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1ST QUARTER 2020

THE INNOVATION EDITION

FINDING THE OPPORTUNITIES IN INNOVATION

BANKING ON INNOVATION

SUSTAINABLE SUSTENANCE: **THE FUTURE OF FOOD**

DRIVING INNOVATION THROUGH **ESG SOLUTIONS**

INNOVATION IN **FINANCIAL PLANNING**

HINDSIGHT IS **2020 VISION**

OLDMUTUAL

WEALTH

TABLE OF CONTENTS

INTRODUCTION

CHRIS POTGIETER, MD: OLD MUTUAL WEALTH TRUST COMPANY (PRIVATE CLIENT SECURITIES |TREASURY AND ADVISORY SERVICES | FIDUCIARY)

This year, Scientific American, a popular US magazine covering groundbreaking events in science and technology, celebrates its 175th year. This publication has become renowned for pinpointing emerging trends and has featured some of the world's most prolific discoveries and innovations since its inception. Old Mutual also celebrates its 175th year, having been established in 1845 as South Africa's first mutual life insurance company. Over the years, our group has played a pivotal role in shaping the local life insurance and broader financial services industry, and we are focused on innovating to continue meeting the demands of our clients well into the future.

It is often said that we live in an era of innovation, but the reality is that innovation is nothing new. Consider the inventions of Thomas Edison (often considered the Father of Innovation), Alexander Graham Bell, Marie Curie and Henry Ford, to name but a few. While all of their discoveries might seem quite mainstream now, they were perceived as highly innovative and disruptive back then. So while the concept of innovation has been around for aeons, what is different now is that the pace of change is increasing rapidly. This is largely because we live in an interconnected world where thoughts and ideas can be shared, enhanced and implemented relatively easily and efficiently.

These are indeed exciting times as we are witnessing unprecedented transformations across industries, which are leading to new opportunities and challenges – and of course, higher expectations. As technologies such as connected intelligence and the Internet of Things become more mainstream, businesses that do not effectively adapt face the risk of falling behind or even becoming obsolete. No industry is immune to the current tide of technology-driven disruption and our feature article outlines a few key developments that have the potential to disrupt and transform existing industries over the next decade.

We then delve deeper into the banking industry and discuss how the landscape is changing following the emergence of challenger banks, and observe how traditional banks are adapting to remain relevant and achieve new levels of growth. Even farming, one of the world's oldest industries, is undergoing significant transformation driven by evolving consumption demands. By leveraging science and technology, we are increasingly moving towards a healthier, more sustainable world and we highlight some of the most innovative technologies in our article on food innovation.

In the investment arena, environmental, social and governance (ESG) considerations have been on the agenda for a while as it has become abundantly clear that embedding ESG factors into capital markets makes good business sense and leads to more sustainable markets and better outcomes for societies and our planet. We unpack what this means at Old Mutual and highlight how we are driving innovation through our ESG solutions. We then conclude our Innovation Edition with an interesting piece on how recent enhancements to our Integrated Wealth Planning tool have taken financial planning to the next level. This is a powerful demonstration of how we at Old Mutual strive to influence and lead innovation for the benefit of our clients.

I trust this edition will energise you and give you a sense of the exciting opportunities that lie ahead of us in the next decade.

All the best,
Chris

FINDING THE OPPORTUNITIES IN INNOVATION

CHRIS POTGIETER, MD: OLD MUTUAL WEALTH TRUST COMPANY

(PRIVATE CLIENT SECURITIES |TREASURY AND ADVISORY SERVICES | FIDUCIARY)

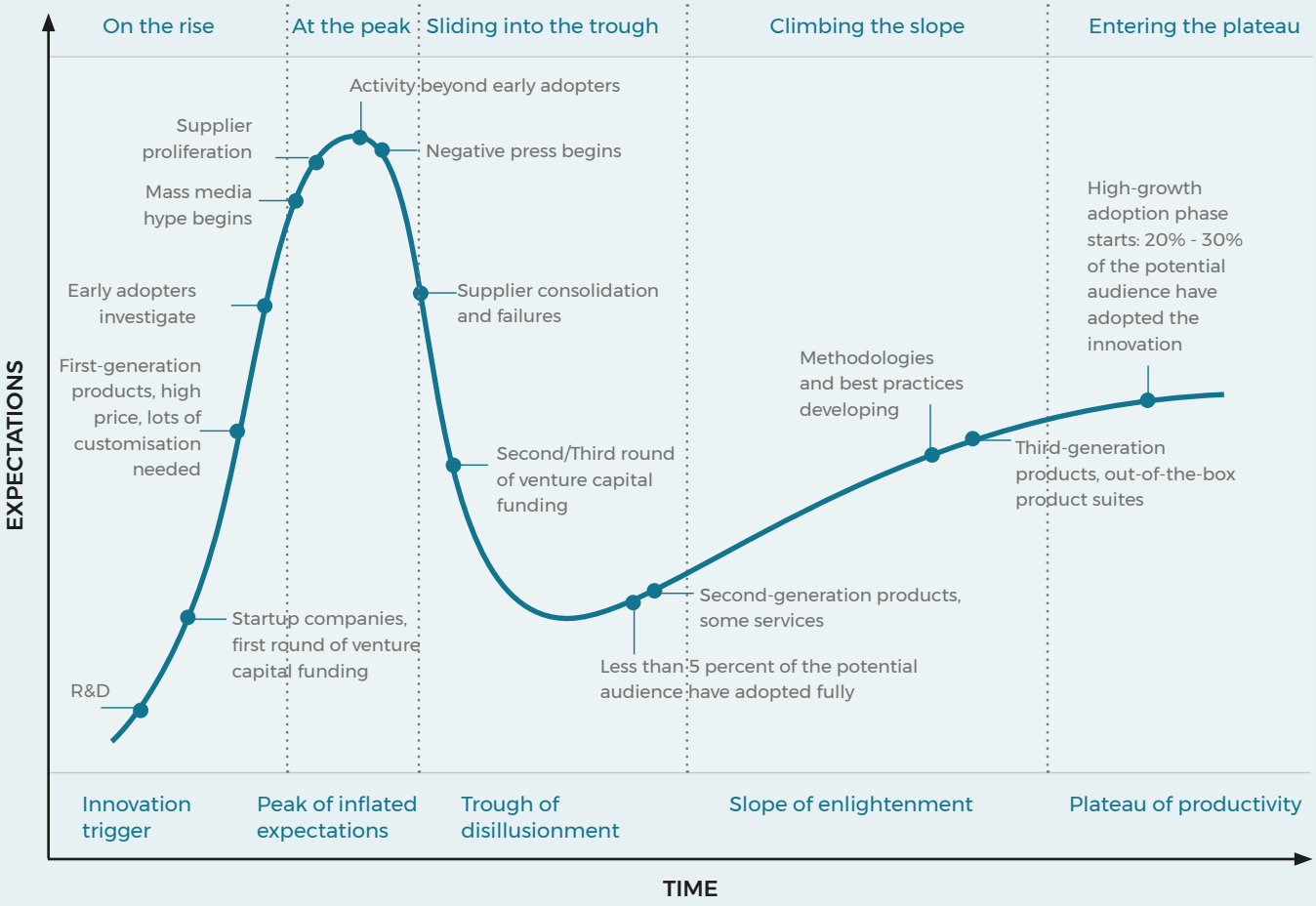
It is easy to forget that just a decade ago, when we wanted to entertain ourselves at home, we often fumbled through predetermined programming on satellite television, hoping to find something that piqued our interest. This shotgun approach often led to desperation or exasperation and forced us into the car to visit the nearest video rental store. Today we are spoilt for choice and, at a relatively low cost, can watch whatever we want, whenever we want on whatever device we prefer. Entertainment has certainly come a long way.

Shortly after Netflix launched its streaming service in 2007, Jim Keyes – then CEO of Blockbuster Video – commented: "Neither Redbox nor Netflix are even on the radar screen in terms of competition." Blockbuster, which at its peak employed well over 80 000 people worldwide, filed for bankruptcy a mere three years later. Netflix, on the other hand, grew its subscriber base to over 150 million in the 10 years after 2007. Today, Netflix, itself faces competition from on-demand streaming services offered by Amazon, Disney and Apple, and other forms of online entertainment such as short-form videos on social media platforms, e-sports and YouTube, to name but a few.

THE ADOPTION AND GROWTH CYCLE

Change brought about by new technologies is often stealthy and slow at first. Early adopters of novel technologies become advocates to a wider audience – either directly or indirectly because of the edge they gained through the new technologies. This leads to rapid growth and economies of scale and competition that begets even more growth as the technologies become cheaper and more accessible. Ultimately, as growth levels off, another disruptive technology challenges the status quo and leads to the next cycle of adoption and growth. In this process of creative destruction, whole industries (and jobs) are transformed or displaced.

GARTER MODEL OF TECHNOLOGY ADOPTION



Technologies tend to develop in separate paths until they intersect, often in unexpected ways. At the intersection, they reinforce and enable one another in a way that leads to accelerated development and growth in applications. Consider how Netflix was able to grow its services and subscriber base so rapidly. While content is critical, it is not the only factor, as the physical infrastructure created during the tech boom of the early 2000s effectively enabled streaming – from the fibre networks that connect server farms to households to the processors and memory chips embedded in mobile and smart devices.

It is often said that we live in an age of innovation, but innovation itself is not new and has been a constant feature of human development for centuries. As investors, the greatest opportunities lie in identifying industries and companies with sustainable and profitable growth paths. In this article, we outline a few key areas of innovation that we believe have the potential to disrupt existing industries over the next decade, leading to new demand curves as industries and consumers shift to capture the benefits offered by these innovations.

