing 23.4% of the portfolio at 30 June 2017.
- Multinational food, food distribution and quickservice restaurant companies representing 14.5% of the portfolio at 30 June 2017.
- Multinational payments-platform businesses representing 12.3% of the portfolio at 30 June 2017.
- Multinational healthcare and pharmaceutical companies representing 4.4% of the portfolio at 30 June 2017.
- Multinational financial-services company representing 2.2% of the portfolio at 30 June 2017.

We are seeking a portfolio of the most-attractive and highestquality multinational businesses irrespective of which stock exchange they happen to be listed on. We have chosen to invest in Nestlé (listed in Switzerland) over multinational food companies listed in the US, and chosen to invest in Oracle (listed in the US) and its peer SAP (listed in Germany), obtaining broader exposure to enterprise-software services. It is simply irrelevant to us that 17 out of 23 of our multinational investments happen to be listed in the US. It is also worth noting that we estimate about 43% of the collective pre-tax earnings from the 23 multinational investments are generated from the US, yet through a simplistic lens of viewing these multinational investments by share-market listing, 83% of these investments by value would be regarded as sourced from the US. This is clearly not correct from an economic perspective.

It is worth commenting on the nine US domestic businesses that are in the portfolio (HCA, Lowe's, CVS Healthcare, Wells Fargo, Crown Castle, Capital One, Chipotle Mexican Grill, Target and Kroger), which represented 23.3% of the portfolio at 30 June 2017. These holdings reflect a wide range of themes, including our views on the outlook for US healthcare, the US housing market, US interest rates, infrastructure essential to

support mobile data growth and stock-specific stories in a quick-service restaurant and retailers.

Table 1: Top holdings of the MFG Global Low Carbon strategy as at 30 June 2017.

Security	MFG sector	Weight (%)
Apple	Information technology	4.8
Alphabet	Internet & ecommerce	4.2
Visa	Payments	4.1
НСА	Health care	4.1
Facebook	Internet & ecommerce	3.7
McDonald's	Consumer defensive	3.6
American Express	Payments	3.5
Lowe's	Consumer discretionary	3.3
Yum! Brands	Consumer defensive	3.3
Microsoft	Information technology	3.3
Other	-	46.9
Cash	-	15.2
Total		100.0

Macroeconomic and market outlook

We remain cautious about the outlook for equity markets in coming years, given the risks associated with rising interest rates, elevated price-earnings multiples, eurozone politics including the UK's departure from the EU, Trumpism and China's overleveraged economy. Our base case for the world's largest economies over the next three years assumes continued economic growth in the US with modestly rising inflation, a slowdown in China (but not a crisis) and an improved outlook for Europe.

Rising interest rates

In our view, there are two phases for long-term interest rates that are relevant for investors. Over the next five years or so, we expect interest rates to rise as central banks withdraw stimulus. This is a key and immediate risk for equity markets. Looking out a further 10 years, rates may decline again as technological disruption generates downward pressure on inflation. The question is whether or not bond markets will look through higher rates in the short term and focus on a disinflationary longer-term future.

The dangers of a path to monetary-policy normalisation are likely to play out over the next five years. The issue is whether or not asset prices predominantly reflect economic reality or if they are distorted by the monetary and foreign-exchange policies of the most important central banks. As central-bank asset purchases diminish over the coming years there is the potential for large declines in some asset prices.

While we think it is likely that the Federal Reserve will tighten monetary policy further over the next few years, with the European Central Bank eventually following suit, we have moderated our expectations on the extent of the likely rise in longer-term bond yields over the next three to five years.

The US and 'Trumpism'

We expect the US economy to extend its already-lengthy recovery in coming years. The US economy grew around 2% p.a. over the year to March 2017, predominantly driven by household consumption, which comprises around 69% of US GDP. Households have been buoyed by strengthening labour markets, rising house prices, falling commodity prices and low interest rates.

The unemployment rate fell to a 16-year low of 4.3% in May 2017. A broader measure of unemployment, which includes marginally attached workers and workers employed part time for economic reasons, also fell to pre-crisis levels. Tighter labour markets should in time lead to faster growth in real wages and potentially lower profit margins for businesses that lack pricing power. Despite diminishing labour market slack, wage growth remains subdued and is contributing to weak core inflation that, at 1.5% p.a., remains below the Fed's 2% target.

The Fed maintains that the disinflation pressures are temporary (driven in part by recent changes to wireless phone pricing plans) and is pressing ahead with the gradual unwinding of its ultra-loose monetary policy. In June, it implemented its fourth rate increase, to boost the cash rate to between 1% and 1.25%, and gave further detail on the plans to reduce its balance sheet, possibly later this year.

We are relaxed about the advent of a Trump administration for our investment portfolio. Trump's proposed economic policies such as tax cuts and spending on infrastructure and defence are broadly stimulatory, so there is potentially some upward pressure on growth, inflation and interest rates in the medium term. Absent meaningful policy changes, the Congressional Budget Office forecast the federal deficit to remain around 2.5% to 3.5% of GDP over the next few years.

