Investment Letter: 24th June 2015

At the time of writing, the Greek crisis has entered an intense phase. A clash between political logic and economic reality. The logic of coaxing Greece back to the European bosom is compelling, as is the domestic logic of remaining in the Eurozone (on better terms), when compared with capital controls, ejection from the euro and the attendant risks of social breakdown. However, when thinking this through, we remain focused on the simple weight of debt, set against the underlying weak drivers of the Greek economy, rampant capital flight and the lack of a prospect of material forgiveness. These combined suggest that, at a later stage, default and capital controls are more than likely.

Throughout the negotiations, markets appear to have assumed, to a greater degree than is perhaps warranted, that some form of "extend and pretend" strategy will prevail. This, plus the lack of planning on either side for default, capital controls and a host of consequential events, leads us to be somewhat cautious in predicting any resolution.

Paul Donovan of UBS expresses the key issue well when he writes: "A broad membership of the euro was never likely to be viable in economic terms, as the euro was originally structured. Prior to the introduction of the euro, economists regarded the formation of the euro as a political rather than an economic construct. It seems increasingly likely that if a solution to the current crisis is to be found it will have to be political rather than economic. This find echoes in Greek Prime Minister Tsipras calling for a heads of government meeting rather than an Ecofin meeting to try and bring the current situation to a successful resolution."

Generally speaking, the other most cited risk is that of the first increase in US interest rates since 2006.

On this, Janet Yellen appeared clear and confident in her answers to the press on 17th June. There were less of the hallmark obfuscations that were so characteristic of her two immediate predecessors. Her acknowledgement of the IMF's different viewpoint on interest rates was so prosaic that it removed any sting from the bold Lagadere intervention. The Fed was able to present an unchanged expectation of a 50 bps rise in the policy rate this year: a confirmation that did not immediately affect the value of the dollar on international exchanges.

Quite the contrary, the dollar has had a hard time recently keeping up with the British pound, which is, once again, within a hair's breadth of 1.60. We put this down to the apparent momentum in UK wages data which suggests that a non-accelerating inflation rate of unemployment (NAIRU) is being approached. If this conventional economic explanation is reached by the majority of the

Bank of England's Monetary Policy Committee, with whom the decision on rates lies, then a UK interest rate increase is also on the cards, perhaps sooner rather than later.

Irrespective of the timing of a first rate rise, we would agree with Janet Yellen that the overall path is of greater consequence for the long term evolution of financial asset prices. On that, our core expectation remains that the path will have a shallow gradient on account of the tendency for economic growth and inflationary pressures to be low against a backdrop of very high debt levels.

We have introduced a page on our web-site that contains all the salient information regarding our core investment strategy. We are happy to report this strategy's annualised, three-year trailing returns (our self-imposed key metric of performance) have reached +12.8% per annum after fees and stand at the top of our peer group on this measure.

http://cernocapital.com/funds/tm-cerno-select/

Finally, two short texts follow this letter. *Defining Megatrends: Demographics & Debt* is an introduction to the first in a series of chart books which illustrate very long term trends that we believe to be of consequence - debt and demographics being the first.

The second is a thought-provoking piece on the subject of leverage. Intuitively, one might assume that leveraging returns on a rising market is a good strategy to enhance returns. Not so. Fay Ren, a member of the Investment Team at Cerno Capital, explains why in a piece which owes its origins to James Montier.

James Spence
Managing Partner

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Defining Megatrends: Demographics & Debt

When investors talk of long-term trends, they are often referring to the next three to five years. Few envisage horizons past the ten year mark. Yet super long-term trends do exist and are slowly but definitively changing the world socially, economically and politically. In our minds, some of the largest of these are demographics, debt, the technology of energy provision and gene-based medical discoveries. We address the first two, which represent more of a threat than an opportunity, in a chart book.

http://cernocapital.com/wp-content/files_mf/1434122306LTSS_DemographicsDebt.pdf

The world is getting older. This fact has been acknowledged and fretted over by academics, economists and governments, though relatively little can be done on a supra-state basis. In the recent past, people worried about world population exploding to unmanageable levels, which at the time seemed realistic. They noted that the world's population doubled twice in the 20th century. However, future demographic shifts in many countries from today will be driven by longevity and low fertility rates. This will lead to a sharp fall in working population relative to retirees, and eventually to a decline in overall numbers as the fertility rate is on trend to fall below the replacement rate (2.1 children per woman).

