New Prospects, Countless Possibilities

Structured Products on the Swiss Stock Exchange

EXCHANGE SERVICES

Discover Fascinating Diversity

As one of Europe’s most important stock exchanges, SIX offers a solid foundation for trading structured products thanks to maximum transparency, efficiency and dependability.

The Swiss stock exchange is characterized by a high level of investor protection, active market control and a fully electronic trading system. It trades only in products that have passed through the regulated SIX Exchange Regulation listing process and that satisfy clear requirements for the protection of investors. The regulated market ensures that processing is both orderly and also transparent and efficient.

This is because in-depth knowledge and a clear market opinion are just as important for successful investments as good trading conditions, and are a sound basis for decision-making.

SIX allows the flexible and precise use of structured products to fulfill individual investment and diversification requirements, whether pro-risk, defensive or against the current.

Benefits for Investors and Issuers

Trading in structured products on the platform of SIX offers many advantages for investors and issuers.

Advantages for Investors

Transparent & binding: The exchange provides full pre- and post-trade transparency – which promotes comparability of the products offered – and binding prices. Continuous pricing enables the calculation of the value of a structured product on every trading day throughout its lifecycle. Unlike OTC (over-the-counter) trading, smaller transactions can also be carried out at low cost on SIX.

Secure & in line with the market: Trading in structured products is subject to strict regulations. Proactive market monitoring checks all trades in real time to ensure they are in line with the market.

Comparable & efficient: Free competition among issuers ensures comparability and an efficient market. Thanks to quote quality metrics (QQM), investors can check the quality of pricing and the market maker in general. All on-exchange trades are cleared automatically using standardized processes. Buy and sell orders leading to a deal are carried out in a fraction of a second.

Advantages for Issuers

Large audience: Issuers of structured products reach a large audience through exchange trading. They expand their distribution channel on the exchange.

Created today, traded tomorrow: Thanks to the automation of the value chain, a product created on an issuer platform can be traded on the exchange the very next day. This makes it possible to invest in short-term market expectations and react to trends at an early stage.

A Unique Universe

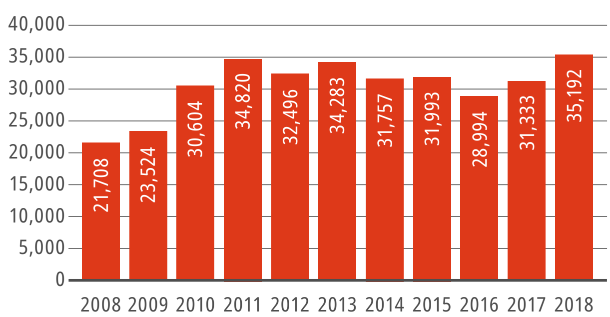
The world of structured products offers an unparalleled wealth of possibilities. It is this unique diversity that makes structured products so popular among investors.

Unlike other investment classes, depending on their type and features, structured products can reflect not just any market view, but also any risk profile. While, for example, buying shares directly is profitable only when prices rise, structured products can also generate attractive returns when prices track sideways or decline (such sideways products include barrier reverse convertibles, discount certificates, and bonus certificates).

If the investor has formed a market view, risk propensity and therefore the right product type have to be determined. Conservative or risk-averse investors are more likely to opt for capital protection products. However, pro-risk market participants can benefit disproportionately from rising or falling prices by using leverage products.

A further advantage of structured products is that they do not just allow investment in equities or equity indices worldwide, but also in commodities, property, currencies, interest rates, dividends, or credit spreads (company-specific risk premiums, indicators for credit quality) in addition to trends and themes. They therefore open up asset classes and new markets for private investors that were mainly reserved for institutional investors in the past, or that could be accessed only with difficulty.

Number of Tradable Structured Products



Source: SIX, as at the end of the respective year.

And finally, their high liquidity is a factor favoring structured products. Even in times of turbulence, the market for structured products proved to have excellent liquidity. By contrast, trading in other investments was at times only limited or not possible at all.

Market Report

In the market report we provide you with comprehensive information on the Swiss market for structured products. Find out all about trading volumes, top products and new issues each month.

Market Report Express

From the second trading day, details of the key developments on the market for structured products can be found in an Excel file in the market report express.

Structured Products Strategy Indices

The Structured Products Strategy Indices by SIX offer investors a unique opportunity for comparison. Each of the three strategy indices enable a performance comparison of an individual product with the indexed average in the respective investment category. You can find the updated composition of the indices (product details) and current prices for the three strategy indices SSPP®, SSPY® and SSPC® on our website.

Swiss Derivative Map©

Everything at a glance: The Swiss Derivative Map categorizes the most important investment and leverage products with a brief description and a payment profile.

