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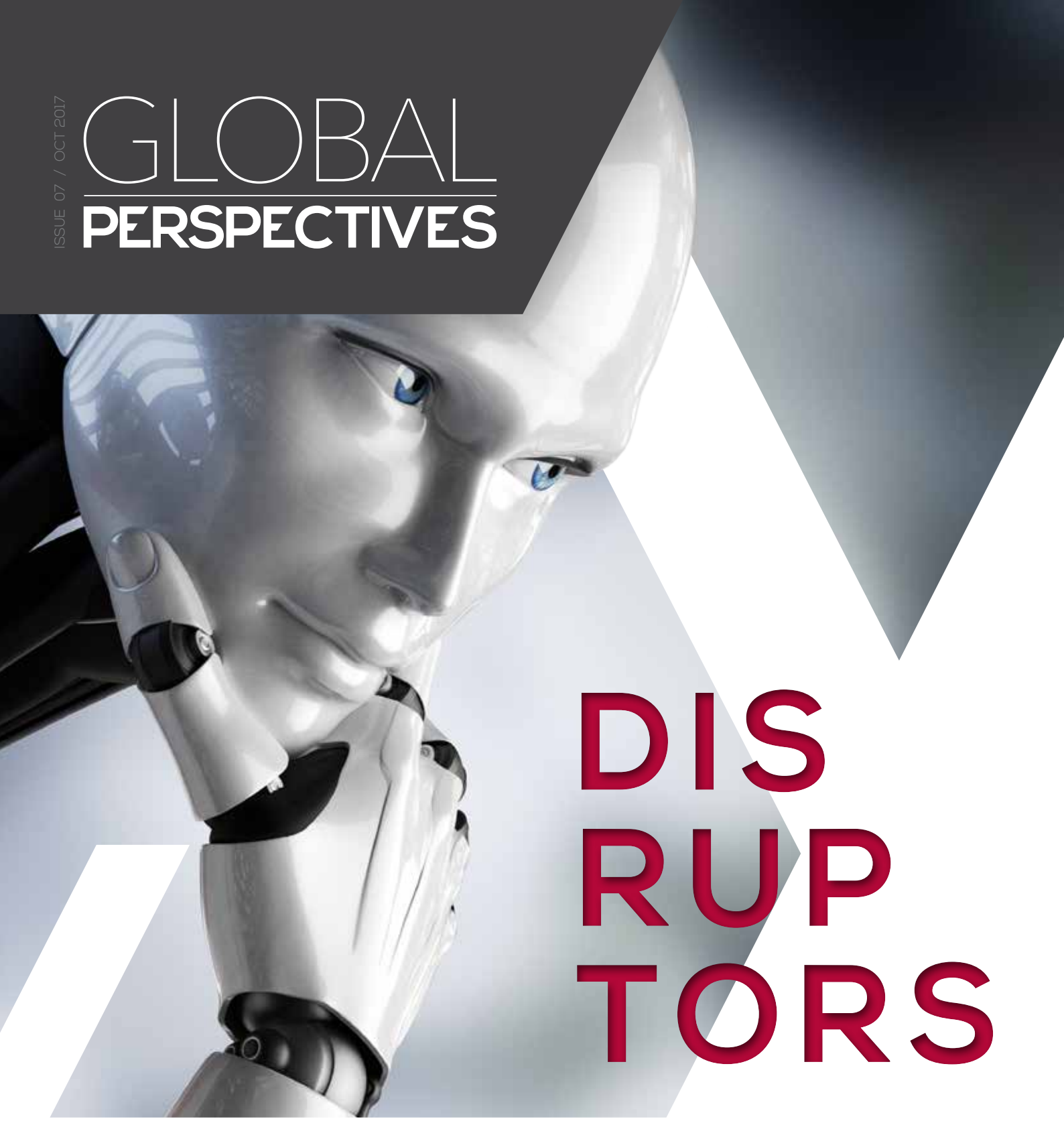
GLOBAL PERSPECTIVES



DISRUPTORS

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ASHBURTON INVESTMENTS

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Embrace the disruption

BOSHOFF GROBLER
CEO,
Ashburton Investments.

The word 'disruption' comes with some unfavourable associations. After all, the dictionary definition refers to a "disturbance or problems which interrupt an event, activity, or process". It has all the connotations of a bad guest or an unwanted intrusion.

But, in recent years, we've begun to see disruption through the same lens as innovation; as a way of reinventing markets, products and services, of streamlining systems, of eking out new opportunities and of improving the way we interact with the world.

Some of these disruptors are in our lives, in our homes and in our work places right now, and their tendrils run long and deep. Consider the impact of the internet, digital innovations, social media and mobile. All of these are game changers which have impacted industries as diverse as healthcare, banking, tourism and the automotive sector. Groundbreaking innovations are just around the corner or already here, such as blockchain and the Internet of Things. Doubtless new concepts and buzzwords will emerge on an almost daily basis.

These disruptors fundamentally change the way companies do business, and they certainly change how we navigate the world of global investing. It makes our job more complex but more exciting, more challenging but more expansive, and it highlights the importance of flexibility and ever deeper market understanding.

In this edition of Global Perspectives we look at how India has harnessed the power of digital disruption to drive a revolution, led by the concerted efforts of Prime Minister Narendra Modi to advance the use of electronic payments. We visit China, a market of contrasts and opportunities, and outline our unique investment approach and why it works.

On a broader note, Corneleo Keevy takes a look at the role of private debt in alternative asset allocations, as investors increasingly respond to global disruptions by diversifying away from traditional-only approaches in their search for yield.

"Consider the impact of the internet, digital innovations, social media and mobile. All of these are game changers which have impacted industries as diverse as healthcare, banking, tourism and the automotive sector."

Perhaps one of the most significant sectors impacted by technology and changing global mind-sets is the energy industry. From renewables to electric cars, this sector is evolving at pace and understanding the ramifications of these changes – and the speed at which they are happening – is vital. We have two articles exploring this topic, an assessment of old and new power generation methods and opportunities by Richard Robinson, while Paul Clark provides insights into the enormous growth witnessed in the East African electricity sector in recent years.

Finally, we bring all this talk of hi-tech and digital disruptions back into perspective, with a self-reflective contribution from Mark Appleton and Chantal Marx on the balance between human guides versus robo advisors. This is an evolving debate, and one we take seriously at Ashburton Investments. But for now, our money is on the depth of human knowledge and insight, versus algorithms and qualitative data alone.

As the world of disruption shows us time and again, the key to success is adaptation, agility and forward thinking. These skills – coupled with the savvy use of technology – remain the cornerstone of our strategy.

China: A permanent revolution

CRAIG FARLEY
Fund Manager,
Ashburton Investments.

To invest in an economy of over 1.3 billion people, a GDP of US$21 trillion and an all-powerful, all-seeing Communist government, you need to look at things a little differently.

