

# Research Report for OIC

Analysis on Structured Products and Listed Equity Options in Europe:

An Industry Overview and Future Prospects

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Part 1: An Executive Summary, Research and Survey Findings

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For more information readers are directed to part 2 of this study, which includes an overview of the European structured product market and can be downloaded at <a href="https://www.optionseducation.org/structured">www.optionseducation.org/structured</a> retail products 2015.html.

## **Executive Summary**

#### **Overview of This Section**

- 1. The European structured product landscape is changing in these ways:
  - Consolidation of distribution
  - Resurgence in market share of equity based products
  - Regulatory shift
- 2. Common structured products can be replicated using listed options
- **3.** What will the structured product market look like in the next 3 years? What are the opportunities for listed equity options?

## **Report Focus**

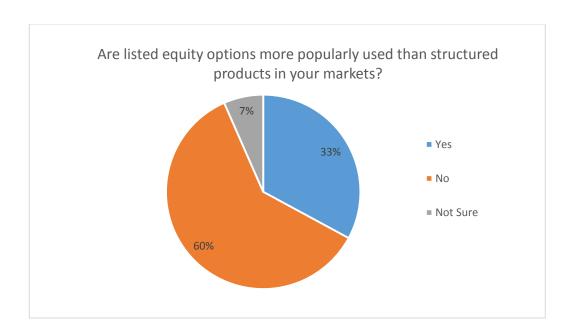
The purpose of this qualitative report is to provide an exploratory review of the European structured product industry over the past 10 years as well as some of the current key trends and developments.

## **Summary of Current Structured Product Market**

### • Why Use Structured Products

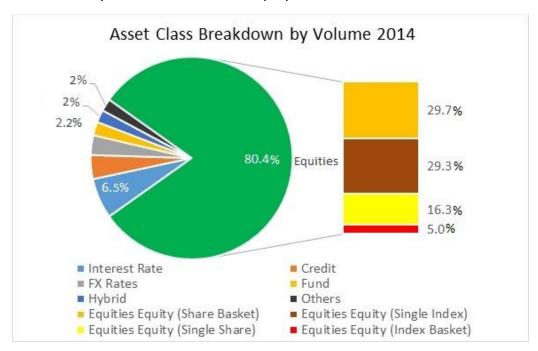
Ease of use, flexibility of design and speed to market are the main drivers for using structured products, followed by cost, regulation & tax, and the secondary market.

60% of respondents said that structured products were more popular than listed equity options. The biggest reasons for the relative unpopularity of options were given as cultural difference (32.8%), lack of public awareness (31.5%), illiquid secondary market (10.5%), high margin requirement (10.5%), option assignment risk (9.2%), and performance of underlyings (5.5%).



## • Importance of Equity Component in Structured Products

The popularity of equities as an asset class recovered in the second half of 2012. 80.4% of Structured Products by volume in 2014 were equity based.

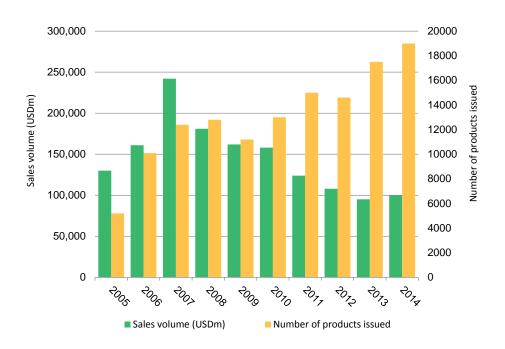


Source: www.StructuredRetailProducts.com

## • Declining Structured Product Sales Volumes

Structured products sales volumes have fallen from \$240 BN in 2007 to \$95 BN in 2013, before recovering slightly in 2014 to \$100 BN, in spite of a higher number of products being issued.

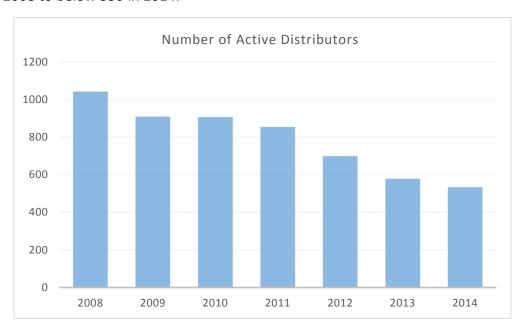
## Structured Product Sales and Issuance 2005-2014



 $\textbf{Source:}\ \underline{\textbf{www.StructuredRetailProducts.com}}$ 

#### Structured Product Distributor Consolidation

Driven by cost pressures and new regulation, the number of active distributors halved from 1045 in 2008 to below 550 in 2014.



Source: www.StructuredRetailProducts.com

#### Structured Product Hedging

Structured products providers can hedge their issuance risk via the listed equity option markets, but estimation of hedging size is very difficult. On the basis of total market value of simple, short-dated, single-stock and index linked structured products and the tendency to hedge these structures more cost-efficiently via public exchanges, SRP projects the proportion of retail structured products hedged through exchange traded derivatives as between 30% to 40% of total annual volume in 2014, of which 50% to 75% were hedged specifically using listed equity options.

Equity option volumes executed on European exchanges have declined steadily since 2007, to around 300 million contracts in 2014. By way of contrast, US equity options experienced their second best year ever in 2014, trading 4.2 BN contracts.

## Regulation

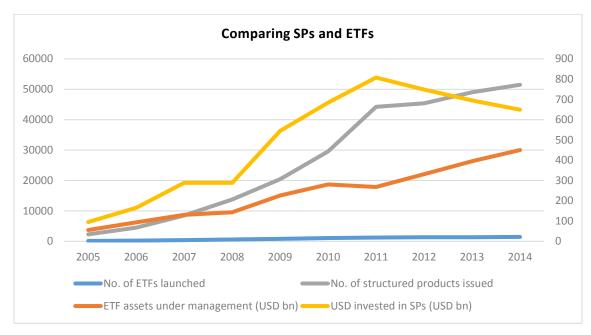
Regulators are encouraging financial advisers to move to fee-based transactions, away from the sales commission model. This is likely to favour ETFs and other exchange traded products such as equity options.

Over the next 12 months, the regulatory and tax environment will remain major obstacles to the use of structured products, while consumer demand and issuer preference are expected to exert positive influences.

64% of respondents felt that listed equity options and structured products were not treated in the same way by regulators. They are of course different products but many respondents cited the need for harmonised regulation.

#### Continued Growth in ETFs

Exchange traded funds have grown steadily since 2005, to approximately \$450 BN at the end of 2014, an annual record.



Source: ETFGI Data and www.StructuredRetailProducts.com

49% of respondents felt that structured product volumes would be higher in five years' time; 36% expected them to be about the same and 15% expected exchange traded equity options to be higher.

# Replicating Common Structured Product Strategies with Listed Equity Options

Structured products and listed equity options can be considered to be complementary. Many common structured products can be replicated using listed equity options. Examples:

#### **Capped Call**

A return based on a fixed participation in the rise of an underlying market that is capped at a fixed return

Replicate with bull call spread.

Buy 1 call; sell 1 call at a higher strike price

## **Uncapped Call**

A return based on a fixed participation in the rise of an underlying market that is uncapped

Replicate by buying a call

## **Equity Linked Note with Volatility Participation**

Replicate with coupon bond plus at-the-money straddle

Buy coupon bond; buy 1 call and 1 put at same strike

#### **Enhanced Tracker**

A growth product that tracks both the rise and fall in the underlying without downside protection, typically with a high participation in the rise (often capped) of the underlying.

A structured product that provides for a minimum return at maturity at least equal to the original sum invested, regardless of the final underlying performance plus limited index upside participation and limited downside protection.

Replicate by buying equity linked note and buying call spread and put spread.

## **Reverse Convertible**

Offers a high fixed level of income and a full return of capital unless a reference underlying asset/ index falls over the term of the investment. If the underlying does fall then the investor has their capital return reduced by the percentage fall in the underlying.

Replicate by buying a coupon bond and selling a call.

See Glossary of Terms on page 39 of the report.

## **Enhancing Listed Equity Option Business in Europe**

Listed equity options in Europe are characterised by a fragmented geography, where market participants have varying degrees of sophistication, and hence varying needs for information and education on option products. A more proactive approach towards client base segmentation and education is warranted to leverage on market potential from newer segments.

The growth of the US market underlines the advantages of a single clearing house and unified regulation, where efficiencies and margin offsets can be harnessed. It is likely that there are also cultural differences at work in the US and European equity option markets, with US investors frequently holding equities and trading options around them, for hedging or additional income purposes. European investors have historically tended to be less self-directed and prefer customised solutions. Distribution of US options for retail customers can sometimes be a challenge.

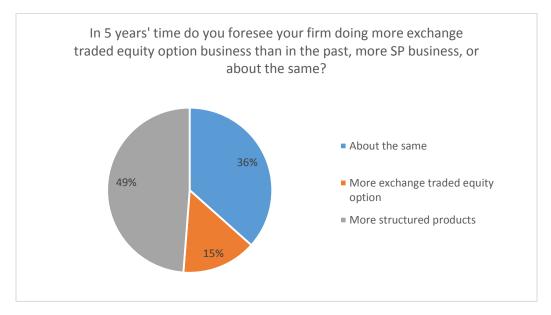
Suggestions made by questionnaire respondents to further develop listed equity options included enhanced education - a consistent theme - and transparency, more preferential tax and regulatory treatment, better distribution and longer product tenor.

Exchange listed equity options can be profitable operations. The post-crash focus on transparency, cost and risk, coupled with a regrouping of many exchanges, may offer a resurgence of interest in exchange traded options in Europe. The clearing house structures that they already operate in are another advantage. Regulators have signalled that simpler structured products may be needed: the structured product industry may have suffered from liquidity and transparency issues.

Listed equity options can be used to hedge certain structured products. Listed equity options can also replicate strategies available as structured products.

## **Outlook**

## Higher Structured Product Volumes in Next 5 Years



49% of respondents expected structured product volumes to rise in the next 5 years. Note that the majority of respondents are incumbents in the structured products industry and therefore might have a bias to doing more existing business.

#### Move to a Listed/Cleared Environment

Structured product issuance was expected to move towards a listed/ cleared environment by 73% of respondents, driven by the search for greater transparency, better liquidity, lower transaction costs and mitigation of counterparty risk.



