IN CONVERSATION

Building Covid-resilient portfolios

Hal Reynolds, chief investment officer of **Los Angeles Capital**, talks about the insights gained from starting to measure the Covid beta of equity portfolios, bad momentum and the problems of static factor approaches.

By: **Caroline Liinanki**

Equity markets may have held up remarkably well over the past months but that should not fool investors into a false sense of security. The risk level is still high and many investors may be wondering just how well their equity portfolios can withstand the unfolding crisis sparked by the spread of Covid-19.

As a way of identifying an equity portfolio's resilience to the current crisis, the US quant manager Los Angeles Capital has invented a new measure. The asset manager, which invests in equity markets globally through a forward-looking quant model, has over the past months been testing its portfolios for their Covid beta.

Asked what Covid beta really means, its chief investment officer Hal Reynolds explains: "The simplest way to think about it is that it enables us to measure a stock's sensitivity to any macro shock. The Covid beta is a nice way of really answering the question of 'what is the risk that matters today in explaining a stock's excess returns?' The traditional beta measures a stock's sensitivity relative to the overall stock market but what we're doing here is removing the return of the stock market to measure how a macro shock impacts a stock's return relative to the market."

That, he says, is an important point considering the positive stock market performance over past months. "Let me just explain why that's so important," he says. "The global equity market is up 45 per cent since its March low – but is that because the crisis is behind us and everyone is putting Covid in the rearview mirror? Or is it because there has been tremendous fiscal and monetary stimulus, which has really pushed up valuations? We would argue the latter, meaning that equities have recovered in large parts because of the tremendous response globally by central banks and governments."

After beginning to measure the Covid beta, Hal Reynolds notes that one of the key insights relates to the high level of risk associated with the coronavirus. "We're now some months into the crisis. The health care community has obviously made some progress on effective treatments and there are a number of great companies working on vaccines, so there's certainly room for optimism. But the truth of the matter is that the economic fallout is just beginning," he says.

He continues: "While market risk may be only one-third of its peak from March, it's still 50 per cent higher than its long-term average and Covid risk remains just below its May peak. So the riskiness associated with this macro shock remains high. It's generally much higher than previous macro shocks, including the dot-com crisis, the financial crisis and the European debt crisis. That's the magnitude of the risk we're facing."

Another insight from looking at the Covid beta is the way it is changing over time, which Hal Reynolds notes perhaps isn't that surprising but still interesting. "It's not something we necessarily would have known intuitively," he says. "These betas are very stable but they do evolve. An example is when the Fed came out in March and said they would be buying back corporate bonds, so a very aggressive quantitative easing program to support credit spreads. That caused bank stocks to rally and initially, it looked like bank stocks were more resilient to Covid. As time has gone by, the Covid beta of bank stocks has continued to rise, meaning that banks continue to be more and more sensitive to the crisis. And the reason is that the longer the crisis is extended, the tougher it's going to be on bank balance sheets. That could lead to a real credit crisis down the road, creating a need for them to grow their loan loss reserves."

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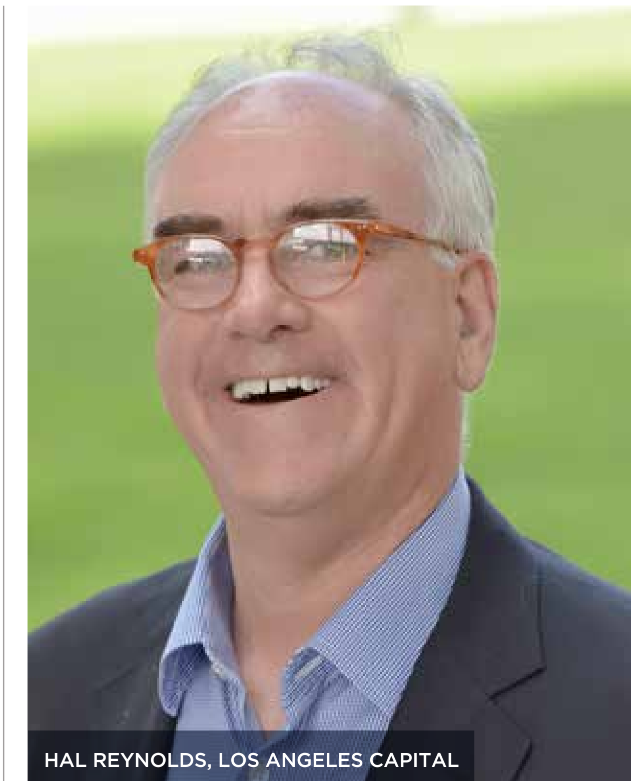
He continues: "Another thing that's interesting and maybe somewhat surprising is how resilient China is. It's surprising since Covid started in China. It had a big impact in the first quarter but because of the large information technology sector and the growing digital economy, China has proven to be fairly Covid resilient."

