AUDUCO

Q4 FY21 STATUS REPORT

"Our focus, trust" *"Accounting for every trade"*

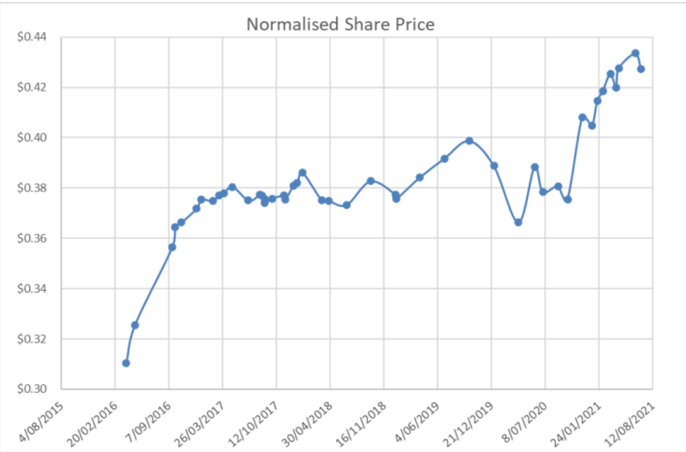
Investment Performance of Deployed Capital

Audio Pty Ltd's current investment position and normalised share price are summarised in the table and figure below.

30-Jun-21 Snapshot		
Top 5 Equity Holdings	**Ave Entry Price**	**Market Price**
ANZ	$23.43	$28.15 (Q1 perf: -$0.03)
BOQ	$7.96	$9.11 (Q3 perf: $0.46)
NAB	$19.01	$26.22 (Q4 perf: $0.22)
WBC	$16.18	$24.41 (Q4 perf: $1.40)
WPL	$23.28	$22.21 (Q4 perf: -$1.79)
	Current Market Value	

FY21 Dividends to-date	
FY21 Interest to-date#	
Cash Holdings	

Note #: Does not include interest currently being accrued in term deposit accounts.



It was a pretty subdued quarter. There was more consolidation of the Australian share market (XJO) but this time with an upwards bias in all-time-high territory. The Auduco share price pulled back from its peak a little. Dividend payouts are starting to normalise on banks. NAB has is now paying 60c per share versus 30c during Covid, for example, but still below the pre-Covid rate. Market uncertainty remains.

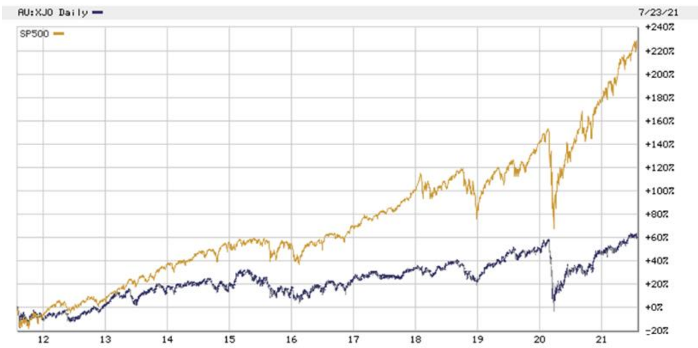
Our holdings have remained relatively flat for the quarter. We hold three out of four of the major banks, but the best performer was the one we do not hold, CBA. Fortunately, we also hold BOQ, which has a strategy we like in its aim to present a viable alternative to the majors. Its relative performance has matched CBA's over the past 6 months. NAB is our largest holding and some professionals are taking notice with a view that it is a good candidate to experience significant price appreciation.[1] However, analysts note that it is not all roses for banks. The low interest rate environment is difficult for them, with recent good results being due to productivity improvements and the stimulus debt surge that mask underlying challenges.[2] CBA's stellar run sees it viewed as trading at a difficult to justify 35-49% premium to its peers.[2] This also implies to not expect outperformance from NAB *et al* for now.

Synopsis

The synopsis for the quarter is that it was one where buying and holding large cap growth stocks (from well before the period) would have outperformed attempts to execute directional trades. Unless you were a day trader with the time and willingness to buy the dips (on the guess that they are the actual low).

There has been some 'cheering' over this XJO all time high milestone but, to us, it been a market that has severely lagged some overseas counterparts. The XJO only surpassed the all-time high it set in 2007 just prior to Covid. The S&P 500, by comparison, got past that point in 2013 and has since tripled.

