EQDerivatives

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Helaba *Invest*

Roundtable

The Private Alternative Risk Premia Roundtable

Sponsored by Credit Suisse

*The private alternative risk premia roundtable took place at Europe EQD in Barcelona on Jan. 28. EQDerivatives' **Georgia Reynolds** led participants in a discussion of the broad topics of performance, crowding and diversification as well as developments in machine learning and how investors can include sustainable investments in traditional risk premia.*

Participants

Julio Delgado,
American Red Cross

Mi-Sonn Kim,
Credit Suisse

Markus Kress,
Helaba Invest

Magnus Linder,
Swedbank Robur

Lea Vaisalo,
Nordea

Lieke Van Der Horst,
APG AM

Kari Vatanen,
Varma

Georgia Reynolds,
EQDerivatives
(Moderator)

Navigating 2018

EQD: ***After a challenging year marked by poor performance, many investors are paying closer attention to the design of the alternative risk premia they own or are considering adding to their portfolios, with portfolio construction playing a large part in the discussion. So, Lieke, maybe you can start by explaining how you think about portfolio construction and some of the issues that went along with navigating last year?***

Lieke Vander Horst (LVH): What happened last year and, specifically, what happened in Q4, was not a good example of causal tail-risk correlation. There were many unrelated things happening at the same time. For example, the price spike in natural gas had nothing to do with the equity move, and made correlations look even worse. If you look at the drivers, there were some things that were related, for instance, oil being pushed down by macro sentiment, together with equities and other asset classes. But, in Q4 specifically there was definitely also some spurious correlation which had different drivers.

Kari Vatanen (KV): That is a good point and is something that is very interesting. Correlation is not a good measure, at all.

Julio Delgado (JD): Yes, there is an issue with correlation. By definition, statistically they are averages, so correlation does not measure various conditions or scenarios well. So, what we look at a lot is what we call conditional correlation to see how things do under different market conditions, because if you look at correlation it is an average and so if something can diversify when things are going up, which is say around 70% of the time, it is going to look great as a diversifier. But if it doesn't work when things are going down, then what is the point? I don't want to diversify when the market is going up. So, I'm starting to see things more in terms of scenarios or conditions.

KV: Most of what we are taught in school is that we are measuring correlation on daily market moves. Most of the daily moves are just noise, there are no signals in that noise, and we are taught that we should measure risk parameters like correlation based on noise. The signals are somewhere else, and basically, we see the signals when something starts to happen. So last year, when equities globally went down, bonds, credit, everything went down and to me, it is quite evident that typical risk premia strategies have some kind of tail correlation to some of these global factors from major asset classes.

Lea Vaisalo (LV): It is important to know and understand whether the premia is doing what it is supposed to be doing and know whether something is outside of anything extraordinary. When you size your risk according to that in your portfolio, you shouldn't have been too taken aback by 2018.

Markus Kress (MK): Investors are looking for a healthy mix between risk and return in the portfolio construction process. The key issue is to find truly diversifying assets which reduce the portfolio risk in the event of a major market crash. Correlations are typically not stable and might rise during extreme events which elevate the expected volatility of the overall portfolio.

Lieke Vander Horst

Mi-Sonn Kim (MSK): Last year was very interesting for ARP and portfolio construction linked to these strategies. We have seen rates rising, equities selling off and volatility increasing, all of that happening for the first time in a long time. The fourth quarter was also a good test for tail correlation versus long-only equity.

EQD: ***But isn't risk premia supposed to provide diversity against traditional assets?***

LV: Exactly, and this is the key problem. To me, alternative risk premia has been mis-sold. If that was the way a manager has sold it to an investor, then that manager is more likely to be shut down because clearly it is not working, at all. Instead, managers should say, actually there will be tail correlation in the short-term, especially if

you have a lot of carry strategies included. Even value for instance, it is not outside of the 2008/2009 type of scenario, it is within the same range, but it is just happening at a time that was not expected. A manager just needed to actually size their investment according to that. I think it is very much about how you use it and how we communicate around it and know what it is supposed to do in the portfolio. There is no free lunch. You are being compensated for something and you can't just engineer yourself out of it. I think, sometimes banks sell risk premia as a miracle cure to diversity, and it isn't.

