



# PRODUCT BOOKLET: OTC ACCUMULATOR & DECUMULATOR, OTC TARGET ACCUMULATOR & DECUMULATOR, AND OTC PIVOT ACCUMULATOR & PIVOT TARGET ACCUMULATOR ON FOREIGN EXCHANGE

Accumulators / Decumulators are complex derivatives. This document serves to explain the key product features and product risks of an OTC Accumulator & Decumulator, OTC Target Accumulator & Decumulator, and OTC Pivot Accumulator & Pivot Target Accumulator on Foreign Exchange (each, a "Product"). It is important that you read and understand the information contained herein before you consider any investments in the Product. This document does not constitute an offer, an invitation, or a recommendation to enter into any transaction. This document is solely intended for a professional investor, as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong (the "SFO") and the rules made under the SFO.

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The reader who is interested in the product mentioned in this document is suggested to read the inSight article entitled "Buy at a discount?" issued by the HKMA on 28 September 2011. The article is available on the website at <a href="http://www.hkma.gov.hk">http://www.hkma.gov.hk</a>.

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The products may not be authorized by any regulatory authorities in Singapore or Hong Kong or elsewhere.

# **Definitions**

Capitalised terms used in this Product Booklet but not defined herein shall have the meanings set out in the Indicative Termsheet unless the context requires otherwise.





Product Short Name used in this Document	Refers to:
Accumulator	Variations of OTC Accumulator on Foreign Exchange
Decumulator	Variations of OTC Decumulator on Foreign Exchange
Target Accumulator	Variations of OTC Target Accumulator on Foreign Exchange
Target Decumulator	Variations of OTC Target Decumulator on Foreign Exchange
Pivot Accumulator	Variations of OTC Pivot Accumulator and OTC Pivot Target Accumulator on Foreign Exchange

### **Product Summary**

- OTC Accumulator & Decumulator, OTC Target Accumulator & Decumulator, and OTC Pivot Accumulator & Pivot Target Accumulator on Foreign Exchange (each, a "Product") are derivative investment products.
- The Product is assigned the **highest product risk rating of 5**, and is only suitable for investors who have a **high-risk** investment profile.
- The Product is a **Principal-at-Risk** investment. Besides the amount placed as initial margin, the investor may be **subject** to a total loss up to the Maximum Notional Amount of the Product.
- In addition to taking the price risk of the Currency Pair, the investor is also taking on the credit risk of the Product's counterparty, namely, the Bank.
- The Product is a **leveraged product** that allows investors to transact a larger Maximum Notional Amount by placing a fraction of the Maximum Notional Amount as **initial margin requirement** with the Bank. This amplifies the potential gains as well as losses of the Product relative to the initial margin requirement.
- An initial margin equivalent to 10% (or such other percentage as the Bank may stipulate from time to time) of the Product's Maximum Notional Amount is required. In addition, the investor may be required, during the life of the Product, to provide additional margin to cover any mark-to-market losses as determined by the Bank from time to time.

#### **Product Features**

The Product is highly customisable. Before transacting, an investor should carefully consider whether the features and the risks of the Product are consistent with his / her risk profile and views of the underlying Currency Pair. The investor should ensure that he / she agrees to all the terms applicable to the Product before transacting.

### Currency Pair

Each Currency Pair shall be described as [Currency 1 / Currency 2], the exchange rate of which shall represent the exchange of X quantity of Currency 2 against 1 quantity of Currency 1, X being the exchange rate of the Currency Pair.

#### Initial Margin

If the Product is transacted on a margin basis, the investor will deposit the margin requirement (based on indicative initial margin of 10% on the Product's Maximum Notional Amount) with the Bank instead of investing the Maximum Notional Amount upfront. On each Settlement Date, the investor will need to arrange for funding for the currency sold in order to take delivery of the currency purchased.

### Accumulator / Target Accumulator

- ✓ An Accumulator / Target Accumulator is an investment option for investors who hold a <u>positive</u> view of the selected Currency 1 relative to Currency 2.
- ✓ An Accumulator / Target Accumulator allows investors to accumulate a pre-determined amount of the selected Currency 1 at the Strike Rate, which is usually lower than the prevailing Spot Rate of the selected Currency Pair at the time of transaction.

# Decumulator / Target Decumulator

- ✓ A Decumulator / Target Decumulator is the reverse of an Accumulator / Target Accumulator that allows investors to **SELL** Currency 1 against Currency 2 at the Strike Rate. All references to "buy" or "sell", "above the Strike Rate" or "below the Strike Rate" in this document shall be reversed when referring to a Decumulator / Target Decumulator.
- ✓ A Decumulator / Target Decumulator is an investment option for investors who hold a <u>negative</u> view of the selected Currency 1 relative to Currency 2.





✓ A Decumulator / Target Decumulator allows investors to decumulate a pre-determined amount of the selected Currency 1 at the Strike Rate, which is usually higher than the prevailing Spot Rate of the selected Currency Pair at the time of transaction.

#### Pivot Accumulator

- ✓ A Pivot Accumulator involves the simultaneous transaction of a pair of Accumulator and Decumulator on the same Currency Pair, with the same Notional Amount and Expiration / Settlement schedule.
- ✓ A Pivot Accumulator is only suitable for investors who hold the view that the selected Currency Pair is expected to remain within a range, between the Lower Strike Rate and the Upper Strike Rate, over the tenor of the Product.

#### Settlement

#### ✓ Accumulator / Target Accumulator:

The accumulated Notional Amount Per FX Transaction of Currency 1 will be delivered to the investor on the specified Settlement Dates, usually 2 business days after the Expiration Date, against a simultaneous payment of Currency 2 computed as [Notional Amount Per FX Transaction of Currency 1 x Strike Rate]. The investor can only sell the accumulated Currency 1 AFTER the same has been delivered to him/her.

#### ✓ Decumulator / Target Decumulator:

The investor will need to deliver the Notional Amount Per FX Transaction of Currency 1 on the specified Settlement Dates, usually 2 business days after the Expiration Date, against a simultaneous receipt of Currency 2 computed as [Notional Amount Per FX Transaction of Currency 1 x Strike Rate].

#### ✓ Pivot Accumulator:

The currency and the amount of such currency to be purchased or sold by the investor on each Settlement Date will depend on the Spot Rate at the Expiration Time on each Expiration Date.

- ➡ If the Spot Rate at the Expiration Time on the Expiration Date is below the Pivot Rate: the Pivot Accumulator will be settled as an Accumulator.
- If the Spot Rate at the Expiration Time on the Expiration Date is at or above the Pivot Rate: the Pivot Accumulator will be settled as a Decumulator.

#### Observation

If the Product is structured with a gearing feature, the Product's Strike Rate will be compared with the prevailing market price on a regular basis (weekly, or monthly as per Schedule of Expiration Dates), to determine the amount of the currencies to be exchanged on each Settlement Date.

#### Gearing

This feature allows the amount of the currencies to be exchanged to be varied subject to the applicable gearing ratio, depending on the market price of the Currency Pair relative to the Strike Rate.

For example, a gearing ratio of "2x" means:

- Accumulator / Target Accumulator: At the Expiration Time on each Expiration Date:
  - ➡ If the Spot Rate is <u>at or above</u> the Strike Rate: the investor will be required to accumulate 1 time the Notional Amount Per FX Transaction of Currency 1 against a simultaneous payment of Currency 2 computed as [Notional Amount Per FX Transaction of Currency 1 x Strike Rate].
  - ➡ If the Spot Rate is <u>below</u> the Strike Rate: the investor will be required to accumulate 2 times the Notional Amount Per FX Transaction of Currency 1 against a simultaneous payment of Currency 2 computed as [Notional Amount Per FX Transaction of Currency 1 x Gearing Ratio x Strike Rate].
- ✓ <u>Decumulator / Target Decumulator</u>: At the Expiration Time on each Expiration Date:
  - ⇒ If the Spot Rate is <u>at or below</u> the Strike Rate: the investor will be required to decumulate 1 time the Notional Amount Per FX Transaction of Currency 1 against a simultaneous receipt of Currency 2 computed as [Notional Amount Per FX Transaction of Currency 1 x Strike Rate].
  - ➡ If the Spot Rate is <u>above</u> the Strike Rate: the investor will be required to decumulate 2 times the Notional Amount Per FX Transaction of Currency 1 against a simultaneous receipt of Currency 2 computed as [Notional Amount Per FX Transaction of Currency 1 x Gearing Ratio x Strike Rate].

#### Pivot Accumulator

- ☐ If the Spot Rate is <u>below</u> the Lower Strike Rate: the investor will be required accumulate 2 times the Notional Amount Per FX Transaction of Currency 1 against a simultaneous payment of Currency 2 computed as [Notional Amount Per FX Transaction of Currency 1 x Gearing Ratio x Lower Strike Rate].
- ⇒ If the Spot Rate is <u>at or above</u> the Lower Strike Rate but <u>below</u> the Pivot Rate: the investor will be required to accumulate 1 time the Notional Amount Per FX Transaction of Currency 1 against a simultaneous payment of Currency 2 computed as [Notional Amount Per FX Transaction of Currency 1 x Lower Strike Rate].
- ⇒ If the Spot Rate is <u>at or above</u> the Pivot Rate but <u>at or below</u> the Upper Strike Rate: the investor will be required to decumulate 1 time the Notional Amount Per FX Transaction of Currency 1 against a simultaneous receipt of Currency 2 computed as [Notional Amount Per FX Transaction of Currency 1 x Upper Strike Rate].





- If the Spot Rate is <u>above</u> the Upper Strike Rate: the investor will be required to decumulate 2 times the Notional Amount Per FX Transaction of Currency 1 against a simultaneous receipt of Currency 2 computed as [Notional Amount Per FX Transaction of Currency 1 x Gearing Ratio x Upper Strike Rate].
- Knock-out (Applicable for Accumulator and Decumulator)

Accumulator and Decumulator may be structured with a knock-out feature.

- Upon the occurrence of the Knock-out Event, the Product will terminate immediately.
  - ⇒ Knock-out Event of an Accumulator: if the market price of the Currency Pair is at or above the Knock-out Rate.
  - ⇒ Knock-out Event of a Decumulator: if the market price of the Currency Pair is at or below the Knock-out Rate.
- ✓ The total quantity of currencies to be exchanged will be limited to those settled **BEFORE** the knock-out is triggered.
- If an Accumulator or Decumulator is structured without a knock-out feature or if the Knock-out Event is not triggered, the investor must be prepared to deliver and receive delivery of the relevant currencies throughout the tenor of the Product until its Final Expiration Date.
- Minimum Accumulation / Decumulation (Applicable for Accumulator and Decumulator with Knock-out)

This feature in an Accumulator or Decumulator is to ensure that a minimum amount of currencies will be exchanged even if the Knock-out Event is triggered immediately after the transaction date.

