



Increased adoption and innovation are driving the structured products market

The opportunities are out there; the challenges to compete are here now

Structured products have attracted considerable attention over recent years. Now an investment staple in many markets across the globe, more and more financial institutions are issuing and trading structured product notes because they can be ideal products during times of low interest rates. For investors, it can mean earning an enhanced yield compared to lower yielding fixed income products, as well as facilitating highly customized risk/return objectives; for issuers, it can mean a steady flow of revenues.

In Asia and Europe, the market for structured products is well into the hundreds of billions of dollars (U.S.) in size. Notably, in Asia, new issuance of structured notes stood at a [three-year high](#) at the end of 2018. The U.S., however, has some catching up to do, but the running sneakers are on.

As of April 2019, the U.S. structured products market totaled [\\$70 billion](#), compared to [\\$55 billion](#) in 2017. With the onset of a handful of new electronic platforms, such as Simon, Luma and Halo, the market is expected to continue gaining significant traction as the pool of investors with access to complex investments will broaden.

Another factor that should provide strong backing for these investments is the innovative strength of structured products, in that they represent opportunities to rapidly participate in current and future market and economic developments.

Market conditions are also a prime influencer that leads to higher demand for these products. After generally providing good returns over nearly the past decade, the stock and bond markets are standing on wobbly legs, especially considering where we are in terms of trade wars and geopolitics. Due to these dynamics, an increasing number of investors, both institutional and retail, are beginning to look at new product ideas based on diversification and yield enhancement.

However, as a result of this growing investor appeal, competition between issuers is tightening. So, firms need to be able to innovate quickly to meet market demand and beat competitors. That's why more and more market participants are automating the front office. A competitive edge can be attained by hosting a technology infrastructure that delivers speed, precision and flexibility from structuring and pricing to hedging, risk analysis and lifecycle management. Such a platform is one that would enable firms to produce tradeable real-time quotes, manage real-time market data, and produce real-time risk calculations in order to meet market demand for new product types with speed. Automation also eliminates manually intensive processes and frees up market participants to focus on their core business and more productive activities.

HERE'S WHAT OUR EXPERT HAS TO SAY – MEET ILJA FAERMAN

To help better understand the challenges and opportunities that a range of firms face when operating in this business, the current trends and future of structured products, and how the digital evolution is impacting the market, Numerix's Ilja Faerman, Managing Director and Head of Client Solutions EMEA, shares insights on key topics.

Why are we seeing a broader range of market participants becoming active in the structured products business?

We see increased interest in mid-level and lower-tiered sell-side and buy-side firms wanting to become more active in the structured products space, particularly in Europe and the U.S. The reason why can be looked at from two perspectives. One is from the customer angle—

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Ilja Faerman

Managing Director
and Head of Client
Solutions EMEA

meeting the desire for clients who are searching for higher yields in a low interest rate environment. Then there is the financial institution's perspective, which is to generate additional revenues while having control over the level of risk the product presents to the investor.

How are these new participants breaking into the structured notes business?

When smaller- and medium-sized institutions enter the structured notes business, they usually do so by only offering structured products issued by other institutions. That's the simplest approach from the technological and organizational perspective, but the potential revenue a firm can make is limited as it is only collecting a distribution fee.

For those institutions that want to step up their game in the structured products space, they usually start by packaging the structured products on their paper, using their own funding facility, and, most commonly, managing the risk by taking back-to-back hedging positions of the derivative part of the note with one of the larger institutions in the dealer community.

The mid-level and lower-tiered institutions will discover that trading their own structured product instruments will introduce a lot of requirements for their systems. For example, they will now need to compute sensitivities and risk exposures—essentially having to manage all of the risk themselves. These firms would also enter a new regulatory world with which it would have to be compliant, and that represents its own challenges. In certain jurisdictions, they might also be subject to ISDA SIMM™, the common methodology to help market participants calculate initial margin on non-cleared derivatives.

All of these requirements demand a strong quantitative technological infrastructure to be able to support the business. If they make the investment in that type of infrastructure, there could be a worthwhile payoff in the form of new opportunities to gain customers and generate stable revenues.

Given that the technological requirements to operate a structured products business are substantial, how can firms start to build out an operation?

Building the necessary operation is a very involved task from the quantitative, technological and organizational viewpoints. It starts with having a powerful calculation engine that can, for example, support a Monte Carlo simulation engine for pricing trades.

