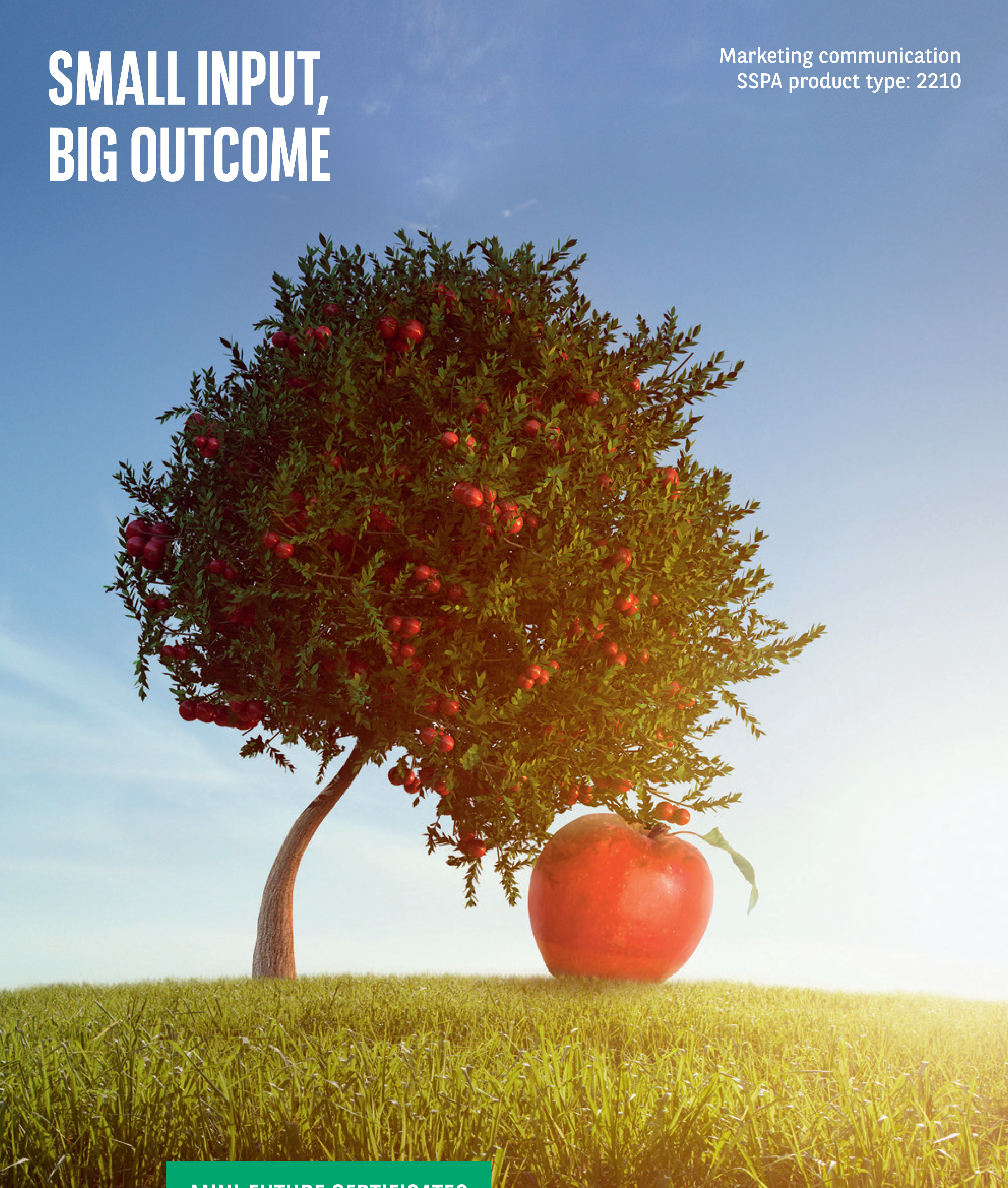
Marketing communication
SSPA product type: 2210

SMALL INPUT, BIG OUTCOME



MINI-FUTURE CERTIFICATES

BNP PARIBAS

The bank for a changing world

Content

The products described in this document do not constitute collective investment schemes within the meaning of the Federal Act on Collective Investment Schemes (CISA). Accordingly, the products do not benefit from protection under the CISA and the supervision by the Swiss Financial Market Supervisory Authority (FINMA). Investors in the products are exposed to the credit risk of the issuer (and the guarantor as the case may be) and do not benefit from the protection of the invested capital.[1]

1) For further information please refer to the Legal notice on page 26.

Mini-Future Certificates – futures contracts accessible for private investors

Our Mini-Future Certificates are issued by BNP Paribas Issuance B.V. (with BNP Paribas SA as Guarantor). Mini-Future Certificates combine the simplicity of open end certificates with the leverage effect of warrants. They have no fixed expiration date and are thus the first type of product to offer leverage without the limitations of a fixed investment term.[2]

Due to the leverage nature of Mini-Future Certificates, their prices can move rapidly. It is therefore recommended to monitor them daily, even though they can be held over a longer period of time.

These products are aimed at investors who are looking for tools to diversify their portfolio and they should not represent the entirety of a portfolio.

Advantages and disadvantages at a glance

Advantages

- Leverage effect due to modest capital outlay
- Theoretically unlimited investment term[2]
- Simple and transparent pricing
- Limited risk due to a built-in Stop-Loss Level
- None of the volatility effects associated with warrants
- No trading premium unlike warrants
- No margin payments or rollover risks that come with futures trading
- Can be applied to hedge existing positions

Disadvantages

- Early termination if the Stop-Loss Level is reached (Stop-Loss Event)
- Substantial risk of loss including **risk of total loss of the capital outlay** if the underlying moves in the wrong direction after a Stop-Loss Event (no capital protection)
- Currency risk if the Mini-Future Certificate is quoted in a different currency than the underlying asset
- Investors are exposed to the credit risk of the issuer and the guarantor

2) i.e. no predefined expiration date. However, the issuer has the right to terminate a Mini-Future Certificate by giving notice to the investors (through the clearing system) at least ten days prior to the targeted termination date.

Introducing Mini-Future Certificates

The concept

Mini-Future Certificates bring together the advantages of open end tracker certificates and warrants to create an attractive and innovative investment opportunity. Put simply, BNP Paribas finances part of the cost of the underlying, which reduces the investor's capital outlay. However, since the performance of the underlying is fully reflected in the investment, a leverage effect is created. The financing costs associated with this leveraged exposure are charged to the investor's invested capital on a daily basis. Another advantage with Mini-Future Certificates is that they are open ended products, i.e. they have no fixed expiration date. However, the issuer has the right to terminate a Mini-Future Certificate by giving notice to the investors at least ten days prior to the targeted termination date.