Below is a visual of the comparative performance over 10 years:



The Nasdaq has done even better; ~360% greater gains than the XJO, compared with ~170% better for the S&P 500.

It has been a bull cycle of all sorts of precedents. The next precedent is perhaps the third year in a row of double-digit growth in the S&P 500 index price. These are rare but we are on

[1] 'Why NAB shares could take off: Fundie,' Motley Fool, https://www.fool.com.au/2021/04/15/why-nab-asxnab-shares-could-take-off-fundie/

[2] 'NAB shows valuation puzzle for banks as reality bites,' Australian Financial Review, https://www.afr.com/chanticleer/nab-shows-valuation-puzzle-for-banks-as-reality-bites-20210812-p58i4m

track for another hattrick with 31% in 2019, 18% in 2020 and its now sitting at 18% (at time of writing) so far for 2021.

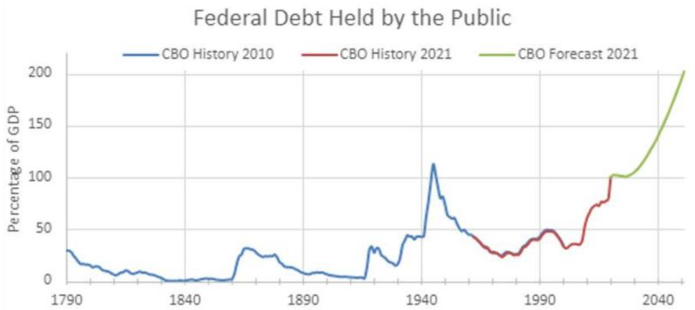
The macro-economic backdrop from the US perspective:

- Stocks: all-time highs.
- Home Prices: all-time highs.
- Incomes: all-time highs.
- Job Openings: all-time highs.
- US Core Inflation: highest since 1991.
- US Federal reserve: 'we need 0% rates through to at least 2023 & trillions more in bond purchases to boost asset prices and increase inflation.'

Below is shown, to provide some more perspective, some long-term charts of the S&P 500 and NASDAQ that show just how far they have individually extended in recent years. The demarcations show just one possible scenario. Its no secret we thought the market was ready for a prolonged bear market from four years ago, when the indices were at lower levels than they currently are. Assuming a future correction stops at the long-term trend line shown on the charts, it would still be a big correction in raw terms (actual points moved), but nothing compared to the scale percentage declines of previous severe bear markets.

Even with the quantitative easing that Australia has rolled out, the XJO continues to lag other markets. Albeit, whilst the RBA and federal government are following the overseas lead, they have injected far less by comparison. But looking at the initial S&P 500 to XJO comparison chart shown above, one might surmise that the local market is bound to break out and catch up. One argument in favour of some kind of catchup scenario is the fact that governments are unlikely to pull back their stimulus, which is inflationary. And given that commodities remain relatively close to cycle lows, but having broken out of long term down trends, it's a recipe for Australian stocks to go on a tear.

At these 'altitudes' there is an uneasy feeling that risk outweighs reward. We've spent a couple of years talking about excessive valuations and now we are seeing debt in the USA match WW2 levels with projections that are difficult to fathom as sustainable. The figure below, showing government debt only, does not present the full picture. Adding corporate and consumer debt to the mix brings the current non-financial Debt/GDP ratio to nearly 300%, the most indebted the USA has been in its history.[3]

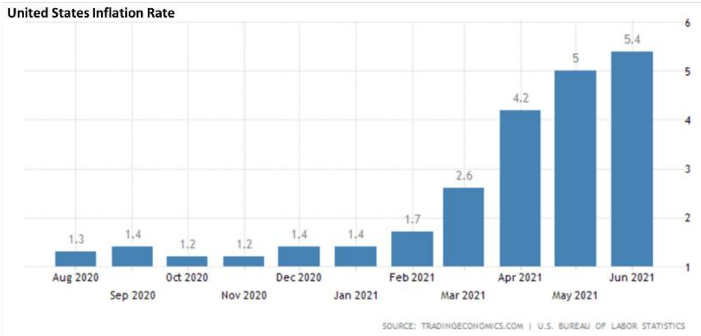


US Government debt 1790 – 2040. Source: Forbes / Rick Miller, Sensible Financial Planning and Management

The problem with all this debt is inflation. The US Fed (and most central banks) target an inflation rate around 2% pa. Getting it there has been the challenge of the past decade, with the general bearish economist view (e.g. David Rosenberg) being that if it was not for central bank intervention we would be experiencing a global deflationary depression. Now the US has experienced a sudden jump in inflation, well above the target band (~2%). The US Fed has asserted that any inflation spikes observed in the near-term future will be transitory.