Julio Delgado

JD: I think everyone has oversold risk premia to some degree. There are other benefits to risk premia beyond a Sharpe ratio or a correlation, that as we mentioned is unstable. There are other characteristics that risk premia bring that traditional beta does not have. They can be convexity, elasticity, mean reversion, momentum, etc. I call it elasticity; the ability of a strategy to rebound faster than others. These are characteristics that improve on the risk/return distribution of the overall portfolio, and thus should be highlighted to boards. When you use Sharpe ratios you are back-fitting to what did best in the recent past, and not to what can do better in the future. Same with correlations. Averaging out correlations when what you need is the conditional behavior also gives you a bad result. Best to look at other characteristics that can improve future outcome and understanding risk premia behavior under different conditions..

MK: Alternative risk premia strategies are allocated by investors to mitigate the diversification issues of traditional multi-asset portfolios. The aim of ARP portfolio managers should therefore be in the search for and implementation of truly diversifying strategies. Risk premia strategies are often left-skewed, so-called risk-on strategies where you harvest a return for taking a specific tail risk. Therefore, as a portfolio manager, your task is to create a balanced portfolio with left- and right-skewed strategies to obtain a more symmetrical return distribution of the overall portfolio.

EQD: ***Thinking then about tail correlation and idiosyncratic risk, as a portfolio manager can you cut individual risk?***

MSK: There are different tools in order treat portfolios. Our typical approach is to build non-biased and non-blended ARP portfolios, for example, simple and diversified. Tail correlation may come if the building blocks themselves are flawed, as then idiosyncratic risk becomes almost impossible to manage ex-ante at the portfolio level by managers.

JD: With risk there are the known unknowns and then there are unknown unknowns. So, the known unknowns are when you have looked at the strategy and let's say you lost money, but it behaved the way you expected it to, then that is okay. The concern is the unknown unknowns, when something happened that we did not expect. If you are in the latter scenario, then your modelling was wrong, which means now you have a risk, which is probably an accidental risk. So, what I would say is, if it's expected, nothing changes. If it's not, then there is a need to understand better what drives the risk premia.

LV: Yes, and you should also do this on the upside, too. If it went well for the wrong reasons, that was luck. Nothing else.

EQD: ***Were there strategies that worked well?***

LVH: Yes, there were. One thing that performed well within commodity markets in 2018 in certain cases is momentum. How your momentum strategy performs is very dependent on the parameters you use. There are sometimes, for example, machine-learning techniques that you can use to apply to a momentum strategy that can actually help in enhancing the strategy. What you would like to achieve with a good momentum strategy is to get in as soon as possible when prices start rising or declining and to get out quickly when it reverts. That's what you're trying to achieve and an enhanced version of a momentum strategy could be significantly better than a basic momentum strategy in timing this.

MSK: Market-neutral equity factors suffered last year, but we

have seen a very strong rebound at the beginning of 2019. On the macro side, our simple flagship ARP portfolios performed very well in 2018: Commodities were up 4%, FX up 9%, [and] rates were up 5%. The main driver of this was the non-biased construction of the building block versus the relevant benchmarks and the fact that equities and bonds turmoil did not impact much macro ARP.

Markus Kress

LV: People often forget momentum and the whole growth element, because it doesn't perform that well. There are probably performance spurts every 10 to 15 years, if that. But we need it sometimes, and last year was that time.

EQD: ***How do you deal with strategies that have very low volatility and very low return expectation?***

LV: It depends how much you believe in that premia. So, that becomes a tricky one. There [is] no one answer. That's why I think it's so important to dig into the individual premia.

MK: In a naïve risk parity approach the low vol/low return strategy would be leveraged such that all strategies have the same risk budget. We think that this approach might not consider several caveats. For example, the skewness risk of the portfolio might be higher than expected if there is short-term tail correlation. Secondly, the overall leverage of your portfolio might be quite high, especially if you invest in a large number of strategies. In our approach, the risk budget of a strategy is dependent on several factors, including the risk/return profile, capacity and crowing factors.