## Opportunities for Listed Equity Option Markets

- 1. Structured Product design and interest has moved away from currency and interest hedging and toward equity risk mitigation. Equities account for more than 80% of structured product volume.
- 2. Post crisis regulation is restricting OTC product creation and volume. The alternative is the listed market for the most vanilla of these products.
- 3. ETF volume in Europe is growing strongly and these products lend themselves easily to listed options. CBOE's licensing of FTSE and MSCI indices for option trading purposes is a recent example.
- 4. It is estimated that 15-30% of structured product volume is hedged by listed equity options. The current market environment outlined above offers opportunities to increase these percentages.

## **Research and Survey Findings**

## Who Uses Structured Products and Why?

Active users of structured products in Europe range from financial institutions and professional investors to the retail investing public. The usage pattern of structured products varies according to the type of investors, risk and reward preference, and tax implications, among others. High net worth individuals mostly invest in highly customised structured solutions to better manage tax efficiency and diversify their sizable portfolio. Structured products in the retail space are widely employed as an investment vehicle for both capital gain and yield enhancement purposes. In many European countries, structured products are eligible for tax concessions under government sponsored pension schemes.

**Investor Categories by Country (based on estimated volume)** 

Country	Retail Investors (% by volume)	Professional Investors / HNWIs (% by volume)
Belgium	95	5
France	90	10
Germany	100	0
Italy	75	25
Portugal	80	20
Spain	70	30
Sweden	75	25
Switzerland	60	40
The Netherlands	10	90
UK	40	60

 $Source: \underline{www.StructuredRetailProducts.com}$ 

## Advantages and Disadvantages

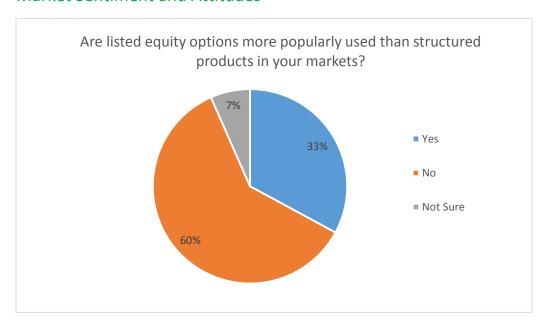
## **Advantages**

- Easy to express investment view
- Offer protection/yield
- Offer leveraged upside or downside protection
- No liquidity constraints (if held for full term)
- Efficient hedging tools
- Allow access to illiquid markets/asset classes/underlyings
- Better regulated and understood
- Flexible structure with barrier options offers more choices of "soft protection"
- Low cost diversification compared to actively managed funds
- Good product will fulfil pre-existing formula unlike Funds/ETFs.

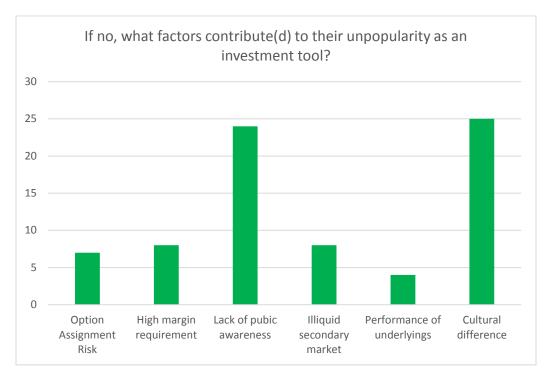
## Disadvantages

- Counterparty risk leading to potential loss of capital when not traded on exchanges.
- Limited liquidity compared to listed instruments.
- Some complex structures not easily understood by investors.
- Negative publicity since the Lehman Collapse.
- Absence of secondary market for non-listed products except provided by issuer.

#### Market Sentiment and Attitudes



60% of respondents think that listed equity options are less popularly used than structured products in major European markets particularly in the DACH region, followed by UK and France.

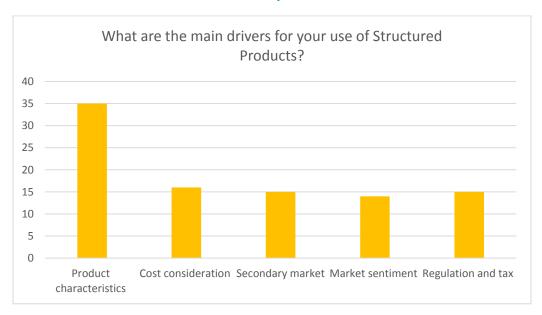


The biggest reasons given for the relative unpopularity of options were cultural difference (32.8%), lack of public awareness (31.5%), illiquid secondary market (10.5%), high margin requirement (10.5%), option assignment risk (9.2%), and performance of underlyings (5.5%).

One respondent asserted that European retail investors are less self-directed than their US counterparts and more accustomed to pre-packaged investment solutions. The investing public also lacks awareness of listed options as noted by one respondent, saying that they are seldom marketed by distributors and remained primarily used by institutions. Investors tend to use more "common" instruments in mature markets like Germany, which has well over 1 million listed structured products.

Other factors included the unavailability of listed option markets in some jurisdictions, the absence of capital protection with option strategies, and inflexibility of design as the payoff of traded structured products cannot be easily replicated by listed options which are usually of more basic structures.

## What are the main drivers for your use of Structured Products?

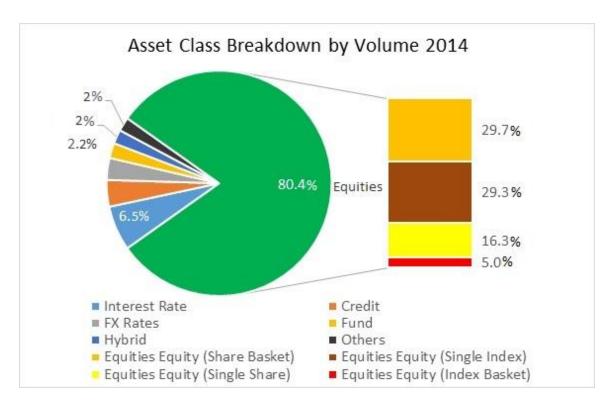


Amongst the total vote counts of 95, product characteristics were perceived as the largest driver for using structured products with a score of 35, followed by cost considerations (16). From the buy side perspective, respondents perceived structured products as offering a customizable range of product features and return profiles with varying degree of principal protection and leverage. Structured products were also viewed as cost-efficient diversifiers for an average portfolio, allowing easy access to foreign markets and alternative assets.

On the other hand, manufacturers and providers tend to regard market sentiment (14), regulation and tax (15), in addition to cost considerations (16), as primary factors when thinking whether to create structured products. For instance, one commercial bank commented that their issuance is directly influenced by consumers' sentiment towards the cash underlyings and to an extent the funding cost they obtain from interbank market.

## **Breakdown of Issuance by Asset Class**

The popularity of equities as an asset class has fallen consistently since the financial crisis in 2007, only recovering since the second half of 2012. In recent years the sales of retail equity products staged a strong recovery and constituted over 80% of total volume in 2014. By contrast, interest rate linked products have declined and made up only 6% of total volume in 2014 (2012: 20%), as demand for corporate financing through interest rate derivatives weakened as the European Central Bank kept rates low and remained poised to kick off its QE program.



Source: www.StructuredRetailProducts.com

Equity based issuance accounted for 80% of total sales volume in 2014. Within the equity universe, share baskets and single indices are the most commonly used choices of underlying in the European retail space and such dominance can be explained by wide acceptance of equity based products amongst mainstream investors and the sustained uptrend of major stock indices since early 2012. The revival of risk appetite also explained the increased popularity of equity benchmark indices such as FTSE100, Eurostoxx50, Ibex35, S&P500, and share baskets featuring well known household names and financial companies.

The major trends in regards to asset class allocation are summarised below:

- Multi-asset allocation becomes important at times of crisis. Products linked to FX, interest rate and commodities picked up.
- Global equities set for comeback after rounds of quantitative easing.
- More capital protected products.
- Less innovation in payoffs.
- o More innovation in European underlyings outside Europe.
- More listed products especially in German-speaking countries and Sweden.
- Regulators prefer exchanges as a way of achieving greater "transparency" and more "protection" for retail investors.
- Exchange traded derivatives are more pronounced in markets where performance of cash underlyings has pushed up demand.

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- Multi-dealer platforms have emerged as competitors to exchanges and to each other.
- Proprietary indices are not ready to replace traditional benchmarks, as seen in the demand for Europe-centric indices. They are more for customised plays for institutions or prime brokerage clients with large portfolios to diversify.
- The push towards synthetic beta is now all important.

## **European Structured Product Sales Volumes**

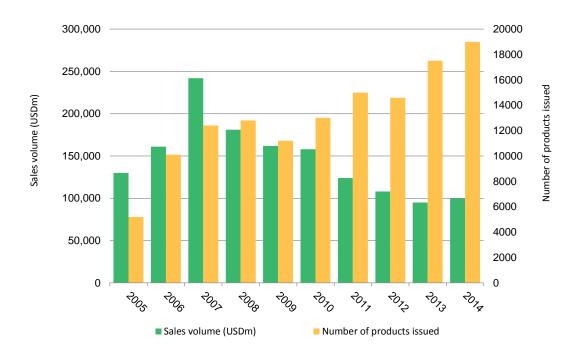
The European market is by far the largest region globally, by sales volume, with a 47% market share of total retail activity in 2014. However the proportion of total sales had seen a continued decline in years following the Eurozone Crisis in 2009, with Asia accounting for a greater share.

2014 was a challenging year for the structured products industry across most European countries in the wake of continued regulatory pressure and weak macro-market fundamentals, but total sales volume and issuance managed to grow by 4% and 8.5% respectively year on year primarily driven by strong performance of equity linked products.