It has been these inflation readings and views around it that are the news events attributed to the pullbacks experienced this quarter. These are 'mini'-corrections.

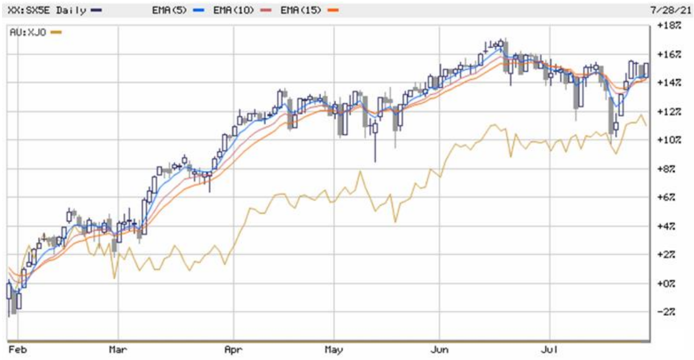
[3] 'Here Are Six Reasons Why Inflation Will Not Be Transitory,' Forbes, https://www.forbes.com/sites/adamstrauss/2021/07/30/here-are-six-reasons-why-inflation-will-not-be-transitory/?sh=5379611959ca



The figure below shows the S&P 500 as an example. It is generally tracking up at a steady rate overall, better than other markets (the subsequent figure shows the XJO and Euro Stoxx 50 as examples). The annotations in the S&P 500 figure flag the false breakouts and short-term trendline breaches followed by 'bear traps.' In the 'olden' days a false breakout followed by a trendline breach is a bearish sign typically followed by some form of correction. This is clearly not happening. The market is extraordinarily resilient with 'corrections' lasting a few days and being well under 5%.

The Euro Stoxx index and XJO over the same period is below (with no demarcations provided) for comparison. The Eurozone, like Australia, is lagging the S&P 500. They are consolidating more sideways than the US, and markets that do this in uptrends to eventually tend to break upwards.

Qualitatively, the high number of false breakouts and mini-corrections are a tell. Essentially, we are seeing stock markets that are looking frothy and sending mixed signals. We are seeing less and less participation with each ride up of indices following each false trend break. This is being confirmed with our own trading data for the quarter (discussed later). Indices looking toppy which, at face value, conflicts with the central bank money print theme and long-term 'Dr' Copper breakout that asset price inflation is likely. 'Excessive inflation readings' causing the min-corrections notwithstanding.



Regardless, the markets have continued to hold up. It is befuddling to many investors as to why it persists. Even more so when the fundamentals are directly considered, such as S&P 500 earnings yield (= trailing 12-month earnings divided by index price {or inverse PE}) which is now negative and the worst it has been since 1981.

So why are the markets declines so quick and shallow when almost 'everything else' suggests it should be entrenched in a deep bear market? The answer comes from comparing to the money markets. When you put the stock market side by side with the money market, which is zero, or the bond market, which yields about 1.2% for 10-year Treasuries. There is little alternative but to put money in stocks (or to build up cash, just in case). What keeps happening is people with capital, with savings, reach a point where the feel they have little choice but to put money in the stock market. So with almost every decline, investors rush in to buy the dip.

Given this resilient backdrop, markets can still correct hard and fast. As much as 20% would traditionally still be considered a bull market correction and would set the scene more market highs. But it is not an environment to be complacent in. In a backdrop of the excessive prices (relative to history), the bullishness and the excessive leverage that results, it would not take major falls to blow up accounts.