LVH: And liquidity, because for example, take spread strategies within commodities that position on different points of the futures curve. It is hard to build up a meaningful position in these types of strategies since liquidity is limited and the high correlation makes meaningful risk-taking difficult. This is an issue a lot of commodity-specific funds run into. They have a very profitable spread strategy, but they can only attract so much capital, or they can only run very low vol, and investors like ourselves are usually not willing to pay a lot for limited return potential.

LV: That has been the general problem with hedge funds. They have had such low volatility, but when you look at it in the portfolio, it does nothing. So, it could have had a great Sharpe, but you don't get paid by Sharpe ratio.
JD: But I think we have an advantage here. Hedge funds have the obligation of levering risks that seem low (and have tails) because that is how they can pay their own fees. We don't have to do that. I think that we could be better positioned than they are, with the same strategies, because their pain threshold is very low, because they're highly levered. We either can hold on for longer, but also benefit from crowding out.

Magnus Linder (ML): The hedge fund industry has a problem right now because they have made the same mistake time and time again. A hedge fund should be good at hedging, the clue is in the name. Every time the market goes up, 99% of the time they are going up as well, but last year 80% of them were not performing, heavily losing money, or closing down. We have money based on different hedge funds and are having to take our money back because we are not getting paid for it.

MSK: In general, our strategies are using instruments [that are] liquid enough to allow high but controlled leverage, with high return, but without having prohibitive costs compared to the strength of the respective risk premia. In case of costly instruments like in EM FX, we only propose underlyings and factors which demonstrate very strong risk premia to offset those higher transaction costs.

EQD: ***So quickly before moving on, what was a key takeaway that you learnt from last year?***

JD: For me, the takeaway from last year was not the fact that we lost money. It's more the fact that the market was starting to normalize in terms of how it sees the signals in the market. And

I thought it was a positive thing because I think in fact that's a positive for us to forecast.

LV: Yes, for me it is that the market repriced. Which is something that has not happened in around 16 years.

JD: Exactly, people are repricing volatility, repricing things that can go down, correlation is starting to normalize, there was a little more dispersion.

KV: For me, I think an important factor that happened last year was the rising rates in the U.S., and their impact to factor performance. We have back-tested most of the strategies only in the era of declining rates.

Backtesting

EQD: ***How much can you actually rely on backtests? Do you find value in back-testing?***

KV: There is value, but there is also a big problem with back-testing. Over the last say, 35 years, we have only seen an environment of declining rates. So, all backtests, and this is also relevant to machine-learning algorithms, are programmed to that kind of environment as that is the only history that we have. And so, when that starts to change, some of these drivers can totally change the behavior of risk premia strategies. If we had used data from the last say 15 years, there's clear evidence that most of the ARP strategies had a tail correlation to bonds, even more to bonds than compared to the equities.

MSK: Everyone was looking at a more 'pure basis' on the academics. So, when looking at the forward bias rate as an example, the first strategies which were developed would be typically based on long-only carry strategies. One would look at different currencies, select the point with the biggest carry/roll-down and basically go long that point.

An alternative, when constructing those strategies, one also may look at it from a cross-sectional perspective. And, secondly, you would try to make it market neutral. Meaning that one may look at durational neutral strategies rather than just taking a long-only approach. We believe that this may deliver additional diversification and return in an ARP portfolio.

LVH: When we look at backtests we don't put much value on the returns. Especially within commodities, because generating excess returns using commodity risk premia used to be much easier ten years ago. Once you look at the backtest, and you take that into account, you know you're not going to realize that. What we tend to do at APG is to say that if the risk premia makes sense from a fundamental perspective that means that there is reason to believe that the risk premia should offer a persistent and positive risk-return profile — say 0.3 Sharpe — not based solely on a backtest, but on the fundamental relationship. We would rather assume that relatively modest expectation compared to the backtest and exploit the low correlation between different commodity risk premia to improve the risk-return profile further.

