Q4 | December 2021

STAND POINT

Making cents out of chaos

STANLIB

STAND POINT

Contents

From our StandPoint

The beginning of spring in SA has injected some fresh and much-needed energy as we enter the last stretch of 2021. I have recently enjoyed a number of personal engagements with colleagues and clients.

A note from our Head of Retail Distribution,

Alan Ehret

We have all welcomed the lifting of local lockdown restrictions as the year progressed but sadly, our hope for a return to a more normal life was dimmed by the recent discovery of the new Covid-19 variant, Omicron.

With this uncertainty and ongoing market volatility many of us are asking ourselves where we go from here. How do we navigate this complex world shaken by the effects of a pandemic, not only as investors or trusted advisers in uncertain markets, but also as individuals?

We have packaged this edition of STANDPOINT to focus on insights that provide direction and make sense of the chaos of this pandemic. But before we delve into the articles that follow, I would like to take this opportunity to reflect upon and refer to STANLIB's recently announced strategic partnership with J.P. Morgan Asset Management.

Through this formal and well-established collaboration with a successful global asset manager, STANLIB is now well-placed to enhance our investment management techniques and thinking, our offshore and local product offering and ultimately our full proposition to South African investors. This represents a significant and exciting milestone for our asset management business and the start of a new chapter which we look forward to sharing with you.

While most indices in developed markets rose in October and the beginning of November, these gains were reduced somewhat towards the end of November due to fears over the spread of the new Covid-19 variant. For emerging markets the impact was even more severe, with Chinese equities remaining under pressure and concerns over supply chain disruptions intensifying. Peter van der Ross, from our Multi-Strategy team, shares a deeper insight on equity investing in emerging markets, comparing the performance trends of these regions with their developed counterparts. Peter tests the hypothesis that fast-growing regions should deliver better returns (with more risk, of course).

China continues to make news. Regulatory actions have triggered market weakness and supply chain disruptions, while the potential collapse of Evergrande has raised new concerns in recent months. STANLIB's Economist, Ndivhuho Netshitenzhe, unpacks China's challenges and prospects and provides a deeper analysis of how this economy will impact global financial markets in the short and longer term.

Locally, as ongoing planned power outages disrupt our everyday lives and cause businesses, especially smaller ones, to suffer, the topic of electricity can only be negative. However, the recent liberalisation of SA's electricity regulation is good news and represents a key milestone on SA's journey to reform. Muhammed Munshi, Portfolio Manager of STANLIB Infrastructure Investments, looks at the implications of the regulatory changes and the opportunities that will be unlocked for smaller energy generators and suppliers to drive new investment and economic growth. It also opens opportunity for a transition to renewable energy, a critical factor in supporting the worldwide goal of net-zero carbon emissions.

Asset classes of the future remain highly topical, particularly as we venture deeper into the digital era. Many people regard investing in cryptocurrencies and specifically Bitcoin as speculative and unwise, while others believe investors should not miss the return opportunity. Rademeyer Vermaak, a Senior Portfolio Manager at STANLIB Index Investments and a quantitative expert, answers questions on the subject, demystifying some of the myths and sharing some useful research. Being well-informed about these digital assets places any investor in a better position to make a sensible asset allocation decision.

In closing this edition and as a final word for 2021, I would like to wish you all well over the festive summer season.

Thank you from all of us for partnering with STANLIB in your investment journey, and especially over the last two years. We look forward to sharing a new year with a new global partner and unlocking innovative and exciting investment opportunities. Our objective is to be a truly progressive asset manager in a fast-changing industry and ensure we can deliver financial well-being to our investors.

Stay safe!

Yours sincerely

Alan Ehret

CHARTICLE:

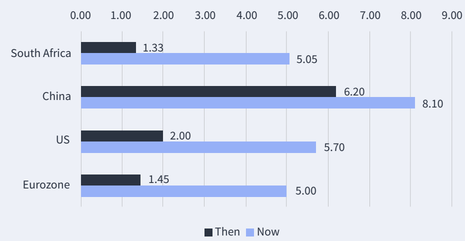
Where to from here?

What could economic growth look like in 2022? This question arises as we potentially head into a post-crisis era where the COVID pandemic becomes “the flu” and we adapt to living with it.

The negative impact of the pandemic on major markets was relatively short-lived due to extraordinary government stimulus coupled with the success of vaccine roll-outs globally (SA still has work to do). This has helped to turn 2021 around. 2022 still looks rosy… for now.

The charts below represent consensus in the views of a number of global economists, which are updated regularly. These illustrate a change in forecasts from “then” – the height of the crisis in 2020 - to “now” – the last quarter of 2021. As the crisis unfolded, with a smoother, less severe outcome and more data has become available, economists have significantly improved their outlook for the main regions.

Growth Forecast for this year - 2021



Source:Bloomberg.

Growth Forecast for next year - 2022

Source:Bloomberg.

There are still large differences between top and bottom forecasts, indicating a wide divergence of opinions and current uncertainties. **Refer to Policy GIGO: Living in a time of noisy data.** It also means there is an elevated risk of large forecast errors.

Supply disruptions and concerns about debt defaults in China’s property market may provide a reality check to these forecasts, limiting any post-crisis exuberance. China’s growth outlook is also being downgraded by Western economists. In this edition of STANDPOINT, our Economist, Ndivhuho Netshitenzhe, provides an in-depth analysis of China’s current challenges.

