

Steven O'Hanlon, chief executive officer, describes how **Numerix** has evolved over the past 10 years, and the remarkable changes to the business since the onset of the financial crisis. Numerix has proven that, as well as being a leader in risk management, it has also emerged as an aggressive solution-selling company, with structured products featuring prominently in a time of growth and opportunity

How has Numerix mentored and evolved its business to meet new customer demands for technology solutions over the past decade?

Steven O'Hanlon: Numerix has managed to evolve its business in a number of ways. Reflecting on the 10th anniversary of *Structured Products*, it was at that precise moment in time that Numerix re-invented itself.

In January 2004 we had already been in business for more than eight years and saw an opportunity to become the most prolific and dominant analytic company in the world, if we did just a few things right. What we ended up doing was focusing on re-engineering our business. We shifted from a term-licensing model to a subscription model, and we said we wanted to be partner-centric. The third thing that we wanted to become was an analytic provider; all of the software we would write from that point forward would emphasise our analytic excellence.

We aggressively pursued the pricing business more than ever before and, in the years leading up to the financial collapse, Numerix became recognised as the world leader in pricing as a stand-alone privately held corporation. This catapulted us to a position where we had hundreds of customers that were using our pricing analytics to solve the most complex deals. So, when you think about structured products, derivatives and the over-the-counter (OTC) market, as a corporation we solved all of the pricing complexities for fixed income, foreign exchange, equity, credit, commodities, and so on. That enabled us to leverage any type of derivative at the time the market place collapsed with the casualty of Lehman Brothers. When we look at what has taken place since that time, when Lehman unravelled, Numerix saw this as an opportunity to try to secure them as a customer, even inside of bankruptcy, and we did precisely that.

We were the ones that were recognised as having gone in and priced out their [one] million terminated trade positions. We were the ones to run their live trade book, and we have been doing that ever since 2009. That helped change Numerix forever because it really emphasised the point, from a customer perspective, that we were the pricing leaders, especially where structured products and derivatives were concerned.

Also notable during that run from 2004 to 2009 was that Bloomberg entered into a partnership with Numerix in summer 2006. They saw the opportunity to leverage our exotic brand and, in turn, to price any kind of structure that was either semi-exotic or exotic for the structured products market place directly on their terminal. An opportunity evolved out of that relationship for Numerix to sell its Excel version of its cross-asset



Steven O'Hanlon, Chief Executive Officer, Numerix

analytic platform sitting inside the Bloomberg terminal. This enabled all of those structurers who would be utilising the Bloomberg terminal to now structure any kind of deal that they would want outside of using just the static calculator. That put us at the forefront of the market and it was that single move, in our opinion, that reinforced Numerix as the worldwide leader as a stand-alone pricing company.

What challenges and/or opportunities might emerge in the structured products market over the next year, and what new functionality, modules or systems has Numerix released that will help clients evolve with the market?

Steven O'Hanlon: The challenges and opportunities that will appear within the structured products space are already beginning to be seen and felt. Numerix is a global business with 22 direct salespeople in 16 countries, covering the three core theatres: Europe, the Middle East and Africa; the Asia-Pacific region and the Americas.

Since structured products have made Numerix the company that it is, we're finding that, after the collapse of the market place in 2008, we're now seeing the re-emergence of structured products in core areas and core theatres. Singapore and Taipei, as two examples, are hotbeds of

opportunity for Numerix. All of our long-standing customers are seeing better and more unique ways to leverage our capabilities and technology to further their advancement into that marketplace.

In terms of what Numerix has been doing to ready itself for the emergence of structured products, we have taken a different path to market. When you think about Numerix pre-crisis, we were a pricing-tool company and that is what we focused on. Our tools were consumed inside of Excel or through some kind of toolkit, such as a software development kit, so that it can be embedded into different systems. That worked flawlessly through our creation through to the crisis. What we've learned through this is that, while derivatives contributed to the market collapse, there was an opportunity for Numerix to look at the challenges differently. We seized the opportunity by realising that the new form of exotic structures would be the risk measures. These would become so critical to structured products, to OTC and to the derivatives market and, for that matter, across the board in any kind of pricing structure. This enabled Numerix to set its sights on a completely different kind of business. We knew we needed to remain a pricing-tool company, but we also knew we needed to pivot to risk. We needed to focus on an area of the business that would leverage our 350 direct clients and enable them to utilise our pricing capabilities along with the risk functions that we would create, because the whole market changed in an instant.

It changed because regulatory matters were fostered upon all different kinds of institutions. It challenged everybody and every company in the most profound way. This is where Numerix has been at its best, because we looked at all the changes that needed to be made, leveraging our analytic pricing and risk measures to go after regulatory change.

Therefore, the first application we chose to build was a counterparty credit risk application. We picked the right application at just the right time, and we built that application. We delivered it in late 2010 and we have quickly been catapulted to the leadership position as a counterparty credit risk leader. Quite frankly, this is what will enable us to go further and deeper into the risk business by tackling other, more challenging, problems that the market will be confronted with.

How has Numerix been evolving its software to handle the new developments in the capital markets?

Steven O'Hanlon: Numerix has been evolving its software to handle the needs of capital markets in some very unique ways. The first is that, to evolve in a new marketplace post-crisis, you need technology that conforms to the regulatory matters that are shaping the industry. We feel strongly that some of the core elements to a solution need to be products built from the ground up and that don't leverage a legacy solution. Second is it needs to be highly scalable; it needs to be able to deal with pricing of a single trade to a one million-plus trades. You need to be able to deal with

the scaling of the risk capabilities and to challenge the system through all of the risk that would be managed.

For example, the most complex problem confronting the industry around risk it is how do you take all of the disparate silos, bring them together in one silo and provide the risk measures or risk management against those silos? Numerix is at the forefront of being able to solve that problem with best-of-breed partners.

The other thing is that everyone overlooks the insurance industry. The most complex challenge that they are confronted with are the variable annuity portfolios, and Numerix solved that years ago and provides a robust offering through its platform to be able to do that.

So, Numerix has changed an awful lot. We have challenged ourselves since 2004. We continue to challenge ourselves and we're constantly pushing into new marketplaces. We're constantly trying to build new technology that addresses the regulation that is fostering the change. Therefore, we see ourselves as a company that has not only pivoted at the crisis to risk but we have also pivoted from a tools-based selling company to a solution-selling company.

That takes a completely different skill set and a completely different focus and, because we built the CrossAsset Server technology, that sits atop our cross-asset analytic platform and it enables us to evolve inside a public cloud, such as Microsoft Azure, or in a private cloud, which is a home-grown system where there's a messaging bus.

We have done that. We are delivering that and, therefore, the way in which you now approach the client is that you approach the desks – a fixed-income desk, a foreign exchange desk or any other desk for that matter – but you also need to sell to the IT department. These are all new areas that Numerix has not worked with in the past.

Numerix has proven over the last couple of years that, not only could we become a leader in risk, we could also become a very aggressive solution-selling company due to the calibre of our salespeople. We've proven that.

Numerix today sits at the forefront of disrupting an industry in the risk area because of the capabilities of having pricing with models that are the de facto standard in the industry, along with the methods. Creating the underlying prices that are critical within a risk system and then having the risk measures built from the ground up to serve today's needs. We have done all that, we've delivered all that and we have customers that can prove we're on the right path and will be a dominant player into the next 10–15 years because of the way we are pursuing pricing and risk as a corporation.

View the full proceedings of the *Structured Products* 10th Anniversary interview with Numerix's Steve O'Hanlon at www.risk.net/2358743