EQD: ***So, where is the value in backtests?***

LVH: Within the commodity market for instance we had both upturns and downturns over the last decade, which makes it easier. For me, backtests are useful for regime analysis and to analyze the volatility profile given that commodity markets experienced a lot of different regimes that can be analyzed. For other asset classes it is more challenging indeed, because you have certain circumstances, like the example Kari mentioned about constantly declining rates which means that there are regimes you cannot test because you have no meaningful historical data on these regimes. I think the most important point is to put very little value on the returns that come out of backtests, and to make sure you have a fundamental reason to believe that the risk premia should persist in the future.

Magnus Linder,

LV: Yes, I agree on the latter, there is value in knowing that there is a reason why it exists in the first place. But you can't do that for 50-plus strategies and put that together and process it.

MK: Backtests are important to analyze how strategies behave in different market regimes and to get a sense of the properties, like volatility and drawdown risk, of a strategy. However, back- testing entails certain drawbacks that should be borne in mind. For instance, backtesting can lead to overfitted strategies because of the variety of customizable parameters. Therefore, analysts should rather look for the economic rationale of a premium and the macro factors behind the strategy. Before we allocate an ARP, we analyse the risk/return profile of the strategy. If your objective is to invest in traditional asset classes, you wouldn't invest in a high-yield bond if the spread is 1% and the tail risk is 25%. The same is true for alternative risk premia. Why should I invest in an ARP in which you have a very low carry return and a huge tail risk.

LV: We have taken that approach. We have simply not invested, rather than invest in something where you know your expected return is not even covered by the transaction cost, but you have full downside.

EQD: ***Isn't that a case of active versus passive management?***

LV: There are so many versions of active management, and so many versions of passive. This is the same with timing and premia; it's not about the fact that you have done a model that can time, but you just use normal sense and say, okay, no I don't feel I want to go into this premium right now, because risk/return just doesn't make sense.

JD: That applies to traditional beta, too. It's like a hedge fund; how much risk do we want to take? And it's based on ability (market pays for risk) and willingness (client can take the risk). And as Markus said, under current conditions (valuations and fundamentals), there's no ability to pay us, so, why take the risk? So, I am with Lea in that what we are doing is taking less risk, because we are not getting paid. That is not market timing by the way. It is simply that we know we are not getting paid. Liquidity premia as an example is zero or negative at this point.

Factor Timing

EQD: ***Factor timing is difficult as you all know, but is there any value to it?***

MK: Forecasting the expected return of a factor strategy or the market direction might be quite a challenging task. Some factors may be less trending than the equity market which makes it even more challenging. Nevertheless, it makes sense from a risk management perspective to look at the risk/return profile of a premium. For example, if a high-yield spread is close to

zero, the return expectation might not be sufficient to cover the tail risk. For this reason, reducing the exposure of a strategy might mitigate the drawdown risk of the overall portfolio.

KV: One way to think about timing is, if you have full transparency to your factors, then you can measure how the characteristics of your factors can change over time. So, to me, factor timing is more like a risk management tool.

LV: My view has always been more conservative in maybe not believing that you can time the actual factors in a very dynamic way. So like I said earlier, the way I have always been implementing risk premia has been very much to look at what is driving the risk premia and understand the risk of each of the different sub strategies. So, for example volatility creates opportunities and there are some dislocations in underlyings and of course you have opportunities in terms of dislocations adding added value.

Georgia Reynolds

MSK: If your factors are truly diversified, timing between them should add limited value. Instead, the loss coming from some of them should be ideally offset by other factors if they are correctly sized from the beginning.

Crowding

EQD: ***There is a concern in the market that as investors continue to enter alternative risk premia strategies, despite the low performance year-to-date, that these strategies are potentially becoming increasingly fragile. How do you perceive crowding and is it a concern or does it in fact create some opportunities?***

JD: I am concerned about crowding and the momentum created. I have alwa I am concerned about crowding and the momentum created. I have always had concerns with momentum being a risk premia factor. When we sign into these risk premia strategies, we try to track the amount of crowding bias we might have. So, what causes this? Well, I don't think it's an issue of liquidity, because we had liquidity issues with traditional beta, too. I think what is more of an issue is that everybody is trying to do the same thing, so when they're trying to get out, it tends to overreact. Regarding what you mentioned that it could actually create opportunities that is it, when everyone is trying to get out that is when I want to be jumping in — when everyone else is overreacting — because that is when the premia become excessive and attractive. But we are all playing the same game. So, that for me is the issue, how are these things engineered? So, I'm not saying that I'm against momentum, but that's one of the risk premia factors that for me, I still struggle with it.

