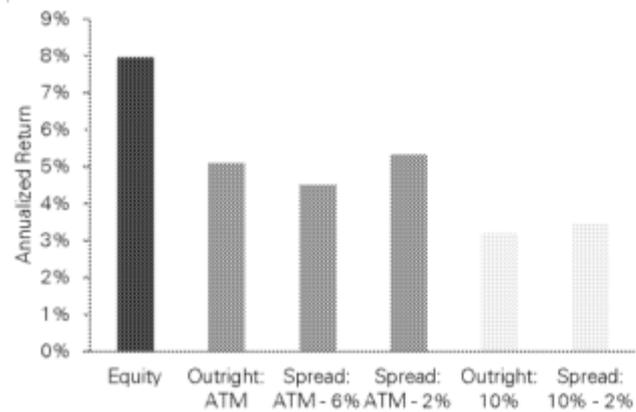Figure 15: Call spread returns similar to calls (36M calls and spreads rolled after 24M)...

Source: Deutsche Bank, Bloomberg Finance LP

Figure 16: ... but with much higher risk-adjusted returns (36M calls and spreads rolled after 24M)

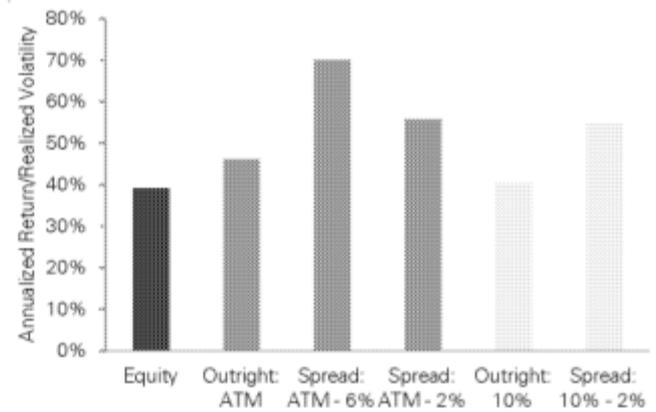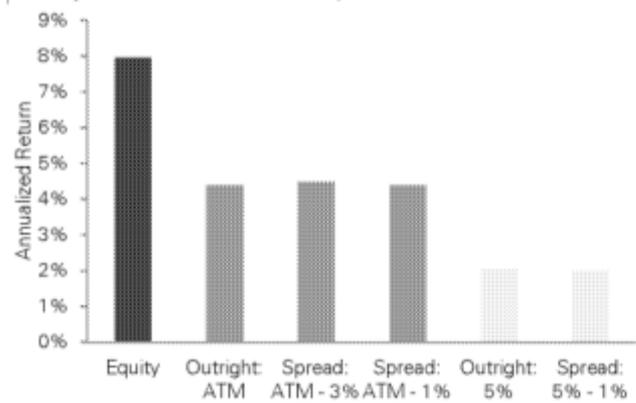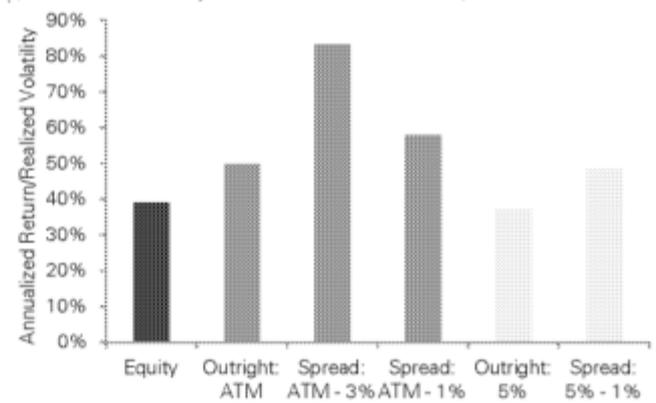Source: Deutsche Bank, Bloomberg Finance LP

Figure 17: Call spread returns similar to calls (18M calls and spreads rolled after 12M)...

Source: Deutsche Bank, Bloomberg Finance LP

Figure 18: ... but with much higher risk-adjusted returns (18M calls and spreads rolled after 12M)

Source: Deutsche Bank, Bloomberg Finance LP

Given the attractive levels of long-dated calls currently, investors may still want to stick with outright call options rather than spreads to maintain a higher delta. However, an alternative approach could be to scale up the call spread notional and have a similar delta exposure (at least initially) to an outright call.

In Figure 19 and Figure 20, we look at the risk-adjusted returns for different call and call spread strategies after we scale up the call spread notionals. We assume that the investor trades an equivalent *initial* delta on the call spread as an outright call, which is then only rebalanced on the roll date of the long-dated call. For instance, if on trade date the 36M ATM call option has a delta of 0.50 and the 36M ATM-6% premia call spread has a delta of 0.20, we would buy 2.5x contracts of the call spread instead of each call contract.

In the historical backtests, returns and risk-adjusted returns are both better for call-spreads after scaling to equivalent delta as the outright call. The higher delta notional does increase the volatility more than the return of the call-spread strategies and drives down the return/vol slightly from what's shown in Figure 16 and Figure 18.