

# The Silent Scourge: Structured Products in the Time of Covid-19

The waves the Covid-19 pandemic sent across the globe in its wake forced the investment world to reconsider how their clients' portfolios were allocated across the board. In this reflective state, many pondered the place of structured products in this new, post-Covid world, with some casting harsh judgement on the asset class. Johan Jooste, Managing Director at The Global CIO Office, breaks down the products which fall under this umbrella, sheds light on the role that structured products can play in a portfolio, who they may be for, and how to approach the asset class, and how best to avoid any potential harm to a portfolio from a product that can bite back in the wrong hands.



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**Fortune is like** glass-the brighter the glitter, the more easily broken - *Publilius Syrus*

As the Covid-19 pandemic spreads across the globe and financial markets suffer extreme volatility, a quiet corner of the market has recently begun to attract more attention than usual, and not for positive reasons. The corner in question goes by the broad moniker 'structured products'. They are a staple of private client investment portfolios in Asia<sup>1</sup>.

In this corner, one can find a wide array of structured investment products that use derivative instruments, or a blend of those and some actual securities. The underlying securities or markets on which the derivatives are based can be equities, bonds, mutual funds, commodities, or even some combinations of the above.

Just as the array of underlying securities can vary, so can the market risk profile. The range is as wide as near-cash at the one end of the spectrum, to highly geared and high risk at the other. A lot of additional types of risk come embedded as well - liquidity and credit are the most prevalent.

The least risky type comes with **capital protection**. Typically, such structures will be fully or partially secured against the creditworthiness of an issuing entity. The structure will have a specific payoff, but besides, will have a feature that returns the investor's capital, or at least a reasonable proportion of it, should market conditions turn out to be detrimental to the projected performance of the product. Should the underlying issuer be in default, however, the guarantee is void.

On the face of it, these types of structures carry the least risk of the instruments available in this universe. However, in the GFC, many investors found to their surprise that the actual vendor of their products was not the same entity as the one providing the guarantee. Often enough, the issuing entity was of less-than-perfect credit quality, leading to the product losing much of the investor's 'protected' capital. Using a weaker credit in concept should increase the payoff to the investor – they should be compensated for the additional credit risk. However, despite lessons learnt, even today this credit risk feature is still not given sufficient focus by vendors.

One rung higher in market risk is the **market access** or "delta-one" structures. Delta one is just a term to describe the product's behaviour in relation to the underlying security. For every unit move in the underlying, the structure should move by the same amount: it is designed to provide market access. These products are aimed at investors who want exposure to markets that they would otherwise not be able to access for whatever reason. These reasons are too varied even to try to mention all but may include geography or deal ticket size. Depending on their configuration, they may also have the credit issue as described above.

Then comes the most opaque of all: the **non-linear payoff**. There is an almost limitless array of this type of structure, ranging from the mundane to the ridiculously complex. Often, the structure features a stream of payments to the client, said stream being dependent on the performance of an underlying asset. The payoff to the client is not just based on the performance of the asset, or often a basket of assets; it is equally often made dependent on a series of trigger events, or price observations of the underlying assets. If this sounds complicated, it is because it is, in fact, complicated. In broad terms, these structured products can mostly be described as exotic options. They come with names like "accrual notes", "reverse convertibles", "knock-in" or "knock-out", to name but a few of the permutations.

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The non-linear payoff is potentially the riskiest type on a standalone basis. The others can, and frequently are, "enhanced" with the use of leverage, therefore increasing their risk profile. Investors are afforded the ability to increase their returns by borrowing some of the capital to invest in the product. Adding leverage is

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<sup>1</sup> Note: during the preparation of this note, news started to filter in that some private investors in Asia have lost upwards of USD1 billion in structured notes linked to the short-dated WTI Crude Oil futures contract, which had been sold to them. This is the contract that famously traded below zero. It should be clear to all that when the price of an asset goes negative, hideous losses will ensue to the holders. The timing of this meltdown had nothing to do with the motivation to compile this note; it is just another timely reminder of the hidden features embedded in such structures that inflict sudden and severe trauma on client portfolios.



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like writing a barrier option on the investment: it improves the potential performance, after having taken on board the risk of being triggered out of the product at a significant loss by a margin call. On trading desks, this strategy is known (simplifying a little<sup>2</sup>) as going short gamma, gamma being the sensitivity of the option to the hedge ratio with respect to the change in the underlying asset. Wow. In plain English, the investor has just taken a position that can lose money progressively faster; the more volatile the market becomes. While the exotics (the non-linear payoff products) on their own do not tend to attract leverage, the complex nature of their payoff structure (the way the investor gets their compensation) is risky enough.

At this point, we pause. From experience, we know that the explanation above is quite technical for some. It also comes as a surprise to many, given the way that the embedded option premium is habitually portrayed as coupon or dividend payments. The question is, therefore: do these structures belong in a conventional multi-asset portfolio of a private client?

The simple answer is, for the case involving exotics and highly leveraged structures, no. They are simply not suited to the needs of most clients. These are investments that require a professional level of experience to understand and manage.

Consider the following reasons:

- The management of exotic options and leveraged positions with exposure to margin calls require full-time observation and supervision. In turn, this means direct and unobstructed market access to move quickly if needed.
- Introducing a complex payoff into a conventional portfolio adds a source of instability to the overall portfolio. Since the risk characteristics of the exotic structure are not linear, it makes managing the total portfolio very difficult for even the specialists, let alone the private investor.
- Some structures are “binary” in nature: that is to say, they feature an “in-or-out” payoff. If a specific condition is met or not met, as the case may be, they can lead to sudden losses or the instant, and potentially grievous losses brought about by the forced selling of the underlying asset.
- Too much leverage has the same effect: a margin call can trigger forced selling of the asset or even other assets from the portfolio, wiping out a significant chunk of the original investment.
- Considering the complexity here described, how easy is it to assess fair market value in the pricing of these structures? Not very, especially when not equipped with sophisticated and expensive pricing technology.

So, what to do? Apart from taking a more sober view of the purported benefits of structured products, it pays to know the details. In other words, follow the old rule that if something is too complicated to understand, it is perhaps best avoided as an investment. In the case of leverage, a dose of conservatism will be injected in client portfolios in the aftermath of the forced selling wave triggered by Covid-19. This is a good thing.

**But the simplest and best piece of advice for risk management applies in this instance: if the worst-case scenario transpires today, is the structure still alive tomorrow? ■**



<sup>2</sup> Market professionals may take issue with the simplicity of the explanation here. It is deliberate, and meant to convey the complexity of the issue, but at the same time not get bogged down in lengthy explanations about the minutiae of managing exotic options.