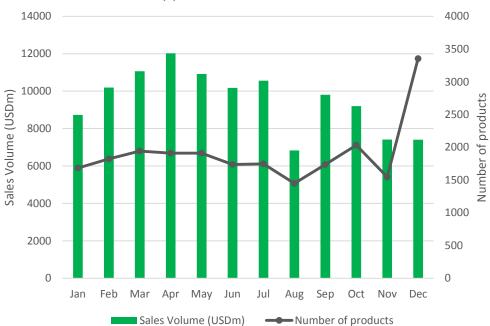
Source: www.StructuredRetailProducts.com

## Sales and Issuance 2005-2014



Source: www.StructuredRetailProducts.com

## Monthly product issuance and sales 2014



Source: www.StructuredRetailProducts.com

Europe sales volume 2010 - 2014 (USDm including leverage and flow products)

Market	2010	2011	2012	2013	2014	% Change 2014 over 2013
Belgium	11,628	8,520	10,436	10,551	10,587	0%
France	16,146	12,182	7,825	11,528	14,260	24%
Germany	41,558	41,248	37,131	26,338	21,849	-17%
Italy	53,917	45,388	16,564	15,939	13,718	-14%
Portugal	3,481	3,162	3,387	5,007	7,250	45%
Spain	22,778	13,374	6,751	7,452	14,272	92%
Sweden	4,502	3,679	4,409	4,767	3,745	-21%
Switzerland	28,849	25,277	21,684	20,081	21,278	6%
The Netherlands	2,278	2,227	966	546	493	-10%
UK	17,959	12,644	9,682	4,673	3,906	-16%
Total of Top 10 Markets	203,096	167,701	118,835	106,882	111,358	4%

Source: www.StructuredRetailProducts.com

## **Distribution**

The pattern of distribution in Europe is very fragmented. With the exception of Norway and Switzerland, all other countries are governed by the EU Commission's regulator, the European Securities and Markets Authority (ESMA), so there is a top layer of homogeneity governing distribution but with local variations.

Structured products are distributed primarily through commercial banks (some of which also have structuring capabilities), securities brokerages, insurance companies, post banks and independent financial advisors. Which distribution channel to use is largely dependent on how the product is originally wrapped.

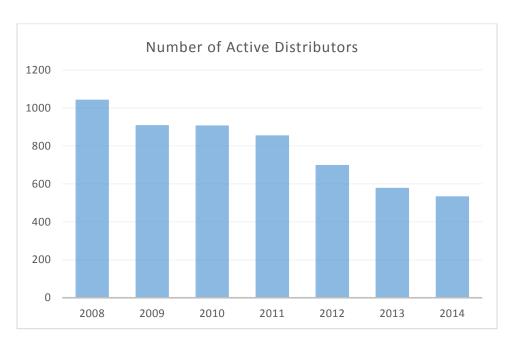
In Germany and Switzerland for example, certificates are widely used with hundreds of new issues being launched every day. In other countries such as Belgium, France and Spain, there are many fund products, whereas in Italy products are commonly sold as either certificates or funds.

In many countries too there will be local tax-efficient wrappers (such as ISAs in the UK) or specific local tax rules which impact the product wrapper or other features such as term.

In most countries manufacturers also distribute their own products through their branch networks, as well as distributing through third party providers. Some products are also distributed via trading on the local stock exchange.

The ban on return commissions, which is part of the MiFid II review, is already implemented prior to the 2016 deadline in the UK (since 31 December 2012) and The Netherlands (1 January 2014) and has seen the market focus shift from advisory to discretionary. A large group of customers in those countries have transferred to execution only as although they may appreciate the contact with the adviser, the cost is too high.

The increased focus on costs in the entire investment chain ensures that distributors (mainly banks) focus on products for which advice can be given in a cost-effective manner.



Source: www.StructuredRetailProducts.com

The number of active distributors for structured products has fallen over the past 7 years, accelerating between 2011 and 2013. Many market participants attributed this to rising issuance and compliance costs as a result of the ongoing regulatory overhaul. Consolidation also offers economies of scale when addressing higher costs. In the face of rising competition

with ETFs and other derivative products, there has been constant pressure to reduce issuer margin in structured products, which accounts for the issuer's operating, structuring and hedging costs, as well as expected profit.

More than two thirds of compliance professionals expect compliance budgets to increase and 20% thought they would increase significantly, according to the Cost of Compliance Survey conducted by Thomson Reuters in 2014.

Sales volumes fell between 2008 and 2014. At the same time, the number of structured products issued increased considerably, fuelled by the lowering of minimum subscription size and greater distribution efforts through electronic platforms.

## **Hedging**

In principle, providers of structured products can hedge their exposure or liabilities by buying the traditional investments and financial derivatives that characterise the risk-return profiles of the structured products (back-to-back hedge). In practice, banks employ hedging techniques, which absorb only a fraction of the proceeds from the sale of the structured products (delta and vega hedging). Structured products market risk is merged with other trading book positions that have offsetting risk-return profiles. In contrast to convertible bonds issued by non-financial companies, profit margins rather than funding are the primary drivers of structured product issuance.

Most hedging activities take place in the OTC market, where large volume of OTC derivatives are traded bilaterally between institutions for hedging the issuance of structured notes, warrants, structured funds and ETFs. These hedges are typically cheaper to execute in the OTC markets than in organised exchanges. Due to the fragmentation of listed markets in Europe, it is generally easier for traders and issuers of structured products to hedge their risk and large trade order in the OTC market.

### **Back-to-back trading:**

More complicated products may require more sophisticated methods of hedging than can be achieved in the open derivatives market. Back-to-back trading allows providers to customise the hedge to fit almost precisely the specific cash flow pattern of the structure. This method often involves the use of interest rate swaps or equity swaps.

For instance a provider of a FTSE-linked product would lay off its obligation by entering an equity swap with payoff that is contingent on the movement of the FTSE index.

However, even back-to-back transactions cannot eliminate the entire risk of a position as participation in the OTC market introduces additional liquidity and credit risk.

## **Dynamic hedging:**

Some banks hedge their products by trading directly in the underlying market. This method is most suitable for plain vanilla product referenced to some liquid underlyings. Dynamic hedging, as opposed to static hedging requires the hedging position to be continuously rebalanced throughout the life of the transaction. Most banks restrict their hedging to first-order and second-order risks such as delta, gamma, vega and only rarely hedge higher order risks.

The majority of vanilla structures (such as uncapped calls linked to a single-name) with a shorter tenor are potential candidates for dynamic hedging. Unstable market conditions, complex payoffs and long investment duration significantly reduce the issuer profitability of structured products that are dynamically hedged.

Whether or not to dynamic hedge a product also depends on the availability of liquid cash underlyings and listed derivatives. Based on this premise we estimated around 25-35% of all structured products issued in Europe in 2014 involved the use of dynamic hedging through the listed market.

Issuers of options, warrants or certificates are the common users of dynamic hedging, which calls for continuous trading of the underlying cash securities, mainly stocks, to maintain the ideal delta exposure.

Some products, such as CPPI (Constant Proportion Portfolio Insurance), require constant rebalancing of the value of risky assets in the portfolio in accordance to some market metrics like volatility, to ensure capital protection at any point during the product tenor.

#### Warehousing Risk:

Although it is not common for providers to assume the full risk of product issuance resulting from adverse market movement, some banks that are better capitalised or own large trading desks will occasionally choose to warehouse some if not all of the risk on its book or simply manage it along with other products on an aggregate basis.

For example, a bank which has a surplus of Swiss Francs would raise funds by issuing dual currency deposits - essentially a reverse convertible structure where the issuer buys a put on the Swiss Franc from the investor, thereby hedging against the potential fall of its currency position.

However, following tightened capital requirement rules stipulated by Basel 3, issuing banks are generally prohibited to carry unhedged positions without securing sufficient capital against the default of their counterparty(s). The introduction of Credit Valuation Adjustment (CVA) has led to increasing capital requirements for OTC derivatives business and the adoption of central counterparties (CCPs).

## **Regulations and Tax Treatment**

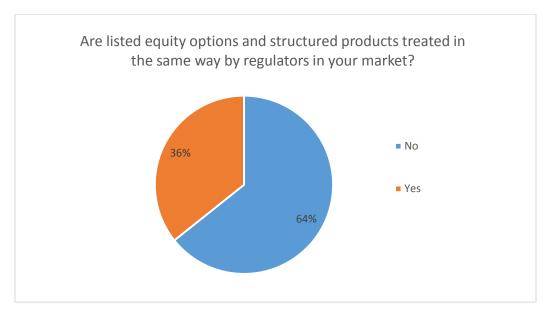
The rules for manufacturing, distributing and advising on retail structured products have gone through the biggest regulatory revamp in more than a decade. The regulatory overhaul is aimed at addressing concerns over counterparty risk, product complexity, disparities in rules between various wrappers and mis-selling risks.

The European Securities and Markets Authority (ESMA) has been the driver of all major EU regulation and policies involving structured products. This includes the Packaged Retail Investment and Insurance-

based Investment Products Regulation (Priips), the Markets in Financial Instruments Directive II (Mifid level II), the Markets in Financial Instruments Regulation (Mifir), the Insurance Mediation Directive (IMD II), the Undertakings for the Collective Investment in Transferable Securities Directive (Ucits V), and the Prospectus Directive (PD) which member states were required to implement by July 1 2012.

At this point, the operational cost of fitting all the pieces of the regulatory jigsaw together are not clear, but there is no doubt that it will be an expensive exercise for structured products providers. According to the European Council (EC), the Mifid review alone will impose one-off compliance costs on firms of between €512 million and €732 million, and ongoing costs of between €312 million and €586 million per year.

## **Contrasting Tax Treatment**

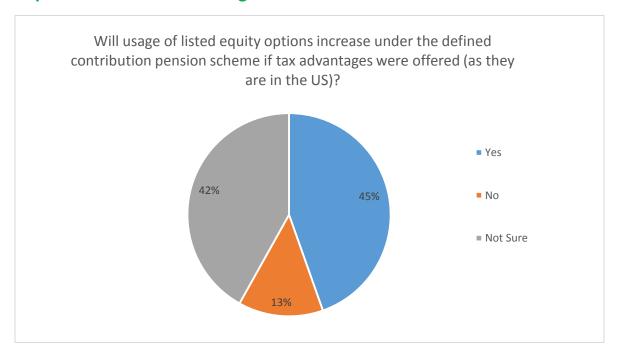


64% of respondents supported the view that regulators treated listed equity options in a different way from structured products, reflecting the fundamental difference in perception between the two, even though they can have very similar payoffs.

In terms of regulation, listed equity options are treated as derivatives, while structured products are treated as corporate debt and are thus under different regulatory mandates. Structured products are much more tightly regulated in some markets, especially for leveraged products, which are treated with greater scrutiny because of their more speculative nature.

