For marketing purposes only

Mini-Futures

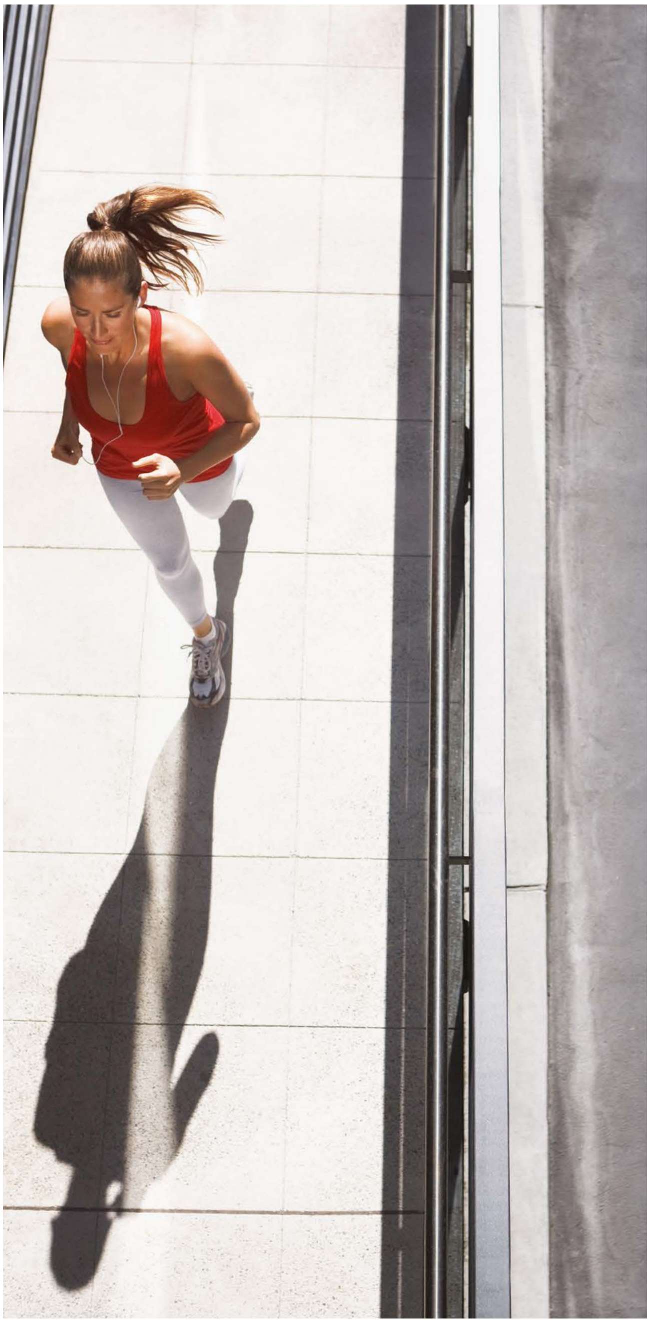
Opt for leverage

With Mini-Futures, you can bet on rising or falling prices of an underlying and participate in them with leverage, while investing only a fraction of the underlying price.

Contents

Introduction	4
Advantages of Mini-Futures	5
How they work	6
Leverage effect	7
Financing costs	8
Features	10
Scenarios: Long Mini-Futures	11
Hedging with Short Mini-Futures	13
Further features	14
Summary	15

Mini-Futures: A small stake but a full commitment



Professional investors often use exchange-traded futures. Rapid gains and losses can be made in a flash from tiny price movements. Futures can also be used to hedge existing portfolio positions. However, trading with exchange-traded futures is not really suitable for private investors due to the strict requirements and the possibility of a margin call. There is a smart alternative: Mini-Futures.

These resemble investing in futures in many respects. Investors are able to participate in the performance of an underlying asset in the same way with a reduced capital commitment.

The advantages of Mini-Futures

Low capital commitment
With Mini-Futures you can invest in an underlying asset, but only pay a fraction of the price. The rest is provided by the issuer of the Mini-Futures via the so-called financing level.

High leverage
Mini-Futures participate fully in the price movements of the underlying asset. The reduced capital commitment creates high leverage.

No expiry date
Unlike normal futures contracts, Mini-Futures do not have a preset expiry date. They are open-end products which in principle have an unlimited term.