• Target Redemption (Applicable for Target Accumulator / Target Decumulator, and Pivot Accumulator with Target Redemption feature)

Target Accumulator / Target Decumulator are structured with a target redemption feature. The Target Accumulator / Target Decumulator will early terminate when the investor's cumulative gain is equal to or exceeds the specified Target Redemption Limit. We offer 3 variations of Target Redemption:

- ✓ <u>Uncapped Target</u>: In an Target (Uncapped) Accumulator / Target (Uncapped) Decumulator, the Product will early terminate when the investor's total gain equals or exceeds the Target Redemption Limit. The investor's potential gain on the final fixing upon early redemption will not be limited.
- <u>Capped Target</u>: In a Target (Capped) Accumulator / Target (Capped) Decumulator, the Product will early terminate when the investor's total gain equals or exceeds the Target Redemption Limit. However, the final fixing upon early termination will be subject to adjustment, such that the investor's total gain from the Target (Capped) Accumulator / Target (Capped) Decumulator is limited to the Target Redemption Limit.
- ✓ <u>Discrete Target</u>: In a Target (Discrete) Accumulator / Target (Discrete) Decumulator, the Target Redemption Limit is defined as a specified number of fixings that resulted in a gain to the investor. The Product will early terminate when the actual number of fixings that resulted in a gain to the investor is equal to the Target Redemption Limit.

#### **Margin Requirement**

The Product is transacted on margin. The margin requirement is computed as [Initial Margin Requirement + Mark-to-market loss].

Initial Margin Requirement ("IMR"):

The Initial Margin Requirement is computed by applying the Initial Margin of **10%** (or such other percentage as the Bank may stipulate from time to time) to the Product's remaining Maximum Notional Amount, which is reduced after each Expiration Date. The Initial Margin of 10% is determined by the Bank at its sole discretion, and subject to review from time to time.

Mark-to-market ("MTM") loss:

During the life of the Product, the investor will be required to provide additional collateral for the MTM loss.

### **Example:**

Currency Pair	:	USD/JPY
Notional Amount Per FX Transaction :		\$100,000
Number of FX Transactions	:	52 weekly Expiration Dates
Strike Rate	:	100.00
Gearing Ratio	:	2x
Maximum Notional Amount :		\$10.4 million [\$100,000 x 2 x 52]
Initial Margin	:	10%

On Day 1: IMR on Day 1: \$1.04 million [10% x \$10.4 million].





On Day 5: Assume the Accumulator has a MTM loss of \$100,000. The Margin Requirement would be \$1.14 million [IMR of \$1.04 million + MTM loss of \$100,000]

On Day 7: On the 1<sup>st</sup> Expiration Date, assuming the Spot Rate at the Expiration Time is at 102.00. Settlement of the USD accumulated will be delivered to the investor against payment of JPY10 million [\$100.000 x Strike Rate 100.00].

The Accumulator's Maximum Notional Amount will be reduced by 200,000 to 10.2 million  $5100,000 \times 2 \times 51$ .

The IMR would be \$1.02 million (10% x \$10.2 million).

Assume the Accumulator has a MTM loss of \$200,000. The Margin Requirement would be \$1.22 million [IMR of \$1.02 million + MTM loss of \$200,000].

On Day 30: After 4 Expiration Dates, the Accumulator's Maximum Notional Amount will be reduced by \$800,000 to \$9.6 million [\$100,000 x 2 x 48].

The IMR would be \$960,000 [10% x \$9.6 million]

Say, the Bank revised the Initial Margin from 10% to 30%. The IMR would be 2.88 million [30% x 9.6 million].

Assume the Accumulator has a MTM loss of \$300,000. The Margin Requirement would be \$3.18 million [IMR of \$2.88 million + MTM loss of \$300,000].

# **Key Product Risks**

This section provides a (non-exhaustive) summary of the key risks of investing in the Product. Please refer to the Risk Factors in the Indicative Term-sheet for a detailed description of the risks.

#### **High risk product**

• The Products are rated with the highest risk rating by DBS Bank (Hong Kong) Limited 星展銀行(香港)有限公司 ("DBS") and are only suitable for investors who can bear a high risk of loss.

#### **Investor Suitability**

A prospective investor in the Product should be experienced with dealing in these types of products, be familiar with the terms
used in the Term-sheet, Confirmation, and applicable ISDA Definitions, and should understand the risks associated with
dealing in such products. A prospective investor should reach an investment decision only after careful consideration, with
the advisers (where appropriate), of the suitability of the Product in light of their particular financial position, experience,
objectives and other relevant circumstances, the terms and conditions applicable to this product (including margin
requirements, if applicable), the particular underlying currency pair to which the Product relates, any related transaction costs,
and the creditworthiness of the counterparty. A prospective investor should ensure that they have the ability to withstand any
potential financial loss.

# **Market Risk**

- Investing in the Products involves market risk. Changes in the exchange rate can be unpredictable, sudden and large. Such
  changes may result in the price or value of the Product moving adversely to the interests of the investor and negatively
  impacting on the return on the Product. In extreme circumstances, the investor may lose all, or a significant proportion of, the
  original investment.
- The Product is a Principal-at-risk investment. The amount received upon expiry or early termination (as the case may be) may be less than 100% of the amount invested.

# Mark-to-Market Risk

- Investor bears the downside risk of the Product's price fluctuation.
- If the price of the Currency Pair falls (for Accumulators / Target Accumulators / Pivot Accumulators) or rises (for Decumulators/ Target Decumulators / Pivot Accumulators), the investor will bear a mark-to-market ("MTM") loss in valuation.
- The MTM value of the product is calculated by an option pricing model based on various factors including but not limited to current spot rate, time-to-maturity, volatilities, strike rate, risk-free interest rate. Hence, the MTM value may be significantly different from the intrinsic value calculated by simple arithmetical method by reference to the difference between the strike rate and the spot rate.
- The investor needs to be aware that the Product's price may deteriorate as a result of an increase in implied volatility. This
  could arise even if the price of the Currency Pair remains unchanged, or even appreciates (in the case of Accumulators) or
  depreciates (in the case of Decumulators).





 The Bank has the right to determine the daily MTM valuation at its sole discretion and investor bears the risk of daily MTM fluctuation in valuation.

# Not a Traditional Foreign Exchange Contract

• The Product is a structured foreign exchange transaction that carries risks not normally associated with traditional foreign exchange transactions. The investor should therefore not treat the Product as substitute for traditional foreign exchange transactions.

# Foreign Exchange Rate Risk

- Changes in the relevant exchange rate(s) can be unpredictable, sudden and large. Such changes may result in the price or
  value of the Product moving adversely against the interests of the investor and negatively impacting upon the return on, or
  settlement of, the Product.
- The relevant exchange rate(s) in the Product will be influenced by the complex and interrelated global and regional political, economic, financial and other factors that (directly or indirectly) can affect the currency markets on which the relevant currency(ies) is traded. Such factors include, without limitation, relative rates of inflation, interest rate levels, the balance of payments and the extent of governmental surpluses or deficits in the countries in which such currencies are circulated as legal tender.
- Foreign exchange rates can be controlled, affected or altered by intervention from governments through a variety of techniques. Such techniques may include, without limitation, fixing or allowing the exchange rate to float freely or within a prescribed range, imposition of ceiling or floor, adjustment of monetary, interest rate or export and import policy, intervention by central bank, imposition of regulatory controls or taxes or issuance of a new currency to replace an existing currency.
- Accordingly, the value of the Product and settlement amounts under the Product could be affected by government actions
  that could change or interfere with previously freely determined currency valuations, fluctuations in response to other market
  forces and the movement of currencies across borders or regions. There will be no offsetting adjustment or change made
  during the term of the Product in such (or similar) circumstances, whether foreseeable or unexpected.

# **Tenor Risk**

• The investor should take note of the tenor of the Product. The investor should further note that any product or transaction with a long tenor tends to be associated with higher risks and early termination, if permitted at the sole and absolute discretion of the Bank, will usually involve higher costs.

#### **Liquidity Risk**

- The secondary market for the Product may be limited or non-existent. DBS does not undertake to make a market in or otherwise provide secondary market liquidity in the Product. No early uplift, withdrawal, modification or termination is permitted except with DBS' prior agreement or as otherwise provided under terms and conditions applicable to the Product.
- The investor should intend to maintain his interest in the Product up to the final Expiration Date. If the Product is early terminated or modified, the investor may suffer losses and will have to compensate DBS for costs (if any) incurred by DBS in replacing or obtaining the economic equivalent of the Product as a result of such early termination or modification. Such losses and costs may be substantial.
- The Product will not be listed or traded on any exchange or other regulated market.

#### Leveraging Risk

• The degree of leverage can work for as well as against the investor. Due to the leverage, a small movement in the market can lead to a major gain but any losses will also be magnified sharply. Leveraging may be by way of a loan, trading on a margin, or embedded within an instrument. The Bank' terms relating to top-up and close-out will apply and the investor may be required at short notice to provide additional margin failing which outstanding transactions may be closed out at a significant loss.

#### **Credit Risk**

- The Product is not secured by any collateral.
- The investor is taking on the credit risk of DBS with respect to all payments due under the Product. The potential maximum loss will be the Maximum Notional Amount of the Product, and not just the amount the investor places with the Bank as initial margin requirement. In cases where the Product has a gearing feature, the Maximum Notional Amount of the Product refers to the geared amount. The latest annual statutory accounts and other information on DBS are available on its website at <a href="http://www.dbs.com.hk">http://www.dbs.com.hk</a>.
- The investor should not solely rely on the long-term credit ratings of DBS when evaluating its creditworthiness. There is no
  assurance that the DBS' long-term credit ratings as set out in this document will remain in effect for any given period of time
  or that such ratings will not be revised, suspended or withdrawn in the future if, in the relevant credit rating agency's judgment,
  the circumstances so warrant.
- · Where DBS defaults on its payment obligations under the Product, the investor will receive no payment.

#### Interaction Risk

• Different types of risks may interact unpredictably, particularly in times of market stress.





#### **Gearing Risk**

• If the Product is structured with a gearing feature, the investor should note that the investor may be required to deliver or take delivery of an amount more than one time multiplied by the relevant currency at the Strike Rate, or to be exposed to a cash settlement of the relevant currency(ies) calculated by reference to a multiplier, as the case may be. This means any loss to the investor will be magnified.

#### **Concentration Risk**

- The investor should be satisfied that he has the risk appetite for, and is not over exposed to, the relevant Currency Pair specified in the Term-sheet or any other structured foreign exchange-linked transactions of a similar nature.
- In considering his risk appetite, the investor should also take into account his total maximum exposure to the relevant currency(ies) and the structured foreign exchange transactions arising from the Product and any other transactions of a similar nature (whether with DBS or other counterparties) under adverse market conditions.

#### **Delivery Risk**

 An investor who transacts the Product on margin will need to provide funding for the delivery of the required currency on each Settlement Date, up to the Maximum Notional Amount of the Product, which is substantially more than the amount placed as initial margin requirement.

#### **Hedging Risk**

• The investor should be aware that Accumulators / Decumulators with knock-out feature or other features to cap the upside (where applicable) may not serve his intended hedging purpose.