Applications of Mini-Future Certificates

Mini-Future Certificates may be suitable for the following types of investors:

- Those who want to rejuvenate their portfolio and employ a leveraged investment to boost their potential profit from a market trend they anticipate. Mini-Future Certificates offer a transparent way to play a market view without the effect of volatility and time value (unlike warrants).
- Those who want to hedge a particular position in their portfolio and need a suitable leveraged instrument but favour a hedge with a theoretically unlimited term.

Mini-Long and Mini-Short Certificates

Mini-Future Certificates are available in both long and short versions. Investors who expect the price of their chosen underlying to rise would buy a Mini-Long Certificate, those who anticipate a downward price trend would buy a Mini-Short Certificate.

Mini-Future Certificates in detail

The leverage effect

With a conventional tracker certificate, investors pay the full price of the underlying and therefore participate completely in its upside performance.[3] With a Mini-Future Certificate, on the other hand, investors pay only a fraction of the price of the underlying. The remainder – known as the Financing Level – is paid by BNP Paribas.

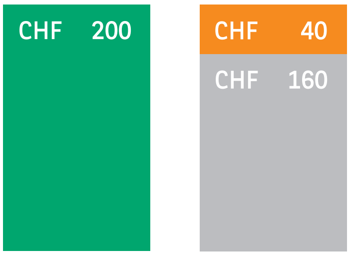
However, since BNP Paribas provides full participation in the underlying's performance to the investor (subject to financing costs being charged to the investor), a leverage effect arises on the upside and also on the downside. The smaller the proportion of the underlying's value paid for by the investor, the greater the leverage effect and thus the extent to which movements in the price of the underlying are amplified by the Mini-Future Certificate. If, for example, the underlying gains 1%, the value of a Mini-Long Certificate with a leverage of five will rise by 5%.[4] Likewise, a Mini-Future Certificate with a leverage of ten will show movements about ten times greater than those of the underlying (this is because the price of the Mini-Future Certificate is just 10% of the full value of the underlying as the other 90% is financed by BNP Paribas).

The leverage effect amplifies the underlying's price changes in both, rising and falling markets. This can be to the benefit or to the disadvantage of the investor. The higher the leverage, the more sensitive the Mini-Future Certificate reacts to changes in the price of the underlying. The maximum loss is always limited to the price paid for a Mini-Future Certificate.

3) Taking Ratios and (where applicable) Conversion Rates into account.
4) Percentage change in price of underlying multiplied by the leverage.

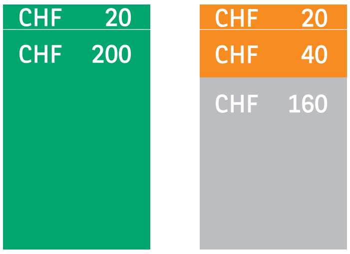
Example 1

1) ABC shares are trading at CHF 200, and the ABC Mini-Long is priced at CHF 40.



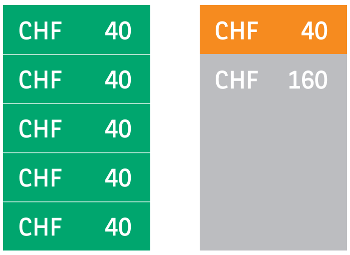
ABC share	CHF 200
ABC Mini-Long	CHF 40
Financing Level	CHF 160

2) The ABC share price rises by CHF 20 to CHF 220, and the ABC Mini-Long also rises by CHF 20 to CHF 60.
This gives a return of 10% on the share and 50% on the Mini-Future Certificate.



ABC share	CHF 200 ▶	CHF 220
Share return		10%
ABC Mini-Long	CHF 40 ▶	CHF 60
Mini-Long return		50%
Financing Level		CHF 160

3) The leverage arises from the reduced capital outlay required for a Mini-Future Certificate, which is made possible through the Financing Level financed by BNP Paribas.



ABC share	CHF 200
ABC Mini-Long	CHF 40
Financing Level	CHF 160

$$\text{Leverage} = \frac{\text{Share Price}}{\text{Value Mini-Long}} = \frac{200}{40} = 5$$

Please note: the numbers shown in this example are for informational purposes only. They are no indication for any future performance nor do they constitute an offer to invest in the mentioned product. For reasons of simplicity, bid/ask spreads and financing costs have not been taken into account.

Example 2: ABC Mini-Long (Ratio = 1)

Initial situation: ABC shares are trading at CHF 200

Underlying	Financing Level	Price of underlying	Value of Mini-Long	Leverage
ABC	160	200	40	5

Positive scenario: ABC shares rise by 10% to CHF 220

Underlying	Financing Level	Price of underlying	Value of Mini-Long	Performance of Mini-Long
ABC	160	220	60	+50%

Negative scenario: ABC shares drop by 10% to CHF 180

Underlying	Financing Level	Price of underlying	Value of Mini-Long	Performance of Mini-Long
ABC	160	180	20	-50%

Neutral scenario: ABC shares remain unchanged at CHF 200

Underlying	Financing Level	Price of underlying	Value of Mini-Long	Performance of Mini-Long
ABC	160	200	40	0%

Example 3: ABC Mini-Short (Ratio = 1)

Initial situation: ABC shares are trading at CHF 200

Underlying	Financing Level	Price of underlying	Value of Mini-Short	Leverage
ABC	240	200	40	5

Positive scenario: ABC shares drop by 10% to CHF 180

Underlying	Financing Level	Price of underlying	Value of Mini-Short	Performance of Mini-Short
ABC	240	180	60	+50%

Negative scenario: ABC shares rise by 10% to CHF 220

Underlying	Financing Level	Price of underlying	Value of Mini-Short	Performance of Mini-Short
ABC	240	220	20	-50%

Neutral scenario: ABC shares remain unchanged at CHF 200

Underlying	Financing Level	Price of underlying	Value of Mini-Short	Performance of Mini-Short
ABC	240	200	40	0%

Please note: the numbers shown in these examples are for informational purposes only. They are no indication for future performance nor do they constitute an offer to invest in the mentioned products. For reasons of simplicity, bid/ask spreads and financing costs have not been taken into account.

