



## Leverage products – warrants and knock-outs

Electronic trading.  
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## Growing stronger for you

### **Scoach® – the European exchange for structured products**

The SIX Swiss Exchange (formerly SWX Group) and Deutsche Börse AG are harnessing their synergies in the market for structured products. Scoach is building on the joint experience and success story of Eurex and index-provider STOXX, pooling both companies' strengths and bringing together Europe's largest and oldest derivative markets.

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Xetra is one of the world's most powerful trading systems for securities trading. More than 250 members from 18 countries enter their orders into the system. In peak times, Xetra processes in excess of 1.3 million trades per day. At the same time, Xetra facilitates the trading of German and international equities as well as Exchange Traded Funds (ETFs) and Exchange Traded Commodities (ETCs).

### **Scoach guarantees**

Scoach offers you a vast product selection and maximum liquidity. Real-time push quotes ensure optimal transparency. The use of Xetra makes Scoach Europe's fastest and most modern market place for structured products.

### **We scoach you**

Our Scoach seminars and events will prepare you for trading certificates and leverage products. This will enable you to find the right investment suited to your personal profile. For more information on our seminars please visit our website [www.scoach.com](http://www.scoach.com).

### **Scoach in Europe**

The new exchange operates trading facilities for Germany and all EU countries in Frankfurt as well as for Switzerland in Zurich.



## Leverage products – are you ready?

Have you been following the financial markets for a while? Do you already have some investment experience with shares or investment products? Have you learned from your mistakes and are your emotions under control? Would you like to benefit from rising as well as falling prices? Are you willing to take some risks?

With this brochure we would like to give you a brief overview of instruments that open up new possibilities in the financial markets for you. They are suitable for both hedging your portfolio and for speculation purposes. We will show you how to evaluate and trade the products along with the risks that are associated with them. Are you ready? Welcome to the world of leverage products!



## Leverage effect

Leverage products magnify the price movements of a defined underlying asset. Underlying assets are mainly shares, indices, currencies and commodities. The leverage effect makes it possible to achieve outsized gains even with a low capital investment. However, the leverage also works in the opposite direction. If the investor's market expectation turns out incorrect, high losses including a total loss of the invested capital may occur. Depending on the product type, leverage products benefit from rising or falling prices. Products whose value rises when prices are falling can also be used to hedge securities depots against a drop in prices. Leverage products can be traded as easily as shares or bonds. The Scoach Premium Quality Standard applied by Scoach at the Frankfurt Stock Exchange guarantees the highest standard of trading with leverage products, certificates and reverse convertibles.

## Warrants or knock-out products?

There are various versions of leverage products. However, most investors will only ever deal with the two most important product types: Warrants and knock-out products. In this brochure we would like to introduce both products to you.

- Warrants have been firmly established in the German securities landscape for a long time. The prices of warrants are primarily influenced by the performance of the underlying asset. In addition, other factors also influence a warrant's price, in particular the underlying asset's volatility. The pricing of warrants is therefore only comprehensible to investors if they have understood the impact of the volatility.
- Knock-out products have been around for several years but have become very popular within a short period of time. As opposed to warrants volatility plays only a minor role or no role at all here. Investors can more easily comprehend the price formation. The leverage effect of a knock-out product is often even slightly higher than that of a comparable warrant. However, trading with knock-out products carries an additional risk: If the underlying asset falls below or rises above a certain price level, the knock-out instrument matures immediately. If such a knock-out event occurs, the product becomes worthless or a residual value is paid out to the investor.

There are both warrants and knock-out products that benefit from rising or falling prices:

- Call warrants increase in value when the underlying asset's price is rising. The corresponding product type in the knock-out products is often referred to as knock-out call or turbo call.
- Put warrants benefit when the price of the underlying asset falls. This type of knock-out product is identified as knock-out put or turbo put.

## Warrants

### A culinary excursion

A warrant's functionality can be explained most easily based on an example from an entirely different area of life we are all familiar with.

Imagine there is an outstanding Italian restaurant in your neighbourhood and you are one of its most loyal patrons. One day the restaurant owner hands you a couple of vouchers for a € 5 dinner to express his thanks. The vouchers are valid for two years. The current price for a dinner is € 7. As you would save € 2 when using a voucher, every voucher is worth € 2. Let us call this value the "intrinsic value".