China is a unique equity market with divergent features such as an immature investment climate; strong government presence across strategically important industries; high levels of domestic retail participation; hot money flows in both directions and frequent shifts in sentiment and volatility. Combined, these factors lead to frequent market dislocations.

These events present challenges, but also create opportunities. The result is an extremely fertile environment for prospective equity market returns over the long term if - and it is a big IF - investors maintain a disciplined and rigorous risk-control process.

Different for a reason

Traditional long-only offerings found in the China universe do not use systematic, rules-based equity strategies. We look at China differently. We take a simple approach which involves:

1. Allocations at a country level when market conditions are most attractive, and

2. Investing in a concentrated portfolio of top-quality stocks.

Despite the country's vast economic size and impact on global trade, China's capital market environment remains relatively immature, even by

emerging market standards, so we adopt a purely quantitative approach to help cut through the noise, the misinformation and the ever-present impact of state interference.

Two independent proprietary models govern our entire China investment process. A market timing indicator gauges the overall health of the market at the index level, which determines the China capital allocation. Once equity is committed, a screening model drives the stock selection.

Our directional trend indicator (DTI) has three modes:

What our model says	What we do	Equity allocation
Bullish	Buy	100%
Neutral	Hold	50%
Bearish	Sell	0%

Source: Ashburton Investments

Once equity has been committed, our proprietary screening model cuts the investment universe from 1 500 actively-traded Hong Kong stocks down to the 150-200 stocks in the MSCI China Index, capturing more than 85% of the Chinese equity universe by market capitalisation. This screen looks to eliminate idiosyncratic stock risk, liquidity issues and prioritises superior data transparency.

Our proprietary composite screen then compares and contrasts each remaining company across a range of value, quality, growth and price momentum metrics. Each stock in the universe is graded using an absolute ranking - the aim is not to give a target valuation but to review a stock against the peer group universe.

Each company must meet a strict selection criteria to be included in the final portfolio. This creates what we believe are the top 20% most attractive stocks in the entire universe and culminates in a concentrated, high-conviction mandate of 20 to 30 equally weighted stocks.

"Despite the country's vast economic size and impact on global trade, China's capital market environment remains relatively immature, even by emerging market standards."

> "No other asset manager currently delivers a long-only fund in this space; one that is focused on deriving absolute returns over the cycle."

A methodical, quantitative-based approach allows us to remain detached from emotional attachment to a theme, sector or individual stock. This enables us to run winning positions and cut losing positions dispassionately.

The stock selection model is rerun every month to take into consideration new accounting criteria and share price data. This also acts as a natural stop-loss mechanism. Stocks which maintain their top 20% ranking remain in the portfolio, while those companies that fall out of the top 20% are removed and replaced.

Belt and road

China is undergoing a transformation. President Xi Jinping's spectacular 'One Belt and One Road' vision to link Europe to Asia through land and sea is seen by many as Globalisation 2.0 at a time when United States President Donald Trump is pushing a protectionist agenda throughout the world.

For China, a country which has traditionally been very insular, the plan to facilitate trading with more than 54 nations through investing US$40 billion in new infrastructure is a dramatic departure. According to an opinion piece by Jorg Wuttke, carried in the Financial Times newspaper earlier this year, the so-called new Silk Road initiative "will involve major investments in infrastructure in Asia and beyond – expanding trade and investment along a new land route extending as far as Europe and through a maritime route all the way to the Middle East and the Mediterranean".

While Wuttke, President of the European Union Chamber of Commerce in China, noted that the idea was, currently, "less of a practical plan for investment than a broad political vision", he wrote that "forging closer links across the region can promote faster growth and economic integration". Without doubt it is an inspiring vision and, like China, it is grand in its scale and complexity.

We believe that our approach to China is unique and aligned to this dynamic and multifaceted nation. As far as we are aware, no other asset manager currently delivers a long-only fund as per the space that is focused on deriving absolute returns over the cycle.

By taking a different approach to the allocation of capital – derive stock selection and manage aggregate portfolio risk – we have found the optimal way to capture the China equity market opportunity.

Craig Farley, Fund Manager

Craig Farley is an Investment Manager at Ashburton Investments and Lead Fund Manager for the Chindia Equity Fund and the China Optimal Equity Solution. Craig joined Ashburton in 2003 and has 14 years' experience in the finance industry. Prior to his current role, he worked on the Americas Fund, before moving to manage Asian equities in 2005.

Craig graduated from the University of Reading with a degree in Business and Management. He holds a Masters in Finance and Investment Management from the London School of Business and Finance, specialising in quantitative statistics.

The Chindia Equity Fund has won consecutive Raging Bull awards in 2016 and 2017 for top investment performance.


10%
60%
25%
40%
90%
50%
100%

Humans vs robots: Who has the edge?

MARK APPLETON
SA Head of Multi Asset and Strategy, Ashburton Investments.

CHANTAL MARX
Head of Research, Ashburton Investments.

Modern investing merges human insight with robo efficiency, causing some to argue that the role of the human advisor is dwindling. But human judgement still has a vital role to play in active and passive investment strategies.

There are myriad different approaches to investing in various asset classes, be it locally or offshore. Potential investors can choose offerings with passive asset allocation techniques or active asset management styles, or even a combination of the two.

Active focus

On the one end of the scale lies fundamental active management. Here human judgement plays a large role in interpreting all publically available information about an investment. It could be qualitative (such as trustworthiness and competence of company management) or quantitative (for instance looking at the financial results of a company). Either way, the focus is on determining the relative investment merits of the potential investment in question. Risk and cross correlations also come into the equation when constructing an efficient actively-managed portfolio.

Active asset management seeks to take advantage of the changing investment merits of asset classes themselves against a backdrop of a constantly evolving macro environment and any mispricing of instruments within these asset classes. It often also incorporates risk assessment – ensuring that undue risk is not taken in chasing returns. Within this framework, active managers aim to deliver alpha (above market returns) to investors.

Passive thinking

On the other end are passive investment vehicles that mimic various market indexes.

There are also quantitatively determined passive investments such as smart beta, which uses alternative index construction rules taking into account factors such as size, value and volatility.

There are two specific advantages to utilising a passive investment vehicle. Firstly, it tends to be relatively low cost and eliminates the possibility of underperforming a benchmark (since it tracks that benchmark, effectively removing both alpha and beta from the equation).

The symbiosis

Although they may seem like different worlds, active and passive investment vehicles are fundamentally linked. In fact, passive investment vehicles cannot exist without active managers making market-moving calls on what and when to buy or sell. Passive investments, in turn, can also be actively asset managed or incorporated as part of an active portfolio management strategy.