1. CONNECTED INTELLIGENCE

Mobile phones have changed our lives in profound ways. With the computing power of room-sized computers of the 1970s in the palm of our hands, we are now able to communicate, calculate, navigate, organise our lives, monitor our health, access news and information, transact, capture perfect images, educate and entertain ourselves. Yet, it is not just the hardware that enables this. It is the connectivity to the internet via an extensive global network infrastructure and the application software connected to the cloud. Even more important is the fact that everyone is participating and making useful connections possible. This is called the network effect and its premise is simple – the more people and services that are connected to a network, the more valuable that network becomes to every participant. Google Maps is a form of connected intelligence as the navigation guidance provided is enabled by a combination of accurate maps and real-time geo-location and intelligence collected from all its users.

THE RISE OF THE MACHINES

Google Maps can also be considered as a form of artificial intelligence (AI), which is often overhyped and, consequently, seen as a serious threat to human relevance. However, AI has a long way to go before it can replace human input on a large-scale basis. In the meantime, we will continue to reap the benefits of incremental development through applications that improve our lives. Consider AI that can identify and anticipate potential threats, facilitate cross-cultural communication and interaction, improve education outcomes, perform mundane or repetitive tasks with high levels of acuity, and help us make more informed decisions or sharpen our skills and memory. This is not pie-in-the-sky and companies such as Alphabet (which owns Google), Facebook (which owns a number of social media platforms), Microsoft and Amazon are all investing significantly in AI to solve problems and improve lives. By some accounts, China may already be leading the way as far as certain applications of AI are concerned – surveillance and threat identification being prime examples. AI is a good example of a new technology whose impact

may be overestimated over the short term but underestimated over the long term.

Various devices are increasingly being connected to intelligent networks – the so-called internet of things (IoT). These connections are enabling many of the aforementioned human applications as the "eyes and ears". Still, many more of these connected devices will operate autonomously – silently monitoring and intervening as necessary to keep processes running optimally. Honeywell, one of our portfolio companies, has already brought such applications to market and continues to invest heavily in the IoT. As an example, the company has developed and installed voice-directed systems in Amazon's warehouses that accurately guide employees to goods, helping Amazon reduce costs and shorten the time between orders coming in and packages going out. While Amazon is an important customer, it is not the only one as around two-thirds of the top 50 US retailers use Honeywell's Intelligrated technology.

The impending fifth-generation cellular wireless standard (5G) promises to be an important enabling technology to AI, the IoT and other infant-stage technologies. The higher frequency band utilised by 5G will allow much faster data transfer speeds and greater capacity for connected devices. Currently, there are an estimated four billion people connected to the internet and more than double that in number of devices. Some estimates indicate that up to 75 billion mobile phones and other devices will be connected by 2025 – a growth rate of well over 30% per year. As wireless carriers invest in the new 5G infrastructure as expected (China has made it a top priority and the US is following suit), companies such as Apple, with about 900 million handsets in circulation, will be able to tap into a new replacement cycle for handsets as 5G-enabled phones become the standard. However, the greater revenue potential sits with new services that will be offered over the new network infrastructure.

2. MOBILITY

Thanks to mobile devices, there is no longer any need to visit a bank, travel agent or a physical store. Transactions can be done online, anywhere and at any time. Orders are increasingly fulfilled by robotic assistants – both physical and virtual. The 5G technology already mentioned will enable better remote communication capability, which will impact areas such as office work, sales and education. While our need for mobility has reduced, it will not be completely eliminated and our means of transportation is increasingly becoming a service as opposed to a personal asset. Consider the likes of Uber and Lyft, who specialise in transport as a service.

These shifts have obvious negative implications for the traditional companies in manufacturing, financial services and energy. Still, new opportunities are being created as the current modes of mobility decline. New modes of mobility involve many technologies – from AI to alternative (green) energy. A stark example of the potential disruption is seen in the military where unmanned aerial vehicles (UAVs) or drones are steadily replacing manned aircraft. The capabilities of these UAVs and the operational cost advantage exceed traditional aircraft by a significant margin. While air defence still involves human intervention, the writing is on the wall. It does not take much imagination to extrapolate these military technologies into the commercial sphere. Tesla is the poster child for electric vehicles (EVs) and Alphabet is seen in a similar light for autonomous vehicles (AVs). These technologies are coming together at a rapid rate and unit costs are declining. Most traditional vehicle manufacturers are now firmly committed to producing EVs and funding developments in AVs. Significant progress is being made to increase the energy densities

of batteries, which is seen as one of the biggest hurdles towards electrification of the transport system. China is setting an example with the increased electrification of their transport system and their investment into battery technologies and manufacturing. If regulatory approval of AVs is granted, we could see a rapid shift towards on-demand autonomous EVs owned by fleets, not individuals. Individual vehicle ownership, especially of internal combustion engine vehicles, will then enter a vicious cycle of increasing costs, decreasing convenience and diminishing quality of service. While causing pain to traditional industries over the short term, the long-term benefits to society and the planet are worth it.

3. MATERIALS SCIENCE

In the world of materials science, it seems that the closer we look and the smaller we go, the bigger the world of possibilities becomes. Furthermore, nature presents riches open to discovery and application in human life. For example, silk has been used for aeons in the manufacture of garments and parachutes. The first production of the material in China goes back 6000 years. While cotton mostly replaced silk during the Industrial Revolution, followed by nylon in the 20th century, silk fibres are now receiving renewed attention as structurally superior materials. In healthcare, silk's strength, flexibility, conductivity, bio-compatibility and bio-degradability make it a contender for more effective drug delivery, wound dressings, bone reinforcement and even replacing tendons. Industrial applications of silk include replacing Kevlar in the weave in bullet-proof vests and steel in thin gauge high-tensile wires and sheaths. While viscose ryon has been used as an inexpensive artificial replacement for natural silk in garments, the other combined qualities of natural silk have not been replicated by chemistry. Enter the world of nanomaterials.

The manufacture of nanomaterials such as graphene happens at the atomic scale whereas in chemistry it occurs at the larger molecular scale. This allows for the creation of materials with novel characteristics. While graphene surpasses the physical qualities of natural silk in all respects, except aesthetics, even this aspect is a target for innovation. The production methods and applications of nanomaterials are contributing to accelerated progress in other areas of technology. Thanks to these advancements, and better energy management software for larger battery installations, lithium-ion batteries now have far greater energy densities (amount of energy stored per unit mass) and faster charging cycles than only a few years ago. Yet, the potential for even greater energy densities and longer battery life exists when nanomaterials find their way directly to battery cathodes and/or anodes. This will have major and positive implications for alternative energy sources and electrification of transportation.

As our ability to manipulate a vast array of materials at the atomic and molecular level continues to improve, production will become easier and more cost effective, spurring new applications across many industries in the next decade.

In the world of materials science, it seems that the closer we look and the smaller we go, the bigger the world of possibilities becomes.

4. HEALTHCARE

Founded by two inspired brothers in 1886, Johnson & Johnson's first products were a line of ready-to-use surgical dressings. The company has evolved into one of the world's largest with a vast healthcare and consumer product range. It now employs 135 000 people who serve more than one billion patients each day. Annual revenues are now over US$80 billion, but what is more impressive is that 25% of revenue is generated by products launched within the last five years. Such is the pace of innovation and competition in healthcare, that companies have to invest significantly in research and development (R&D) on a continuous basis to remain relevant. Johnson & Johnson now spends over US$10 billion per annum on R&D. The other healthcare company within the PCS Global Equity Portfolio, Medtronic, has a similarly impressive track record of innovation.

The combination of a large ageing population that is straining the healthcare system and a growing younger generation that will demand better and more cost-effective healthcare means that the industry is attracting the interest of companies from other sectors. Notwithstanding its significant spend in R&D, healthcare is an industry that is ripe for disruption.

The advances in sensing technology such as miniaturisation, integration with smart mobile devices and intelligent diagnostic software mean that we already wear a "doctor" on our wrist. Apple, Fitbit and others are advancing these technologies at a rapid rate. It is a sensible shift to prevention rather than cure.

When the human genome was first sequenced in 2000, the path was created for innovations that would prove to be truly disruptive. Companies such as Danaher, Illumina, Thermo Fisher Scientific and others are continuing to improve on the cost, speed and accuracy of gene sequencing technologies. The cost of gene sequencing has come down from US$100 million in 2001 to US$1 000 today and can be performed at home through a mail-order test kit. Technologies such as CRISPR Cas-9 were developed to edit and modify genes – the next logical scientific step. Again, the accuracy and accessibility of this technology are improving while costs fall rapidly. However, the advancements in gene sequencing, editing and modification are controversial and the acceptance of these technologies is slow. Nevertheless, gene editing and modifying technologies carry the promise of fundamentally altering human health and wellness outcomes, and given the pressures on the current healthcare system, it is probably a matter of when, not if, these technologies become mainstream.

The cost of gene sequencing has come down from US$100 million in 2001 to US$1 000 today and can be performed at home through a mail-order test kit.

5. FOOD TECHNOLOGY

When Neil Armstrong set foot on the moon just over 50 years ago, the population on earth was less than half of the current 7.7 billion. The animal population, however, was double what it is today and this decline is largely as a result of our food system.

Currently, we rely on nine plants for two-thirds of food production; 40% of arable land has been depleted because we have compromised natural regeneration to restore soil health and diversity in our fields; and the United Nations estimates that 1.3 billion tons of food are lost or wasted annually, equating to roughly one-third of global food production. Fertiliser and pesticide run-off has contaminated rivers and oceans. Freshwater use for food production stands at 70% of available resources. Water use has tripled since the 1950s and demand continues to soar. Under current trends, demand for water will exceed supply by 40% in 2030.

