Question 2

Joshua Strydom[a]

[a] *Stellenbosch University, Stellenbosch, South Africa*

1. Yield spreads

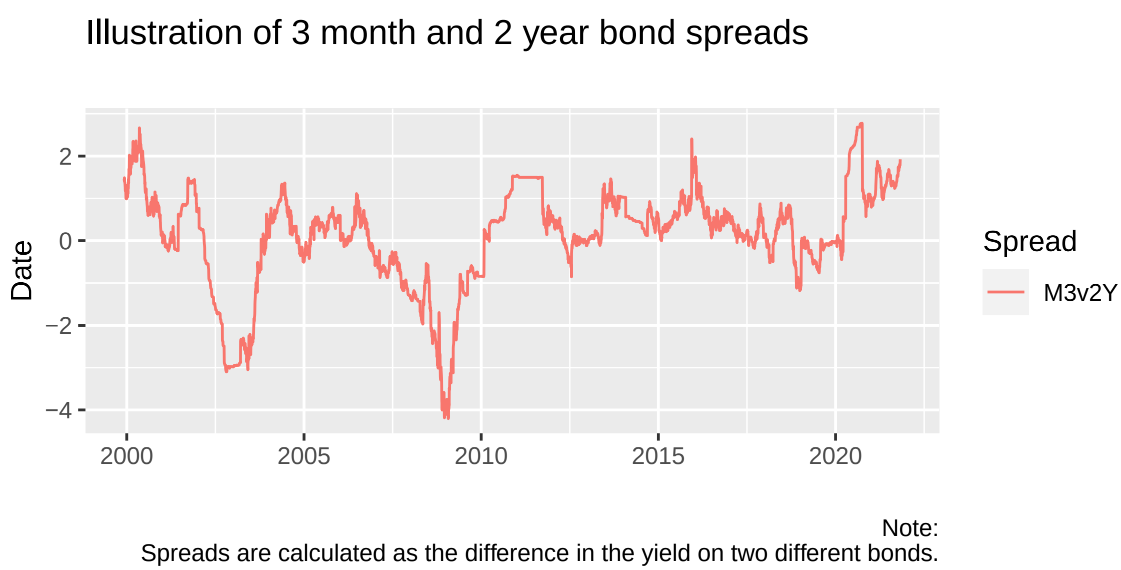

Figure 1.1: Caption Here

The bond spread has over time increased but it is by no means high compared to historical spreads.

Email address: `20718284@sun.ac.za` (Joshua Strydom)
Contributions:
The authors would like to thank no institution for money donated to this project. Thank you sincerely.

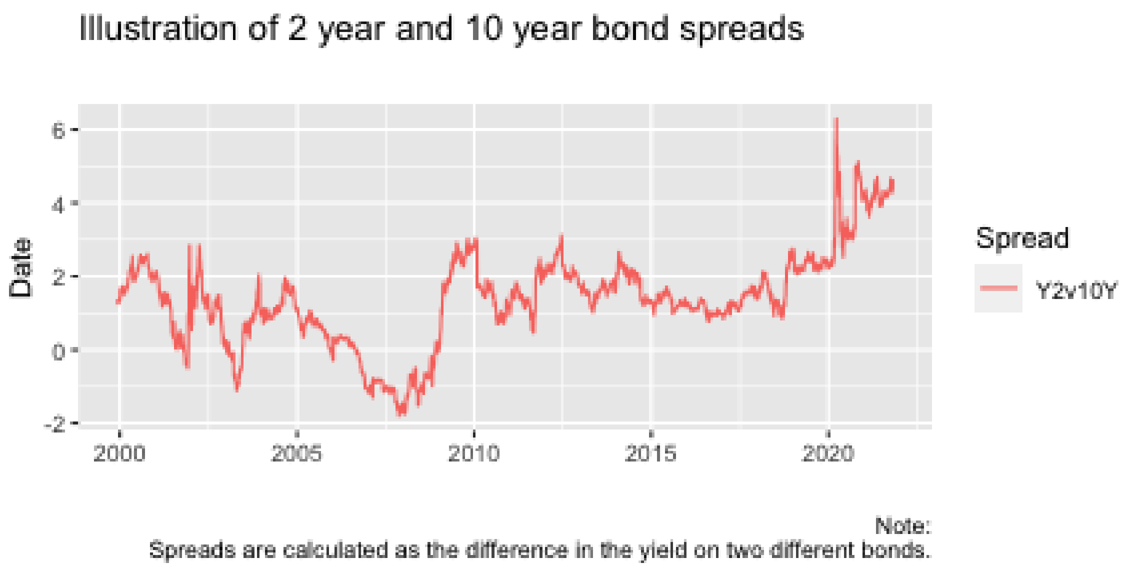

Figure 1.2: Caption Here

The bond spread has, over time, gradually increased. The yield spread between the 2 year and 10 year bonds have, since 2020, been the highest in decades.