### **Specific Product Risk**

- The investor is entering into one transaction which comprises a series of FX Transactions forming a single and indivisible transaction.
- Investor of an Accumulator / Target Accumulator will be required to continue accumulating Currency 1 against Currency 2 when the prevailing Spot Rate of the Currency Pair is lower than the Strike Rate. This will continue even if the Spot Rate is significantly lower than the Strike Rate.
- Investor of a Decumulator / Target Decumulator will be required to continue decumulating Currency 1 against Currency 2 when the prevailing Spot Rate of the Currency Pair is higher than the Strike Rate. This will continue even if the Spot Rate is significantly higher than the Strike Rate.
- An investor of a Pivot Accumulator will be required to continue accumulating Currency 1 when the prevailing market price of
  the Currency Pair on each Expiration Date is <u>below</u> the Pivot Rate or to continue decumulating Currency 1 when the
  prevailing market price of the Currency Pair on each Expiration Date is <u>at or above</u> the Pivot Rate. This will continue even if
  the market price is significantly lower than the Lower Strike Rate or higher than the Upper Strike Rate.

### **Early Termination Risk**

- The investor should note the knock-out feature of the Product, where applicable. If a Knock-out Event occurs, the investor
  will not be able to accumulate or decumulate any further amount of the specified currency at the applicable Strike Rate for
  that FX Transaction and all subsequent FX Transactions. The return to the investor under each FX Transaction may therefore
  be capped in such circumstances.
- If a Knock-out Event does not occur in respect of all FX Transactions, the investor may have to accumulate or decumulate, and deliver / receive delivery of an agreed amount of the specified currency up to the Maximum Notional Amount of the Product.

# **Target Redemption Risk**

Where applicable, the Product's Target Redemption Value on each Expiration Date, and the Knock-out Strike Rate (where applicable) is determined by the Calculation Agent acting in good faith. The Target Redemption Value and Knock-out Strike Rate (where applicable) so determined may be subject to the Calculation Agent's own trading activities, and may differ from the actual market. These may affect the investor's returns from the Product, including whether the Product's Knock-out Event has been triggered.

# Margin Requirement Risk

 The Bank reserves the right to review and revise the initial margin from time to time during the tenor of the Product, including demanding a 100% initial margin. Upon such review, the investor may be subjected to a significantly higher margin requirement than that required at the point of transacting.

# Margin Calls

- An investor who transacts the Product on margin may be subjected to margin calls if DBS deems that the collateral is
  insufficient to cover the total amount of the initial margin requirement and the MTM loss. This may arise as a result of various
  factors, including a deterioration of the market price of the Product, losses arising from closed out transactions, a higher initial
  margin, or a combination of them.
- Investors who plan to enter into the Product on a margin basis or with the use of credit facility should be prepared to pay interest cost for the margin or credit facility and to meet margin calls which require the investor to make top-up payment to





cover the full marked-to-market losses for the remaining period of the Product. Such payment can be substantial in poor market conditions and/or when the Product has a long remaining period.

- If market conditions are poor, the investor may be required at short notice to provide additional margin notwithstanding that his ability to make top-up payments may have worsened due to the significant fall in market value of other financial assets. Where the terms of any margin or credit facility arrangements permit the level of margin or interest to be raised at the discretion of the margin or credit facility provider, the investor may experience further liquidity pressure.
- Failure to meet any margin calls or interest payments may result in outstanding transactions being closed out without consent from the investor at significant losses and costs. DBS may also realise such part or all of the collateral as DBS deems necessary in accordance with the terms of the relevant security documents to satisfy the liabilities of the investor.
- The investor should note any margin or credit facility arrangements may be reduced or terminated in accordance with the terms of such arrangements.

#### **DBS' Hedging Activities May Affect Exchange Rates**

• DBS and its affiliates may enter into hedging transactions in the market to enable DBS to fulfil its obligations under the Product. These hedging transactions typically involve contracts for the purchase and/or sale of the underlying currencies and the establishment of long and/or short positions in the underlying currencies which may be constantly adjusted. The unwinding or adjustment of the positions in the underlying currencies shortly before the relevant determination dates under the Product may affect the relevant exchange rates.

#### **Potential Conflicts of Interest**

DBS and its affiliates play a variety of roles in connection with the Product, including acting as counterparty and calculation
agent and hedging its obligations under the Product. DBS and its affiliates may also enter into, adjust and unwind
transactions relating to the relevant currencies, whether for its or its affiliates' proprietary accounts or for accounts under
management or to facilitate transactions on behalf of other counterparties or otherwise. In carrying out these roles, DBS'
economic interests and those of its affiliates may be potentially against the investor's interests as the counterparty in the
Product.

#### Worst case scenario

• The investor may lose all, or a significant proportion of the Maximum Notional Amount.

#### **Past Performance**

• Past performance of the underlying currency pair is not necessarily a guide to future performance. The value of the investment and the income derived from it can go down as well as up.

### **RMB Currency risk**

- The renminbi is the official currency of the People's Republic of China. The literally means "people's currency". The currency code for renminbi which may also be used for the yuan is CNY (an abbreviation for "Chinese yuan") when traded onshore in Mainland China, or also CNH when traded in offshore markets such as Hong Kong, Singapore, London, New York.
- Fluctuations in the exchange rate may adversely affect the investment return when the investors convert the proceeds to the original currency.
- RMB may not be freely convertible and is subject to Mainland China's exchange controls and restrictions.
- Products will be subject to multiple currency conversion costs involved in making investments and liquidating investments
  or meeting other settling or operating expenses if the products are not denominated, or if the underlying investments are
  not denominated, in RMB.
- When calculating the payoff/ value of the RMB products, the offshore RMB (the "CNH") will be used. The CNH rate may be at a premium or discount to the exchange rate for onshore RMB (the "CNY") and there may be significant bid and offer spreads. While CNH and CNY represent the same currency, they are traded in different and separate markets which operate independently. As such, CNH does not necessarily have the same exchange rate and may not move in the same direction as CNY.

### **Summary Only**

 This document contains only a summary of the key features of the Product. It does not contain all of the terms and conditions (material or otherwise) of the Product and the investor is advised to review all of the documents relating to the Product, including the trade confirmation.



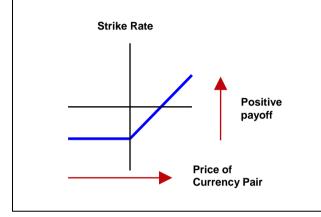


#### **Product Construction of Accumulators**

An Accumulator is embedded with a series of options on the Currency Pair.

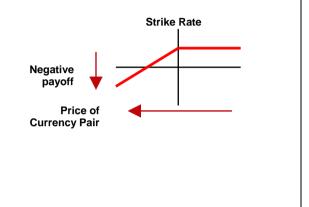
#### **BUY CALL OPTIONS**

The investor is long a series of Call Options on the Currency Pair that allows the investor to buy Currency 1 if the price of the Currency Pair is at or higher than the Strike Rate



#### **SELL PUT OPTIONS**

The purchase of Call Options is financed by the simultaneous shorting of a series of Put Options on the Currency Pair that obliges the investor to buy Currency 1 if the price of the Currency Pair is lower than the Strike Rate.

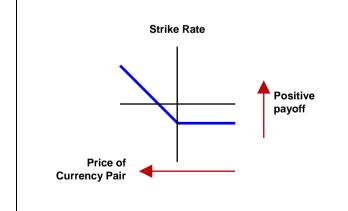


### **Product Construction of Decumulators**

A Decumulator is embedded with a series of options on the Currency Pair.

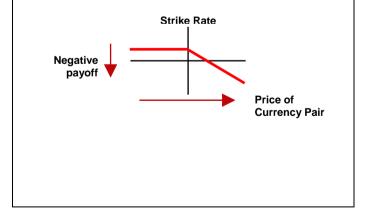
### **BUY PUT OPTIONS**

The investor is long a series of Put Options on the Currency Pair that allows the investor to sell Currency 1 if the price of the Currency Pair is at or lower than the Strike Rate.



# **SELL CALL OPTIONS**

The purchase of Put Options is financed by the simultaneous shorting of a series of Call Options on the Currency Pair that obliges the investor to sell Currency 1 if the price of the Currency Pair is higher than the Strike Rate.







### Scenario Analysis 1: Accumulator with Minimum Accumulation

Assume investment in an Accumulator with the following product features:

Currency Pair AUD / USD (Australian Dollars vs United States Dollars)

**Product Summary** Investor accumulates AUD against sale of USD

Tenor 10 months

Notional Amount Per

AUD100,000 per month **FX Transaction** 

Gearing Ratio No gearing Accumulation frequency Monthly Settlement frequency Monthly

Maximum Notional Amount AUD1 million (Maximum accumulation of AUD100,000 per month x 10 months)

Reference Initial Rate 1.0400

Strike Rate 1.0200 (98.08% of Spot Rate) 1.0600 (101.92% of Spot Rate) Knock-Out Rate

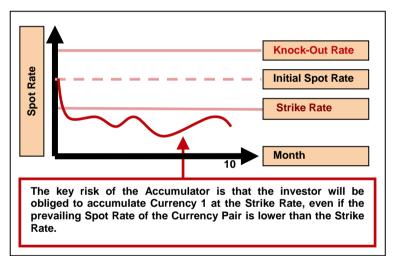
Minimum Accumulation AUD100,000 if Knock-Out is triggered before the 1st Settlement Date

AUD100,000 or USD102,000 Initial Margin requirement

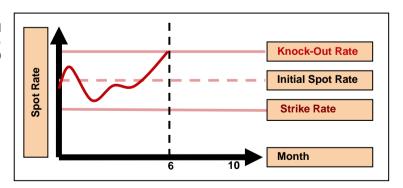
(Assuming 10% initial margin on Maximum Notional Amount. Additional margin will be

required if the product has a MTM loss.)

Scenario 1: Each month, provided the Knockout Rate is not triggered, the investor will accumulate AUD100,000 per month at the Strike Rate of AUD/USD: 1.0200 worth USD102,000. This will continue until the Knock-out Rate is triggered, or the Product's Final Expiration Date. Maximum accumulation will be AUD1 million, the Maximum Notional Amount of the Product, against USD1.02 million.



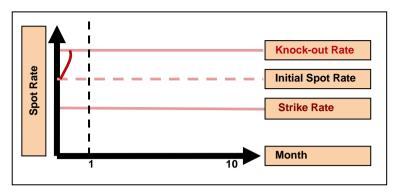
Scenario 2: If the Knock-out Rate is triggered after the 6th month, the investor would have accumulated AUD600.000 at AUD/USD: 1.0200 against USD612,000.







 Scenario 3: If the Knock-out Rate is triggered after 10 days within the first month, the investor will receive the Minimum Accumulation of AUD100,000 at AUD/USD: 1.0200 against USD102.000.