MK: Crowding can be an issue in ARP strategies. We continuously monitor the underlying instruments during abnormal activities, such as outstanding volume in listed products, as we have seen in February in the volatility exchange traded products. Whenever we identify crowded premia, we reduce the exposure of the strategy to reduce unseen uncovered tail risk.

MSK: An approach to avoid crowding is to smooth your signal as much as possible. In most of our ARP strategies, the implementation is done daily to avoid pin-risk. Secondly, another tool is to diversify the instruments as much as possible. For example, in rates we are trading all liquid tenors from the very short end to the very long end. We believe that it helps to avoid the crowded short end momentum trade or long end volatility-selling trade. In order to fully achieve that, our approach was to go beyond the listed instrument universe even if it is more challenging technically.

KV: In risk premia, there are behavioral anomalies that exist due to the behavior of crowding. So, it is dependent on the risk premia we are talking about. There can be a benefit if there are more investors compared to the capacity.

Kari Vatanen

Machine Learning

EQD: ***Machine learning or artificial intelligence is a huge buzzword right now. A lot of people are talking about it, but is there any activity? Can algorithms help design better risk premia portfolios?***

KV: ML is a wide concept that has a lot of applications in different forms, and I believe there is a lot around it that is misunderstood. In my view, I have said it before and I will say it again, algorithms are not that different from traditional statistical techniques and it is a continuum for these techniques. I do however think that ML techniques give a little more variety for ARP portfolio construction.

LV: Applying AI to ARP investments can be very useful to ensure better execution and signal robustness. If you can apply AI and find out where a signal could be effective in certain market environments or ensure a better price or liquidity, you can use the statistics to potentially improve the strategy based on what you have learnt. It can also add value by being able to source information and get better execution prices faster than what a human can do.

EQD: ***What are some of the risks associated with ML?***

KV: Overfitting the recent regime, which can create black boxes. The model itself needs to be transparent and traditional financial models tend to be linear and transparent, so, they can be explained.

LV: In capable hands it focuses on finding repeatable patterns, but this can be an issue. Similar to what we discussed earlier about the issues surrounding back-testing, ML is working off of a historic pattern, and sometimes the following history isn't always the best decision.

MK: ML is an important framework of tools to aid in the discovery of hidden or non-linear causalities. There are a lot of research areas where machine learning is a useful tool, such as news sentiment or image recognition. Researchers should pay attention to the quality of the input data and the interpretation of the results to avoid noise and misleading causalities. Machine learning techniques can lead to spurious correlations and false assumptions if not used wisely.

MSK: Overall, we see a lot of interest, but not much action.

KV: That is my feeling also. There is a lot of talking, but not much is really is happening.

Environmental Social Governance

EQD: ***There has been a massive growth in ESG investing with versions of benchmarks and indices launching to reflect sustainability factors. So, going forward, how important are sustainable investments and where do you see this heading and how can it be replicated in alternative risk premia?***

ML: We are more or less doing everything on a sustainable basis, or ESG. Our vision is to be a world leader in sustainable value creation and so therefore, ESG principles are naturally included in the way we work. We are taking this same route to risk premia, and we view these products as multi-asset and data portfolios. However, it has been quite hard to get a risk premia product that we can certify in a sustainable way. We want to find the lowest level that everyone in the market is comfortable with to say this is our financial market, at a lower sustainable level. Right now, I think the buyside is ahead of the sellside regarding ESG.