For now, we can only grow from last year’s low base, and 2022 still looks strong. In the longer term, there are too many factors in the mix. Beyond 2022, forecasts are highly subject to revision.

China's poised for slower economic growth, but it's not all bad news

AT A GLANCE

Strong economic growth momentum in China during the first half of 2021 has dissipated due to a number of short-term headwinds.

As a fast-maturing economy, China is rebalancing to a consumption- and services-led economy. This will naturally translate into a lower long-term economic growth performance.

To overcome some of these obstacles and escape the middle-income trap, China will need to boost productivity growth by promoting innovation, making technological advances, achieving higher education rates and making steady progress in addressing institutional and resource-allocation issues.

By Ndivhuho Netshitenzhe,
STANLIB economist

The numerous structural factors affecting the country will see it transition to a structurally-lower long-term economic growth path that will likely be below 5%.

While China's GDP performance slowed sharply in the first half of 2020 as a direct result of the COVID-19 outbreak, the economy was able to fully recover very quickly, with GDP reaching a record high towards the end of 2020. However, Chinese growth momentum has subsequently dissipated, as GDP slowed to a growth rate of 4.9% year-on-year in the third quarter of 2021, the slowest annual rate of growth in more than a year. The moderation in economic growth appears most likely to continue into 2022 as the country faces a number of challenges that are both short term as well as structural in nature.

Short-term headwinds stalling China's economic recovery

The Chinese economy is facing three shocks to its economic recovery as we near the end of 2021. **Firstly, owing to the government's zero-COVID strategy, the resurgence of infections (driven by the Delta variant) in many parts of China has resulted in the reintroduction of strict social distancing measures**.

This has affected domestic consumption activity, particularly travel, accommodation, catering and entertainment. Unfortunately, this is happening at a time when the consumption side of the economy was expected to drive growth in the second half of the year.

The resurgence of infections globally and ongoing supply disruptions are putting downward pressure on China's production and export performance. This means that the demand side of the Chinese economy is recovering at a slower pace than was expected, at a time when production activity is moderating.

Secondly, the Chinese economy has been hit by significant electricity shortages related to energy restrictions that are meant to control carbon emissions. This has forced factories to curb output or shut down completely, particularly in energy-intensive sectors such as the production of steel, aluminium and cement.

Lastly, ongoing regulatory tightening in the property sector, in an effort to limit financial risk, has curbed construction activity and squeezed financing of the sector. Historically, China has relied heavily on the property market for economic development and it remains an important driver of economic growth, so these restrictions are likely to dampen economic activity in the short term. In addition, this crackdown means that Chinese authorities can no longer use the real estate market as a policy tool to stimulate the economy during times of slowing economic activity.

Structural factors affecting China's long-term economic development trajectory

Beyond the short-term factors hampering China's economic recovery from the pandemic, longer-term economic activity in China is also set to be slow, affected by a number of structural economic headwinds. As a fast-maturing economy, China is rebalancing to a consumption- and services-led economy, thereby moving away from an investment expenditure-driven economy. This will naturally translate into lower long-term economic growth performance.

Importantly, China's "common prosperity" initiative, which is aimed at addressing some of the important socio-economic challenges facing the country, is also likely to drive long-term economic growth lower. This initiative means that China's policy focus is shifting from a significant emphasis on economic growth towards trying to address social issues, including income inequality and climate change.

The range of regulatory tightening and cultural reforms recently in the technology, property and education sectors could be seen as the first steps by government to achieve the common prosperity goals.

Additionally, Chinese authorities are committed to reducing inequality in outcomes and access through changes in:

- Taxation
- Establishing a comprehensive social safety net
- Realising a significant green transformation
- Enhancing the quality of employment, healthcare and education and
- Income transfers.

Chinese authorities aim to reduce the cost of basic needs like education, housing and medical care and address the extremely high levels of inequality in the country.

The authorities also acknowledge the need to address other longer-term challenges, particularly by reining in private and household sector debt (and addressing financial stability risks) and reducing technological dependence on the US.

This drive to steer the economy onto a greener, more resilient, and inclusive development path will inevitably lead to lower, but "higher-quality" growth for China.

Another characteristic of a maturing economy is a stabilising population, which is translating into unfavourable demographic changes in China. China is experiencing declining fertility rates and a significant rise in the old-age dependency ratio.

The rapidly-aging population trend is likely to shrink the labour pool, threatening China's natural advantage in human resources, and putting pressure on its long-term economic growth prospects. Positively, however, one of the expected benefits of the common prosperity agenda is to reduce the cost of raising children, increasing the incentive to have more children and potentially slowing this demographic trend.

Conclusion

Despite the slowdown in economic activity in the second half of 2021, the strong recovery in the first half of 2021 – along with base effects – means that China's economy will still post strong growth in 2021. Currently, GDP growth is projected to reach 8.1% this year, rebounding from 2.3% in 2020. This forecast has, however, been recently revised down from 8.4% as ongoing issues with energy shortages, COVID-19 outbreaks, tighter regulations and supply chain bottlenecks continue to affect China's economic growth for the rest of the year.

Overall, given the headwinds that China is facing, such as limits to the growth of its export-dependent manufacturing industry, the need for structural reforms, and its aging population, the country is transitioning to a structurally-lower long-term economic growth path that that is likely to be below 5%.