Half a year later the restaurant needs to increase its prices. Increasing labour costs and higher electricity rates leave the owner with no other choice. Now a dinner costs € 8. Therefore the price has increased by approximately 14%. However, with a voucher you can still enjoy a dinner for € 5. Thus, a voucher's intrinsic value now amounts to at least € 3. The voucher's value has consequently risen by 50%, which is significantly more than the value of a dinner. The voucher reacts to the price change with a sort of "leverage effect". Imagine a dinner would suddenly cost only € 5. This would render the vouchers worthless, at least for the time being, as they offer no advantage compared to the direct purchase. Would you nevertheless simply throw away the vouchers? Probably not, as there is still the possibility that the price for a meal rises again during the vouchers' validity period, which would result in the vouchers becoming valuable again.

Therefore the vouchers consist not only of an intrinsic value, but also have a time value. This time value expresses the probability of a voucher's value increasing before the end of the validity period.

### The functionality of call warrants

If you have understood the example with the voucher, you will have no problems comprehending warrants. What you have just learned is the basic principle of a call warrant.

A call warrant securitises the right to purchase a certain underlying asset at a fixed price in a certain quantity. Of course, an underlying asset is not a meal at your Italian restaurant but, for example, a certain share, a share index, a currency or a commodity.

For some warrants, the option right can only be exercised at the end of the term. This is referred to as a European option type. In case of the American option type, the option right can be exercised at any time before maturity. However, these designations have nothing to do with where the warrants are traded or the underlying asset's origin! Upon issue, the term of warrants is usually between several months and several years. At this point we ought to emphasise that the investor's intention when buying an option is rarely to actually exercise the option right and purchase the underlying asset. On the contrary, the investor's aim is to wait for the warrant to increase in price and then sell it again at a higher price. Exercising the option right does not usually make economic sense either: When exercising the option right you would always realise only the warrant's intrinsic value. The time value share is lost.



### An example

Let us consider the following call warrant:

Underlying asset: Siemens AG

Share price: € 75

Strike price: € 70

Ratio: 0.1

Term: 2 years

Warrant price: € 1.30

The ratio of 0.1 means that one warrant refers to 0.1 units of the underlying asset. Warrants often have a small ratio to avoid them becoming too expensive and to ensure they can still be divided into smaller denominations in the event of small investment amounts.

In our case, you could purchase one Siemens AG share at any point during the next two years with ten warrants at a price of € 70 (strike price), regardless of the current share price. It appears logical that this right increases in value the more the share's listed price increases. If the share was to rise to € 80, this warrant would be worth approximately € 1.62. Later on you can carry out such scenario calculations yourself with the help of the warrant calculator on our website. The warrant would subsequently increase by almost 25%, while the share increases by just under 7%.



### **Put warrants**

A put warrant securitises the right to sell a certain underlying asset at a fixed price in a certain quantity during a certain period of time. This right increases in value if the price of the underlying asset decreases. As a result, owners of put warrants benefit from falling prices.

### **No trades? No problem!**

Warrants are typically issued by large banks and securities trading houses. For all products listed in the Scoach Premium Quality Standard with Scoach at the Frankfurt Stock Exchange the issuers will continuously provide buying and selling quotes to ensure trading at all times, even if no trading has been recorded over longer periods of time.

### **Price-influencing factors**

A warrant's price is not only influenced by fluctuations in the underlying asset's price – certain additional factors also affect the value of a warrant. For the investor, volatility variations, meaning the underlying asset's margin of fluctuation, are vitally important. In addition, changes in interest rates and variations in expected dividend payments are relevant.

### **Historic and implied volatility**

One has to distinguish between the historic and the implied price volatility. The historic volatility indicates how strongly a financial instrument's price has fluctuated in the past. On the other hand, the implied volatility indicates the degree of fluctuation expected for a particular financial instrument in the future. If an underlying asset's implied volatility increases, this results in higher prices for the warrants. Why is that?