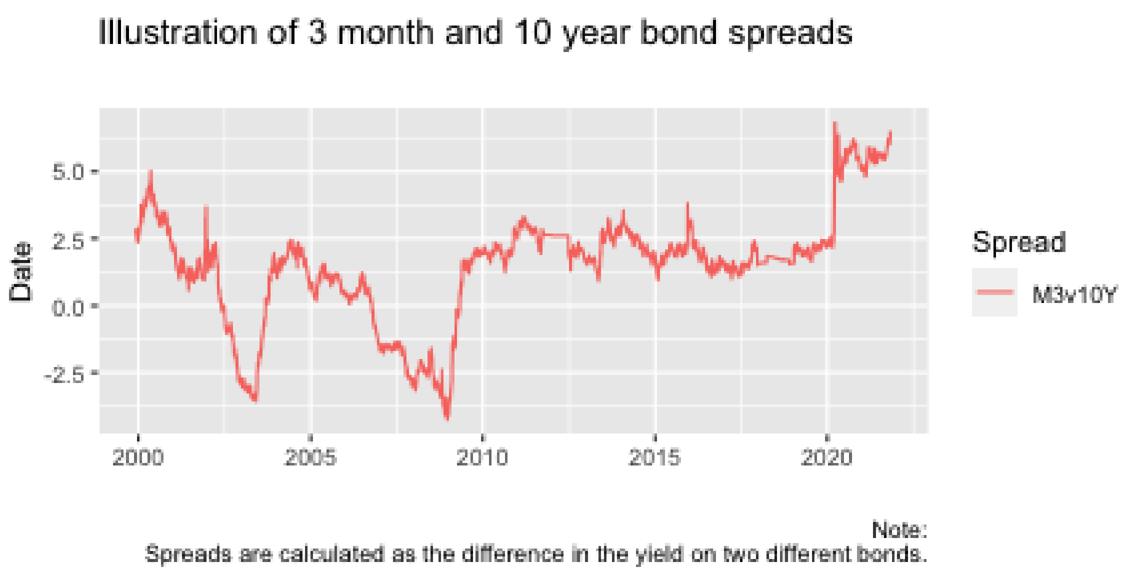

Figure 1.3: Caption Here

The bond spread has, over time, gradually increased. The yield spread between the 3 month and 10 year bonds have, since 2020, been the highest in decades.