Active-passive strategies may include utilising specific asset class trackers as building blocks in an asset allocation strategy, or incorporating specific passive instruments – like an offshore exchange-traded fund (ETF) for example – in a balanced actively managed portfolio with other instruments (like stand-alone stocks).

Globally passive strategies have seen a pick-up in fund flows, especially in more efficient developed markets where alpha has become more difficult to come by. This has deeper implications for human active managers, who clearly still have a role to play in the modern world of investing, despite the fact that we are living in a time where robo-advisors and algorithms can make asset allocation and even instrument selection decisions for funds and portfolios.

In fact, one could argue that the human active manager still has the edge over the robots. These include:

Analysing human behaviour

As part of the active management process, analysts will have contact with the management teams of companies they are looking to invest in (or are invested in). This can be one-on-one, in smaller groups, on conference calls, or in a larger audience at company results presentations. Managers tend to talk a good talk and the ability to pick up on little cues – even something as silly as management ‘tone’ – can be quite telling. In a 2016 Harvard Kennedy School white paper (Reading Managerial Tone: How Analysts and the Market Respond to Conference Calls), Marina Druz, Alexander Wagner and Richard Zeckhauser assert that a negative tone on conference calls results in stock prices drifting downward. It has also been proven that the market reacts to the use of negative words in earnings releases, according to a 2011 paper entitled When is a liability not a liability? by Tim Loughran and Bill McDonald.

Moral and ethical considerations

Since algorithms typically digest only numerical information, the trend towards responsible investing cannot yet be effectively grasped by a computer. While the hard numbers can certainly be analysed with more vigour, the machines fall short when it comes to the softer issues. Incorporating Environmental, Social and Governance (ESG) considerations in the investment process, identifying ‘funny’ accounting, and the assessment of management intent still require human interpretation. In recent years, investors have begun to demand a more ethical approach to investing – they are looking for certainty in management intent and an assurance that ESG factors are properly analysed and accounted for when making investment decisions.

Looking to the future

Algorithms typically use historic information to make an assessment of future returns (in this case the dependent variable). This is based on the levels or movements of one or more independent variables (for example gross domestic product growth, the exchange rate, or valuations). While the human active manager also tends to look at history very closely, making reasonable predictions about how the world may change over time can give him or her a competitive edge. Thematic investing is also a recent addition to the asset management space. Mega themes like globalisation, a more connected society, the impact of the resource scarcity, or rising obesity can be assessed and considered when choosing stocks, instruments, or markets which have exposure to such themes.

In the modern and evolving world of robotics it is important to note that investment is both an art and a science. This remains the preserve of human advisors since it is in the 'art' of investing that the robo approach may well be found lacking.

"Managers tend to talk a good talk and the ability to pick up on little cues – even something as silly as management 'tone' – can be quite telling."

Mark Appleton, SA Head of Multi Asset and Strategy

Mark Appleton is Head of Multi Asset and Strategy in South Africa at Ashburton Investments, and has a primary focus on tactical asset allocation. He has over 31 years of investment management experience, having managed the Unilever Pension Fund followed by a five-year stint as Chief Investment Officer for Marriott Asset Management. Mark is a Chartered Financial Analyst charterholder and has also earned a BCom degree in Economics from the University of the Witwatersrand and a postgraduate Diploma in Financial Planning from the University of the Free State.

Chantal Marx, Head of Research

Chantal is Head of Research at Ashburton Investments. She manages a team of analysts servicing the Ashburton Investment Process and providing content to FNB Securities and Ashburton Portfolio Management clients. Chantal helped launch the FNB Securities in-house research platform and plays an important role within the content and research teams at FirstRand. She holds a Bachelor of Science Degree (Mathematics and Economics), a Bachelor of Commerce Honours Degree (Investment Management) (cum laude), and a Masters Degree (Finance) (cum laude) all from the University of Johannesburg. She is also a Chartered Financial Analyst charterholder.

Coal: A fossil among fuels

RICHARD ROBINSON
Fund Manager,
Ashburton Investments.

Despite some headline-grabbing figures and improved efficiencies surrounding renewable energy options like solar, wind and wave power, the majority of the planet still produces its electricity by burning fossil fuels.

Forty-one percent of the world's electricity needs are still produced using coal, according to the World Coal Association, with China and the United States being by far the highest users. However, as detractors of fossil fuels are inclined to highlight, coal emits nearly double the amount of carbon as other fuels, as the table below indicates:

Fuel source	Carbon emissions
Coal (anthracite)	228.6
Coal (lignite)	215.4
Coal (subbituminous)	214.3
Coal (bituminous)	205.7
Diesel fuel & heating oil	161.3
Gasoline	157.2
Propane	139.0
Natural gas	117.0

Source: US Energy Information Administration

The switch to cleaner sources like natural gas or liquid petroleum gas is, therefore, desperately needed from an environmental and health point of view. Between 2030 and 2050, climate change is expected to cause approximately 250,000 additional deaths per year. The need for environmental action is further supported by the fact that, globally, the number of reported weather-related natural disasters has more than tripled since the 1960s. Every year, these disasters result in more than 60,000 deaths, mainly in developing countries.

The natural alternative

In the United States, natural gas is now the largest source of electrical generation, having overtaken coal in 2015. A handful of states in the United States north east are driving this shift to natural gas usage, which is relatively cheaper in comparison to coal and has a beneficial environmental impact.

A 2016 report by MJ Bradley & Associates, an environmental consulting firm in the United States, noted: “North-eastern states have been the vanguard of the changes that are transforming how electricity is produced and delivered in the United States. The region has already experienced a major shift in the mix of resources used to produce electricity, with natural gas and renewables displacing older coal- and oil-fired power plants.”

Broadcaster CNBC, quoting from a recent Energy Information Administration (EIA) report, notes that both New York and Connecticut’s coal generation capacity plummeted by 90% in the past decade.

Not surprisingly, the United States’ production of crude and natural gas liquids – such as propane, methane and ethane - is forecast, according to the EIA, to rise by 780,000 barrels a day in 2017 and by more than one million barrels a day in 2018. This is being supported, according to Reuters news agency, by the fact that United States exploration and production firms have hired 530 extra drilling rigs since the end of May 2016 - 431 to target oil and 99 to focus on gas.

All at sea

While onshore production is increasing, the biggest changes to the energy market will soon be seen floating in an ocean near you.

Most of the world’s large and easy-to-find gas reserves have been discovered. This means that in order to meet the world’s expected energy demand and growth in the liquefied natural gas (LNG) market, smaller and more remote supplies need to be found.

It may not be the most attractive name but FLNG (Floating Liquefied Natural Gas) plants have become the latest innovation in energy production. These nautical megastructures are a massive technological advance in increasing efficiency and productivity. Developed by Malaysian national company Petronas, FLNGs will produce, liquefy, store and transfer LNG directly to a container before it is shipped to market.