Regulatory differences also depend on the type of user in question. In general, listed equity options are treated less strictly compared to structured products. For instance, pension fund managers would have many restrictions on employing complex derivatives but are generally free to use covered call and protective put option strategies in their portfolios. Meanwhile, the moratorium on the distribution of particularly complex structured products by the Belgium regulator is not applicable to the country's warrants and options market. Also, respondents said there are clearly more regulatory hurdles for turbo certificates, a kind of listed structured product, in the Netherlands compared to listed options.

## **Impact of Potential Tax Changes**



The usage of listed equity options is expected to increase if they become eligible for tax advantages under the defined contribution pension scheme, according to 45% of respondents. The defined contribution pension scheme is a retirement plan where the employer and employee both make contributions on a regular basis, with benefits based on the contribution amounts plus any investment earnings in the account.

Respondents who are positive about the potential change think that when listed equity options become eligible for investment under the scheme the potential tax saving will outweigh the switching cost of investing in options. One respondent added that with any beneficial tax breaks investors will slowly turn to listed options, while another one said tax advantage is always a leading factor that lures retail investors even if there are more favourable investment alternatives.

In Germany this is not likely to take place as tax advantages do not normally apply to listed options. In Italy the government has also indicated an unwillingness to encourage this, by raising taxes on investments and assets (which are treated the same way by regulators).

## **Overview of Exchange Traded Products in Europe**

Exchange traded products (ETPs) refer to securities traded on a national securities exchange whose value is derived from another instrument such as share price, interest rate, currency or commodity. Common types of ETPs include exchange traded funds (ETFs), exchange traded vehicles (ETV), exchange traded notes (ETNs), certificates and unit trusts.

The ETF/ETP industry gathered a record level of USD62bn in net new assets (NNA) in 2014. At the end of December 2014, the European ETF/ETP industry had 2,106 ETFs/ETPs, with 6,376 listings, from 49 providers on 26 exchanges.

Assets in European ETFs/ETPs ended 2014 at US\$460 billion, below the record of US\$477.4 billion established at the end of August 2014. The European ETF/ETP industry is expected to break through the US\$500 billion milestone in 2015.

The upsurge in ETF assets was boosted by an increasing interest by institutional investors in exchange traded products that offer market exposure to more proactive strategies, according to Deborah Fuhr, managing partner of ETFGI. "[This change of approach which includes] the use of smart beta strategies is one of the most popular and fastest growing areas in the ETF space."

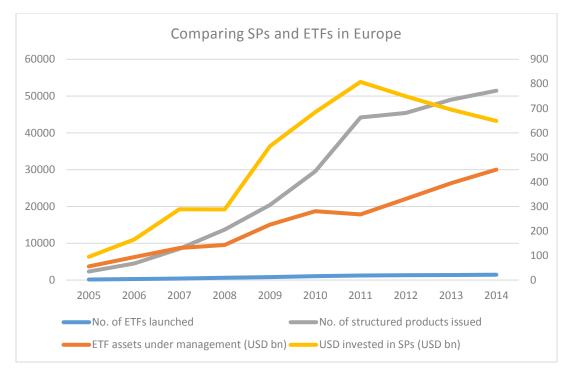
"The changes we have seen in the UK as a result of the RDR (Retail Distribution Review) and Dutch RDR are being implemented by many firms across their operations in Europe and ETFs are being embraced actively by institutional investors, private banks, financial advisers etc. to implement and adjust their asset allocation," she said.

There are 49 providers of ETFs/ETPs with the top 3 providers iShares, db x/db ETC and Lyxor AM accounting for a combined market share of 68.2%, down from 70.7% at the end of 2013.

The number of ETFs/ETPs in Europe that have over US\$1 billion in assets has increased during 2014 to 103 from 70 in 2013. There has been an increase in new product launches in 2014 over 2013, as well as more closures. MSCI has the largest amount of ETF/ETP assets tracking its

benchmarks with a 23.7% market share, STOXX is second with 20.0%, followed by S&P Dow Jones at 13.6%.

Assets invested in ETFs continue to be higher than exchange-traded notes (ETNs) and that trend is set to continue, according to Fuhr. "Currently, 95% of the assets are invested in ETFs while ETNs only represent 5% of the assets under management," said Fuhr. "Investors are favouring the fund wrapper because it is highly regulated under Ucits V [the EU Undertakings for Collective Investment in Transferable Securities directive] and there is less counterparty/issuer risk than using an ETN. This and other factors will continue to make ETFs an attractive way of investing."



Source: ETFGI Data and  $\underline{www.StructuredRetailProducts.com}$ 

## **Comparison of ETFs and structured products**

The ETF industry has gone from strength to strength since the financial crisis, whereas structured products have faced an uphill battle to restore investors' confidence in the fallout of Lehman Brothers. The notional invested in European ETFs grew exponentially over the past 10 years to reach the record level of \$ 450 billion by end of 2014, while in the same period structured products experienced dramatic fluctuation with outstanding notional peaking in 2011 and falling every year since then. In the US, many options have ETF underlyings. Figures from US clearing house OCC show that options on ETFs accounted for 36% of total US listed equity option volume in 2013.

Although there is no evidence that ETFs are directly taking market share away from structured products, some industry players see the shrinking appetite for structured products as a consequence of liquidity and transparency issues apart from regulatory hurdles – which are often quoted as success factors for ETFs.

Structured products' reputation has been tarnished by concerns over their complicated structure, their use of derivatives, their lack of transparency, and their counterparty risk. As Nizam Hamid, head of ETF strategy at Lyxor put it, "investor sentiment towards structured products has changed since the crisis. Investors want more transparent products and that is demonstrated by the ETP industry's growth in the crisis years of 2008 and 2009."

Fierce competition in recent years has encouraged many ETF providers to come up with new ways of attracting investors, and have turned to more complex factor-based or smart beta indexes, which filter stocks based on particular considerations like yield or valuation. While this added more investment choice for retail investors, it also encouraged further competition to structured products that are built around a specific theme or beta strategy.

According to the fund research house Morningstar, these more complicated kinds of ETF products now account for \$396 billion of assets globally and "are making inroads against their peers that are benchmarked to more-traditional indexes."

Within the ETF universe, says McNeil, co-founder and chief executive of Boost ETP, "demand for transparent short and leveraged ETPs has increased over the past few years, with global short and leveraged ETP assets rising to \$52 billion" as many financial markets have trended sideways creating volatility but poor long-term returns.

UCITS fund wrappers are currently permitted to contain ETFs. However, to be UCITS-compliant all ETFs must observe the diversification rules where no single constituent can represent more than 20% of the fund's net asset value, which can be extended to 35% at the discretion of the regulator, according to UCITS III — the latest version of European Union (EU) regulations governing the manufacture and distribution of pooled investment funds. Some member states within the EU have put in place additional requirements on top of the UCITS directive, amid increasing retail flows into UCITS-ETFs that are cross-listed on multiple exchanges.

## **Overview of Listed Equity Options in Europe**

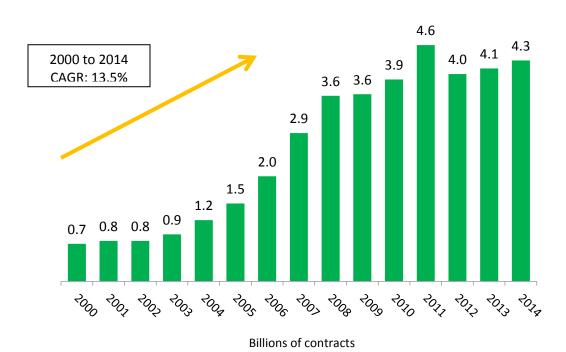
The size of European listed equity option segment is relatively constrained, trading less than 300 million contracts in 2014 after consecutive year on year falls since 2008, with a similar pattern for open interest, based on statistics from trade publication *Futures & Options World*. The increasing maturity of the core European markets and the call for reducing and managing

counterparty risk have meant that some Over The Counter (OTC) business has already moved to a cleared environment.

This is in stark contrast to option order flow originating in Europe and being executed in the US option markets. Statistics from industry research firm TABB Group shows that the total US option volume reached 4.27 billion contracts in 2014 with a compound annual growth rate of 13.5% since 2000, of which 9% of total was estimated to have originated from European demand. Strong trading in index and ETF option products together made up 45% of total option contracts traded in 2014. The trend was substantiated by European economic weakness propelling use of index products, while the collapsing oil price added to market volatility promoting more hedging needs.

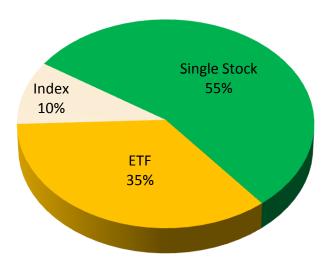
According to TABB Group, demand for US options from European investors during US market hours remains strong. Ease of access is one factor contributing to this demand, but it is the deep liquidity, transparency and market quality that continues to attract European portfolio managers. The ability to use options in hedging strategies around large global portfolios is a key driver, enabling execution in size across major index options and also across single stock and ETF options.

Annual US Options Trading Volume: 2000 to 2014

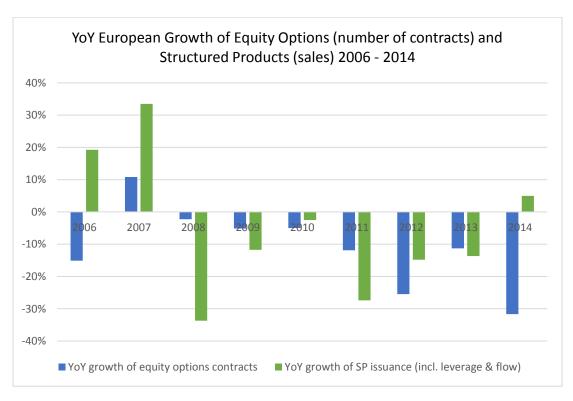


Source: The Options Clearing Corporation (OCC)

Share of 2014 volume by type of option



Source: The Options Clearing Corporation (OCC)



Source: FOW Data, <u>www.StructuredRetailProducts.com</u>

The number of contracts of listed equity options has seen a continued downturn from 2006 to 2014 except a brief upsurge in 2007 driven by global equity market rally, more risk leveraging via equity options by European hedge funds, and new EU regulations relaxing the use of derivatives by pension funds and insurers. In 2012, significant reduction in volatility on major equity indices has discouraged the interest in option-writing strategies, while in 2014 Solvency II Directive and European Market Infrastructure Regulation (EMIR) have taken effect and exerted upward cost pressure on option trading through more reporting and compliance requirements.