Stop-Loss to limit losses
Unlike with traditional futures contracts, with Mini-Futures investors never have to pump in more money. This is because they have a built-in loss limitation mechanism: the Stop-Loss level. If the underlying moves in the opposite direction and reaches the Stop-Loss level, Mini-Futures automatically expire at once. The issuer then calculates the residual value and pays this out to investors – provided it is greater than zero.

High transparency
The price of Mini-Futures is always based directly on the performance of the underlying. There are no complex factors affecting the price, such as volatility or time value. Because of the leverage, Mini-Futures are suitable not only for speculating on rising or falling prices, but also for portfolio hedging.

Flexible trading
Under normal market conditions, Mini-Futures can be bought and sold on every stock exchange trading day. So you are always on the ball and can react flexibly to changes in the market.

Large selection
Mini-Futures can be used in a wide range of situations. The underlying assets may be shares, equity indices, commodities or currencies.

Please note

Leverage allows for above-average price gains as well as correspondingly leveraged losses if the underlying does not perform as hoped. If a Stop-Loss event occurs the investor normally receives a residual amount, but this may be zero. Mini-Futures are subject to issuer risk as well as market risk.

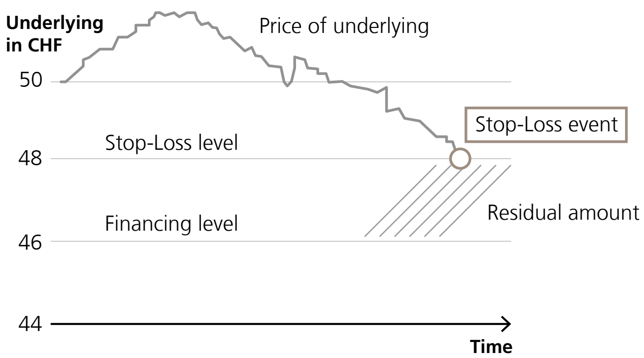
How Mini-Futures work

Long Mini-Futures for rising prices

If you think the price of the underlying is going to rise, you buy a Long Mini-Future. This will participate disproportionately in the potential price gains of the underlying.

The risk: If the underlying falls, you make a loss. If the Stop-Loss level is hit, the Mini-Future expires immediately and automatically. Any residual value is then refunded. If the price falls sharply, there is the risk that the issuer is unable to close out the underlying hedge in time and obtains a lower price. In such cases there may be no residual value and a total loss is suffered.

Stop-Loss on a Mini-Future
(Conversion ratio: 1)

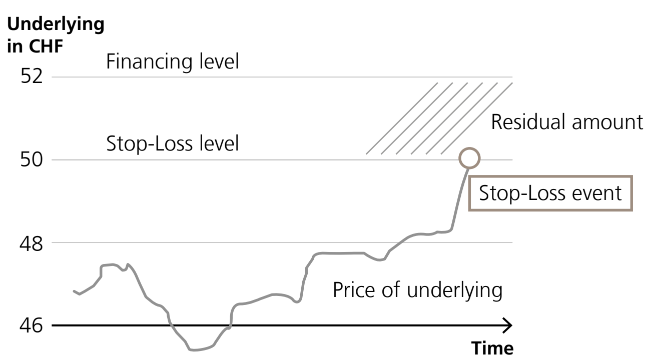


Short Mini-Futures for falling prices

The value of a Short Mini-Future falls as the underlying rises and rises as the underlying falls. Short Mini-Futures are therefore bought in expectation of falling prices. Short Mini-Futures can also be used to hedge an existing portfolio.

The risk: The same principle applies as for a Long Mini-Future, apart from the fact that the risk of loss or Stop-Loss comes from a rising underlying.

Stop-Loss on a Short Mini Future
(Conversion ratio: 1)



How leverage works with Mini-Futures

In a sense, investing in Mini-Futures is like investing directly in the underlying. For example, if the underlying rises by one franc, a Long Mini-Future (with a 1:1 conversion ratio) will also rise by one franc.

The key point is: the holder of a Mini-Future does not pay the full price of the underlying but just a fraction of it. The rest is financed by the issuer of the Mini-Future. To put it another way: the issuer provides the capital for an investment in the underlying.

Full participation in the performance of the underlying for only a small commitment of money is what creates the leverage. The rule is, the more financing is provided by the issuer, the less capital is committed by the investor and the greater the leverage. The financing level provides information about the amount of financing provided by the issuer.