The global population is set to increase by one billion over the next decade and reach nearly 10 billion by 2050, while calorie intake per person is set to increase as middle classes expand and starvation is addressed (today between 800 million and 1 billion people are starving). Food production will have to increase by nearly 50% by 2050 to keep pace with demand growth. All of this has to happen while the climate is changing in ways that will limit our ability to produce food by traditional means.

NECESSITY IS THE MOTHER OF INVENTION

In the early 1800s, British economist Thomas Malthus warned that the earth could not feed any more people. However, he missed the contribution of two key technological advancements: the production of fertilisers and steam-powered transportation. Today, precision farming and precision biology hold the promise to revolutionise food production.

Precision farming refers to how new technologies are used to increase productivity in food production. Advances include networked environment sensors, satellite and drone imaging, precision application of fertilisers and pesticides, precision irrigation, and the IoT, which brings it all together. Animal health is also advancing with improved medicines and vaccinations. Innovative companies to watch include Zoetis, Novozymes, Xylem, Trimble and Deere & Co.

There is also increased recognition that, apart from grain farming, open field farming is suboptimal in most cases and that farming within a controlled environment – such a greenhouse or using crop covers – yields superior results. One does not need a lot of land to produce food. Holland is about the size of the Kruger Park but is the world's second largest exporter of agricultural products. As a case in point, Dutch farmers are achieving double the yield on potatoes (20 tons vs nine tons per acre) with 10% of the water compared to open field farming. Vertical farms and hydroponics may appear to be some way from making a material impact, but the enabling technologies, such as energy-efficient spectra-specific LED lighting, are developing rapidly and will find application in many areas of food production to increase efficiency and yields.

Precision biology relates not just to the well-known (and contentious) genetic modifications to plants and animals, but also to the application of micro-organisms in novel ways to support plant and animal health and growth. Related to this, and with the potential to fundamentally disrupt the way protein is produced and consumed, are the technologies employed by companies such as Beyond Meat and Impossible Foods to emulate the qualities of animal protein through plant-based or lab-grown alternatives. Precision fermentation is another related process that allows us to program micro-organisms to produce almost any complex organic molecule, including proteins. Notably, precision fermentation has already replaced the production of many important proteins including insulin and milk

proteins (whey and casein). Could we be producing most of the human protein requirements in industrial bio-reactors as opposed to cattle rumen within the next few decades? Indications are that we could be on the cusp of significant disruptions in food and agricultural production.

Demographic shifts are also disrupting how food will be consumed in the future. Surging middle-class growth and increasing consumer demand for transparency and nutritious alternatives are forcing the food industry to adapt. This year, millennials constitute 40% of all consumers and this generation is adopting digital solutions that provide instant access to the products and services they desire. Competition is intensifying as companies seek to build scale in serving the rapidly growing online food market. The failed bid by portfolio company Prosus for Just Eat is a case in point. Millennials also show a preference for choosing brands and foods that come from sustainable sources and a conscious engagement with how food is produced and the way it is consumed. Nestlé and Starbucks are two holdings within our portfolios that are weaving this into their business models.

6. FINANCIAL SERVICES

On many accounts, rapid innovation and disruption are already well underway in the financial services sector. From banking to insurance, services are increasingly being delivered online. The move away from cash is firmly in place, with Visa and its closest peer Mastercard enabling this through their global networks by connecting consumers, vendors and financial institutions. Visa's recent acquisition of Plaid is an extension of this theme – a platform that allows consumers to link their various financial accounts with new fintech applications. Fintechs, on the other hand, are solving behavioural problems, increasing convenience and improving insights for financial services customers. When it comes to blockchain technologies – the technology that powers cryptocurrencies – our portfolio companies Visa, Accenture, Bank of America and Microsoft rank in the top 10 patent holders. The technology – and to be clear, we are not referring to cryptocurrencies – holds the promise to revolutionise the way financial transactions are conducted and recorded.

A world of opportunities

All the advances and potential applications outlined present another exciting phase in human development. With "2020 hindsight", we can see how our lives have changed and improved through innovation over the last decade. For all its problems and challenges, one can argue that the world is a better place than it was 10 years ago. Good and bad mostly happen concurrently, even in the same place – it is not either/or. The technological foundations have been laid for even more useful innovations that will improve lives and limit – or even reverse – our impact on the planet. Our technologies will also open the world to new vulnerabilities and create demand for new innovations and services to protect society against these threats.

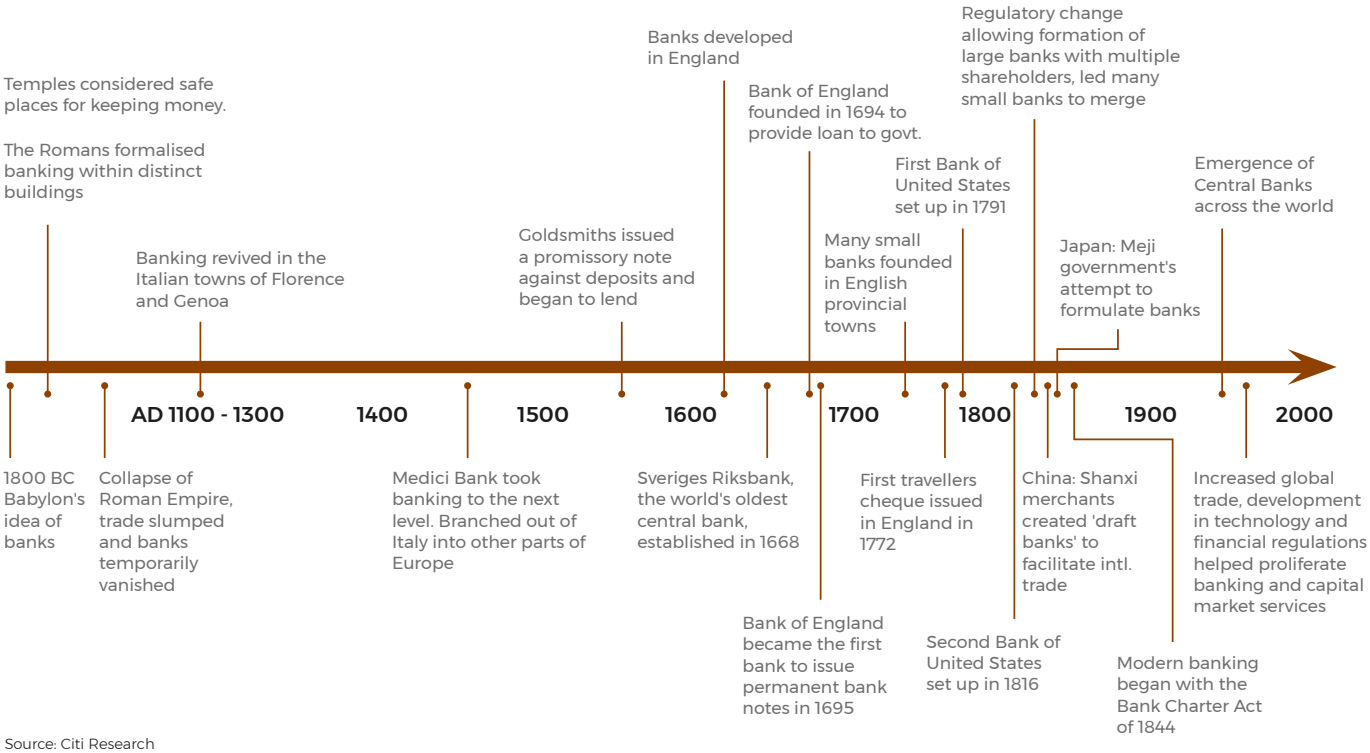
The new decade presents the world with unprecedented opportunities, and investors who are willing and able to take a long view and a global perspective will be able to participate in the fortunes created in the process of improving life on earth. While there will be failures encountered in the process, a good dose of sceptic optimism and the careful selection and diversification of global companies should result in the creation of substantial wealth.

BANKING ON INNOVATION

VICTOR MUPUNGA, RESEARCH ANALYST:
OLD MUTUAL WEALTH PRIVATE CLIENT SECURITIES

The origins of banking are widely believed to date back to around 1800 BC in Babylon. During that era, merchants were the archetype of banks – serving as intermediaries between farmers and traders who bartered soft commodities for other goods. Temples were soon regarded as convenient and safe places to transact, a trend that became prevalent with the advent of coins, which at the time were minted and stored in temples. It was only during the Roman Empire's reign (approximately 2000 years later) that banking became formalised and regulated with money changers and lenders moving out of "houses of worship" into distinct buildings. Fast forward another two millennia, and today we are witnessing a reversal of this trend, with banks across the globe reducing their physical footprints by closing branches as virtual (branchless) banks begin to gain traction. Banking, as we have known it for centuries, is changing.