	Scenario 1: Knock-Out Rate not triggered	Scenario 2: Knock-Out Rate triggered after the 6th month	Scenario 3: Knock-Out Rate triggered after 10 trading days within the 1st month			
Amount of AUD Accumulated	AUD1 million (10 months x AUD100,000 per month @ AUD/USD: 1.0200 = USD1.02 million)	AUD600,000 (6 months x AUD100,000 per month @ AUD/USD: 1.0200 = USD612,000)	AUD100,000  Minimum Accumulation of AUD100,000 @ AUD/USD: 1.0200 = USD102,000)			
The following returns are computed based on the amount required to settle the currency delivery and the investor holding on to all the accumulated currencies until the Final Expiration Date. *  The Spot Rates used in this Scenario Analysis are for illustration only. The actual market price may be significantly lower.						
AUD/USD: 1.0600	+ USD40,000 (+ 3.92%)	+ USD24,000 (+ 3.92%)	+ USD4,000 (+ 3.92%)			
AUD/USD: 1.0400 (Spot Rate at inception)	+ USD20,000 (+ 1.96%)	+ USD12,000 (+ 1.96%)	+ USD2,000 (+ 1.96%)			
AUD/USD: 1.0200 (Strike Rate)	0 (0%)	0 (0%)	0 (0%)			
AUD/USD: 1.0000	- USD20,000 (- 1.96%)	- USD12,000 (- 1.96%)	- USD2,000 (- 1.96%)			
AUD/USD: 0.9000	- USD120,000 (- 11.76%)	- USD72,000 (- 11.76%)	- USD12,000 (- 11.76%)			
AUD/USD: 0.6000	- USD420.000 (- 41.18%)	- USD252.000 (- 41.18%)	- USD42.000 (- 41.18%)			

<sup>\*</sup> The above analysis is computed based on the Spot Rate of the Currency Pair on the Final Expiration Date. The actual returns may vary significantly during the tenor of the Accumulator taking into consideration the option valuations.

The percentage gains or losses will be amplified, if computed against the initial margin requirement of USD102,000 (10% of the notional amount), due to the leveraging factor.

### **Worst Case Scenario**

In the worst case, the AUD/USD Spot Rate stays below the Strike Rate of 1.0200 on each Expiration Date 1-10. The accumulation of AUD100,000.00 against delivery of USD102,000 on each Expiration Date will continue even if the Spot Rate of AUD/USD has fallen substantially, resulting in full accumulation of the AUD1.0 million against delivery of USD1.02 million based on the Strike Rate of 1.0200.

Assuming full accumulation, and the investor holds on to the AUD till the final maturity date, the potential loss to the investor will be as per Scenario 1 in the table above.





#### Scenario Analysis 2: Accumulator with Gearing

Assume investment in an Accumulator with the following product features:

Currency Pair : EUR / USD (Euros vs United States Dollars)
Product Summary : Investor accumulates EUR against sale of USD

Tenor : 26 weeks
Accumulation frequency : Weekly

Notional Amount Per

FX Transaction : EUR100,000 per week

Gearing Ratio : 2 times

Maximum Notional Amount : EUR5.2 million

(weekly accumulation of EUR100,000 x 2-times Gearing Ratio x 26 weeks)

Accumulation condition : Every week, at the Expiration Time on the Expiration Date:

(a) IF Spot Rate is AT OR ABOVE Strike Rate, accumulate EUR100,000 per week;

(b) IF Spot Rate is BELOW Strike Rate: accumulate EUR200,000 per week

Settlement frequency : Weekly Reference Spot Rate : 1.4300

 Strike Rate
 : 1.4000 (97.90% of Spot Rate)

 Knock-Out Rate
 : 1.4600 (102.10% of Spot Rate)

Minimum Accumulation : Not Applicable

Initial Margin requirement : EUR520.000 or USD728.000

(Assuming 10% initial margin on Maximum Notional Amount. Additional margin will be

required if the Product has a MTM loss.)

Scenario 1: Knock-Out Rate is not triggered throughout the life of the Product, the investor will receive the amount of EUR accumulated, between EUR2.6 million to EUR5.2 million based on the Accumulation condition.

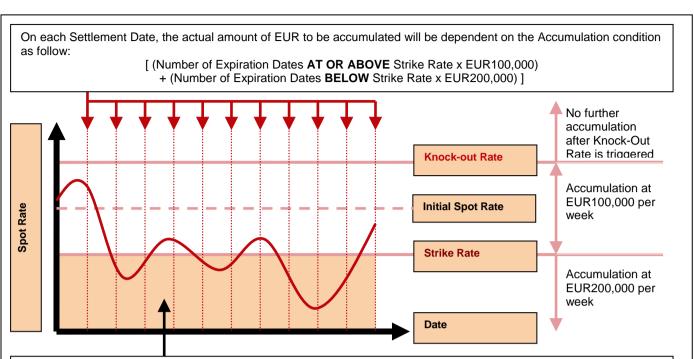
For example, the Spot Rate is **AT OR ABOVE** the Strike Rate on 8 of the 26 Expiration Dates, and is **BELOW** the Strike Rate on 18 of the 26 Expiration Dates. The investor accumulates EUR4.4 million at the Strike Rate of EUR/USD: 1.4000 calculated as follows:

[ (8 periods **AT OR ABOVE** Strike Rate at EUR100,000 per week) + (18 periods **BELOW** Strike Rate at EUR200,000 per week) ] = EUR4.4 million

• Scenario 2: If the Knock-Out Rate is triggered after 6 weeks, the investor will receive the amount of EUR accumulated before the Knock-Out is triggered, the amount of EUR will be calculated based on the Accumulation condition.







The key risk of the Accumulator is that the investor will be obliged to accumulate the geared amount of EUR at the Strike Rate throughout the life of the product, even if the prevailing Spot Rate is significantly lower than the Strike Rate.

	Scenario 1: Knock-ou	ut Rate NOT triggered	Scenario 2: Knock-o after 6 v			
Amount of EUR Accumulated	(a) EUR4.4 million (8 weeks @ EUR100,000 per week) + 18 weeks @ EUR200,000 per week)		(a) EUR600,000 (6 weeks @ EUR100,000 per week)	(b) EUR1.2 million (6 weeks @ EUR200,000 per week)		
The following returns are computed based on the amount required to settle the currency delivery and the investor holding on to all the accumulated currencies until the Final Expiration Date. *  The Spot Rates used in this Scenario Analysis are for illustration only. The actual market price may be significantly lower.						
EUR/USD: 1.4600	+ USD264,000	+ USD312,000	+ USD36,000	+ USD72,000		
	(+ 4.29%)	(+ 4.29%)	(+ 4.29%)	(+ 4.29%)		
EUR/USD: 1.4300	+ USD132,000	+ USD156,000	+ USD18,000	+ USD36,000		
(Spot Rate at inception)	(+ 2.14%)	(+ 2.14%)	(+ 2.14%)	(+ 2.14%)		
EUR/USD: 1.4000 (Strike Rate)	0 (0%)	0 (0%)	0 (0%)	0 (0%)		
EUR/USD: 1.3700	- USD132,000	- USD156,000	- USD18,000	- USD36,000		
	(- 2.14%)	(- 2.14%)	(- 2.14%)	(- 2.14%)		
EUR/USD: 1.3000	- USD440,000	- USD520,000	- USD60,000	- USD120,000		
	(- 7.14%)	(- 7.14%)	(- 7.14%)	(- 7.14%)		
EUR/USD: 1.0000	- USD1,760,000	- USD2,080,000	- USD240,000	- USD480,000		
	(- 28.57%)	(- 28.57%)	(- 28.57%)	(- 28.57%)		

<sup>\*</sup> The above analysis is computed based on the Spot Rate of the Currency Pair on the Final Expiration Date. The actual returns may vary significantly during the tenor of the Accumulator taking into consideration the option valuations.

The percentage gains or losses will be amplified, if computed against the initial margin requirement of USD728,000 (10% of the notional amount), due to the leveraging factor.





#### Worst Case Scenario

In the worst case, the EUR/USD Spot Rate stays below the Strike Rate of 1.4000 on each Expiration Date 1-26. The accumulation of EUR200,000.00 against delivery of USD280,000 on each Expiration Date will continue even if the Spot Rate of EUR/USD has fallen substantially, resulting in full accumulation of the EUR5.2 million against delivery of USD7.28 million based on the Strike Rate of 1.4000.

Assuming full accumulation, and the investor holds on to the EUR till the final maturity date, the potential loss to the investor will be as per Scenario 1(b) in the table above.





# Scenario Analysis 3: Decumulator

Assume investment in a Decumulator with the following product features:

Currency Pair : AUD / USD (Australian Dollars vs United States Dollars)
Product Summary : Investor decumulates AUD against purchase of USD

Tenor : 10 months

Notional Amount Per

FX Transaction : AUD100,000 per month

Gearing Ratio : No gearing
Accumulation frequency : Monthly
Settlement frequency : Monthly

Maximum Notional Amount : AUD1 million (Maximum decumulation of AUD100,000 per month x 10 months)

Reference Initial Rate : 1.0000

Strike Rate : 1.0200 (102% of Spot Rate)

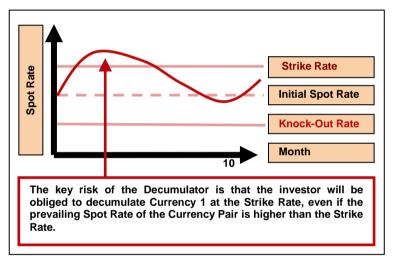
Knock-Out Rate : 0.9800 (98% of Spot Rate)

Initial Margin requirement : AUD100,000 or USD102,000

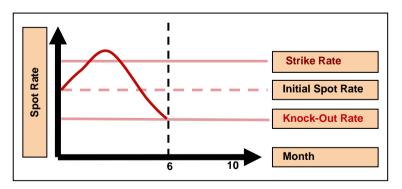
(Assuming 10% initial margin on Maximum Notional Amount. Additional margin will be

required if the product has a MTM loss.)

Scenario 1: Each month, provided the Knockout Rate is not triggered, the investor will decumulate AUD100,000 per month at the Strike Rate of AUD/USD: 1.0200 worth USD102,000. This will continue until the Knock-out Rate is triggered, or the Product's Final Expiration Date. Maximum decumulation will be AUD1 million, the Maximum Notional Amount of the Product, against USD1.02 million.



- Scenario 2: If the Knock-out Rate is triggered after the 6th month, the investor would have decumulated AUD600,000 at AUD/USD: 1.0200 against USD612,000.
- Scenario 3: If the Knock-out Rate is triggered after 10 days within the first month, the Decumulator will early terminate with no decumulation.







	Scenario 1: Knock-Out Rate not triggered	Scenario 2: Knock-Out Rate triggered after the 6th month	Scenario 3: Knock-Out Rate triggered after 10 trading days within the 1st month			
Amount of AUD Decumulated	AUD1 million (10 months x AUD100,000 per month @ AUD/USD: 1.0200 = USD1.02 million)	AUD600,000 (6 months x AUD100,000 per month @ AUD/USD: 1.0200 = USD612,000)	AUD0			
The following returns are computed based on the amount required to settle the currency delivery and the investor holding on to all the delivered currencies until the Final Expiration Date. *  The Spot Rates used in this Scenario Analysis are for illustration only. The actual market price may be significantly lower.						
AUD/USD: 1.4000	- USD380,000 (- 37.25%)	- USD228,000 (- 37.25%)	0 (0%)			
AUD/USD: 1.2000	- USD180,000 (- 17.65%)	- USD108,000 (- 17.65%)	0 (0%)			
AUD/USD: 1.1000	- USD80,000 (- 7.84%)	- USD48,000 (- 7.84%)	0 (0%)			
AUD/USD: 1.0200 (Strike Rate)	0 (0%)	0 (0%)	0 (0%)			
AUD/USD: 1.0000 (Spot Rate at inception)	+ USD20,000 (+ 1.96%)	+ USD12,000 (+ 1.96%)	0 (0%)			
AUD/USD: 0.9000	+ USD120,000 (+ 11.76%)	+ USD72,000 (+ 11.76%)	0 (0%)			

<sup>\*</sup> The above analysis is computed based on the Spot Rate of the Currency Pair on the Final Expiration Date. The actual returns may vary significantly during the tenor of the Decumulator taking into consideration the option valuations.