Imagine several square kilometres of production, processing and offloading facilities on one ship. Once full, it will weigh the same as six aircraft carriers.

Just a theory for many years, FLNG is now a reality and should be more cost-effective at accessing remote gas reserves than traditional delivery, since the requirements to pipe the gas to shore are no longer necessary. Due to this, FLNG also leaves a smaller environmental footprint.

FLNGs remove the need for expensive long-distance pipelines and onshore terminals. They also mean that each floating processing plant can move to a new location in the event that a field becomes depleted or it can be sold on, improving the lifetime of the facility.

Another technological advance which goes hand-in-hand with FLNG is Floating Storage Regasification Unit (FSRU). Where FLNG sources and liquefies the natural gas ready for transportation at source, FSRUs wait for the delivery before turning it back into gas, which is then transported via pipeline or truck to its final destination.

Electronic vehicles

Another area worth watching closely is familiar to us all and relates to how we transport ourselves, and our families, on a day-to-day basis. As more people move away from traditional petrol or diesel transport in favour of electronic vehicles, the cleanliness of the electricity and the methods used to create this power will increasingly come into question. Countries like China, India and Australia are still heavily dependent on coal for their electricity production, accounting for 69%, 60% and 73% of their total electricity

“In the United States, natural gas is now the largest source of electrical generation, having overtaken coal in 2015.”

production respectively. In South Africa a staggering 77% of the country's primary energy needs are still provided by coal. Operating an electric vehicle in certain areas of these countries would, therefore, be just as damaging to the environment as a traditional petrol or diesel engine.

Furthermore, with the current mix of energy sources used to produce electricity in China and India, an electric vehicle would only average 30 and 20 miles per gallon (50 to 30km per 3.7 litres) equivalent respectively. That said, as more nations switch their electricity production to cleaner energy sources like natural gas and nuclear, so too will electric vehicles become a far more environmentally friendly option.

Fuelling the future

While technology is helping to develop renewables on a cost-effective basis, there is still some way to go. In the meantime, developing and promoting the use of cleaner power is a must for the protection of future generations.

As media darling Elon Musk, founder of Tesla, once said: "We must move towards renewable energy. To argue that is to say that eventually we will run out of energy and die or civilisation will collapse." Slowly, but surely, the world is listening. Change is coming, and coal's grip on the world's power grids is gradually loosening, one innovation at a time.

Richard Robinson, Fund Manager

Richard Robinson is an Investment Manager at Ashburton Investments and is responsible for the Global Energy Fund. Richard joined Ashburton in 2000 and has 20 years' experience in the finance industry. Prior to his current role, he worked at Abbey National Stockbrokers and, most recently, was Lead Fund Manager on the Ashburton European Equity Fund where he was one of the architects for the move from a regional to a sectoral investment model before launching the Global Energy Fund.

Richard graduated from Cardiff University with a BA (Hons) and is a Member of the Securities Institute. He holds the Securities Institute Diploma, the Investment Management Certificate and the Securities Institute Diploma.

The Global Energy Fund was awarded the Investment Week Specialist Investment award last year October, in the Natural Resources category and the Lipper award for outstanding performance.

Global trends and disruptors

24 million people were living in a country not of their birth in 2015. The number has tripled in 50 years.

57% OF YOUTH

aged 12 to 18 would rather save money than spend it immediately.

71% OF GEN Z

(born between 1997 and 2003) expect at least their first business venture to fail but view failure as a learning opportunity.

86% OF CEOS

polled by PwC believe customers will demand more form their products and services in the next five years.

2017 GLOBAL

unemployment is expected to rise by 3.4 million to just over 201 million people, or 5.8% (versus 5.7% in 2016).

27.7% OF SA's

unemployed in the first quarter of 2017, the highest figure since September 2003.

4 BILLION GLOBALLY

more than half of the world's population – are currently still offline. About 75% of these people are in just 20 countries, including Nigeria, Ethiopia, Pakistan, Bangladesh and Tanzania.

80% OF ENERGY

globally still comes from fossil fuel

43% OF AFRICA'S

new power plants will come from renewable energy sources within the next 25 years. This is estimated to reach 48% for Asia and 63% for Latin America.

US$20 TRILLION

needed in investment to decarbonise the global electricity grid by 2035.

49% OF THE WORLD ECONOMY

could be affected by the adaptation of currently available automation technologies – equivalent to 1.1 billion employees and US$12.7 trillion in wages.

200 MILLION INDIAN CONSUMERS

were able to open bank accounts in 2015 alone thanks to digital technologies.

3.5% IS THE GLOBAL GROWTH

projection for 2017, rising to 3.6% in 2018. This is down from 4.33% in 2010 and 4.39% in 2000. But up from an all-time low of -1.7% in 2009, following the great recession.

25 BILLION DEVICES

sensors and chips around the world, will be handling over 50 trillion gigabytes of data within the next five years.

64% OF PEOPLE

from the US, UK, China, Germany and India feel technology will improve their job prospects.

US$7 TRILLION

is expected to be added to the global economy by 2050 thanks to the advent of the self-driving car, believes US tech giant Intel.

250,000 DATA SCIENTISTS

which the US alone will be short of in the next decade, as big data and analytics change the way we use information.

53% OF PEOPLE

polled by PwC think technological breakthroughs will transform the way people around the world work in the next five to 10 years.

US$11 TRILLION

McKinsey's estimate of the annual potential economic impact of the Internet of Things on the global economy, from 2025. Nearly 40% of that value could be generated in developing countries.

4 YEARS

The time it takes today's digital start-ups to reach a US$1 billion valuation. The World Economic Forum notes that it used to take Fortune 500 companies an average of 20 years to reach this mark.

OVER 10 MILLION

orders a day. That's how many people Chinese ride-sharing service Didi Chuxing was servicing in 2016. It's 250 million users completed 1.43 billion rides in 2015 alone.

20 - 30% WORKING AGE

population in the US and European Union are already engaged in independent work, estimates McKinsey.

30% of banking jobs will be replaced by automated bank services in the next 10 years.

India: From slumdog to startup

SIMON FINCH
Fund Manager,
Ashburton Investments.

Technology enabled India to side step a whole generation of structural development. Now the country is driving the revolution into the heart of its population through the use of electronic payment platforms. In the process a digital revolution is unfolding.

For years, India was the IT and call-centre capital of the world. A vast pool of English-speaking, technologically literate, inexpensive and highly-educated graduates led international companies such as BT, Sky and Microsoft to adopt business process outsourcing (BPO) strategies during the 2000s.

What started as a way for multinationals to exploit Indian skills to save money has now enabled the country to skip a whole generation of structural development and enter the digital age, bypassing traditional forms of infrastructure and communications.