THE HISTORY OF BANKING



Source: Citi Research

THE STRUGGLE TO REMAIN RELEVANT

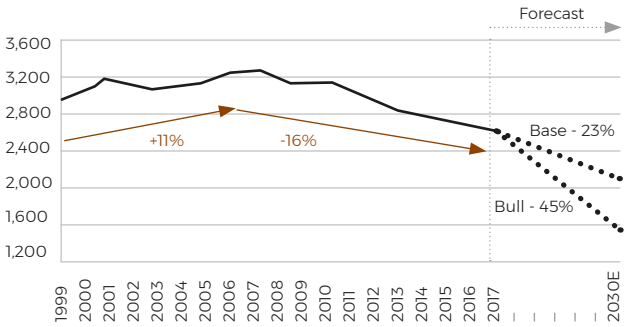
Innovation within the banking sector is certainly not new, as there have been notable advances over the last century. Consider the countless novel financial products currently available or technology that was transformative in its day: wired money transfers, Automated Teller Machines (ATMs) and bankcards – all of which have made our lives more convenient. However, despite these advances, there is a strong sense that traditional banking is somewhat broken and ripe for disruption. This is regularly confirmed by numerous surveys highlighting banking customers' main gripes such as system downtimes, onerous paperwork, and long queues in branches and on customer care hotlines. According to analytics and advisory firm Gallup, only 30% of Americans have high confidence in their bank – a number that has not improved much since 2008.

From the banks' perspective, operating post the Global Financial Crisis has been challenging, perhaps more so than for any other industry. Over the decade, unspectacular economic growth and persistently low (or negative) interest rates have resulted in muted revenue growth for the sector. On the cost side, ever-increasing regulatory burdens i.e. compliance and higher capital requirements have capped profitability at below pre-crisis levels in most regions. Faced with these headwinds, management teams have focused extensively on cost discipline, and cuts in the number of branches and employees have been the most visible consequences.

A DIGITAL CHALLENGE

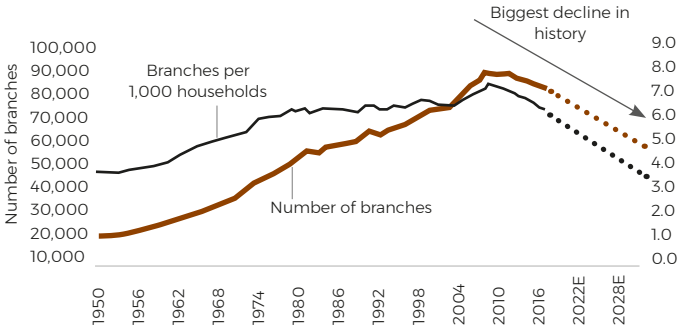
In contrast, banks have universally been allocating more funds to their IT budgets, thereby accelerating the shift from physical to digital delivery of banking services. In the US, for example, the banking sector now spends more on technology than any other industry – approximately US$150 billion annually. Locally, each of the big four banks (FirstRand, Standard Bank, Absa and Nedbank) have steadily increased their annual IT expenditure over the last five years, with IT now making up an average of 21% of total expenses versus the global average of 18%. While a portion of this expenditure is to maintain the banks' current IT systems, a growing share is to better position them against the fierce competition that has emerged from the banking sector's newcomers – challenger banks[1].

Graph 1: European banks' full-time employees



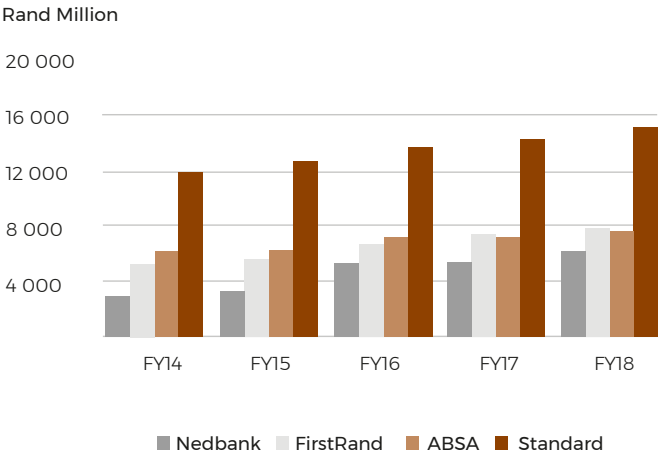
Source: ECB, Citi Research

Graph 2: US number of branches



Source: Wells Fargo

Graph 3: IT expenditure for South African banks



Source: JP Morgan

1 A challenger bank refers to new competitors in the banking sector with a model that primarily uses technology and digital channels to deliver a better digital experience.

According to KPMG, over one hundred challenger banks have launched globally over the last few years. In SA, TymeBank and Discovery Bank launched last year, with Bank Zero expected to be operational this year. To date, two broad types of challenger banks have emerged as competitors to the incumbents. The first group is led by large technology companies such as Tencent, Alibaba and Kakao Talk (the South Korean equivalent to WhatsApp). The second group comprises standalone fintech start-ups that use technology to streamline retail banking and offer clients better pricing and convenience.

THE THREAT FROM BIG TECH

Given technology companies' extended reach, their foray and relatively fast success in financial services is not surprising. China's Tencent and Alibaba provide a great example of this. Although Tencent-founded WeBank (the first digital-only bank to launch in China) received its banking licence just five years ago, it managed to break even within just two years, having successfully penetrated Tencent's large subscriber base. BNP Paribas recently valued WeBank at US$21 billion and due to its asset-light model (no branches, tech usage and partnerships) the bank is more profitable than any other Chinese commercial bank and boasts a return on equity[2] of around 20%.

WeBank's key differentiator is how it has integrated the "ABCD" of tech innovation (Artificial Intelligence, Blockchain, Cloud Services and Big Data) into its operations. For example, 98% of inbound customer queries are handled by a chatbot and identity verification is done via facial recognition on clients' mobile devices. Credit assessments and loan applications are vetted using big data that leverages off Tencent's social platforms, with an applicant receiving a response immediately. As an additional revenue stream, the bank performs client credit and risk assessments for other financial institutions, highlighting the superiority of WeBank's data processing capabilities.

Alibaba's MyBank, an affiliate of Ant Financial, is another example of a pioneering challenger bank. By leveraging off Alibaba's e-commerce platforms, MyBank is able to rapidly grow its market, which is focused on financing small to medium enterprises (SMEs). One of the bank's standout innovations is its ability to collect and analyse data from SMEs' QR codes (the unique black and white machine-readable codes used by payment platforms such as Zapper and SnapScan). MyBank assesses a client's profile and historic cash flows and conducts continuous risk management on a real-time basis from the client's QR code, which results in comprehensive data insight and personalisation of required services.

Evidently, the competition from Big Tech is formidable. Tech companies do not have to contend with legacy IT systems, large staff complements or costly branches. Furthermore, global tech companies have already achieved both scale and brand recognition. Until now, we have not seen Western tech giants venture meaningfully into any part of banking. However, it is worth noting that Amazon provides credit to SMEs and individuals on its platform, but the capital is provided by a third party. Apple has a somewhat similar relationship with Goldman Sachs for the Apple Card. Facebook's recently conceived plan to launch Libra, a digital currency, could also be viewed as a potential competitor to the traditional banking system. A recent survey by McKinsey revealed that nearly two in three Americans would trust Amazon to handle their financial needs.

MAKING THINGS HAPPEN

It is often said that simplicity is the ultimate sophistication, an adage that rings true for standalone challenger banks. While they don't generally offer the full range of complex products provided by traditional incumbents, their ability to address consumers' exact pain points has led to them rapidly gaining customers globally.

The UK has seen the highest number of standalone challenger start-ups. This is largely due to a favourable regulatory environment since 2013, when authorities lowered barriers to entry into the banking sector as a means to reduce monopolies. Those start-ups that were not overly reliant on capital markets for funding, were focused on a digital-only strategy, did not spread themselves too thinly and minimised operating costs, have excelled. They have managed to pass on the savings to customers via low (or zero) fees and favourable lending rates. For the most part, SA's challenger banks seem to be following the same script.

THE LOCAL LANDSCAPE

TymeBank, owned by African Rainbow Capital (ARC), has been making headlines for all the right reasons. The bank recently celebrated its millionth client in less than a year after launching. A key reason for this is its streamlined client on-boarding process – it takes under

2 Return on equity (ROE) is a profitability ratio that measures a company's ability to generate profits from its net assets. The average ROE in the 15 largest US banks by assets is 12.5%.

five minutes with no documentation to open a new account at Tyme kiosks, which can be found in Pick n Pay stores nationwide. This is an impressive feat given the rigorous SA FICA requirements. TymeBank uses biometrics linked to the Department of Home Affairs to authenticate applicants' particulars. Importantly for our local market, the bank offers high interest rates on savings and transactions are either at no cost or notably lower than those of competitors. Given that competitor local banks have lowered their bank charges in response to TymeBank's growing client numbers, it is evident that the new entrants are disrupting the status quo.

TymeBank's immediate plans include venturing into personal loans, a segment of the market that continues to experience high growth within the country. The bank will get basket data from Pick n Pay that will feed into its credit granting process and allow for real-time risk-based pricing. The eventual goal is for loan disbursements to be completed within two minutes, a high benchmark for traditional banks to match. Management believe that the bank can break even with three million clients, which is expected by 2022.

Discovery Bank, the banking arm of Discovery Limited, poses a threat to legacy banks' upper income customer base. Discovery's intention is to be a multiproduct behavioural bank that links rewards, savings and lending rates directly to a clients' financial habits. The group already has about three hundred thousand credit card holders and over three million health insurance members. Much of the bank's early success will rely on the extent to which it is able to convert these insurance and credit card customers to bank clients. Initial migration has been slow, largely due to the bank on-boarding a limited number of clients a day – an indication of the complexity in scaling its innovative rewards framework across multiple sectors.

EMBRACING THE DIGITAL AGE TODAY, TOMORROW, TOGETHER

In response to the changing dynamics within the sector, traditional banks around the globe have been spending significantly on technology to improve their customer experience and increase their efficiency (i.e. lower costs and higher profitability).