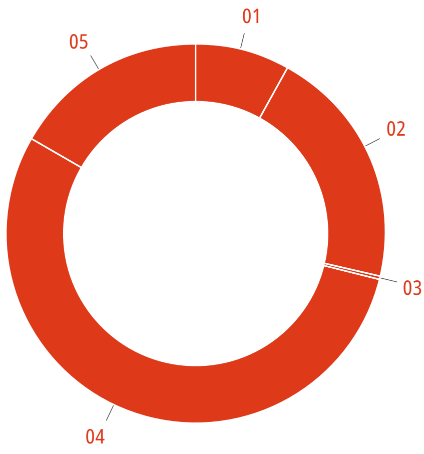
All publications and newsletters can be ordered free of charge at: six-structured-products.com/service

A Lot of Movement for Pro-Risk Investors

Leverage products are suitable for pro-risk investors who have been following events on the financial markets for some time, and who already have experience in trading equities or investment products.

Leverage products have a disproportionately high response to price changes in an underlying. The leverage effect makes it possible to achieve high percentage profits on even a low capital stake. However, the leverage also works in the opposite direction. If an investor's market expectations are wrong, this can quickly lead to heavy losses – even to the total loss of the capital invested. However, leverage products are not just suitable for speculation, they are also a popular and important instrument for hedging.

Tradable Leverage Products by Subcategory



01	1,632	Constant Leverage Certificate
02	4,135	Mini-Future
03	45	Miscellaneous Leverage Certificates
04	10,915	Warrant
05	3,343	Warrant with Knock-out

Source: SIX, as at 31.12.2018

Warrants

Warrants are classic leverage products. They allow a disproportionately high participation in rising (call) or falling (put) prices on an underlying.

Warrants embody the right, but not the obligation, to buy (call) or sell (put) an equity or other underlying at a previously agreed price. If the price of the underlying for a call/put is above/below the strike price (also known as the exercise price) on the expiry date, the warrant has an intrinsic value, which is reimbursed to investors. During its term, the time value must also be added to the intrinsic value. The time value is a premium that the buyer pays for the chance that the underlying develops as he expects. The amount of the time value therefore depends in particular on the expected volatility of the underlying and the remaining term of the warrant.

Market View and Characteristics

- Warrants are suitable for pro-risk investors who want to speculate with leverage for a short-term period on rising (call) or falling (put) prices for an underlying. They are also suitable for hedging.
- The price of a warrant consists of its intrinsic value and its time value.
- The time value is dependent on various factors (including implied volatility, term, interest rate) and reduces completely to zero by the time of expiry (daily loss of time value).
- Warrants have a fixed term. As a result, they are not affected by events that may cause the product to expire early.

Example

An investor wishes to speculate on the rising price of an equity with leverage using a call warrant. At the time of purchase, the equity is trading at CHF 50. The strike price on the call is CHF 45 and the ratio is 1. The intrinsic value of the warrant is thus CHF 5 (50 minus 45). However, the price that the investor actually has to pay for the call is CHF 8. The time value of the call in excess of the intrinsic value is therefore CHF 3 (8 minus 5). How will the price of the call develop given the (theoretical) assumption that the time value remains unchanged?

Scenarios

Price of equity rises from CHF 50 to CHF 55 (+10%)	→	Call rises from CHF 8 to CHF 13 (+62.5%)	(CHF 10 intrinsic value + CHF 3 time value)
Price of equity rises from CHF 50 to CHF 52 (+4%)	→	Call rises from CHF 8 to CHF 10 (+25%)	(CHF 7 intrinsic value + CHF 3 time value)
Price of equity falls from CHF 50 to CHF 48 (–4%)	→	Call falls from CHF 8 to CHF 6 (–25%)	(CHF 3 intrinsic value + CHF 3 time value)
Price of equity falls from CHF 50 to CHF 45 (–10%)	→	Call falls from CHF 8 to CHF 3 (–62.5%)	(CHF 0 intrinsic value + CHF 3 time value)

Warrants with Knock-Out

Depending on the variant, knock-out warrants on rising (knock-out call) or falling prices (knock-out put) can be speculated on. They differ from classic warrants on account of their knock-out barrier.

If knock-out warrants breach or exceed the knockout barrier, they expire with no value. The barrier of a knock-out call is below the price of the underlying, the barrier of a knock-out put is above the price of the underlying. The advantage compared to classic warrants is that knock-out warrants consist almost entirely of their intrinsic value. They therefore cost less and have a greater leverage effect. Moreover, their value develops virtually one-to-one with that of the underlying (delta of almost 1). Volatility barely plays a role. This makes them transparent and effective. The price of this is a higher risk in the form of a knock-out event.

Market View and Characteristics

- Knock-out warrants are suitable for speculative investors who favor high leverage.
- Knock-out warrants are characterized by transparent price determination. They consist almost entirely of their intrinsic value. In addition, there is a low premium in the form of financing costs.
- Knock-out warrants immediately expire with no value if the underlying breaches the knock-out barrier.
- The knock-out barrier is usually identical to the strike.
- Minor influence of volatility on price.

Example

An equity is currently listed at CHF 50. A knock-out call on the equity with a barrier of CHF 45 would cost CHF 5 (not including financing costs and with a ratio of 1). If the equity now rises by 1% to CHF 50.50, the knock-out call would be worth CHF 5.50 (up 10%). However, if the equity falls to CHF 45, the knock-out call would immediately expire with no value. The rule of thumb is that the closer the strike (i.e. the knock-out barrier) to the equity price, the higher the leverage, but also the greater the risk of a knock-out.