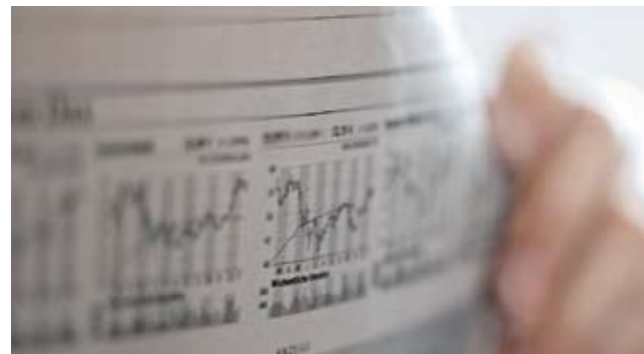


Warrants have an asymmetrical opportunity/risk profile. The maximum possible loss for the buyer is always limited to the invested capital, regardless of the underlying asset's fluctuations. On the other hand, the chances of profit with a warrant increase if the underlying asset fluctuates more and the price jumps become stronger. Therefore higher implied volatility leads to increasing prices for warrants.

However, the same also applies in reverse. A falling implied volatility leads to falling warrant prices and thus occasionally to unpleasant surprises for warrant investors who are not familiar with the influence of volatility.

In most cases this affects investors in call warrants. One can frequently observe that the implied volatilities decrease if prices increase and vice-versa. Even though rising share prices have a positive effect on call warrants, the falling implied volatility has an opposite effect. This results in smaller price increases than anticipated for the call warrant. In extreme cases the effect of the falling implied volatility can even offset the rising prices.

However, fluctuations in the implied volatility only influence a warrant's time value, as do interest rates and dividends. On the other hand, a warrant's intrinsic value is only determined by the difference between the underlying asset's price and the fixed strike price.



Therefore, the investor can clearly reduce the impact of volatility variations by purchasing warrants that are in the money, meaning warrants that already have a high intrinsic value.

At the same time, the implied volatility serves as a measure to determine how expensive a warrant is. If investors have the choice between several warrants with identical features, they should generally decide in favour of the one with the lowest implied volatility.

### Interest rates and dividends

The issuer of a warrant never speculates against the investor. In order to make a profit the issuer does not need to hope that the value of the warrant drops and the investor sustains a loss. On the contrary, the issuers protect themselves against price fluctuations of the warrant by buying and selling units of the underlying asset. Ideally, they are protected in such a way that their hedge position acts just like the value of the sold warrants. The hedging expires upon the investor selling the warrants back to the issuer.

However, because of the warrant's leverage effect the issuer requires significantly more capital than the investor to hedge sold calls. The issuer bills the investor for the interest on this capital, which is included in the warrant's price. Increasing interest rates therefore result in increasing call warrant prices. The reverse is true for puts. Here, the issuer sells underlying assets in order to protect himself. In return the issuer receives capital which can be invested in interest-bearing investment. Thus, increasing interest rates reduce the prices of put warrants. The influence of interest rate variations is generally so minimal that it is hardly perceived by the investor.

If the issuer holds shares as a hedging position, of course he also receives the dividend payouts. These additional gains reduce the price of call warrants and increase the price for puts. If the expected dividend changes, this influences the price of the warrants (see table). If a company unexpectedly announces a special dividend, this can lead to significantly falling prices of warrants on the company's share.

#### What happens if ...

##### ... the underlying asset increases in value?

Call warrant value	▲
Put warrant value	▼

##### ... the volatility increases?

Call warrant value	▲
Put warrant value	▲

##### ... the time to maturity decreases?

Call warrant value	▼
Put warrant value	▼

##### ... interest rates rise?

Call warrant value	▲
Put warrant value	▼



## Key figures

There are different key figures with which to assess warrants. In this brochure we would like to briefly introduce the most important ones to you. The calculation of some key figures will be shown in the following with the Siemens warrant mentioned earlier:

Underlying asset: Siemens AG

Share price: € 75

Strike price: € 70

Ratio: 0.1

Term: 2 years

Warrant price: € 1.30

## Intrinsic value

The intrinsic value is the value that the investor realises when exercising the option right immediately by buying or selling the underlying asset.