Bank of America, the US's second largest bank, is widely regarded as one of the most digitally savvy banks. In 2018, the bank received more patents than any other competitor and more blockchain patents than any other company, globally. In the most recent financial year, more than a third of mortgages and half of client direct loans were originated through the bank's mobile app or website. Furthermore, 27% of total deposits were completed via the mobile app, i.e. scanning a cheque using the bank's app. The number of cheques written by its customers has declined by 40% to about 600 million in five years and the saving has been enormous. It costs the bank US$5 to process a cheque within a physical branch, US$0.50 at an ATM and US$0.05 via the mobile app.

Despite these commendable exploits, there is a limit to how much traditional banks can do relative to new entrants. The critical inhibitor is often their core banking technology infrastructure, which was built decades ago and tends to operate in product silos. A simple example of this is when clients update their personal details on their cheque account at a local bank branch but the update does not filter through to their mortgage account.

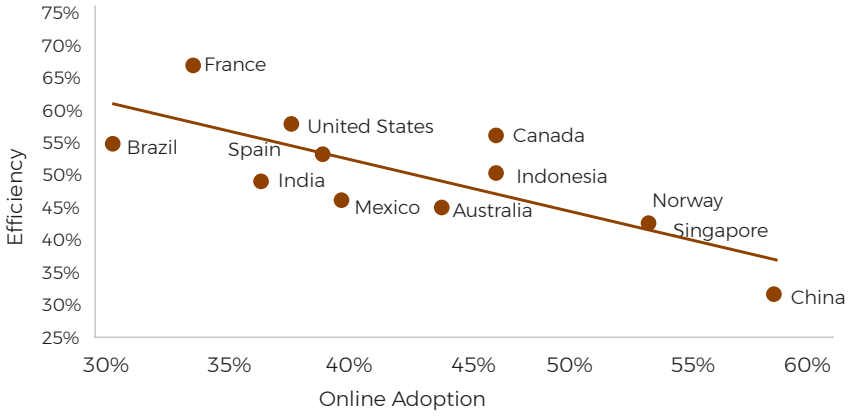
This partly explains why manual intervention by branch staff tends to be high, which slows down the system's operating speed and increases costs and downtime – all the while frustrating the queuing clients. Making core system overhauls is too risky and almost impossible without any downtime, which is why most legacy banks will have to be content with gradual improvements to their clients' digital experience.

Interestingly, some incumbents have opted to set up their own challenger banks that operate on different technology stacks and are therefore better positioned to compete with start-ups. Marcus by Goldman Sachs, Hello Bank by BNP Paribas and ING-DiBA are a few examples. In every aspect, these are challenger banks, but they have the advantage of being funded by the mammoth balance sheet of a traditional bank. Nevertheless, this does not necessarily guarantee success, particularly if customers fail to see the new bank's key differentiator. As a case in point, JP Morgan recently closed its no-fee digital service, Finn, which targeted millennials. The reasons cited for Finn's failure included slow customer uptake and little differentiation between the services it offered and what its parent company was pursuing on the digital front.

SIMPLER, BETTER, FASTER?

Just a decade ago, global banks were solely focused on how they would recover from the depths of the Global Financial Crisis. Today, how they compete against new entrants and innovate their legacy businesses to meet their clients' rising expectations is the key focus. While reducing costs to streamline operations is always laudable, the old adage "you can't cost-cut your way to prosperity" comes to mind. In our view, innovative banks that strategically position their business models to compete with new sector entrants will be the winners over the next decade.

Graph 4: By country, bank efficiency is well correlated with digital adoption



Source: Wells Fargo

ISLAMIC FINTECH AND FUTURE INNOVATION

Moosa Hassim, Investment Analyst at Private Client Securities

Islamic finance is one of the fastest growing branches of international finance. Although current fintech developments have been focused on the conventional finance industry, a number of projects have advanced the Islamic finance landscape.

Islamic fintech has produced some stellar companies including the likes of EthisCrowd.com, KapitalBoost.com and Wahed Invest. EthisCrowd.com is the world's first real estate Islamic crowdfunding platform and focuses directly on social impact real estate projects in Indonesia. KapitalBoost.com is Asia's first Islamic peer-to-peer crowdfunding platform for SMEs; and investment management firm, Wahed Invest launched the world's first Islamic RoboAdvice platform.

Previously, innovation in this specialist industry was focused on developing Islamic financial products that could compete with their conventional counterparts, and for the most part, this has been achieved. The next area of innovation lies in enhancing the digital delivery of Islamic finance – making it more accessible and transparent. Some notable future avenues for innovation include using blockchain technology to enable smart contracts in Islamic finance, which would assist in cutting costs of services significantly, with an immutable record of ownership and assets.

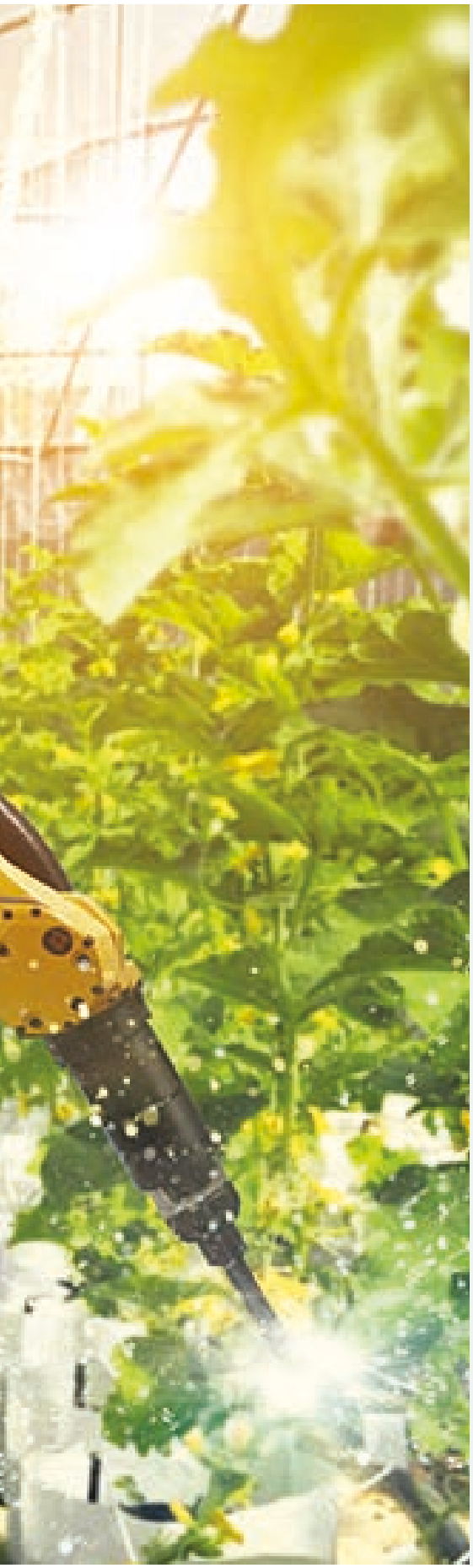
According to the 2019 Global Islamic Fintech Report by UK-based digital finance advisory firm, Elipses Group, the top five expected growth sectors for 2020 are peer-to-peer and crowd funding, challenger banking, blockchain, robo-advisory and digital personal finance management, as well as online and crowd lending. Around 70% of Islamic fintechs are expected to raise equity funding this year with an average round size of US$7 million. Geographically, Southeast Asian countries are expected to provide the highest growth potential in 2020 for Islamic fintech. The next strongest growth regions are the Middle East and the UK.

SUSTAINABLE SUSTENANCE: THE FUTURE OF FOOD

SAMEER SINGH, RESEARCH ANALYST: OLD MUTUAL WEALTH PRIVATE CLIENT SECURITIES

The human population has doubled in under 50 years, the percentage of people living in extreme poverty has declined from 42% to 10% over the same period, and global GDP per capita has grown from US$871 to US$11 312[1]. While a confluence of factors have contributed to these key strides, technological and scientific progress in the field of food production stand out.

1 World Bank Data, 2020



In 2013, global thought leadership magazine, The Atlantic gathered 12 scientists, entrepreneurs, engineers and historians of technology to examine and list the 50 most influential innovations since the widespread use of the wheel (some 6000 years ago). From this list, eight relate directly to agriculture and food production:

8 MOST INFLUENTIAL INNOVATIONS IN AGRICULTURE

1

Nitrogen fixation, 1918:
Fritz Haber wins a Nobel Prize for the Haber-Bosch process, a method that enabled the large-scale synthesis of fertilisers and explosives. The food production for half the world's population involves this method for producing fertilisers.

2

Refrigeration, 1850s:
Immensely improving the preservation, safety and transportation of food.

3

Green Revolution, mid-20th century:
Combining fertilisers with breakthroughs in plant breeding significantly impacted global food production. Norman Borlaug, the Father of the Green Revolution, is credited with saving over a billion people worldwide from starvation.

4

Moldboard plough, 18th century:
This was the first plough that, in addition to digging up soil, also turned it over, allowing for the cultivation of harder ground.

5

Cotton gin, 1793:
Invented by Eli Whitney, the cotton engine enabled a huge progressive shift for agriculture and global economics.

6

Pasteurisation, 1863:
The process of using heat to eliminate pathogens and extend the shelf life of certain consumables was a significant breakthrough for public health.

7

Scientific plant breeding, 1920s:
Gregor Mendel's 1866 paper gives life to early 20th century discoveries that expose the vital mechanisms of plant breeding.

8

Combine harvester, 1930s:
The mechanisation of farming reshaped the landscape of global food production and human productivity.