There are a number of regional, country-specific or even company-specific effects that can be analysed through the Covid beta lens as certain parts of the world are hit more badly than others. "There are regions in the world, such as Latin America, that are more sensitive to Covid," he says.

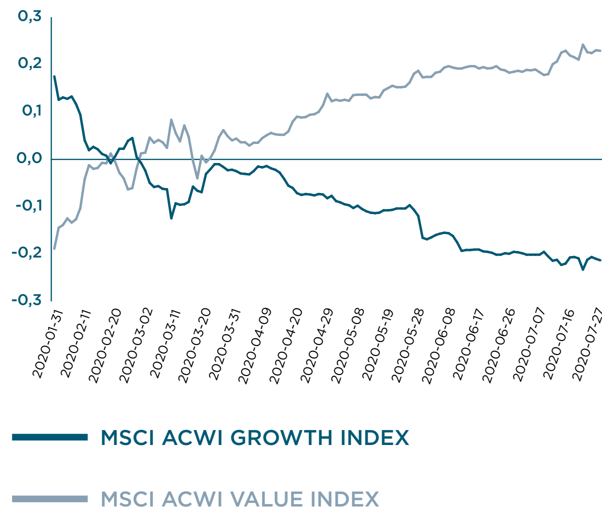

HAL REYNOLDS, LOS ANGELES CAPITAL

"Not because the disease is spreading faster there, although it has been spreading quickly in Brazil, but because the economic consequences of the global pandemic are harsher on Brazil. It doesn't have much of a digital economy and it's very sensitive to the physical economy. Many European countries also have pretty high Covid betas because they have a lot of exposure to the physical economy and less to information technology. Even within a country, you could have a company that's systematically more exposed because of its geographic location compared to another similar company that's located in a different part of the country or the world."

The Covid beta also illustrates the widening gap between value and growth stocks. This is unfortunately not in favour of value stocks, which already have struggled for quite some time relative to growth. "This tells us things are actually getting worse for value and, on a relative basis,

IN CONVERSATION

COVID BETA EXPOSURES FOR MSCI ACWI STYLE INDICES 31/1/2020 TO 27/7/2020



Source: Los Angeles Capital

better for growth," he says. "And the reason is that today, relative to two months ago, we've realised that this crisis is going to lead to a slower recovery than we had hoped for."

Over the past months, Los Angeles Capital has been using the new measure to monitor risk. "For every portfolio, we look at the Covid beta of the benchmark and the Covid beta of our portfolio. We want to build Covid-resilient portfolios. Our model suggests that this crisis will continue for some time and we know historically that value-oriented assets need a healthier economy to perform well, so we tend to be underweighted to those stocks right now. But it's a nice verification that the Covid beta of the portfolio is lower than the benchmark and that we've built a portfolio that's going to be more resilient to the current crisis," he says.

However, the motivation initially behind starting to measure the Covid beta was to remove noise from another factor used in its model, called news-adjusted residual. "The definition of a residual is unexplained return," explains Hal Reynolds. "We call it news-adjusted because we ask ourselves 'if the fundamentals don't explain a return, does the news explain it'? Maybe there's a big law suit, maybe the management team was just let go or maybe there's some other news that's not captured in the fundamentals that might explain a portion of the stock's return. When Covid really got going globally in mid-February, we realised the residuals became correlated, meaning there was some missing factor or systematic effect in the residuals. So we initially developed the Covid beta simply to cleanse or purify the residual, so to remove the systematic effect. And the idea is that systematic effects will persist into the next period where idiosyncratic or residual effects will mean revert, so you need to keep the accounting very clean. You don't want to have systematic factors inside your residuals because you're betting against your residual." According to the model, a high residual will generate a negative return, meaning the stock is overvalued. A negative residual, on the other hand, is going to generate a positive return, so the stock will mean-revert back to fair price.

Los Angeles Capital uses around 30 different factors in its model, which aims to dynamically price different factors and tilt portfolios towards factors that are favoured in the current market. The model was developed in the 1990s when the team was working at the consultancy Wilshire Associates, prior to breaking loose and establishing an independent quant boutique a decade later.

Asked whether the asset manager sees Covid beta as a separate factor, this still remains somewhat undecided. "It's not yet a factor in the model. We're looking at that and it's a possibility. Covid does have a return series but it's not a factor we're forecasting. Right now, it's an analytical method to help us manage risk and also improve other factors," Hal Reynolds responds. He adds that the firm is currently exploring whether it is possible to forecast Covid beta. "I don't know the answer to that yet. Obviously, we have a very short history since the crisis began. We've gone back in time to see what this factor would have told us if we've had it during the financial crisis. We do think long term we will continue to use this factor as a macro beta: to measure a portfolio's sensitivity to a macro event. Sometimes there are no significant macro events, so it won't be important. Other times, there will be economic shocks that impact stocks globally, so it will be a nice measure for that," he says.