Example: structure of a Long Mini-Future

Price of the underlying: CHF 50

Conversion ratio: 1

Financing Level: CHF 45	CHF 5
An investor who buys a Long Mini-Future only pays part of the price of the underlying. But they still participate fully in price movements. The financing level shows the percentage/amount of debt provided by the issuer.	Intrinsic value = price of Long Mini-Future

How to calculate the leverage:

$$\text{Leverage} = \frac{\text{Current price of underlying}}{\text{Purchase price of Mini-Future}} \Big/ \text{Conversion ratio}$$

Financing costs: debt comes at a price

Anyone providing capital will demand appropriate interest. This is the case with Mini-Futures, too. The issuer estimates financing costs for the funds provided by taking the reference rate and adding a financing spread. The reference rate is usually an interbank rate such as LIBOR (the London Interbank Offered Rate) or its successor SARON (Swiss Average Rate Overnight). The premium is set by the issuer and may vary within a certain range over time.

Dividends have to be taken into account
With shares and indices, on the day a dividend is paid (ex-day) the price falls; with a Long Mini-Future this would mean an unjustified loss in value. To compensate for the negative price impact of going ex-dividend, dividend payments are deducted from the financing costs on ex-day. This is a way of crediting them to the holders of the Long Mini-Future.

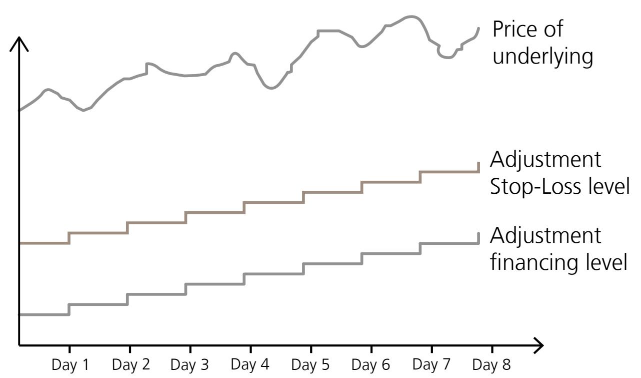
Note: information on the size/range of the financing spread can be found in the product Termsheet and the Final Terms.

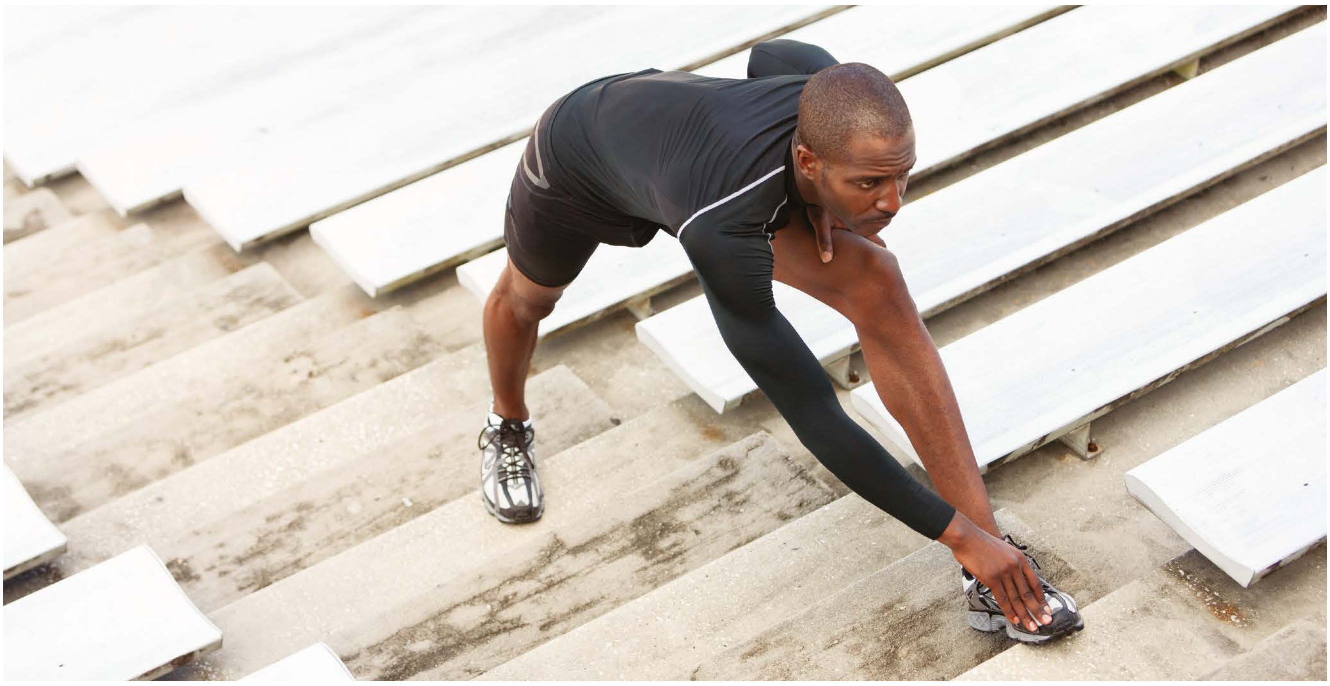
Financing costs are included in the price every day