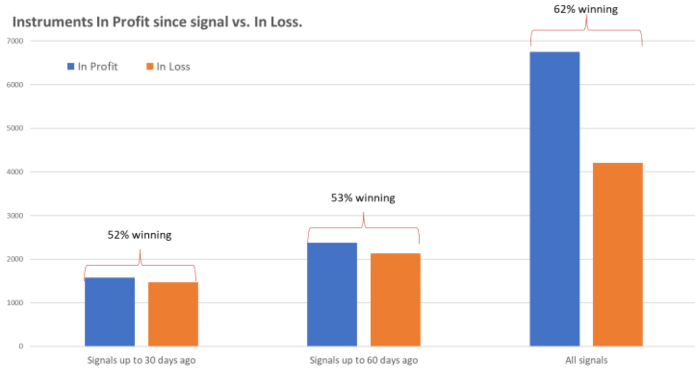
A great example of this was in the recent crypto correction that occurred this quarter (chart above). In the 24 hours to 8:00 PM on Sunday 18-Apr, 927,000 long trading positions were wiped out for an estimated loss of nearly USD $10 billion, with the largest single position being USD $68.73 million.[4] The total global cryptocurrency capitalisation loss was $310 billion in the 24-hour period.[5] Have a look at the chart below. Those 927k liquidations occurred at the spot marked on the chart below, which was just 12% into the fall – early days. Many, many retail traders will have fought the tape all the way down, touting 'bought the dip', 'about to sky rocket' and 'YOLO' (You Only Live Once) on social media. The low point of the correction, which so far appears to be over, equated to a 53% drop. This should provide a sense of the extent of losses experienced by crypto traders.

System Context

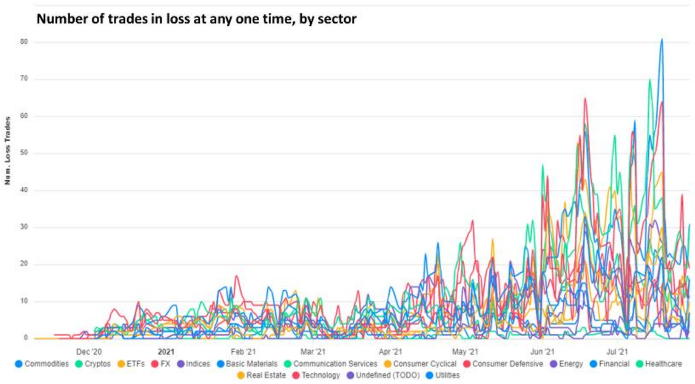
Tracking system alerts, live, since November 2020 just over 11,000 alerts have been generated to the end of Q4. We are test-trading with personal accounts, and clearly cannot take every signal. Nor should anyone at this stage. But with all those signals we have accumulated great data and are still working through assessing in detail.

Mentioned above is the observation that we are seeing less and less participation with each ride up of indices following each false trend break. This is confirmed by our actual trades based on system alerts, whereby shallow drawdowns are being experienced overall with each mini-correction. Moreover, during these mini-corrections, almost all holdings pulled back compared to only some during occurrences in previous quarters.

This lack of participation is also verified by our entire pool of alerts. Recall from the last update (Q3 FY21) 71% of verified signals were shown to be profitable on a buy-and-hold basis. As of 30 June, the overall proportion of 'winning' alerted trades was 62%. Histogram presented below. But that drops to 53% for alerts generated over the last 60 days of the quarter and 52% over the last 30 days.



The chart below is more interesting. It captures the number of positions (assuming all signals were traded) that are in loss, but not yet stopped out, per trading day for all sectors. This is for all markets tracked; US, UK and Euro stocks / ETFs, FX, and commodities. The number of positions in loss remains relatively low until May, where it begins to increase sharply into July. This is consistent with observations of reduced participation and increased proportion of stocks pulling back during the mini-corrections.

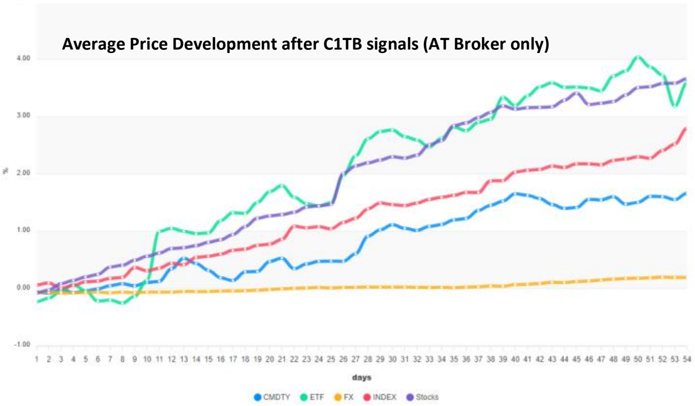


How does what occurred in the markets over the period correlate with the 'trades in loss' data? Generally, markets broke out strongly in November and trended well. From May they began to consolidate sideways (or, in the case of the USA, continue to trend up but experience those mini-corrections that were pullbacks to the break-out point of each preceding advance, with more and more stocks falling away each time).