The asset manager has not just analysed the Covid beta of its own strategies but also taken on the equity portfolios of some of its clients and tested them for their Covid resilience. Hal Reynolds cites several reasons for why an investor would want to know that. "Investors are interested in hedging unwanted risk," he says. "A plan sponsor might be very interested in knowing whether an equity portfolio will be resilient or underperform if the crisis continues. If you have a low Covid beta, you might underperform if the market recovers faster than expected. On the other hand, if you're worried about a prolonged period of recovery, you might want to have a Covid-resilient portfolio and keep the Covid beta quite low. At some point, you might say that you want to benefit from the crisis by, for example, going long airlines, cruise ships and energy companies. But there's no right or wrong answer."

He continues: "If you really want a Covid-resilient portfolio, it could cause you to rethink your philosophy towards regional and country bets. Some plan sponsors like to be very balanced and keep regional weights similar, but the truth of the matter is that if you want to build a Covid-resilient portfolio, you might have to introduce some sector bets and even some regional bets. That's another interesting analysis a fund can do if you know what your Covid beta is."

Furthermore, he says that Covid beta could also be used as a way of implementing a distressed equity investment strategy. "We've had discussions with clients in the past about distressed equity investing. Private vehicles are obviously more expensive, so this could be an efficient and less expensive way to find stocks that will really benefit from the Covid rebound. We haven't made that proposal but I could see that unfolding going forward. So there are some interesting applications," he says.

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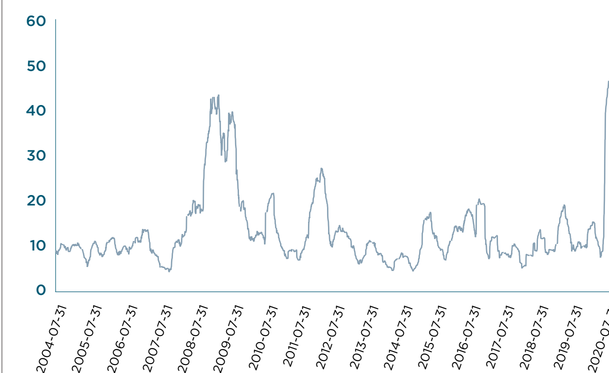
Los Angeles Capital may be relatively unfamiliar in the Nordics, which partly can be explained by the fact the firm doesn't have any Nordic clients. It does, however, have a number of long-standing Dutch pension fund clients, in addition to US pension plans and global financial institutions. In fact, the asset manager won its first mandate from a Dutch pension fund after the firm was set up in 2002. "We're managing large portfolios for large institutions. Generally, we end up doing business with funds where there's a real sharing of information. They're not just simply giving us money to manage but they're interested in our technology and in our ideas. Generally, we end up working with more sophisticated funds that want to get into the detail of our research and we really enjoy that," says Hal Reynolds.

Covid beta is not the only topic under research at the firm. For the past years, it has done some work, which is still ongoing, on improving the momentum factor. More specifically, this has been about separating good momentum from bad momentum. "It's related to news-adjusted residual but rather than trying to forecast returns for the next week, we've come to the conclusion that some of these residuals can persist for a long period of time but they still eventually mean revert. So we're keeping track of which stocks have too much residual baked into their return. And we call that bad momentum. We want to make sure our portfolios have negative exposure to bad momentum. The problem is that you can lose a lot of money when you have a momentum crash. We've found that hedging out bad momentum is really a way to mitigate the risk of momentum, yet capture it's benefits over time," he says.

MACRO BETA: 3 MONTH ROLLING RISK ANNUALIZED MSCI ACWI INDEX 31/7/2004 TO 31/7/2020



Source: Los Angeles Capital

Another big focus area at the firm has been around unstructured data. "Our computers analyse the transcript of calls between companies and analysts. If the sentiment of the analysts in the Q&A is positive, that's a good sign. If they're not getting clear answers and are getting frustrated, that's generally a bad sign. And we've just added a Chinese news sentiment where we're using natural language processors to analyse news in Chinese, so that's exciting for us," he says.

Factor investing, especially in the long/short space, has, on the other hand, experienced something of an uphill battle in recent years with many investors having been disappointed with their exposures. Hal Reynolds believes one problem is using static factor approaches that are not adapted to the current times. "We really think these more tailored factors make sense as opposed to more standard factors that are in the academic research," he comments. "Our experience is that the behaviour of standard factors tends to change through time, for rational reasons, which can lead to investor disappointment. So I think it's so important to really think about how a factor applies to today's world. And the Covid beta is a great example of that. It's just helping us understand which companies are coping with this crisis and which companies are really struggling, looking beyond their raw rate of return or earnings estimates." ●

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