Scenarios

Initial situation	
Price of equity	CHF 50
→ Knock-out call barrier	CHF 45
→ Value of knock-out call* (strike price of equity)	CHF 5

Event: equity rises by 1%	
New equity price	CHF 50.50
→ Knock-out call barrier	CHF 45
→ Value of knock-out call*	CHF 5.50
Gain on equity: 1%; gain on knock-out call: 10%	
Leverage 10	

* Without premium, ratio: 1

Mini-Futures

Mini-futures work like knock-out warrants and share their advantages, but they also have a stop-loss limit. As a result, the residual value is repaid if a knock-out event occurs.

There are two features setting mini-futures apart from knock-out warrants: Firstly, the knock-out barrier is not the same as the strike. On a long mini-future (rising prices) the barrier is always above the strike and on a short mini-future (falling prices) it is always below the strike. The aim of this is that the residual value of the mini-future is usually paid out if a knock-out event occurs. The knock-out barrier is therefore also referred to as the stop-loss limit. Secondly, mini-futures do not have a limit on duration. The financing costs are therefore taken into account by a constant adjustment of the strike (also known as the financing level) and the stop-loss limit.

Market View and Characteristics

- Mini-futures are suitable for pro-risk investors who want to benefit with high leverage from rising or falling prices of an underlying. They are also suitable for portfolio hedging or for speculative purposes.
- Mini-futures have a stop-loss limit. If this is breached, the residual value is repaid immediately.
- Mini-futures have no limit on duration. Financing costs are factored in by adjusting the strike.
- Volatility has no influence on price.

Example

An investor anticipates rising prices on an equity and wishes to participate in this with leverage by using a mini-future (strike: CHF 45, stop-loss limit: CHF 47, ratio: 1). At an equity price of currently CHF 50, the mini-future costs CHF 5 (50 minus 45). After half a year, as a result of taking into account the financing costs, the strike has risen to CHF 45.10 and the stop-loss limit to CHF 47.10. What will be the price of the long mini-future after six months at the following prices for the underlying equity?

Scenarios in Six Months

Equity has risen from CHF 50 to CHF 51 (+2%)	→ Value of long mini-future: CHF 5.90 (+18%) (equity price CHF 51 – new strike CHF 45.10)
Equity unchanged at CHF 50 (±0%)	→ Value of long mini-future: CHF 4.90 (–2%) (equity price CHF 50 – new strike CHF 45.10)
Equity has fallen from CHF 50 to CHF 45 (–10%) → Long mini-future was stopped at CHF 47.10	→ Repayment at ≤ CHF 2.00 (–60%) (liquidation price – new strike CHF 45.10)

Constant Leverage Certificate

Constant leverage certificates belong to a more recent generation of leverage products that are particularly suitable for short-term investments in a trend.

Constant leverage certificates allow investors to leverage rising (long) or falling (short) prices. The selected leverage, which is constant on a daily basis, grants disproportionately high participation in price changes in the underlying. Unlike knock-out warrants and mini-futures, constant leverage certificates do not have a knock-out barrier. In addition, the implied volatility of the underlying does not influence their price. Furthermore, the products have an unlimited (open-ended) term and are not subject to a loss of time value. They are particularly suitable for investing in a short-term trend – a specific market view on the underlying is therefore essential.

Market View and Characteristics

- Constant leverage certificates are suitable for pro-risk investors who want to benefit from rising or falling prices, leveraging the daily performance of the chosen underlying.
- Ideal for short-term investment in the trend of an underlying. Not suitable for a sideways trend in the underlying.
- The implied volatility of the underlying does not influence the price.
- No knock-out barrier; an adjustment limit ensures that the products do not expire without value.
- No limit on term, financing costs are deducted from the value of the product pro rata.

Example

An investor expects the price of an underlying to rise. He buys a 3 x long constant leverage certificate on it and therefore participates in changes in the price of the underlying with a factor of 3. The following table shows the developments over 5 days.

Important: For a period of more than one day, the performance of the underlying cannot be simply multiplied by a factor of 3 as the previous day's price always forms the new basis of calculation for constant leverage certificates.

	Underlying X	% change in underlying	3 x long constant leverage certificate	% change in 3 x long constant leverage certificate
Initial Value	100		10	
Day 1	101.00	1.00	10.30	**3.00**
Day 2	100.50	–0.50	10.15	**–1.50**
Day 3	100.24	–0.25	10.07	**–0.75**
Day 4	101.00	0.75	10.30	**2.25**
Day 5	102.26	1.25	10.68	**3.75**
Total performance		**2.26**		**6.82**

Diversified Prospects

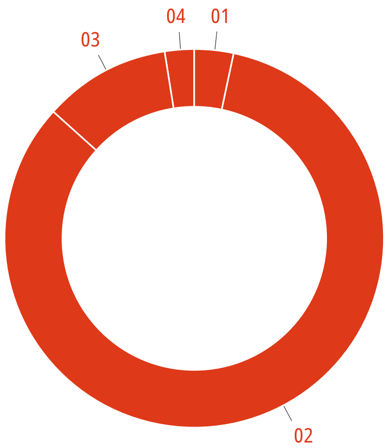
Although investment products cannot keep up with leverage products in terms of deals done or the number of tradable products, they still form the heart of structured products. They open up different investment strategies for more conservative investors.