A warrant's intrinsic value can be calculated very easily. In our example of the Siemens call warrant, the intrinsic value is € 0.50, which is calculated as follows:

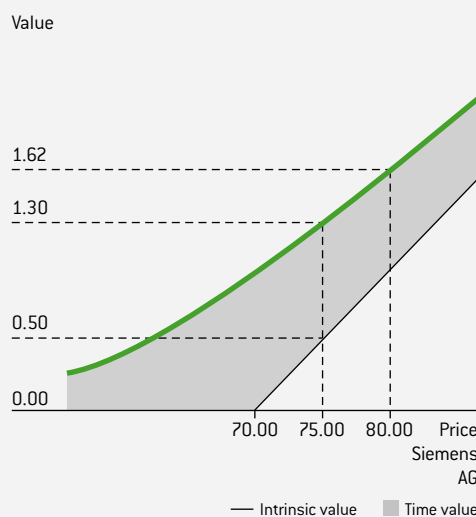
$$\begin{aligned} & \text{[Price of the underlying asset – strike price] x ratio} \\ & = (\text{€ } 75 - \text{€ } 70) \times 0.1 \\ & = \text{€ } 0.50 \end{aligned}$$

Calculation of the intrinsic value of a put warrant:

$$\text{[Strike price – price of the underlying asset] x ratio}$$

A warrant's intrinsic value can never become a negative value. If the underlying asset's price is at or below the strike price, a call's intrinsic value is 0. The warrant consists only of the time value. The intrinsic value of a put amounts to 0 if the underlying asset's price is at or above the strike price.

## Intrinsic value and time value of a call warrant



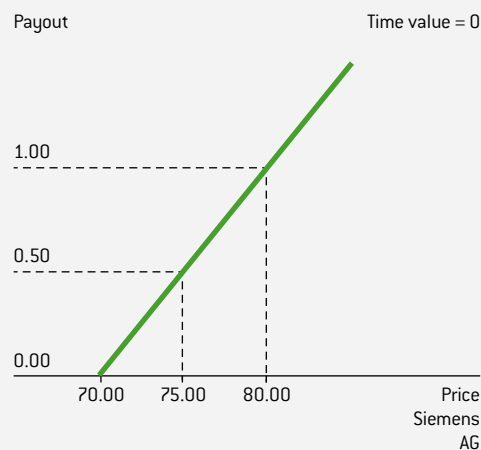
## Time value

If the intrinsic value of a warrant is known, the warrant's time value can also easily be calculated. For this purpose, the intrinsic value is deducted from the warrant's price. In our example, the time value is €0.80. It is calculated as follows:

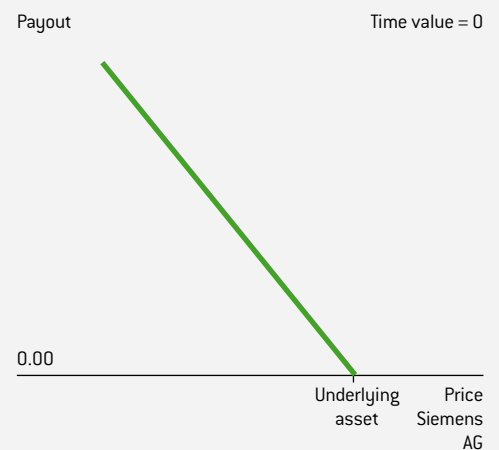
$$\begin{aligned} & \text{(Warrant price – intrinsic value)} \\ &= (\text{€ } 1.30 - \text{€ } 0.50) \\ &= \text{€ } 0,80 \end{aligned}$$

The time value gradually decreases as the warrant's remaining term decreases and is 0 at the end of the term. Warrants with no intrinsic value at that point in time expire without value. Otherwise the intrinsic value is paid out to the investor. The time decay of a warrant accelerates in the last months of its term. Therefore investors should ensure their warrants have sufficient remaining terms.

Payout profile of a call warrant



Payout profile of a put warrant





## Premium

The premium indicates how much more expensive the purchase or sale of the underlying asset and immediately exercising the option right would be than the direct purchase or sale of the underlying asset on the market.

The premium is a measure of how expensive a warrant is. Investors should always select the warrant with the lowest premium from warrants with comparable features. By calculating the premium in percent per year, warrants with different terms can also be compared.

The premium of the calls in our example can be calculated in percent as follows:

$$\begin{aligned} & \frac{(\text{Strike price} + \text{WR price} / \text{ratio} - \text{share price})}{\text{share price}} \times 100 \\ &= \frac{(\text{€ } 70 + \text{€ } 1.30 / 0.1 - \text{€ } 75)}{\text{€ } 75} \times 100 \\ &= 10.7\% \end{aligned}$$

## Break-even

The break-even indicates the price level the underlying asset has to rise above (call) or fall below (put) in order not to sustain a loss for the investor while holding the warrant to maturity. However, the break-even is only relevant to investors who would really like to hold their warrant until the end of the term.