Individually and in their respective periods, each of these innovations had a significant impact on the societies around them. In aggregate, these innovations produced first order effects responsible for the massive growth in agricultural productivity experienced over the previous two centuries.

A VICIOUS CYCLE

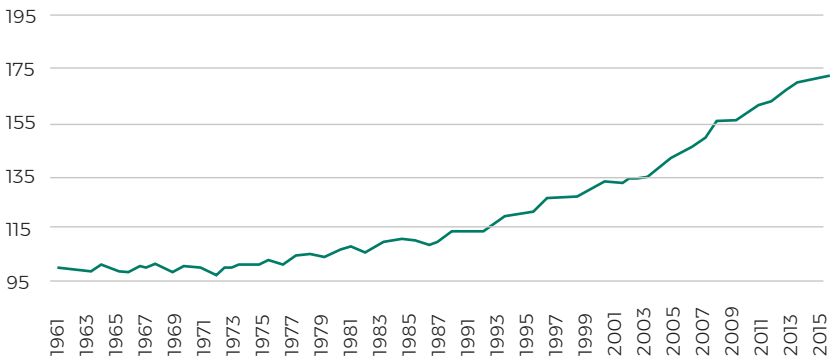
The main source of agricultural growth has changed from the intensification of inputs (using more labour, capital, and materials per acre of land) to getting more output from existing inputs. In this way, agricultural productivity drove growth and improvements across societies on a global scale. As a result of higher yields per crop and increased food security, societies saw increased population growth, greater life expectancy, higher labour productivity owing to the shift from the agricultural sector to the non-agricultural sector, and greater disposal income due to lower food prices.

While we have much to be grateful for thanks to the industrialisation of agriculture, it is becoming evident that the benefits are giving rise to the Malthusian Trap[2] i.e. as our populations continue to grow, urbanise and gain greater purchasing power, our needs and demands move in lockstep, with the requirement for sustenance being most critical. This is already manifesting itself as an interwoven collection of environmental and health-related complications that potentially threaten the future viability of humankind and the world.

According to the World Economic Forum's 2020 Global Risks Report, the top long-term risks all concern severe threats to our climate. The report lists biodiversity loss, climate action failure, extreme weather, human-made environmental disasters and natural disasters as being the most likely to materialise and having the greatest impact.

Of these long-term risks, four can point to agriculture as a significant contributing factor. This is critical considering the negative feedback loop where climate change will affect every aspect of food production[3]. We are at a crossroads where the current methods and trajectory are not sustainable, particularly in the context of 10 billion people on earth by 2050. However, just as in the past, innovations in food production are opening new possibilities and opportunities and are finding solutions that, if promoted and institutionalised, could transform the way we consume.

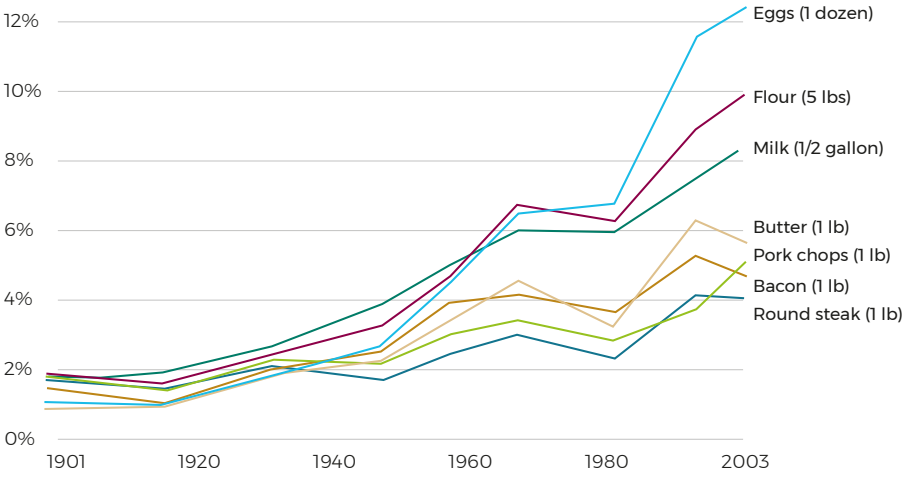
Graph 1: World Agricultural Total Factor Productivity



Source: US Department of Agriculture

Graph 2: Lower food prices

How much food can you buy for working one hour in the manufacturing sector?



Source: US Bureau of Labour Statistics (2015)

INTRODUCING MEAT 2.0

Without a doubt, the hottest property in the field of food innovation is alternative protein, i.e. any protein that replaces farmed animal proteins such as beef, chicken, pork and lamb. The rationale is obvious: agriculture accounts for 24% of total greenhouse gas emissions and contributes even more to climate change when considering land and water usage.

2 The Malthusian trap or population trap is a condition whereby excess population would stop growing due to shortage of food supply leading to starvation. It is named after Thomas Robert Malthus, who in 1798 suggested that while technological advances could increase a society's supply of resources, such as food, and thereby improve the standard of living, the resource abundance would enable population growth, which would eventually bring the per capita supply of resources back to its original level.

3 The future of food and agriculture: trends and challenges. Food and Agriculture Organisation of the United Nations

Most prominent in this space are plant-based proteins, driven by the massive success of predominantly two companies, Beyond Meat and Impossible Foods. However, plant-based proteins are nothing new, as tofu and tempeh (both soy-based) have been Asian diet staples for over two millennia. What makes this new wave of alternative proteins different is that they are being made to taste like meat, are being marketed to meat eaters (as opposed to vegans), and aim to replace a percentage of real meat purchases.

Beyond Meat and Impossible Foods use unique recipes for their alternative proteins. While the majority of their ingredients are similar (binding agents, preservatives, etc.), the key differentiator is the protein source - Beyond uses pea protein and Impossible uses soy protein. This "meatless meat" movement (also known as Meat 2.0) is fast gaining traction and niche start-ups are not the only ones joining the cause, with well-established FMCG (fast-moving consumer goods) companies such as Nestlé, Tyson Foods, Smithfield, Perdue and Hormel all introducing meat alternatives. The logic is simple: until Beyond and Impossible came around, plant-based protein was just for vegetarians, who represented just 3% of the US population. Now, alternative meat has seemingly gone mainstream, opening up a growing market that is largely driven by more environmentally conscious consumers. Although it is still early days, investment firm UBS projects growth of plant-based protein and meat alternatives to increase from US$4.6 billion in 2018 to US$85 billion in 2030.

A PALATABLE ALTERNATIVE?

While plant-based protein options are currently getting all of the attention, insect protein is gradually increasing in prominence and is being recognised for its many advantages over traditional proteins. Insects tend to be 60% protein, contain vitamin B12 and possess more calcium than milk. They also contain more iron than spinach and offer all the essential amino acids a human body requires. Not only are they more nutritious, but farming insects has many advantages over animal protein: higher feed conversion efficiency, fewer greenhouse gases, significantly less water and land are required, and they pose a low risk of transmitting bacteria and viruses (think bird flu, swine flu and mad cow disease). In light of this, Netherlands-based Protix recently opened the world's largest insect farm. Another company, French start-up Ynsect is looking to trump Protix by becoming the world's largest insect producer, targeting 20 000 kg of protein a year, equivalent to 80 000 kg of beef.

A new frontier being explored is "clean meat", also known as in vitro animals or, more commonly, lab-grown meat. As the label suggests, this meat is grown from stem cells extracted from donor livestock and then cultured in a lab. The prospect of cell-based meat has won over many environmentalists owing to its minimal impact on natural resources. However, the process is quite expensive, with 450 grams of beef costing US$2 400 in 2018. Looking ahead, improvements in technology coupled with efficiency gains are expected to drive costs lower. Some investors are already convinced, with leading start-ups, Future Meat Technologies and Finless Foods raising funds to take cell-made steak and fish mainstream.

PRINT YOUR STEAK AND EAT IT

Another innovation less associated with alternative proteins and more focused on the optimisation of food inputs and customisation is 3D printed food. In its simplest form, 3D printing is a manufacturing process where an object (in this case food) is built up layer by layer from a 3D computer design. While originally envisaged for manufacturing, The Netherlands Organisation for Applied Scientific Research (TNO) recently investigated printing technologies applicable to food production. The organisation found great potential for the layering of complete, multi-material food products from a collection of base ingredients. Even more exciting is the work being done by Israeli start-up Redefine Meat Limited, which is looking to create a 3D printer that can produce a meatless steak that is so fatty and "meaty" that it is indistinguishable from real steak. The allure 3D printing holds above alternatives such as Beyond Meat and cell-based meat cultivation lies in the process of layering, where factors such as texture and flavour can be controlled and concentrated more specifically around certain parts of the food, somewhat like the layers of muscle and fat in a real steak.

HARNESSING THE POWER OF SCIENCE

A more contentious innovation is the bio-fortification of crops, which is the process of enhancing the nutrient density of food crops through conventional plant breeding, improved farming methods and/or genetically modifying plants. The latter technique attracts much attention as general public sentiment towards genetically modified organisms (GMOs) is quite poor. The presence of multinational chemicals and agricultural companies that are involved in GMO production, such as Syngenta, Bayer, DowDuPont and BASF, has done little to alleviate concern. Regardless of technique, bio-fortification has been successful at addressing mineral malnutrition and food

security around the world, and will continue to gain prominence as populations and nutritional demands grow.