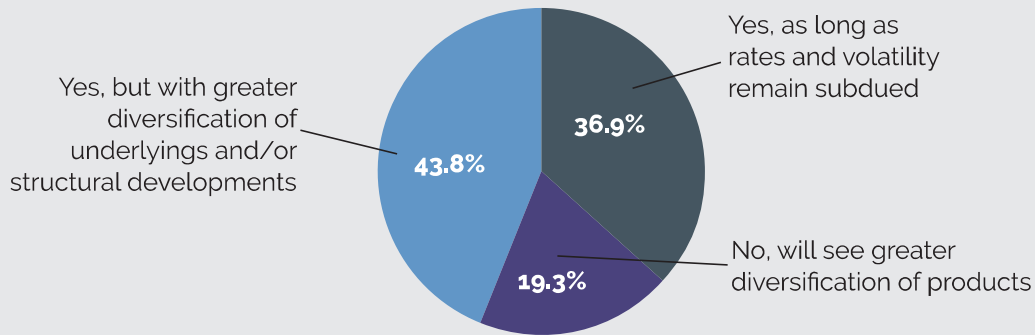
Monte Carlo methods are very important in this space because of varying natures of structured product payoffs and the exposure to multiple risk factors within the same product. Structured notes can have complicated payoff structures and their payoff profiles can vary substantially, which can make it difficult to accurately assess their value, risk and pricing. Monte Carlo is a key method for conducting the risk analysis, determining the value of, and pricing these instruments.

Additionally, the issuer will need to be capable of managing the lifecycle related to the instrument. This poses another challenge. A structured note can be exposed to many lifecycle events, such as corporate actions, barrier breaches, option exercises, and others. Lifecycle events can change the terms and conditions of issued products and you need to have automated systems to manage all the different types of lifecycle events.

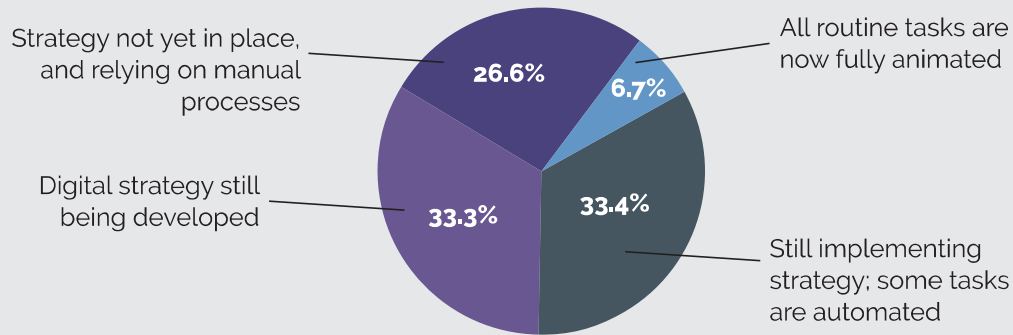
Trading structured products requires a strong quantitative technological infrastructure that can support the business. If the investment is made in that type of infrastructure, there could be a worthwhile payoff.

Structured Products Webinar Poll Results

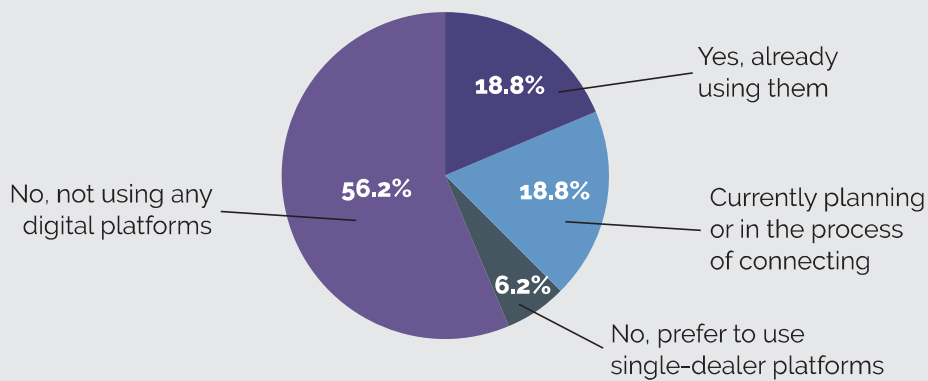
Do you expect the dominance of autocalls to continue over the next 2-3 years?



