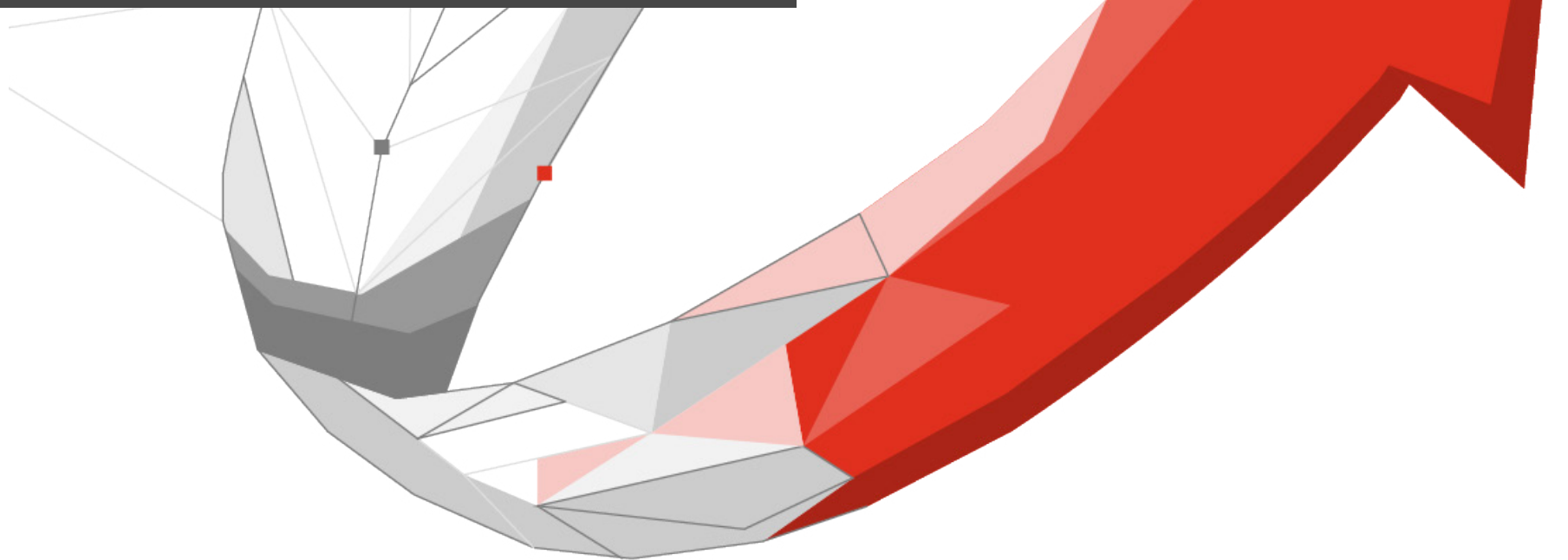




Market movements – the impact of COVID-19





1. Introduction

Since the identification of a new type of Coronavirus (novel Coronavirus, later called SARS-CoV-2) in December 2019, millions of people have become infected globally. Numerous governments have declared a national state of disaster and have implemented differing measures, such as lockdowns and quarantines, to curb the aggressive spread of the virus: COVID-19. Such decisions have resulted in detrimental impacts on the global economy. Declines in global equity markets, supply chain disruption and consumer uncertainty have caused both the global and South African economy to come to an abrupt halt.

In April 2020, the International Monetary Fund ('IMF') forecasted a 3% contraction in global GDP, contrary to the 3.3% expansion predicted prior to the pandemic, marking this as the worst economic slump since the Great Depression (1929) almost a century ago.

South Africa has faced many downturns in the past 20 years, including the Asian Crisis (1998), the 'dotcom' bubble collapse and currency crisis (2001), the GFC (2008), European Monetary Crisis, Nenegate (2016) and now the COVID-19 pandemic. Several GDP forecasts for 2020 have indicated a contraction of the South African economy ranging from 5% to as much as 23.5%. Certain industries will be more severely affected than others. These include the tourism, hospitality and entertainment industries that have been unable to operate under lockdown restrictions.

In this article we explore the impact of COVID-19 on the financial markets, for both developing and emerging markets. In the subsequent sections we discuss the reaction of the equity market, bond yields, foreign exchange, commodities and credit spreads respectively.



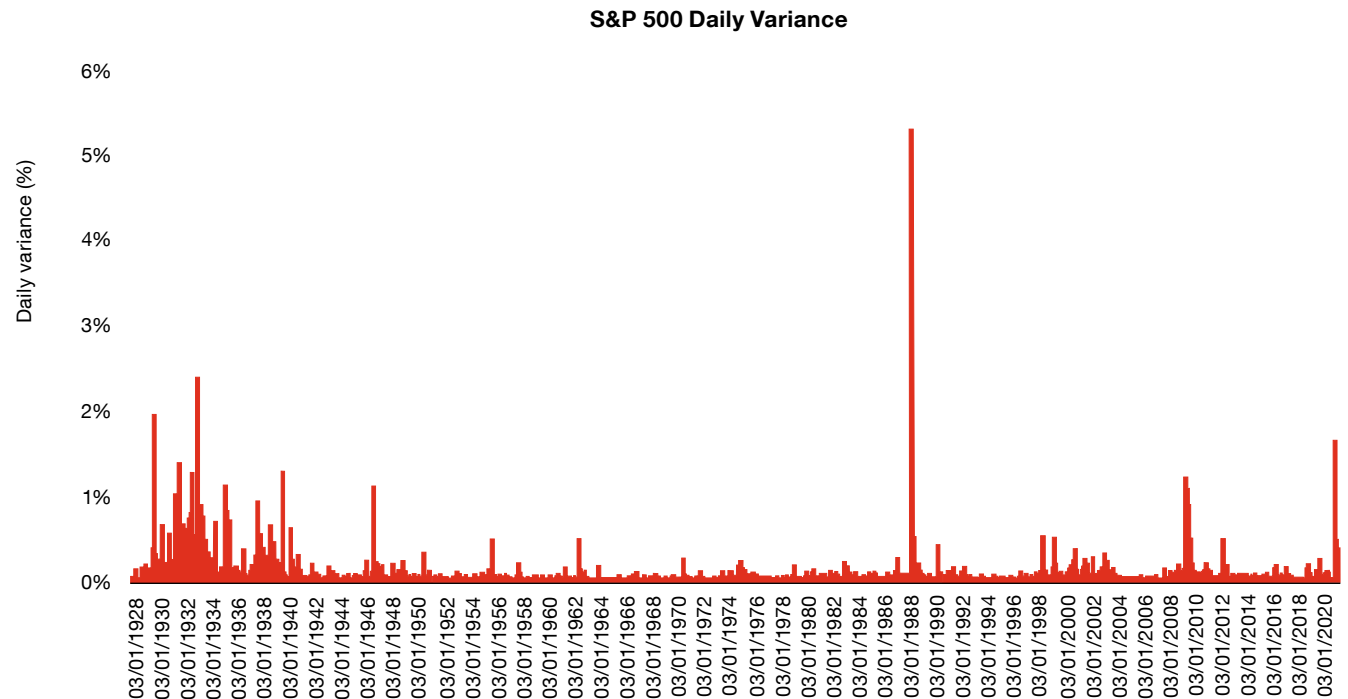
2. Financial market impacts of COVID-19

2.1. General market volatility and the equity market

The volatility of the main asset classes (interest rates, equity, foreign exchange and traded credit) is one of the most important risk indicators that is available to market participants and observers.

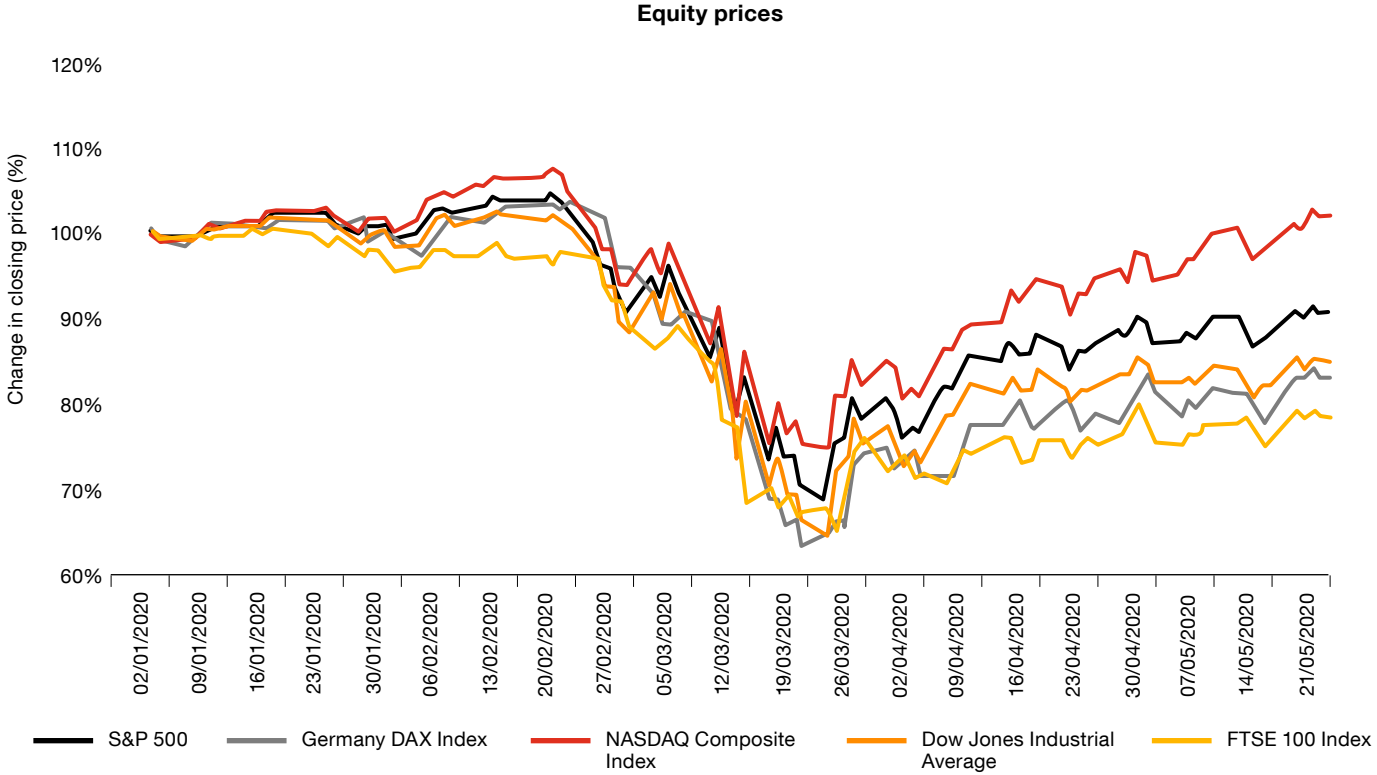
Since the end of February, financial markets have been subject to some of the highest levels of volatility observed in the past 100 years. When compared to other health-related crises, we note that the 2003 SARS epidemic and the 2015 Ebola epidemic led to modest, short-lived spikes in volatility, while the Bird Flu ('H5N1') and Swine Flu ('H1N1') epidemics of 1997 and 2009 respectively, barely registered.