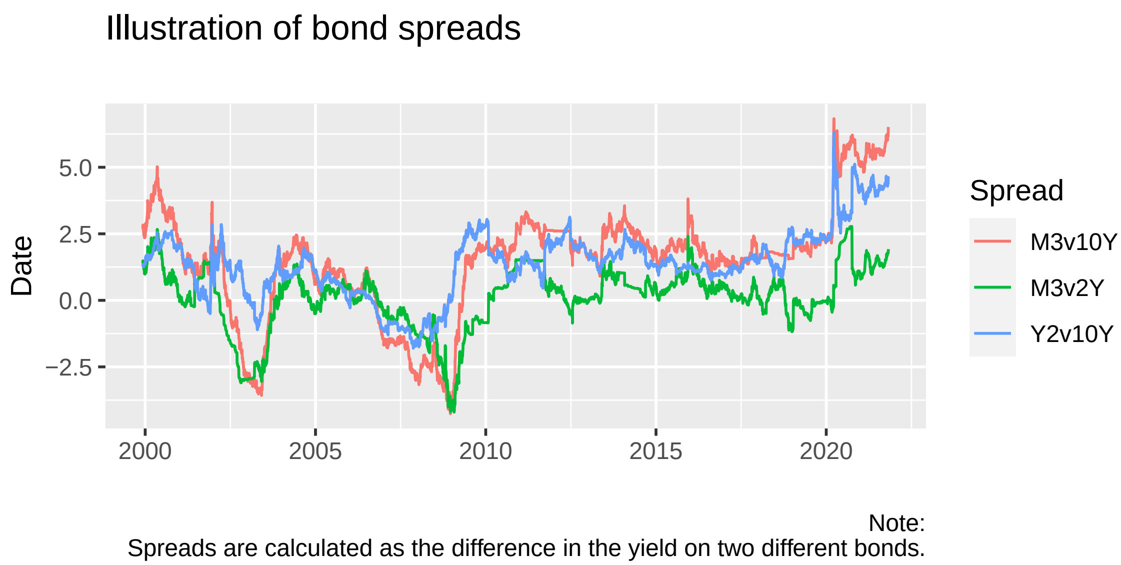

Figure 1.4: Caption Here

One can clearly see, from Figure 1.4, that all of the yield spreads become far larger from 2020 from an historical context. The spread between the 3 month and 10 year bonds as well as the spread between the 2 year and 10 year bonds are greatest during this respective period. The spreads seemed to have followed each others movements closely for the whole period.

2. Comparing yields of international counterparts

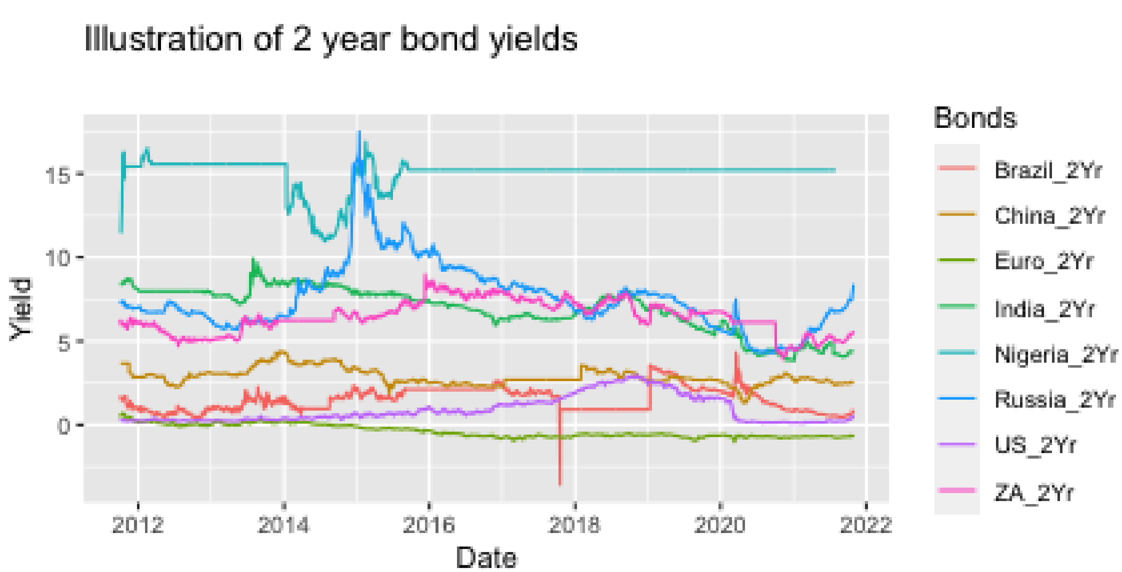

Figure 2.1: Caption Here

The Nigerian 2 year bond yield appears to be highest with Russia's being second largest. The South African 2 year bond yield ranks third highest out of the group. The Euro 2 year bond yield has been consistently negative from about 2015. If market participants believe that there is higher inflation on the horizon, interest rates and bond yields will rise (and prices will decrease) to compensate for the loss of the purchasing power of future cash flows. Bonds with the longest cash flows will see their yields rise and prices fall the most.