A call's break-even is calculated as follows:

$$\begin{aligned} & \text{Strike price} + \text{WR price} / \text{ratio} \\ &= \text{€ } 70 + \text{€ } 1.30 / 0.1 \\ &= \text{€ } 83 \end{aligned}$$

The formula for the break-even of a put looks slightly different:

$$\begin{aligned} & \text{Strike price} - \text{WR price} / \text{ratio} \\ & \text{WR} = \text{warrant} \end{aligned}$$

## Delta

The delta is often also referred to as price sensitivity. It indicates how strongly the price of a warrant changes if the underlying asset moves by one monetary unit. The ratio must also be considered. A call warrant with a delta of 0.60 and a ratio of 0.1 changes by approximately 0.06 if the underlying asset moves by € 1.

As with all key figures it is important to bear in mind that the delta only illustrates a snapshot. The key figure changes as soon as one of the factors influencing the price changes, such as the underlying asset's price. In addition, interpreting a key figure always presumes that no other influencing factor changes at the same time. Therefore, all key figures are always just an indication of a warrant's performance. Nevertheless, the delta is one of the most important variables for evaluating a warrant.

Calculating the delta is mathematically very complex. A possible formula for calculating the delta can, for example, be derived from the Black-Scholes warrant price model. The Nobel Prize for economics was awarded in 1997 for the development of this model.

Call warrants always have a delta of between 0 and + 1. As put warrants move in the opposite direction to price variations in the underlying asset, the delta here is always between -1 and 0.

Warrants with a delta near 0 hardly react to price fluctuations of the underlying asset at all anymore. The price of such a warrant is extremely unpredictable because it reacts almost exclusively to variations of the implied volatility. Experts advise novices to choose warrants with a delta of at least 0.50 to 0.70.

## Omega

The omega indicates the strength of a warrant's leverage effect. The above-mentioned warrant has an omega of just under 4. The warrant's price would rise or fall by approximately 4 % if the share price was to increase or fall by 1 %.

Here, however, the same applies as to all key figures. The omega is also a snapshot. The key figures value changes with every tic of the underlying asset. The interpretation's correctness furthermore assumes that there are no changes in the other factors influencing the price change, such as volatility, interest rate, dividends and remaining term. The omega is generally not very important for warrants with a very low delta.

For all other warrants the omega is, however, a suitable variable for evaluating the opportunity and risk of a warrant and thus an important aid to the investor. The higher the omega, the more opportunities and risks a warrant has.

In addition to the omega there is another key figure for the leverage effect, the simple leverage. As the delta is not required to calculate this ratio, the simple leverage is much easier to determine. However, in most cases the figure is inaccurate and not very meaningful.



### Theta

The theta always refers to a particular period of time and measures the time decay of the warrant. Our warrant has a theta of 0.4% per week. In theory it would thus lose 0.4% percent of market value per week if all factors influencing the price remained unchanged. The time decay of warrants accelerates in the last months of their term, in particular for warrants trading at the money where the underlying asset's price is therefore close to the strike price.

There are more key figures with which to evaluate warrants. Key figures for all warrants on the Frankfurt Stock Exchange are available on our website [www.scoach.com](http://www.scoach.com). On this website you can also find further explanations on individual product types and key figures.

### Risks

All financial investments in securities carry risks. The following special risks apply to warrants in particular:

- **Leverage effect:** The leverage effect of warrants can result in high losses up to a total loss in a short period of time.
- **Limited term:** A warrant's term is usually limited. The rights acquired with a warrant can lose value during the term or expire at the end of the term. The shorter the warrant's term, the higher the risk of depreciation can be, as the time decay is particularly high as the maturity date approaches and the remaining speculative period is short.
- **Further price-influencing factors:** Variations in the implied volatility can considerably influence the value of warrants. In addition, the value is influenced by changing interest rate levels, by a change to expected dividend payments for the underlying asset as well as by the decreasing remaining term.
- **Underlying assets in foreign currencies:** If the underlying asset is listed in a currency other than the euro, the investor bears an additional currency risk, as the product's intrinsic value is calculated in the foreign currency.
- **Virtually all structured products are legally considered bearer bonds of the respective issuer.** In the case of payment difficulties or insolvency of the issuer, the invested capital is not protected. The investor therefore carries a counterparty risk.