In many developed nations, economists are forecasting working population declines of more than 10%, true for most of Europe, and even more stark for Japan at 20%. The emerging nations have a younger population in general, but they are also growing old at a rapid pace. Citing the Geneva Association: 'By 2040, Brazil and Mexico will be nearly as old as the US. China will be older. Meanwhile, South Korea will be vying with Germany, Italy and Japan for the country with the oldest demographic profile'. The only exception is Africa, a populous continent with a much higher fertility rate.

The consequence of an aging world is grim. A substantial increase in the ratio of retirees to the working population will be a blow to labour productivity and place strains on government fiscal costs as a result of increases in social spending, including public pension and health insurance programs. Only the countries with a more open immigration policy will fare relatively better (e.g. US and UK). The worry for emerging nations, on the other hand, is that many are getting old before they are getting rich, with no time to put in place full social protections of a modern welfare state.

Ageing will also impact financial assets as people's behaviour changes to become more risk-averse. Demand for low risk products that facilitate wealth preservation, rather than asset accumulation, will increase. The conjecture is that as the retirees draw-down their investments to fund their spending, it will also have an adverse effect on asset prices, in particular on equities. With pressure on central banks to maintain low inflation and low interest rates, policy orientation will continue to punish savers and pension providers (with high bond allocation offering little return).

The trends in demographics are related to those in debt: worsening debt levels drive government expenditure up and income down. Perhaps one of the biggest challenges for policymakers is to determine how to deleverage under an unfavourable demographic scenario plagued with persistent low inflation and low growth.

The amount of debt currently existing in the world is colossal, a level not seen since WW2. Global debt has risen by US$57 trillion post-2008 to almost US$200 trillion, now representing 286% of world GDP. Emerging market corporates went on a borrowing binge during the QE phase, encouraged by low interest rates and ample liquidity, while the developed market countries struggled to deleverage. China is one of the biggest offenders in this arena, where its corporate bond sector (ex. financials) ballooned to 125% of GDP from 72% in 2007.

Empirical studies by academics often claim that high debt-levels may be damaging to economic growth. We have already observed that growth is slowing across the globe. To imply a causal relationship of one to the other remains very much the minority view. High debt levels do, however, have implications on long-term interest rates, as they call into question a government's fiscal sustainability, creating an array of problems for interest-rate sensitive segments of the economy. For emerging countries, who have issued large amounts of external debt, it makes them more vulnerable to currency movements and capital outflows, should sentiment experience a reversal.

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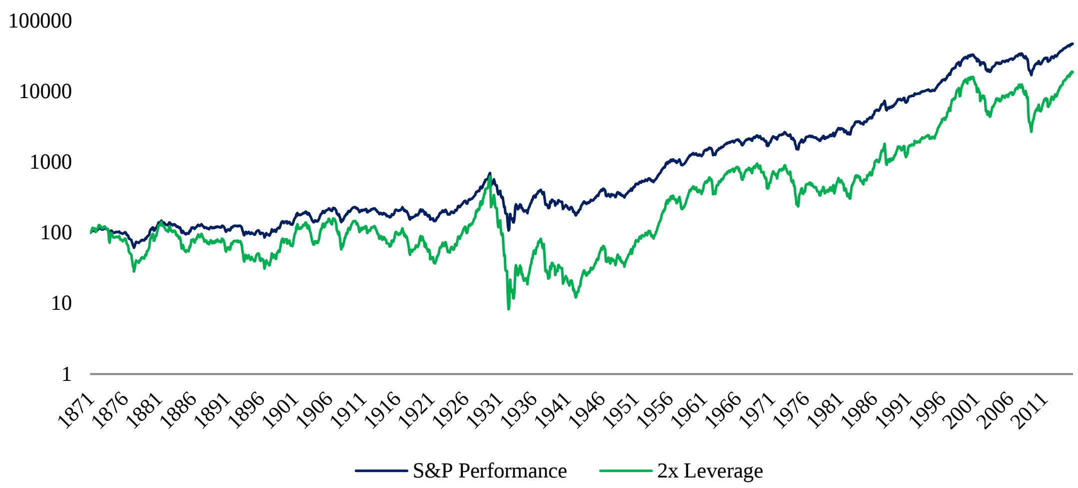
Bet the House? The Odd Thing About Leveraged Returns

We all know that the UK and US stock markets have risen over the past 50 years. It would therefore seem intuitive to think that leveraging these markets would have generated higher returns. No so.