The graph below depicts 92.5 years of U.S. stock-market volatility approximated by the daily variance of the S&P 500 index since 1928. COVID-19 is one of the notable peaks surpassing that of the GFC. Black Monday of 19 October 1987 accounts for the highest recorded daily variance during this time and the Great Depression the second highest.



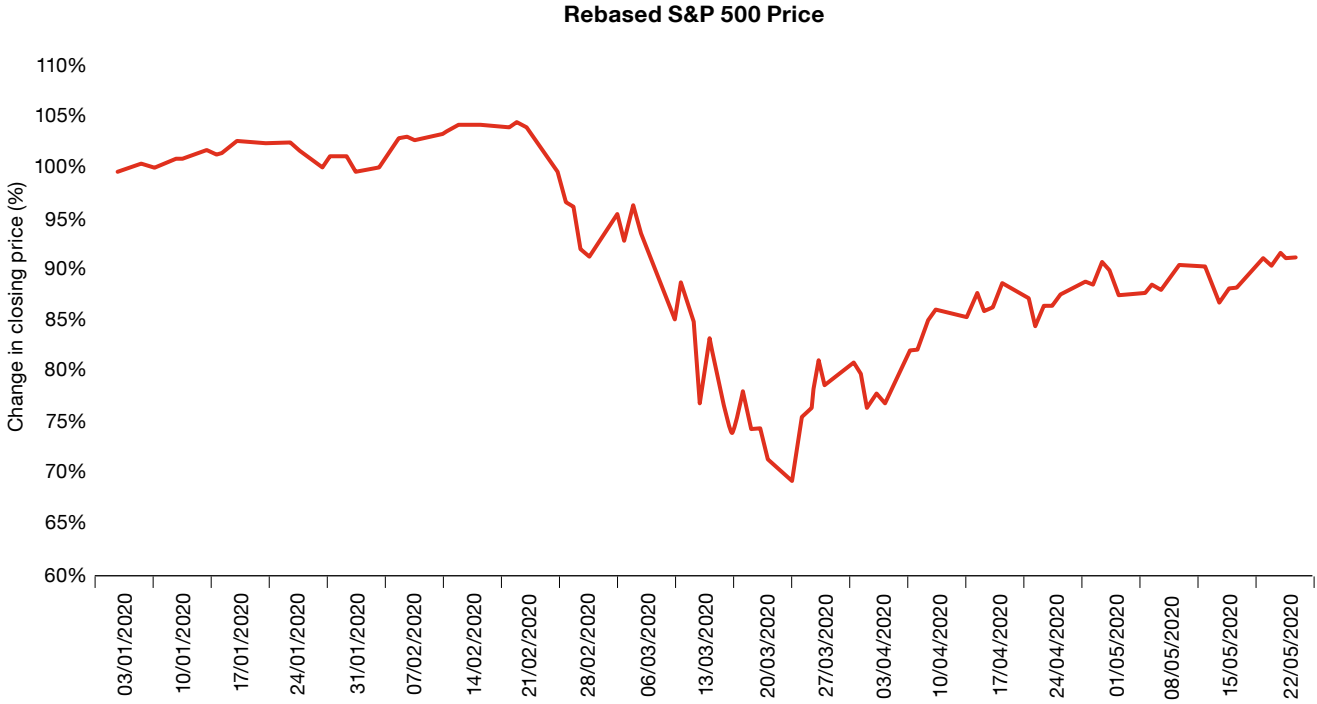


In developed markets, some of the largest and typically stable equity indices have experienced unprecedented volatility. From the graph below, the volatility is evident during March 2020 compared to the rest of the one-year trade cycle. A degree of volatility has persisted in the market since the initial drop in prices.





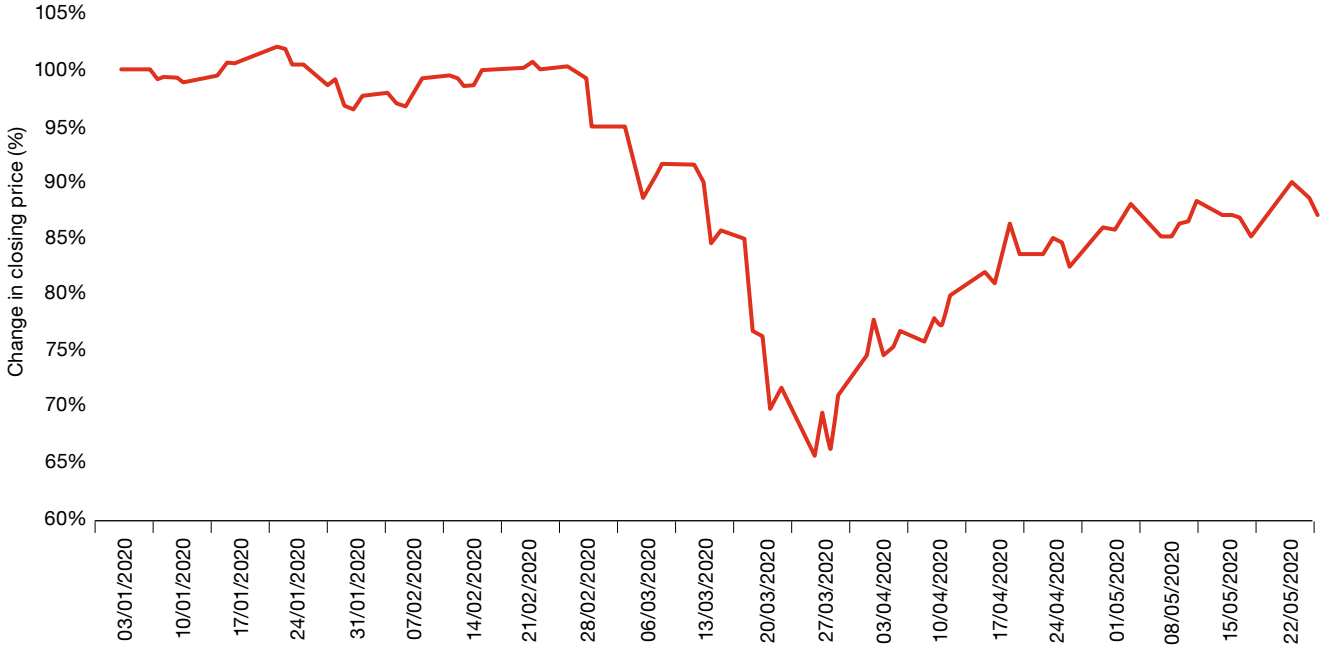
The S&P 500 started to decline in mid-February 2020 and experienced its largest daily sell-off since Black Monday (1987), which occurred not once but twice in the month of March 2020. In addition, when the US president announced a national emergency on 13 March 2020 the S&P 500 recorded its largest gain since October 2008. These unusual up- and downturns highlight the uncertainty in the market as traders price in different eventualities. At its lowest, the S&P 500 lost approximately 30% of its value at the beginning of the year but has recovered to approximately 90% of its pre-COVID-19 value at the time of writing.