Calculating the value of Mini-Future Certificates

The value of a Mini-Future Certificate, i.e. the capital outlay required from investors, is always equal to the difference between the price of the underlying and the Financing Level, with Conversion Rate and Ratio factored in where appropriate:[5]

$$\text{Value of Mini-Long} = \frac{\text{Underlying - Financing Level}}{\text{Ratio}^5} \times \text{Conversion Rate}$$

$$\text{Value of Mini-Short} = \frac{\text{Financing Level - Underlying}}{\text{Ratio}^5} \times \text{Conversion Rate}$$

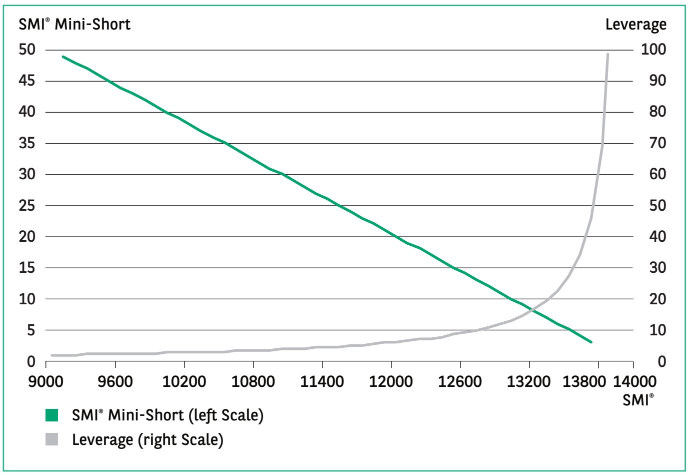
The leverage of a Mini-Future Certificate is thus calculated as follows:

$$\text{Leverage of Mini-Long} = \frac{\text{Underlying}}{\text{Value of Mini-Long x Ratio}^5} \times \text{Conversion Rate}$$

$$\text{Leverage of Mini-Short} = \frac{\text{Underlying}}{\text{Value of Mini-Short x Ratio}^5} \times \text{Conversion Rate}$$

The leverage of the Mini-Future Certificate thus changes as the price of the underlying moves. The chart below illustrates this using the example of an SMI® Mini-Short.

Trend in leverage of a Mini-Short on the SMI®
Assumption: Financing Level = 14,000 / Ratio = 100



Source: BNP Paribas; this example is for illustration purposes only.

We invite you to visit our website **www.bnpparibasmarkets.ch** to track the value of your investment and stay tuned about the most recent information on the product you have invested in.

5) Ratio = number of certificates per underlying (as stated in the termsheet)

Financing the leverage effect

The amount covered by BNP Paribas is called the Financing Level. The Financing Level of a Mini-Long is lower than the price of the underlying, whereas the Financing Level of a Mini-Short is higher.

As with all leveraged products, investors have to pay financing costs. They do so in the case of a Mini-Future Certificate via a daily adjustment of the Financing Level. This means that the Financing Level does not remain constant throughout the life of the Mini-Future Certificate but is instead adjusted on a daily basis. It is therefore recommended that investors accurately manage their positions in order to balance actual costs and gains expected from their strategy. Please note: BNP Paribas can also charge the financing costs during the trading day, which means that day traders (who buy and sell their position within one trading day) may incur financing costs too.

Changes in the Financing Level are determined by the following factors:

- The Market Rate in the currency of the underlying
- An Interest Rate Margin (Financing Spread) set by BNP Paribas
- Any dividends paid out on the underlying (Dividend Adjustment Amount)
- Rollover of the underlying futures contract (for Mini-Future Certificates on commodity futures)

The following calculation is used to adjust the Financing Level:

$\text{Financing Level}_{\text{tomorrow}} = \text{Financing Level}_{\text{today}} \times (1 + \text{Financing Rate}_{\text{today}})^{1/360} - \text{Dividend Adjustment Amount}$

Whereas the Financing Rate of a Mini-Long differs from the Financing Rate of a Mini-Short:

Mini-Long: Financing Rate = Market Rate + Financing Spread
Mini-Short: Financing Rate = Market Rate – Financing Spread

Any dividends (after tax) paid out are deducted from the Financing Level by BNP Paribas on the underlying equity's ex-dividend date for both Mini-Longs and Mini-Shorts.

The Financing Level of a Mini-Long always rises steadily, since it is adjusted every day in line with the sum of the Market Rate and the Financing Spread. As a result, the value of the Mini-Long falls slightly. Every day, investors pay the market's lending rate plus an interest margin set by BNP Paribas for the capital provided by the Bank.

The Financing Level of a Mini-Short, on the other hand, can rise or fall during its life depending on which is greater: the Market Rate credited to investors for the short position they hold or the Interest Rate Margin deducted from their invested capital by BNP Paribas. In other words, the change in the Financing Level can have either a positive or a negative effect on the value of a Mini-Short, as shown in the table below.

Change in the Financing Level of a Mini-Short:

Financing Spread **>** Market Rate	Financing Level falls
Financing Spread **<** Market Rate	Financing Level rises

Information on current Financing Levels, on products that have knocked out and a complete overview of the current product range may be viewed at any time on our website **www.bnpparibasmarkets.ch.**

A special situation arises when the underlying is a futures contract.[6] In this case, the Financing Level is adjusted only on the basis of the BNP Paribas Financing Spread, i.e. no Market Rate is applied.

Additional fees

Mark-up fee: The ask price of a Mini-Future Certificate is higher than its intrinsic value. The difference ("mark-up") comprises a margin for the issuer and a protection against gap risks.[7] The mark-up fee can be lowered or increased during the lifetime of the product, depending on the prevailing market conditions.

Bid/ask spread: The spread changes depending on the products, and can be expanded depending on the prevailing market conditions.

The Financing Level of a Mini-Long Certificate always rises steadily. The Financing Level of a Mini-Short Certificate, on the other hand, can rise or fall during its life.

6) BNP Paribas offers Mini-Future Certificates on commodity futures (Brent Crude Oil, WTI, COMEX Copper) only.
7) Gap risk: The risk that the price of an underlying changes from one level to another without any trading in between (please also refer to the Glossary on page 24).