Related to bio-fortification is microbial research applied to farming. While medical microbes have been mainstream for a while (e.g. the use of synthetic probiotics to help people with stomach disorders or the prescription of yoghurt to replenish good bacteria in the human gut), agricultural microbes are increasingly being seen as the new gold rush in this sector. At the cutting edge are investigations into how the intricate connections between bacteria and plants could make farming more sustainable. The key here is to replace decades-old use of chemicals with safe, natural communities of microbes that help crops grow in difficult environments. Researchers from Converte, an Australian agri-company leading in this space, believe this market could be worth as much as the current chemical pesticide market. It is therefore unsurprising that companies like Bayer are spending on research in this field too.

Companies involved with food flavours and ingredients are increasingly beginning to leverage microbial research. While these players are mainly unseen, they are critical in the food value chain as they work with producers to ensure that our favourite meals or drinks look, taste and smell the way we like and expect. Kerry Group is at the forefront of food research, offering clients innovative applications like cell nutrition, microbial systems, food fortification, yeast extracts and specialty enzymes. Other companies, like synthetic biology start-up Gingko Bioworks, use data analytics to discover and create new organisms for use in food production and agriculture. Currently a US$25 billion market, the sector is expected to see significant growth as consumers demand higher performance and greater quality from food purchases.

OPTIMISING THE VALUE CHAIN

As the world continues to digitise, not even the traditional farm is immune from its influence – enter AgriTech or AgTech. AgriTech is the application of the latest technologies to improve the efficiency and output of agriculture. While innovations like lab-grown meat and the Impossible burger could be considered products of AgriTech, it is more commonly associated with incorporating technology into existing methods of production. In this form, it encompasses water and soil analytics using Internet of Things devices, advanced machinery including drones to monitor crops and connected robots for picking, and grocery supply chain management for quality and safety tracking. Many of these innovations are already mainstream while some are currently being tested. An evolving example is the IBM Food Trust, a first-of-its-kind blockchain-connected ecosystem of producers, suppliers, manufacturers, retailers and other supply chain participants. By collecting various data through the supply chain, permanently etching it into the blockchain (essentially codifying and then encrypting it) and finally sharing it across all participants, transparency and traceability throughout is achieved. This enables businesses to realise supply chain efficiencies, institute better waste management, more intensively monitor food safety and promote a brand's reputation, among other potential benefits. It is not too far off where, as with organic produce, blockchain-verified ethically sourced produce will carry a higher mark-up to standard goods. Partners who are already part of the IBM Food Trust include Walmart, Albertsons Companies, Carrefour, S-Group and Nestlé.

A form of AgriTech that will seamlessly integrate with the blockchain is vertical farming. Inspired by rooftop gardens, vertical farms encompass towers of farms, with each level of the tower housing future produce. They typically fall into one of two categories: hydroponics (where plants are grown in nutrient-rich water), or aeroponics (with roots exposed and sprayed with nutrient-rich mist). Neither method uses soil and both tend to rely on artificial lighting where sunlight is not optimal. Additionally, hydroponics can be combined with aquaculture (fish farming) to create a system where fish excrement is used to fertilise plants. Vertical farms have meaningful advantages over traditional agriculture, as land use is minimised (old buildings close to urban nodes suit this well), perennial farming is possible, and the need for chemicals and pesticides is negated. Further innovation is taking place in Japan where Spread, a vertical farming company, is including robotics to create a self-managing indoor farm that can compete on cost with traditional farming.

AN APPETITE FOR INNOVATION

From eating insects to farms in buildings and everything in between, the progression witnessed across the food innovation landscape are not passing fads but necessities that will inevitably form a part of our future consumption habits. By leveraging science and technology, humans are once again empowered to rewrite the narrative towards a healthier, sustainable and more food secure world.

DRIVING INNOVATION THROUGH ESG SOLUTIONS

JON DUNCAN, HEAD OF RESPONSIBLE INVESTMENT,
OLD MUTUAL INVESTMENT GROUP

In January 2004, the late former UN Secretary-General Kofi Annan invited CEOs of big financial institutions asking them to be part of an initiative to integrate Environmental, Social and Governance (ESG) factors into capital markets including asset management, securities brokerage and research. Subsequently, eighteen financial institutions from nine countries developed a report titled "Connecting Financial Markets to a Changing World". The report was developed to increase awareness among all actors and start a broader discussion and clarify roles, without being prescriptive. Today, over 1 200 asset owners, investment managers and

professional service par billionaires have become signatories of the United Nations-backed Principles for Responsible Investment (PRI). Since then, ESG has evolved and moved from the sidelines to the forefront of decision-making for asset managers and institutional investors. Increasingly, ESG considerations are being integrated into investment mandates, requiring careful consideration of these risks when making investment and stewardship decisions. In addition, globally, consumers are becoming increasingly aware of the impact of runaway climate change, resource depletion and pollution on planetary well-being. This has led to an escalation in demand for more sustainable goods and services from companies, including investment products.

OUR APPROACH TO RESPONSIBLE INVESTING

At Old Mutual Investment Group, our approach to responsible investment is motivated by a clear understanding that ESG issues can and do impact returns. We fully embrace the fiduciary duty we have towards our clients to address these issues and, importantly, we are driven by a belief that it's both the right and smart thing to do.

We began the journey in 2010 and focus on two priority areas:

1. Deepening our ESG research and integration practices.

2. Focusing our capabilities on investment solutions that address long-term sustainability issues (for example, renewable energy, education, ESG indices).

HARNESSING ESG DATA IN LISTED EQUITY

Leveraging both quantitative and qualitative insights means that we can stay on top of ESG issues as they arise in the listed markets. We have been an active consumer of ESG data since 2011 and have developed our own proprietary ESG risk scoring approach that allows us to quantitatively screen for high risk companies. We use the ESG score to direct our qualitative ESG research across our fundamental equity strategies.

LISTED EQUITY STEWARDSHIP

Another important component of our responsible investment commitment is our Listed Equity Stewardship programme, which cuts across some R300 billion of client holdings. In July 2018, we set out a clear position concerning our expectations of listed companies in relation to ethical leadership, tackling transformation and integrating ESG issues into their long-term business strategies. Our position was communicated in an open letter to the CEOs of the largest listed companies in South Africa and is continuously being supported by direct engagements.

DRIVING GREEN GROWTH THROUGH ALTERNATIVES

Across Old Mutual Alternative Investments (OMAI), Old Mutual Specialised Finance and Futuregrowth – all part of Old Mutual Investment Group – we manage approximately R122 billion of our clients' capital in green economy investments, both debt and equity. These businesses are a constructive voice across a range of national interest issues such as renewable energy, land reform and governance at state-owned entities.

Across OMAI, we further enhanced our ESG integration practices by investing in additional specialist skills, and through investments in the systems to track and report

on impact data. We now have the systems to track and report on the contribution our clients' capital makes towards the United Nations Sustainable Development Goals (SDGs).

INVESTMENT PERFORMANCE

There is a myth among investors that ESG investments offer inferior performance and sacrifice returns when taking ESG matters into consideration. However, research confirms otherwise, and although future performance cannot be guaranteed, ESG investments have repeatedly demonstrated that capital employed sustainably can not only meet, but often outperform investors' return expectations.
ESG index funds are designed to offer returns in line with market performance, while offering clients exposure to companies that are measurably better for the planet.

INNOVATING FOR LOWER FEES

ESG index tracker funds essentially offer a viable, cost-effective solution for passive investors who, while mandatory holders of the index, are looking for a practical alternative to avoid the unsustainable practices of many listed companies.

One of the key advantages of the indexation approach is affordability. We take our responsibility to grow and generate sustainable investment returns seriously and are committed to expertly managing clients' funds while consistently ensuring that they remain affordable.

Historically, traditional indices had limited scope to incorporate ESG factors, which resulted in exposure to companies with controversies or poor ESG ratings. However, innovation in the indexation investing space in recent years has broadened the capabilities of index-tracking investment managers in this respect. The global market is now experiencing an increase in low-cost indices that offer ESG-led mandates and champion responsible investment.

INNOVATING FOR THE FUTURE CLIENT

High net worth individuals have shown increased awareness of the negative impact of carbon emissions on the environment. These investors are increasingly allocating capital towards initiatives that address both global warming and the rising rates of social degradation, such as a rising incidence of child labour experienced in poorer developing nations.

This kind of thinking is even more prevalent among millennials – the generation between the ages of 18 and 34. Millennials have been labelled the "purpose-led" generation, as they are more interested in working for, buying from, and investing in companies that share their values than older generations. Research from the Morgan Stanley Institute for Sustainable Investing in 2019 showed that 95% of millennials now express interest in sustainable investing, as opposed to 85% of the general population. In addition, 67% of millennials, compared to 52% of the general population, adopt this interest by investing in companies or funds that target specific environmental and social outcomes. This research has proven true to Old Mutual since the launch of these funds.

Innovation in ESG investing has enabled us to respond appropriately to a growing customer need, and to invest for a future that matters.

INNOVATION IN FINANCIAL PLANNING

FERDI BOOYSEN, HEAD OF CLIENT SOLUTIONS AT OLD MUTUAL WEALTH

THE NEW INTEGRATED WEALTH PLANNING (IWP) TOOL

Advances in technology and the rise of artificial intelligence (AI) had a significant impact on the wealth management industry. Almost a decade after the first robo-advisers emerged and fears increased around advisers being replaced by robots, we seem to finally have an answer. It is clear that humans need to use technology to optimise wealth services but robots will not replace the role of the planner.

Old Mutual Wealth's Integrated Wealth Planning (IWP) tool, launched in 2011, has taken integrated financial planning to the next level. This tool shows clients how their decisions and all the different elements in their financial plan could impact their financial well-being. Equipped with the latest technological developments, it recently had a revamp to make it even simpler and easier to model different financial planning trade-offs and conversations live with clients. This can be done at the office on a big screen or on your tablet while having coffee with a client. Clients and planners can see the impact of their decisions in real time.