How advanced is your digital strategy for structured products activities?



Are you using or planning to use multi-dealer structured products platforms?



Source: Numerix-sponsored Risk.net webinar: "How traders and issuers can reduce the complexities of structured products." June 18, 2019

What about product trends and product innovation?

The market is seeing trends in terms of the popularity of structured product types. Today, autocalls represent the bulk of the market, and are expected to be dominant over the next few years, as we see in the poll results on page 4. However, we also see increased interest in, for example, credit-linked notes in Switzerland and step-up callable notes in the U.S. As structured product issuance continues to diversify, having a cross-asset model library in place will allow market participants to work with a comprehensive set of trade types, using the most advanced calculations. This is key for small- to mid-sized firms that want to become and remain competitive in this market.

A very important point is that since the market is becoming more transparent, it is getting more difficult for a note issuer to charge extra margin. If a firm is limited to selling products that investors can purchase anywhere else, it becomes harder for it to differentiate itself in the market. To do so, the issuer would need to structure unique products that only it can offer—products with features or underlyings the competition doesn't yet have. This means flexibility in structuring is important so that manufacturers can introduce new features quickly and cater to the trends/demands of investors.

If a bank is only offering one type of product, like an autocall, how can it begin to offer new instrument types?

It should be somewhat of a natural progression if the right technology is in place. The real challenge is introducing new asset classes. This requires the streamlining of organizational processes, such as IPV (internal price verification) and model validation. We see that getting new products configured within a system is not the main challenge, rather it is lining up all of the processes within the organization to ensure that new product types become tradable and sellable by the institution.

How is the structured notes business becoming more digitized?

We are looking at the digitization of the market from a few perspectives. One perspective regards the connection between buyers and sellers. A primary focus has been the digitization of structured products creation to bring supply and demand together so that it is no longer a requirement to call up a sales team to get a quote. Through electronification, a firm can create an automatic RFQ and get multiple quotes from multiple banks. The emergence of the multi-dealer platforms started in Asia, spilled over into Europe, and now they are emerging in the U.S. with, for example, the rise of platforms such as Halo, Simon and Luma. In the poll, about 40% of respondents have either fully automated all of their structured products activities or parts of them.

What we also observe is that this digitization is expanding into the realm of increasing the operational efficiency of post-trade processing. There are market-wide initiatives, such as the ISDA Common Domain Model, which aims to improve the post-trade processing of structured products. We are also seeing adoption—albeit slowly—of blockchain technology in post-trade processing. It is in its infancy but is an interesting trend. On the buy side, we've observed that digitization is not as prominent when compared to the sell side.

Blockchain and smart contracts improve efficiency in the product issuance and maintenance processes, which in turn can mean lower costs for the organization. This could then result in being able to offer tighter product prices, which benefits customers. Blockchain can also speed up execution and reduce transaction processing errors.

Through electronification, a firm can create an automatic RFQ and get multiple quotes from multiple banks—and not have to call up a sales team to get a quote.

The smaller issuers are lagging on this topic, but they can catch up by leveraging the benefits of purchasing new, innovative technology solutions from third-party vendors.

What's the outlook for structured products?

The market has been doing a lot in terms of improving price transparency, so we do expect to continue seeing the emergence of multi-dealer platforms. We see from the poll that nearly 38% of respondents are already using multi-dealer platforms or are in the process of connecting to them. We also believe there is a general interest in the market, both from the sell and buy side, to have tools that help identify the best product that suits a client's needs, not only in terms of offering the best price, but also in terms of having a system that is designed to facilitate highly customized performance and risk-return objectives.

Mathematically and technologically, these are very challenging tasks, but technology providers are working with the market to deliver the right solutions in cost-efficient ways. The institutions that host the best infrastructures will be the most successful in the long run.

For more in-depth insights regarding today's structured products market, request our new on-demand webinar: ["Structured Notes: How Traders and Issuers Can Reduce Complexities of Structured Products."](#)

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Numerix LLC Corporate Headquarters

100 Park Avenue
15th Floor
New York, NY 10017
Tel: +1.212.302.2220
Fax: +1.212.302.6934
www.numerix.com