An investor is looking for a product with which to enter the equities market that offers a safety buffer in the downward direction, but at the same time has no limits on how it profits from price increases, and that also offers an attractive return on sideways trends. Are there such financial products? Investment products include, for example, bonus certificates, which can offer just that under certain conditions.

The underlyings for investment products include equities, indices, currencies, commodities, actively or passively managed baskets or funds and interest instruments. Despite their many and varied uses, investment products per se are by no means riskier than a direct investment. On the contrary, investment products often have a risk buffer or even a capital guarantee. However, the buyer of a structured product also bears the issuer risk in addition to the market risk. To put it in plain English, if the issuer gets into economic difficulties, the capital invested is also at risk. However, in the COSI® segment, there are products secured with collateral and this risk is therefore minimized.

A further feature of structured products is that income from the underlying, such as dividends, is usually used by the issuer to finance its strategy.

Tradable Investment Products by Category



01	514	Capital Protection
02	12,605	Yield Enhancement
03	1,648	Participation
04	355	Investment Products with Reference Entities

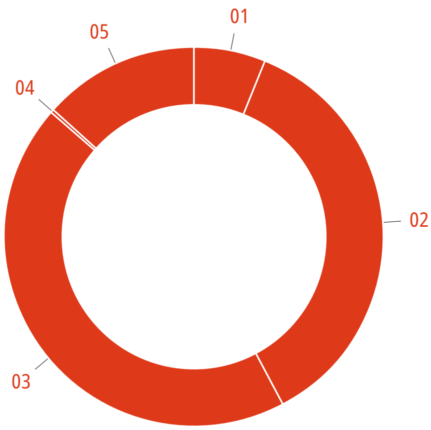
Source: SIX, as at 31.12.2018

Better Safe Than Sorry

Capital protection products fulfill the desire of many investors of getting a guarantee for the capital invested at the issue date.

With capital protection products, conservative investors in particular have the chance to profit from the opportunities of the equity markets or other investment classes at reduced market risk. Although the design of capital protection products can vary greatly in some cases, they usually have one thing in common: At the end of a set term, the investor receives a predefined minimum repayment of at least 90%. Capital protection products are particularly suitable for risk-averse investors who either want to participate in the positive performance of an underlying or secure for themselves the opportunity of a coupon above the market interest rate. However, one thing must be remembered: Capital protection products may rule out market risk, but not issuer risk – and that's where COSI® collateralization comes in.

Tradable Capital Protection Products by Subcategory



01	32	Barrier Capital Protection Certificate
02	186	Capital Protection Certificate with Coupon
03	227	Capital Protection Certificate with Participation
04	1	Convertible Certificate
05	68	Miscellaneous Capital Protection Certificates

Source: SIX, as at 31.12.2018

Capital Protection Products with Participation

In addition to the guaranteed repayment, capital protection products with participation guarantee participation in price increases by the underlying.

The capital protection is always based on the nominal value of the product. If a product is sold at above nominal value, the amount by which it exceeds this is not protected. The extent to which a product participates in rising prices is determined by the participation rate. The higher the costs of capital protection, the lower the participation rate – and vice versa. In order to achieve reasonable participation rates, it can happen that capital protection is less than 100% (but at least 90%). Capital protection does not take effect until maturity. The participation also only becomes effective on maturity. The product can therefore also be traded at less than the capital protection level during its term.

Market View and Characteristics

- Capital protection products are suitable for risk-averse investors who wish to participate in rising underlying prices without restriction.
- Repayment on the expiry date is at least in the amount of the capital protection.
- The value of the product can fall below the capital protection level during its term.
- The participation only takes effect on maturity.
- Any income from the underlying (e.g. dividends) is used to finance the strategy.

Example

An investor anticipates a rising Swiss equities market. However, he is risk-averse and would like to rule out the risk of loss by buying a capital protection product on the SMI®. The chosen product allows unlimited participation, offers capital protection of 100% and a participation rate of 80% on expiry. He buys the product at its issue price of CHF 100 (nominal). How high will the repayment be at the end of the term in three years if the SMI® has developed as follows by that time?

Scenarios in Six Months

The SMI® has risen by 80%	→ Repayment at CHF 164 CHF 100 + (CHF 100 x 80% index gain x 80% participation)
The SMI® has risen by 20%	→ Repayment at CHF 116 CHF 100 + (CHF 100 x 20% index gain x 80% participation)
The SMI® is quoted at its starting level	→ Repayment at CHF 100
The SMI® has fallen by 50%	→ Repayment at CHF 100 Capital protection kicks in (100% of nominal)

Capital Protection Products with Coupon

In addition to repayment, capital protection products with a coupon guarantee certain interest payments during their term. The amount of interest payments is wholly or partially dependent on the price performance of the underlying.

