

Investment Theme	How Impacted?	Possible Investment Strategies
<b>Rising African Middle Class</b>		
<ul style="list-style-type: none"> <li>- In absolute terms, the number of people entering the African middle class has been rising.</li> <li>- Despite the setback as a result of lower oil prices, we assess that this trend will continue, although possibly at a slower rate.</li> <li>- According to the Credit Suisse 2016 Wealth Report, the annual average increase in wealth for Africans has been between 7% to 12% pa from 2000 to mid-2016.</li> </ul>	<ul style="list-style-type: none"> <li>- Demand for consumer goods and other 'middle-class' luxuries likely to continue to increase.</li> <li>- Healthcare and services businesses will likely continue to benefit from this demographic trend.</li> <li>- This trend also impacts urbanisation, and consequently the need for urban housing, infrastructure and educational facilities.</li> <li>- A major risk factor is increasing automation which ultimately impacts the job market negatively. This could put a significant brake on the rise of the middle class.</li> <li>- Businesses that have the ability to attract skilled resources should benefit by creating products/services that meet the demands of the African middle-class.</li> </ul>	<ul style="list-style-type: none"> <li>- Shoprite</li> <li>- Aspen</li> <li>- Famous Brands</li> <li>- FirstRand</li> <li>- Capitec</li> <li>- Curro</li> <li>- Zeder</li> <li>- Balwin</li> <li>- Low cost mobile phone manufacturers</li> <li>- Insurance</li> <li>- Healthcare</li> </ul>
<b>Aging Populations in developed markets → Increasing Life Expectancy</b>		
<ul style="list-style-type: none"> <li>- Improvements in healthcare technologies, quality of life improvements all continue to positively impact life expectancies globally</li> <li>- According to the World Health Organisation (WHO) people everywhere are living longer. Based on global averages, a girl who was born in 2012 can expect to live to around 73 years, and a boy to the age of 68. This is six years longer than the average global life expectancy for a child born in 1990.</li> </ul>	<ul style="list-style-type: none"> <li>- Our view is that this theme should be updated to <b>Increasing Life Expectancy</b>, as the improvement in life expectancy is not only a phenomena for the developed world but for the developing world as well.</li> <li>- The risk in developed markets is that population growth has stagnated putting increasing pressure on the labour market as well as in general demand.</li> <li>- However demand for health and wellness services such as retirement villages, gene</li> </ul>	<ul style="list-style-type: none"> <li>- Aspen</li> <li>- Discovery</li> <li>- Mediclinic / Life Healthcare / Netcare</li> <li>- Amazon</li> <li>- Pharmaceuticals</li> <li>- Biotechnology</li> <li>- 3D printing</li> <li>- Web-based services like Uber, Amazon</li> <li>- City Lodge / Sun International</li> <li>- Insurance</li> </ul>

<ul style="list-style-type: none"> <li>- The gap in longevity between rich and poor countries is still significant – 16 years.</li> <li>- We will update our theme to <b>Increasing life expectancy.</b></li> </ul>	<ul style="list-style-type: none"> <li>therapy and 3D printing (e.g. prosthetics) is likely to increase</li> <li>- Similarly, the Services industry (including tourism in the developed world) should continue to benefit.</li> <li>- A pandemic could reverse this trend.</li> </ul>	
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**Rapid Urbanisation with Megacities**

<ul style="list-style-type: none"> <li>- The migration from rural areas and small towns to cities continues.</li> <li>- Similarly, we have witnessed significant migration between countries, although with the current increase in nationalistic tendencies in the developed world, this may slow down.</li> <li>- According to the UN, 54 per cent of the world’s population lives in urban areas currently, a proportion that is expected to increase to 66 per cent by 2050.</li> </ul>	<ul style="list-style-type: none"> <li>- The demand for housing and utility (infrastructure, energy, communication, education, etc.) services will continue as more people migrate to cities.</li> <li>- We anticipate that specific cities will benefit more than others.</li> <li>- Policy makers may act in a manner to reverse or slow down this trend.</li> <li>- Cyclical issues may hamper growth in the short-term (e.g. interest rates; unemployment; supply / demand dynamics).</li> </ul>	<ul style="list-style-type: none"> <li>- Balwin</li> <li>- PSG (Curro, Zeder, Capitec, energy)</li> <li>- Telkom / MTN / Vodacom (but could be negatively impacted by migration from high margin voice packages to cheaper voice over data services)</li> <li>- Properties in megacities like London, New York, San Francisco, Mumbai, Johannesburg, Cape Town, etc.</li> <li>- Alternative energy suppliers</li> </ul>
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**Climate Change and Resource Scarcity**