Meanwhile annual sales of structured products in Europe registered even more sporadic decline pattern in years following 2007 until 2014 when it made a positive comeback, partly due to improved market sentiment and the loose credit environment initiated by European Central Bank (ECB) throughout the year. The general trend of decline in recent years for structured products were also attributed by continued regulatory overhaul and rounds of market consolidation involving major investment banks.

## **Enhancing Listed Equity Option Business in Europe**

When asked about ways to promote the growth of listed equity options in their respective markets, most respondents cited the importance of product innovation, liquidity, transparency, investor education, as well as tax and regulatory initiatives.

#### **Product Innovation**

Respondents suggest boosting research-based product ideas on the listed option front instead of recycling existing products. Investors need imaginative and robust strategies and solutions, not just products based on historical performance. Listed equity options typically have a shorter investment tenor than structured products and might not serve the longer investment horizon of the average European investor. Longer-dated options, for example, would appeal to the market.

#### **Liquidity and Transparency**

Compared to their US counterparts, although listed equity options are exchange traded products, they tend to suffer from liquidity issues due to limited number of market makers in most European exchanges, in contrast to the case in certificates and other delta-one products. Therefore, encouraging or incentivizing the participation of market makers is crucial to bringing about liquidity and better price discovery. Allowing stock exchanges the flexibility to offer different styles of options (for instance European and American style) on the same underlying for eligible stocks can also help boost market liquidity as investors and issuers have more choices of products that meet their preference.

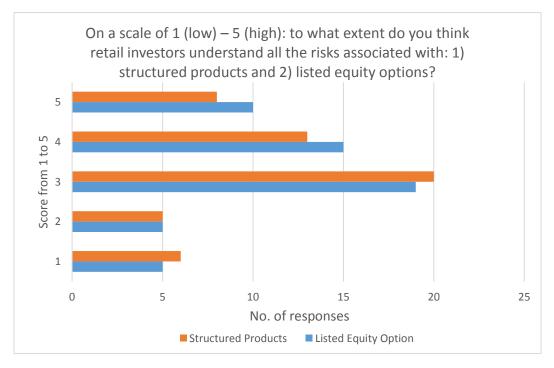
#### **Investor Education**

Respondents commented that setting up dedicated education bureaux with the specific aim to educate investors about listed options would help, as would more interactive tools to confirm client understanding and risk awareness during the sales process. Listed equity options are straightforward to understand even for non-sophisticated investors, whereas structured products necessitate a deeper knowledge to perfectly understand the risks associated. Hence, market participants should constantly try to inform and educate retail investors, as the derivatives world is evolving very rapidly.

#### Tax and Regulatory Initiatives

Tax and regulations have the strongest influence on policy effectiveness, according to respondents. One mentioned the possibility of including listed equity options under various pension scheme wrappers for tax purposes, while comments were also made on reducing the margin requirement for shorting options so that more investors could be exposed to a wider choice of strategies.

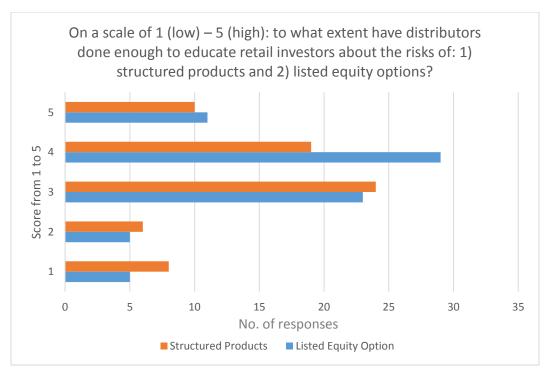
#### **Investor Education**



Listed equity options performed well in terms of investor understanding of risks compared to structured products, but structured products scored higher in mid and lower level knowledge.

Listed equity options are typically purchased by more sophisticated retail investors, many of

whom have stronger understanding of the leverage and insurance-like features of these products. Structured products, on the other hand, often attract investors who are used to cash investments (in funds for example) or bank deposits. Therefore, by virtue of the relative lack of sophistication of their investors, structured products are less understood, at least at a "higher" knowledge level.



At the higher score range of 4 and 5, distributors seem to have done enough to educate retail investors about the risks of listed equity options, much more so than they do for structured products. Similarly, investor education on structured products is perceived to be not as sufficient as it is on listed equity options at the lower score range indicating more room for banks to improve investors' understanding of the former.

However, according to a few respondents, distributors of structured products have reportedly done less in the area of retail investor education. There is still work to be done to make investors feel more comfortable with investing in structured products, which have negative connotations amid bad media publicity, although the number of complaints has fallen in recent years.

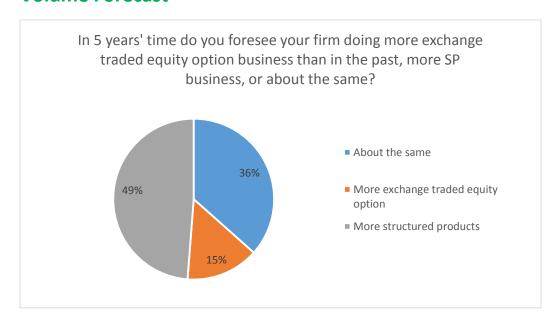
Distributors would also appreciate more education, especially about the myriad of new regulations that have emerged over the past five years.

# **Comparison of Structured Product, ETF and Listed Equity Option Characteristics**

	Structured Products	<u>ETFs</u>	<u>Listed Equity Options</u>
Flexibility	Can tailor-make the portfolio depending on needs  Inflexibility. Unable to change the way the	Can be traded throughout the day on the stock exchange.  Minimum trading lot (one share/unit) allows investors	Can be used in many combinations with other financial instruments to create either a hedged or speculative position.
	structured product is set up.  May be an alternative to	to take positions in a wide range of indices even for small amount.	Combined strategies may be constructed that replicate some structured products.
	ETFs.	May be an alternative for structured products.	products.
Transparency	Lower transparency. No disclosure on the replication approach of the underlyings' performance required.	Investors know what they are investing in as most ETFs hold the same representative sample as their benchmark indices.	Higher transparency. Underlyings are typically with good transparency. Continual quotation of prices and volume are publicly available.
Liquidity	Structured products generally run for a fixed term. Limited secondary market.	Lower. Low trading volume.  Market maker prices to tend to be tighter on securities that are more liquid.	Can be traded intraday. Liquidity fades for longer dated options but positions can be rolled.
Diversification	Allows diversification to foreign markets or exotic asset class, but more limited to wealthy clients due to higher minimum investment.	Contain securities more than many actively managed funds, enabling better risk control.	Usually linked to single underlying or market index, and hence do not benefit from diversification.
Cost	Expensive. Risk-hedging could have become more costly after Lehman Brothers crisis and ultimately affected the pricing of structured products.	Low, as a result of client service–related expenses being passed on to the brokerage firms that hold the exchange-traded securities in customer accounts.	Relatively the lowest cost. Exchange fees and commissions are low compared to management fees charges by ETFs and SPs.

Risk	The more complicated the product, the higher the risk is likely to be.	Reduced issuer risk. Assets are ring-fenced in custodian accounts.	Limited risk for buyer. The maximum lost will be the price of the option.
	Issuers do not need to own the underlying assets or provide any collateral.		Assignment risk for the option seller

## **Volume Forecast**

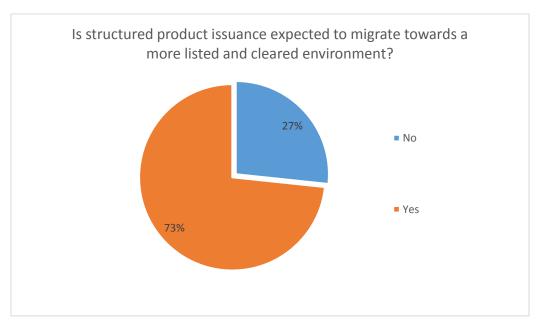


Structured product volumes were forecast to rise in the next 5 years as nearly half of the respondents anticipant their institutions will do more structured product business than in the past, while only 15% think exchange traded equity options will be an area of growth for them. The finding is consistent with the observed lack of popularity of listed equity options amongst retail investors which in turn means less derived demand for related products. Note that majority of respondents however are incumbents in the structured products industry and therefore might have biased preference for doing more existing business.

Amongst the 15% of institutions who reported a planned increase of their equity option business, it is understood that the demand is derived from not only the offering of option trading services or market making but also the hedging needs for structured products and activities of proprietary trading accounts. The reasons for using listed equity options that might have warranted this increase in planned business growth included secondary market liquidity and transparency. These instruments offer price discovery and ease of exit for the end investors

and a much more liquid alternative for hedging from the issuers' standpoint. Meanwhile, counterparty risk can be effectively mitigated in the listed option market with the presence of well-funded clearing houses, whereas such counterparty risk is almost always embedded within structured products as highlighted by waves of related court cases against the latter subsequent to the 2007 financial crisis.

## **Listing and Clearing**





73% of respondents agree that structured product issuance is expected to migrate towards a more listed and cleared environment, citing that such movement will benefit the industry in

terms of 1) better mitigation of counterparty risk (18.4%); 2) enhanced liquidity (24.3%); 3) lower transaction cost (15.5%); and 4) much improved transparency (41.8%), the biggest driver cited by respondents, which translates to the need for real-time trade and quote information to be constantly available to users. Liquidity is also one major benefit of listing product on exchanges where there are sufficient buyers and sellers leading to lower transaction cost in terms of tighter bid-ask spread.

Finally, counterparty risk is another reason structured products are expected to migrate to a listed and cleared environment because of the benefits of centralised clearing. One respondent said that as a result of rising concern over counterparty risk after the financial crisis there is a stronger need for centralised clearing for structured products, the majority of which are still cleared and settled off-exchange. The same can be said for OTC equity derivatives as only a small fraction of them are centrally cleared, despite the presence of Pan-European clearing facilities such as Bclear and Eurex.

For those (27%) who disagree with the trend of more products moving to a listed and cleared structure, they generally think OTC derivatives still maintain high popularity because of their ability to tailor contracts to the specific needs of end users and execute large orders, among other benefits.