Through technological advancement, the government has seized the opportunity to revolutionise the welfare system, through the collection of biometric data, the like and size of which is incomparable elsewhere globally. This lays the foundation for the digital revolution, which sprang to greater prominence following Prime Minister Narendra Modi's demonetisation announcement in November 2016. Cancelled currency drove people to use electronic payment platforms, while simultaneously having the significant effect of clamping down on illicit monies in the informal economy. With just 3% of Indians paying income tax, technology is now also being used as a tool to improve the fortunes of both state and central government treasuries.

Since 2012, more than one billion Indians have signed up for biometric identity controls under the Aadhaar scheme, which consequently allowed for the rapid provision of more than 270 million 'no-frills' bank accounts. The shift to digitisation and extending bank accounts across the country enables smarter targeted distribution of subsidies, supported by a reduction in leakages, an issue which has plagued the system.

"The entrepreneurial spirit, combined with embracing mobile in India, has led to resounding tech success stories."

Upwardly mobile

By skipping the introduction of traditional 'landline' technologies and moving directly to mobile phones, a massive uptake in users has been created by data, which is arguably the cheapest anywhere globally.

At a company level, the entrepreneurial spirit, combined with embracing mobile in India, has led to resounding tech success stories. Paytm, India's leading e-wallet provider, was founded in 2010 and benefitted hugely from 2016's demonetisation experiment. The company went from urbanite convenience to a farming and rural community necessity as cash transactions dried up overnight, essentially making online payments the method of payment. In just a few weeks, 20 million new users were added to their user base of 150 million, resulting in Paytm processing more transactions per day than India's combined credit and debit card users.

The shift from cash to digital transactions is as much about having the facilities, as it is about leading cultural changes, and companies such as Paytm, which witnessed a transformational pick up in users, are enabling this move.

Homeward bound

A University of California, Berkeley study found that Indian-born entrepreneurs had founded 7% of all Silicon Valley startups between 1980 and 1998. By 2012 this had risen to 14%. But now a growing number are returning to India.

The Silicon Valley of India, in Bangalore, is now home to more than 900 IT firms including global giants such as Oracle and Wipro, which operate alongside local innovators who have been facilitated by government initiatives since 1991.

The government has committed to connect every village in India to a broadband network and, through schemes such as 'Make in India' and 'Startup India', have actively encouraged India's home-grown leading electronic/tech players to develop products for the domestic market, rather than for export. Modi has also realised the role international technology firms can play in India's technological revolution and, in 2015, he met with Mark Zuckerberg of Facebook, among others, with a promise to encourage more than a billion Indians to join the internet.

Tech to taxes

Demonetisation was another stepping stone in the government's clampdown on corruption, with a particular focus on tax evasion. Those objecting to the methods used to suffocate corrupt cash transactions were those who had not taken heed of the government's warnings. Modi staked a significant piece of his political capital on this move which was well supported, even by those suffering directly. Corporate results for the latest quarter have demonstrated the resilience of the Indian economy, quietening those calling demonetisation a disaster.

Technology is now being used to ensure that subsidies are paid via direct benefits transfer rather than in physical form, which is giving consumers choice and helping government to cut 'leakage'. Estimates suggest a leakage of up to 40% in kerosene and cooking fuel (liquefied petroleum gas) subsidies was taking place. So, with approximately 2% of India's US$8.7 billion GDP being spent on energy subsidies, these changes translate into significant savings for the government.

"The shift to digitisation and extending bank accounts across the country enables smarter targeted distribution of subsidies, supported by a reduction in leakages."

Crest of a micro-wave

With more than 300 million smartphone users and a billion mobile internet subscribers, India already has a market for digital communications bigger than the entire United States.

The central government is driving increased tech adoption in the country through policy action, putting the building blocks in place to ensure the mass population actually uses the technology which ultimately benefits everybody.

Combined with a Prime Minister who is intent on driving the notoriously outsized and unmanageable 'informal' economy from the dark fringes of society, creating additional governmental income and tighter regulation, the country could soon be looking to outsource the business processes of its own technology giants.

Simon Finch, Fund Manager

Simon Finch is an Investment Manager at Ashburton Investments. He is responsible for managing the India Equity Opportunities Fund and assisting with the management of the Chindia Equity Fund. Simon joined Ashburton in 2007 and has 16 years' experience in the finance industry. Prior to joining Ashburton, he qualified as a Chartered Accountant in 2004, becoming a Fellow in 2014.

Simon has a BA (Hons) in Finance from the Nottingham Business School. He also holds the Investment Management Certificate.


Battery

Can an enabler be a disruptor?

PAUL CLARK
Fund Manager,
Ashburton Investments.

Across Africa, a stable and well-priced electricity supply goes hand-in-hand with creating an environment in which the benefits of a technology-lead industrial revolution can be fully reaped.

In most parts of the world, access to reliable and reasonably-priced electricity would be considered a standard part of a well-functioning economy. But for many Africans this has, historically, not been the case. If the continent is to benefit from what has been termed the fourth industrial revolution, a stable and reasonably-priced electricity supply will be central to enabling African economies to leapfrog some of the development paths which developed economies have taken in the past.

As African economies evolve, the services sector is growing as a proportion of these economies, and electricity is a non-negotiable ingredient for businesses in this sector to operate efficiently. Without a stable supply these businesses must juggle the logistics of having to generate electricity on site using expensive fuel. Ultimately this impacts on the bottom line and hamper economic growth.

Across the continent, governments are focused on improving the electricity generation deficit that has held back their economies and has been highly detrimental to the development of small- and medium-sized enterprises in the light manufacturing sector.

The East African region case study is of particular interest as it has experienced enormous growth in the electricity sector, especially from renewable resources. In Ethiopia, the Grand Ethiopian Renaissance Dam is expected to start producing electricity later this year. Over time this dam (the biggest hydro-electric scheme in Africa) will generate more than 6,000MW of power and increase Ethiopia's generating capacity four-fold. Ethiopia has announced further schemes and the government hopes to increase capacity to more than 17,000MW by 2020. This is probably too ambitious, but it is clear that the country will have the capacity to export some electricity to the region as its internal demand will not keep up with the increased supply.

Uganda is also growing its generating capacity significantly. By 2020, through existing projects, the country will more than double its generating capacity by adding 1,000MW to the existing 800MW. Most of this will be from renewable energy sources, such as hydroelectric or geothermal.

Staying in East Africa, Kenya's state-controlled and listed-generation company, Kengen, is also adding substantial geothermal generating capacity. As Kenya doubles its electricity capacity – expected to be roughly 3,200MW by 2020 - most of the new additions will be from geothermal energy, with some wind and hydroelectric. This will mean that more than 80% of Kenya's electricity will be generated via renewable resources with less reliability on its current small-scale hydroelectric schemes that are subject to interruptions caused by frequent droughts.