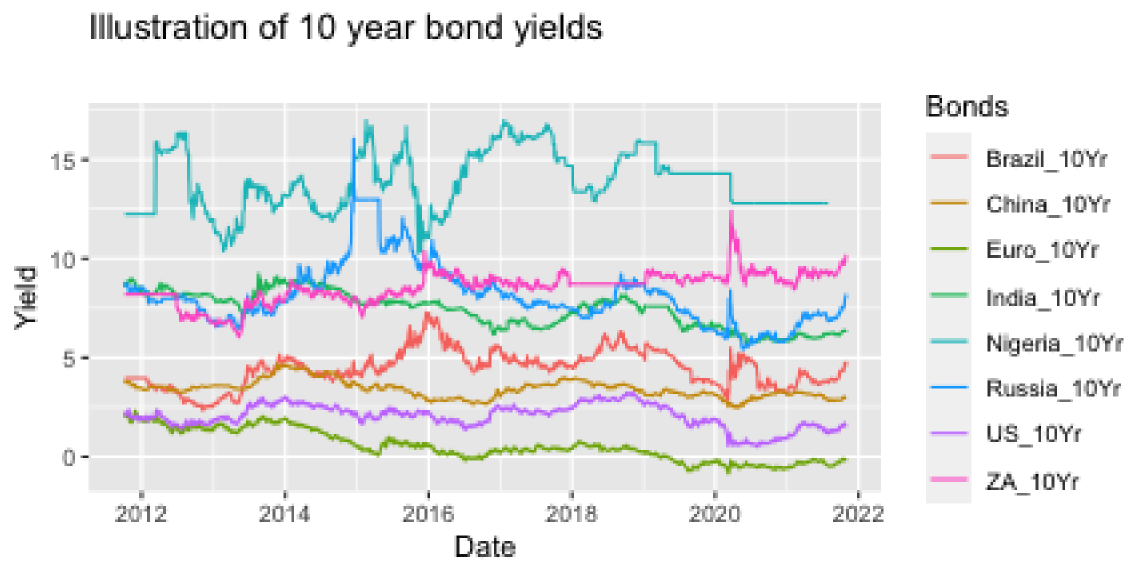

Figure 2.2: Caption Here

The Nigerian 10 year bond yield again appears to be highest while the South African 10 year yield ranks second this time from 2019 onwards. The Russian 10 year bond yield ranks approximately third highest out of the group although dipping below the Indian 10 year bond yield for a short period (between 2020 and 2021). The Euro 10 year bond yield has been consistently the lowest for the entire sample period and turned negative in the 2019 year.

3. Background information

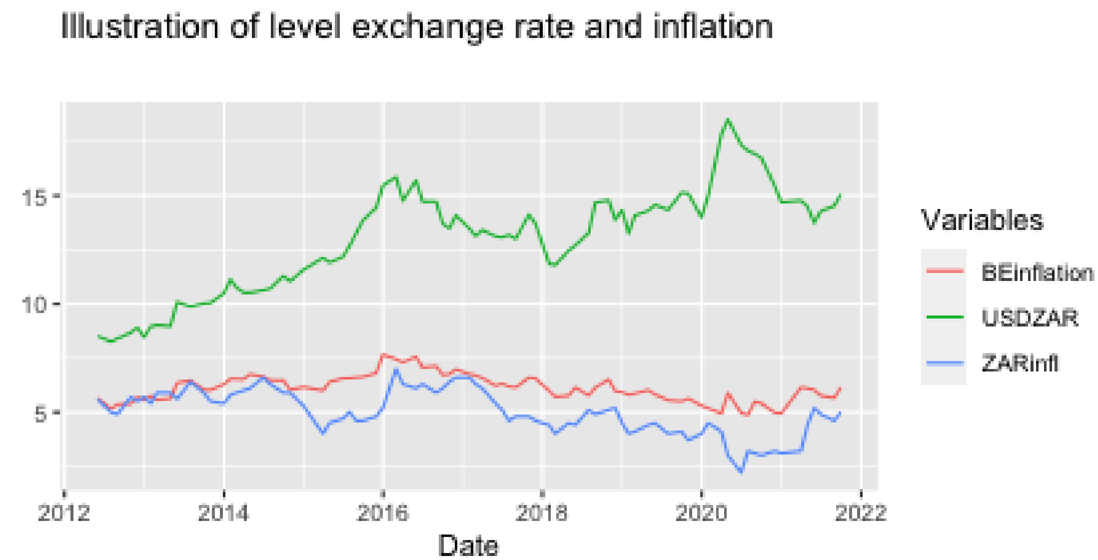

Figure 3.1: Caption Here

Actual inflation in South Africa has remained consistently below breakeven inflation since 2015. The Rand, as can be seen in the large spike post-2020, weakened against the Dollar. It has since gradually strengthened but is still high when compared to 10 years ago in 2012. The increase in South African inflation could explain the fact that bond yields have increased recently. Bonds yields would've risen primarily because of a hawkish position of the SARB. Investors thus anticipate aggressive interest rate hikes to rein in inflation.