Example 4: Gold Mini-Long and Mini-Short

The following example of a Mini-Long and a Mini-Short on gold illustrates how the Financing Level would behave in a market with higher interest rates. The one month US dollar LIBOR fluctuated between 5% and 5.4% during the period from May to August 2006, while the Financing Spread remained constant at 2%. There was thus an increase in the Financing Levels of both, the Mini-Long and the Mini-Short.[8]

Development of the Financing Level of two alternative Gold Mini-Longs (Ratio = 100)

Initial Situation

(Assumption: price of the underlying remains unchanged)

Financing Level	Price of underlying	Value of Mini-Long	Leverage
630.00	700.00	0.70	10
560.00	700.00	1.40	5

Three months later

Financing Level	Price of underlying	Value of Mini-Long	Leverage
640.00	700.00	0.60	11.67
568.89	700.00	1.31	5.64

Development of the Financing Level of two alternative Gold Mini-Shorts (Ratio = 100)

Initial Situation

(Assumption: price of the underlying remains unchanged)

Financing Level	Price of underlying	Value of Mini-Long	Leverage
770.00	700.00	0.70	10
840.00	700.00	1.40	5

Three months later

Financing Level	Price of underlying	Value of Mini-Long	Leverage
774.43	700.00	0.74	9.46
844.83	700.00	1.45	4.83

Please note: the numbers shown in these examples are for informational purposes only. They are no indication for future performance nor do they constitute an offer to invest in the mentioned products.

8) In order to illustrate the behaviour of the Financing Level of a Mini-Future Certificate in a market environment with higher interest rates relatively old numbers were used in this example since interest rates never rose to similar levels since the 2008 financial crisis. Please note that international financial markets are moving away from using LIBOR as an interest rate benchmark (LIBOR transition). As a consequence, an alternative reference rate will be applied for the calculation of the Financing Level.

Example 5: ABB Mini-Long and Mini-Short

The following example of a Mini-Long and a Mini-Short on ABB shares is used to illustrate what happens when interest rates in the currency of the underlying are low. In this example, the one month Swiss franc LIBOR fluctuated between -0.7882% and -0.8106% during the life of the above Mini-Future Certificates, while the Financing Spread remained constant at 4.5%. This would cause the Financing Level for the Mini-Short to decline.[9] Any positive effect from the LIBOR rate on the value of the Mini-Short through an increase in the Financing Level would be corrected by the higher Financing Spread, which would then reduce the value of the Mini-Short. In this instance, therefore, the Mini-Short did not yield any excess return through a rise in the Financing Level.

Development of the Financing Level of two alternative ABB Mini-Longs (Ratio = 5)

Initial Situation

(Assumption: price of the underlying remains unchanged)

Financing Level	Price of underlying	Value of Mini-Long	Leverage
26.25	30.00	0.75	8
22.50	30.00	1.50	4

Three months later

Financing Level	Price of underlying	Value of Mini-Long	Leverage
26.50	30.00	0.70	8.57
22.71	30.00	1.46	4.12

Development of the Financing Level of two alternative ABB Mini-Shorts (Ratio = 5)

Initial Situation

(Assumption: price of the underlying remains unchanged)

Financing Level	Price of underlying	Value of Mini-Long	Leverage
33.75	30.00	0.75	8
37.50	30.00	1.50	4

Three months later

Financing Level	Price of underlying	Value of Mini-Long	Leverage
33.43	30.00	0.69	8.74
37.15	30.00	1.43	4.20

Please note: the numbers shown in these examples are for informational purposes only. They are no indication for future performance nor do they constitute an offer to invest in the mentioned products.

In this example, we can see that for the Mini-Long the erosion in daily value caused by the financing costs adds up to just CHF 0.0133 a month for a Financing Level of 22.50.[10] The effect of the change in the Financing Level is thus very small compared with the change in the value of the underlying, which plays the biggest role in determining the value of a Mini-Future Certificate. This is fundamental to the understanding and transparency of Mini-Future Certificates. Dividend payments also affect the Financing Level. Dividends are deducted from the Financing Level for both, Mini-Long and Mini-Short Certificates.[11] However, this has only little impact on the value of the Mini-Future Certificate because the price of the underlying is also corrected downwards by the dividend amount. Consequently, the value of a Mini-Future Certificate, being the difference between the Financing Level and the price of the underlying, is approximately "dividend-neutral".

9) The Financing Level declined because subtracting the Financing Spread from the one month Swiss franc LIBOR gave a negative value (see formula for the daily calculation of the Financing Level on page 8). Please note that international financial markets are moving away from using LIBOR as an interest rate benchmark (LIBOR transition). As a consequence, an alternative reference rate will be applied for the calculation of the Financing Level.

10) 1.50 - 1.46 = 0.04 => CHF 0.04 in three months => 0.04/3 = CHF 0.0133 per month.

11) The net dividend (after tax) is deducted.

The Stop-Loss

Mini-Future Certificates incorporate a mechanism to prevent their value from falling below zero, which would trigger a margin call to cover the additional loss of the investment.

This involves setting a Stop-Loss Level. If the value of the Mini-Future Certificate's underlying falls below the Stop-Loss Level (for a Mini-Long) or rises above it (for a Mini-Short), the Mini-Future Certificate expires. The Stop-Loss Level is set relative to the Financing Level and includes a small buffer to ensure that the Financing Level is not breached. The Stop-Loss Level is adjusted on the first trading day of each month. The buffer is the difference between the Financing Level and the Stop-Loss Level and is set by BNP Paribas. SMI® Mini-Future Certificates, for example, have a 2% buffer.

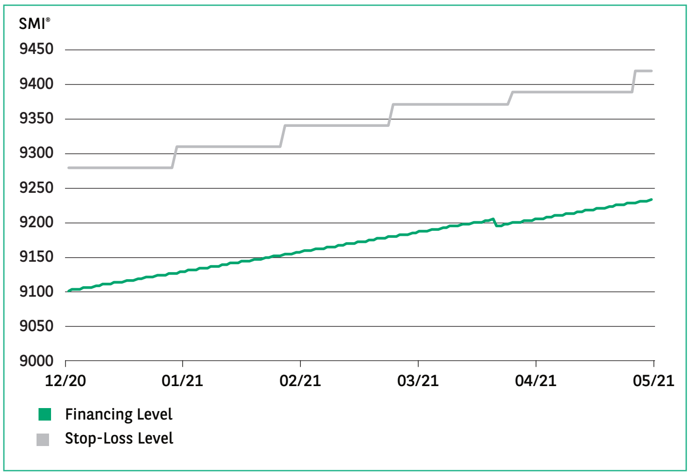
Certain events such as rollovers of futures, dividend payments and other corporate actions may necessitate an exceptional adjustment of the Stop-Loss Level.