Because Mini-Futures have an indefinite term, the financing costs cannot be included in the price as a lump sum when they are issued. Hence the financing level is adjusted every day by the pro-rata financing costs.

This is because the value of a Long Mini-Future is equal to the difference between the price of the underlying and the financing level, adjusted for the conversion ratio. All other things being equal, increasing the financing level means that a Long Mini-Future falls marginally in value every day. This would mean the financing level steadily draws closer to the Stop-Loss level. Therefore, the Stop-Loss level is adjusted up or down by the same amount every day. The gap between the Stop-Loss and the financing level therefore remains constant.

Daily adjustment on a Mini-Future





With **Short Mini-Futures** the daily adjustment is similar. Theoretically investors can receive financing income, because on the short side the issuer receives interest income from the underlying hedge transaction. In practice, the issuer's financing spread exceeds the interest income, so all other things being equal, the daily adjustments again reduce the price of the Mini-Future and the financing and Stop-Loss levels are adjusted downwards. Dividend payments have the same effect. These are debited from Short Mini-Futures on ex-day via the financing costs.

Calculation formulas

Financing costs for a Long Mini-Future:

$$FL_{new} = FL_{current} + (\text{Rate} + \text{FS}) \times FL_{current} \times \frac{\text{Number of days}}{360} - \text{Dividend} \times \text{DivFactor}$$

Financing costs for a Short Mini-Future:

$$FL_{new} = FL_{current} + (\text{Rate} - \text{FS}) \times FL_{current} \times \frac{\text{Number of days}}{360} - \text{Dividend} \times \text{DivFactor}$$

FL_{new}:	Financing level after adjustment
$FL_{current}$:	Current financing level
Rate:	Reference interest rate
FS:	Financing spread
Number of days:	Number of days until the next adjustment (usually 1 day)
DivFactor:	Factor representing taxes on dividends, if any

Overview of features

Underlying The underlying is the asset on which the Mini-Future is based. The movement of the price of the underlying is the dominant factor influencing the performance of a Mini-Future. Underlying assets may be equities, indices, currency pairs, interest rates or commodities.

Financing level The financing level is the part of the Mini-Future financed by debt. This is adjusted every day by the financing costs. The difference between the financing level and the price of the underlying, adjusting for the conversion ratio, gives the theoretical value of a Mini-Future.

Stop-Loss Mini-Futures have a Stop-Loss level. For Long Mini-Futures, this is above the financing level; for Short Mini-Futures, it is below. If the underlying touches the Stop-Loss level, a Mini-Future is generally repaid at a residual amount. To keep the gap from the financing level constant, the issuer also adjusts the Stop-Loss level every day.

Expiration As open-end products, Mini-Futures do not have an expiry date that is set in advance. Early expiry occurs if there is a Stop-Loss event, or the issuer terminates the product early (issuer call right).

Conversion ratio The conversion ratio indicates how many Mini-Futures relate to one unit of the underlying.