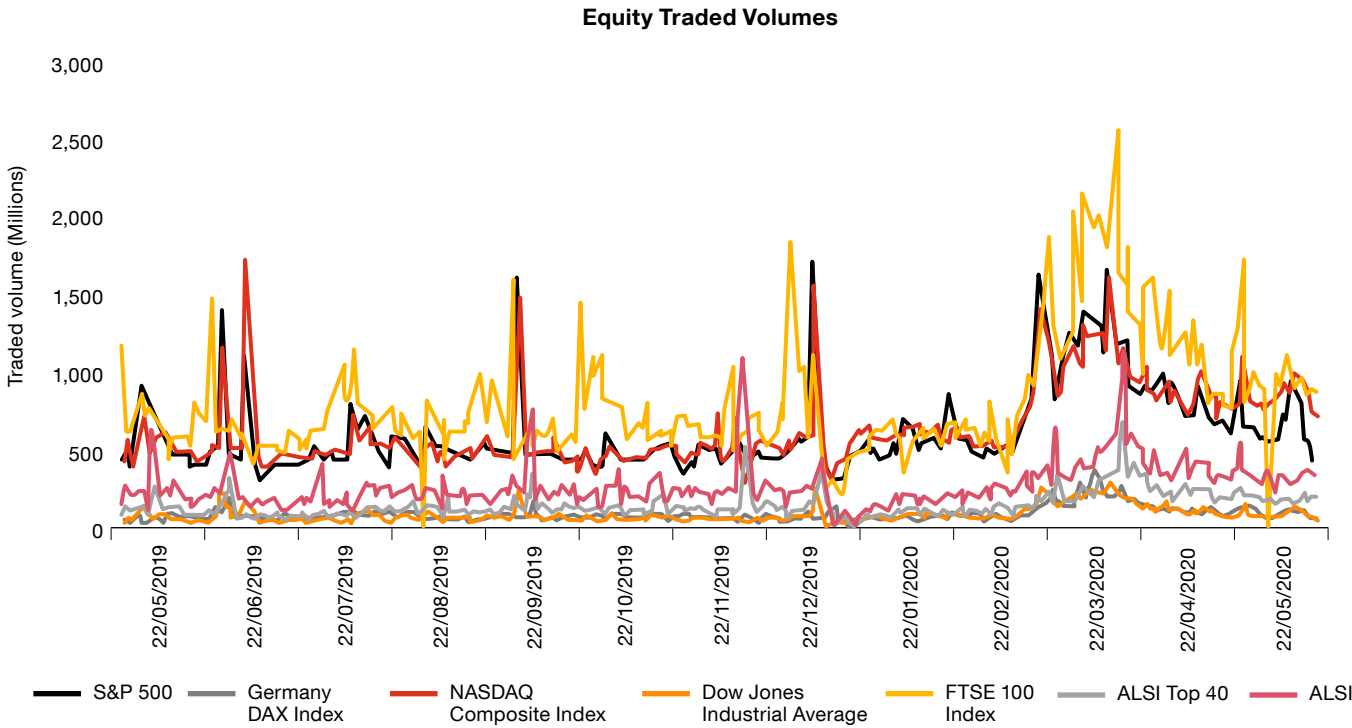
In the South African market, both the JSE's All Share Index ('ALSI') and ALSI Top 40 started to decline towards the end of February, two weeks after the S&P 500 started declining. The ALSI Top 40 reported a steady decrease after South Africa's State of the Nation Address ('SONA') on 13 February 2020. It lost nearly 35% since 2 January 2020 but has recovered to approximately 85% of its pre-COVID-19 value at the time of writing, bringing a total loss of approximately R2.3 trillion at its worst.

Rebased ALSI Top 40 Price





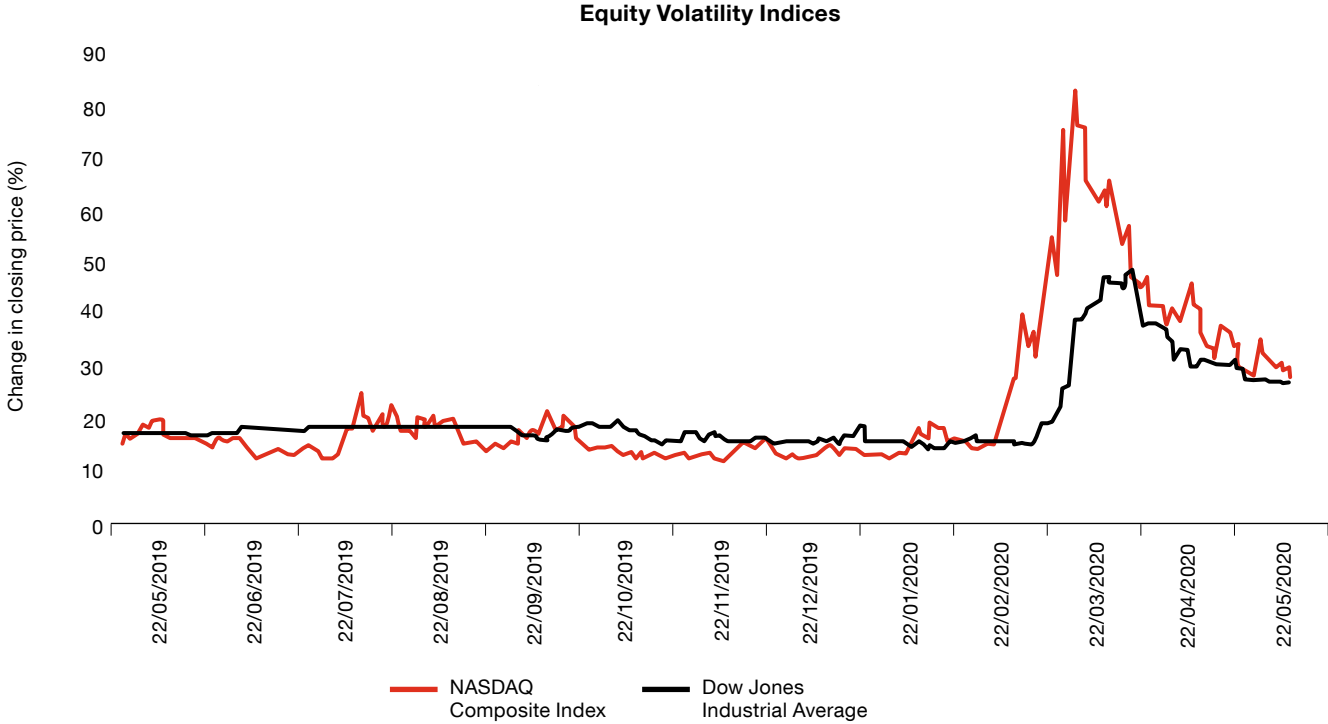
In addition, trade volumes initially spiked towards the end of February as markets entered a state of panic and selloffs occurred, with trade volumes remaining relatively volatile ever since. An unusual surge occurred during the months of March and April compared to the months prior. From the graph below, the FTSE 100 Index exhibited the most prominent fluctuations in traded volumes.



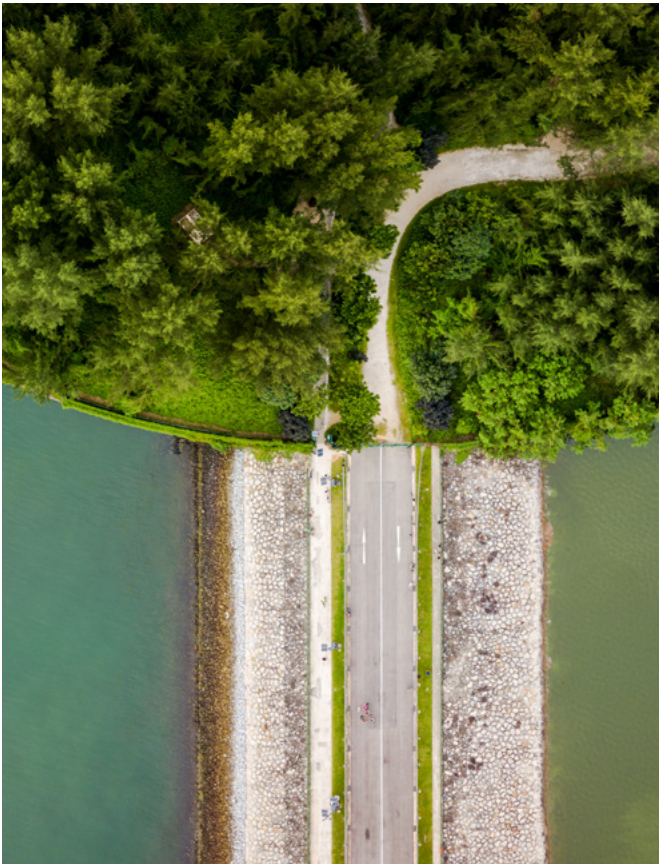


The Chicago Board Options Exchange ('CBOE') Volatility Index ('VIX') is a gauge of the volatility in the stock market that represents the market's expectation of 30-day forward-looking volatility. Investors, research analysts and portfolio managers look to VIX values as a way to measure market risk, fear and stress before they take investment decisions. VIX has recorded its highest closing level on record, even higher than that during 2008. The level of volatility measured by the VIX increased from approximately 15% to 80% during the course of the end of February until the end of March.

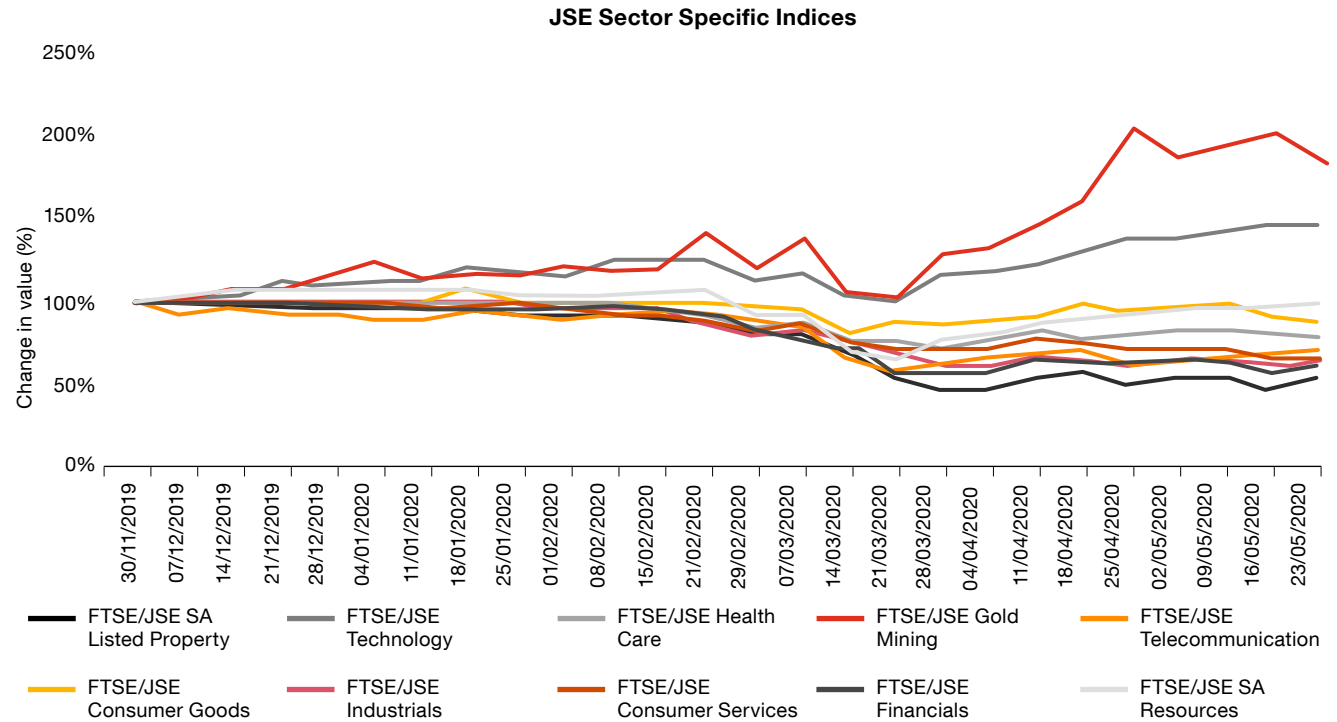
The South African equivalent is the South African Volatility Index ('SAVI'), which responded later when compared to the VIX (probably due to South Africa only reporting its first case of COVID-19 on 5 March 2020). The SAVI increased from approximately 15% to 50% at its peak. Neither measures have returned to pre-COVID-19 levels and at the time of writing are still nearly double the recorded level compared to the start of 2020.