The percentage gains or losses will be amplified, if computed against the initial margin requirement of USD102,000 (10% of the notional amount), due to the leveraging factor.

#### **Worst Case Scenario**

In the worst case, the AUD/USD Spot Rate stays above the Strike Rate of 1.0200 on each Expiration Date 1 – 10. The decumulation of AUD100,000.00 against delivery of USD102,000 on each Expiration Date will continue even if the Spot Rate of AUD/USD has risen substantially, resulting in full decumulation of the AUD1.0 million against delivery of USD1.02 million based on the Strike Rate of 1.0200.

Assuming full decumulation, and the investor holds on to the USD till the final maturity date, the potential loss to the investor will be as per Scenario 1 in the table above.





### Scenario Analysis 4: Decumulator with Gearing and Minimum Decumulation

Assume investment in a Decumulator with the following product features:

Currency Pair : EUR / USD (Euros vs United States Dollars)

Product Summary : Investor decumulates EUR against purchase of USD

Tenor : 26 weeks
Accumulation frequency : Weekly

Notional Amount Per

FX Transaction : EUR100,000 per week

Gearing Ratio : 2 times

Maximum Notional Amount : EUR5.2 million

(weekly decumulation of EUR100,000 x 2-times Gearing Ratio x 26 weeks)

Decumulation condition : Every week, at the Expiration Time on the Expiration Date:

(a) IF Spot Rate is AT OR BELOW Strike Rate, decumulate EUR100,000 per week;

(b) IF Spot Rate is ABOVE Strike Rate: decumulate EUR200,000 per week

Settlement frequency : Weekly Reference Spot Rate : 1.3700

Strike Rate : 1.4000 (102.19% of Spot Rate)
Knock-Out Rate : 1.3400 (97.81% of Spot Rate)

Number of Minimum

Decumulation Period : 2 (Decumulation will take place for the first 2 Decumulation Periods even if Knock-out

occurs immediately after the start of the Decumulator)

Initial Margin requirement : EUR520,000 or USD728,000

(Assuming 10% initial margin on Maximum Notional Amount. Additional margin will be

required if the Product has a MTM loss.)

Scenario 1: Knock-Out Rate is not triggered throughout the life of the Product, the investor will deliver the amount of EUR decumulated, between EUR2.6 million to EUR5.2 million based on the Decumulation condition.

For example, the Spot Rate is **AT OR BELOW** the Strike Rate on 8 of the 26 Expiration Dates, and is **ABOVE** the Strike Rate on 18 of the 26 Expiration Dates. The investor decumulates EUR4.4 million at the Strike Rate of EUR/USD: 1.4000 calculated as follows:

[ (8 periods **AT OR BELOW** Strike Rate at EUR100,000 per week) + (18 periods **ABOVE** Strike Rate at EUR200,000 per week) ] = EUR4.4 million

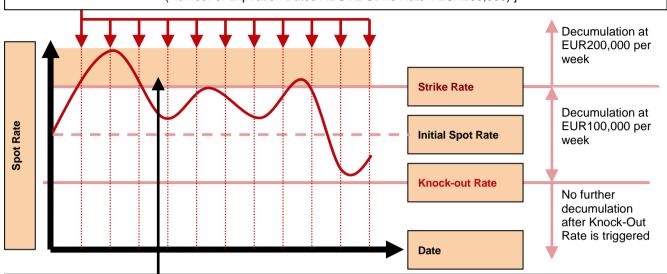
- Scenario 2: If the Knock-Out Rate is triggered after 6 weeks, the investor will deliver the amount of EUR decumulated before the Knock-Out is triggered, the amount of EUR will be calculated based on the Accumulation condition.
- Scenario 3: If the Knock-Out Rate is triggered immediately after the start of the Decumulator, the investor will deliver EUR200.000 on the Settlement Dates of each of the 2 Minimum Decumulation Periods.





On each Settlement Date, the actual amount of EUR to be decumulated will be dependent on the Decumulation condition as follow:

[ (Number of Expiration Dates **AT OR BELOW** Strike Rate x EUR100,000) + (Number of Expiration Dates **ABOVE** Strike Rate x EUR200,000) ]



The key risk of the Decumulator is that the investor will be obliged to decumulate the geared amount of EUR at the Strike Rate throughout the life of the product, even if the prevailing Spot Rate is significantly higher than the Strike Rate.

	Scenario 1: Knock-out Rate NOT triggered					
Amount of EUR Decumulated	(a) EUR4.4 million (8 weeks @ EUR100,000 per week) + 18 weeks @ EUR200,000 per week)	(b) EUR5.2 million (Maximum, 26 weeks @ EUR200,000 per week)				
The following returns are computed based on the amount required to settle the currency delivery and the investor holding on to all the delivered currencies until the Final Expiration Date. *  The Spot Rates used in this Scenario Analysis are for illustration only. The actual market price may be significantly lower.						
EUR/USD: 1.8000	- USD1,760,000 (- 28.57%)	- USD2,080,000 (- 28.57%)				
EUR/USD: 1.6000	- USD880,000 (- 14.29%)	- USD1,040,000 (- 14.29%)				
EUR/USD: 1.5000	- USD440,000 (- 7.14%)	- USD520,000 (- 7.14%)				
EUR/USD: 1.4000 (Strike Rate)	0 (0%)	0 (0%)				
EUR/USD: 1.3700 (Spot Rate at inception)	+ USD132,000 (+ 2.14%)	+ USD156,000 (+ 2.14%)				
EUR/USD: 1.3000	+ USD440,000 (+ 7.14%)	+ USD520,000 (+ 7.14%)				





	Scenario 2: Knock	-out Rate triggered	Scenario 3: Knock-out Rate triggered		
	after 6	weeks	Immediately after start of Decumulator		
Amount of EUR Decumulated	(a) EUR600,000	(b) EUR1.2 million	<b>EUR400,000</b>		
	(6 weeks @	(6 weeks @	(Minimum Decumulation Period of 2 weeks @		
	EUR100,000 per week)	EUR200,000 per week)	EUR200,000 per week)		
The following returns are computed based on the amount required to settle the currency delivery and the investor holding on to all the delivered currencies until the Final Expiration Date. *  The Spot Rates used in this Scenario Analysis are for illustration only. The actual market price may be significantly lower.					
EUR/USD: 1.8000	- USD240,000	- USD480,000	- USD160,000		
	(- 28.57%)	(- 28.57%)	(- 28.57%)		
EUR/USD: 1.6000	- USD120,000	- USD240,000	- USD80,000		
	(- 14.29%)	(- 14.29%)	(- 14.29%)		
EUR/USD: 1.5000	- USD60,000	- USD120,000	- USD40,000		
	(- 7.14%)	(- 7.14%)	(- 7.14%)		
EUR/USD: 1.4000 (Strike Rate)	0 (0%)	0 (0%)	0 (0%)		
EUR/USD: 1.3700	+ USD18,000	+ USD36,000	+ USD12,000		
(Spot Rate at inception)	(+ 2.14%)	(+ 2.14%)	(+ 2.14%)		
EUR/USD: 1.3000	+ USD60,000	+ USD120,000	+ USD40,000		
	(+ 7.14%)	(+ 7.14%)	(+ 7.14%)		

<sup>\*</sup> The above analysis is computed based on the Spot Rate of the Currency Pair on the Final Expiration Date. The actual returns may vary significantly during the tenor of the Decumulator taking into consideration the option valuations.

The percentage gains or losses will be amplified, if computed against the initial margin requirement of USD728,000 (10% of the notional amount), due to the leveraging factor.

# **Worst Case Scenario**

In the worst case, the EUR/USD Spot Rate stays above the Strike Rate of 1.4000 on each Expiration Date 1-26. The decumulation of EUR200,000.00 against delivery of USD280,000 on each Expiration Date will continue even if the Spot Rate of EUR/USD has risen substantially, resulting in full decumulation of the EUR5.2 million against delivery of USD7.28 million based on the Strike Rate of 1.4000.

Assuming full decumulation, and the investor holds on to the USD till the final maturity date, the potential loss to the investor will be as per Scenario 1(b) in the table above.





# Scenario Analysis 5: Target (Uncapped) Accumulator

In a Target Accumulator, instead of a pre-determined Knock-Out Rate, the structure has a Target Redemption Limit. The structure will early terminate on an Expiration Date if the investor's cumulative gains from the accumulation of Currency 1 on that and each preceding Expiration Date is equal to the Target Redemption Limit. In an Target (Uncapped) Accumulator, the investor's potential gain upon triggering of the Target Redemption Limit will not be limited.

Assume investment in a Target Accumulator with the following product features:

Currency Pair : EUR / USD (Euro vs United States Dollars)

Product Summary : Investor accumulates EUR against payment of USD

Product Maturity : 52 weeks

Notional Amount : EUR100,000 per week

Accumulation frequency : Weekly
Settlement frequency : Weekly
Gearing Ratio : No gearing

Maximum Notional Amount : EUR5.2 million (Accumulation of EUR100,000 per week x 52 weeks)

Reference Initial Rate : 1.3500
Strike Rate : 1.3200
Target Redemption Limit : 500 points
Initial Margin requirement : EUR520,000

(Assuming 10% initial margin on Maximum Notional Amount. Additional margin will be

required if the Product has a MTM loss.)

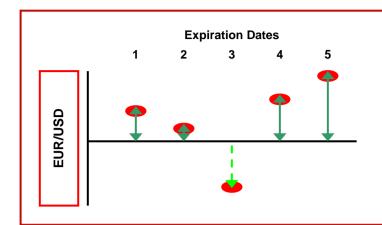
Expiration Date	Spot Rate	Gain / Loss	Accrued Target Redemption Value	Remarks
1	1.3300	+ 100 points	100 points	Investor accumulates EUR100,000 per week against payment of USD132,000. Gain between Spot Rate and Strike Rate is
2	1.3280	+ 80 points	180 points	added to the Accrued Target Redemption Value.
3	1.3000	- 200 points	180 points	Investor accumulates EUR100,000 against payment of USD132,000. Loss is not added to the Accrued Target Redemption Value.
4	1.3400	+ 200 points	380 points	Investor accumulates EUR100,000 per week against payment of USD132,000. Gain between Spot Rate and Strike Rate is added to the Accrued Target Redemption Value.
5	1.3500	+ 300 points	680 points	Refer to explanation below.

