

The lottery may not offer great odds for punters but lottery risk is a good bet for investors, says Lucy Jones

ast year, a construction engineer from Dresden hit the jackpot in the German lottery using the gaming website Lottoland.

The winner, known only as "Michael" as he chose to remain anonymous, travelled to Gibraltar where under the palm trees he

received a cheque for EUR14mn.

His winnings were covered by investors in an insurance-linked securities (ILS) transaction Lottoland had completed in 2015 in Gibraltar.

Despite the hefty payout, five months later all the investors in the original bond renewed their stakes, putting up EUR100mn in a second Lottoland transaction, and some even expanded their capacity.

Lottery risk has been widely welcomed by investors as a reliable diversifier with attractive returns that are easily calculable.

For Lottoland, its cat bond

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strategy has proved so successful it has launched itself as an adviser to other lottery companies wanting to take the same path.

Lloyd's to ILS

Established in 2013, Lottoland offers bets on lotteries around the world to online gamers.

Players do not buy a ticket in a particular state lottery but are put in the same position as if they had. Lottoland effectively runs a parallel "virtual" lottery in which if players' numbers come up in their chosen draw for the real lottery they will hit the jackpot.

When Lottoland started out, it used Lloyd's insurance and a cash pool set up by its founders but, as a fast-growing company, its risk of large lottery wins rose quickly, so it turned to the ILS market.

"We were very happy the way we had it in Lloyd's but the ILS adds another level of flexibility to that," says Nigel Birrell, CEO of Lottoland Solutions.

"We can now offer our own jackpots. We can offer a highwinning game, instant-winning games, casino games, which we wouldn't have been able to before," he adds.

Lottoland completed its first EUR100mn collateralised reinsurance transaction in Gibraltar in April 2015, which was renewed for the same amount last August.

The company's loss retention under the new deal was increased slightly to match the risk levels ceded from the previous year.

The company's new division Lottoland Solutions, set up in 2016, offers other gambling platforms access to the firm's betting software and provides bookmaking services to stand behind player winnings.

"The latter part is crucial, as it is the same tried and tested risk management infrastructure, including the ILS, that gives operators such comfort to work with us," Birrell continues.

Lottoland Solutions has completed a number of deals with gaming companies and is now in the testing phase with several operators. If Lottoland completes another cat bond this summer the cover may be expanded to account for risk from the other lottery platforms it is now supporting.

Lottery risk investors

There are currently two lottery deals in the market: Lottoland's transactions and MyLotto24's Hoplon notes.

Returns are between 5 percent and 20 percent – depending on the

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risk involved and the number of customers who make bets.

By comparison, cat bond spreads taking the final weighted average insurance-linked coupon in the first quarter of 2017 settled at 3.9 percent, according to data from sister title *Trading Risk*.

"Lottery risk offers diversification from natural catastrophe and the maths is relatively clean," an investor told *Trading Risk*.

The risk is also uncorrelated with the capital markets at large.

"The novelty of this type of risk means it is still paying a decent premium," the investor added.

Modelling jackpots

Modellers have a good understanding of the probability that a private lottery firm will suffer a payout.

A draw's terms and conditions are generally available and can be entered into a model. There is data on when people are likely to play online lotteries, according to season and week in the month, in relation to pay dates.

Modellers are also able to assess the likelihood of people playing games when the jackpots are high.

"We have years of data which show us the dependency between the number of tickets played and the size of the jackpot," says actuary Bernhard König at Milliman in Zurich.

Another consideration is the point at which a jackpot is won.

In the EuroMillions lottery, which is run by the Spanish, French and UK state lottery companies, among others, the jackpot can reach a maximum of EUR190mn. If the jackpot is won, it would go down to a minimum jackpot of EUR17mn until funds are built up again.

But for the lottery games offered by private companies this is not necessarily the case.

Such companies could end up being liable for a payout even if

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Cat bond spreads on a weighted average basis



Source: Trading Risk

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no one held the ticket in the state lottery, if the numbers of one of their players came up.