Possible reasons for the high levels of volatility noted above are the severity of the pandemic, the high contagion rate and a non-negligible mortality rate, all reducing investor confidence as the future becomes increasingly uncertain. In addition, this could lead to a degree of policy uncertainty from governments as each country responds differently to the crisis. The interconnected nature of financial markets, as well as demand and supply chains being intertwined across country borders, implies that the impact of the pandemic will continue to be far reaching.



As mentioned in preceding sections, different sectors of the economy will be impacted to varying degrees by the COVID-19 pandemic. The graph below illustrates how various industries listed on the JSE have performed for the past six months. Most sectors exhibited a decline from the end of February 2020. The FTSE/JSE SA Listed Property sector experienced the largest decline in prices of approximately 50% during the months of March and April. The second largest, the FTSE/JSE Telecommunications and FTSE/JSE Financial sectors declined by approximately 42%. Over this same period, the FTSE/JSE Technology and the FTSE/JSE Gold Mining sector prices have increased.

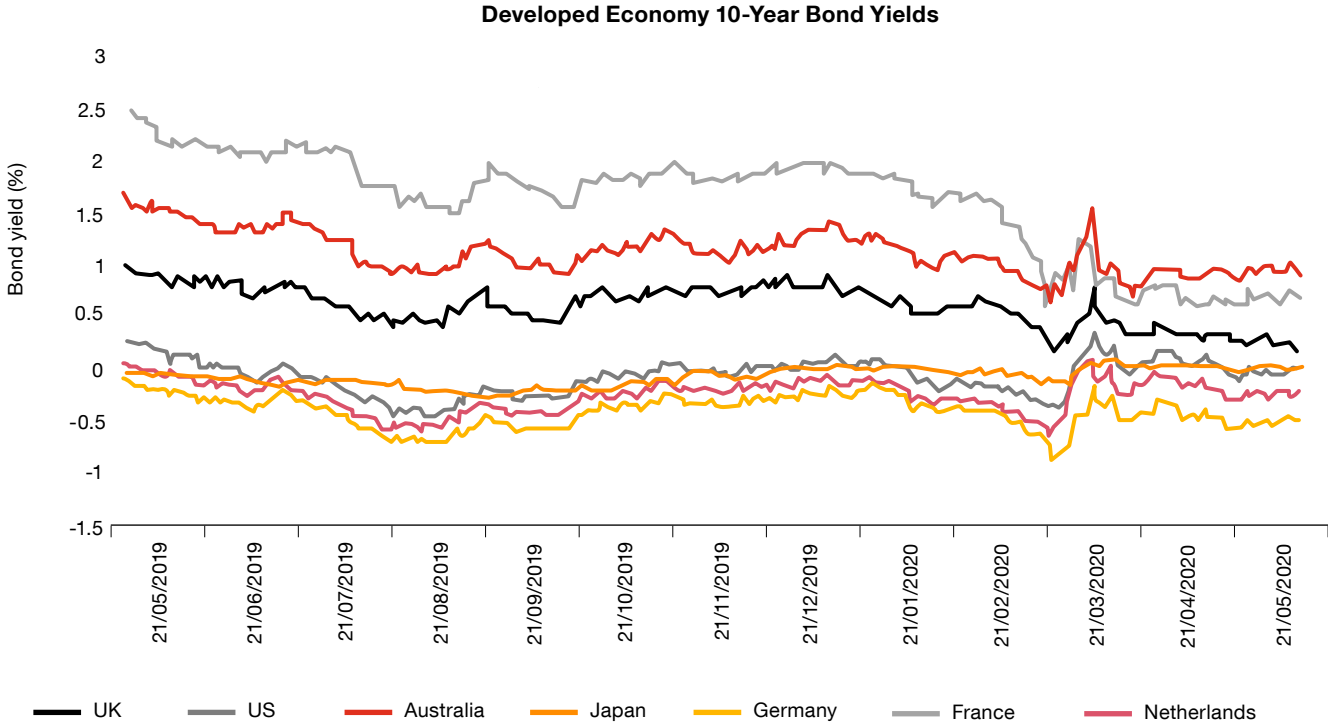


The increase in the Gold Mining index may be due to investors buying gold assets as a safe haven, as well as South African gold miners showing improved performance as a result of a weaker Rand.



2.2 Bond yields

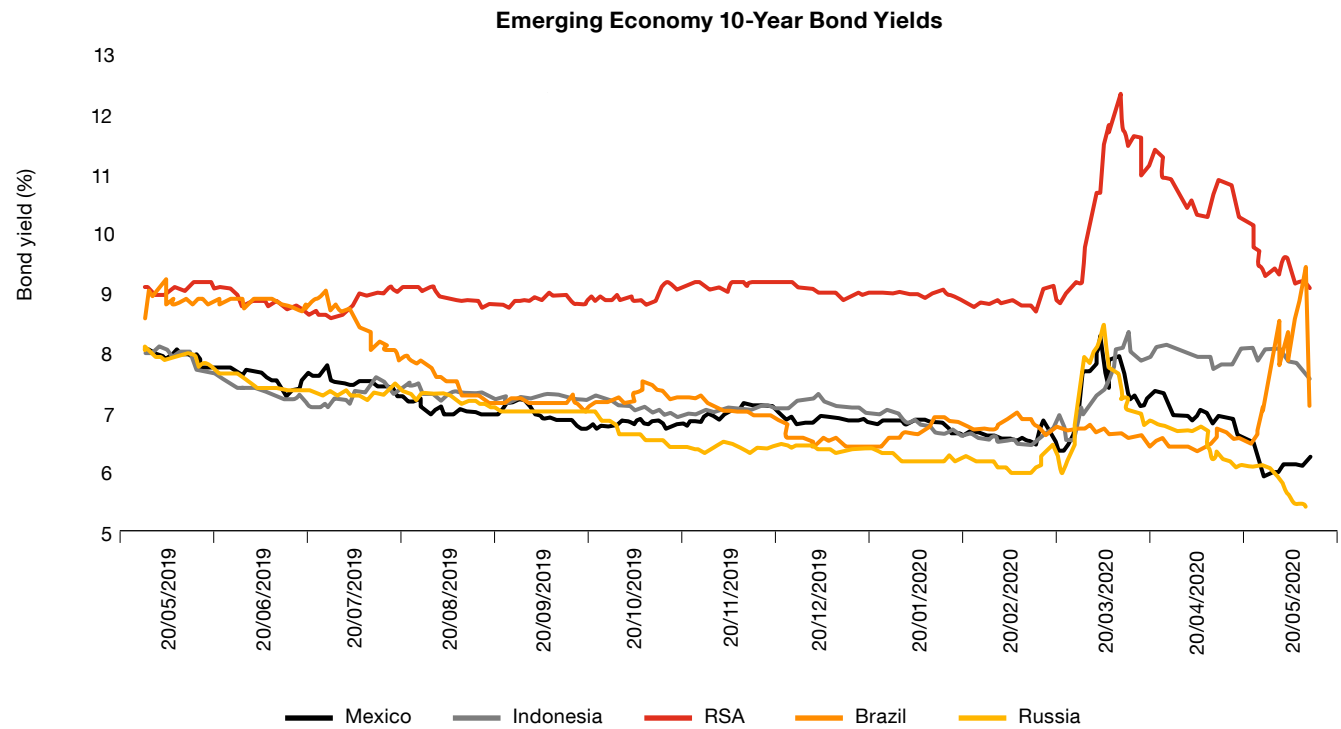
In addition to stock market turbulence, government bond yields have declined in developed markets. As COVID-19 fears surge, investors typically seek safe assets, causing a drop in the bond yields of countries perceived as low risk. In addition, banks have turned to monetary policy to stimulate struggling economies. During recessions, they look to hold off deflationary forces by lowering interest rates, leading to increases in bond prices and hence decreases in bond yields. This results in lower borrowing costs for corporations and the government and hence incentivizes spending.



The 10-year US bond yield reached its lowest point in the past century during the month of March. In many developed countries, negative interest rates have become more prevalent (such as the Eurozone and Japan), with countries like the USA on the brink of zero or even negative rates. Despite the bond yield volatility illustrated in the graph above, it would appear that bond yields have stabilised at lower levels as a negative economic outlook persists globally. Notably, the 10-year USD bond yield is four times lower than a year ago.