# Explanation of settlement condition on Expiration Date 5:

- In the example above, on Expiration Date 5, the difference between the Spot Rate and Strike Rate is 300 points.
- By adding this to the Accrued Target Redemption Value, the Accrued Target Redemption Value adds up to 680 points, which is greater than the pre-determined Target Redemption Limit of 500 points. The structure will thus early terminate on Expiration Date 5.
- Investor will continue to accumulate the last EUR100,000 against payment of USD132,000 on Expiration Date 5.







On each Expiration Date, if the Spot Rate is higher than the Strike Price, for example, Expiration Dates #1, #2, #4, and #5, the difference between the Spot Rate and Strike Price will be added to the Accrued Target Redemption Value.

On the Expiration Date that the Accrued Target Redemption Value is equal to or more than the Target Redemption Limit, ie, Expiration Date #5, the Target Accumulator will early terminate.

# **Worst Case Scenario**

In the worst case, the EUR/USD Spot Rate stays below the Strike Rate of 1.3200 on each Expiration Date 1-52. The accumulation of EUR100,000.00 against delivery of USD132,000 on each Expiration Date will continue even if the Spot Rate of EUR/USD has fallen substantially, resulting in full accumulation of the EUR5.2 million against delivery of USD6,864,000 based on the Strike Rate of 1.3200.

Assuming full accumulation, and the investor holds on to the EUR till the final maturity date, the potential loss to the investor will be as follows:

Notional Amount: EUR5.2 million Total amount of USD delivered: USD6,864,000					
EUR/USD Spot Rate on final maturity	USD value of EUR received	Loss (in USD)	Loss (in %)		
1.3000	USD 6,760,000.00	- USD 104,000.00	-1.52%		
1.2000	USD 6,240,000.00	- USD 624,000.00	-9.09%		
1.1000	USD 5,720,000.00	- USD 1,144,000.00	-16.67%		
1.0000	USD 5,200,000.00	- USD 1,664,000.00	-24.24%		
0.9000	USD 4,680,000.00	- USD 2,184,000.00	-31.82%		
0.8000	USD 4,160,000.00	- USD 2,704,000.00	-39.39%		
0.7000	USD 3,640,000.00	- USD 3,224,000.00	-46.97%		
0.6000	USD 3,120,000.00	- USD 3,744,000.00	-54.55%		





# Scenario Analysis 6: Target (Uncapped) Decumulator with Gearing

In a Target Decumulator on Foreign Exchange, instead of a pre-determined Knock-Out Rate, the structure has a Target Redemption Limit. The structure will early terminate on an Expiration Date when the investor's cumulative gain from the decumulation of Currency 1 on that and each preceding Expiration Date is equal to the Target Redemption Limit. In a Target (Uncapped) Decumulator, the investor's potential gain upon triggering of the Target Redemption Limit will not be limited.

The gearing feature means that on each Expiration Date, if the Spot Rate is at or above the Strike Rate, the investor will be required to decumulate 2 times the Notional Amount of Currency 1 against a simultaneous receipt of Currency 2 computed as [Notional Amount of Currency 1 x Gearing Ratio x Strike Rate].

Assume investment in a Target Decumulator with the following product features:

Currency Pair : EUR / USD (Euro vs United States Dollars)

Product Summary : Investor decumulates EUR against receipt of USD

Product Maturity : 52 weeks

Notional Amount : EUR100,000 per week (EUR200,000 per week if gearing condition is met)

Decumulation frequency : Weekly
Settlement frequency : Weekly
Gearing Ratio : 2 times

Maximum Notional Amount : EUR10.4 million (Decumulation of EUR100,000 per week x 2-times gearing x 52 weeks)

Reference Initial Rate : 1.3500
Strike Rate : 1.3800
Target Redemption Limit : 500 points
Initial Margin requirement : EUR1,040,000

(Assuming 10% initial margin on Maximum Notional Amount. Additional margin will be

required if the Product has a MTM loss.)

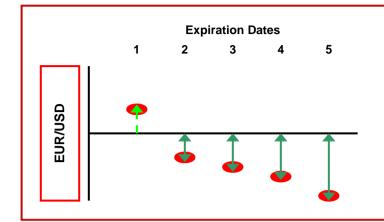
Expiration Date	Spot Rate	Gain / Loss	Accrued Target Redemption Value	Remarks
1	1.4000	- 200 points	0 points	Investor decumulates EUR200,000 per week and receives USD276,000. Loss is not added to the Accrued Target Redemption Value.
2	1.3720	+ 80 points	80 points	Investor decumulates EUR100,000 per week and receives
3	1.3650	+ 150 points	230 points	USD138,000. Gain between Spot Rate and Strike Rate is
4	1.3540	+ 260 points	490 points	added to the Accrued Target Redemption Value.
5	1.3400	+ 400 points	890 points	Refer to explanation below.

### Explanation of settlement condition on Expiration Date 5:

- In the example above, on Expiration Date 5, the difference between the Spot Rate and Strike Rate is 400 points.
- By adding this to the Accrued Target Redemption Value, the Accrued Target Redemption Value adds up to 890 points, which is greater than the pre-determined Target Redemption Limit of 500 points. The structure will thus early terminate on Expiration Date 5.
- Investor will continue to decumulate the last EUR100,000 against receipt of USD138,000 on Expiration Date 5.







On each Expiration Date, if the Spot Rate is lower than the Strike Price, for example, Expiration Dates #2, #3, #4, and #5, the difference between the Spot Rate and Strike Price will be added to the Accrued Target Redemption Value.

On the Expiration Date that the Accrued Target Redemption Value is equal to or more than the Target Redemption Limit, ie, Expiration Date #5, the Target Decumulator will early terminate.

#### **Worst Case Scenario**

In the worst case, the EUR/USD Spot Rate stays above the Strike Rate of 1.3800 on each Expiration Date 1-52. The decumulation of the geared amount of EUR200,000.00 against receipt of USD276,000 on each Expiration Date will continue even if the Spot Rate of EUR/USD has risen substantially, resulting in full decumulation of the EUR10.4 million against receipt of USD14,352,000 based on the Strike Rate of 1.3800.

Assuming full decumulation, and the investor holds on to the USD received till the final maturity date, the potential loss to the investor will be as follows:

Notional Amount: EUR10.4 million Total amount of USD received: USD14,352,000						
EUR/USD Spot Rate on final maturity	EUR value of USD received	Loss (in EUR)	Loss (in %)			
1.4000	EUR 10,251,428.57	- EUR 148,571.43	- 1.43%			
1.5000	EUR 9,568,000.00	- EUR 832,000.00	- 8.00%			
1.6000	EUR 8,970,000.00	- EUR 1,430,000.00	- 13.75%			
1.7000	EUR 8,442,352.94	- EUR 1,957,647.06	- 18.82%			
1.8000	EUR 7,973,333.33	- EUR 2,426,666.67	- 23.33%			
1.9000	EUR 7,553,684.21	- EUR 2,846,315.79	- 27.37%			
2.0000	EUR 7,176,000.00	- EUR 3,224,000.00	- 31.00%			





#### Scenario Analysis 7: Target (Capped) Accumulator

The Target (Capped) Accumulator has a similar structure to the Target (Uncapped) Accumulator in Scenario Analysis 5. Instead of a pre-determined Knock-Out Rate, the structure has a Target Redemption Limit. The structure will early terminate on an Expiration Date when the investor's cumulative gain from the accumulation of Currency 1 on that and each preceding Expiration Date is equal to the Target Redemption Limit.

However, in a Target (Capped) Accumulator, the final fixing upon early termination will be subject to adjustment, such that the investor's total gain from the structure is capped at the Target Redemption Limit.

Assume investment in a Target Accumulator with the following product features:

Currency Pair : AUD / USD (Australian Dollars vs United States Dollars)
Product Summary : Investor accumulates AUD against payment of USD

Product Maturity : 52 weeks

Notional Amount : AUD100,000 per week

Accumulation frequency : Weekly
Settlement frequency : Weekly
Gearing Ratio : No gearing

Maximum Notional Amount : AUD5.2 million (Accumulation of AUD100,000 per week x 52 weeks)

Reference Initial Rate : 1.0200
Strike Rate : 0.9950
Target Redemption Limit : 500 points
Initial Margin requirement : AUD520.000

(Assuming 10% initial margin on Maximum Notional Amount. Additional margin will be

required if the Product has a MTM loss.)

Expiration Date	Spot Rate	Gain / Loss	Accrued Target Redemption Value	Remarks
1	1.0030	+ 80 points	80 points	Investor accumulates AUD100,000 per week against payment of USD99,500. Gain between Spot Rate and Strike Rate is added to the Accrued Target Redemption Value.
2	0.9840	- 110 points	80 points	Investor accumulates AUD100,000 against payment of USD99,500. Loss is not added to the Accrued Target Redemption Value.
3	1.0060	+ 110 points	190 points	Investor accumulates AUD100,000 per week against payment of USD99,500. Gain between Spot Rate and Strike Rate is
4	1.0220	+ 270 points	460 points	added to the Accrued Target Redemption Value.
5	1.0430	+ 480 points	940 points	Refer to explanation below.

#### Explanation of settlement condition on Expiration Date 5:

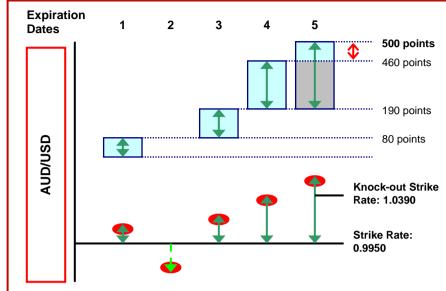
- In the example above, on Expiration Date 5, the difference between the Spot Rate and Strike Rate is 480 points.
- By adding this to the Accrued Target Redemption Value, the Accrued Target Redemption Value adds up to 940 points, which is greater than the pre-determined Target Redemption Limit of 500 points. The structure will thus early terminate on Expiration Date 5.
- Investor will continue to accumulate the last AUD100,000 on Expiration Date 5. But instead of paying USD99,500 as per the Strike Rate, the investor will pay USD103,900 based on the Knock-Out Strike Rate of 1.0390 calculated as follows:

[ Spot Rate at or about Expiration Time on the Knock-Out Date – (Target Redemption Limit – Accrued Target Redemption Value before Expiration Date #5) ]

= [1.0430 - (500 points - 460 points)] = 1.0390







On each Expiration Date, if the Spot Rate is higher than the Strike Price, the difference between the Spot Rate and Strike Price will be added to the Accrued Target Redemption Value.

On the Expiration Date that the Accrued Target Redemption Value is equal to or more than the Target Redemption Limit, ie, Expiration Date #5, the Target Accumulator will early terminate.

On Expiration Date #5, the Strike Rate is adjusted from 0.9950 to the Knock-out Strike Rate of 1.0390 such that the difference of 40 points between the Spot Rate and the Knock-out Strike Rate (1.0430 – 1.0390 = 40 points) caps the investor's total gain to the Target Redemption Limit of 500 points (460 points + 40 points = 500 points).

#### **Worst Case Scenario**

In the worst case, the AUD/USD Spot Rate stays below the Strike Rate of 0.9950 on each Expiration Date 1-52. The accumulation of AUD100,000.00 against payment of USD99,500 on each Expiration Date will continue even if the Spot Rate of AUD/USD has fallen substantially, resulting in full accumulation of the AUD5.2 million against payment of USD5,174,000 based on the Strike Rate of 0.9950.