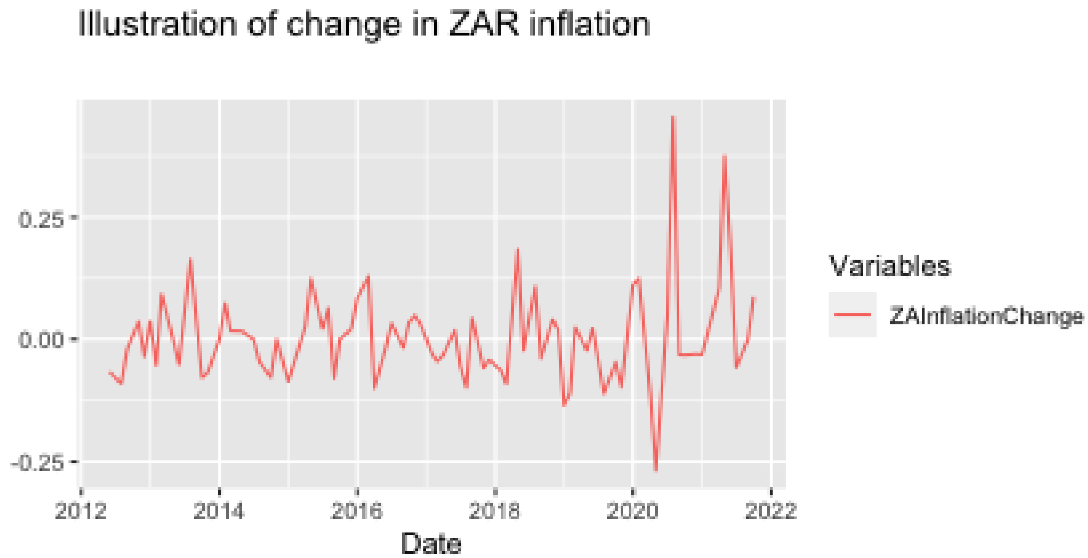

Figure 3.2: Caption Here

The graph above depicts the change (calculated the same as a simple return) of the South African inflation rate. It is easy to tell that the inflation rate has proven to be more volatile post-2020 than has been the case historically.

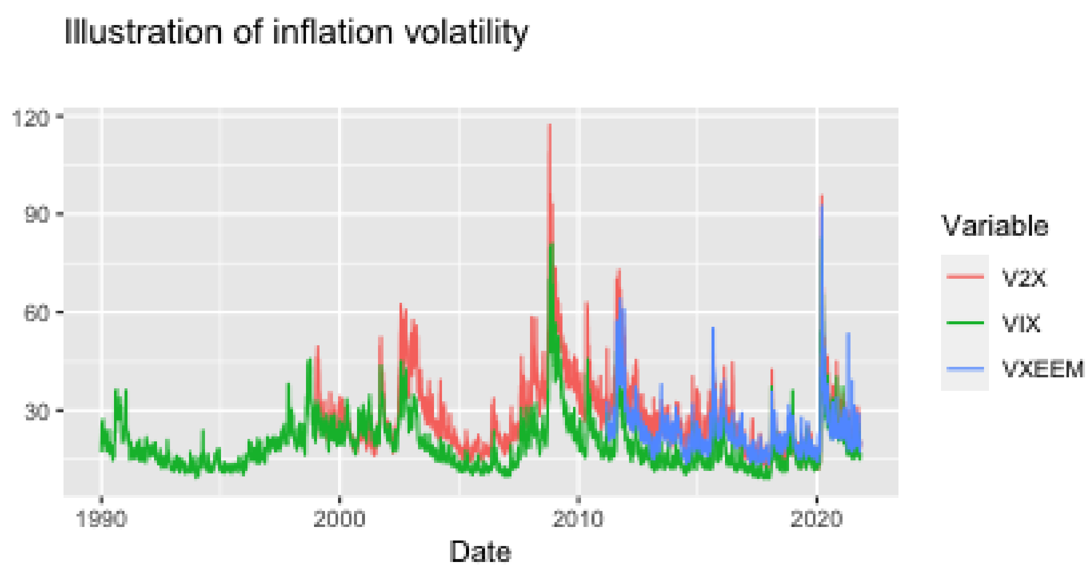

Figure 3.3: Caption Here

Figure 3.3 reinterates the point made about Figure 3.2. The largest spike in inflation volatility occurred in 2009 but this is to be expected. Inflation volatility had since declined but spiked again in 2020.

Increased inflation and the volatility thereof generally leads to an increase in longer dated bond yields. This would explain the increase in longer dated bond spreads.

4. Conclusion

Yield spread in local mid to longer dated bond yields have since 2020 been the highest in decades.