In contrast, South Africa has witnessed a substantial rise in government bond yields, influenced by the recent Moody's credit downgrade in March 2020 and the aversion to emerging markets brought about by COVID-19. As South African bonds are no longer allowed to form part of certain investment mandates due to their lower credit rating, the sale of domestic bonds has increased and caused a subsequent decrease in price and increase in yield. Moreover, as investors become more risk averse in times of uncertainty, South African bonds may be deemed to be risky assets, which are often disposed of in an uncertain financial market.

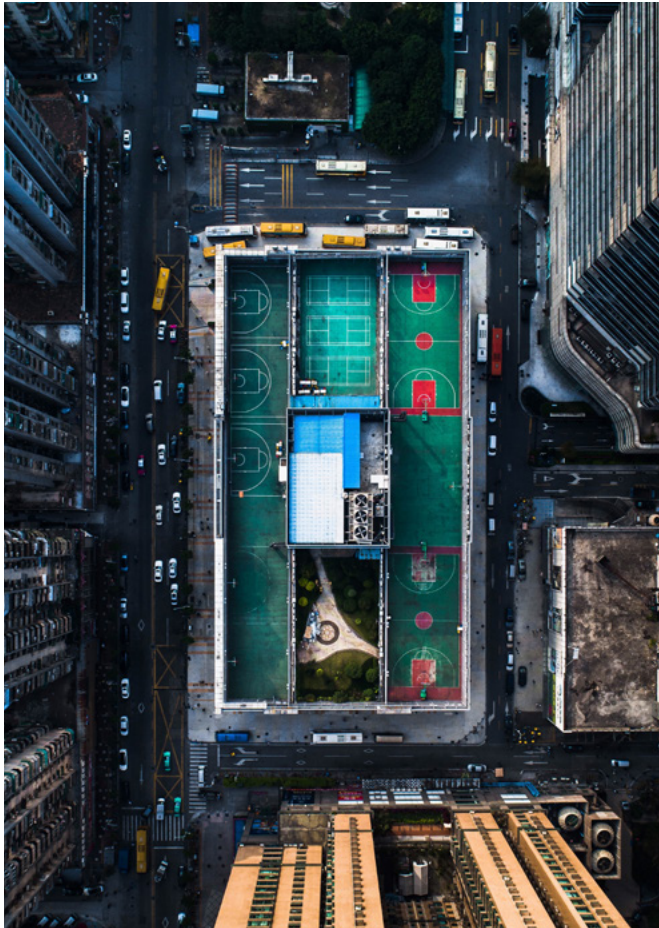
In the graph below, the South Africa bond yield is tracked over the past year along with the bond yields of other emerging economies which have experienced similar trends due to COVID-19. Note that South Africa experienced a more pronounced increase in yields compared to other emerging economies, which is likely influenced by the recent rating downgrades. In addition, Brazil's bond yields spiked at the beginning of May as their cases of COVID-19 surged at that point.



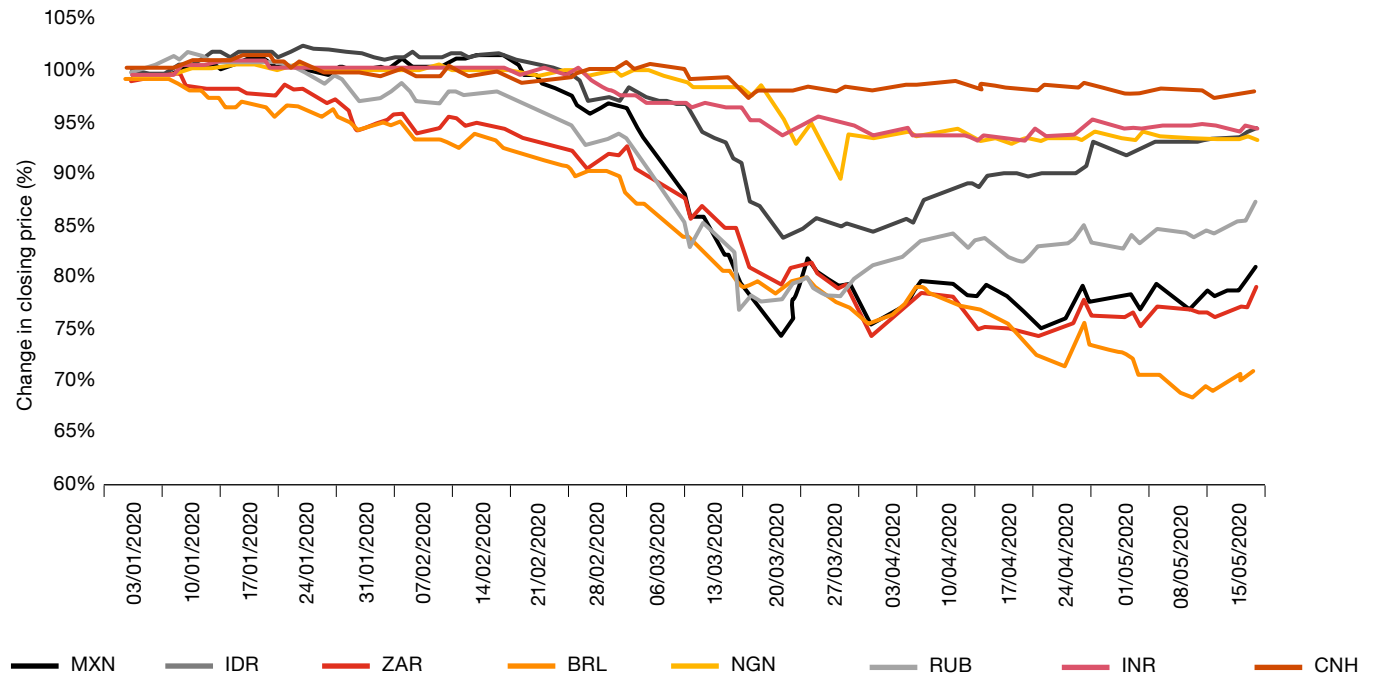
2.3 Foreign exchange

Emerging market currencies have weakened drastically against the United States Dollar ('USD') as investors view these currencies as risky in an already volatile market. The South African Rand ('ZAR') fell to a more than four-year low.

The ZAR, Mexican Peso ('MXN') and Brazilian Real ('BRL') were among the currencies most affected since the beginning of 2020. The BRL has lost 30% of its value since January 2020. On the contrary, the Chinese Yuan ('CNH') preserved its value despite being the point of origin of the COVID-19 outbreak. The graph below illustrates how emerging market currencies have performed against the United States Dollar since the start of 2020.



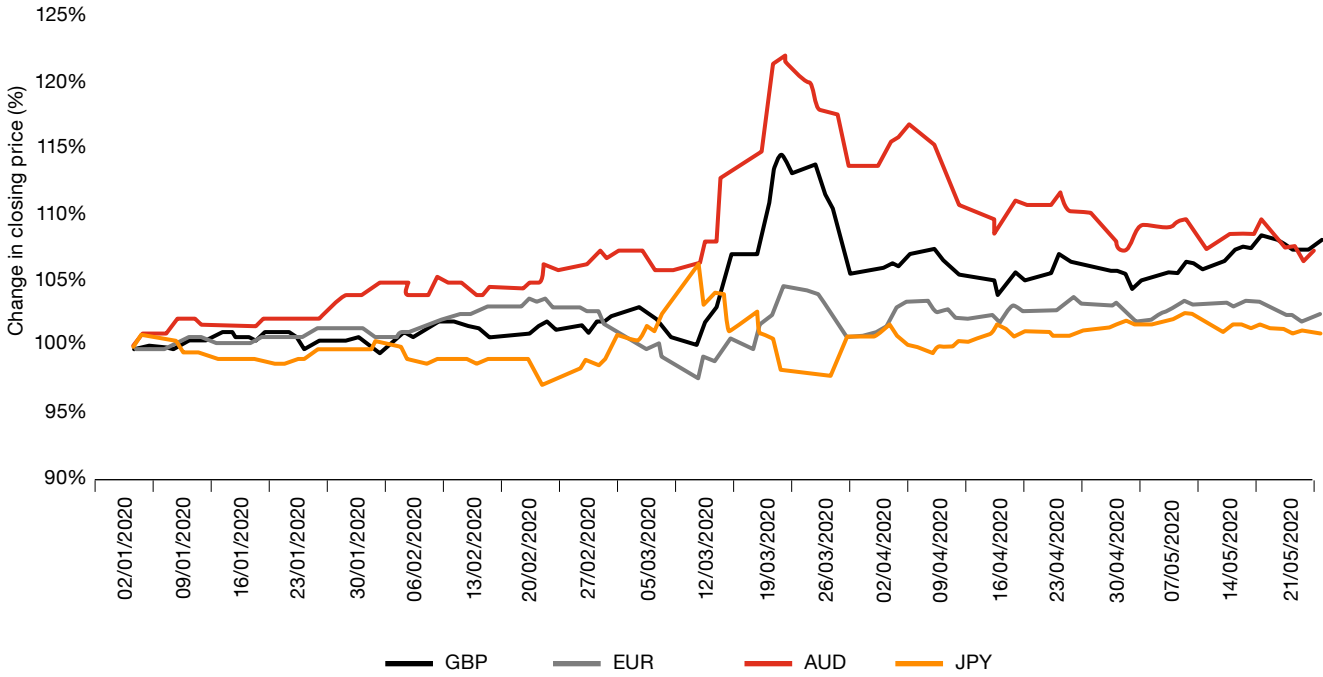
FX of emerging markets against USD





Developed markets have seen an appreciation of currency relative to the USD over this period. The graph illustrates how developed market currencies have performed against the USD since the start of 2020.

