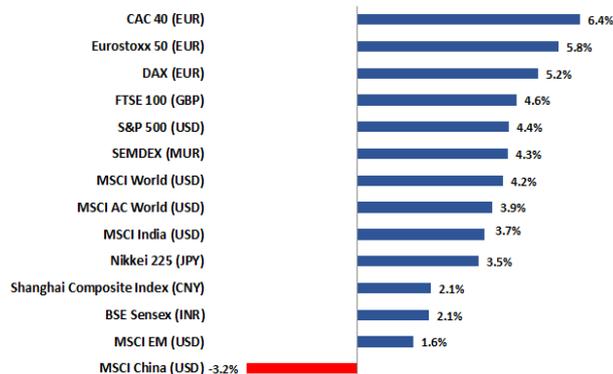


## MARKET SUMMARY

Equities: Dec 2021 performance (in Index currency)



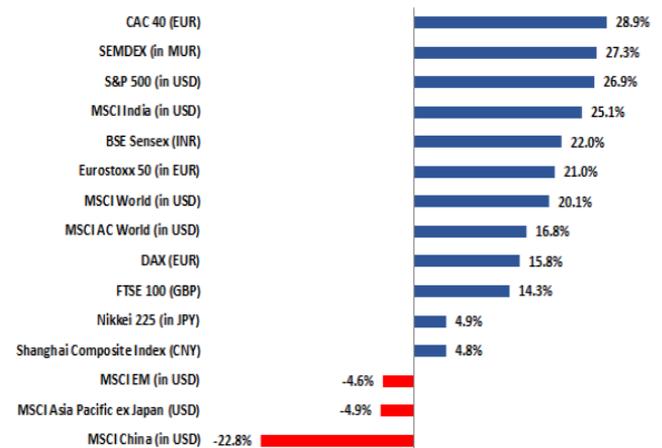
- The last month of the year ended on a strong note with the major indices in the green.
- In the US, the Fed's quantitative easing will be reduced by \$30 bn monthly and will cease by the end of March 2022. Policymakers have indicated that interest rates would increase at least three times in 2022.
- The EU has unveiled in December its €300 bn initiative, called the Global Gateway, which aims to help mobilize investments in digital, clean energy and transport networks as well as boost health, education and research systems across the world.
- The Bank of England caught investors by surprise with the main interest rate lifted from 0.1% to 0.25% in a bid to counter inflation.
- The Omicron variant derailed market momentarily but fears abated on expectations that this new variant would be less virulent than the Delta variant. However, sanitary measures were again put in place in many regions of the world.
- Evergrande Group, China's second-largest developer, defaulted on bond payments in December.
- The Mauritian SEMDEX was in line with global markets and displayed robust performance despite the Omicron variant headwinds.

## THE YEAR 2021 UNDER REVIEW

- Despite the whims and vagaries of Covid-19 and its variants, supply constraints and high inflation, global equity markets had a stellar year.
- In the US, UK and the Euro-Zone, inflation reached 6.8% y-o-y (a 39-year high), 5.1% in November and 5.0% in December respectively. In Mauritius, y-o-y inflation stood at 6.8% in December 2021 (LY: 2.7%).
- Surging inflation led central banks to take hawkish measures. The ECB announced that its Pandemic Emergency Purchase Programme will end by March 2022. The Bank of Korea in November raised interest rates for the second time, since the start of the pandemic, to 1%.
- China's equity markets underwent a tumultuous year following regulatory crackdowns. In December, the central bank cut the one-year loan prime rate, to boost the economy, for the first time in 20 months to 3.8%.

- In the commodities market, oil was a star performer as demand was driven by the recovery in the global economy, whilst the price of gold was down due to the strong US\$ and expected interest rate hikes.
- The fixed income markets were lacklustre due to high inflation rates and tighter monetary conditions.
- In Mauritius, after a period of uncertainty in the first half of the year after confinement measures, the removal of Mauritius from FATF's grey list and UK's list of high-risk countries and the re-opening of borders were very positive for the markets. A few companies resumed dividend payments, after its suspension last year. This led to optimism in markets and solid equity returns.
- Over the year, the MUR depreciated by 11.2%, 10.1% and 2.4% against the USD, GBP and EUR respectively.