Portfolio management is very much about shouldering the responsibility and taking the opportunity to drive companies towards a positive and sustainable direction. In this context,

ESG provides an extra tool for us to understand, mitigate and handle unwanted sustainability risks.
LVH: This is very topical at APG. We are currently exploring this topic with a peer group of different investors to get to an approach to ESG within commodity futures that makes sense and can be used as market practice for applying ESG to commodity futures. It is still very early stages, but I agree with Magnus that we are running into the same issues and that it is a difficult topic to address with derivatives. We, for example, would like to research what the market view is on investing in commodity futures and whether it can incentivize harmful production of commodities.

KV: Yes, we see that too, it is not that easy to include ESG into all asset classes.

LV: This is definitely a very interesting topic and we have been running ESG into our portfolios, hopefully this quarter. So, the question about alternatives that we are working on both with in-house and external managers, is to take the same approach to equities and apply it to risk premia and other asset classes. This is where as an industry we need think outside the box to achieve this in the alternative space.

Lea Vaisalo

EQD: ***How do you decide which ESG product to invest in?***

ML: We have over 85 funds, and they all have different mandates. So, it is dependent on which type of fund and its mandate. We always try to find the cheapest way to get the exposure we are looking for. For the same index, the holding time can determine if it is a basket, future or an ETF.

EQD: ***Is this a buzzword or something that is here to stay?***

MSK: At Credit Suisse a lot of our investors are focusing into that field.

ML: For us, ESG is not a short-term hype or a trend. It is integrated in the way we work and do business and has been for nearly 25 years. In the past, ESG was mainly focused on environmental issues, but this has evolved and what we have noticed, especially over the last few years, is that institutional investors are helping to drive this forward in many areas.

LVH: I completely agree with Magnus. Furthermore, APG and other big pension investors in the Netherlands are taking various serious long-term measures to make our portfolio more sustainable, like installing carbon-footprint-reduction targets, clear goals to increase investments in SDIs and excluding stocks and bonds with a too low ESG rating, unless engagement with these companies leads to meaningful improvements. These measures are no buzzwords and indicate how serious institutional investors are becoming about sustainable investing.

KV: We see, as well, ESG as an integral part of our investment management process. We have integrated ESG to all of our cash investments and continuously develop our processes to include new areas under the scope. Next steps will include integrating elements of ESG to derivatives and ARP portfolios too.

2019 Outlook

EQD: ***Do you think there could be a backlash after last year's poor performance? Or will people get more selective about the individual factors and strategies they choose to invest in? What do you expect to see this year?***

KV: I think that the investors have become more cautious on factor investing after last year, especially if they have started relatively recently and invested in the levered long/short format. Longer-term ARP investors have collected return buffers and one poor year might not scare them as much. I think that this year will be quite essential for many investors in the space: two years of poor performance might be too much for many investors and three might even clean the whole field.

LVH: I think 2018 surely was a wake-up call for some investors

in the field who expected that a diversified ARP strategy could not experience serious drawdowns. For these investors this might indeed lead to deeper analysis on the characteristics and behavior of the different risk premia and how they complement the rest of their portfolio leading to a more careful selection procedure. This would be a good development in my opinion.

MK: A lot of geopolitical issues remain unresolved. Therefore, we expect continued high volatility and uncertainty in the market. We expect that some of these issues will be resolved, which may lead to an increased risk appetite on the part of investors. In the absence of trending markets, ARP strategies should be a good diversifier and should remain in the focus of institutional investors. The majority of German institutional investors invested in ARP only recently started investing in ARP strategies.

With respect to the drawdowns in ARP strategies in 2018, we think that the due diligence process for the selection and allocation of ARP strategies will become more extensive in the further course of 2019.

MSK: The performance last year which we have seen in rates, equities and volatility will help investors to map risk premia more accurately in the next few years. In particular, investors may be more careful to not overweight cross-asset CTA strategies that have showed weakness to hedge traditional portfolios but without removing them completely or targeting them to some asset classes to hedge certain portion of portfolios like emerging markets. Investors may also look more closely if the ARP returns are actually coming from a truly alternative risk premia or from long-only positions in disguise. In addition, strategies that are constrained to be market neutral and are differentiating from well-known ARP might be favored. ■