We investigate the relationship between financial leverage and stock market returns over the long-term.

The use of leverage is intended to capture price movement greater than the market, typically accomplished through derivatives trading to mimic the return characteristics of an underlying index. Leveraged investment vehicles are widely distributed in exchanged traded fund (ETF) format and these strategies are commonplace within hedge funds via derivatives markets.

A leveraged strategy intends to deliver a multiple of the underlying indices' daily (or in rare cases monthly) return. However, over the long-term this does not translate into any reliable multiple of the performance of the underlying index. The chart below illustrates this. The log cumulative return of the S&P 500 has actually outperformed its twice-leveraged counterpart over the past 144 years since 1871. And this is before fees and additional costs are deducted.



Source: Dr. Robert Shiller, Morningstar, Cerno Capital

The reason lies in compounding, where its effect is magnified by leverage. So while a leveraged index tracks well on an intraday/daily level, divergences will begin to appear over a longer horizon. Leveraged returns are highly path-dependent. In particular, downside risk could be exacerbated during periods of high volatility.

Consider a leveraged investment with an initial value of 100. We examine the simple return dynamics over a period of five trading days under three different scenarios:

When the index performance is trending in one direction, whether up or down, leverage tends to enhance performance.

Trending Up	Day 0	Day 1	Day 2	Day 3	Day 4	Day 5	Performance
Daily Change		**+5%**	**+10%**	**+5%**	**+10%**	**+5%**	
Index Value	100	105.0	115.5	121.3	133.4	140.1	+40%
2x Leverage	100	110.0	132.0	145.2	174.2	191.7	+92%
3x Leverage	100	115.0	149.5	171.9	223.5	257.0	+157%

Source: Cerno Capital

Trending Down	Day 0	Day 1	Day 2	Day 3	Day 4	Day 5	Performance
Daily Change		**-5%**	**-10%**	**-5%**	**-10%**	**-5%**	
Index Value	100	95.0	85.5	81.2	73.1	69.4	-31%
2x Leverage	100	90.0	72.0	64.8	51.8	46.7	-53%
3x Leverage	100	85.0	59.5	50.6	35.4	30.1	-70%

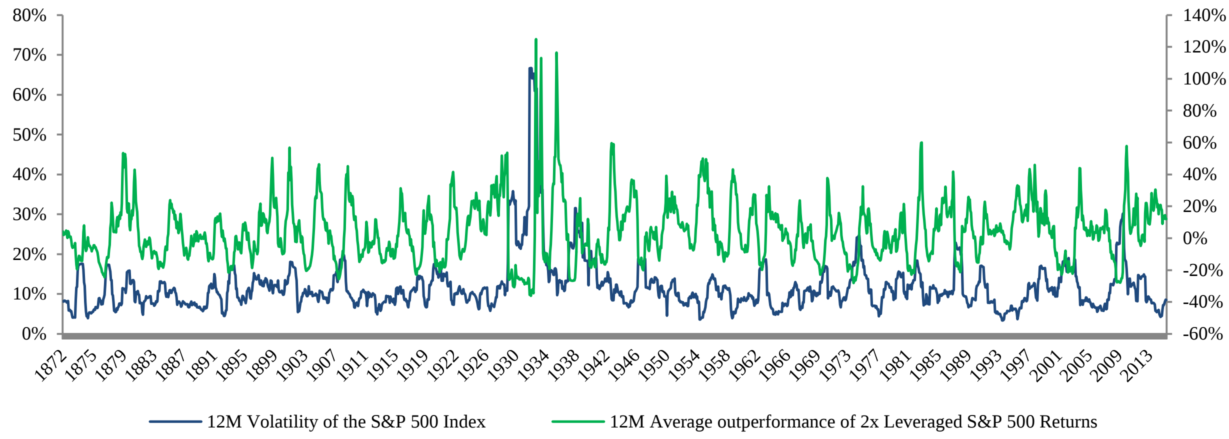
Source: Cerno Capital

However, when index performance is volatile, leverage tends to exacerbate loss.