Another piece of useful data is the chart below which provides a measure of the quality of one of the key system algorithms (below). It provides the average price development over a 54 day period based on the entire price history of ~2000 instruments. It tells us that Stocks and ETFs yield the best performance on average, followed by commodities. We observed some great looking price formations for FX, but they performed poorly overall relative to the other instrument types.

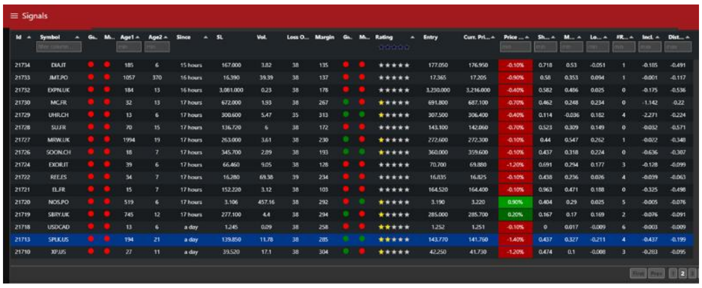
[4] 'Bitcoin Crashes As Much As 15% Amid Unsubstantiated Report Of Money Laundering Crackdown,' ZeroHedge, https://www.zerohedge.com/markets/bitcoin-crashes-much-15-amid-unsubstantiated-report-money-laundering-crackdown

[5] 'Crypto Flash Crash Wiped Out $300 Billion In Less Than 24 Hours, Spurring Massive Bitcoin Liquidations,' Forbes, https://www.forbes.com/sites/jonathanponciano/2021/04/18/crypto-flash-crash-wiped-out-300-billion-in-less-than-24-hours-spurring-massive-bitcoin-liquidations/?sh=77250f6f2c89



Alert Analysis Interface

Below is a snapshot of the interface being developed for use and potentially to take to market as part of a subscription service. The interface is a cloud hosted SaaS solution which draws in instrument data from respective broker APIs and parses them through the trading system algorithms. We are literally at the point of 'scanning the world'. The snapshot below shows the main working dashboard. Each line represents an alert generated by the system algorithms and contains all the relevant parameters required to make a trading decision and flag for further review. Clicking on one of the of the lines, such as that which is highlighted in blue, brings its chart up (screenshot further below).



The remaining dashboards provide analytical chart views (some of which have been shown in figures above) and administration tools.

Development of this interface would not be possible without Marcel Fitzner, the full stack developer who has joined us in the journey.

We have some useful tools available that are being built upon. Right now, we are working on database queries and adding a dashboard for sector analysis (ranking and filtering). The database queries are to validate the ranking guidelines we are using to prioritise or ascertain patterns that are not yet visible or only visible through slow manual assessment of data extracts. During the churn of the last quarter, many market instruments still performed, experiencing continued trending of sharp breakouts. Our system alerts picked many of the up. The question being considered in how to improve the odds of deciding on those as opposed to the ones that drifted and declined. Hence, the aim is for the queries and to elucidate a suitable method to identify which instruments have a greater probability of price appreciation.

Long term testing indicates better returns are possible when taking trades around where medium term trendlines are broken. Anecdotally, based on the test trades we took, this did not seem to work in the period. It could be a matter of trending stocks, breaking out to new highs might be better to take in sideways markets, despite being overbought. We have ideas based on well-known trading theories and axioms, but now we are collecting copious amounts of data to support our ongoing validation work. It could be that already established tools, such as the above chart showing the number of theoretical positions in loss at one time, provide the answer; e.g.: when above a pre-determined threshold, stop trading. While we work on that we will keep reviewing and ranking alerts daily and taking test trades in accordance with the system rules and axioms.

Until next time.

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