## Knock-out products

Knock-out products are also classified as leverage products. They were developed in Germany in 2001 and became so popular within a very short period of time that nowadays trading in knock-out products exceeds trading in warrants.

Compared to warrants, knock-out products have some special features:

- Knock-out products can expire early if the price of the underlying asset falls below a certain level (for knock-out calls) or exceeds a certain level (for knock-out puts). Depending on the product's design they expire worthless then or a certain residual value is repaid.
- Knock-out products are just very slightly or not at all affected by changes to the implied volatility. Investors can therefore more easily comprehend the price formation than they can with warrants.
- Knock-out products have a lower time value or no time value at all and have a stronger leverage effect than they do with warrants with comparable features.
- The knock-out feature and the stronger leverage effect make knock-out products more risky than comparable warrants.



### An example

Let us examine the following knock-out call:

Underlying asset: Siemens AG

Share price: € 75

Strike price: € 70

Knock-out level: € 70

Ratio: 0.1

Remaining term: 5 months

Product price: €0.57

As the knock-out level is not too far from the share's current price, this is a very speculative product with a strong leverage effect. The intrinsic value of this knock-out call is currently €0.50 and is calculated just as it is for warrants:

**(Price of the underlying asset – strike price)**

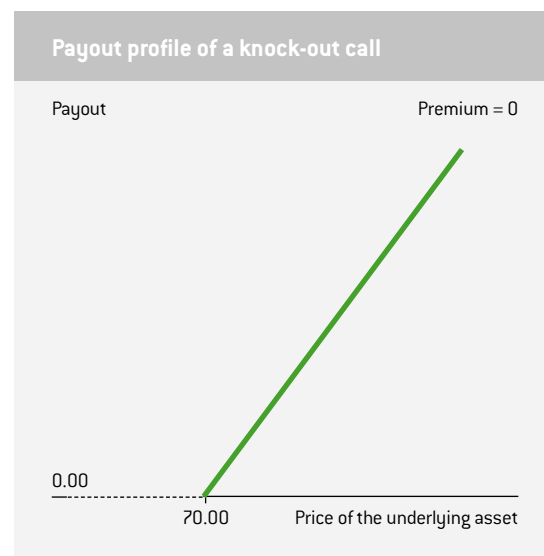
**x ratio**

$= (\text{€ } 75 - \text{€ } 70) \times 0.1$

$= \text{€ } 0.50$

The difference to the product's current price of €0.07 generates the premium. This premium gradually decreases towards the end of the term and amounts to 0 at maturity.

As with warrants, with this product the investor receives a payout of the difference between the share price and the strike price at the end of the term. If the share was, for example, listed at €80 at maturity, the intrinsic value and thus the payout amount would be €1.



However, the knock-out product would expire early if the Siemens AG share was to touch or fall below the knock-out level of € 70. The product is then in fact without value. But most issuers nevertheless buy back the product for 0.1 cent, to enable German investors to fiscally offset the loss against speculation profits where applicable.

### Premium

As with warrants, issuers selling knock-out warrants protect themselves by buying or selling the underlying asset to avoid having to speculate against the investor. Because of the leverage effect the issuer has to invest significantly more capital than the investor to hedge sold knock-out products. The issuer charges interest for this capital to the investor via the premium.

When selling knock-out puts to the investor, the issuer has to sell underlying assets to protect himself. In return, the issuer receives capital which can be spent on interest-bearing investments. Therefore, knock-out puts are often listed with a negative premium (discount). In this case the warrant costs less than the intrinsic value.

### Leverage

The leverage effect of knock-out products can be calculated as follows:

$$\begin{aligned} & \text{[Share price x ratio] / KO price} \\ & = (\text{€ } 75 \times 0.1) / \text{€ } 0.57 \\ & = 13.2 \\ & \text{KO} = \text{Knock-out product} \end{aligned}$$

The knock-out product would therefore rise by approximately 13% if the price of the Siemens share was to rise by 1%. Here, it once again has to be noted that all key figures are snapshots and that the leverage effect works in both directions. A falling share price can thus result in high losses very quickly. If the share price touches or falls below the level of € 70, investors will suffer a total loss if they did not sell the warrant in time before the knock-out event.