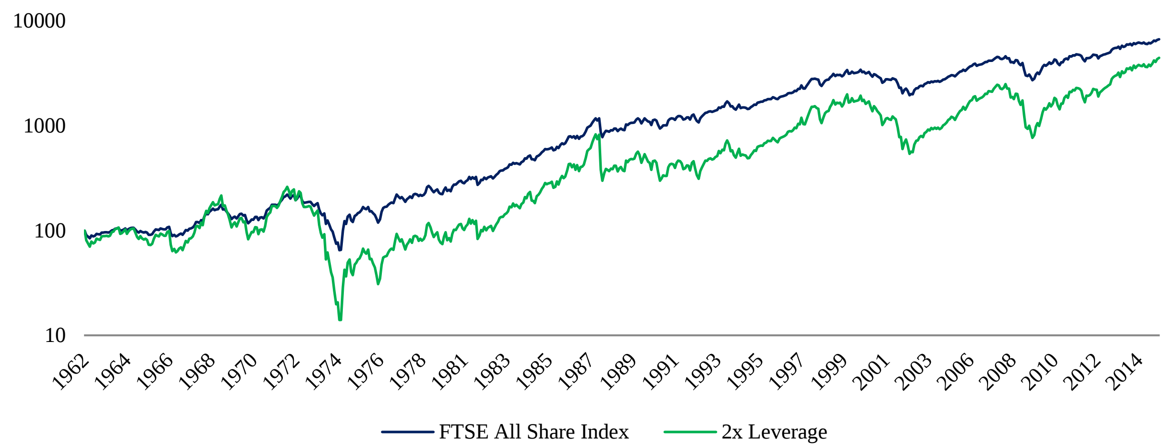
Volatile	Day 0	Day 1	Day 2	Day 3	Day 4	Day 5	Performance
Daily Change		**+5%**	**-10%**	**+5%**	**-10%**	**+5%**	
Index Value	100	105.0	94.5	99.2	89.3	93.8	-6%
2x Leverage	100	110.0	88.0	96.8	77.4	85.2	-15%
3x Leverage	100	115.0	80.5	92.6	64.8	74.5	-25%

Source: Cerno Capital

But in all cases, over a longer period, leverage does not perform as expected. Leveraged out-turns do not describe a linear relationship as the product of return times leverage factor. Unless the investor has great confidence in the consistency of the market's future trajectory (and in our opinion, this means beyond what can reasonably be known), leverage is unadvisable, as the market is rarely without fluctuations for a prolonged horizon/period. Leverage is essentially a position of volatility by construction. In many cases, even if the market moves in the anticipated direction, one may still end up with a loss if volatility is high. The chart below illustrates this point: leverage underperforms whenever volatility spikes.



Source: Dr. Robert Shiller, Cerno Capital



Source: Bloomberg, Cerno Capital, Valu-Trac

Over any 12 month period, 2x leverage outperformed the index 60% of the time. But this ratio declines as the horizon stretches to 3 years (52.4%), 5 years (50.6%), 10 years (42.6%) and 30 years (39.3%).

Another potential drag on returns for a long-term investor comes from the high cost that is often associated with a leveraged strategy. These are more expensive than a traditional long-only strategy as they must take into account the i) capital gains/losses of the underlying market; ii) financing cost to lever the portfolio (and for holding derivatives); iii) transaction/rebalancing costs; and iv) liquidity spread (additional cost of sourcing long-term liquidity). These all contribute toward a high net expense ratio.

A leveraged strategy mostly appeals to short-term traders with a high risk tolerance when making directional bets. Due to its path-dependent nature, it will perform well when the market exhibits strong momentum with a relatively stable upward or downward trend (provided the direction is correctly called).

Financial market commentator James Montier of GMO, on whose observations this work is based, has always been a strong opponent of using leverage, citing one of the key financial risks to be 'asset + leverage'. To reiterate, leverage can be used as a speculative expression of directional views across different asset classes over the short-term, but it can also be a big destroyer of value over the long-term from both risk and cost perspectives, and therefore not a suitable vehicle for 'buy-and-hold' investors.