Stop-Loss Level calculation examples:

SMI® Mini-Long:
Financing Level = 9,100
Stop-Loss Level = 9,100 x 1.02 = 9,282 = 9,280 (rounded to the nearest ten points)

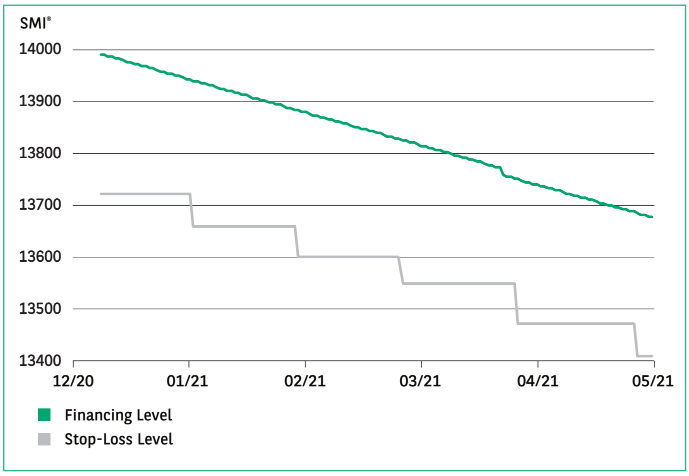
SMI® Mini-Short:
Financing Level = 14,005
Stop-Loss Level = 14,005 x 0.98 = 13,724.9 = 13,720 (rounded to the nearest ten points)

Evolution of the Financing Level and Stop-Loss Level of an SMI® Mini-Long*



Source: BNP Paribas; this example is for illustration purposes only.

Evolution of the Financing Level and Stop-Loss Level of an SMI® Mini-Short*



Source: BNP Paribas; this example is for illustration purposes only.

Depending on the underlying, the trading hours of a Mini-Future Certificate may differ from the trading hours of its underlying. A Stop-Loss Event can therefore also occur outside the trading hours of the Mini-Future Certificate. The trading hours of our Mini-Future Certificates may be viewed at any time on our website **www.bnpparibasmarkets.ch**.

*The graph illustrates the adjustment of the Financing Level after a dividend payment (kinks in the green lines).

Calculating the residual value

If a Stop-Loss Event occurs, BNP Paribas unwinds its position and calculates the residual value of the Mini-Future Certificate, which is then credited to the investor within five bank working days. The residual value usually equals the difference between the Stop-Loss Level and the Financing Level. In exceptional cases, however, the residual value of a Mini-Future Certificate may deviate from this and, in especially unfavourable market conditions after the Stop-Loss Level has been triggered, may even be zero.

Different products for different risk profiles

To satisfy the different requirements of investors, Mini-Future Certificates are available with different Financing Levels, in the same way that warrants are available with different strikes.

Information on current Stop-Loss Levels, on products that have knocked out and a complete overview of the current product range may be viewed at any time on our website **www.bnpparibasmarkets.ch.**

Simple and transparent pricing

Calculating the value of Mini-Future Certificates is simple and transparent. To illustrate how the price of a Mini-Future Certificate is calculated, we must distinguish between the three different types of underlyings a Mini-Future Certificate can be linked to.

Mini-Future Certificates on:

- Underlyings traded in the spot market
- Underlyings traded in the futures market
- Currency pairs

Mini-Future Certificates on underlyings traded in the spot market

- Precious metals
- Equity indices
- Single stocks

As a basic principle, calculating the value of a Mini-Future Certificate is simple and transparent, especially if the Mini-Future Certificate relates to an underlying traded in the spot market. The rule of thumb is that the value of a Mini-Future Certificate equals the difference between the price of the underlying and the Financing Level. The price of Mini-Future Certificates on precious metals is calculated in the same way. In addition, currency risk must also be taken into consideration. For Mini-Future Certificates trading in Swiss francs, the precious metals quoted in US dollars are therefore converted into Swiss francs at the current Conversion Rate. Thus, the investor bears the full currency risk.

Gold Mini-Long – pricing example

$$\text{Price of Gold Mini-Long} = \frac{\text{Gold Spot - Financing Level}}{\text{Ratio}} \times \text{Conversion Rate}$$

In figures

Gold spot price	Financing Level	Stop-Loss	USD/CHF	Ratio
USD 1,900.00	USD 1,710.00	USD 1,744.20	0.894	100

$$\text{Price of Gold Mini-Long} = \frac{1{,}900 - 1{,}710}{100} \times 0.894 = \text{CHF } 1.69$$

Source: BNP Paribas; this example is for illustration purposes only.

Mini-Future Certificates on equities (single stocks and equity indices) feature an additional speciality. On the day the underlying pays a dividend and the share becomes ex-dividend, the price of the underlying is reduced accordingly by the dividend paid out. However, the value of Mini-Future Certificates hardly changes, since the Financing Level is adjusted (for dividends after tax) to limit the effect of the dividend payment on the value of the Mini-Future Certificates.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11:51:09
MCC BRK.B F BRK.A
00s3.63 2s18.03 2792 84.700s4.20 84000

Mini-Future Certificates on underlyings traded in the futures market

- Commodity futures

Mini-Future Certificates are open ended, i.e. they have no fixed expiration date.[12] At the same time, however, they are available on underlyings such as commodity futures which do have a limited life. In order to maintain the open ended nature of a Mini-Future Certificate when it is linked to the performance of a futures contract, the underlying futures contract is rolled over by BNP Paribas into a new contract before the first ("old") contract expires. At the time of the rollover, however, the "old" and "new" contracts are usually not quoted at the same price. In order to make sure the price of the Mini-Future Certificate is not affected by the rollover, the Financing Level and Stop-Loss Level are adjusted accordingly. When the Financing Level and the underlying's price are adjusted by the same amount, the rollover has no effect on the price of the Mini-Future Certificate, but the level of leverage will change as a result. The illustration below shows how the pricing is affected by a rollover using the example of a Brent Crude Oil Mini-Long traded in Swiss Francs.

