



### Daily & Weekly Charts

TLS Close @ 4.02 on Aug 20<sup>th</sup>, 2021.

The Daily and Weekly Charts show a continuing uptrend with building momentum for TLS, following a recent breakthrough of a key Resistance level.

### Toolbox

Moving Average Crossover

MACD – Moving Average Convergence Divergence





## Moving Average Crossover

The Moving Average Crossover indicator applied here uses a 15 day EMA (Blue) and a 30 day EMA (Red).

A Moving Average smooths price data over the length of the average with an Exponential Moving Average giving greater weight to the most recent (relevant) price action in the calculation. With a smoothed representation, some of the daily fluctuations in price movement can be reduced to give a more filtered view on price movement.

When prices are trending, it is visually apparent by comparing today's price with that of the recent range. The shorter the term of the Moving Average, the more closely it will hug the most recent price. By utilising the two Moving Averages of differing timeframes, the crossover points can be indicators that a trend direction may have changed. We would expect price to remain above both averages in a strong uptrend, with the averages themselves rising but with the longer term average rising more slowly and therefore lagging for example.

A classic BUY signal is given when the short term average crosses above the long term average, and a classic SELL signal is given when the short average crosses below the long term average. This of course applies when trading from the LONG side. A SHORT trade would apply the principles in reverse.

Moving Average Crossover signals work well with trending stocks but often give false signals for stocks in consolidation ranges. It is recognised as a lagging indicator that is best used in combination with other analysis techniques.

## Probability Framework

The Moving Average Crossover is a simple indicator that can still provide for profitable trading outcomes in trending stocks.

TLS provides another good example of this.

The positive crossover towards the middle of March provided the BUY signal.

This entry was confirmed with increased probability through the consolidation at a Support level around 3.05 in the weeks prior. The short term downtrend (pink line) was broken on the upside with strong momentum price bars at the crossover point.

The trade has stayed open, with the recent price activity now breaking through key Resistance at 3.80.



## MACD – Moving Average Convergence Divergence

The Moving Average Convergence Divergence (MACD) indicator builds on from the concepts developed in Moving Average Crossover analysis.

The MACD is typically built with a 12-day EMA and 26-day EMA to form the Moving Average Crossover data points.

The MACD then plots the relationship between the two moving averages (or distance between them) as a solid blue line on the indicator in a separate window below. We have chosen to use a histogram for easier graphical representation.

When the histogram moves from negative to positive this coincides with a bullish crossover of the two moving averages on the price chart above. When the histogram moves from positive to negative this coincides with a bearish crossover of the two moving averages.

A 9-day EMA is then plotted in the MACD indicator window as a red Signal line. This is an average of the MACD value itself over that period. The Signal line gives an early indication of the change in movement of the MACD, and the crossover points may be used as signals by some Traders.

The MACD acts to negate the typical lagging response of Moving Average Crossover analysis. The MACD clearly illustrates the widening or narrowing gap between the averages in advance of a crossover occurring. The relationship of the MACD with the red Signal line then provides an early warning system that this movement is speeding up when compared to the recent time period.

## Probability Framework

The MACD indicator is typically a good leading indicator of the bottoms and tops at momentum points if applying to a trending stock.

The trade BUY signal generated by the Moving Average Crossover discussed above was confirmed by a positive MACD crossover of the signal line.

The MACD began to rise strongly above the signal line in the middle of March indicating the up-shift in prices was quickening in comparison to the recent average.

The recent breakthrough of the Resistance level at 3.80 has also been supported by a similar upturn in the MACD. Price has moved strongly upwards.



## Combined Probability Framework

TLS began its price recovery towards the end of October 2020. The Weekly Chart makes the case for a Double Bottom Chart Pattern with the second low set at that time. Prices have since moved upwards with a number of strong momentum moves followed by consolidation periods.

The period from March to present has seen TLS settle into a more stable uptrend. The Long Term Group of Guppy MMA averages are well spread and trending upwards in parallel. Any price pullbacks have been well supported by the Long Term Group indicating good Investor support for TLS.

Price has recently broken through a key Resistance level at 3.80 and momentum has increased with a strong rally upwards supported by Traders. The 3.80 level marked the continuation threshold of the long term Double Bottom recovery.

Traders are now watching for the impacts of Resistance set by the upper trend channel range and the longer term Resistance at around the 4.20 level on the Weekly Chart.

With the Long Term group of MMA moving above 3.80, this level should now provide strong Trailing Stop Support for any longer term open trades.