FX of developed markets against USD



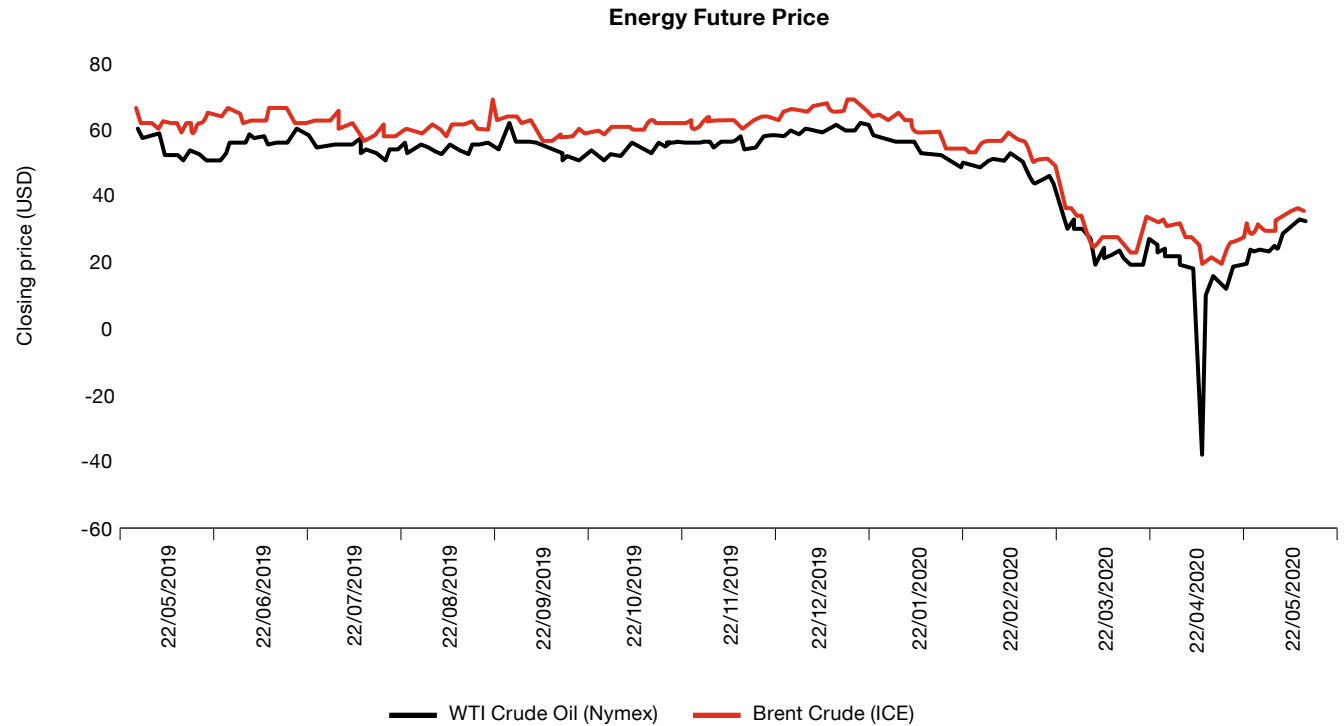
2.4 Commodities

US crude oil prices have come under tremendous strain due to the rise of the global COVID-19 pandemic, as well as other decisions made by oil producers. Hence, oil traded below \$15 per barrel, the lowest price in the last 21 years. For the first time in history, oil future contracts traded below zero on 20 April 2020.

The demand for oil has plummeted due to limited economic activity around the world as social distancing and lockdown measures have been implemented to curb the virus from spreading. Despite a decrease in liquidity, oil producers continued their operations during this time, which caused a significant imbalance between the supply and demand in the market. The emergence of negative oil future prices is expected to prompt some oil companies to begin shutting down certain operations.

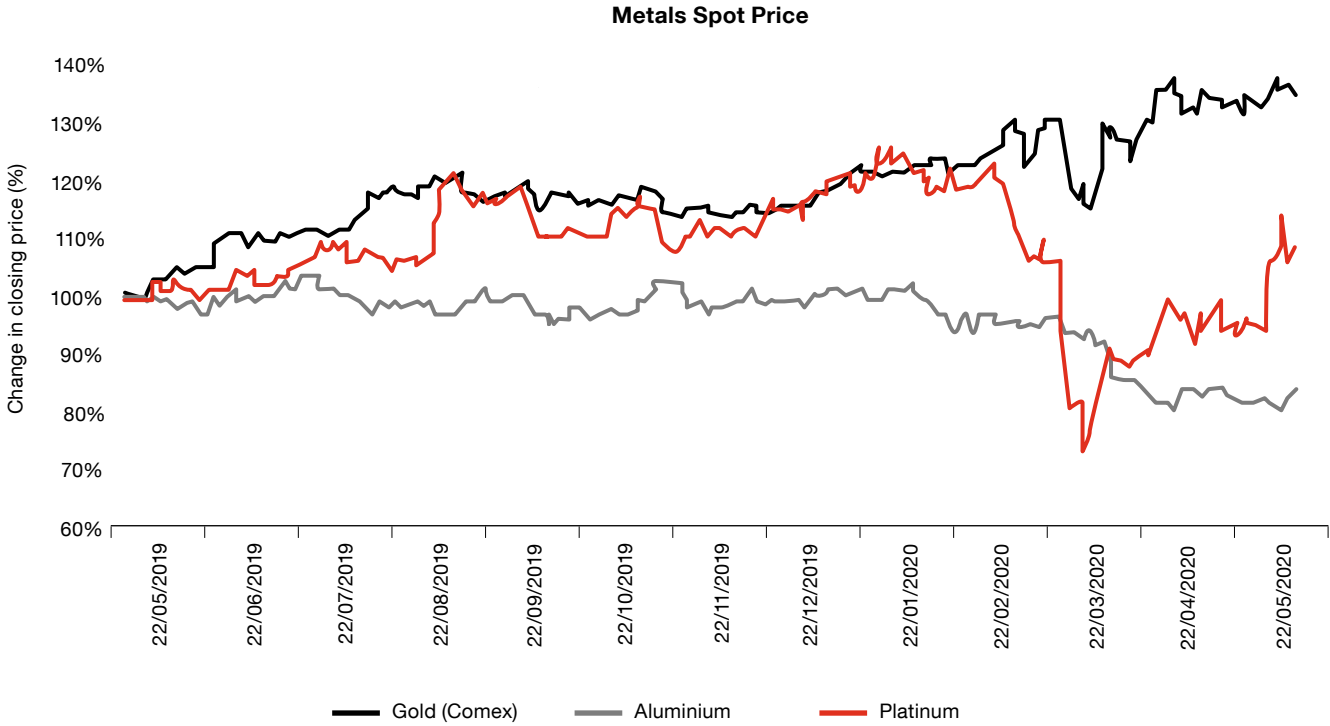


The graph below illustrates the future price of West Texas Intermediate ('WTI') Crude Oil and Brent Crude futures contracts over the past year.



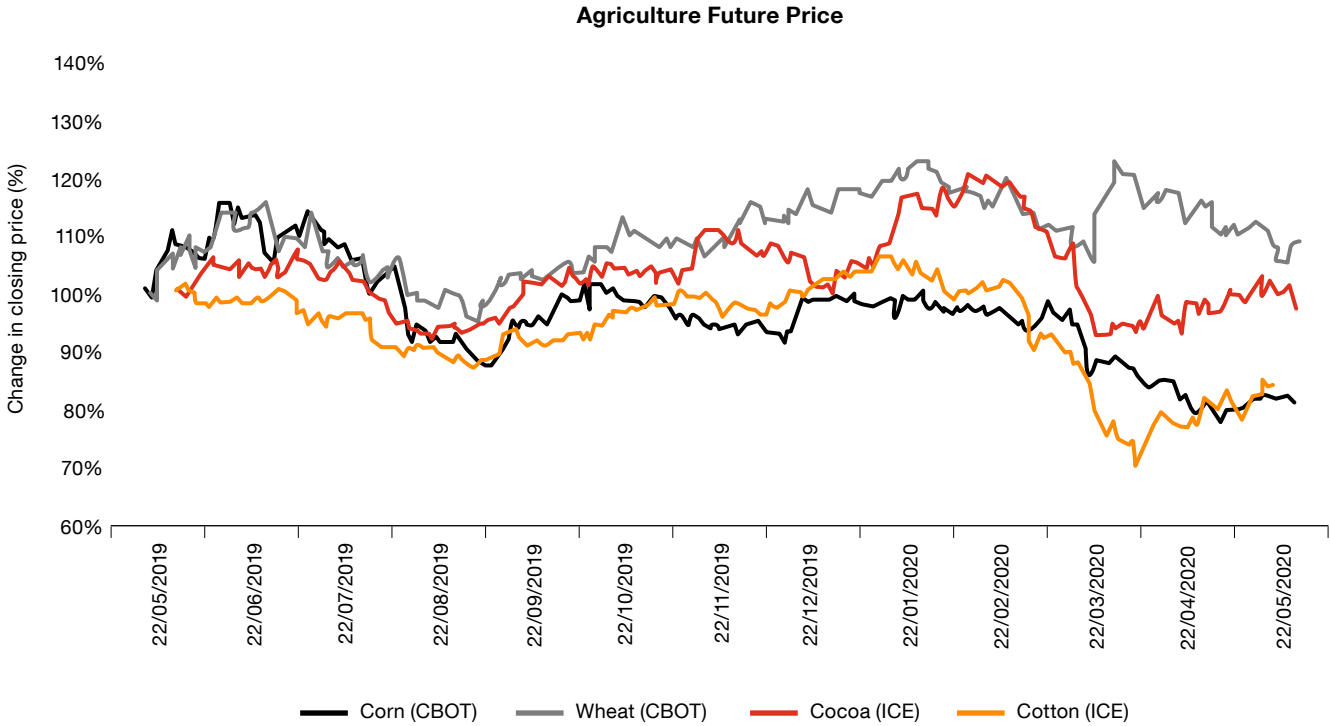


Other commodities were also impacted by COVID-19. In the graph below, the spot price deterioration is noted for metals such as aluminium and platinum. The platinum spot price lost 45% of its value and reached a 17-year low in the month of March. This may have been driven by a decrease in platinum demand as well, partially offset by a decrease in supply due to a smelting process failure in South Africa. The lockdown restrictions have also impacted mine operations. Despite relative volatility during the month of March, gold continues to increase in value as it continues to be seen as a safe haven asset.