Brent Crude Oil Mini-Long (in CHF) – example of rollover adjustments

$$\text{Price of Brent Crude Oil Mini-Long } (t=0) = \frac{\text{Brent Crude Oil Apr 21 Future} - \text{Financing Level } t_0}{\text{Ratio}} \times \text{USD/CHF Conversion Rate}$$

Rollover: Financing Level t_1 = Financing Level t_0 + (May 21 Future - Apr 21 Future) x USD/CHF Conversion Rate

$$\text{Price of Brent Crude Oil Mini-Long } (t=1) = \frac{\text{Brent Crude Oil May 21 Future} - \text{Financing Level } t_1}{\text{Ratio}} \times \text{USD/CHF Conversion Rate}$$

In figures

Original Financing Level t_0	Original Stop-Loss t_0	Ratio	Brent Crude Oil Apr 21 Future	Brent Crude Oil May 21 Future	Stop-Loss Buffer
USD 51.20	USD 53.25	1	USD 64.57	USD 63.67	4%

$$\text{Price of Brent Crude Oil Mini-Long } (t=0) = \frac{64.57 - 51.20}{1} \times 0.894 = \text{CHF } 11.95$$

Rollover:
New Financing Level = 51.20 + (63.67 - 64.57) = 50.30
New Stop-Loss = 50.30 x 1.04 = 52.312 = 52.32 (rounded upwards)

$$\text{Price of Brent Crude Oil Mini-Long } (t=1) = \frac{63.67 - 50.30}{1} \times 0.894 = \text{CHF } 11.95$$

Source: BNP Paribas; this example is for illustration purposes only.

12) However, the issuer has the right to terminate a Mini-Future Certificate by giving notice to the investors (through the clearing system) at least ten days prior to the targeted termination date.

Effect of a rollover on a Mini-Long and a Mini-Short

	Contango	Backwardation
Value of Mini-Future Certificate	▶	▶
Financing Level	▲	▼
Leverage	▲	▼

Contango is the market condition wherein the price of a futures contract with expiry at a later date is more expensive than a futures contract which expires earlier. **Backwardation**, on the other hand, is the market condition wherein the price of a futures contract with expiry at a later date is cheaper than a contract with an earlier expiry.

Mini-Future Certificates on currencies

By investing in Mini-Future Certificates on a currency pair, a long position in one currency is taken along with a short position in the other currency. This is indicated by the name of the Mini-Long or Mini-Short. For example, a Mini-Long on the USD/CHF exchange rate corresponds to a long position in US dollars and a short position in Swiss francs. As such, the opposite is the case for a Mini-Short on the USD/CHF exchange rate (short USD, long CHF).

EUR/CHF Mini-Long in EUR – pricing example

$$\text{EUR/CHF Mini-Long} = \frac{\text{EUR/CHF - Financing Level}}{\text{Ratio}} \times \frac{1}{\text{EUR/CHF}}$$

In figures

Financing Level	Stop-Loss	Ratio	EUR/CHF
CHF 1.0365	CHF 1.0469	0.1	CHF 1.0900

$$\text{EUR/CHF Mini-Long} = \frac{1.0900 - 1.0365}{0.1} \times \frac{1}{1.0900} = \text{EUR } 0.49$$

Source: BNP Paribas; this example is for illustration purposes only.

By investing in Mini-Future Certificates on currency pairs, a long position in one currency is taken along with a short position in the other currency.

Potential investment strategies

Mini-Future Certificates are available on a range of different underlyings and can be used in many different ways. The two main strategies are discussed below.

Speculation

Mini-Future Certificates may be suitable for investors who have a fixed view on the future price development of an underlying and want to boost their profit from this anticipated price development. Mini-Future Certificates enable investors to invest with leverage in different asset classes around the world in order to create a dynamic and diversified portfolio.

Hedging

As a basic principle, leverage products may be suitable for hedging existing portfolio positions. For instance, Mini-Short Certificates on the SMI® or individual equities can be used to hedge equity positions. Currencies can also be hedged with Mini-Future Certificates. The following examples show how a portfolio of Nestlé shares, an SMI® portfolio or a US dollar position can be hedged with Mini-Future Certificates.

Hedging examples

Hedging a portfolio of Nestlé shares

1. Objective

An investor would like to hedge 1,000 Nestlé shares (current value: CHF 113) against a potential future loss.

2. What can the investor do?

The investor buys Mini-Short Certificates on Nestlé. These certificates gain in value when the Nestlé share price decreases and vice versa. The following Mini-Short Certificates on Nestlé are offered with the below terms:

Underlying	Reference Price	Ratio	Financing Level	Stop-Loss Level	Leverage	Value of Mini-Short
Nestlé	CHF 113.00	10	128.00	124.66	7.53	CHF 1.50
Nestlé	CHF 113.00	10	130.00	126.61	6.65	CHF 1.70
Nestlé	CHF 113.00	10	132.00	128.57	5.95	CHF 1.90
Nestlé	CHF 113.00	10	134.00	130.40	5.38	CHF 2.10

Source: BNP Paribas; the products mentioned are examples for illustration purposes only.

Please note:

The higher the leverage, the less money is needed to hedge the Nestlé shares (however, the investor will incur financing costs which will be deducted from the value of the Mini-Short Certificates). On the other hand, however, there is more risk of the Mini-Short Certificates reaching the Stop-Loss Level and the residual value being paid out to the investor. If this occurs, the investor is again exposed to the full market risk of his Nestlé holding – until a new hedging position is taken or the stocks are sold. For the calculation below, we will work on the basis of the Nestlé Mini-Short with a leverage of 6.65.

3. How to calculate the required number of Nestlé Mini-Short Certificates for the hedge?

Number of Mini-Short Certificates = ([Reference Price x number of shares] / Reference Price) x Ratio
= number of shares x Ratio = 1,000 units x 10 = **10,000 units.**

4. Possible scenarios

	Initial position	Share price falls to 100	Share price rises to 125
Value of share portfolio	CHF 113,000.00	CHF 100,000.00	CHF 125,000.00
Price of one Mini-Short	CHF 1.70	CHF 3.00	CHF 0.50
Value of Mini-Short Certificates held	CHF 17,000.00	CHF 30,000.00	CHF 5,000.00
Total Value	**CHF 130,000.00**	**CHF 130,000.00**	**CHF 130,000.00**

Source: BNP Paribas; the products mentioned are examples for illustration purposes only.

Explanation of the table:

The value of the share portfolio changes in line with the value of the Nestlé shares. If the Nestlé share price goes up or down, the value of the share portfolio will increase or decrease accordingly. The price of the Mini-Future Certificates is calculated from the difference between the current Nestlé share price and the Financing Level of the Nestlé Mini-Short, divided by the Ratio. This means that the price of the Mini-Short Certificate will increase/decrease when the Nestlé share price falls/rises. The value of the Mini-Short Certificates position is calculated by multiplying the price of one Mini-Short Certificate by the number of Mini-Short Certificates held (in this case 10,000). The total value at the bottom of the table is the sum of the share portfolio value and the value of the Mini-Short Certificates position. The total values show how the amount basically stays the same whether the Nestlé share price goes up or down.