To overcome some of these obstacles and escape the middle-income trap, China will need to boost productivity growth by promoting innovation, making technological advances, achieving higher education rates, and making steady progress in addressing institutional and resource allocation issues. If done right, the common prosperity agenda could address some of these requirements, but it is unlikely that China will be able to achieve the level of economic growth that it did in the past.

Energy reform brings winds of change and some sunshine to SA's energy market

AT A GLANCE

Restrictive regulation has proved a significant barrier for private energy suppliers in helping to resolve SA's electricity challenges.

A recent regulatory amendment represents an exciting reform, allowing businesses involved in electricity generation to operate more easily and unlocking a significant opportunity for economic growth.

STANLIB Infrastructure Investments is already seeing a number of promising investment opportunities which enable it to diversify its investment into South African renewable energy.

Most importantly, while this means we are better able to provide stable, long-term returns for investors in our funds, we are also making a tangible difference to the country's energy transition and economic growth.

By Muhammed Munshi,
Portfolio Manager, STANLIB Infrastructure Investments

Restrictive regulation: a significant barrier to private energy generation

SA's electricity challenges are well documented. Escalating costs and load-shedding are a regular feature of South African life. This is largely due to the declining reliability of Eskom's aging fleet of coal-fired power plants. Eskom itself expects load-shedding to continue for the next five years as it deals with an electricity supply shortfall of approximately 4 000 megawatts (MW).

Unsurprisingly, in a 2020 World Bank Enterprise Survey on South African firms, 55% of those interviewed cited electricity as the most significant of 15 business environment obstacles.

SA is blessed with an abundance of sunshine and wind, making renewable energy is the most efficient solution to load-shedding. In addition to supporting the longevity of our environment, solar PV and wind already represent the least-cost option for the electricity sector.

By 2025 the global weighted average cost of electricity from solar PV could fall by as much as 59% and onshore wind could see cost declines of 26%.

South African commercial and industrial players have long expressed interest in investing in self-generation to achieve reliable and cost-efficient energy supply through cleaner sources of energy. However, regulations and red tape in the sector have presented barriers.

The Electricity Regulation Act ("ERA") sets out the licensing, registration and operating requirements of the National Energy Regulator of South Africa (NERSA) that enable businesses to generate and sell power in SA. The Act is too restrictive and contains burdensome licensing requirements for small projects. This made self-generation by private businesses largely unfeasible. To promote private generation of any scale and unlock sustainable economic growth opportunities, changes to the regulatory environment and an amendment to the Act were critical.

June 2021: a major energy reform was announced

In a major step to reform SA's energy supply, the President announced proposed amendments to Schedule 2 of the ERA on 10 June 2021. These included **exemptions for all embedded generation projects with a capacity of up to 100MW from having to be licensed by NERSA.** This applies whether they are connected to the grid or not and means that industry participants will experience significant improvements to their ease of doing business in the sector.

Another important amendment includes **allowing businesses that generate electricity to wheel (or transmit) electricity through the transmission grid**, subject to wheeling charges and connection agreements with Eskom and relevant municipalities. A simple example of the benefits of access to wheeling could be an independent power producer based in the Northern Cape, wheeling its solar-generated energy to a mine in the North West Province using Eskom's transmission network.

All power is carried on the long-haul transmission system and the local distribution system before it reaches the point of delivery to end-users. SA's distribution network includes municipal networks in towns and cities and Eskom's network in towns and rural areas. Municipalities and Eskom will have the discretion to approve grid connection applications in their distribution networks (based on an assessment of the impact on their grid). This may remain a bottleneck in some municipalities, while others have stated their intention to support and promote this evolution.

Unlocking opportunities for economic growth

The reform of the sector plays a key role in unlocking investment in energy projects, driving much-needed power supply to domestic business and a developing economy.

We expect there will be a significant increase in investment into embedded generation projects as companies in energy-intensive sectors such as mining and manufacturing are able to develop their own power projects. Mining companies are considering spending as much as R40 billion to construct 2 000MW of power generation capacity.

Independent power producers (IPPs) are likely to have more confidence in investing in larger-scale commercial and industrial projects. The risk and uncertainty of obtaining a generation licence, after incurring significant upfront development costs, is largely removed. In addition, the ability to wheel power across the national grid allows power to be produced in a separate location from where it is consumed.

This is significant, as not all large energy users have the physical capacity or effective location to generate power on-site.

This liberalisation of SA's energy market is expected to add about 15GW to the electricity system over the next five to seven years, amounting to around R100 billion of investment. More importantly, the positive sentiment created by this key reform will attract further interest from international investors. Increased investment in SA's energy infrastructure will have multiplier effects on the economy, like ripples across a pond, by creating much-needed employment and skills development.

Due to the staggering reduction in the cost of solar and wind energy, coupled with SA's abundance of renewable energy sources, it is expected that these newly-unlocked embedded generation projects will mostly be sourced from green energy. This is hugely beneficial in reducing the carbon footprint of South African industry, which is crucial to maintaining global demand for South African products. The European Union, for example, is considering imposing carbon border tax on some imported goods, which could impact SA's participation in global trade. It also means that, as a signatory to the Paris Agreement, the country is aligning to these global objectives and will be in a position to secure international funding for "low carbon" growth.

Not without challenges

While the proposed amendments to the ERA are a significant and positive step for the sector, there are several factors that pose challenges to a successful outcome.