Capital protection products with a coupon are very similar to a fixed-rate investment (bond). The charm of these products is that they have a coupon that is usually above the current interest level. However, a requirement for the payment of the coupon is that an underlying meets certain criteria. For example, it can be agreed that the coupon is paid out in full only if an equity index is quoted at or above a certain level on certain observation dates. In another variant, the amount of the coupon is directly calculated from the performance of one or more underlyings. There are no limits to how these products can be designed. In certain cases, it is agreed that a minimum coupon is also guaranteed to be paid regardless of the development of an underlying. This minimum coupon can be fixed or it can be based on money market rates such as the three-month LIBOR.

Market View and Characteristics

- Capital protection products with coupon are suitable for conservative investors who wish to generate a yield above the market interest rate.
- The amount of the coupon is normally dependent on the development of one or more underlyings. Payments are usually made annually.
- They pay out on maturity at 100% of the nominal.
- Depending on the variant, a minimum coupon can guarantee a minimum interest rate.
- Any income from the underlying is used to finance the coupon.

Example

The capital protection product pays a coupon annually depending on the performance of the SMI®. If the index is at least at its starting level on the annual reference dates, the coupon is 4%. If the index is up on its starting level by at least 10%, the coupon increases to 6%. If the index gains 20% or more, the coupon is 8%. However, if the SMI® is in negative territory, a minimum coupon of 1% is paid. What coupon payments can an investor expect after the first year given the following index performance?

Scenarios

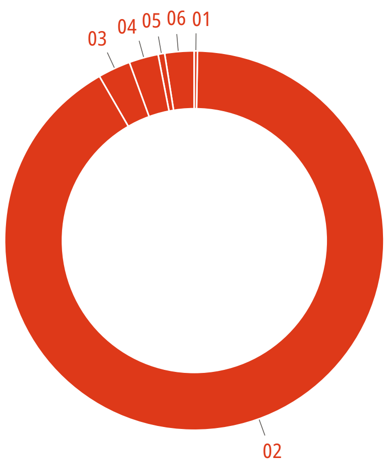
The SMI® has risen by 50%	→ Coupon payment of 8% of the nominal (maximum coupon)
The SMI® has risen by 15%	→ Coupon payment of 6% of the nominal
The SMI® has risen by 8%	→ Coupon payment of 4% of the nominal
The SMI® is quoted at its starting level	→ Coupon payment of 4% of the nominal
The SMI® has fallen by 30%	→ Coupon payment of 1% of the nominal

Options for Individual Strategies

Yield enhancement products offer attractive yield opportunities on slightly positive, slightly negative or sideways trending markets.

Among the most popular yield enhancement products are barrier reverse convertibles, which have a fixed coupon and a safety buffer – consisting of the difference in value between the price of the underlying and the barrier. The original form of this product category, reverse convertibles, has been largely pushed aside by the barrier variant. Among other things, this is because reverse convertibles do not have a safety buffer at the time of issue. The yield enhancement product category also includes discount certificates, with which an underlying can be acquired at a discount, and express certificates (callable/auto-callable), which come with the possibility of early repayment.

Tradable Yield Enhancement Products by Subcategory



01	62	Barrier Discount Certificate
02	11,525	Barrier Reverse Convertible
03	332	Discount Certificate
04	309	Express Certificate
05	83	Miscellaneous Yield Enhancement Certificates
06	294	Reverse Convertible

Source: SIX, as at 31.12.2018

Barrier Reverse Convertibles

Barrier reverse convertibles come with a coupon, have a safety buffer, and are easy to understand.

Barrier reverse convertibles are bonds with a coupon where repayment is dependent on the price of the underlying during the term and on maturity. Their success is decided by the barrier, which is usually well below the nominal of 100%. If the underlying trades above the barrier during the term, the investor is repaid the nominal of 100% on maturity. If the price is below the barrier during the term, the corresponding value of the underlying (maximum nominal) is repaid on maturity. The multi-barrier reverse convertibles variant has multiple underlyings. The coupon is paid out regardless of the performance of the underlying.

Market View and Characteristics

- Suitable for phases of stagnant, slightly rising or moderately falling prices.
- Barrier reverse convertibles have a guaranteed coupon that is paid out regardless of the development of the underlying.
- The maximum profit potential is capped at the amount of the coupon.
- The repayment of a barrier reverse convertible is dependent on the performance of the underlying.
- If the underlying trades above the barrier during its term, the nominal is repaid. Otherwise repayment is in line with the price of the underlying or the underlying is redeemed.

Example

- Strike price: 100%
- Barrier: 60%
- Coupon: 8% (1-year term)

If the barrier is not breached during the term, the product is repaid at a maximum of 100% of the nominal. If the underlying trades at or below the barrier once during the term, the underlying or a cash amount is redeemed depending on the performance of the underlying on expiry. Regardless of this, the investor receives the coupon of 8%.