Hedging an SMI® portfolio

1. Objective

An investor wants to hedge an SMI® portfolio of CHF 10,000 against future losses.

2. What can the investor do?

The investor can buy Mini-Short Certificates on the SMI® (current Level: 11,500 points). These Certificates increase in value when the SMI® declines and vice versa.

Underlying	Reference Price	Ratio	Financing Level	Stop-Loss Level	Leverage	Value of Mini-Short
SMI®	11,500	500	12,500	12,250	11.50	CHF 2.00
SMI®	11,500	500	12,750	12,495	9.20	CHF 2.50
SMI®	11,500	500	13,000	12,740	7.67	CHF 3.00
SMI®	11,500	500	13,250	12,985	6.57	CHF 3.50

Source: BNP Paribas; the products mentioned are examples for illustration purposes.

Please note:

The higher the leverage, the less money is needed to hedge the SMI® portfolio (however, the investor will incur financing costs which will be deducted from the value of the Mini-Short Certificate). On the other hand, however, there is more risk of the Mini-Short Certificates reaching the Stop-Loss Level and the residual value being paid out to the investor. If this occurs, the investor is again exposed to the full market risk of his SMI® holding – until a new hedging position is put in place or the SMI® holding is sold. For the calculation below, we will work on the basis of the SMI® Mini-Short with a leverage of 9.20.

3. How to calculate the required number of SMI® Mini-Short Certificates for the hedge?

Number of Mini-Short Certificates = (Value of the Portfolio / Reference Price) x Ratio
= (10,000 / 11,500) x 500 = 434.78 => **435 units (rounded)**

4. Possible scenarios

	Initial position	SMI® falls to 10,500	SMI® rises to 12,500
Value of SMI® portfolio	CHF 10,000.00	CHF 9,130.43	CHF 10,869.57
Price of one Mini-Short Certificate	CHF 2.50	CHF 4.50	CHF 0.50
Value of Mini-Short Certificates held	CHF 1,087.50	CHF 1,957.50	CHF 217.50
Total Value	**CHF 11,087.50**	**CHF 11,087.93**	**CHF 11,087.07**

Source: BNP Paribas; the products mentioned are examples for illustration purposes.

Explanation of the table:

The value of the SMI® portfolio changes in line with the value of the SMI®. If the SMI® rises/falls, the value of the SMI® portfolio will increase/decrease as well. The value of the Mini-Future Certificate is calculated by the difference between the current SMI® price and the Financing Level of the SMI® Mini-Short, divided by the Ratio. This means the value of the Mini-Short Certificate increases/decreases when the SMI® falls/rises. The value of the Mini-Short Certificates is calculated by multiplying the price of one Mini-Short Certificate by the number of Mini-Short Certificates held (in this case 435). The total value at the bottom of the table is the sum of the value of the SMI® portfolio and the value of the Mini-Short Certificates. As shown by the total values, the amount basically stays the same whether the SMI® increases/decreases (difference between the total values is caused by rounding).

Dollar risk hedge

- Hedging a position of USD 10,000

Current exchange rate:
EUR/USD 1.220

- EUR/USD **Mini-Long** (long EUR / short USD)
  Financing Level: 1.147
  Ratio: 0.1

Stop-Loss Level: **1.158**

$$\text{Value of Mini-Long} = \frac{1.220 - 1.147}{0.1} \times \frac{1}{1.220} = \text{EUR } 0.60$$

- Number of Mini-Future Certificates needed = position / Financing Level x Ratio

$$\frac{\text{USD } 10{,}000}{1.147} \times 0.1 = 872 \text{ Mini-Future Certificates (rounded)}$$

Simulation: EUR/USD rises to 1.300*

EUR/USD	Position		EUR/USD Mini-Long		Total in EUR
	USD	EUR	Value of Mini-Long (EUR)	Total Mini-Long Position (EUR)	
1.220	10,000.00	8,196.72	0.60	521.77	8,718.49
1.300	10,000.00	7,692.31	1.18	1,026.28	8,718.59
Change in value (in %)		-6.15%		+96.69%	0.00%

Simulation: EUR/USD falls to 1.180

EUR/USD	Position		EUR/USD Mini-Long		Total in EUR
	USD	EUR	Value of Mini-Long (EUR)	Total Mini-Long Position (EUR)	
1.220	10,000.00	8,196.72	0.60	521.77	8,718.49
1.180	10,000.00	8,474.58	0.28	244.16	8,718.74
Change in Value (in %)		+3.39%		-53.21%	0.00%

Information on current Financing Levels, Stop-Loss Levels, on products that have knocked out and a complete overview of the current product range may be viewed at any time on our website **www.bnpparibasmarkets.ch.**

* Annotation: The change in the exchange rate results in a devaluation of the position in EUR.
The valuation of the Mini-Future Certificates held is calculated as follows: (1.300 - 1.147)/0.1/1.300 = 1.18.
For this hedge 872 Mini-Future Certificates need to be bought. Hence, when multiplying the value of one Mini-Future Certificate by 872, the value of the whole position in Mini-Future Certificates amounts to EUR 1,026.28. The sum of the dollar position in EUR and the position in Mini-Future Certificates adds up to EUR 8,718.59. Therefore, the position is hedged against a decreasing USD (subject to a small difference of EUR 0.10 which was caused by the rounding when calculating the number of Mini-Future Certificates needed for the hedge).

Tax treatment

1. No withholding tax

2. Stamp duty

- no stamp duty is paid on new issued products (primary market)
- stamp duty on transfer of products:
  - none if classified as a futures transaction (Leverage at time of issuance > 4)
  - maximum of 0.3% if not classified as a futures transaction (Leverage at time of issuance < 4)

3. Income tax

For private investors with tax domicile in Switzerland holding the Mini-Future Certificates as part of their private assets:

- none if classified as a futures transaction (Leverage at time of issuance > 4)
- taxation of capital gains if not classified as a futures transaction (Leverage at time of issuance < 4)

4. EU Savings taxation

- for Swiss paying agents the product is not subject to EU savings tax

These comments are based on Swiss taxation law and its current practice, which may change at any time. This information is only indicative and cannot replace advice from a tax specialist.