The amendments to the ERA now mean that projects below 100MW only need to be registered with NERSA and not licensed, so they avoid the complex licensing process. To ensure the successful roll-out of this new reform, the NERSA registration process needs to be transparent and have set guidelines and clear timelines.

An important enabling factor in wheeling energy from key solar resource areas (such as the Northern Cape) to commercial hubs requires Eskom to make a significant investment in SA's distribution network. Based on Eskom's network requirements for sustainability, over 8 200km of power lines will have to be built at a cost of approximately R130 billion over the next 10 years.

While the amendments to the ERA allow generators to wheel (or transmit) electricity through the transmission grid, to ensure practical implementation, it is critical to establish wheeling agreement frameworks for municipalities and wheeling tariffs. Currently only a few municipalities clearly stipulate their wheeling tariffs. Policy and regulatory certainty is required to unlock the full investment potential of this reform.

Municipalities rely on a surcharge on the cost of power they carry over their distribution networks, which forms a significant part of their funding base. It is expected that, with a lower rate and a smaller tax base, most municipalities will look to wheeling as an additional source of revenue. There is always the risk that this layering of costs at municipal level will undo some of the expected benefits for power producers and consumers.

More renewable energy investment opportunities

The additional direct investment opportunities created by the liberalisation of the sector are largely project-based for private investment, **meaning retail investors have access through their pension funds.** However, it is important to consider the broader impact on the local economy: a cascade of more investment opportunities across all businesses and sectors and an investment opportunity in the country.

STANLIB Infrastructure Investments manages funds that specialise in investing in renewable energy generation projects. These funds are currently invested in a diversified portfolio of 20 individual renewable energy projects, which in total make up investments in approximately 20% of SA's current procured renewable energy projects.

We are already seeing a number of promising opportunities that will allow us to further diversify our investments in South African renewable energy.

Importantly, while this means we are better able to provide stable, long-term returns for investors in our funds, we are also helping to make a tangible difference to SA's energy transition and economic growth.

Can fast-growing markets deliver investors more?

AT A GLANCE

Fast-growing regions should in theory offer investors superior growth opportunities compared to developed markets.

However, globalisation means DM companies are operating in EM markets, boosting the growth potential of DM stocks – notably US tech stocks. EM equity as an asset class has not structurally outperformed over time.

EM equity has been correlated to commodities for many years, but changes in China could see this change.

Look beneath past behaviours and correlations between EM vs DM and look ahead for structural changes when considering the benefits of including EM equities in a long-term investment portfolio.

Peter van der Ross,
Portfolio Manager,
Multi-Strategy

Favouring emerging market (EM) equity has often been regarded as a "no-brainer" for long-term investors seeking high growth, given the view that accessing faster-growing regions of the world should yield higher growth in returns.

Developed markets (DMs) on the other hand, could arguably have reached a growth plateau, as their lower GDP trajectory offers investors limited opportunity to truly enhance returns. A closer look at this hypothesis indicates it is not that simple.

Emerging Markets vs Developed Markets

EM equity as an asset class grew in prominence in the late 1980s, with the MSCI EM benchmark index formed in January 1988. Figure 1 below charts MSCI EM versus MSCI DM equity since inception. It is clear that the relative performance has been cyclical, not structural – at least so far. To further complicate matters, these cycles have not coincided with the global economic cycle. As is often the case with investments, we lack enough data (this example reflects only two cycles) to form robust statistical conclusions on what drives EM equity's relative performance.

Figure 1. EM versus DM Price Relative

Source: Bloomberg

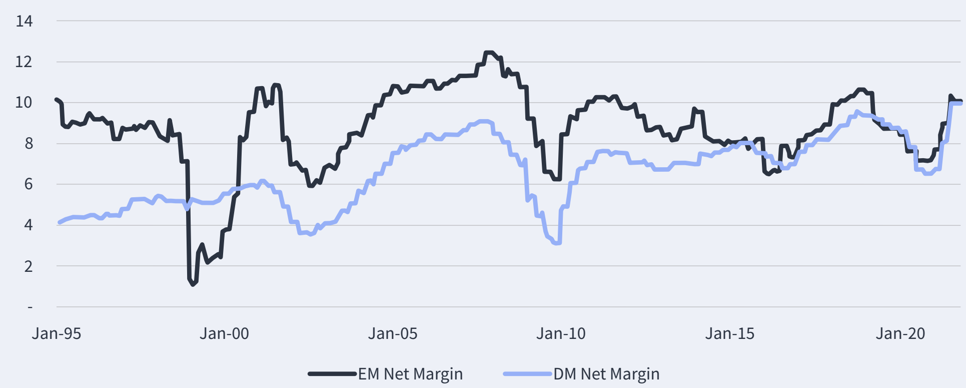
Markets reflect the earning potential of the underlying stocks in the index, rather than geographical GDP growth. The two episodes of DM equity outperformance – in the late 1990s and from 2011 to date – were driven by the strong performance of mainly US technology stocks, which are US-domiciled stocks that are in essence global. For example, there are 2.8 billion daily users of Facebook, WhatsApp, Instagram and other apps owned by Meta (formerly Facebook). It is a global company operating in many emerging markets, listed in the US and therefore included in the MSCI DM index. The same applies to Apple, Alphabet (Google), Microsoft, Amazon, Netflix, etc.