The stronger a knock-out product's leverage effect, the more opportunities and risks the warrant has. When purchasing a knock-out, investors should ensure a sufficient distance to the knock-out level.



### Product types

In general one can distinguish between two different types of knock-out products:

- Knock-out products without stop-loss level: The strike price and the knock-out level of these products are identical - as in our example above.
- Knock-out products with stop-loss level: This product's knock-out level is above (calls) or below (puts) the strike price. If this level is undershot or exceeded, the product will expire early but the investor will normally have a residual value paid out. As the knock-out level of this product has the effect of a stop order, the level is usually referred to as stop loss level.

Upon issue, most knock-out products have a remaining term of a few weeks to several months. However, the term of some knock-out products is open-ended. They do mature when the underlying asset touches or crosses the stop loss level. These products have no premium; their price consequently always corresponds to the intrinsic value.

As even open-ended products will incur interest charges for the issuer's hedge or interest gains from a hedge position, the strike price (funding level) is periodically adjusted so that the intrinsic value changes accordingly. Important: Over longer holding periods the product's intrinsic value can therefore decrease if the underlying asset's price moves sideways.



## Risks of leverage products

All financial investments in securities carry risks. The following special risks apply to knock-out products:

- Leverage effect: The leverage effect of knock-out products can result in high losses up to a total loss in a short space of time.
- Knock-out level: If a knock-out event occurs, the product might expire without value even before the end of the term.
- Limited term: Usually the term of a knock-out product is limited. The rights you acquire with a knock-out product can lose value or expire during the term. The shorter a knock-out product's remaining term, the higher the risk of a loss, as the remaining speculative period is short.
- Further factors influencing the price: Variations in the implied volatility influence the value of many knock-out products, although to a lesser degree than is the case for warrants. In addition, the value is influenced by changing interest rate levels, by a change in expected dividend payments for the underlying asset as well as by the decreasing remaining term.
- Underlying assets in foreign currencies: If the underlying asset is listed in a currency other than the euro, the investor carries an additional currency risk, as the product's intrinsic value is calculated in the foreign currency.
- Virtually all structured products are legally considered bearer bonds of the respective issuer. In the case of payment difficulties or insolvency of the issuer, the invested capital is not protected. The investor therefore carries a counterparty risk.

The product databases on our website [www.scoach.com](http://www.scoach.com) provide information on exotic leverage products such as corridor warrants, hit warrants or power warrants as well as information on warrants and knock-out products. Before trading with such products you should obtain precise information on how they work from the respective issuer.

## Trading – Scoach Premium Quality Standard

Leverage products, in particular, require a fast and smooth order execution. The Scoach Premium Quality Standard applied by Scoach at the Frankfurt Stock Exchange guarantees the highest standard of trading with investment and leverage products, certificates, warrants and knock-out products. Every order for an investment or leverage product placed at the Frankfurt Stock Exchange is automatically processed according to the Scoach Premium Quality Standard, provided the product is listed in this segment.

### Scoach Premium Quality Standard at Scoach

Issuers who would like to list their products in the Scoach Premium Quality Standard are subject to strict conditions:

- In general, issuers have to continuously provide buying and selling quotes for their own products from 9:00am to 8:00pm. This guarantees that the products can be sold again at any time, even if a product has not recorded any turnovers for a long period of time. In professional jargon the buying and selling quotes are also called the bid price and ask price. Investors can purchase a product at the current ask price and can return it to the issuer at the bid price. The difference between the two quotes is called the spread. The smaller the spread, the better for the investor.

- The issuer has to transfer the bid and ask quotes to Scoach's technical infrastructure via two redundant dedicated lines.
- The quotes must be valid for fixed minimum volumes. For investment products this minimum volume is € 10,000 and for leverage products it is € 3,000. Usually, significantly larger orders are also carried out at the current bid or ask price.

### Electronic trading

Since April 2008 even investment and leverage products have been traded (fully) electronically via Xetra at the exchange centre in Frankfurt. With more than 1.3 million trades per day Xetra is one of the world's fastest and powerful trading systems. It sets the standards with regards to liquidity, transparency and speed – and that at the lowest costs.