Improving the grid

Not only must electricity be produced but it also needs to be transmitted to specific locations based on demand and then distributed to individual users. This is an area of significant focus across Africa and there have been some innovative public-private partnerships set up to improve electricity distribution and connect more individuals and businesses to the grid. Umeme, a listed company in Uganda, is an example of a partnership that has worked well. By guaranteeing that the company will achieve a return on the investments it makes in the infrastructure, but ensuring that it achieves key metrics of loss reduction and collections, the tariff has actually reduced over time. Examples such as Umeme highlight that investments can more than be recovered through reduced losses and better collections, which results in more users being connected and paying less.

Technology is also playing its part and most new connections across the continent are using prepaid smart meters that significantly improve collection rates and reduce meter-reading costs for utility companies. Kenya's electricity transmission and distribution company is currently spending more than 40% of its revenue on improving the electricity grid. As this continues the system losses that are currently more than 20% should be reduced, thereby allowing for lower tariffs.

Affordability is vital

Not only must electricity be available and stable, it must also be affordable for the users and allow them to be globally competitive. Tariffs for industrial users in Uganda and Kenya in 2016 were US$0.11/kWh and US$0.12/kWh respectively and this compares favourably to the average US$0.11/kWh to industrial users in the Eurozone last year. Electricity prices in Ethiopia are currently subsidised and are below US$0.10/kWh. As the electricity transmission and distribution losses are reduced these should come down further still. The tariff for industrial users in Uganda for 2017 is already lower than in 2016, at US$0.10/kWh.

Most of the new generating capacity in East Africa also produces cheaper electricity (see graph, page 25). This improved mix will also result in lower average production costs with further benefits to tariffs.

"The East African region case study is of particular interest as it has experienced enormous growth in the electricity sector, especially from renewable resources."

Sustainable supply

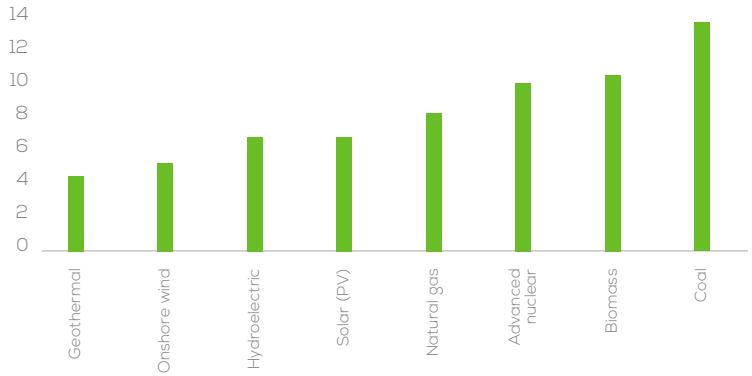
Ultimately, however, a sound electricity grid must be sustainable in the long term. To assess this, the World Economic Forum analyses energy systems and publishes the Energy Architecture Performance Index (EAPI) for each country. This allows governments and observers to track the movement towards more sustainable, affordable and secure energy systems around the world. When it comes to electricity, the measurements focus on the price industries have to pay as well as the level (electrification rate) and quality of access to electricity. To measure the sustainability of energy supply, the ratio of low carbon fuels to the total mix is a key input. As we have seen across most of East Africa, there is increased generation of renewable (low carbon) electricity. Kenya has moved four positions up the ranking table of EAPI since 2009, an indication of improved electricity supply and access as well the nature of the generation.

Although for developed countries electricity has never been regarded as a disruptor, for many African businesses, which have suffered expensive and unreliable electricity supply, this improved position can be a game changer. What is particularly noteworthy is that these improvements can be achieved without an increased cost to the consumer, so long as the correct policies and partnerships are put in place and supported by government will and private-sector participation.

The accompanying graph shows the US Energy Information Agency's (EIA) estimates of the levelised cost for producing electricity using different technologies. This is the present value of the unit cost of electricity taken over the lifespan of the generating asset. It represents the per-kilowatt-hour cost (in discounted real US dollars) of building and operating a generating plant over an assumed financial life and duty cycle.

RENEWABLES COME INTO THEIR OWN

Levelised costs of electricity generation in the United States for plants entering service in 2022 in USc/MWh



Source: US Energy Information Agency, Levelised Cost and Levelised Avoided Cost of New Generation Resources in the Annual Energy Outlook 2017, April 2017

This measure is particularly important when comparing the cost of renewable energy to other technologies since, although the ongoing generating costs are very low, the initial capital outlay is substantial (building a dam for example).

This assessment shows that many renewable energy options are now considerably cheaper than those using fossil fuels, with geothermal proving the least expensive.

"Many renewable energy options are now considerably cheaper than those using fossil fuels, with geothermal proving the least expensive."

Paul Clark, Fund Manager

Paul is a Fund Manager at Ashburton Investments. He joined Ashburton Investments in 2012 to set up and manage an Africa Fund for the FirstRand Group. Paul started his investment career with Standard Corporate and Merchant Bank's Asset Management before moving to HSBC Equities South Africa. He then joined the African Alliance Group in 2004 as Head of Research and was instrumental in the launch of the Africa Pioneer Fund in June 2007.

Paul holds a B.Eng degree in Chemical Engineering from the University of Stellenbosch as well as a BCom degree in Accounting from the University of the Witwatersrand. Paul is a Chartered Financial Analyst (CFA) charterholder.

A place for private debt in alternative asset allocations

CORNELEO KEEVY
Head of Credit Risk Management,
Ashburton Investments.

Investors have traditionally considered equities, government bonds and cash as the only instruments through which returns can be generated. This approach has steadily changed over the years, with increased allocations being made to 'alternative' asset classes.

Alternative assets are usually defined as any non-traditional asset or strategy used to generate investment returns – and, as one can expect, this varies significantly from country to country, depending on the local investor.

Alternative assets typically behave differently to equity, bonds and cash and, by doing so, these assets and strategies have the ability to provide a portfolio with increased diversification, lower correlation and volatility, and increased returns. In South Africa, alternative assets are generally agreed to include private equity, hedge funds, infrastructure, commodities and private debt, among others.

Private debt also has a role to play in alternative asset allocations, particularly in traditional fixed-income portfolios.

Traditionally, investors have used fixed-income portfolios as part of their balanced portfolios to receive a steady income stream at lower levels of risk when compared with equity.

At this point in time, South African investors are being faced with increasing uncertainty over both the short and medium term. This has been primarily caused by the recent cabinet reshuffle and the downgrade of South Africa's sovereign credit rating to below investment grade by Moody's, Standard & Poor's (S&P) and Fitch.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20
500
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"Traditionally, investors have used fixed-income portfolios as part of their balanced portfolios to receive a steady income stream at lower levels of risk when compared with equity."

This uncertainty has resulted in a decreased risk tolerance from investors and an additional demand for fixed-income exposure.