The two episodes of EM equity outperformance were different. The first was driven by a rush of capital into the (then) new growth promise of EMs, fuelled by the collapse of the Japanese bubble and US recession in 1990. This ended with a series of EM currency crises, representing the first widespread EM risk flag to DM investors.

The EM boom of the 2000s was driven by China's incredible infrastructure activity, creating a rising tide that lifted the boats of many other emerging commodity-producing countries. This was the only period when structurally-higher EM growth manifested in EM equity outperformance.

Meanwhile, as companies have globalised, both the timing of earnings peaks and troughs across both DMs and EMs, as well as profitability levels, have converged – see Figure 2. There seems to be less diversification on offer.

Figure 2. EM-DM Profitability has Converged



Source: Bloomberg

STAND POINT

EMs typically perform in commodity cycles… or do they?

Today, China makes up approximately 35% of the MSCI EM index, with Taiwan comprising an additional 15%. In both the East and West, protectionism, socialism and environmental concerns are driving politics away from the laissez-faire approach that resulted in corporate globalisation and profit convergence.

As my colleague, Warren Buhai, recently pointed out in his article, EM equity has typically been well-correlated to the commodity cycle, especially industrial commodities – see Figure 3. But that correlation was almost non-existent for the 15 years from 1988 to 2002. The high correlations from 2002 to 2020 make logical sense to us, as Warren discussed. However, investors buying EM equity this year on that commodity price thesis would have been horribly wrong. *Read the article here*

So what happened this year?

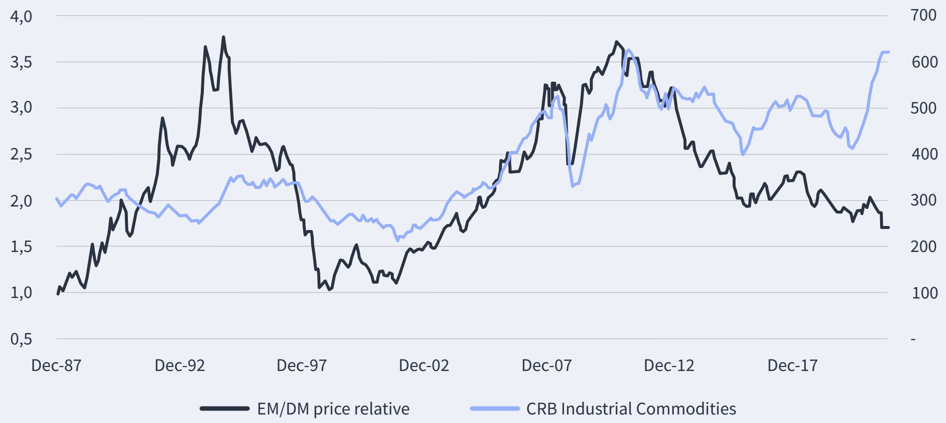
We think multiple trends coincided, similar to when individual small waves in the ocean combine to form a much larger wave. These waves were:

- The steady but sure rise of Xi Jinping preparing to be Chinese president for life
- East-West protectionism as personified by Donald Trump
- Structural under-investment in fossil fuel capacity, reflecting the global ESG zeitgeist, and
- Global supply/demand imbalances at the intersection of COVID-induced bottlenecks and loose fiscal policy.

The first two issues have influenced the Chinese trajectory to the downside, while the latter two have squeezed commodity prices higher, hence the dislocation seen this year.

The bottom line is that, this year, China focused aggressively inwardly just as commodity prices skyrocketed. The Chinese Communist Party and President Xi Jinping in particular have flexed their muscles in more actively directing their economy. The old model of excessive gearing – especially in the property sector – for the enrichment of a few is over. What replaces it as their new growth vector is unknown.

Figure 3. EM/DM Price Relative and Commodity Research Bureau Index of Industrial Commodity Prices



Source: Bloomberg

Where to from here?

EM equity is not a geared or high beta play on global equity. EM equity as an asset class has not structurally outperformed over time, as many leading DM-domiciled companies operate globally. EM equity has spent many years correlated to commodities, but we appear to be at the early stages of a new Chinese growth model, driven by the imperatives of 'common prosperity' and the determination of the (probably) president for life. The Chinese cannot change the structure of their economy overnight, so we would expect the correlation to commodities to reassert after the current adjustment period, but then possibly fade over time as new growth vectors emerge.

When constructing portfolios we consider both prospective returns from and correlations between asset classes.

With SA markets still dancing to the commodity tune, the inclusion of EM equity in a typical Regulation 28-compliant portfolio has been more about enhancing returns than reducing risk.

The key EM equity call going forward hinges on one's reading of China. Aside from the Naspers-Tencent link, to the extent that China becomes more insular, investing there may actually offer better diversification than it has in the past. But that could be some way off.

Tactically, we prefer DM to EM equity, as we currently have a better understanding of growth and policy (both monetary and fiscal) dynamics in the West. EMs may well deliver better tactical returns, but we do not favour that risk-reward prospect as President Xi Jinping looks to cement his grip on power over the next year. Certainly, this view will evolve as Chinese growth and policy pain points become clearer.

“Where to from here” with cryptoassets?

Rademeyer Vermaak,
Head of Portfolio Management,
STANLIB Index Investments

Bitcoin, Ripple, Litecoin or Ethereum. For anyone not familiar with cryptoassets, this may sound like a list from a chemistry textbook. But these names are just a few of the more popular cryptocurrencies attracting significant investment since the concept was first launched over a decade ago.