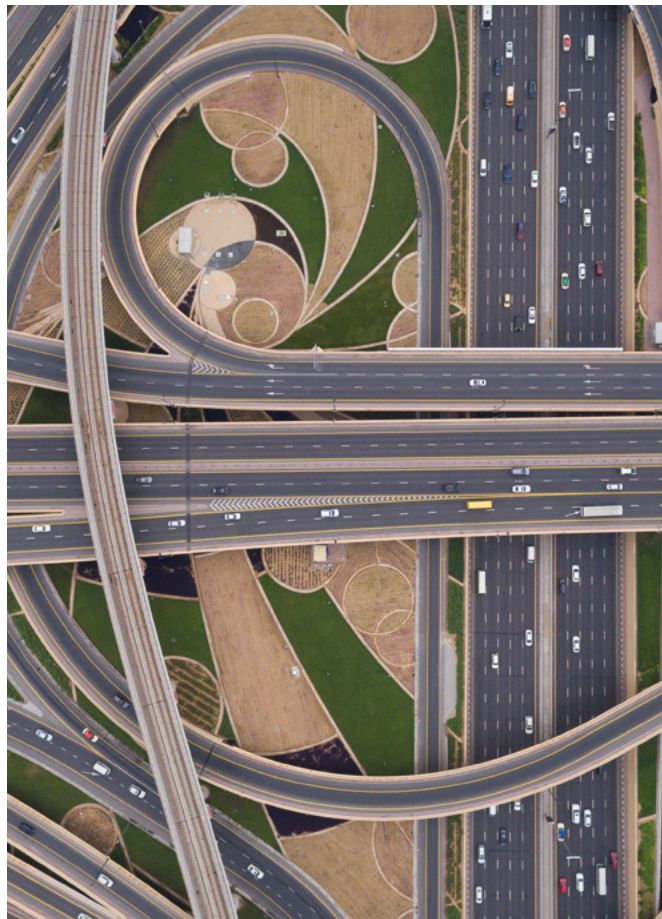


Agriculture was the least affected commodity sector, with relatively stable prices for commodities such as wheat. However, it was not exempt from the volatility induced by COVID-19 and from the graph below it is evident that corn and cocoa have experienced a decline in value during the month of March due to restaurant and food service restrictions. The value of cotton decreased by approximately 35% as the global textile industry has drastically contracted.

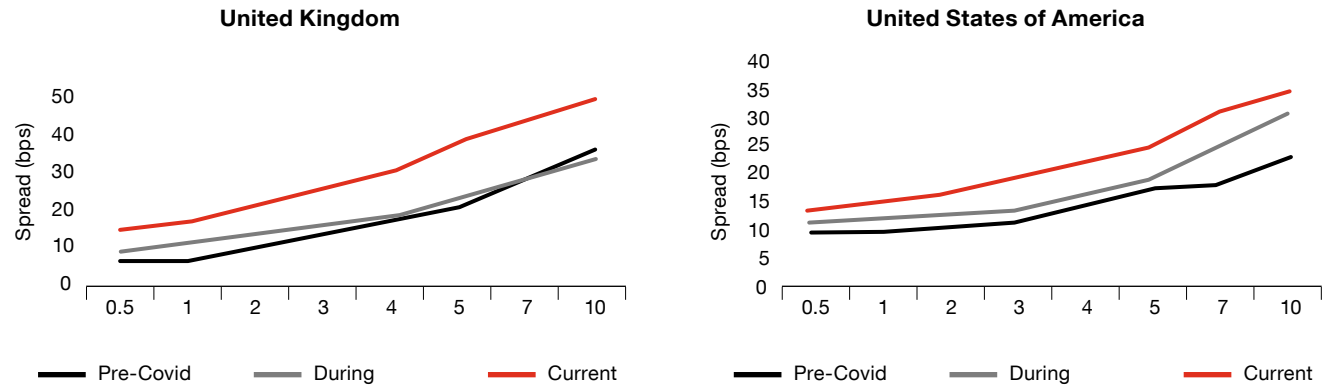


2.5 Credit spreads

As COVID-19 continues to spread, various industries have come under severe strain, which has resulted in many corporates drawing on all available lines of credit and delaying payments where possible. This has generally resulted in a deterioration in creditworthiness and higher default risk as evidenced by a widening of market credit spreads.



Below are graphs showing sovereign credit spreads as at January 2020 ('Pre-COVID-19'), March 2020 ('During') and May 2020 ('Current'). Sovereign credit spreads for developed economies such as the UK and the US have come under mild strain. Ten-year US credit spreads have almost doubled since January 2020 when the first case of COVID-19 was announced in the US. Although there has been a sharp increase in these spreads, these are still considerably lower than those observed during the GFC of 2008 and 2009. During the GFC, the ten-year US credit spread reached the 86 bps mark.

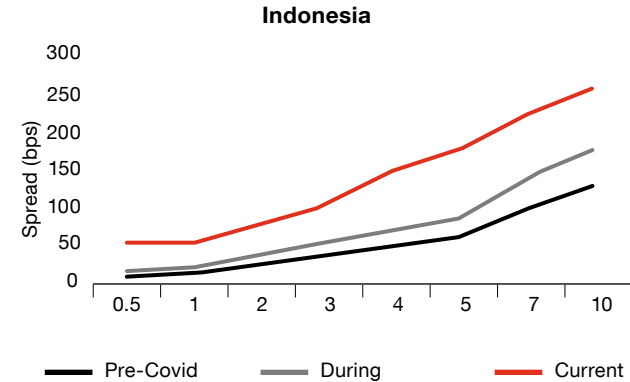
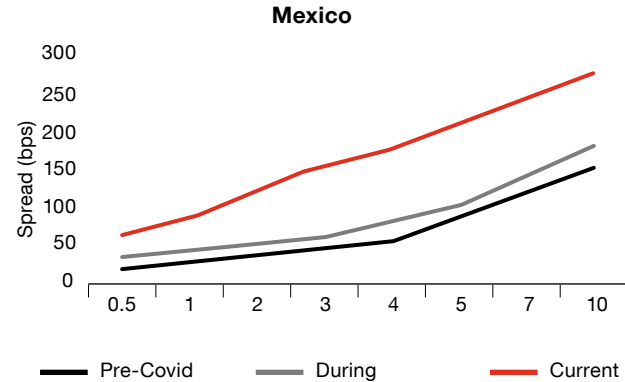
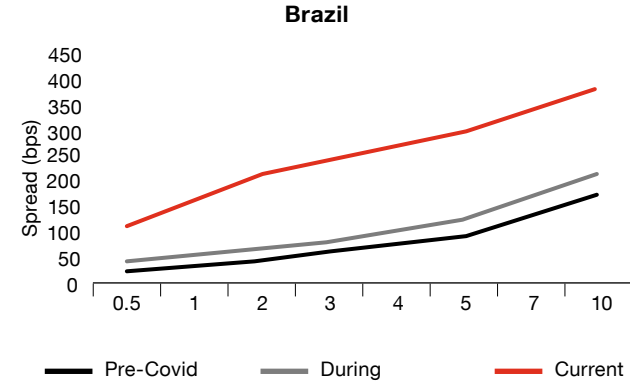
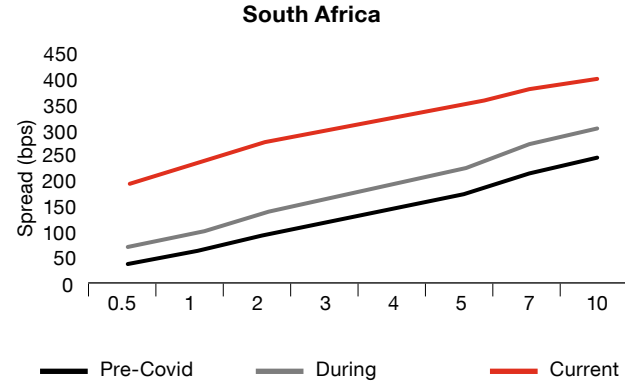


Once again, emerging economies have shown to be most vulnerable in times of economic stress. Sovereigns such as South Africa, Brazil, Mexico and Indonesia have seen a significant widening of their credit spreads. The credit spreads for South African USD-denominated government bonds ('SOAF') have widened by an average of 170 bps from January 2020 to May 2020 over all tenors, with these spreads increasing by as much as 325 bps in April.

The six-month SOAF credit spread increased by approximately 120 bps at the time of writing when compared to the first day that a COVID-19 case was confirmed in South Africa. The ten-year SOAF credit spread increased by approximately 100 bps when comparing the same dates. The relative increase in the six-month SOAF spread is more pronounced over the period when compared to longer dated points, which is possibly due to increased uncertainty in the short term as governments navigate increased uncertainty.