Scenarios

Price of equity always above 60% during term	→ Repayment: 100% nominal + 8% coupon	Profit: 8%
Equity trading 20% up on maturity and never below 60% during term (barrier not breached)	→ Repayment: 100% nominal + 8% coupon	Profit: 8%
Price of equity falls by 45% once and trades at 101% on maturity	→ Repayment: 100% nominal + 8% coupon	Profit: 8%
Price of equity falls by 45% once and trades at 98% on maturity	→ Repayment: Delivery of a number of underlyings defined in advance + 8% coupon	Profit: 6%

Discount Certificates

Discount certificates make it possible to buy an underlying with a discount – hence their name. In return, the maximum profit amount is capped.

Discount certificates enable investors to buy an underlying at a discount. The investor therefore receives the certificate at a price less than the current price of the underlying. In return, the maximum potential profit on a discount certificate is capped. The lower the cap, the bigger the discount. Discount certificates usually have a term of one to three years. When they mature, it is checked where the price of the underlying stands. If the underlying is trading at or above this cap, the investor generates the maximum potential profit and the cap is paid out. If the price of the equity on the reference date is below the cap, the equity is usually redeemed to the investor's security account.

Market View and Characteristics

- Buyers of discount certificates expect markets to track sideways.
- An underlying can be acquired with a discount using a discount certificate.
- Discount certificates do not profit from price gains above the cap. Repayment is therefore limited.
- Discount certificates can also generate attractive yields on sideways developments.
- Depending on the amount of the cap, it is either a defensive discount certificate (low cap) or an offensive one (cap above price of underlying).
- Any dividends are used to finance the discount.

Example

- Price of discount certificate: CHF 50
- Price of underlying (equity): CHF 55
- Cap: CHF 55

With this discount certificate (ratio: 1), the equity can be bought at CHF 50 or a discount of 9.1%. At the same time, the profit is capped at CHF 55. If the equity trades at or above the cap (CHF 55) on maturity, the maximum yield of 10% will be paid out, as repayment in this case is at CHF 55. The investor will experience a loss on an equity price of less than CHF 50.

Scenarios on Maturity

Price of equity continues to rise to CHF 66 (+20%)	→ Maximum payment of CHF 55	Profit: 10%
Price of equity has not changed, tracked sideways (±0%)	→ Maximum payment of CHF 55	Profit: 10%
Price of equity falls to CHF 52 (–5.5%)	→ Payment of CHF 52	Profit: 4%
Price of equity falls to CHF 47 (–14.5%)	→ Payment of CHF 47	Loss: 6%

Express Certificates

Express certificates offer the opportunity for an attractive yield even after just a short time thanks to a higher coupon.

If the underlying is trading at or above a certain price level on a certain observation date, the certificate matures prematurely. This means that the investor would receive repayment early in such an event. If the underlying is trading below the set price level on the observation date, the certificate continues to run until the next observation date. If the necessary price limit is not achieved on any of the observation dates, the investor usually gets the issue price back, provided that the underlying did not at any time drop below the barrier stipulated in advance. As a result of early repayments, express certificates have a higher p.a. coupon.

Market View and Characteristics

- Buyers of express certificates should have a moderately positive market view.
- Express certificates offer an attractive yield with a relatively short term. However, the potential profits are capped.
- If the underlying trades at or above the barrier on a reference date, the certificate matures early and the nominal plus coupon are paid out.
- If the certificate does not mature early on the first measurement date, the term is usually extended by another period (as at the next measurement date).
- If the underlying trades below the barrier on the final measurement date, repayment is as defined in the terms of the product.

Example

- Strike: CHF 100
- Coupon: 8% per year
- Barrier: CHF 70
- Maximum term: 2 years
- Observation dates: annual

An express certificate, referencing an equity index, begins at a strike price of CHF 100. On the first reference date, the underlying is trading at CHF 90. The certificate runs for another year. On the second reference date, the underlying is at CHF 110. The certificate therefore matures and is repaid at CHF 116 (nominal plus two coupons).

Scenarios

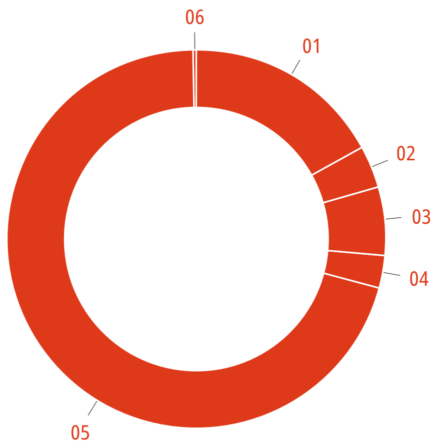
Price of index on first measurement date is CHF 101	→ Payment: CHF 100 nominal + CHF 8 coupon	Profit: 8%
Price of index on first measurement date is CHF 95	→ No payment: Certificate runs another year	
Price of index on second (final) measurement date is CHF 101	→ Payment: Nominal + CHF 16 coupon	Profit: 16%
Price of index on final measurement date is CHF 90	→ Payment: Nominal of CHF 100, no coupon	Profit: 0%
Price of index on final measurement date is CHF 69	→ Payment: As per underlying	Loss: 31%

Flexible in Every Direction

Participation products replicate the performance of the underlying as accurately as possible, enabling to invest small capital cost-efficiently in a diversified investment.