While cryptocurrencies are described as a type of electronic cash, they are very different from the paper cash found in our wallets. They exist electronically and use what is known as a peer-to-peer system. For many cryptocurrencies there are no central banks, governments or corporates to manage the system or step in if something goes wrong. That has both benefits and pitfalls.

As the crypto industry reaches almost US$3 trillion (at 31 October 2021) and there are more than 6 000 different cryptocurrencies available, should these assets form part of a long-term diversified portfolio?

Rademeyer Vermaak, Head of Portfolio Management at STANLIB Index Investments, answers some pertinent questions about investing in cryptocurrencies. As a quantitative investment expert with 17 years of industry experience, Rademeyer has deep insight into the technicalities of cryptoassets and the risks of investing in “electronic cash”.

Q It seems cryptocurrencies are here to stay and any investor who does not already know much about them is probably overwhelmed with jargon and stories. As a quantitative investment expert, can you explain this asset?

A Before exploring cryptocurrency as a collective, it is appropriate to understand Bitcoin as the first and most important cryptocurrency, and some of the technology and vocabulary that surrounds it.

Bitcoin is a digital currency or asset built on an underlying technology called the blockchain. The blockchain is a special type of database that uses blocks to store information.

It will help to understand the technological challenge that the blockchain solves, and only then look at how that solution is applied to digital money in the form of Bitcoin.

A fundamental principle in economics is that scarcity underpins value – which is why a diamond is worth more than a grain of sand.

Digital objects are easy to replicate, so they are not scarce. For example, if you take a photograph with your phone and email it to someone, there would now be two copies. The photograph will only be regarded as scarce if you ensure that one of these copies is deleted. This requires trust.

Blockchain solves this. It creates digital scarcity by using a system called a distributed ledger which documents the ownership of any digital asset, as well as a history of owners and transactions. Everyone and anyone has access to this decentralised ledger, and anyone may have a copy of it. Through this simple yet sophisticated database, a digital object becomes scarce and, through the scarcity principle, gains value as a digital asset (Bitcoin).

Most money in circulation today is digital (except for coins and notes), and it is certainly not scarce. New money can be created at the tap of a keyboard, a fact that has become evident both in 2008 and with the recent COVID-19 stimulus.

In contrast, there will only ever be 21 million Bitcoins (each of which is divisible into very small units). No more Bitcoins can ever be created (or mined, which is the technical term).

Bitcoin, however, is more than a scarce digital asset. It was engineered to be used and sent digitally as easily as an email. The result is a global monetary network that can operate alongside the US dollar to eliminate the centralised control of money by government agencies and ensure speedy processing of transactions.

The code and mathematics of the Bitcoin network perform and automate the essential functions of a central bank, including:

- Governance of monetary policy
- Maintaining a stable monetary supply
- Reaching consensus on account balances, and
- Facilitating international transactions with immediate settlement.

This Bitcoin central bank is owned by no-one and everyone, the chairman is mathematics and code, and it does not allow for any inflation of the monetary supply.

An analogy for Bitcoin would be simultaneously both email and gold. It is both an asset for storing value and a protocol and network for making payments, and practically it enables anyone to be their own bank. The speed and transparency that the blockchain, and consequently Bitcoin, provides are unmatched by anything else in today's financial system, and are among the main drivers of interest in, and adoption of, the cryptocurrency.

Q Can you explain how it is valued and why it matters to financial markets?

A The reality of crypto is that we have never seen anything like it, so traditional valuation anchors and models do not translate well. One way to look at crypto, is through the lens of the subjective theory of value. This theory states that the aggregate buying and selling decisions of individuals serve as their primary source of pricing information.

The CFA Institute Research Foundation brief on cryptoassets, contains several alternative valuation methods for cryptocurrencies, such as:

- Total Addressable Market (Bitcoin replacing gold as store of value)
- The Equation of Exchange (size of the market served)
- Value of the Network (model based on Metcalfe's law)
- Cost of Production model (similar model to commodity pricing)
- Stock to Flow model (based on scarcity of assets) and
- Protocol Revenue to Price model (similar to P/E ratio)

Perhaps the most intuitive approach to valuation is through the praxeological lens of Austrian economics. This view touts Bitcoin (by virtue of its underlying technology and design) as the hardest and most secure financial database and network ever created, potentially replacing and automating the functionality of central banks and securities markets.

It consists of 100 000 independent and secure nodes that allow anyone to transact 24/7 without relying on the trust or goodwill of any third party. As global geo-political powers ebb and flow, Bitcoin remains totally non-political, and its essential value lies in enabling anyone to truly own something that cannot be taken away or inflated away.

Q The number or types of cryptoassets seems to be growing. Which are the main ones and how are they different?

A The current landscape is very similar to the "Dotcom" internet stock boom of the early 2000s. Initially the market comprised a lot of highly speculative stocks, for example Microsoft, Amazon and Pets.com. Many ultimately fell away, and a few went on to become household names.

Just as ecommerce and Amazon disrupted retail over a period of more than 20 years, there is the potential for Bitcoin and Decentralised Finance (so called "DeFi") to disrupt the existing financial system. It will take time. However, significant inroads are already being made in replacing portions of the existing banking and security sector, and beyond.