Equities: Year 2021 performance (in Index currency)



## INVESTMENT THEME:

### Artificial Intelligence (AI)

- Artificial intelligence (AI) is the science and engineering of making intelligent machines and computer programs capable of learning and solving problems in ways that would normally require human intelligence. It includes machine learning, deep learning, computer vision, natural language processing and robotics among others.
- In 1950, Alan Turing, a British mathematician and often referred to as the father of computer science, published his paper 'Computing Machinery and Intelligence'.
- Nowadays, AI is being used in many areas such as the automotive sector, e-commerce and the health care industry.

### Machine learning

- Teaching machine to learn from examples instead of relying on hard-coded and predefined rules.

### Deep learning

- Deep learning is a sub-set of machine learning. It is a neural network, reflecting the behaviour of the human brain. The neural network keeps on learning and evaluating its input data.

### Computer vision

- AI technology allows computers to process information from visual inputs so that the machine can take action.

### Natural language processing

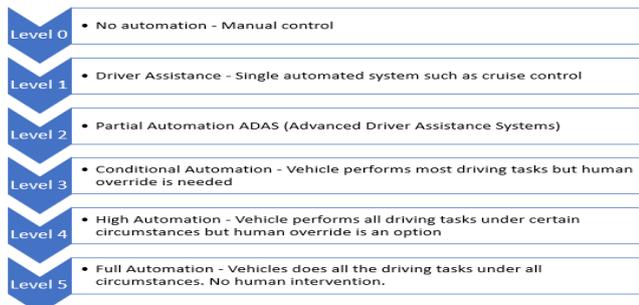
- Leverages machines learning algorithms to process human language in the form of text or voice data.

- Gartner forecasts that the worldwide AI software market will grow from \$51.5 bn in 2021 to almost \$134.8 bn in 2025, an increase of 161.7%.

## AI market drivers

### 1. Autonomous vehicles

- Autonomous vehicles, equipped with sensors such as radars, video cameras, Lidar (Light detection and ranging) and ultrasonic sensors, are key application areas for AI.
- To process the data captured by the sensors, autonomous vehicles use machine learning and deep learning.
- The Society of Automotive Engineers (SAE) categorizes the levels of driving automation from level 0 (fully manual) to level 5 (fully autonomous).



- Car manufacturers such as GM and Chinese car manufacturer Geely are aiming to deliver a consumer-oriented driveless car by the middle of this decade and to launch a car in 2024 with a level 4 driving automation respectively.
- The global autonomous cars market size is projected to grow at a CAGR of 22.7% to reach \$64.8 bn by 2026 from \$23.3 bn in 2020.

### 2. Virtual assistants

- Virtual assistants found in devices such as smartphones, computers and tablets are powered by AI cognitive agents. These virtual assistants assist with navigation,

paying bills and in developing and implementing marketing strategies for organizations.

- Intelligent virtual assistants such as chatbots and smart speakers stimulate and process human conversation (verbal or written), enabling humans to interact with digital devices.
- Chatbots can be categorized as (i) Task-oriented i.e. focusing on performing a single function such as handling common questions (FAQs) (ii) Data-driven and predictive i.e. using predictive intelligence and analytics to learn user's preferences over time and make recommendations.
- Global smart speakers include Alexa from Amazon, Google assistant developed by Google, Siri from Apple and Duxiaoxiao from Baidu.
- According to Grand View Research, the global intelligent virtual assistant market size was valued at \$5.82bn in 2020 and is expected to expand at a CAGR of 28.5% from 2021 to 2028.

### 3. Big data

- The concept of big data has existed for several years and the first companies to embrace it were online and start-up firms - organizations like Google, LinkedIn and Facebook were set up around big data from the start.
- Big data can be characterized by the 3Vs i.e. Volume, Variety and Velocity. Volume refers to the size of the data, variety refers to the structural heterogeneity in the dataset, velocity refers to the speed for data generation and analysis.
- Technologies such as machine learning, predictive analytics and text mining are used to analyse these complex data, to uncover hidden patterns and to identify new opportunities for organizations.
- Global spending on big data and business analytics solutions is expected to reach \$215.7 bn in 2021 and will achieve a CAGR of 12.8% from 2021 to 2025.
- AI is a real game-changer in many industries and offers numerous opportunities to optimize business operations and improve efficiencies and should result in further adoption across several industries.
- Given the enormous potential of AI, PeaQ has positioned its model portfolios to benefit from the increase in spending. This is an investment area which would be relevant for many years to come.

10<sup>th</sup> January 2022

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Source: IBM, IHSmarkit, Gartner, Synopsys, Facts&Factors, Sas, OECD, IDC, Grand View Research, Oracle, WSI, SEMDEX, Bloomberg, Statistics Mauritius.

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