Main risk factors

These products are directed at sophisticated investors with specific knowledge, and should only be traded by such investors. Before every investment, investors must carry out their own analysis.

It is recommended to carefully read the "Risk factors" section of the Base Prospectus, in particular the following main risks:

Capital loss risk

Mini-Future Certificates present, at any time, the risk of partial or total loss of the invested capital.

Market risk

Mini-Future Certificates can suffer from important price fluctuations, upward or downward, that can lead to the total loss of the invested capital.

Leverage effect

As the leverage effect operates on the upside as well as the downside, it can have a negative or positive effect on the value of the product.

Credit risk

The investor bears the risk of default of payment and bankruptcy of the Issuer as well as the risk of default of payment and bankruptcy of the Guarantor. In the case of a likely or a certain bankruptcy of the Issuer and/or of the Guarantor, the investor may lose part or the entirety of the capital, or may receive other financial instruments in replacement, or may suffer from a change in the terms and conditions of the Mini-Future Certificates.

Stop-Loss risk

If the price of the underlying reaches or crosses the Stop-Loss Level, the Mini-Future Certificate expires at this exact moment and the investor gets back the residual value. In unfavorable market conditions this can result in a total loss of the capital for the investor.

Foreign exchange risk

When the underlying is traded and/or denominated in a different currency than the Mini-Future Certificate and/or, in the case of an index or basket, the components of which are denominated and/or quoted in one or several currencies, the Mini-Future Certificate will be sensitive to the evolution of the exchange rate between these currencies and the currency in which the Mini-Future Certificate is denominated, except if the exchange rate is hedged ("quanto FX hedge").

Early redemption

In case of certain extraordinary events, BNP Paribas is entitled to redeem the Mini-Future Certificate. In addition, BNP Paribas is entitled to redeem the Mini-Future Certificate at its convenience. This can result in a partial or total loss of the capital for the investor.

Glossary

Capital outlay
The part of the underlying (e.g. index, single stock, commodity, …) financed by the investor. At any time, the capital outlay represents the price of the Mini-Future Certificate, taking into consideration the Ratio, the bid/ask spread and the Conversion Ratio (in case the Mini-Future Certificate is traded in a different currency than the underlying).

Dividend payment
Dividends are set off against the capital outlay on the day when the relevant equity goes ex-dividend. The Financing Level is adjusted, so that the value of the Mini-Future Certificate does not change. If the expenditure incurred in setting off a dividend is excessively high, BNP Paribas reserves the right to set it off via its interest rate margin (Financing Spread).

Financing costs
The financing costs for the underlying are made up of the current Market Rate and an interest rate margin (Financing Spread). The Market Rate level is determined by the currency in which the underlying is quoted (e.g. CHF for the SMI®, USD for the Nasdaq). The relevant Market Rate is derived from the overnight or one-month rate. With Mini-Longs, BNP Paribas adds an interest rate margin to the relevant Market Rate, and with Mini-Shorts, BNP Paribas deducts an interest rate margin from the relevant Market Rate. The interest rate margin is usually identical for Mini-Longs and Mini-Shorts. The costs associated with the leveraged exposure are charged to the investor's invested capital on an ongoing basis. BNP Paribas can also charge the financing costs during the trading day, which means that day traders (who buy and sell their position within one trading day) may incur financing costs too.

Financing Level
The part of the underlying (e.g. index, equity, commodity, …) financed by BNP Paribas. At any time, the Financing Level plus the capital outlay equals the price of the underlying, taking into consideration the Ratio, and if applicable the Conversion Rate and the bid/ask spread. The Financing Level does not remain constant throughout the life of the Mini-Future Certificate but is instead adjusted on a daily basis.

Financing Spread
The Financing Spread is an interest rate margin set by BNP Paribas.

Gap risk
The risk that the price of an underlying changes from one level to another without any trading in between. A gap is the difference between the closing price of a trading session and the opening price of the next trading session, often due to news or events occurring while markets are closed. Gaps usually occur during trading interruptions, for example after the weekend or overnight.

Leverage
Leverage shows by how much the Mini-Future Certificate amplifies the movements in the price of the underlying. The lower the investor's capital outlay in proportion to the Financing Level, the greater the Leverage.

Ratio
The Ratio defines the number of Mini-Future Certificates needed to control one underlying. For a Mini-Future Certificate on a share with a Ratio of 50 this means an investor would need to buy 50 units of this Mini-Future Certificate in order to control one underlying share. The Ratio is an important parameter when calculating the number of Mini-Future Certificates needed to hedge a certain exposure.

Residual value

When a Stop-Loss Event occurs, trading on the stock exchange is discontinued and BNP Paribas unwinds the position and calculates the residual value to be repaid. The residual value is usually repaid to the investor within five bank working days.

Rollover

As Mini-Future Certificates on commodities relate to futures contracts, these are rolled over into the following futures contracts shortly before the underlying matures. This may result in changes in the Financing Level and the Stop-Loss Level. Current Financing Levels and Stop-Loss Levels may be viewed on our website **www.bnpparibasmarkets.com.**

Stop-Loss Buffer

The Stop-Loss Buffer defines the Stop-Loss Level relative to the Financing Level. The Stop-Loss Buffer is identical for Mini-Longs and Mini-Shorts on the same underlying and can be adjusted by BNP Paribas if necessary.

Stop-Loss Event

As soon as the underlying reaches the Stop-Loss Level in the course of trading, or falls below (for Mini-Longs) or exceeds (for Mini-Shorts) it, the Mini-Future Certificate expires and trading on the exchange is discontinued. The underlying position is unwound by BNP Paribas.

Stop-Loss Level

On the first trading day of each month, BNP Paribas fixes the Stop-Loss Levels for Mini-Future Certificates on indices and equities on the basis of the Stop-Loss Buffer and the Financing Level then valid at the time. Large dividend payments may result in a sub-monthly adjustment. With Mini-Future Certificates on commodities, the adjustment is dependent upon the configuration of the respective futures contract.

Legal notice

The products do not have any guaranteed capital; consequently there is the risk that the capital invested will be partially or completely lost.

Mini-Future Certificates are issued by BNP Paribas Issuance BV – and guaranteed by BNP Paribas SA (together "BNP Paribas"). In the event of bankruptcy of or lack of payment by BNP Paribas investors in the Mini-Future Certificates run the risk of possibly getting back less than the value of the Mini-Future Certificates and in the worst case, even losing their entire investment.

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