Many new cryptocurrencies are listed and delisted daily. Bitcoin was the first and remains the largest and most important cryptoasset. It was created by an anonymous individual (or group), with the pseudonym Satoshi Nakamoto. Other prominent cryptos include:

- Ethereum – programmable smart contracts for Decentralised Finance (it is also the second largest crypto by market cap behind Bitcoin)

- Ripple – a method of facilitating global payments between financial institutions and various regions, in a fast, transparent and efficient manner
- Meme coins - these are a growing class of tokens which include the likes of Dogecoin and Shiba Inu (among many others). These "joke" crypto have a typically uncapped supply, are low quality (the GameStop of crypto) and highly speculative, and
- Stable coins – these are cryptocurrencies trading on the blockchain as proxies for fiat currencies, such as USD Tether and USD coin. These open a new world of borrowing and lending similar to fixed income markets.

I would recommend learning about Bitcoin as an initial step and only then looking at the potential value of other cryptocurrencies. Bitcoin remains the most important cryptocurrency as it combines a truly limited supply with true decentralisation (no central corporation or organisation controls it, in contrast to many other cryptocurrencies). A good starting point is the book The Bitcoin Standard:

"With the wide variety of cryptocurrencies available, it is crucial that one understands the specific use-case, reads the white papers, and does sufficient in-depth research before investing. Never invest in what you do not understand, for that is pure speculation, remain acutely aware of the risks, and position the size of your investments accordingly."

Q Some investors have doubled their money, others stay away based on the perception that investing in cryptoassets is comparable to gambling. What are the true risks of investing? Are some cryptoassets riskier than others?

A Overall, the cryptomarket is significantly more volatile than traditional financial markets and needs to be treated as such – drawdowns of 80% and more have occurred historically. Inside the cryptomarket, just like the stock market where we find stocks of differing quality, we will find different quality cryptoassets with different risk profiles. Think of Amazon or Ford vs GameStop.

As with any investment, there are risks, and especially because crypto is a frontier landscape with uncharted territory, we just do not know what the future holds. A number of risks are related to this uncertainty:

- Regulatory issues and government interference are probably some of the biggest risks to investing in Bitcoin
- The downside risk is, of course, that the valuation eventually goes to zero, and
- The upside risk is that it becomes a global reserve currency as traditional currencies lose value.

Keep in mind, investing in anything is speculation if you do not know why you are investing or what you are investing in. Again, this comes down to doing the necessary research, having a well-formed view, and, of course, not investing more than you can afford to lose.

Q As you stated above, regulation or rather its absence is a key risk. Is the regulatory environment shifting in the near term and how will this impact investors?

A Globally, regulators are taking very different approaches. It has not been a one-size-fits-all approach, as different markets, economies, and regions grapple with their own challenges. For example, China has restricted citizens from trading, owning, or exporting cryptocurrencies, while in El Salvador, Bitcoin has been made legal tender. Evidently, the space is fluid. But because Bitcoin is truly globally decentralised, it cannot be shut down by a single government. In fact, shutting it down would be like shutting down the internet.

Over the short- to medium-term, regulators are worried about tax collection, AML/KYC, currency controls and cross-border flows. These are areas of intense focus, as regulators continue to deal with the realities in this space, while attempting to develop appropriate regulation.

Over the longer-term, concerns relating to ESG will come to the fore and will be another challenge to address.

Q Should a long-term investor be thinking of crypto as an investment opportunity?

A With Bitcoin, we could only really be seeing one of two scenarios playing out: either the rapid adoption of a disruptive new technology, or it becomes the biggest speculative bubble in the history of mankind.

To provide more context to this debate, I did some number-crunching on several important historical bubbles.

- Tulip Bubble – November 1636 to February 1637 (four months), when prices soared by 2 000%
- South Sea Bubble – January 1720 to June 1720 (five months), when prices soared by 700%
- DotCom Bubble – January 1990 to October 2002 (almost 13 years), when prices went up by 900%
- The Bitcoin white paper was published in October 2008, and it has been trading since July 2010 (just more than 11 years) and is up by a staggering 104 million per cent or 242% per year (at 31 October 2021). It is the best-performing asset of the decade, and perhaps of all time.

Considering this, we must ask ourselves whether this is the longest and largest bubble ever or is it something we need to be paying attention to.

From an investment perspective in a portfolio construct, an insightful and relevant piece of work was done on the case for including crypto in institutional portfolios.

The research found that, starting from a traditional institutional 60/40 portfolio and allocating Bitcoin at 1% or 2.5%, it has historically increased portfolio returns without a substantial increase in risk. This is largely due to the historically low correlation of Bitcoin with traditional assets.

Portfolio Performance Metrics

Period between January 1, 2014 and March 31, 2020 (assuming quarterly rebalancing)

Portfolio	Cumulative return	Annualised return	Volatility annualised STD. DEV)	Sharpe ratio	Maximum drawdown
Traditional portfolio	**26.22%**	**3.8%**	**9.86%**	**0.31**	**21.07%**
Traditional portfolio +1.0% bitcoin	**33.52%**	**4.74%**	**9.87%**	**0.41**	**21.32%**
Traditional portfolio +2.5% bitcoin	**44.91%**	**6.13%**	**10.07%**	**0.54**	**21.80%**
Traditional portfolio +5.0% bitcoin	**65.07%**	**8.37%**	**10.83%**	**0.70**	**22.76%**

Nothing contained herein is intended to predict the performance of any investment. There can be no assurance that actual outcomes will match the assumptions or that actual returns will match any expected returns. Past performance does not predict future results. Source: Bitwise Asset Management.