Alongside yield enhancement products, participation products are the most important group within investment products. This is mainly due to the popularity of tracker certificates, which are easy to understand. Participation products match the development in an index or basket (such as an equity index or a commodity basket) one-to-one – up and down. This makes them very transparent. Given their simple structure, they can usually also be offered at low cost. Outperformance certificates are additionally equipped with a leverage. Twinwin certificates can profit from both rising and falling prices. By contrast, bonus certificates can still generate attractive yields even on sideways markets. They also have a risk buffer and can share in price increases without restriction.

Tradable Participation Products by Subcategory



01	280	Bonus Certificate
02	59	Bonus Outperformance Certificate
03	99	Miscellaneous Participation Certificates
04	43	Outperformance Certificate
05	1,164	Tracker Certificate
06	3	Twin-Win Certificate

Source: SIX, as at 31.12.2018

Tracker Certificates

Tracker certificates are highly transparent and therefore easy to understand as well. They match the changes in the underlying one-to-one.

Theoretically, tracker certificates have unlimited profit potential, but there is a corresponding risk of loss which may result in a total loss if the price of the underlying falls. Given their simple construction, trackers are usually very low cost and can serve as an alternative to an equity fund investment if the underlying is, for example, a broad market index. Many trackers are open ended. If they have a "quanto", trackers are also currency-hedged, which can have a risk-reducing effect on an index or basket of international equities. The price of a tracker is controlled by the ratio. A ratio of 1:100 (or 0.01) means that the investor needs 100 certificates to buy the full index. Tracker certificates are available in long and short variants. They speculate on rising or falling prices.

Market View and Characteristics

- Buyers of tracker certificates should have a positive market view.
- Tracker certificates match the changes in the underlying one-to-one.
- Theoretically, tracker certificates have unlimited profit potential, but they also entail the risk of a total loss.
- Tracker certificates that refer to a price index do not include the dividends. These are automatically included on performance indices.
- Quanto tracker certificates are protected against currency fluctuations, which may have a risk-reducing effect.

Example

A tracker certificate for a price index has a ratio of 1:100 or 0.01. With an index at 6,700 points, the tracker would cost around CHF 67, regardless of the spread (difference between buy and sell prices). Investors can therefore invest in a diversified portfolio such as an index even with a relatively small investment amount. If the index rises to 7,000 points, the price of the tracker would increase to around CHF 70.

Scenarios

Price of index rises to 7,000 points (+4.5%)	→ Price of tracker increases to around CHF 70	Profit: 4.5%
Price of index remains unchanged net – sideways trend (±0%)	→ The price of the tracker remains constant at CHF 67	Profit: 0%
Price of index falls to 6,000 points (–10.5%)	→ Price of tracker drops to CHF 60	Loss: 10.5%
Price of index initially falls to 5,000 and then rises back to 6,900 points (+3%)	→ Price of tracker increases to around CHF 69	Profit: 3%

Bonus Certificates

Bonus certificates, put simply, are participation products with a risk buffer. But bonus certificates can do more.

By paying the bonus amount, bonus certificates can still generate attractive yields even on underlyings moving sideways or falling slightly. The only requirement is that they never breach the barrier. The dividends on the underlying are usually not paid to the investors for bonus certificates, and are instead usually used by issuers to finance the product. Generally, the higher the expected dividend on the underlying, the more advantageous the terms of the bonus certificate can be. Exchange- traded bonus certificates can have a premium compared to trackers on account of the bonus component. This is lost if they trade below the barrier. If this occurs, the losses can be higher than for a similar participation product.

Market View and Characteristics

- Buyers of bonus certificates should have a slightly positive market view.
- Bonus certificates without cap participate in the price performance of the underlying without restriction at the end of the term.
- If the barrier for a bonus certificate is not breached during its term, at least the bonus level is repaid.
- In the event of a barrier being breached, the bonus certificate transforms into a tracker certificate.
- Provided that the barrier is intact, bonus certificates come with partial protection.

Example

- Price of bonus certificate: CHF 52
- Price of underlying (equity): CHF 52
- Bonus level: CHF 60
- Barrier: CHF 42

The distance to the barrier (safety buffer) is 19.2%. The bonus yield (sideways yield) at the end of the term is 15.4%, provided that the price does not breach or fall below the barrier at any time during the term. If the barrier is breached, the bonus certificate transforms into a tracker certificate.

Scenarios

Price of equity continues to rise to CHF 60 (+15.4%)	→ Payment of bonus level of CHF 60	Profit: 15.4%
Price of equity rises to CHF 70 (+34.6%)	→ Payout of participation of CHF 70	Profit: 34.6%
Price of equity remains constant at CHF 52 (±0%)	→ Payment of bonus level of CHF 60	Profit: 15.4%
Price of equity falls to CHF 46 (–11.5%)	→ Payment of bonus level of CHF 60	Profit: 15.4%
Price of equity breaches barrier during term and closes at CHF 42	→ Payment in line with participation: CHF 42	Loss: 19%

Investment Products with Reference Entities

For products with reference entities, the investor accepts the risk of default of a third-party bond – opening up the possibility of more attractive payouts.