In spite of these events, yields on South African government bonds have recovered to levels experienced prior to the cabinet reshuffle and have remained surprisingly resilient. The relative strength in bond yields has been driven primarily by global investors who have a strong appetite for emerging market assets in their global search for yield. This almost indiscriminate buying has benefitted South Africa as part of the emerging market grouping, and South African bonds continue to form part of many global investment indices.

Almost counterintuitively, this has resulted in further local uncertainty, as there is a concern that the yields on government bonds could deteriorate in the event of a change in global sentiment, which would reverse the strong international inflows the market has experienced in the recent past. If this does occur, then investors in fixed-income portfolios - which have traditionally invested in government bonds - may incur capital losses.

Since the global financial crisis of 2007-2008, South Africa, along with other world governments, has taken advantage of the global search for yield and low domestic interest rates to extend the maturities of its borrowings. Between January 2008 and April 2017, the average duration of the South African All Bond Composite Index (ALBI) increased from five years to more than seven years. In addition, the average yield of the ALBI has reduced from around 10% to in the region of 9%. This means exposure to traditional fixed-income portfolios is more sensitive to changes in bond yields and greater volatility, while providing investors with lower returns.

In order to improve investment returns and diversify away from exposure to government bonds, portfolio managers have started including credit in their fixed-income portfolios. Initially, credit exposure was taken against the large South African banks (Absa, FirstRand, Investec, Nedbank and Standard Bank) and state-owned companies (SOCs). However, as demand for credit increased, more corporates began issuing listed bonds, making it possible for portfolio managers to continue increasing exposure to listed credit.

Currently there are in excess of 90 different entities which have issued listed bonds in South Africa. Although there is a growing list of bond issuers, the South African listed credit universe remains concentrated in the SOC and financial space, with each accounting for roughly 40% of the total. There are currently 46 corporates with listed bonds, accounting for around 15%, with the balance being made up by securitisations and municipalities.

Demand outstripping supply

The nature of the current South African listed credit universe makes it challenging for portfolio managers to introduce sufficient diversification into their fixed-income portfolio credit allocations. Portfolio managers typically have to wait for public bond auctions to deploy funds into new credit instruments. This results in portfolio managers having to take larger exposures to fewer issuers, or having to invest in cash or government bonds until such time as additional opportunities for the deployment of funds arise.

However, the current state of the South African listed credit market should not be seen as a proxy for the overall credit market in the country. In step with Europe, credit markets in South Africa have been dominated by the large banks, accounting for about 80% of all corporate credit originated. In addition, it is estimated that the banks have exposure to more than 400 corporate borrowers in aggregate.

Bank-originated corporate credit is referred to as private debt.

It is clear that, traditionally, South African fixed-income investors have not been able to access the vast majority of the credit available in the South African market. So the inclusion of private debt in fixed-income portfolios holds a number of benefits, including the ability to introduce meaningful diversification into credit portfolios. In addition, portfolio managers have a larger universe to access, enabling them to avoid or target specific sectors in the economy which may be under strain, or simply to be more selective within a sector. Portfolio managers also gain the ability to access a wider spectrum of credit return profiles including: infrastructure debt, leverage finance, trade finance, and a broader universe of debt to large South African corporates.

Despite the historic exclusion of private debt from fixed-income portfolios, the current legislation for CISCA (Collective Investment Scheme Act)-governed funds (Board Notice 90) does allow for its inclusion. Private debt issued by an unlisted company is limited to 5% per issuer and 10% in aggregate, while portfolios are able to invest up to 10% in private debt issued by listed corporates up to 100% in aggregate across the fund.

Addressing concerns

The major concern with including private debt in fixed-income portfolios relates to the illiquid nature of the assets. Portfolio managers are able to address these concerns by limiting allocations, so the inclusion places limited strain on the ability to meet liquidity requirements. In addition, a large number of private debt instruments are amortising by nature, resulting in cash being returned to investors over the term of the loan.

In the future, fund managers who can combine a skills-set covering traditional fixed-income strategies with the ability to selectively access both listed credit and private debt will be in a position to provide investors with more diversified sources of return within less volatile portfolios.

Ashburton Investments is in a unique position to do this – having both the necessary skills alongside the ability to access an unparalleled pool of unlisted corporate credit. The end result is our ability to provide our clients with access to safer, more stable and higher-performing portfolios than would generally be possible.

Corneleo Keevy, Head of Credit Risk Management

Corneleo is Head of Credit Risk Management at Ashburton Investments and has over seven years' experience in the fixed-income and credit markets. Corneleo joined RMB in 2010 as a credit analyst in the Resource Finance team of the Investment Banking Division, where he analysed project finance transactions in the mining and oil and gas industries across the African continent. He joined Ashburton in 2014.

Corneleo has a B.Acc (Honours) in Accounting from the University of Stellenbosch. He qualified as a Chartered Accountant in 2007.

Ideas in action

MURRAY ANDERSON
Head of Retail and Fund Management,
Ashburton Investments.

The most exciting aspect of the disruptions we've analysed and unpacked in these pages is that they are globally pervasive. You can be in New York, Delhi, Beijing or Johannesburg and the impact of innovations like blockchain, the Internet of Things, robotics, digital and mobile will be as keenly felt as they might be in Kigali or Mexico City.

All of the information we share in each issue of Global Perspectives is based on intelligent research which we as fund managers undertake on an ongoing basis. The question is what do we do with this information about megatrends, fads and disruptors, and how does that benefit you and your wealth journey?

At Ashburton Investments our experts think deeply and critically about the world, and we apply the same level of analysis to the funds we manage. We put this research and forward thinking into play when we populate our range of funds and, where trends change, we adapt. So our funds are, so to speak, our megatrends calling card: each and every offering is a touchpoint in our forward thinking.

Our fund range, in which we populate our ideas and insights, centres around both multi-asset funds as well as a range of specialist equity funds. There are countless permutations in which these funds find an ideal fit in your portfolio, whether you are an institutional investor or an individual investor.

UK- or Europe-based investors, for example, may find value in South Africa-focused funds or in our emerging market offerings if they are keen to gain exposure beyond developed markets. Similarly, South African investors can externalise their assets by utilising our range of offshore funds, which are ideal for individuals looking to diversify beyond the local market in order to access global companies. We find that the Ashburton Global Leaders Fund is a good fit for these investors.

Like the global world in which we live and operate, our funds are accessible for international investors around the world utilising funds such as our Ashburton Global Growth Fund. And our focus extends well beyond South African borders to include the likes of the Ashburton Africa Equity Opportunities Fund, which provides exposure to the continent, but through a safe and solid pair of hands. Similarly our Ashburton Global Energy Fund, our Ashburton India Equity Opportunities Fund and our award-winning Ashburton Chindia Equity Fund highlight the importance of applying crucial thinking to the specialist equity investment options we offer our clients.