I think as fund managers we tend to think in terms of mean reversion, which means we sometimes miss the big trends. There is an expectation that cryptocurrencies will mean revert, but seen in a long-term historical context, disruptive technologies such as the wheel, the printing press and the personal computer have never mean reverted. In moments like these, we need to appreciate that we are in uncharted waters. As investors and custodians of client assets, we need to be open-minded and allow our prevailing notions to be challenged. Perhaps then we may recognise those opportunities that drive us forward as an industry (and as a civilisation).

Q What is the ESG (Environmental, Social, Governance) impact of Bitcoin?

A Bitcoin mining (the process by which Bitcoins are “created” and enter circulation) consumes a large amount of energy through intense computational hardware usage. However, this must be seen in the context of the existing legal, governance and financial systems. Too often, this argument is raised in isolation and not considered holistically. Doing the maths, the world consumes about 160 000 TWh of energy annually, whereas Bitcoin consumes 120 TWh. That means Bitcoin only comprises 0.075% of global annual energy consumption.

Bitcoin miners are actively moving to renewable energy sources. Bitcoin mining provides an opportunity to use stranded energy sources and act as a storage method for energy. For example, a hydro-electric plant that is too far from a city to feasibly transport the electricity can now be used to convert that hydro-kinetic energy to digital energy and store it in Bitcoin, similar to a battery.

ESG has a social component as well. In countries with populations that are largely unbanked, crypto enables financial inclusion, bringing people into the global financial system. With that, it provides the hope of economic freedom to billions of people. This may not be such an important issue in developed economies, but Bitcoin provides an important lifeline in authoritarian countries with hyper-inflationary currencies, and their dire socio-political consequences.

In terms of governance in ESG, it is difficult to argue against the transparency and robustness of the blockchain. With mathematics and code as the fundamental drivers, and human interference removed from the equation (specifically the case with Bitcoin), and with no central agency defining an agenda, Bitcoin may represent the very best of governance and freedom.

Q Do you have an investment in cryptocurrency?

A I do.

Performance at a Glance

Market Indicators

For the period ended November 2021

November 2021	1 Year	3 Years	5 Years	10 Years
SA markets	%	%	%	%
FTSE/JSE All Share SWIX	20,3	10,1	7,2	10,3
FTSE/JSE All Share	28,5	15,5	10,6	11,4
FTSE/JSE Top 40	27,4	16,6	11,4	11,5
FTSE/JSE Resources 10	37,0	28,9	20,3	6,3
FTSE/JSE Financial 15	26,6	-1,4	3,1	9,8
FTSE/JSE Industrials 25	19,8	16,4	10,0	14,6
SA bonds, cash and property				
FTSE/JSE SA Listed Property	44,3	-5,7	-5,0	5,3
FTSE/JSE All Bond (ALBI)	8,1	8,4	8,8	8,0
STeFI Composite	3,8	5,6	6,3	6,2
SA inflation				
CPI (SA Headline Inflation)	5,0	4,0	4,4	5,0
Offshore Markets				
MSCI World Index (ZAR)	26,6	23,3	18,3	20,8
MSCI ACWI (ZAR)	24,0	22,3	17,7	19,9
Barclays Global Aggregate (ZAR)	0,1	9,5	6,1	9,0
Global property**	29,7	13,6	10,3	16,0

Source: Morningstar (unaudited), STANLIB Fund Research
***FTSE EPRA Nareit Developed Rental Index (ZAR)*

STAND POINT

Performance at a Glance

Core Fund Performance

For the period ended November 2021

	Fund	1 Year Return (%)	1 Year Quartile	3 Years Return (%)	3 Years Quartile	5 Years Return (%)	5 Years Quartile	10 Years Return (%)	10 Years Quartile	*Highest or lowest annual returns over the last 10 years (%)* Highest	Lowest
INCOME	STANLIB Income Fund	4,7	2	6,6	2	7,5	2	7,1	1	9,63	4,4
	STANLIB Flexible Income Fund	7,1	2	8,0	1	7,3	2	7,3	2	11,9	1,8
STABLE GROWTH	STANLIB Balanced Cautious Fund	12,3	3	10,2	1	7,7	2	8,5	2	21,0	-1,3
	STANLIB Absolute Plus Fund	12,5	4	8,4	4	7,5	2	8,5	3	19,6	-3,9
GROWTH	STANLIB Balanced Fund	14,9	4	10,9	2	7,9	2	9,4	2	29,8	-7,5
	STANLIB Equity Fund	15,7	4	10,6	3	7,5	2	10,1	2	37,7	-12,8
	STANLIB Property Income Fund	36,9	4	-6,8	3	-6,8	4	4,6	3	61,0	-51,8
OFFSHORE (ZAR)	STANLIB Global Equity Fund	20,5	2	24,2	1	18,6	1	18,6	1	56,4	-12,6
	STANLIB Global Balanced Fund	15,6	2	18,7	1	14,0	1	15,05	1	37,1	-12,9
	STANLIB Global Property Fund	30,4	2	12,4	3	8,7	3	14,2	2	43,5	-19,3

Source: Morningstar (unaudited)

DISCLAIMER