## Counterparty Landscape: Impact of the 2008 Global Financial Crisis

#### **Changing Counterparties**

The counterparty landscape for the European structured product market continues to be in a state of flux as major players have pulled out or significantly reduced their presence over the past three years.

SRP data shows that the counterparty scene has evolved substantially since 2011, when the major bond providers were names such as RBS, Barclays, Lloyds, HSBC and Santander/Abbey National. All but three in the top ten were UK institutions. In comparison, the following two years saw the number of non-UK bond issuers double, with banks such as Commerzbank, Royal Bank of Canada (RBC), Goldman Sachs and UBS entering the market. This continued into 2013, with RBS's withdrawal from the market no doubt driving the trend.

"If we look at our business a couple of years ago, we were hedging with the likes of Rabobank and RBS," Steven Graham, director at Gilliat Financial Solutions, told SRP. "But with several counterparties having moved out of the market, we've seen ourselves use counterparties over the past two years that we wouldn't have used historically, such as Société Générale and Credit Suisse."

According to Zak de Mariveles, SocGen's managing director for UK independent financial adviser (IFA) sales and chairman of the UK Structured products Association (UK SPA), counterparty risk is one of the many considerations when purchasing a structured product, and as investors look to diversify they are likely to seek more than one counterparty to meet their needs.

"As some banks leave the market, such as RBS, so too other banks strengthen their presence in the UK to meet this demand, such as Société Générale," he said. "In parallel, product designs themselves adapt to such demand, whether by collateralising the counterparty risk and/or diversifying investment risk across more than one institution in a single product."

This is good news for investors, said James Harrington, founder of Red River Insight and former head of structured products sales at L&G. "Too few counterparties doesn't breed competitiveness, but also clearly if you want a broad risk spread of counterparties, the more there are the more you can choose to spread your assets across," he said. "The fact that many of the counterparties entering the market are not as well established as others doesn't appear to be an issue. I think if strong brands come to the market then the retail investor is quite comfortable, if they understand the risk, on making a decision. If they have value, then investors will choose them."

# **Confidence in Banks as Counterparties**

With a rise in US interest rates anticipated, and the market in a state of flux, industry professionals expect there to be even greater change in the counterparty landscape. According to Graham, increasing investor confidence is also contributing to this change. "From our understanding, people are becoming a bit more comfortable with credit risk, and they think that banks are in a better position than they've been over the last five to ten years," he said. "Clients are looking at banks now that perhaps they wouldn't have looked at a couple of years ago."

For 2014, all but two of the top ten counterparties in the UK were either European or American issuers who have had little or no previous presence in the market. Commerzbank and Goldman Sachs made the list for the first time in 2014, while BNP Paribas became increasingly active, climbing from sixth last year to second in 2014. Only Investec has remained in a top three spot since the start of 2011.

#### Diversification

Despite an increased appetite for risk in the market, European investors still tend to be somewhat conservative, particularly post-Lehman. To counterbalance some of the risk involved in tying a product to the credit risk of a single institution, some providers including Investec

Structured Products and Société Générale are increasingly creating products with a pool of typically four or five counterparties. According to SRP, products with this type of security have been growing at between five and ten percent year on year since 2011.

Gilliat's Graham believes this shows how the market has evolved post-Lehman into a space that now provides different options to issuers and investors.

"We're a firm believer in diversification, not just from counterparties but in terms of portfolio construction, and for us if you look at the FCA guidelines in terms of diversification of credit risk it's very much an important part that an adviser needs to go through to understand that exposing oneself to one entity is a risk and that diversification is something they should be considering seriously," he said.

According to Alex Brandreth, head of structured products and deputy fund manager at UK private bank Brown Shipley, they have an approved list of banks for structured products offered to their private banking clients, and the typical requirement for those banks is a minimum credit rating of Standard & Poor's A-. They also have concentration limits within portfolios to ensure that exposure to one counterparty is never excessive.

Apart from diversifying into multiple counterparties, there are increasingly more providers looking into managing credit risk through the adoption of cleared derivatives. Cleared derivatives, including listed equity options, are traded on an exchange and booked with a clearing house, as opposed to OTC derivatives which are booked bilaterally between the counterparties, and hence only exposed to the remote risk of the clearing house failing.

Credit risk is also minimised with the posting of margin to the clearing house by the parties to a trade when using cleared derivatives, while margining by OTC derivatives counterparties is subject to negotiation by the contracting parties. The daily maintenance of margin in the form of cash or collateral and the mark-to-market requirements for cleared derivatives are seen as effective push factors for their popularity as a low credit risk alternative to structured products, although standardised contracts do not offer as much room for customization as OTC derivatives.

On the topic of credit risk diversification, Gary Dale, head of intermediary sales at Investec Structured Products said, "the issue of course for investors and advisers alike was and still is how to value credit risk and establish what additional premium, if any, they would need as compensation. The industry, including ourselves, responded by offering collateralised investments with credit exposure to more than one financial counterparty and in some cases the UK Government".

# **Glossary of Terms**

#### Accrual

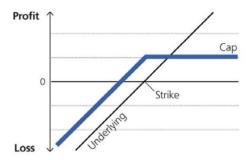
A return based on the number of days in the period when the underlying stayed above, below or within prespecified levels.

#### Airbag product

This is another name sometimes given to a Tracker product. The idea is that these products provide some protection against a market crash, rather like the airbag system in a motor car that cushions the driver against the effects of a car crash.

#### Altiplano

A return based on a fixed coupon at maturity provided none of the assets in the basket have fallen. If, however, a specified number of the elements in the basket did fall then the return is calculated on a different basis, usually by a call type payout. More complicated products offer different participations based on the number of assets which break a predetermined barrier.



#### Autocallable

A very popular payoff for income products, abbreviated from "automatically callable". Products with this feature will be subject to early redemption before maturity if the underlying reaches a pre-defined level on a pre-determined observation dates, in which case the investors will receive initial capital together with pre-defined coupons.

#### Barrier Level

A barrier or trigger level is a pre-specified level for the underlying that triggers a change in the potential product return.

Typically a barrier level is a feature of a high-income product or reverse convertible product. In these products it means that if the level is reached during the term of the product then the investor is then exposed to a risk of capital being reduced if the underlying index finishes below its initial level.

In general barrier options are options that can only be exercised if the barrier level has either been reached or not ©SRP 2015

Analysis on Structured Products and Listed Equity Options in Europe – Part 1

been reached, depending on the condition of the contract, during the term of the option (see also knockout/knock-in).

## Basket option

A basket option is an option for which the underlying is more than one index or share. So for example an option that pays out based on the performance of the FTSE100, DJ Eurostoxx50 and S&P500 would be called a basket option.

# Best-of option

A best-of option is an option that is exercisable against the best performing of a given number of underlying shares or indices. For example a call option on the best of the FTSE100 and S&P500 would pay out on the index that rose the most during the term of the option. See also Worst-of option.

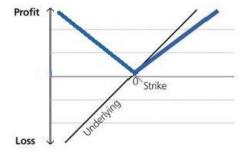
#### Bonds

A bond is debt issued by either a government or corporate entity. Bonds are often listed instruments and are traded on an exchange. Most bonds pay a fixed coupon or interest payment and have a finite term. The chance of a bond defaulting is often indicated by the credit rating (i.e. AA) given to the bond provider.

Bonds are often used in creating structured products (see Medium Term Note and Zero coupon bond).

#### **Bull Bear**

A return based on a percentage of the rise, as well as a percentage of the fall, in the underlying.



#### Call Overwriting

A strategy, also known as Buy-Write or Covered Call writing, which generates a return from the purchase of an underlying share or shares and the simultaneous sale of a call option or options on that same underlying.

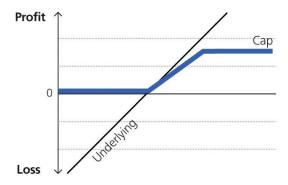
#### Capital Protected

A capital protected type of structured product is one that provides for a minimum return at maturity at least equal to the original sum invested.

It should be noted though that such products only provide this minimum return if the product provider itself, or the underlying asset(s) that is purchased to provide the return, does not default.

## Capped Call

A return based on a fixed participation in the rise of an underlying market that is capped at a fixed return



# Certificate

A type of security issued by a bank that provides a return linked to one or more underlying indices, prices, rates or other financial variables. Certificates are either leverage or investment products and are typically listed on exchanges with a secondary market being supported by the provider.

#### Continuous product

Continuous products (also called open-ended products) are products which have no fixed subscription period or maturity date.

Structured products that are available for investment during a limited period only are called tranche products.

Do note that "Leverage" and "Flow & Others" products are not considered as being "Tranche" or "Continuous" in our "Product Style" categorisation.

# **Convertible Structures**

#### Worst of

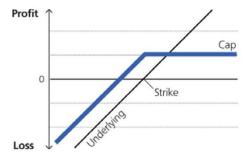
The "Worst of" Reverse Convertible is referenced to a basket of several underlyings. Provided If the price of one or more underlyings is at or below the issue price, the worst performed underlying it will be physically delivered with a quantity defined.

# - Callable

The Callable is an added-on feature to a typical reverse convertible product which gives the issuer the discretion to redeem the product early. Autocallable, on the other hand, refers to early termination of the product contingent on the underlying exceeding a certain level.

#### - Reverse

A reverse convertible is a type of high-income structured product. The typical structure offers a high fixed level of income and a full return of capital unless a reference underlying asset or index falls over the term of the investment. If the underlying does fall then the investor has their capital return reduced by the percentage fall in the underlying.



#### Counterparty Risk

The risk of a counterparty defaulting on a transactional obligation resulting in consequential loss to the other counterparty.

#### Credit Default

A product linked to the risk of default (credit risk) from usually a basket of companies.

# Delta hedging

An options strategy that aims to reduce (hedge) the risk associated with price movements in the underlying asset by offsetting long and short positions.

#### **Derivatives**

Derivatives are financial products that derive their value from the price of some other underlying asset or index.

Typical derivative products are futures and options contracts.

Derivatives are either traded on an exchange, in a similar way to shares, or entered into bilaterally between two companies i.e. over-the-counter.