The biggest risk from a Trump administration, while small in our view, comes from trade and foreign policy. Trump's aggressive stance on North Korea raises the prospect of a significant conflict, although the probability of war on the Korean peninsula or a highly disruptive nuclear event is very low. There remains a small risk that Trump's 'fair-trade' platform, which focuses on more favourable outcomes for the US within trade agreements and holding China accountable for alleged unfair practices, could result in a 'trade war'. The trade issue, along with developments in the South China Sea, is likely wrapped up in broader negotiations with China over resolving the North Korean problem.

The eurozone

The eurozone picked up over the past year – it grew modestly at 1.7% p.a. over the year to March 2017. Some peripheral economies such as Ireland and Spain stayed on their recovery path. However, we remain cautious on risks from Italy's economic malaise, the undercapitalised banking system, the prospect of gradual ECB policy tightening over the next few years, and uncertainty associated with the upcoming Italian elections given the rise of eurosceptic parties.

The election of President Emmanuel Macron in France and the parliamentary majority for his new pro-reform centrist party raise the prospect of domestic economic reforms and stabilising eurozone system reforms. Macron's proposals include a

common budget and finance minister for the eurozone, more European ministerial responsibility for banking regulation, tax breaks for French businesses and more flexible labour laws. German political leaders have signalled a willingness to work with Macron to deepen eurozone integration that, if delivered, could reduce risks in the eurozone periphery associated with eurosceptic parties. However, the scope and implications of these policies and the political appetite for them is unknown.

In the meantime, risks in the eurozone remain. There is still no legal mechanism for a country to leave the eurozone, and an exit by a country such as Italy would have far more systemic implications than a country seeking to leave the EU, as is the case for the UK. However, we place a very low probability on such a scenario.

China

While we remain concerned about the short- to medium-term outlook for China, we do not believe that China is about to have a financial crisis or face an economic crunch.

China's economy is overleveraged and is slowing. When demand for Chinese manufacturing exports deteriorated in the GFC, China launched the largest credit stimulus in history, fuelling an investment boom that persists today. From 2008 to 2013, China's state-owned banks issued credit totalling US\$10 trillion, equivalent to the US banking system, around half of which ended up in the property market.

China remains susceptible to a rapid pull-back in credit and investment, which could trigger an economic downturn and possibly a panic in the poorly regulated shadow banking system or the property market. Chinese policymakers must somehow manage the credit and property excesses in their economy without tightening credit conditions too quickly.

Another key uncertainty in China is the prospect of a large devaluation in the yuan, which could undermine confidence in China's economy and export deflation to the rest of the world. The outlook for the yuan, which has appreciated by 40% since 2005 in real trade-weighted terms, is uncertain. While the currency could decline on capital outflows, rising wages and a slowing economy, a large devaluation is less likely and tighter capital-control policies have thus far slowed the rate of decline in forex reserves, which stood at US\$3.05 trillion in May 2017.

The Chinese leadership appear to be aware of the problems with their debt-laden economy and have the policy tools to stabilise the economy. This makes a financial crisis unlikely in our view.

Stock in focus

PayPal – making payments on the internet easy and safe



In the late 1990s, several tech whiz kids **PayPal** in the US were searching for a way to disrupt finance. Elon Musk's initial

attempt was to create one of the world's first online banks in 1999. The year after, Musk teamed up with Peter Thiel and Max Levchin who had devised a way for people to send money via Palm handhelds. Then came their brainwave – formulate a way for people to buy over the internet without having to hand over credit-card details every time.

Thus, PayPal was born in 2000. Nowadays, the company is the biggest global digital wallet and a leader in mobile payments. The company operates across more than 200 markets, processing transactions in more than 100 currencies. In fiscal 2016, PayPal's 188 million 'active' account holders conducted more than 6.1 billion transactions worth US\$354 billion in payments on PayPal's digital platform, a 28% increase from the previous year. Of this, US\$102 billion (two billion transactions) were via mobile devices.

PayPal's success is built on the way it allows people to purchase online quickly and securely after giving their financial information only once to PayPal. The company never divulges this information to merchants. PayPal allows its customers' digital wallets to be loaded with credit cards, debit cards and consumers' transaction bank accounts, so that they can have various payment options. PayPal's security and ease of use encourages more online shopping and reduces the risk for merchants that people will abandon online-shopping carts because they must enter payment details on the merchant's website, along with concern that payment details might be hacked from the merchant. PayPal is especially useful for smaller merchants that would find it difficult and expensive to obtain similar payment services through banks.

PayPal's largest source of profit margin is the spread between negotiated acceptance fees paid by merchants (a percentage of each transaction) and the fees PayPal pays to the consumers' payment source (say, issuers of credit cards). PayPal's operating margins are lowest when customers pay with credit cards because the fees charged by the card issuers are notably higher than other payment sources. Margins are highest when customers use transaction bank accounts, as the fees PayPal pays to banks to withdraw payment from a transaction bank account are negligible. PayPal's revenue in fiscal 2016 reached US\$10.8 billion, an increase of 21% from the previous financial year. PayPal is expected to record continued strong revenue growth in coming years as societies become increasingly cashless and ecommerce further penetrates global commerce. The scalable nature of PayPal's cost structure, along with the network effect benefits for revenue growth, leads us to expect that over time PayPal's operating margins will expand significantly.