Assuming full accumulation, and the investor holds on to the AUD till the final maturity date, the potential loss to the investor will be as follows:

Notional Amount: AUD5.2 million Total amount of USD delivered: USD5,174,000					
AUD/USD Spot Rate on final maturity	USD value of AUD received	Loss (in USD)	Loss (in %)		
0.9000	USD 4,680,000.00	- USD 494,000.00	-9.55%		
0.8500	USD 4,420,000.00	- USD 754,000.00	-14.57%		
0.8000	USD 4,160,000.00	- USD 1,014,000.00	-19.60%		
0.7500	USD 3,900,000.00	- USD 1,274,000.00	-24.62%		
0.7000	USD 3,640,000.00	- USD 1,534,000.00	-29.65%		
0.6500	USD 3,380,000.00	- USD 1,794,000.00	-34.67%		
0.6000	USD 3,120,000.00	- USD 2,054,000.00	-39.70%		
0.5500	USD 2,860,000.00	- USD 2,314,000.00	-44.72%		





#### Scenario Analysis 8: Target (Capped) Decumulator with Gearing

The Target (Capped) Decumulator has a similar structure to the Target (Uncapped) Decumulator in Scenario Analysis 6. Instead of a pre-determined Knock-Out Rate, the structure has a Target Redemption Limit. The structure will early terminate on an Expiration Date when the investor's cumulative gain from the decumulation of Currency 1 on that and each prior Expiration Date is equal to the Target Redemption Limit.

However, in a Target (Capped) Decumulator, the final fixing upon early termination will be subject to adjustment, such that the investor's total gain from the structure is capped at the Target Redemption Limit.

The gearing feature means, on each Expiration Date, if the Spot Rate is at or above the Strike Rate, the investor will be required to decumulate 2 times the Notional Amount of Currency 1 against a simultaneous receipt of Currency 2 computed as [Notional Amount of Currency 1 x Gearing Ratio x Strike Rate].

Assume investment in a Target Decumulator with the following product features:

Currency Pair : AUD / USD (Australian Dollars vs United States Dollars)
Product Summary : Investor decumulates AUD against receipt of USD

Product Maturity : 52 weeks

Notional Amount : AUD100,000 per week (AUD200,000 per week if gearing condition is met)

Decumulation frequency : Weekly Settlement frequency : Weekly

Gearing Ratio : 2 times gearing

Maximum Notional Amount : AUD10.4 million (Decumulation of AUD100,000 per week x 52 weeks x 2-times gearing)

Reference Initial Rate : 1.0000
Strike Rate : 1.0200
Target Redemption Limit : 500 points
Initial Margin requirement : AUD1.04 million

(Assuming 10% initial margin on Maximum Notional Amount. Additional margin will be

required if the Product has a MTM loss.)

Expiration Date	Spot Rate	Gain / Loss	Accrued Target Redemption Value	Remarks
1	1.0100	+ 100 points	100 points	Investor decumulates AUD100,000 per week and receives USD102,000. Difference between Spot Rate and Strike Rate
2	1.0120	+ 80 points	180 points	is added to the Accrued Target Redemption Value.
3	1.0400	- 200 points	180 points	Investor decumulates AUD200,000 per week and receives USD204,000. Difference between Spot Rate and Strike Rate is not added to the Accrued Target Redemption Value.
4	1.0000	+ 200 points	380 points	Investor decumulates AUD100,000 per week and receives USD102,000. Difference between Spot Rate and Strike Rate is added to the Accrued Target Redemption Value.
5	0.9900	+ 300 points	680 points	Refer to explanation below.

#### Explanation of settlement condition on Expiration Date 5:

- In the example above, on Expiration Date 5, the difference between the Spot Rate and Strike Rate is 300 points.
- By adding this to the Accrued Target Redemption Value, the Accrued Target Redemption Value would add up to 680 points, which is greater than the pre-determined Target Redemption Limit of 500 points. The structure will thus early terminate on Expiration Date 5.
- Investor will continue to decumulate the last AUD100,000 on Expiration Date 5. But instead of receiving USD102,000 as per the Strike Rate, the investor will receive USD100,200 based on the Knock-Out Strike Rate of 1.0020 calculated as follows:





[ Spot Rate at or about Expiration Time on the Knock-Out Date + (Target Redemption Limit – Accrued Target Redemption Value before Expiration Date #5) ]

= [0.9900 + (500 points - 380 points)] = 1.0020

#### **Worst Case Scenario**

In the worst case, the AUD/USD Spot Rate stays above the Strike Rate of 1.0200 on each Expiration Dates 1-52. The geared decumulation of AUD200,000.00 against receipt of USD204,000 on each Expiration Date will continue even if the Spot Rate of AUD/USD has risen substantially, resulting in full decumulation of AUD10.4 million against receipt of USD10,608,000 based on the Strike Rate of 1.0200.

Assuming full decumulation, and the investor holds on to the USD received till the final maturity date, the potential loss to the investor will be as follows:

Notional Amount: AUD10.4 million Total amount of USD received: USD10,608,000					
AUD/USD Spot Rate on final maturity	AUD value of USD received	Loss (in AUD)	Loss (in %)		
1.0500	AUD 10,102,857.14	- AUD 297,142.86	-2.86%		
1.1500	AUD 9,224,347.83	- AUD 1,175,652.17	-11.30%		
1.2500	AUD 8,486,400.00	- AUD 1,913,600.00	-18.40%		
1.3500	AUD 7,857,777.78	- AUD 2,542,222.22	-24.44%		
1.4500	AUD 7,315,862.07	- AUD 3,084,137.93	-29.66%		
1.5500	AUD 6,843,870.97	- AUD 3,556,129.03	-34.19%		
1.6500	AUD 6,429,090.91	- AUD 3,970,909.09	-38.18%		
1.7500	AUD 6,061,714.29	- AUD 4,338,285.71	-41.71%		





# Scenario Analysis 9: Target (Discrete) Accumulator with Gearing

The Target (Discrete) Accumulator with Gearing is structured with a Target Redemption Limit which is defined as the Number of Expiration Dates that the Spot Rate is above the Strike Rate. The structure will early terminate on an Expiration Date when the total number of Expiration Dates on which the Spot Rate is above the Strike Rate is equal to the Target Redemption Limit.

The gearing feature means, on each Expiration Date, if the Spot Rate is below the Strike Rate, the investor will be required to accumulate 2 times the Notional Amount of Currency 1 against a simultaneous payment of Currency 2 computed as [Notional Amount of Currency 1 x Gearing Ratio x Strike Rate].

Assume investment in a Target Accumulator with the following product features:

Currency Pair : USD/SGD (*United States Dollars vs Singapore Dollars*)
Product Summary : Investor accumulates USD against payment of SGD

Product Maturity : 26 weeks

Notional Amount : USD100,000 per week (USD200,000 per week if gearing condition is met)

Accumulation frequency : Weekly Settlement frequency : Weekly

Gearing Ratio : 2 times gearing

Maximum Notional Amount : USD5.2 million (Accumulation of USD100,000 per week x 26 weeks x 2-times gearing)

Reference Initial Rate : 1.2500
Strike Rate : 1.2300
Target Redemption Limit : 5

Initial Margin requirement : USD520.000

(Assuming 10% initial margin on Maximum Notional Amount. Additional margin will be

required if the Product has a MTM loss.)

Expiration Date	Spot Rate	Above / Below Strike Rate	Accrued Target Redemption Value	Remarks
1	1.2500	Above	1	⇒ If the Spot Rate is at or above the Strike Rate:
2	1.2230	Below	1	✓ Investor accumulates USD100,000 per week against payment of SGD123,000.
3	1.2360	Above	2	✓ Accrued Target Redemption Value is increased by
4	1.2180	Below	2	1.  ⇒ If the Spot Rate is below the Strike Rate:
5	1.2420	Above	3	✓ Investor accumulates USD200,000 per week
6	1.2350	Above	4	against payment of SGD246,000.
7	1.2280	Below	4	✓ Accrued Target Redemption Value remains unchanged.
8	1.2520	Above	5	Refer to explanation below.

#### Explanation of settlement condition on Expiration Date 8:

- In the example above, on Expiration Date 8, the Spot Rate is at or above the Strike Rate for the 5<sup>th</sup> time. The structure will thus early terminate on Expiration Date 8.
- Investor will continue to accumulate the last USD100,000 against payment of SGD123,000 on Expiration Date 8.





#### **Worst Case Scenario**

In the worst case, the USD/SGD Spot Rate stays below the Strike Rate of 1.2300 on each Expiration Dates 1 – 26. The geared accumulation of USD200,000.00 against payment of SGD246,000 on each Expiration Date will continue even if the Spot Rate of USD/SGD has fallen substantially, resulting in full accumulation of USD5.2 million against payment of SGD6,396,000 based on the Strike Rate of 1.2300.

Assuming full accumulation, and the investor holds on to the USD received till the final maturity date, the potential loss to the investor will be as follows:

Notional Amount: USD5.2 million Total amount of SGD delivered: SGD6,396,000					
USD/SGD Spot Rate on final maturity	SGD value of USD received	Loss (in SGD)	Loss (in %)		
1.2000	SGD 6,240,000.00	- SGD 156,000.00	- 2.44%		
1.1500	SGD 5,980,000.00	- SGD 416,000.00	- 6.50%		
1.1000	SGD 5,720,000.00	- SGD 676,000.00	- 10.57%		
1.0500	SGD 5,460,000.00	- SGD 936,000.00	- 14.63%		
1.0000	SGD 5,200,000.00	- SGD 1,196,000.00	- 18.70%		
0.9500	SGD 4,940,000.00	- SGD 1,456,000.00	- 22.76%		
0.9000	SGD 4,680,000.00	- SGD 1,716,000.00	- 26.83%		
0.8500	SGD 4,420,000.00	- SGD 1,976,000.00	- 30.89%		





### Scenario Analysis 10: Pivot Accumulator with Gearing

In a Pivot Accumulator structure, the investor will buy Currency 1 against Currency 2 at the Lower Strike Rate or sell Currency 1 against Currency 2 at the Upper Strike Rate depending on the Spot Rate at the Expiration Time on each Expiration Date.