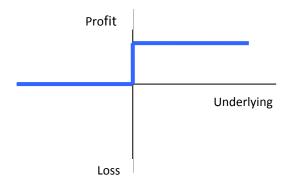
# **Derivatives Counterparty**

The derivatives counterparty or counterparties through whom the product was hedged.

# Digital

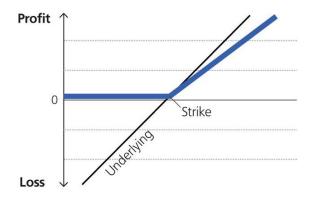
A digital type structured product is one that pays out a fixed amount if the underlying is above (or below) a specified level on a given date, usually the maturity date of the product.

A typical example is a product that pays a minimum return at maturity of 100% of the amount invested plus a bonus of 50% if the final level of the FTSE100 is above its initial level at maturity. In this case the bonus is paid as long as the index has risen, by any amount, at maturity so that the 50% bonus is paid if the index rises by 1% or 100% over period.



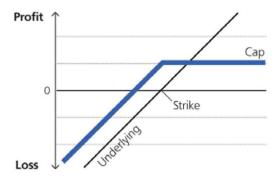
# Dispersion

A return based on the spread between the performance of different shares within a basket. For example, the return may be based on the share in the basket with the smallest absolute performance in comparison to its initial level or the absolute value of all share performances compared to the overall basket performance.



#### **Dual Currency**

A return at maturity which is either in the original currency or an alternate currency at a rate of exchange fixed upfront and at the choice of the product provider.



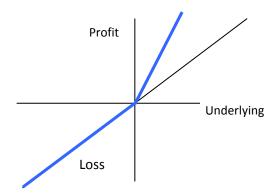
# Dynamic hedging

A hedging technique which seeks to limit an investment's exposure to delta and gamma by adjusting the hedge as the underlying security changes. The strategy is frequently used by financial professionals working with derivatives.

Read more: http://www.investorwords.com/7130/dynamic hedging strategy.html#ixzz3TDS40ov7

#### **Enhanced Tracker**

A growth product that tracks both the rise and fall in the underlying without downside protection, typically with a high participation in the rise (often capped) of the underlying.



#### Exotic

A return based on a sophisticated combination of two or more product types. They include a wide variety of options with non-standard payout structures or other unusual features.

#### Factor Based (See Smart Beta)

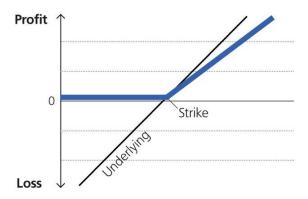
Factor-based investing is one by focusing on the underlying factors that define risk, return, and correlation this approach seeks to explain why some asset classes move together and to offer more efficient portfolio construction.

#### **Fixings**

In most structured product the calculation of the final return is based on the movement of some underlying price or index. In order to determine this movement the level of the underlying must be taken at specific times (usually at the start and end of the product's term). These price or index levels, used in calculating the return, are sometimes called fixings.

#### Floater

An income product offering a coupon that rises when the underlying reference rate rises. The coupon is calculated as a fixed rate plus the floating reference rate.



Flow & Others

Highly standardised structured products, usually issued in large numbers and on a regular basis. Sweden Exchange-listed products that do not have a primary subscription period.

#### Gearing

The term gearing refers to the leverage or exposure that a product has to movements in the underlying index.

A product with 100% gearing would generate a return exactly equal to any rise of the underlying index i.e. a 45% rise in the index would produce a 45% return from the product. A product with only 75% gearing would produce a return equal to only 75% of the return produced by the underlying index and similarly a product with 200% gearing would produce a return equal to twice any rise in the index.

Sometimes the term participation is used also used to refer to a products gearing. See also downside gearing.

# Growth and Income product

Some types of structured product are offered with a linked fixed rate investment, usually a deposit paying a higher than market rate of interest. These products are sometimes called back-to-back products.

To differentiate these products from both standard growth products and structured income products, we term such products Growth and Income products.

#### Growth product

A growth product is a type of structured product that produces all its return at maturity with no payments of income during the product term.

#### **Hard Protection**

This term is sometimes used to describe a product where the capital protection is provided at maturity regardless of the performance of the underlying.

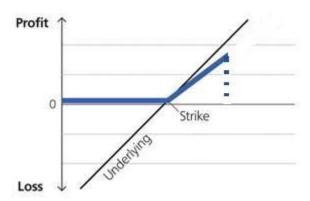
#### Income product

This is the name given to any type of structured product that provides a periodic payment of income. Often the rate of income is higher than the general rate of interest available of fixed rate Deposits and there is therefore a risk that the initial capital invested may not be returned in full (see high income product and Reverse Convertible).

#### Knockout / Knock-in

A knockout or knock-in feature is a characteristic of a structured product whereby the return is dependent on the underlying reaching, or not reaching, a pre-specified level at some time during the term of the investment.

An example would be a Reverse Convertible where the risk to capital only arises if the underlying falls by a fixed amount at some time during the term of the investment. This level is called the barrier level and if the underlying reaches this level then the derivative or option that is used to create the product is said to have knocked-in.



#### Leverage

Products that provide leverage\_long or leverage short position in an underlying, usually including a stop-loss feature. These products are typically known as turbos.

#### Life Bond

A Life Bond is a term used to describe a Life Assurance policy that provides a fixed or variable return based on the performance of underlying funds (unit linked) or based on a Life Company guarantee (index linked).

#### **Maturity Date**

The maturity date of a product is the date on which the investment is repaid.

Medium Term Note (MTN)

A Medium Term\_Note (or MTN) is a type of bond. They are usually issued by regular borrowers in the capital markets such as banks, large corporations and supranational bodies.

MTNs are designed to be very quick and cheap to issue compared to normal bonds. This is because much of the legal and regulatory expense is incurred when the MTN program is set up and so each individual issue of MTNs has a relatively small amount of documentation required.

Minimum Return

The minimum possible return irrespective of the performance of the underlying.

NISA

New Individual Savings Account. A NISA is a tax free UK savings product with increased limits and greater flexibility than the old ISA. Account holders can divide their savings between a Cash NISA and Stocks & Shares NISA in one single account. The NISA (New ISA) has replaced the old ISA from July 2014.

Note

A debt security usually maturing in one to ten years and offering no or partial principal protection.

Offer period

Most structured products are tranche products, meaning that they are only available for a limited period. This period, which is usually around 4 to 8 weeks, is called the offer period and is the period during which the product is available for investment.

Offshore

Offshore products are those that are regulated outside of the UK. They are typically set up in centres such as Jersey, Guernsey or the Isle of Man. These products have different tax implications to onshore products.

Open-ended product

Some structured products are open-ended products, meaning that they are available for investment for an unlimited period. They are also known as continuous products. Structured products that are available for investment during a limited period only are called tranche products.

Do note that "Leverage" and "Flow & Others" products are not considered as being "Tranche" or "Continuous" in our "Product Style" categorisation.

#### **Participation**

Many structured products provide a minimum fixed return plus an additional return calculated by multiplying any rise in the underlying index by a fixed percentage. This percentage is often called the participation or participation rate.

For example, a typical product would offer a minimum 100% return of capital at the end of the investment term, plus 80% of any rise in the FTSE100 index. So if the index rose by 40% over the period then the investor would receive back his initial capital in full plus an additional return of 32% (i.e. 80% of 40%). The participation in this example would be 80%.

# Payoff

This is a general term often used to describe the return that is provided by a structured product or an option. So for example, one could say that the payoff of a product is equal to 100% plus 80% of the rise in the underlying index.

#### **Payout**

This term has a similar meaning to payoff.

#### Principal guarantee

A structured product with principal guarantee is one that provides for a minimum return at maturity at least equal to the original sum invested, regardless of the final underlying performance.

It should be noted that such products only provide the minimum return if the product provider itself, or the underlying asset(s) that is purchased to provide the return, does not default.

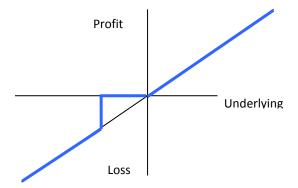
#### Profiled

A return based on the performance of different baskets, each linked to the same underlyings but in varying weights within each basket

## **Protected Tracker**

A protected tracker is a type of structured product that provides a degree of capital protection together with participation in any rise in the underlying index.

There are many variations but typically the product might offer a return equal to 200% of any rise in the FTSE100 and full capital protection unless the index falls by more than 50% during the investment term and fails to recover by maturity. If this did occur then the capital return would be reduced on a 1:1 basis for the fall in the FTSE100 index.



Putable

A product that can be redeemed early by the investor.

#### Quanto option

A quanto option\_is the name given to a type of option\_that is denominated in a currency other than the natural currency of the underlying. In particular, the payout of a quanto option\_does not depend upon the movement of the exchange rate between the two currencies.

For example, an option on the S&P500 index that is denominated in British Pounds is a quanto option if the return is simply based on the movement of the index and not the movement of the index and the movement of the sterling/dollar exchange rate.

Most structured products that provide a link to foreign markets make use of quanto options.

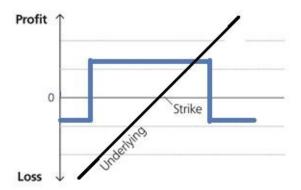
#### Rainbow

A return based on the performance of a basket whose best performing assets are weighted more heavily than those which perform less well. The underlying is typically a basket of sector or regional indices.

#### Range Accrual

A range accrual product is a type of structured product in which the return is based on the number of days that the underlying price or index is within pre-set levels. The longer that the underlying stays in the range then the higher the return produced.

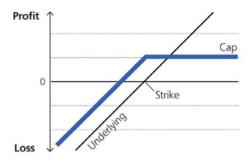
Typically the underlying used in an exchange rate or interest rate.



#### Reverse Convertible

A reverse convertible is a type of high-income structured product. The typical structure offers a high fixed level of income and a full return of capital unless a reference underlying asset or index falls over the term of the investment. If the underlying does fall then the investor has their capital return reduced by the percentage fall in the underlying.

An example of a typical reverse convertible would be a five-year product offering 8%pa fixed income but with the capital return linked to the FTSE100 index. If the index rises, by any amount, over the term then the original sum invested is returned in full. If the index falls then the amount of capital returned is reduced by this fall i.e. a 20% fall in the index over the term would result in a 20% reduction in the capital return.



#### Secondary market

A secondary market is used to describe the market in any financial product that allows investors to sell or buy more of their investment after making the original purchase.