Even before the switch to Xetra the majority of orders in structured products were completed in Frankfurt within 10 seconds. Using Xetra increases the processing speed significantly yet again. In addition, Scoach is the only exchange centre to guarantee an execution within 30 seconds in the Scoach Premium Quality Standard.

### Monitoring stop orders

To automatically limit losses, many investors use stop loss orders. Usually these selling orders are only triggered once a trade on or below the stop limit is realised.

An even more effective procedure is applied to investment and leverage products. Here, the stop limit set by the investor is continuously compared to the issuer's bid price. As soon as the bid price reaches or falls below the stop limit, the selling order is triggered and executed at the next possible price. The same applies to stop buy orders. Here, the issuer's ask price is monitored. Thus investors do not need to worry that a stop order might not be executed if a product does not see any activity for longer periods of time.

### Tricks and bluffs not permitted

The Trading Surveillance Office (HÜSt) ensures that trading at the Frankfurt Stock Exchange is carried out in proper form. It reviews any irregularities and communicates the results of its audits to the regulatory authority and the stock exchange management. If an investor believes that his order was not executed correctly, he can contact the Trading Surveillance Office via a hotline: Telephone +49 69 211 11310.

### Market information and product search

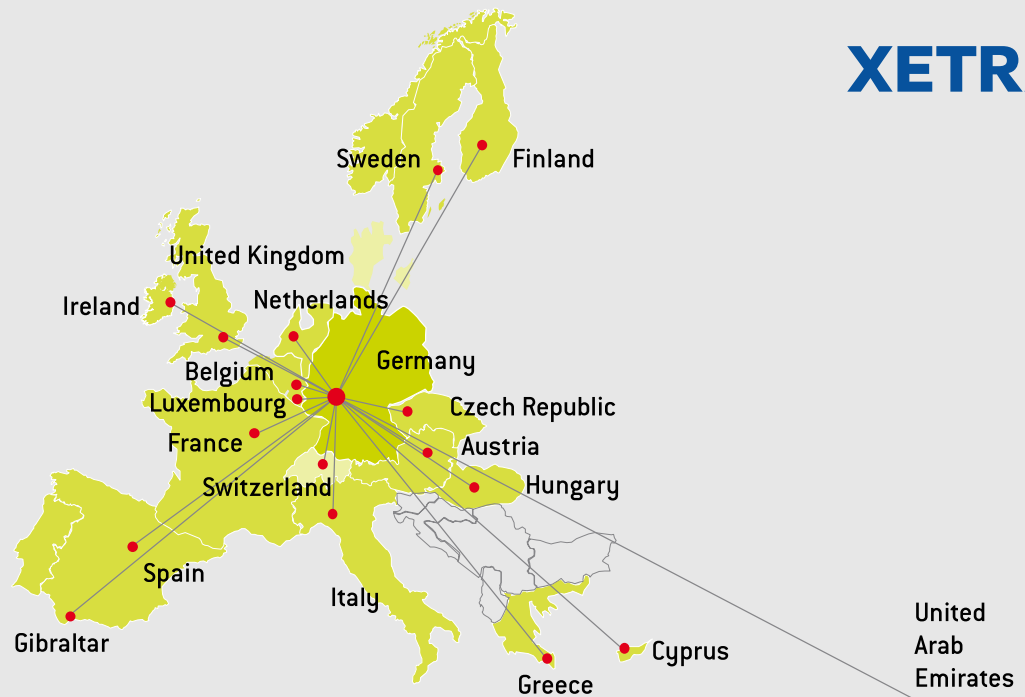
On our website [www.scoach.com](http://www.scoach.com) you can find real-time push quotes for all Scoach products and for scenario calculations, detailed information on all important product types for novices and much more. Just take a look.

### Scoach at the Frankfurt Stock Exchange – an overview of your advantages

- Scoach specialises in trading with warrants and certificates – more than 360,000 products can be traded with us.
- By using the Xetra technology, Scoach offers you the fastest order executions – the issuers' execution speed is continuously measured and published.
- Scoach offers maximum liquidity – Scoach products can be traded even if no activity has been recorded for a long period of time.
- Scoach automatically monitors stop orders.
- Strict neutrality of the stock exchange – the Trading Surveillance Office guarantees a fair and proper trading procedure.
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Publisher:  
Scoach Europa AG  
Neue Börsenstraße 1  
60487 Frankfurt/Main

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August 2009 Order Number 1810-2896

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