<ul style="list-style-type: none"> <li>- Renewable energy costs will continue to get cheaper, particularly as battery storage technologies improve.</li> <li>- See Figure 1 below on the falling costs of wind and solar energy. Source: <a href="https://cleantechnica.com/2016/12/22/low-can-solar-wind-go/">https://cleantechnica.com/2016/12/22/low-can-solar-wind-go/</a></li> <li>- In many countries, even those with less sunlight than South Africa, like Germany, Australia, Norway most new energy sources are from renewable sources.</li> </ul>	<ul style="list-style-type: none"> <li>- The fossil fuel industry is not simply watching this trend coming to impact their businesses. Through reduction in output, they have managed to push up prices and as a result made a large portion of the fracking businesses uncompetitive.</li> <li>- In the short-term, this may have an impact on the viability of alternative energy businesses but in the long-term, it is very likely that the</li> </ul>	<ul style="list-style-type: none"> <li>- Tesla (Solar City)</li> <li>- Lithium, Cobalt and other battery mineral suppliers</li> <li>- Solar panel manufacturers</li> <li>- Wind power</li> </ul>
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	viability of fossil fuel businesses will be impacted.	
<b>Changing Preferences of Millennials</b>		
<ul style="list-style-type: none"> <li>- Millennials are digital natives, i.e. they were born when mobile phones and the Internet were already in use.</li> <li>- In general, they have come to expect instant response and gratification.</li> <li>- They generally prefer to do things on-line, e.g. shopping.</li> <li>- They are concerned about sustainability issues, like climate change, and quality of life.</li> </ul>	<ul style="list-style-type: none"> <li>- As this group becomes more mainstream, the demand for on-line services will continue to grow.</li> <li>- Similarly, the demand for experiences (eating, learning, travel, gaming, etc.) will continue to grow.</li> </ul>	<ul style="list-style-type: none"> <li>- FaceBook</li> <li>- Amazon</li> <li>- Google</li> <li>- Apple</li> <li>- Activision Blizzard</li> <li>- On-line education services, Massive Open Online Courses (MOOCs)</li> <li>- Virtual Reality</li> <li>- Travel</li> <li>- Innovative financial services providers – FirstRand, Capitec, Discovery</li> <li>- AliBaba, Tencent, Naspers</li> <li>- Uber, AirBnB, etc.</li> </ul>
<b>Global shift in Economic power G7 to G20</b>		
<ul style="list-style-type: none"> <li>- The share of world economic growth has increasingly moved eastwards and from the developed world to the developing world over the past 20 years.</li> <li>- Some countries such as China and India have benefitted more than others.</li> </ul>	<ul style="list-style-type: none"> <li>- The possibility of trade wars under the Trump administration may reverse or slow down this trend.</li> <li>- Other countries (Russia?) may possibly benefit.</li> </ul>	<ul style="list-style-type: none"> <li>- ETF's focussed on particular</li> </ul>
<b>Pace of Technological Breakthroughs</b>		
<ul style="list-style-type: none"> <li>- New innovations through the use of technology such as artificial intelligence, robotics, renewable energy, wearables, medicine, genetics, etc. continues to provide major opportunities for new products and services for consumers, businesses and governments.</li> <li>- Some specific areas that are showing significant growth currently are AI, robotics, genetic engineering, space exploration,</li> </ul>	<ul style="list-style-type: none"> <li>- Technology has significantly improved the quality of life for most people.</li> <li>- The key risks particularly in the area of automation is the resultant impact on employment and the growing inequality in our societies. This could have severe social consequences if not addressed with appropriate policy responses.</li> </ul>	<ul style="list-style-type: none"> <li>- Amazon</li> <li>- FaceBook</li> <li>- Google / Alphabet</li> <li>- Tesla</li> <li>- Amgen</li> <li>- Biotech / Pharmaceuticals</li> <li>- Businesses that use technology innovatively: Discovery, FirstRand, Outsurance</li> </ul>

electric vehicles, 3D printing and solar energy.		<ul style="list-style-type: none"><li>- Investment businesses in technology: PSG</li><li>- 3D businesses</li></ul>
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