Example of how a Long Mini-Future works

You expect the price of (imaginary) Bull shares to rise and would like to participate disproportionately in this.
To implement your strategy you choose a Long Mini-Future with the following features:

Underlying	Bull shares
Term	Open-end
Conversion ratio	10:1

Prices and levels	**At time of purchase**	**After 6 months**
Price of underlying	CHF 100.00	see scenarios below
Financing level	CHF 80.00	CHF 81.00[1)]
Stop-Loss level	CHF 83.00	CHF 84.00[1)]
Price Long Mini-Future[2)]	CHF 2.00	see scenarios below
Leverage	5	depending on scenario

[1)] Assumes that due to the financing costs the financing level rises from CHF 80 to CHF 81 after six months, equivalent to 2.5% p.a. The Stop-Loss level rises accordingly from CHF 83 to CHF 84.

[2)] The theoretical value of a Long Mini-Future is the difference between the price of the underlying and the financing level, divided by the conversion ratio. The actual price of the product may differ from this due to an additional issuer risk margin (mark-ups).

Potential scenarios after 6 months	**Scenario 1** Underlying rises	**Scenario 2** Underlying unchanged	**Scenario 3** Underlying falls (**without** Stop-Loss event)	**Scenario 4** Underlying falls (**with** Stop-Loss event)
Price of Bull shares	CHF 120.00	CHF 100.00	CHF 90.00	CHF 84.00
Theoretical value of Long Mini-Future	CHF 3.90 (CHF 120 – CHF 81) / 10	CHF 1.90 (CHF 100 – CHF 81) / 10	CHF 0.90 (CHF 90 – CHF 81) / 10	CHF 0.30 (CHF 84 – CHF 81) / 10
+/- Long Mini-Future	+95%	–5%	–55%	–85%
+/– Bull shares	+20%	+/– 0%	–10%	–16%
Leverage	3.08	5.26	10	N/A

Scenario 4 assumes that the underlying reaches the Stop-Loss level (=CHF 84) at the end of the scenario, i.e. after six months, and then falls no further.
The Mini-Future expires and is repaid at the residual value of CHF 0.30.

Scenario 1: Underlying rises

Your prediction is correct. Bull shares rise by CHF 20.00 to CHF 120.00. The Long Mini-Future tracks this absolute performance almost one to one, adjusting for the 10:1 conversion ratio. The fact that it does not rise by exactly CHF 2.00 is because the financing costs are added to the financing level every day. In the example, this means that after six months the financing level has risen from CHF 80.00 to CHF 81.00, giving a value of CHF 3.90 per Long Mini-Future at a price of CHF 120.00 for the underlying.

Scenario 2: Underlying unchanged

This scenario involves a small fall in the Mini-Future. The losses are a result of the daily addition of the financing costs to the financing level, which marginally reduces the value of a Long Mini-Future every day. After six months, the cumulative impact of this effect is a cost of CHF 0.10.

Scenario 3: Underlying falls (without Stop-Loss event)

If the underlying falls, Mini-Futures lose disproportionately. In our example, Bull shares fell by only 10% to CHF 90.00. But a Long Mini-Future would have lost 55%, with five percentage points of that loss coming from the financing costs.

Scenario 4: Underlying falls (with Stop-Loss event)

In this scenario the underlying falls to the Stop-Loss level and then remains stable. As a result of the daily adjustments, after six months this has risen from the original CHF 83.00 to CHF 84.00. If the underlying reaches this level, the Long Mini-Future expires immediately. Repayment is at the residual value of CHF 0.30. This is calculated as the difference between the price of the underlying and the financing level divided by the conversion ratio. As the underlying does not fall any further after reaching the Stop-Loss level, the issuer is able to close out its hedge position at the Stop-Loss level of CHF 84.

How to hedge your portfolio with Short Mini-Futures

Short Mini-Futures are an ideal instrument for hedging a portfolio, or certain parts of it such as index investments, efficiently and cheaply. As an investor, you find a suitable Short Mini-Future, divide the size of the position to be hedged (e.g. CHF 50,000 in SMI index investments) by the leverage factor and invest that amount in the relevant product.

The capital commitment required for the hedge depends on how long it is meant to last and the size of the leverage factor selected on the Mini-Future to be used: assuming a leverage factor of 10, hedging the entire SMI position of CHF 50,000 would require the corresponding Short Mini-Futures worth around CHF 5,000. If only half of the SMI investments are to be hedged, i.e. CHF 25,000, then CHF 2,500 of Mini-Futures with a leverage factor of 10 would be required.

This simple way of hedging is cost-effective even over very short periods, as the transaction costs are so much lower compared to selling the position. Another advantage of hedging with Mini-Futures is that the hedge is effective immediately after purchase and not only at maturity, which can sometimes be the case if hedging with Put Warrants.