The Gearing Ratio of 2-times means, on each Settlement Date, if the Spot Rate at the Expiration Time on the relevant **Expiration Date is:** 

- Below the Lower Strike Rate: the investor will be required to receive delivery of 2 times the Notional Amount of Currency 1 against a simultaneous delivery of Currency 2 computed as [Notional Amount of Currency 1 x 2-times Gearing Ratio x Lower Strike Rate].
- At or above the Lower Strike Rate but below the Pivot Rate: the investor will be required to receive delivery of 1 time the Notional Amount of Currency 1 against a simultaneous payment of Currency 2 computed as [Notional Amount of Currency 1 x Lower Strike Ratel
- At or above the Pivot Rate but at or below the Upper Strike Rate: the investor will be required to deliver 1 time the Notional Amount of Currency 1 against a simultaneous receipt of Currency 2 computed as [Notional Amount of Currency 1 x Upper Strike Ratel
- Above the Upper Strike Rate: the investor will be required to deliver 2 times the Notional Amount of Currency 1 against a simultaneous receipt of Currency 2 computed as [Notional Amount of Currency 1 x 2-times Gearing Ratio x Upper Strike

Assume investment in a Pivot Accumulator with the following product features:

**Currency Pair** AUD / USD (Australian Dollars vs United States Dollars)

**Product Maturity** 52 weeks

**Notional Amount** AUD100,000 per week

Settlement frequency Weekly

Gearing Ratio 2-times gearing

Maximum Notional Amount AUD10.4 million (AUD100,000 per week x 2 x 52 weeks)

Reference Initial Rate

1.0200 (Strike Rate of OTC Accumulator on Foreign Exchange) Lower Strike Rate Upper Strike Rate 1.0800 (Strike Rate of OTC Decumulator on Foreign Exchange)

Pivot Rate 1.0500

AUD1.04 million Initial Margin requirement

(Assuming 10% initial margin on Maximum Notional Amount. Additional margin will be

required if the Product has a MTM loss.)

# **Payoff Analysis**

		wer e Rate	Pivot Rate	·	pper e Rate
At the Expiration Time on each Expiration Date:	(a)  Spot Rate is <u>below</u> the <u>Lower Strike Rate</u> of 1.0200	(b)  Spot Rate is <u>at or above</u> the <u>Lower Strike</u> Rate of 1.0200, but below the <u>Pivot Rate</u> of 1.0500		Spot Rate is <u>at or</u> <u>above</u> the <u>Pivot Rate</u> of 1.0500, but <u>at or below</u> the <u>Upper Strike Rate</u> of 1.0800	(d)  Spot Rate is <u>above</u> the <u>Upper Strike Rate</u> of 1.0800:
On each Settlement Date:	Investor will <u>buy</u> the geared amount of AUD200k against USD at Lower Strike Rate of 1.0200	Investor will <u>buy</u> AUD100k against USD at Lower Strike Rate of 1.0200		Investor will <u>sell</u> AUD100k against USD at Upper Strike Rate of 1.0800	Investor will <u>sell</u> the geared amount of AUD200k against USD at Upper Strike Rate of 1.0800

If the structure is without the gearing feature, then settlement conditions (a) and (d) will be the ungeared amount of AUD100,000.





As this structure does not have a Knock-Out feature or a Target Redemption feature, it will continue to run till its final expiration of 52 weeks without any condition for early termination.

#### **Worst Case Scenario**

In the worst case, the AUD/USD Spot Rate stays below the Lower Strike Rate of 1.0200 or stays above the Upper Strike Rate of 1.0800 on each Expiration Date 1 - 52.

If the AUD/USD Spot Rate stays below the Lower Strike Rate of 1.0200 on each Expiration Date 1 – 52:

The accumulation of AUD200,000.00 against delivery of USD204,000 on each Expiration Date will continue even if the Spot Rate of AUD/USD has fallen substantially, resulting in full accumulation of the AUD10.4 million against delivery of USD10,608,000 based on the Lower Strike Rate of 1.0200.

Assuming full accumulation, and the investor holds on to the AUD till the final maturity date, the potential loss to the investor will be as follows:

Notional Amount: AUD10.4 million Total amount of USD delivered: USD10,608,000				
AUD/USD Spot Rate on final maturity	USD value of AUD received	Loss (in USD)	Loss (in %)	
1.0000	USD 10,400,000.00	- USD 208,000.00	- 1.96%	
0.9000	USD 9,360,000.00	- USD 1,248,000.00	- 11.76%	
0.8000	USD 8,320,000.00	- USD 2,288,000.00	- 21.57%	
0.7000	USD 7,280,000.00	- USD 3,328,000.00	- 31.37%	
0.6000	USD 6,240,000.00	- USD 4,368,000.00	- 41.18%	

• If the AUD/USD Spot Rate stays above the Upper Strike Rate of 1.0800 on each Expiration Date 1 – 52:

The decumulation of AUD200,000.00 against receipt of USD216,000 on each Expiration Date will continue even if the Spot Rate of AUD/USD has risen substantially, resulting in full decumulation of the AUD10.4 million against receipt of USD11,232,000 based on the Upper Strike Rate of 1.0800.

Assuming full decumulation, and the investor holds on to the USD till the final maturity date, the potential loss to the investor will be as follows:

Notional Amount: AUD10.4 million Total amount of USD received: USD11,232,000				
AUD/USD Spot Rate on final maturity	USD value of AUD delivered	Loss (in USD)	Loss (in %)	
1.1000	USD 11,440,000.00	- USD 208,000.00	- 1.85%	
1.2000	USD 12,480,000.00	- USD 1,248,000.00	- 11.11%	
1.3000	USD 13,520,000.00	- USD 2,288,000.00	- 20.37%	
1.4000	USD 14,560,000.00	- USD 3,328,000.00	- 29.63%	
1.5000	USD 15,600,000.00	- USD 4,368,000.00	- 38.89%	





# Scenario Analysis 11: Pivot Accumulator with Target (Capped) and Gearing

In a Pivot Accumulator with Target (Capped) structure, in addition to the parameters described in Scenario Analysis 10, the structure has a **Target Redemption Limit**. The structure will early terminate when the Accrued Target Redemption Value is equal to or more than the Target Redemption Limit. The strike rate of the final settlement upon early termination will be replaced by the Knock-Out Strike Rate.

Assume investment in a Pivot Accumulator with the following product features:

Currency Pair : AUD / USD (Australian Dollars vs United States Dollars)

Product Maturity : 52 weeks

Notional Amount : AUD100,000 per week

Settlement frequency : Weekly

Gearing Ratio : 2-times gearing

Maximum Notional Amount : AUD10.4 million (AUD100,000 per week x 2 x 52 weeks)

Reference Initial Rate : 1.0530

Lower Strike Rate : 1.0200 (Strike Rate of OTC Accumulator on Foreign Exchange)

Upper Strike Rate : 1.0800 (Strike Rate of OTC Decumulator on Foreign Exchange)

Pivot Rate : 1.0500

Target Redemption Limit : 0.0500 (500 points)
Initial Margin requirement : AUD1.04 million

(Assuming 10% initial margin on Maximum Notional Amount. Additional margin will be

required if the product has a MTM loss.)

# **Payoff Analysis**

On each Settlement Date, the delivery or receipt of Currency 1 against receipt or delivery of Currency 2 will be as provided in Scenario Analysis 10.

In addition, for each Expiration Date whereby the Spot Rate is between the Lower Strike Rate and the Upper Strike Rate, the difference between the Spot Rate and the Lower Strike Rate (where the Spot Rate is below the Pivot Rate), or the Upper Strike Rate (where the Spot Rate is at or above the Pivot Rate), as the case may be, (such difference being the "Target Redemption Value") will be added to the Accrued Target Redemption Value. When the Accrued Target Redemption Value is equal to or more than the Target Redemption Limit, the structure will be early terminated.

FX Transaction	Spot Rate at Expiration Time on the applicable Expiration Date	Applicable strike rate	Target Redemption Value	Accrued Target Redemption Value
1	1.0330	Lower Strike Rate: 1.0200	(1.0330 – 1.0200) = 130 points	130 points
2	1.0180	Lower Strike Rate: 1.0200	0	130 points
3	1.0420	Lower Strike Rate: 1.0200	(1.0420 – 1.0200) = 220 points	(130 + 220) points = 350 points
4	1.0710	Upper Strike Rate: 1.0800	(1.0800 – 1.0710) = 90 points	(350 + 90) points = 440 points
5	1.0920	Upper Strike Rate: 1.0800	0	440 points
6	1.0680	Upper Strike Rate: 1.0800	(1.0800 – 1.0680) = 120 points	(440 + 120) points = <b>560 points</b>

On the 6<sup>th</sup> Expiration Date, the Accrued Target Redemption Value is **560 points** which is more than the Target Redemption Limit of 500 points. The structure will early terminate on the 6<sup>th</sup> Settlement Date. Instead of selling AUD100,000 against USD108,000 at the Upper Strike Rate of 1.0800, the Knock-Out Strike Rate of **1.0740** will be used for the settlement of FX Transaction #6, ie, the investor will deliver AUD100,000 and receive delivery of USD107,400.





- Knock-Out Strike Rate
- [ Spot Rate at or about the Expiration Time on the Knock-Out Date + (Target Redemption Limit Accrued Target Redemption Value before Expiration Date #6) ]
- = [1.0680 + (0.0500 0.0440)] = 1.0740

#### **Worst Case Scenario**

In the worst case, if the AUD/USD Spot Rate stays below the Lower Strike Rate of 1.0200 or stays above the Upper Strike Rate of 1.0800 on each Expiration Date 1-52, the Accrued Target Redemption Value remains at zero and the structure will NOT be early terminated.

If the AUD/USD Spot Rate stays below the Lower Strike Rate of 1.0200 on each Expiration Date 1 – 52:

The accumulation of AUD200,000.00 against delivery of USD204,000 on each Expiration Date will continue even if the Spot Rate of AUD/USD has fallen substantially, resulting in full accumulation of the AUD10.4 million against delivery of USD10,608,000 based on the Lower Strike Rate of 1.0200.

Assuming full accumulation, and the investor holds on to the AUD till the final maturity date, the potential loss to the investor will be as follows:

Notional Amount: AUD10.4 million Total amount of USD delivered: USD10,608,000					
AUD/USD Spot Rate on final maturity	USD value of AUD received	Loss (in USD)	Loss (in %)		
1.0000	USD 10,400,000.00	- USD 208,000.00	- 1.96%		
0.9000	USD 9,360,000.00	- USD 1,248,000.00	- 11.76%		
0.8000	USD 8,320,000.00	- USD 2,288,000.00	- 21.57%		
0.7000	USD 7,280,000.00	- USD 3,328,000.00	- 31.37%		
0.6000	USD 6,240,000.00	- USD 4,368,000.00	- 41.18%		

• If the AUD/USD Spot Rate stays above the Upper Strike Rate of 1.0800 on each Expiration Date 1 - 52:

The decumulation of AUD200,000.00 against delivery of USD216,000 on each Expiration Date will continue even if the Spot Rate of AUD/USD has risen substantially, resulting in full decumulation of the AUD10.4 million against receipt of USD11,232,000 based on the Upper Strike Rate of 1.0800.

Assuming full decumulation, and the investor holds on to the USD till the final maturity date, the potential loss to the investor will be as follows:

Notional Amount: AUD10.4 million Total amount of USD received: USD11,232,000				
AUD/USD Spot Rate on final maturity	USD value of AUD delivered	Loss (in USD)	Loss (in %)	
1.1000	USD 11,440,000.00	- USD 208,000.00	- 1.85%	
1.2000	USD 12,480,000.00	- USD 1,248,000.00	- 11.11%	
1.3000	USD 13,520,000.00	- USD 2,288,000.00	- 20.37%	
1.4000	USD 14,560,000.00	- USD 3,328,000.00	- 29.63%	
1.5000	USD 15,600,000.00	- USD 4,368,000.00	- 38.89%	