When buying investment products, the investor buys a bearer bond of the issuer, which therefore determines the product's probability of default – known as the credit or issuer risk. For products with reference entities, the investor accepts the additional risk of default of a reference entity. For investors, this means more attractive conditions in terms of the capital protection level, coupon, participation rate, etc. with an elevated credit risk.

In line with the investor's expectations for the market, investment products with reference entities can be bought as capital protection, yield enhancement or participation products. In practice, they usually come with the COSI® feature, which minimizes the issuer risk. Only the credit risk of the reference entity and the market risk of the chosen underlying remain. Attention should therefore always be paid to the credit quality and probability of default of the reference entity.

Market View and Characteristics

- The product is based on one or more reference entities.
- Repayment of the product is linked to the non-occurrence of a default by the issuer and reference entity.

Example

Most tradable products with reference entities are issued as barrier reverse convertibles. The only difference to the conventional barrier reverse convertible is the reference entity on which the product is based and the additional credit risk this entails.

- Strike price: 100%
- Barrier: 60%
- Coupon: 10% (1-year term)

If the barrier is not breached during the term and the reference entity does not default, the product is repaid at 100% of the nominal. If the underlying trades at or below the barrier at least once, either the underlying or a cash amount is redeemed at the end of the term depending on the price of the underlying. Regardless of the performance of the underlying, the investor receives the coupon of 10%. If the reference entity experiences a credit event, then the product expires – any remaining residual value is repaid on recovery.

Scenarios on Maturity

As for the barrier reverse convertible on page 15, but with a coupon of 10%. In addition, the following scenario is also possible:

→ The product expires (on or before maturity) if the reference entity experiences a credit event and an amount to be specified as a result of the credit event is repaid early.

COSI®

COSI® are structured products that have minimal issuer risk thanks to collateral. Investors therefore benefit from the greater protection of their invested capital.

In order to make structured products flexible while at the same time offering them at low cost, they are issued in the legal form of bearer bonds. These are effectively corporate bonds of the issuer and have the disadvantage that investors in structured products have to accept the issuer risk in addition to market risk. If the issuer experiences financial difficulties during the term of the structured product, this can mean the loss of the capital invested by the investor. The extent of this risk is essentially up to the credit quality (solvency) of the issuer.

COSI® offers the opportunity to minimize issuer risk. To do this, the issuer of a structured product or the collateral provider places collateral with SIX SIS AG in the form of securities. SIX SIS AG then ensures that the collateral provided is at least of equal value to the products issued. These certificates, which are traded on the Swiss Exchange, are referred to as collateral secured instruments, or "COSI®" for short. Thanks to the minimized issuer risk, even security-oriented investors can benefit in this way from the many payment profiles of structured products.

Worth mentioning in particular is the combination of COSI® products and investment products with reference entities. This allows investors to choose the credit risk of a reference entity while at the same time minimizing issuer risk. In practice, certificates with reference entities are therefore now almost always issued as COSI® products.

Investors who want detailed information on how exactly COSI® products work, what their benefits are and which aspects have to be considered can find all the information at: six-structured-products.com/cosi-certificates

Glossary

Here you will find a brief explanation of the most important terms in the world of structured products.

Underlying
The underlying is the financial instrument on which a structured product is based. Possible underlyings are equities, equity baskets, indices, currencies, commodities, bonds or futures.

Barrier
Certain structured products have a barrier or price limit. If this is breached by the underlying, the payment profile changes to the disadvantage of the investor.

Cap
Some structured products have a cap. This limits an investor’s profit potential.

Discount
The discount is the reduction in price compared to a direct investment in the underlying.

Issuer risk
Default risk of the obligor (issuer). Criteria for assessing the credit quality of an issuer are ratings or credit default swaps (CDS).

Nominal
The nominal is the amount of the receivable stated on a security.

OTC
Structured products are traded either on an exchange or over-the-counter (off-exchange). Rather than being traded on an exchange, OTC transactions are agreed and settled individually between two market participants.

Quanto
Structured products with a quanto (quantity adjusting option) are hedged against currency changes. The exchange rate risk is eliminated.

Ratio
The ratio expresses how many units of an underlying a structured product relates to. A ratio of e.g. 0.1 is equal to a tenth of the underlying. This can also be expressed inversely, showing how many structured products are needed for one unit of the underlying. In the above example, this would be 10:1.

Bonds
Bonds are securities for which the issuer undertakes in a certificate to provide a certain performance.

Sideways yield
The sideways yield describes the percentage income of a product if the underlying tracks sideways.

Safety buffer
The safety buffer is the difference between the underlying's current value and the barrier.

Spread
The spread quantifies the difference between the buy and sell prices of a product. It is a component of cost.

Strike
The strike is the price at which an investor is permitted to buy or sell the underlying.

This glossary offers only a small insight into the world of structured products along with its specialist terms. Further explanations of terms can be found on our website at: six-structured-products.com/glossary

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