In the case of many structured products, the bespoke nature of the investment means that secondary markets do not often exist, and even if they do, liquidity is often poor. For this reason, investors are usually advised to hold their structured product for the term of the investment.

#### Security

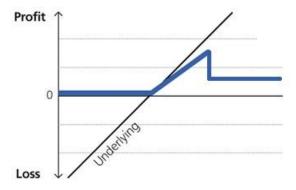
The investment is made via a financial security such as a bond, certificate, medium term note, structured bond or warrant.

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#### Shark Fin

A product paying a minimum return at maturity plus a participation in the rise of the underlying. However if an upper barrier level is breached at any time during the investment period then the return at maturity is reduced to a fixed amount.



#### Soft Protection

This term refers to a feature of some structured products that provide a full return of capital subject to the underlying index not falling below a set level prior to maturity.

This level, sometimes called a barrier level, provides for a limited degree of capital protection such that even if the underlying falls during the term, as long as this level is not breached then capital is returned in full. In addition, in most cases, even if the level is breached, capital can be returned in full if the underlying subsequently rises back to its initial level.

Soft protection provides a limited degree of capital protection as opposed to hard protection that provides full capital protection regardless of the performance of the underlying.

Special Purpose Company or Vehicle

A special purpose company (SPC) or special purpose vehicle (SPV) is any legal entity (usually a company or a fund) that is created specifically to create a structured product.

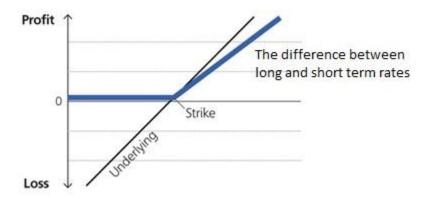
Such entities are often created in offshore centres such a Jersey, Guernsey or Dublin, since these can provide attractive tax and regulatory regimes. The entity will typically issue shares or bonds that will provide investors with a specific return.

# Smart Beta

Smart Beta are non-price-weighted indices that offer investors with the benefits of traditional capitalization- or market-value-weighted approaches, such as broad market exposure, diversification, liquidity, transparency, and low cost access to markets. At the same time, the potential to achieve results that are superior to the market returns of cap-weighted benchmarks at lower cost than active management.

#### Steepeners

Steepeners are a type of interest rate swap, where one party agrees to pay the other a fixed rate in exchange for a floating rate, which is derived from the difference between long and short term rates. Many of these products also used high leverage, where the difference between the two rates is multiplied by up to 50 times to produce a higher return.



#### Structured Bond

A debt instrument by which the investor loans money to an entity (company or government), whose value is determined by the price movement of the underlying asset.

#### Structured product

The term Structured Product is the name given to an investment product that provides a return that is predetermined with reference to the performance of one or more underlying markets.

The performance of a structured product is therefore based only on the performance of this underlying and not on the discretion of the product provider. Often, but not always, the product relies on the use of derivatives to generate the return.

Structured products typically come in two forms: growth products (which may provide an element of capital protection) and income products (that provide a fixed high income but with a risk to the capital return).

# Synthetic Beta

Alternative Beta products that uses synthetic instruments such as equity swaps to replicate performance of a cash asset or portfolio.

#### Target Return

A product whereby the product matures early if the sum of the coupons reaches a pre-defined level.

## Tax status

The tax treatment of the product's return if known and if held directly outside of a tax free wrapper. Either income tax or capital gains tax.

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#### Term

The term of a structured product is the name given to the duration of the investment. Structured products typically have fixed terms between three and six years but can be both shorter and longer.

#### Third Party

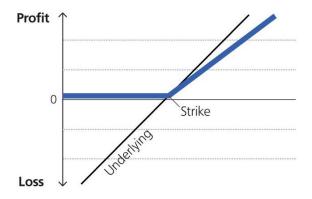
Any company involved in structuring or distributing the product (if different from the provider of the product), e.g. an asset manager or a white labeler.

#### Tranche product

Most structured products are tranche products, meaning that they are only available for a limited period. This period, which is usually around 4 to 8 weeks, is called the offer period and is the period during which the product is available for investment. Structured products that accept investments for an unlimited period are called continuous products. Do note that "Leverage" and "Flow & Others" products are not considered as being "Tranche" or "Continuous" in our "Product Style" categorisation.

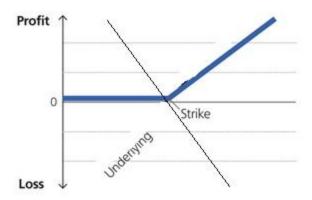
# **Uncapped Call**

A return based on a fixed participation in the rise of an underlying market that is uncapped



#### **Uncapped Put**

A return based on a fixed participation in the absolute value of the fall of an underlying market that is uncapped



#### Underlying

All structured products provide a return based on the performance of some underlying price or index. The most popular underlyings used are equity indices such as the FTSE100, S&P500, etc.

Other underlyings however can be baskets of individual shares, indices of house prices, the prices of managed funds including hedge funds, and a variety of other financial assets.

#### Variable Annuity

A life insurance or pension-wrapped product linked to a range of actively-managed funds and offering various guarantees for example, a minimum guarantee on the portfolio value at a future date, guaranteed annual growth or the minimum income available at retirement.

#### Vega hedging

A trade to either buy or sell options to offset the risk. With long options positions a trader will need to hedge by selling options. For short vega positions a trader will need to purchase options to hedge their vega risk.

# Worst-of option

A worst-of option is an option that is exercisable against the worst performing of a given number of underlying shares or indices. For example a call option on the worst of the FTSE100 and S&P500 would pay out on the index that rose the least during the term of the option. See also Best-of option.

#### Wrapper

A wrapper is a term used to describe the form in which a structured product, or any investment product, is sold. Typical structured product wrappers are Individual Savings Accounts (ISAs), Deposits, Life Bonds, etc.

#### Yield

The term yield is used to describe the return produced by any financial asset. So for example the dividend yield of a share is the return produced by that share through the payment of dividends.

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The most common use for the term is when describing bonds or a bond fund. In this case the yield is made up of the coupons or interest payments on the bond plus any expected change in its value up to maturity.

In order to calculate the yield on a bond therefore one must not only know the coupons payable but also the current price of the bond and its expected price at maturity.

# Zero Coupon Bond

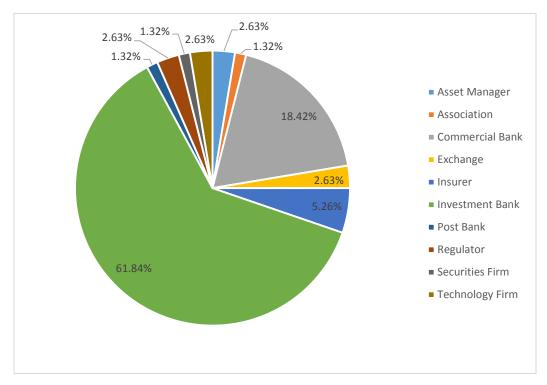
A zero coupon bond is a bond that pays no coupons or periodic interest payments. The price of such a bond is therefore at a discount to its final maturity value.

# **Survey Respondent Demographics**

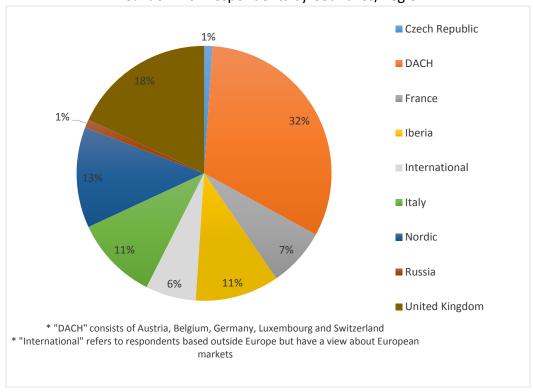
A total of 77 respondents were sampled from SRP's internal user database and interviewed by phone between December 2014 and January 2015. The sample consists of industry professionals whose job directly or indirectly relates to structured products, drawn from a pool of institutions including asset managers, commercial banks, insurers, investment banks, post banks, regulators, securities houses and technology firms. Investment banks have the largest weightings in this survey (61.8%) due to their wider scope of business operations and more comprehensive views on the subject matter. Adjustments are made and contacts reconfirmed where appropriate to eliminate numerical errors, ambiguity of statements, and invalid responses.

The survey contains some open-ended questions that are intended to capture more in-depth market insights and opinions on a voluntary basis and as such do not require compulsory responses. Also, for certain questions respondents are allowed to choose more than one answer. Therefore, the number of responses to each question does not necessarily add up to the same figure

# Breakdown of Respondents by Company Type



# Breakdown of Respondents by Countries/Region



# SRP

# **About SRP**

This report, written by research firm Structured Retail Products (SRP), is based on both quantitative and qualitative data and analysis. In addition to drawing on their proprietary data, SRP surveyed structured products professionals in Europe in December 2014, collecting over 75 validated responses and perspectives on prospects of the market. 62% of respondents represented structured product issuers, including 8 out of the top 10 most active issuers by volume in Europe in 2014.

This research paper covers the top 10 European markets, namely Belgium, France, Germany, Italy, Portugal, Spain, Sweden, Switzerland, the Netherlands and the UK.

Structured Retail Products Ltd (SRP), part of the Euromoney group, is a research firm based in London, New York and Hong Kong, providing intelligence for the global structured products industry. Clients include hundreds of blue chip companies from around the world, including all of the major global financial services groups, financial regulators, stock exchanges, index providers and professional services firms. SRP owns and maintains the specialist industry website <a href="StructuredRetailProducts.com">StructuredRetailProducts.com</a>, which is used by financial regulators, index providers, investment banks, stock exchanges, retail banks, insurance companies, asset and wealth managers, consultants, lawyers and other firms involved in the market.

SRP's dynamic online database of structured products (the most comprehensive in the world) contains over 9.5 million individual product listings from 2806 companies, representing total sales of over \$8 trillion. SRP's product and market data spans over 16 years across 41 different countries and is supplemented by extensive independent analysis, daily news, people moves and exclusive interviews from key figures within the structured products space.



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For more information readers are directed to part 2 of this study, which includes an overview of the European structured product market and can be downloaded at www.optionseducation.org/structured retail products 2015.html.