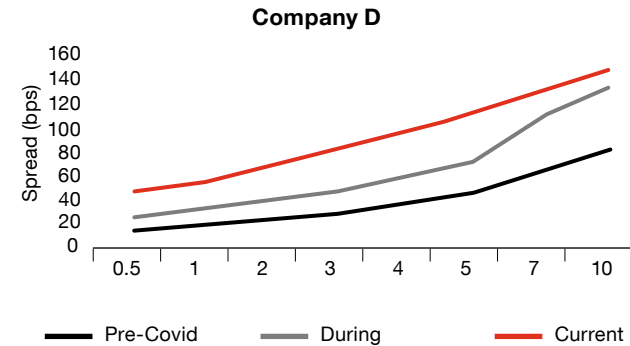
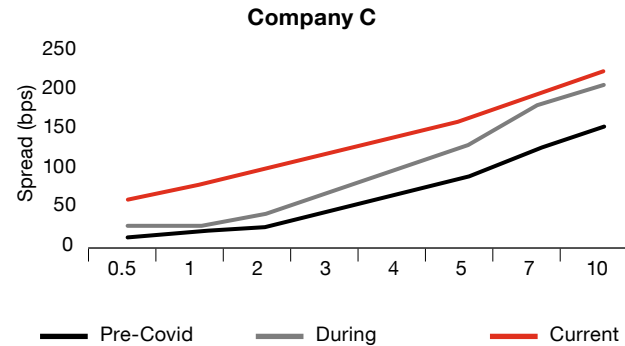
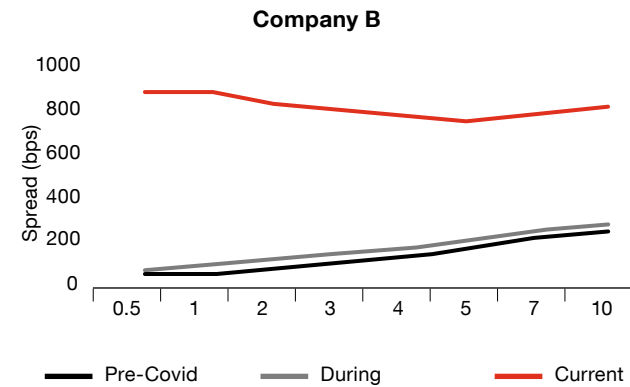
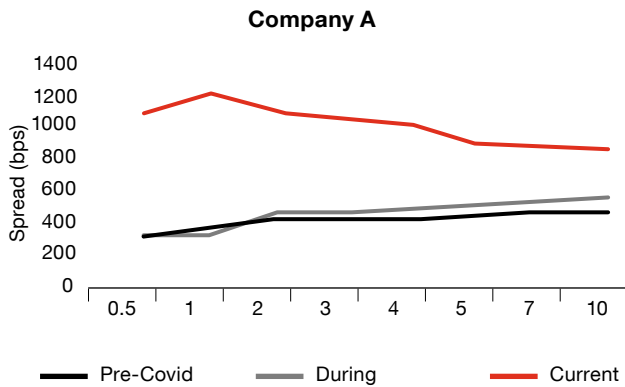


Notably, the ten-year credit spread of Brazil has widened by approximately 200 bps from January to May 2020 as the COVID-19 cases have recently spiked and uncertainty continues to grow. Mexico and Indonesia have also been affected, but to a lesser extent.



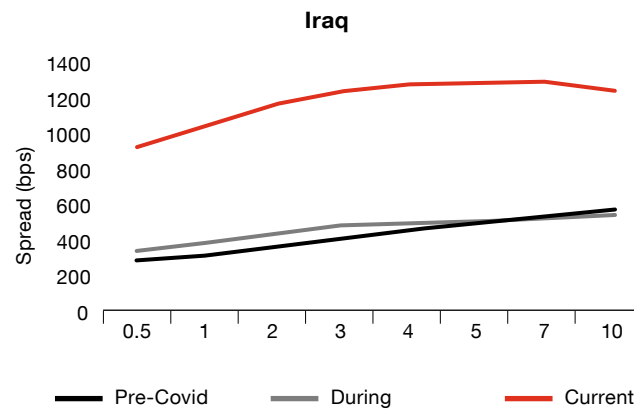
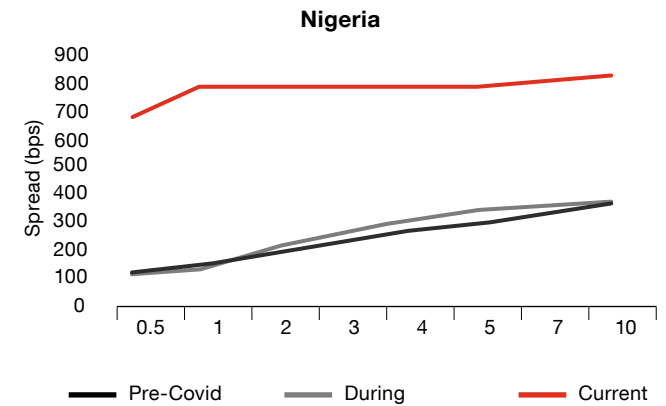
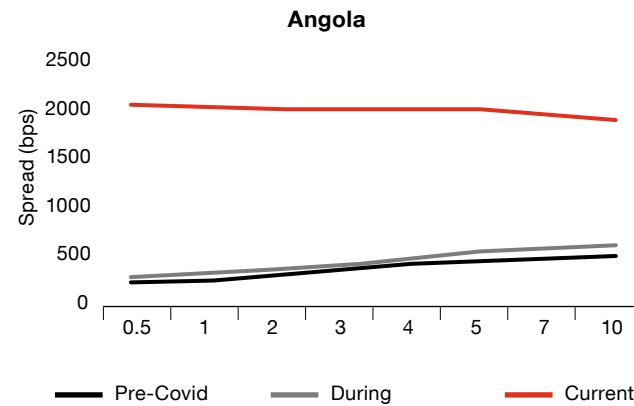


Other South African companies have experienced a similar shift in credit spreads. We selected four listed entities in South Africa and assessed the movements in their credit spreads over the period. The sectors of Company A, B, C and D are energy, oil and gas, mining, beverage, and tobacco respectively. Company A's six-month credit spread tripled whereas Company B's six-month credit spread increased by approximately twenty-fold. Company C and Company D have not experienced such severe widenings of their credit spreads on an absolute basis, although the relative increase at certain points is significant. This can be attributed to the industry in which they operate or their reliable financial position prior to COVID-19, hence not alarming investors of a looming default.





According to Moody's Analytics, Angola, Nigeria and Iraq have experienced the highest increases in sovereign credit spreads since the beginning of 2020. This can be attributed to their dependence on oil production. Furthermore, Moody's has made 84 downgrades in the month of March, which is similar to the amount made during the GFC, and expects more to come. South Africa was downgraded to junk status by Moody's on 27 March 2020, adding to the COVID-19-induced strain.



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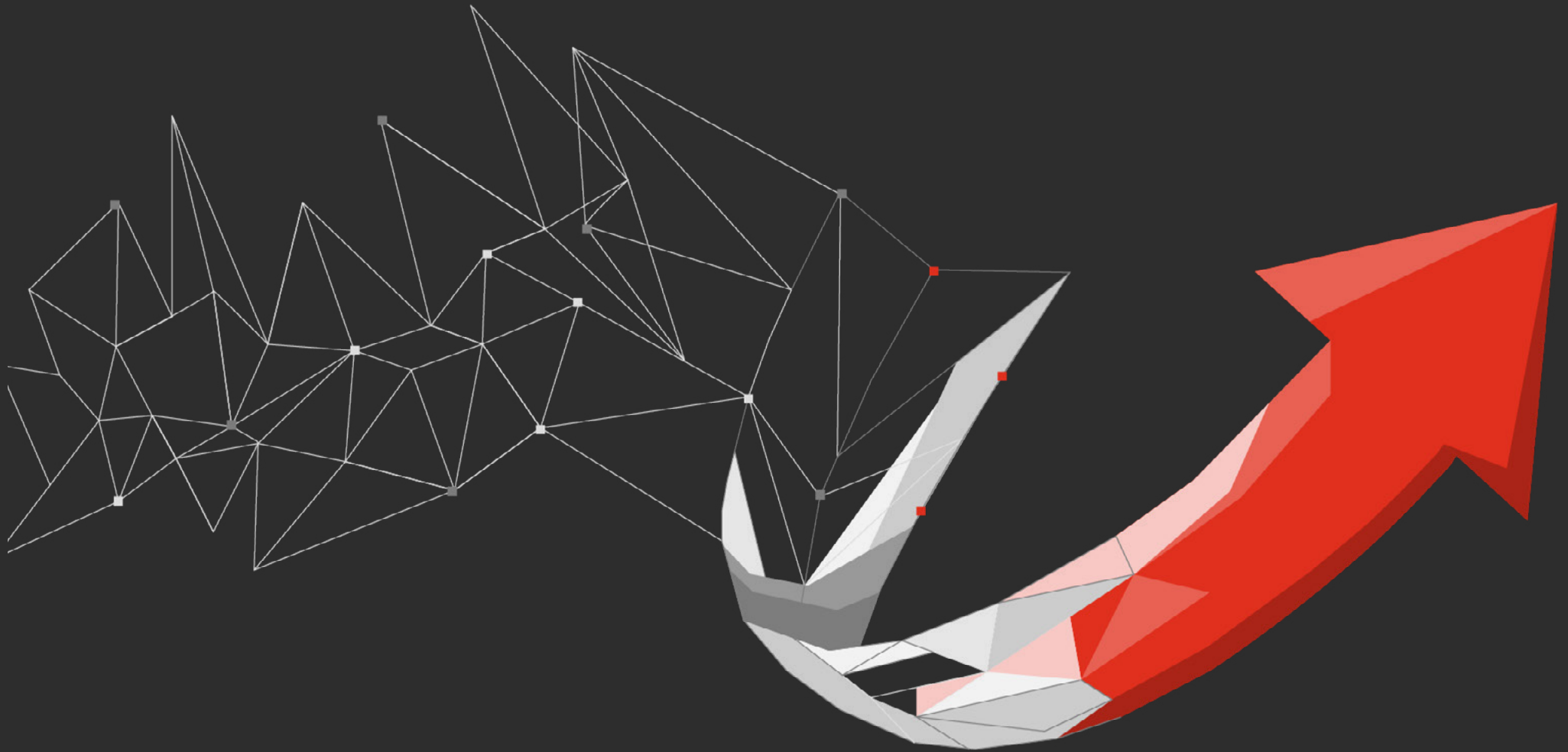
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