WEALTH MANAGEMENT IS UNDERPINNED BY LIFESTYLE

The traditional approach to financial planning has been under a lot of scrutiny in recent years. While it can be

argued that this approach has had its flaws, it is very positive to note how the industry has embraced a more holistic way of providing financial advice by having the client's lifestyle underpin and drive the financial planning conversation. However, there is still some work to be done to simplify financial planning and shift from product conversations to discussing clients' end goals, to add even more value to their lives.

It is of utmost importance for clients to understand all the different elements at play in their financial plan. We often tend to focus on specific elements, such as saving more. For example, if Jane wants to retire at age 60 instead of age 65, she will have to make some short-term sacrifices such as cutting her monthly budget to reach that goal.

Having the means to paint a picture of the impact of choices on financial plans, planners are better equipped to help clients understand the impact of their decisions and trade-offs required to meet their financial goals.

Integrated Wealth Planning facilitates a conversation that looks at various trade-offs and illustrates different scenarios to bridge the gap between where clients are today and where they would like to be when planning for retirement, lifestyle goals, death and/or disability. The core of Integrated Wealth Planning is planning for the person and not their money. We consider a whole host of factors such as changing retirement dates; investment returns; the impact of inflation; saving more; liquidity; income and expense patterns; adjusting goals; tax efficiency; asset disposals and asset classifications, to mention a few. Our aim is to help clients better understand the role that each of these trade-offs plays in their overall financial plan, and to partner and co-create a financial plan with them that takes these different factors into account.

Financial planners who align, adopt and incorporate the IWP principles into their client engagement process are afforded the exclusive IWP designation from Old Mutual Wealth. These financial planners will form part of a unique community of like-minded professionals who share the same guiding principles.

With this new philosophy of financial planning, the IWP tool aims to assist planners to give their clients a bespoke financial plan that takes more than just their finances into consideration. This new approach focuses on four different elements, as discussed below.

CLIENT LIFESTYLE IS THE FOCUS

Understanding who the client is and their ideal lifestyle is the starting point in our discussion. This is usually covered during the first interaction between the planner and the client where the client will visualise their ideal lifestyle for the planner, explaining what they want their life to look like in the next five, 10 and 20 years and what they want to be able to do. This includes aspects such as the client's hopes, fears and goals for the future and is a vital part of Integrated Wealth Planning, as it will become the core of their financial plan.

RETURN

Once the planner understands the clients and their life goals, it's easier to determine what the required investment return should be to meet those lifestyle goals. If you don't fully comprehend where you're going, how will you know what monthly goals to set to get to your end destination?

ASSET ALLOCATION

The client's required investment return will assist the planner in determining what asset allocation will best suit the individual's investment strategy, taking the associated risks into account. The appropriate asset allocation is a critical element in any financial plan and a uniquely designed approach ensures that the client will be on an investment path that suits their life.

RISK

When looking at risk holistically in the context of what the client is trying to achieve, this will include how realistic their lifestyle and financial goals are based on their financial circumstances. If the planner spends time understanding the client's individual risk profile – not just investment risk, but also inflation risk and behavioural risk – the client will be sure to have efficient risk exposure that fits their profile.

Following our Integrated Wealth Planning approach, planners can add precious value to the lives of their clients which is not limited to developing a financial plan. In this way, it becomes a life plan that just happens to take their financial circumstances into consideration.

CONCLUSION

At Old Mutual, we're fully harnessing technologies like artificial intelligence and big data for data-driven insights, such as predictive analytics, to enable us to better provide personalised services to our clients. However, being innovative demands relevance, and for us relevance comes from being client-centric and understanding our clients' needs. A blended approach of technology and human advice is ideal and the new Integrated Wealth Planning tool is a true example of this.

Credit: Content on technology and wealth management from: https://www.euromoney.com/article/b1cygh7rdnlqk1/private-banking-wealthtech-20-when-human-meets-robot?copyrightInfo=true

HINDSIGHT IS 2020 VISION

IZAK ODENDAAL, INVESTMENT STRATEGIST: OLD MUTUAL MULTI-MANAGERS

When asked to write an outlook for 2020, I couldn't resist the pun in the title. Still, it does highlight a key problem with investing: the future is always uncertain and unknowable. But with hindsight, everything is always obvious. We are bound to be surprised in 2020, just as we were last year and the years before. Building an investment case on a forecast is risky. Therefore, your investment approach should be focused on making sure your portfolio is appropriately diversified so that no outcome can cause material damage to it. In other words, don't keep all your eggs in one basket! Also, do not overreact when things don't go according to script, and when the headlines cause your pulse to race. Remember, newspapers are in the business of selling copies, not giving investment advice.

With that said, here are five things that I'll be paying close attention to in 2020:

BUDGET 2020

South Africa is on a slippery slope as far as Government's finances are concerned. Government is still borrowing too much. The October 2019 mini-Budget revealed that because of a weak economy and Eskom bail-outs, the pace of borrowing is increasing and not decreasing. High interest rates are causing Government's interest bill to skyrocket, thus crowding out other spending areas. The February 2020 Budget is expected to contain some measures to limit the increase in government borrowing, but will it be enough? Failure to stabilise government debt will almost certainly lead to credit ratings downgrades, and this is clearly what is priced into the local bond market.

Ultimately, the solution is faster economic growth, which will increase Government's tax revenue without the need to hike tax rates.

LONG-AWAITED ECONOMIC RECOVERY

Therefore, the second key issue is whether the economy will pick up some speed. Most economists only expect growth of between 1% and 1.5% in 2020, but this would represent a substantial increase from around 0.5% in 2019. The bigger question is whether Government will push ahead with reforms to make it easier and cheaper to do business in South Africa, and how quickly these reforms gain traction. During 2019, many steps have already been taken. But there is still much to be done, while uncertainty remains around some of the more controversial policy ideas (such as land expropriation).

A common refrain among a surprisingly broad front of South Africans is that confidence among CEOs, investors and ordinary folks alike will only pick up once there are prosecutions of those involved in state capture. This might be overstating things, but there is no doubt that it is a key step to restoring trust between Government and the people.

RATE CUTS

One thing that will help local growth is lower interest rates. The SA Reserve Bank's repo rate at 6.25% (last cut on 16 January 2020, from 6.5%) is much higher than inflation of around 4%. This amounts to a "real" interest rate of almost 2%. It's important to note that you and I don't borrow at the repo rate, but the prime rate, which is even higher. The official reason for the high interest rates is to get South Africans to permanently lower expectations of future inflation to

around 4.5%, the mid-point of the 3% to 6% target range. In other words, if we all expect inflation to be 4.5%, we will behave accordingly and this will influence actual inflation. However, the Reserve Bank is also worried about a sudden outflow of capital if foreign investors lose faith in South Africa, leading to a weaker rand and higher inflation. The Reserve Bank's willingness to cut rates is therefore tied to progress in stabilising government debt levels.

While high interest rates squeeze borrowers, investors benefit. There is almost nowhere in the world now where you could earn a positive real interest rate without taking risk.

GLOBAL MARKETS – STEADY AS SHE GOES

Global equities were up strongly in 2019 (around 20% at the time of writing in mid-November) following a negative return in 2018. A similarly strong return is unlikely in 2020, but that does not mean it's time to cash in. The underlying environment for global equities – steady but unexciting economic growth, low inflation and low interest rates – remains very supportive. And global markets do not seem expensive.

There are always risks, and with 2020 being an election year in the US, things could get interesting. If President Trump escalates rather than scales back his trade battle with China, markets will react negatively. In terms of what happens at the November poll, who knows. Just remember that past predictions that the market will tank if so-and-so wins have proven wrong. Again, investors should avoid making big bets based on forecasts, and rather use diversification to manage uncertainty.

LOCAL MARKET REBOUND

It's no secret that the local equity market has struggled, delivering returns barely beating inflation over the past five years. With hindsight, it would have been better to sit in cash over this period. But we only know that now.

While hardly a catastrophic collapse, it is well below the average historic annual returns from local equities of about 7% above inflation. Remember that this history includes periods far more unstable and uncertain than the present. However, the average return is always made up of lean years and fat years, and one often must sit through the former to enjoy the latter. No-one can pinpoint when exactly things will turn. Hence the saying, it's time in the markets, not timing the markets, that counts. The disappointing performance of the JSE is a combination of local and global factors, since the local market is roughly half local and half global in terms of where the listed companies earn their revenues. Better local growth should help the domestically focused companies in 2020, but the globally focused companies will still need solid growth abroad. Importantly, irrespective of what happens locally in terms of politics and economics, the JSE is unlikely to rally if global markets fall. Conversely, we don't need a strong local economic recovery since positive global sentiment lifts the JSE along with it.

The simple message is to remain invested and stay on track to achieve your goals.

THE AUTHORS

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Chris joined Old Mutual Wealth at inception and was responsible for establishing Old Mutual Wealth Private Client Securities (PCS). He also heads up our Treasury and Advisory Services and Fiduciary capabilities. Chris is passionate about investments and is a lead portfolio manager of the PCS Global Equity Portfolio. He has over 20 years of experience in the financial services industry and fulfilled senior and diverse roles within a number of investment businesses. Chris is a CFA Charterholder, Fellow of the Association of Chartered Certified Accountants (UK) and holds a Bachelor of Mechanical Engineering (Cum Laude) from the University of Stellenbosch and an MBA (Cum Laude) from the University of Stellenbosch Business School.

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