PayPal's earnings outlook would be even stronger if the company could build a presence in physical stores where the Visa, MasterCard and American Express networks dominate. The lack of an offline presence stymies PayPal's ability to create the habit among its customers of making PayPal their default payment instrument, no matter the merchant or

location. Another challenge for PayPal is that competition in the digital-wallet space is increasing. MasterCard and Visa have introduced digital wallets. MasterPass and Visa Checkout. which mimic many of PayPal's user-friendly features. Android Pay, Apple Pay and Samsung Pay now offer mobile and in-app payment facilities via their mobile handsets and through more than 1,000 applications. Microsoft and Facebook have plans to develop payment methods, particularly for mobiles. PayPal, however, with its existing infrastructure and trusted brand, is well placed to fight off such threats and build an offline presence.

Leading the digital-payments revolution

PayPal's big break came in 2000 when eBay allowed the company to promote its services on the online shopping and auction site. PayPal's ease of use for eBay customers and small merchants that had previously found digital payments difficult, particularly across borders, fostered the rapid growth of eBay's small merchants and transactions; so much so that eBay bought PayPal in 2002 only months after PayPal listed on the Nasdaq. The mutually beneficial relationship between eBay's marketplace and PayPal's enablement of digital payments allowed PayPal to become the only new successful global payment network since the launch of MasterCard in the 1960s.

In 2015, PayPal was spun out of eBay and re-listed. This renewed independence has allowed PayPal to focus on its core capabilities in an increasingly fluid and competitive market. Independence from eBay also permits PayPal to target new clients, such as large retailers, that would have previously been reticent, as eBay is a competitor. PayPal still benefits from a service agreement with its former parent, which provides some 16% of PayPal's total payments volume.

It is extremely hard to establish a payments network that could compete with Visa, MasterCard and American Express because an entrant would need to be simultaneously accepted by consumers and merchants. This requires mass awareness, simplicity of payment, technology ubiquity and an ability to meet arduous customer and merchant servicing needs and regulatory requirements. Many companies and large consortia, including groups of very large merchants and some of the world's largest telecoms, have tried to create payment networks over the years and all have failed.

Now that PayPal belongs among the global payment networks the company stands to benefit from the decades-long global trend towards a cashless society. The means of payment has shifted from cash and cheques towards electronic payments due to convenience, necessity as commerce shifts to online, and public policy.

This trend has a long way to go. Cash still comprises 50% of all payments in many developed economies and more than 90% in developing countries.

PayPal's competitive strength is in online payments, where it has built a strong brand position with consumers and merchants. Indeed, it has recently been recognised as a top-100 global brand by Interbrand. Recognition and increasing usage are reflected in sustained extraordinarily high payments volume growth. Over the past three years, PayPal has experienced more than 20% compound growth in revenue and

operating profit.

PayPal has invested in online and mobile capabilities by buying Braintree and Paydiant, which provide merchants with leading capabilities in mobile payments and loyalty programs. It is rolling out its One Touch functionality globally, which further simplifies the payment process on devices and operating systems to just that; one touch of a button to process a purchase, with no further details entered by the customer. While PayPal's founders have moved on from their creation, their ambition to shake up the payments industry still drives PayPal.

Yours sincerely,

Dom Giuliano

Portfolio Manager

25 July 2017

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The Global Low Carbon composite is a concentrated global equity strategy investing in high quality companies (typically 30-50 stocks) with an integrated low carbon overlay. High quality companies are those companies that have sustainable competitive advantages which translate into returns on capital materially in excess of their cost of capital for a sustained period of time. The investment objectives of the Global Low Carbon strategy are to earn superior risk adjusted returns through

the business cycle whilst minimising the risk of a permanent capital loss with an integrated ESG strategy with meaningfully lower carbon intensity than broader equity markets. The composite was created in October 2016.

To achieve investment objectives, the composite may also use derivative financial instruments including, but not limited to, options, swaps, futures and forwards. Derivatives are subject to the risk of changes in the market price of the underlying securities instruments, and the risk of the loss due to changes in interest rates. The use of certain derivatives may have a leveraging effect, which may increase the volatility of the composite and may reduce its returns.

Gross composite returns (includes the reinvestment of dividends and capital gain distributions), are net of transaction costs, withholding taxes and direct expenses, but before management fees, custody and other indirect expenses. Net composite returns are prepared by subtracting from the monthly gross returns one-twelfth of the maximum applicable to institutional investors (0.80% p.a.). A list of composites and descriptions, as well as policies for valuing investments, calculating performance, and preparing compliant presentations are available upon request by emailing data@ magellangroup.com.au

The representative portfolio is an account in the composite that closely reflects the portfolio management style of the strategy. Performance is not a consideration in the selection of the representative portfolio. The characteristics of the representative portfolio may differ from those of the composite and of the other accounts in the composite. Information regarding the representative portfolio and the other accounts in the composite is available upon request.

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