However, it is important to remember that the amount paid for the hedge will be (mostly) lost if the underlying rises and reaches the Stop-Loss barrier. This risk can be reduced by using a lower leverage factor or a lower financing level, but this means that correspondingly more capital is needed for the hedge.

Other things you need to know about Mini-Futures

How they differ from Warrants

The theoretical value of a Mini-Future is the difference between the price of the underlying and the financing level, divided by the conversion ratio. Whereas Mini-Futures only have this intrinsic value, the price of a Warrant consists of the intrinsic value plus a time value, which falls to zero at expiry of the Warrant. The time value is also heavily affected by the volatility of the underlying, i.e. how much the price moves. All other things being equal, if volatility increases the time value increases and vice versa.

As Mini-Futures have no time value, changes in volatility have very little or no impact on the price of the product. This makes them more transparent than Warrants. They also have greater leverage, since they are cheaper than comparable Warrants as they do not have a time value.

On the other hand, the price of a Warrant can recover after the underlying has moved in the opposite direction. With a Mini-Future, if the Stop-Loss level is reached the loss is realized immediately. The payment of any residual value only protects against total loss to a certain extent.

Interplay of opportunity and risk

As with all leveraged products, you must have a clear view on how the underlying will perform. Once you have chosen an underlying, looking for the right level of leverage is crucial. The closer the financing level (and hence also the Stop-Loss level) to the current price of the underlying, the greater the leverage. But then there is the risk that a small move the opposite way in the underlying can result in a Stop-Loss event. This in turn means the position makes a large loss. So always consider carefully what level of Stop-Loss risk you are prepared to take.

The higher the leverage, the greater the risk of being stopped out

Price of underlying: CHF 100.00 Financing level = FL Stop-Loss level = SL	**Leverage**	**Distance to Stop-Loss level**
FL: CHF 60.00 SL: CHF 70.00	2.5	30%
FL: CHF 80.00 SL: CHF 84.00	5	16%
FL: CHF 90.00 SL: CHF 93.00	10	7%
FL: CHF 95.00 SL: CHF 96.00	20	4%
FL: CHF 98.00 SL: CHF 98.50	50	1.5%

Summary

Your investor profile

- Opportunistic
- Willing and able to take risks
- Stock market experience
- Experience with using leverage products

Market expectation

- Long Mini-Future: underlying will rise
- Short Mini-Future: underlying will fall

Time horizon

- Short to medium term

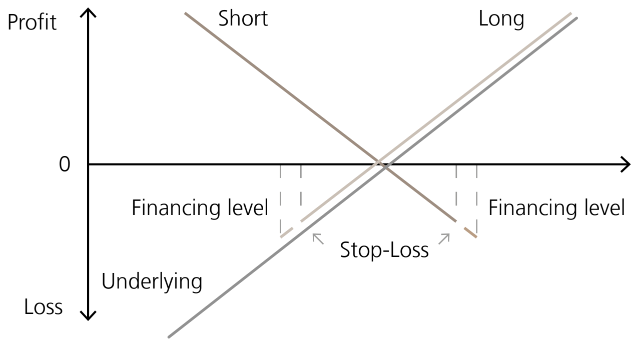
The key benefits at a glance

- Leverage due to reduced capital commitment
- Unlimited term (apart from Stop-Loss event or any issuer termination rights)
- Stop-Loss level protects against need to commit more money, and also generally against a total loss
- High price transparency (no impact from volatility)
- Very suitable for hedging
- Can be bought and sold on every stock exchange trading day

Risks to watch out for

- Large losses if the underlying moves the opposite way
- Regular monitoring needed
- Issuer risk

Payout profile



Our offering

UBS is one of Europe's leading providers of Mini-Futures and Structured Products. The range covers thousands of products in different asset classes and underlyings.

Our offering is available online here:
keyinvest-ch-en.ubs.com

UBS AG
P.O. Box
8098 Zurich

keyinvest@ubs.com
ubs.com/keyinvest

Should you have further questions regarding this brochure or UBS products, do not hesitate to call us on this number: +41 44 239 76 76.

We are there for you from Monday – Friday between 8:00 a.m. and 6:00 p.m.

Follow us on LinkedIn

UBS