At Ashburton Investments we believe insights and research don't just make good talking points, they are the motivators to action. And in a rapidly evolving global world, they are essential differentiators.

For more information on our investment offering please speak to our Ashburton business development managers or your financial advisors for more detail on our funds, or visit us at wwww.ashburtoninvestments.com

Fund name	1 year	2 years	3 years	5 years
SA Multi Asset – High Equity				
Ashburton Balanced Fund	3.66	6.16	6.50	N/A
Ashburton Multi Manager Prudential Flexible Fund	4.81	6.28	7.06	10.84
Benchmark: Peer group average (121 funds)	3.86	5.69	5.88	9.82
SA Multi Asset – Low Equity				
Ashburton Targeted Return Fund	3.62	6.01	6.30	8.60
Benchmark: CPI + 3.5	8.04	8.79	8.68	9.15
SA Multi Asset – Income				
Ashburton Multi Manager Income Fund	7.72	8.00	7.62	7.45
Benchmark: 110 of STEFI 3 month deposit	8.02	7.70	7.34	6.69
Global Multi Asset - Flexible				
Ashburton Global Flexible Fund (ZAR)	-7.41	2.52	7.53	N/A
Benchmark: 60 MSCI AC Index, 40 Citi World Bond Index	-3.02	8.25	10.95	N/A
International Multi Asset Fund				
Ashburton Asset Management Fund (Dollar)	1.86	1.72	0.54	2.73
Benchmark: US CPI +3	5.72	5.29	5.04	5.45
Ashburton Asset Management Fund (Euro)	-1.78	-0.28	0.51	2.38
Benchmark: Eurostat CPI + 3	3.60	3.38	3.31	3.64
Ashburton Asset Management Fund (Sterling)	3.14	3.34	2.20	3.70
Benchmark: UK CPI +3	5.08	4.32	3.93	4.43
Ashburton Global Growth Fund (GBP hedged)	4.62	3.42	N/A	N/A
Benchmark: EAA Fund GBP Moderately Adventurous Allocation	10.78	11.74	8.03	9.27
Ashburton Global Growth Fund (USD)	5.34	3.91	N/A	N/A
Benchmark: EAA Fund USD Aggressive Allocation	9.77	6.73	2.30	5.56
SA Fixed Income – Variable Term				
Ashburton Multi Manager Bond Fund	9.86	7.07	6.21	6.25
Benchmark: BEASSA All Bond Index	10.20	7.29	6.67	6.31
Ashburton Inflation ETF	-0.39	3.11	3.73	5.57
Benchmark: GILBx Total Return Index	-0.02	3.55	4.19	6.04
Ashburton GOVI Tracker B1	9.84	N/A	N/A	N/A
Benchmark: Beassa GOVI TR ZAR	10.31	7.56	6.73	6.25
SA Fixed Income – Short Term				
Ashburton SA Income Fund	9.21	8.51	7.83	7.04
Benchmark: STEFI Composite Index	7.63	7.33	7.01	6.36
SA Fixed Income – Money Market				
Ashburton Money Market Fund	7.86	7.57	7.17	6.40
Benchmark: STEFI 3 month deposit	7.24	6.97	6.64	6.06
Emerging Market - Fixed Income				
Ashburton India Fixed Income Opportunities Fund	11.51	9.72	7.17	N/A
SA Real Estate – General				
Ashburton Multi Manager Property Fund	8.56	6.84	13.95	12.43
Benchmark: FTSE/JSE Listed Property Index	9.40	6.40	13.02	11.65

Fund name	1 year	2 years	3 years	5 years
Ashburton Property Tracker B1	8.91	N/A	N/A	N/A
Benchmark: FTSE/JSE SA Listed Property TR ZAR	9.40	6.40	13.02	11.65
SA Equity – General				
Ashburton Equity B1	5.38	6.78	5.04	12.24
Ashburton Multi Manager Equity Fund	4.27	5.84	5.22	11.73
Benchmark: FTSE/JSE All Share Index (TR)	10.15	9.38	6.56	13.10
Global Equity – General				
Ashburton Global Leaders Equity Fund	10.23	7.53	5.10	N/A
Benchmark: MSCI ACWI GR USD	17.75	12.70	6.16	11.06
Ashburton Global Energy Fund	-20.19	-2.88	-13.50	N/A
Benchmark: MSCI World/Energy PR USD	-2.93	-0.42	-13.70	-4.24
Emerging Market Equity – General				
Ashburton Africa Equity Opportunities Fund	18.69	-2.44	-13.44	N/A
Benchmark: MSCI EFM Africa Ex ZAF PR USD	14.23	0.34	-11.26	-1.72
Ashburton India Equity Opportunities Fund	16.21	11.96	9.72	N/A
Benchmark: MSCI India GR USD	17.46	12.43	5.29	10.34
Ashburton Chindia Equity Fund	26.85	16.52	10.47	15.73
Benchmark: MSCI EM GR USD	24.99	18.45	2.75	5.67
South African Equity Large Cap				
Ashburton Top40 ETF	10.45	8.81	5.79	12.83
Benchmark: FTSE/JSE Top 40 TR ZAR	10.91	9.13	6.06	13.13
South African Equity Mid/Small Cap				
Ashburton MidCap ETF	2.51	8.73	7.25	10.93
Benchmark: FTSE/JSE Mid Cap TR ZAR	3.37	9.41	7.94	11.81
Hedge Funds				
Ashburton Dynamic Equity Hedge Fund	-21.02	-1.10	N/A	N/A
Benchmark: STeFi plus 2%	9.63	9.33	N/A	N/A
Ashburton Select Hedge Fund	N/A	N/A	N/A	N/A
Benchmark: STeFI Composite ZAR	7.63	7.33	7.01	6.36
Global Equity General				
Ashburton Global 1200 SA Tracker B1	2.29	N/A	N/A	N/A
Benchmark: S&P Global 1200 (WM) (NTR) ZAR Ashburton	3.16	N/A	N/A	N/A
South African Equity General				
Ashburton Low Beta SA Composite Track B1	3.22	N/A	N/A	N/A
Benchmark: S&P Low Beta South Africa Composite (ZAR) NTR	4.00	N/A	N/A	N/A
Ashburton Momentum SA Tracker B1	-6.45	N/A	N/A	N/A
Benchmark: S&P Momentum South Africa Index (South African Rand) Net Total Return	-5.99	N/A	N/A	N/A
Ashburton Enhanced Value SA Tracker B1	24.27	N/A	N/A	N/A
S&P Enhanced Value South Africa Composite Index (ZAR) Net Total Return	25.02	32.25	12.26	14.72

Source: Ashburton Investments
The above is purely for illustrative purposes. Past performance is not necessarily an indication of future performance.

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