The private lottery would then remain at risk of another win, potentially for an even higher jackpot, if the state jackpot had rolled over.

König says there is not much you can do to mitigate that risk.

"But the probability of winning is lower than one in 100 million for most state lotteries and, as the private companies generally have much fewer participants than the state lotteries, they are even less likely to have a jackpot winner," he adds.

Lottoland's cover is provided for each jackpot draw rather than on an annual aggregate basis – as is the case for the Hoplon deals.

Cyber risk

Lottery regulators have done a good job of eliminating fraud and conduct vigorous checks on winners.

In 2014, investors in the Hoplon bond escaped a loss after the bond's sponsor MyLotto24 discovered a jackpot win had been falsely claimed.

MyLotto24 parent Tipp24 had filed a stock exchange announcement about a EUR44mn jackpot win.

It said that almost three-quarters of the prize payout would be covered by hedging instruments but warned investors of a EUR5mn hit to 2014 earnings.

MyLotto 24 then withdrew the claim report as routine checks uncovered that the jackpot win was a mistake.

However, cyber risk remains an unknown quantity. There is a fear hackers could disrupt lotteries or even win lotteries.

One investor told *Trading Risk* that investment in lottery risk by his fund could only reach a certain limit for this very reason.

Lottery risk also has negative connotations because of its association with gambling, which might be a concern for institutional investors.

"From a legal perspective, there are sensitivities about these deals that don't arise in nat cat," says

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Robert Cannon, special counsel at law firm Cadwalader, Wickersham & Taft.

"A number of jurisdictions, the US being a prime example, have laws that prohibit or restrict online gaming," he adds.

In certain jurisdictions there is a real risk that offering lottery risk, or even investing in the risk, may be contrary to those laws. The three lottery risk deals done to date all focused the offering on non-US investors.

There is also a chance that online lotteries may have their activities blocked by governments in future. At present, UK gaming laws prevent residents in the UK from taking bets on the country's National Lottery via online platforms. Similar laws could be adopted by other countries.

The PCC solution

ILS, however, has not been the preferred route for all gaming companies. London-based Risq, which underwrites high-street bookmakers, currently uses traditional reinsurance via its captive in Guernsey, Risq Re.

"Traditional reinsurance markets are relatively soft at the moment for this fixed probability risk, in comparison to two or three years ago. It's actually more efficient to use that

Lottery deals to date

Source: Trading Risk

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market than the ILS set-ups we have looked at," says Risq's Tom Mitchell.

For gaming companies thinking about trying out an ILS solution, Gibraltar has positioned itself as a destination.

Lottoland's transactions are the first and, to date, the only ILS deals to be done in the domicile. A locally-based protected cell company, Euroguard Insurance Company PCC (Euroguard), which is part of financial services group MMI Holdings, was used in the deals.

But Gibraltar hopes to win more ILS business and has established a new category of protected cell company (PCC) specifically to attract ILS fund managers writing collateralised reinsurance.

The jurisdiction has two PCC companies transacting business locally – Aon's White Rock PCC, as well as Euroguard.

The special purpose vehicle (SPV) PCCs only have to maintain core capital of £500, which is designed to be at a low level because they are only licensed to write fully collateralised reinsurance.

Previously, insurance company SPV regulations would have required much higher minimum levels of core capital.

Gibraltar's regulator aims to authorise SPV PCCs in the same timeframe applied to ILS vehicles of four weeks for a standard service, or two weeks for a more expensive fasttrack service.

According to Michael Ashton, senior executive at Gibraltar Finance, somewhere between 70 and 80 percent of online gaming in the UK is serviced by Gibraltar-based gaming companies.

"If there is more opportunity for those gaming companies to look at risk transfer, then it's worth looking at Gibraltar in more detail," he says.

With plenty of capital on the sidelines, lottery companies will find no shortage of investors if they take the plunge into ILS waters.

For investors willing to take the gamble, lottery risk will remain a useful portfolio diversifier and, until it becomes more popular, returns are likely to remain attractive.